STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2010-0033
NPDES NO. CAS 618033

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, THE COUNTY OF RIVERSIDE, AND THE INCORPORATED CITIES OF RIVERSIDE COUNTY WITHIN THE SANTA ANA REGION

AREA-WIDE URBAN RUNOFF MANAGEMENT PROGRAM

The following Discharger(s) are subject to waste discharge requirements as set forth in this Order:

Table 1. Municipal Permittees (Dischargers)

Principal Permittee	Riverside County Flood Control and Water Conservation District (RCFC&WCD)*	
Co–Permittees	1. Beaumont	9. Moreno Valley
	2. Calimesa	10. Murrieta
	3. Canyon Lake	11. Norco
	4. Corona	12. Perris
	5. County of Riverside (County)	13. Riverside
	6. Hemet	14. San Jacinto
	7. Lake Elsinore	15. Wildomar
	8. Menifee	

The Principal Permittee and the Co-Permittees are collectively referred to as the Permittees or the Dischargers.

Table 2. - Administrative Information

This Order was adopted by the Regional Water Board on:	**January 29, 2010**
This Order will become effective on:	**January 29, 2010**
This Order will expire on:	**January 29, 2015**
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board have classified this discharge as a major discharge.	
The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than 180 days in advance of the Order expiration date.	

IT IS HEREBY ORDERED, that this Order supersedes Order No. R8-2002-0011 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted there under, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted there under, the Permittees must comply with the requirements in this Order.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that this Order No. R8-2010-0033 with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 29, 2010.

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Gerard J. Thibeault, Executive Officer

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6	Fact Sheet
7	Notice of Intent and Notice of Termination for De-Minimus Discharges

I. FACILITY INFORMATION

A. Each of the municipalities listed in Table 1, above, hereinafter called Permittees, owns and/or operates portions of the municipal separate storm sewer system (MS4[1]), through which Urban Runoff is discharged into Waters of the United States (Waters of the US) that are located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (Santa Ana Region). The MS4 falls into one or more of the following categories: (1) a medium or large MS4 that services a population of greater than 100,000 or 250,000 respectively; or (2) an MS4 which contributes to a violation of a Water Quality Standard; or (3) an MS4 which is a significant contributor of Pollutants to Waters of the US; or (4) an MS4 owned and/or operated by a small municipality that is interrelated to a medium or large municipality. Section 402(p) of the CWA requires that discharges of Urban Runoff from MS4 be regulated under a National Pollutant Discharge Elimination System (NPDES) permit.

B. This Order regulates the discharge of Pollutants in Urban Runoff from non-agricultural Anthropogenic sources from the MS4 that is owned and/or operated by the Permittees. The Permittees lack legal jurisdiction over discharges into their MS4 facilities from agricultural activities, State and federal facilities, public schools and hospitals, utilities, railroads, and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for discharges from such facilities or Pollutants in those discharges. However, to the extent that the Permittees authorize the connection of these discharges into their MS4s, this Order requires the Permittees to provide written notification of Water Quality Management Plan (WQMP) requirements for post-construction best management practices (BMPs) and/or other applicable requirements of this Order. A WQMP approved by the Permittee who owns the MS4 may constitute compliance with the General Construction Permit post construction Standards[2] for the Permit Area.

C. The Co-Permittees have established legal authority to control discharges into the MS4 facilities that they own and/or operate. As owners and/or operators of the MS4, the Permittees are responsible for discharges into their MS4 facilities to the extent of their legal authority. The discharge of Pollutants into the MS4 may cause or contribute to, or threaten to cause or contribute to, a condition of Pollution in Receiving Waters. Federal regulations, 40 CFR 122.26(d)(2)(i), require the Permittees to control the discharge of Pollutants into the MS4 to the maximum extent practicable (MEP).

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1 Note: Acronyms and capitalized terms used in this document are defined in Appendix 4.
2 The State General Construction Permit Section Order No. 2009-0009-DWQ XIII

Certain activities and sources that generate Pollutants present in Urban Runoff may be beyond the ability of Permittees to prevent or eliminate. Examples of these activities and sources include, but are not limited to: emissions from internal combustion engines, brake pad wear and tear, atmospheric deposition, bacteria and wildlife (including feral cats and dogs) and leaching of naturally occurring nutrients and minerals from local soils. This Order is not intended to address background or naturally occurring Pollutants or flows.

D. The Permittees have identified Major Outfalls and have submitted maps of existing MS4 facilities. The Co-Permittees reported having approximately 269 miles of underground storm drains, and 95 miles of channels[3]. The RCFC&WCD reported having 75 miles in underground storm drains and 59 miles of channels in the Permit Area.

E. On February 5, 2008 Wildomar residents voted for cityhood and the city incorporated on July 1, 2008. Menifee residents voted for cityhood on June 3, 2008 and the city incorporated on October 1, 2008. Both cities in letters dated May 5 and May 6, 2009, respectively, have expressed their intent to be a Co-Permittee in this Order and for the purposes of this Order shall be considered as such. Urban Runoff from the cities of Menifee, Murrieta and Wildomar discharges into watersheds within the Santa Ana Regional Board and the San Diego Regional Board jurisdictions. Therefore, these cities are regulated by MS4 permits issued by both Regional Boards. Urban Runoff from the County of Riverside and RCFC&WCD discharge into watersheds within the Santa Ana, San Diego and Colorado River Region Regional Board jurisdictions. Therefore, these entities are regulated by MS4 permits issued by three Regional Boards.

F. The Permit Area contains 1,396 square miles or 19.1% of the 7,300 square miles within Riverside County and includes 15 of the 26 municipalities within Riverside County. The more densely populated areas of Riverside County are located within the Santa Ana Regional Board's jurisdiction. The population of the Permit Area was estimated at 1,237,388 as of January 1, 2006[4]. The California Department of Finance estimates that as of January 1, 2009, the population of Riverside County was 2,107,653[5]. Other portions of Riverside County are regulated by the San Diego and the Colorado River Basin Regional Boards.

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[3] 2008-2009 Permittee Santa Ana NPDES MS4 Annual Report.
[4] Section 3.3.1 of the 2007 ROWD (Western Riverside Council of Governments (WRCOG), Sub-regional Growth Forecast, Riverside County Projection (Revised Draft), November 22, 2006.)
[5] E-1 report dated April 30, 2009 (http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/2008-09/documents/E-1_2009%20Press%20Release.pdf).

II. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter the "Regional Board") finds that:

A. BACKGROUND

1. The Co-Permittees own and operate flood control facilities. Some of the natural channels, streambeds and other drainage facilities that are generally considered as Waters of the U.S. have been converted to flood control facilities. In such cases, where a natural streambed is modified to convey storm water flows, the conveyance system becomes both a MS4 and a Water of the US.

2. The Permittees are currently discharging from the MS4 pursuant to Order No. R8-2002-0011, NPDES Permit No. CAS 618033. This Order renews Order No. R8-2002-0011 and regulates discharges of Urban Runoff from the MS4 within Riverside County.

3. On April 27, 2007, the RCFC&WCD, in cooperation with the County of Riverside, (the "County") and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, and San Jacinto, jointly submitted a permit renewal application, a Report of Waste Discharge (the "2007 ROWD"), to renew the NPDES permit for discharges of Urban Runoff from the MS4 in the Permit Area. Subsequently, the cities of Menifee and Wildomar also signed letters of intent to include discharges from their MS4 facilities under this MS4 Permit. The County and incorporated cities are hereinafter the "Co-Permittees", and collectively with the Principal Permittee referred to as the "Permittees". The Permit Area is shown in Appendix 1 and includes the urban areas and those portions of agriculture and open space as shown on Appendix 1 that may convert to industrial, commercial, or residential use during the term of this Order.

4. To more effectively carry out the requirements of this Order, the Permittees have agreed that the RCFC&WCD will continue as the Principal Permittee and the County and the incorporated cities within the Permit Area will continue as the Co-Permittees.

5. The Permittees submitted a revised Drainage Area Management Plan ("2007 DAMP") as contained in Appendix B of the 2007 ROWD. The proposed DAMP identifies programs and policies, including best management practices (BMPs), to achieve Water Quality Standards in the Receiving Waters. These BMPs can be organized into two categories: BMPs for existing facilities and BMPs for New Development and Significant Redevelopment. Both categories include regulatory activities, public education programs, waste management, and operations and

maintenance activities. The Permittees currently implement the 2006 DAMP. With the adoption of this Order, the Permittees are required to implement the 2007 DAMP. The DAMP is a dynamic document that defines the MEP standard (see discussion of this term in the Glossary, Appendix 4) for the Permittee activities and is incorporated by reference as an enforceable element of this Order.

6. This Order requires the Permittees to revise the DAMP and associated documents to incorporate new MS4 Permit requirements which include recommendations from the 2007 ROWD. Future modifications of the DAMP, once approved by the Regional Board Executive Officer[6], are also enforceable elements of this Order.

7. During the Third Term Permit, Regional Board staff conducted an evaluation of each of the Permittees' Urban Runoff programs. This evaluation indicated that most of the Permittees lacked proper documentation of procedures and policies for implementation of various elements of their Urban Runoff program. This Order requires each Permittee to develop a Local Implementation Plan (LIP) that documents its internal procedures for implementation of the various program elements described in the DAMP and this Order.

8. On July 13, 1990, the Regional Board adopted the first term Riverside County MS4 permit, Order No. 90-104 (NPDES No. CA 8000192). On March 8, 1996, the Regional Board renewed Order No. 90-104 by adopting the second term Riverside County MS4 permit, Order No. 96-30 (NPDES No. CAS618033). On October 25, 2002, the Regional Board renewed Order No. 96-30 by adopting the third term MS4 permit, Order No. R8-2002-0011(NPDES No. CAS618033).

9. This Order renews Order No. R8-2002-0011 (NPDES No. CAS618033), and regulates discharges of Urban Runoff from the MS4 within the Permit Area in Riverside County. This Order is the fourth term permit and is intended to regulate the discharge of Pollutants in Urban Runoff from non-agricultural Anthropogenic activities and sources under the jurisdiction of and/or maintenance responsibility of the Permittees and is not intended to address background or naturally occurring Pollutants or flows.

10. The Santa Ana River Basin is the major watershed within the Santa Ana Region. The Regional Board and the Permittees recognize the importance of watershed

[6] The Executive Officer shall provide members of the public with notice and at least a 30-day comment opportunity for all documents submitted in accordance with this Order. If the Executive Officer, after considering timely submitted comments, concludes that the document is adequate or adequate with specified changes, the Executive Officer may approve the document or present it to the Board for its consideration at a regularly scheduled and noticed meeting. If there are significant issues that cannot be resolved by the Executive Officer, the document will be presented to the Board for its consideration at a regularly scheduled meeting.

management initiatives and regional planning and coordination in the development and implementation of programs and policies related to water quality protection.

11. It is recognized that in some cases MS4 facilities are used to convey Urban Runoff to sub-regional or regional Treatment Control BMPs or may incorporate regional BMPs directly. The Regional Board recognizes this appropriate strategy for treatment provided that Waters of the US are not used to convey Pollutants. Further, such BMPs are not considered MS4 or Waters of the US.

12. A number of regional and watershed-wide efforts are underway in which the Permittees are active participants. The Regional Board also recognizes that, in certain cases, diversion of funds targeted for certain monitoring programs to regional monitoring programs may be necessary. The Executive Officer is authorized to approve, after proper public notification and consideration of all comments received, reallocation of resources to the watershed management initiatives and regional planning and coordination programs and regional monitoring programs.

13. The Permittees are required to submit all documents, where appropriate, to the Regional Board in an electronic format. All such documents will be posted at the Regional Board's website and all interested parties will be notified. In addition, the website will include the administrative and civil procedures for appealing any decision made by the Executive Officer. Some Urban Runoff issues, such as monitoring, public education, and training can be more effectively addressed on a regional or statewide basis thereby increasing program consistency and efficiency. This Order encourages continued participation in such programs and policies.

B. LEGAL AUTHORITIES

1. This Order Is issued pursuant to Section 402 of the CWA, the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable State and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (State Board), the Water Quality Control Plan for the Santa Ana River Basin adopted by the Regional Board (Basin Plan), the California Toxics Rule (CTR), and the California Toxics Rule Implementation Plan. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260).

2. This Order is consistent with the following precedential Orders adopted by the State Board addressing municipal storm water NPDES Permits: Order 99-05-DWQ (Petition of Environmental Health Coalition/Receiving Water Limitation Language for Municipal Storm Water Permits), Order WQ-2000-11 (Petitions Bellflower, City of Arcadia, Western States Petroleum Association, Review of RWQCB and Its

Executive Officer Pursuant to Order 96-054, Permit for Municipal Storm Water and Urban Run-Off Discharges within Los Angeles County), Order WQ 2001-15 (In the Matter of the Petitions of Building Industry Association of San Diego County and Western States Petroleum Association), and Order WQO 2002-0014 (Petitions of Aliso Viejo, et al/Order to stay provision F.5.f of the permit and part of last sentence of Finding 26, permit issued by San Diego Regional Water Quality Control Board).

3. Consistent with the State Board's orders, this Order requires the Permittees to comply with the applicable Water Quality Standards, which is to be achieved through an iterative approach requiring the implementation of increasingly more effective BMPs until Water Quality Standards are not impaired by Urban Runoff. All MS4 permits issued in California specify certain minimum BMPs and incorporate an iterative process that requires increasingly more effective BMPs if the Water Quality Standards are not met.

4. The federal Clean Water Act established a national policy designed to help maintain and restore the physical, chemical and biological integrity of the nation's waters. In 1972, the CWA established the NPDES permit program to regulate the discharge of Pollutants from Point Sources to Receiving Waters. From 1972 to 1987, the main focus of the NPDES program was to regulate conventional Pollutant sources such as sewage treatment plants and industrial facilities. As a result, on a nationwide basis, non-point sources, including agricultural runoff and Urban Runoff, now contribute a larger portion of many kinds of Pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities.

5. Studies conducted by the USEPA, the states, counties, cities, flood control districts and other entities dealing with Urban Runoff indicate that the following are major sources of Urban Runoff Pollution nationwide:

   a. Industrial Facilities where appropriate Pollution Prevention and BMPs are not implemented;

   b. Construction Sites where erosion and sediment controls and BMPs are not implemented; and,

   c. Runoff from urbanized areas.

6. The 1987 amendments to the CWA added Section 402(p) that required the USEPA to develop permitting regulations for storm water discharges from MS4 and from Industrial Facilities, including construction sites. The USEPA promulgated the final Phase I storm water regulations on November 16, 1990. Neither the 1987 amendments to the CWA nor the Phase I storm water regulations (40 CFR Part 122) have been amended since their effective dates.

7. Prior to the USEPA's promulgation of the final storm water regulations, three counties (Orange, Riverside, and San Bernardino) and their incorporated cities located within the Regional Board's jurisdiction requested area-wide NPDES MS4 permits. These area-wide MS4 NPDES permits are:

   a. Orange County, NPDES No. CAS 618030

   b. Riverside County, NPDES No. CAS 618033

   c. San Bernardino County, NPDES No. CAS 618036

8. Consistent with the CWA and the USEPA regulations promulgated pursuant thereto, the State Board and the Regional Board have adopted a number of permits to address Pollution from the sources identified in Finding 5, above. Industrial activities (as defined in 40 CFR 122.26(b)(14)) including construction activities on one or more acres are to be covered under one of the following permits and those individuals or entities that engage in such activities are required to secure permission to engage in such identified activities pursuant to the provisions of one of the following permits:

   a. State Board Order No. 97-03-DWQ, for storm water runoff from industrial activities (NPDES No. CAS000001), (the "General Industrial Activities Storm Water Permit").

   b. State Board Order No. 99-08-DWQ, for storm water runoff from construction activities (NPDES No. CAS000002), (the "General Construction Activity Storm Water Permit"). Order No. 99-08- DWQ was amended by State Board Resolution No. 2001-046 on April 26, 2001, to incorporate monitoring provisions as directed by the Superior Court, County of Sacramento. This Order was renewed on September 2, 2009 by State Board Order No. 2009-0009-DWQ. The requirements of Order No. 2009-0009-DWQ will be effective July 1, 2010.

   c. State Board Order No. 99-06-DWQ (NPDES No. CAS000003) for storm water runoff from facilities (including freeways and highways) owned and/or operated by the California Department of Transportation ("Caltrans").

   d. State Board Order No. 2003-0007-DWQ, for discharges of storm water runoff associated with small linear underground/overhead construction projects (NPDES No. CAS000005), (the "General Permit-Small Linear Underground Projects). After July 1, 2010, most linear construction projects will be regulated under State Board Order No. 2009-0009-DWQ.

   e. The Regional Board also issues individual storm water NPDES permits for certain Industrial Facilities within the Santa Ana River watershed. Currently

there is only one individual storm water NPDES permit that has been issued by the Regional Board for an Industrial Facility (March Air Reserve Base) located within the Permit Area. Additionally, the Regional Board has issued NPDES permits for a number of facilities that discharge process wastewater and storm water; storm water discharge requirements are included in such a facility's NPDES permit.

9. Section 402(p) of the CWA establishes two different performance standards for storm water discharges. NPDES MS4 permits require controls to reduce the discharge of Pollutants to the MEP. NPDES permits issued for industrial storm water discharges (including construction activities) must meet Best Available Technology (BAT) and Best Conventional Pollutant Control Technology (BCT) standards. The CWA and the USEPA regulations allow each state the flexibility to decide what constitutes the MEP.

10. This Order does not constitute an unfunded mandate subject to subvention under Article XIII.B, Section (6) of the California Constitution for several reasons, including the following:

    a. This Order implements federally mandated requirements under CWA Section 402(p)(3)(B). (33 USC § 1342(p)(3)(B)).

    b. The Permittees' obligation under this order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges.

    c. The Permittees have the authority to levy service charges, fees, or assessments to pay for compliance with this Order[7].

    d. The Permittees requested permit coverage in lieu of compliance with the complete prohibition against the discharge of Pollutants contained in federal Clean Water Act Section 301, subdivision (a). (33 USC § 1311(a)).

11. Section 13225 of the CWC identifies the Regional Board as being the enforcement authority for NPDES permits, including the Industrial General Permit, and the Construction General Permit which are collectively referred to as the "General Stormwater Permits." However, in many areas, the Industrial Facilities and Construction Sites discharge directly into MS4 facilities owned and operated by the Permittees. These Industrial Facilities and Construction Sites are also regulated under local ordinances and regulations. The Permittees and Regional Board staff work together to avoid duplicative efforts in regulating these facilities. As part of

[7] Voter approval may be required for new tax levies.

this coordination, the Permittees have been notifying Regional Board staff when they observe, during their routine activities, conditions that result in a threat or potential threat to water quality, or when a required Industrial Facility or Construction Site fails to obtain coverage under the appropriate General Stormwater Permit.

12. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code Sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. Sections 1531 to 1544). This Order requires compliance with Effluent Limits, Receiving Water Limits, and other requirements to protect the Beneficial Uses of Waters of the US. The Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.

13. The Permittees may petition the Regional Board to issue a separate NPDES permit to any discharger of Non-storm Water into MS4 facilities that they own or operate.

14. The Regional Board has considered anti-degradation requirements, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, for this discharge. The Regional Board finds that the Urban Runoff regulated under this Order is consistent with the federal and state anti-degradation requirements and a complete anti-degradation analysis is not necessary. This Order requires the continued implementation of programs and policies to reduce the discharge of Pollutants in Urban Runoff. This Order includes additional requirements to control the discharge of Pollutants in Urban Runoff from “Significant Redevelopment,” and “New Development,” as defined in Finding II.G. and Section XII of this Order.

C. RATIONALE FOR REQUIREMENTS

1. The Regional Board developed the requirements in this Order based on information submitted as part of the 2007 ROWD (including the 2007 DAMP), monitoring and reporting data, program audits, and other available information and consistent with the CWA, CWC and regulations adopted thereunder.

2. The Fact Sheet (Appendix 6) which contains additional background information and rationale for requirements specified in this Order is hereby incorporated into this Order and constitutes part of the Findings for this Order. Appendices 1 through 5 and 7 are also incorporated into this Order.

D. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

1. Under Water Code Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code Sections 21100 -21177 (*County of Los Angeles v. California State Water Resources Control Board* [2006] 142 Cal Appl. 4th 985, mod. [Nov. 6, 2006, B184034] 50 Cal. Rptr 3rd 619, 632-636). This action also involves the re-issuance of WDRs for existing facilities and as such, is exempt from the provisions of CEQA (commencing with Section 21100) in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301.

2. Compliance with this Order and the DAMP does not necessarily constitute mitigation that is sufficiently specific to satisfy the requirements of CEQA with regards to projects. The intent of the DAMP, WQMP, Storm Water Pollution Prevention Plan (SWPPP) and other programs and policies incorporated into this order is to minimize the impacts from a specific project to a level that is below significance as defined in CEQA.

E. DISCHARGE CHARACTERISTICS

1. This Order regulates Urban Runoff from areas under the jurisdiction of the Permittees. The term Urban Runoff as used in this Order includes storm water runoff, snowmelt runoff and surface runoff and drainage as defined in Appendix 4.
2. Pollutants in Urban Runoff can threaten and adversely affect human health and the environment. Human illnesses have been clearly linked to recreating near storm drains flowing into coastal waters[8]. Also, Pollutants in Urban Runoff can bioaccumulate in receiving waters in the tissues of invertebrates and fish and eventually consumed by humans and other animals.
3. Urban Runoff can carry Pollutants described in the Fact Sheet to rivers, streams, and lakes within the Permit Area (collectively the "Receiving Waters"). In addition, although infrequently, Urban Runoff from the Permit Area can carry these Pollutants to other receiving waters such as the Pacific Ocean.
4. Management of Dry Weather discharges resulting from urbanization provides an opportunity to promote water conservation as well as address water quality.
5. The Co-Permittees discharge Urban Runoff into lakes, drinking water reservoirs, rivers, streams, creeks, and tributaries thereto within the Upper Santa Ana River, Middle Santa Ana River, and San Jacinto hydrologic units within the Santa Ana Region, as shown in Tables 3a and 3b. Some of the Receiving Waters have been designated as Impaired by the Regional Board and the USEPA pursuant to CWA Section 303(d).

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[8] The Santa Monica Bay Restoration Project, Epidemiology Study, 1996.

Table 3a – Receiving Waterbodies and Municipal Dischargers:

	Upper Santa Ana									San Jacinto								
Municipality	**Mill Creek Prado Area**	**Chino Creek, Reach 1A**	**Chino Creek, Reach 1B**	**Temescal Creek**	**San Timoteo Wash**	**Little San Gorgonio**	**Santa Ana River, Reach 3**	**Santa Ana River, Reach 4**	**Cucamonga Creek**	**San Jacinto River reaches 1-4**	**Lake Elsinore**	**Canyon Lake**	**Strawberry Creek**	**Lake Hemet**	**Salt Creek**	**Poppet Creek**	**Indian Creek**	**Bautista Creek**
RCFC&WCD				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Beaumont					◆	◆	⌘	⌘		◆	⌘		◆					
Calimesa					◆	⌘	⌘	⌘		◆	⌘	◆	◆					
Canyon Lake				⌘			⌘			⌘	⌘	◆						
Corona				◆			⌘											
County of Riverside (County)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Hemet				⌘			⌘			⌘	⌘	⌘			⌘			
Lake Elsinore				◆			⌘			⌘	◆							
Menifee				⌘			⌘			⌘	⌘	⌘			⌘			
Moreno Valley				⌘			⌘			⌘	⌘	⌘						
Murrieta				⌘			⌘				⌘							
Norco				⌘			◆											
Perris				⌘			⌘			◆	⌘	⌘			⌘			
Riverside				⌘			◆	◆			⌘							
San Jacinto										◆	⌘	⌘						
Wildomar				⌘			⌘				⌘							

◆ Direct Discharge of MS4 to Receiving Water
⌘ Tributary to Receiving Water

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Table 3b. Beneficial Uses and 2006 CWA Section 303(d) Impaired Waters

Watershed Management Areas in Riverside County	Hydraulic Unit	Beneficial Uses
Upper Santa Ana River		
Santa Ana River, Reach 3,	801.21, 801.25, 801.27,	AGR, GWR, REC1, REC2, WARM, WILD, RARE, SPWN
Santa Ana River, Reach 4	801.27, 801.44	GWR, REC1, REC2, WARM, WILD, SPWN
Temescal Creek – Reach 1	801.25	REC1, REC2, WARM, WILD
Temescal Creek – Reach 2	801.32, 801.25	INTERMITTENT - AGR, IND, GWR, REC1, REC2, LWARM
Temescal Creek – Reach 3 **See Lee Lake**		
Temescal Creek – Reach 4	801.34	RARE, INTERMITTENT - AGR, GWR, REC1, REC2, WARM, WILD
Temescal Creek – Reach 5	801.35	AGR, GWR, REC1, REC2, WARM, WILD, RARE
Temescal Creek – Reach 6	801.35	INTERMITTENT - GWR, REC1, REC2, WARM, WILD
Coldwater Canyon Creek	801.32	MUN, AGR, GWR, REC1, REC2, WARM, WILD
Bedford Canyon Creek	801.32	INTERMITTENT - GWR, REC1, REC2, WARM, WILD
Dawson Canyon Creek	801.32	MUN, GWR, REC1, REC2, WARM, WILD
Day Creek	801.21	MUN,PROC, GWR, REC1, REC2, COLD, WILD
San Sevaine Creek	801.21	INTERMITTENT - MUN, GWR, REC1, REC2, COLD, WILD
San Timoteo Wash Reach 3	801.62	IGWR, REC1, REC2, WARM, WILD, RARE
Little San Gorgonio Creek & Tributaries	801.62, 801.63, 801.69	MUN, GWR, REC1, REC2, COLD, WILD
Sunnyslope Channel	801.27,	MUN, REC1, REC2, WARM, WILD, SPWN
Tequesquite Arroyo (Sycamore Creek)	801.27,	GWR, REC1, REC2, WARM, WILD, SPWN
Chino Basin/ Middle Santa Ana		
Chino Creek, Reach 1A	801.21	REC1, REC2, WARM, WILD, RARE
Chino Creek, Reach 1B	801.21	REC1, REC2, WARM, WILD, RARE
Mill Creek (Prado Area)	801.25	REC1, REC2, WARM, WILD, RARE
Cucamonga Creek – Reach 1	801.21	GWR, REC1, REC2, LWARM, WILD

Watershed Management Areas in Riverside County	**Hydraulic Unit**	**Beneficial Uses**
San Jacinto San Jacinto River reaches 1 and 6	802.31, 802.32 & 802.21	INTERMITTENT - MUN, AGR, GWR, REC1, REC2, WARM, WILD
San Jacinto San Jacinto River reaches 3-5	802.11, 802.14, 802.21,	INTERMITTENT - AGR, GWR, REC1, REC2, WARM, WILD
San Jacinto San Jacinto River reach 2 **See Canyon Lake**		
San Jacinto San Jacinto River reach 7	802.21	MUN, AGR, GWR, REC1, REC2, COLD, WILD
- Bautista Creek	802.21, 802.23	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Strawberry Creek	802.21	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Fuller Mill Creek	802.22	MUN, AGR, GWR, REC1, REC2, COLD, WILD
Stone Creek	802.21	MUN, AGR, GWR, REC1, REC2, COLD, W ILD
Salt Creek	802.12	INTERMITTENT - REC1, REC2, WARM, WILD
Logan, Black Mtn, Juaro Canyon, Indian, Hurkey, Poppet and Protrero Creeks, and other Tributaries to these Creeks	802.21, 802.22	INTERMITTENT - MUN, AGR, GWR, REC1, REC2, WARM, WILD
Lakes		
Lake Elsinore	802.31	REC1, REC2, WARM, WILD
Canyon Lake	802.11	MUN, AGR, GWR, REC1, REC2, WARM, WILD
Lake Hemet	802.22	MUN, AGR, GWR, POW, REC1, REC2, WARM, COLD, WILD, SPWN
Lake Fulmor	802.21	MUN, AGR, REC1, REC2, WARM, COLD, WILD
Lake Perris	802.11	MUN, AGR, IND, PROC, GWR, REC1, REC2, COMM, WARM, COLD, WILD
Lake Evans	801.27	REC1, REC2, WARM, COLD, WILD
Lake Mathews	801.33	MUN, AGR, IND, PROC, GWR, REC1, REC2, WARM, WILD, RARE
Lee Lake	801.34	AGR, IND, GWR, REC1, REC2, WARM, WILD
Mockingbird Reservoir	801.26	AGR, REC1, REC2, WARM, WILD

AGR: Agricultural Supply; MUN: Municipal and Domestic Supply; GWR: Groundwater Recharge; IND – Industrial Service Supply, POW – Hydropower generation, REC1: Water Contact Recreation; REC2: Non-Contact Water Recreation; WARM: Warm Freshwater Habitat; LWARM: Limited Warm Freshwater Habitat, COLD - Cold freshwater habitat, WILD: Wildlife Habitat, RARE – Rare threatened or endangered species. SPWN – Spawning, reproduction and development waters.

6. Urban Runoff is defined in the Glossary (Appendix 4). It includes those discharges from residential, commercial, industrial, and construction areas within the Permit Area and excludes discharges from Open Space[9], feedlots, dairies, farms and agricultural fields. Urban Runoff consists of storm water and "authorized non-storm water" (see Section VI) surface runoff from drainage sub-areas with various, often mixed, land uses within all of the hydrologic drainage areas that discharge into the Receiving Waters. In addition to Urban Runoff, the MS4 regulated by this Order receives flows from Open Space, agricultural activities, state and federal properties and other non-urban land uses not under the control of the Permittees. The quality of the discharges from the MS4 varies considerably and is affected by, among other things, past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed disposal practices and Illicit Connections.

7. Pathogens (from sanitary sewer overflows, septic system leaks, and spills and leaks from portable toilets, pets, wildlife, and human activities) can impact water contact recreation and non-contact water recreation. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation. Other petroleum hydrocarbon components may cause Toxicity to aquatic organisms and may impact human health. Suspended and settleable solids (from sediment, trash, and industrial activities) may be deleterious to benthic organisms and may cause anaerobic conditions to form. Sediments and other suspended particulates may cause turbidity, clog fish gills and interfere with respiration in aquatic fauna. They may also screen out light, hindering photosynthesis and normal aquatic plant growth and development. However, it is recognized that storm flows from non-urbanized areas such as national forest, state parks, wilderness, and agriculture, as shown on Appendix 1, naturally exhibit high levels of suspended solids due to climate, hydrology, geology and geography.[10] Toxic Substances from pesticides, petroleum products, metals, and industrial wastes can cause acute and/or chronic Toxicity, and can bioaccumulate in organisms to levels that may be harmful to human health. Nutrients (from fertilizer use, fire fighting chemicals, decaying plants, confined animal facilities, pets, and wildlife) may cause excessive algal blooms. These blooms may lead to problems with taste, odor, color and increased turbidity, and may depress the dissolved oxygen content, leading to fish kills.

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[9] Only includes Open Space in strictly unurbanized areas. See Glossary definition of Urban Runoff.
[10] Riverside County Flood Control and Water Conservation District's "Hydrology Manual," dated April 1978 and page II-4 of "Santa Ana River, Design Memorandum No. 1, Phase II GDM on the Santa Ana River Mainstem, including Santiago Creek, Volume 2, Prado Dam." dated August 1988 and D.I. Inman & S.A. Jenkins "Climate Change and the Episodicity of Sediment Flux in Small California Rivers," Journal of Geology, Volume 107, pp. 251-270, 1999.

8. Bacteria and nutrients are the Pollutants of Concern for a majority of the inland waters that are listed under the 303(d) list of Impaired Waterbodies or an adopted Total Maximum Daily Load (TMDL). This Order requires the Permittees to identify sources of bacteria and nutrients in Urban Runoff to their MS4 and to control those Pollutant sources.

9. Recent information[11] shows that plastic wastes and materials released to surface water bodies can harm aquatic species by entanglement or ingestion. This Order requires the Permittees to consider facilities that handle nurdles[12] as a high priority site for inspection, and outreach. Nurdles are a major contributor to marine debris. During a three month study of Orange County researchers found them to be the most common beach contaminant[13]. Nurdles comprised roughly 98% of the beach debris collected in a 2001 Orange County study.

10. The Permittees' water quality monitoring data submitted to date document a number of exceedances of Water Quality Objectives for various Urban Runoff-related Pollutants (fecal coliform bacteria, nutrients, total suspended solids, turbidity, metals, etc.) at various watershed monitoring stations.

11. This Order includes requirements for control of Dry Weather flows from Permittee activities that may cause an exceedance of Water Quality Objectives in Receiving Waters for Total Dissolved Solids (TDS) or total inorganic nitrogen (TIN). Storm water was considered to be an insignificant source for nitrogen/TDS in groundwater.

12. The Permittees' 2003-2004, 2004-2005, 2005-2006, 2006-2007 and 2007-2008 Annual Reports indicate exceedances of Water Quality Objectives for each core MS4 monitoring station discussed in a through g, below. The Permittees have identified nutrients and bacteria as priority constituents for initial corrective actions.

    a. Corona Storm Drain (40) - Six samples were collected and analyzed for fecal coliforms. Three samples were collected in the Dry Season and three during Wet Weather events. All samples analyzed exceeded bacteria (as fecal coliform) Water Quality Objectives with a maximum value of 160,000 MPN fecal coliforms. Boron analyses exceeded Water Quality Objectives of 0.75 mg/L in

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[11] http://www.bestlifeonline.com/cms/publish/health-fitness/Our_oceans_are_turning_into_plastic_are_we_2_printer.shtml, (alternative reference: http://rstb.royalsocietypublishing.org/search?fulltext=entanglement+and+ingestion&sortspec=date&submit=Submit&andorexactfulltext=phrase)

[12] A nurdle is a plastic pellet, also known as pre-production plastic pellet or plastic resin pellet.

[13] Moore, Charles (2002). "A comparison of neustonic plastic and zooplankton abundance in Southern California's coastal waters and elsewhere in the North Pacific". *Algalita Marine Research Foundation*. http://www.mindfully.org/Plastic/Ocean/Marine-Debris-Panel30oct02.htm.

one out of eighteen samples collected (0.78 mg/L). Six samples were collected and analyzed for Total Dissolved Solids (TDS) in 2003-2004. All samples were below the Temescal Creek and Santa Ana River Reach 3 Water Quality Objectives of 800 mg/L/700 mg/L TDS (respectively) and only one (11 mg/L) of ten samples (2005-2008) exceeded the 10 mg/L total nitrogen objective.

b. Sunnymead Channel (316) - Three samples were collected during Wet Weather events and analyzed for fecal coliforms in this time frame. All samples were greater than 5000 MPN and exceeded bacteria Water Quality Objectives of 200 or 400 MPN fecal coliforms. Two samples were collected during Wet Weather events and analyzed for TDS and were below the Water Quality Objective of 700 mg/L for Canyon Lake. Total nitrogen values in all ten samples collected during Wet Weather events were below the Water Quality Objective of 8 mg/L.

c. Hemet Channel (318) - All four Wet Weather samples were detected at greater than 7000 MPN and exceeded the bacteria Water Quality Objective of 200 or 400 MPN for fecal coliforms. As Salt Creek does not have numeric objectives for TDS, the Receiving Water for Salt Creek is Canyon Lake with an objective of 700 mg/L TDS. All eighteen samples collected during Wet Weather events and analyzed for TDS were below the Canyon Lake Water Quality Objective. Total nitrogen values in all nine samples collected during Wet Weather events were below the Water Quality Objective of 8 mg/L.

d. Magnolia Center (364) – Eleven out of thirteen samples (3-Wet Weather samples [>160000 MPN maximum concentration] and 10 dry [5000 MPN maximum]) collected exceeded the Water Quality Objective for fecal coliform (200 or 400 MPN MPN). Two (both collected during Wet Weather events) out of thirty-four samples identified total nitrogen concentrations in excess of the 10 mg/L Water Quality Objective. The maximum concentration measured was 13 mg/L. Water Quality Objective of 700 mg/L TDS were exceeded in three out of eight samples analyzed. The maximum TDS concentration was 930 mg/L TDS.

e. University Wash Channel (702) – All three samples were detected at greater than 5000 MPN concentration and exceeded the fecal coliform Water Quality Objectives of 200 or 400 MPN. The maximum concentration was 13,000 MPN. One (11 mg/L) out of sixteen samples analyzed for total nitrogen was above the Santa Ana River Reach 4 Water Quality Objective of 10 mg/L. Ten samples analyzed for TDS were below Water Quality Objective of 550 mg/L.

f. North Norco Channel (707) – Three out of four samples (>16000 MPN maximum) analyzed for fecal coliform exceeded bacteria Water Quality Objective of 200 or 400 MPN fecal coliform. Three (1300 mg/L maximum concentration dry, 900 mg/L wet) out of four samples analyzed for TDS were above the Santa Ana River-Reach 3 Water Quality Objective of 700 mg/L. Two

samples were Dry Weather and two samples were Wet Weather. One out of ten samples analyzed for total nitrogen exceeded the Water Quality Objective of 10 mg/L for total nitrogen.

g. Perris Line J Channel (752) – All four Wet Weather samples analyzed exceeded bacterial indicator Water Quality Objective the highest value was 13,000 MPN fecal coliform. Two of four samples analyzed for TDS exceeded the Water Quality Objective of 700 mg/L for Canyon Lake. One out of twelve samples analyzed exceeded the Water Quality Objective of 8 mg/L for total nitrogen.

13. The Permittees are participating in several studies in conjunction with the Storm Water Monitoring Coalition (SMC), Storm Water Quality Standards Task Force, the Lake Elsinore and Canyon Lake TMDL Task Force, the Middle Santa Ana River TMDL Task Force and Southern California Coastal Water Research Project (SCCWRP) to address the elevated fecal bacterial indicator levels. Also, the Permittees are anticipating that the use of fecal bacterial indicator will be changed to E. coli and the reclassification of REC uses for several MS4 facilities in the near future. However, E. coli data still indicates Water Quality Objective exceedances that will need to be addressed as part of the TMDL.

14. The above monitoring results, the 303(d) list of Impaired Waterbodies and the approved TMDLs indicate that bacterial contamination is one of the persistent problems in Urban Runoff. TMDL Implementation Plans including Urban Runoff Waste Load Allocations (WLAs) have been adopted by the Regional Board for the Middle Santa Ana River to address this problem. It should be noted, however, that the work of the Storm Water Quality Standards Task Force is likely to result in changes to Recreational Water Quality Objectives and implementation measures, including the suspension of recreational standards during high flow events. Further, some MS4 facilities may be recategorized as REC 2 or REC X (REC 1 nor REC 2) pursuant to Use Attainability Analyses (UAAs). These changes will likely allow the Permittees to focus their TMDL compliance resources on bacterial contamination that is affecting recreational swimming areas used during the Dry Season as the highest priority.

15. The Santa Ana River is the major Receiving Water in the Permit Area. During non-storm periods the flow in the River is dominated by effluent from POTW discharges. POTW discharges are regulated under NPDES permits issued by the Regional Board. In addition, the quality of the Santa Ana River within the Upper Santa Ana sub-watershed is greatly influenced by runoff from agricultural activities. Urban Runoff from the Permit Area constitutes a minor component of the Dry Weather flow in the Upper Santa Ana and San Jacinto sub-watersheds of the Santa Ana River. However, Urban Runoff may be more polluted than POTW discharges and therefore a more significant concern based on monitoring results identified in the Annual Reports.

F. CWA SECTION 303(D) LISTED WATERBODIES AND TMDLS (ALSO SEE SECTION K)

1. Water quality assessment conducted by Regional Board staff has identified a number of Beneficial Use Impairments due, in part, to Urban Runoff. Section 305(b) of the CWA requires the USEPA and each state that has been delegated NPDES permitting authority to routinely monitor and assess the quality of waters of their respective regions. If this assessment indicates that Beneficial Uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an Impaired Waterbody.
2. Based on the Regional Board's 2006[14] water quality assessment a number of water bodies within the Permit Area are listed (see Table 4, below) as Impaired pursuant to Section 303(d).

Table 4 - Impaired Waterbodies

Waterbody	Pollutant	Potential Sources	Proposed TMDL Completion
Santa Ana River, Reach 3,	Pathogens	Dairies	Approved 2007
Canyon Lake	Nutrients	Non-point Source	Approved 2005
	Pathogens	Non-point Source	Listing under evaluation
Lake Elsinore	Nutrients	Non-point Source	Approved 2005
	Unknown Toxicity PCBs	Unknown Unknown Non-point Source	2021 2019
Lake Fulmor	Pathogens	Unknown Non-point Source	2019
Santa Ana River, Reach 4	Pathogens	Non-point Source	2019

3. Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the Pollutants causing Impairment. The TMDL is the total amount of a Pollutant that can be discharged to a subject waterbody, while still enabling the waterbody to attain Water Quality Standards in

[14] On April 24, 2009, the Regional Board adopted Resolution No. R8-2009-0032 approving the CWA Section 305(b) Integrated Report/CWA Section 303(d) List of Impaired Waterbodies. Minor additional modifications were approved by the Regional Board on October 23, 2009. When the revised list is approved by the State Board and the USEPA, the 2006 list will be updated.

the receiving water. Attaining Water Quality Standards means that the receiving waterbody's Water Quality Objectives are met and its Beneficial Uses are protected. The TMDL is the sum of the individual WLAs for point source inputs, Load Allocations (LAs) for Non-Point Source inputs and natural background, and a margin of safety. The TMDLs are one of the bases for limitations established in Waste Discharge Requirements.

4. The Basin Plan amendment incorporating the Middle Santa Ana River Watershed Bacterial Indicator TMDLs (MSAR TMDL) was approved by the Regional Board on August 26, 2005 (Resolution No. R8-2005-0001), by the State Board on May 15, 2006, by the state's Office of Administrative Law on September 1, 2006, and by the USEPA on May 16, 2007.

5. The MSAR TMDL established limits for Bacterial source Indicators for Santa Ana River (Reach 3), Chino Creek (Reaches 1 and 2), Prado Park Lake, Mill Creek (Prado Area), and Cucamonga Creek (Reach 1). The MSAR TMDLs Implementation Plan identifies three sub-watersheds in Riverside County that drain to the Santa Ana River, Reach 3: 1) Riverside Watershed - Contributes surface drainage generally westward from the City of Riverside to the Santa Ana River; 2) Temescal Canyon watershed - Contributes surface drainage generally northward to Temescal Creek and then to the Santa Ana River; and 3) Chino Basin - The southeastern portion of the Chino Basin drains generally south to the Santa Ana River in Riverside County.

6. The MSAR TMDLs specifies WLAs for Urban Runoff, and discharges from concentrated animal feeding operations. LAs are specified for runoff from other types of agriculture and from natural sources (open space/undeveloped forest land). WLAs and LAs are specified for both Dry Season discharges and Wet Season discharges, with separate compliance dates. To protect REC1 Beneficial uses, the TMDL has WLAs for fecal coliform and *E. coli*. The Basin Plan currently does not have an established Water Quality Objective for *E. coli*. Stakeholders in the Santa Ana Region have formed the Storm Water Quality Standards Task Force (SWQSTF) to evaluate USEPA's bacterial indicator recommendations and appropriate recreational beneficial use designations for waterbodies throughout the Region. The SWQSTF is expected to make recommendations for the adoption of alternative bacterial indicators such as *E.coli,* based on USEPA's "Ambient Water Quality Criteria for Bacteria - 1986". These and other recommendations of the SWQSTF are likely to result in changes to recreational Water Quality Objectives.

7. The MSAR TMDL Implementation Plan assigns responsibilities to specific MS4 dischargers to identify sources of impairment, to propose BMPs to address those sources, and to monitor, evaluate, and revise BMPs as needed, based on the effectiveness of the BMP implementation program. These are generally considered as the short-term solutions. The MSAR Permittees are required to develop and

implement a long-term solution (a Comprehensive Bacteria Reduction Plan (CBRP)) designed to achieve compliance with the WLAs by the dates specified in the TMDLs. Specific Implementation Plan tasks are described in Chapter 5 of the Basin Plan and are assigned to one or more of the Permittees. Requirements of the TMDL Implementation Plan tasks are incorporated into this Order. A number of these Implementation Plan tasks are also jointly assigned to non-Permittee stakeholders. The stakeholders have established TMDL task forces to jointly implement and coordinate the TMDL Implementation Plan tasks.

8. The MSAR TMDL Task Force members are listed in Table 5.

Table 5 - Middle Santa Ana River Bacterial Indicator TMDL Task Force

MS4 Permittees	**Non-MS4 Permittees**
Corona, City of	Santa Ana Watershed Project Authority
Norco, City of	US Department of Agriculture, Forest Service
Riverside, City of	Ag Pool, Milk Producers Council
Riverside, County of	Region 4 MS4 Permittees - Claremont and Pomona (pending formal agreement)
RCFC&WCD	Regional Board
San Bernardino County Flood Control District (representing the County of San Bernardino and the municipalities named in the TMDL)[(San Bernardino County, and the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, Rialto and Upland)]	

9. Pursuant to Task 3 of the MSAR TMDL, on June 29, 2007, the Regional Board approved the monitoring program (Resolution No. R8-2007-0046) proposed by the TMDL Task Force. Pursuant to Task 4 of the MSAR TMDL, on April 18, 2008, the Regional Board approved the Urban Source Evaluation Plan (USEP) that included a BMP effectiveness study (Resolution No. R8-2008-0044) proposed by the TMDL Task Force. This Order requires the Permittees on the Task Force to continue to implement the approved monitoring program and the USEP.

10. A BMP effectiveness study was completed as part of the MSAR Watershed–Wide and BMP effectiveness components of the Middle Santa Ana River Water Quality Monitoring Plan (dated April 3, 2008). The results of this study will be incorporated into a BMP selection criteria that will be used as a guide to address bacterial indicator sources within the MSAR watershed. The Principal Permittee plans to conduct a phase 2 study at its Low Impact Development (LID) testing facility to evaluate the effectiveness of several LID-based BMPs, which will further guide BMP selection in the MSAR watershed.

11. As part of Task 4.1, the MSAR Permittees completed the first phase of the approved USEP (Resolution No. R8-2008-0044) and the report is currently under review by Regional Board staff. Several discrete sources of bacterial indicator were identified, controlled, or eliminated as a result of this effort. Based on the outfall monitoring data collected to date, additional sites are identified, monitored and prioritized yearly for further evaluation in the next phases of the USEP. The next phase of the USEP that will focus on an implementation plan to retrofit BMPs to address elevated bacterial indicators from urban drainage areas flowing into Mill Creek and Cucamonga Creek in San Bernardino County is currently being evaluated.

12. Consistent with Task 4.3, this Order requires the Permittees to revise the DAMP to incorporate the results of the USEP and/or other studies. The DAMP revisions shall include schedules for meeting the bacterial indicator WLAs based on the schedule established in the MSAR TMDLs and the results of the USEP and/or other studies. These revisions shall also provide a proposal and schedule for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the bacterial indicator WLAs for Urban Runoff by initiating a WLA pre-compliance evaluation monitoring program[15].

13. Pursuant to Task 4.5, the Permittees are required to revise the Water Quality Management Plan to incorporate BMPs as per the USEP, Task 4.1, for New Development and Significant Redevelopment Projects.

14. The Permittees are required to develop a CBRP to achieve compliance with the WLAs by the compliance dates. Periodic evaluation and update of the CBRP may be necessary based on a BMP effectiveness analysis to ensure compliance with the WLAs by the compliance dates.

15. Within the Permit Area, there are two watershed-wide MSAR TMDL monitoring stations (WW-S1 Santa Ana River Reach 3 at MWD Crossing and WW-S4 Santa Ana River Reach 3 at Pedley Avenue). The MSAR Permittees are required to comply with the numeric Bacterial Indicator targets at these monitoring locations by December 31, 2015 for the Dry Weather conditions (April 1 through October 31, as defined in the TMDL) and by December 31, 2025 for the Wet Weather conditions (November 1 through March 31, as defined by the TMDL).

16. In the absence of an approved CBRP, the WLAs become the final numeric WQBEL that must be achieved by the compliance dates.

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[15] Pre-compliance evaluation monitoring is monitoring conducted prior to the TMDL compliance date to assess the effectiveness of BMPs implemented in reducing pollutant(s) of concern by the compliance date.

17. On December 20, 2004, the Regional Board adopted Resolution R8-2004-0037 amending the Basin Plan to incorporate the Lake Elsinore and Canyon Lake Nutrient TMDLs. These TMDLs were subsequently approved by the State Board on May 19, 2005, by the Office of Administrative Law on July 26, 2005 and by the USEPA on September 30, 2005. These TMDLs include urban WLAs that are now incorporated into Chapter 5 of the Basin Plan. For both Canyon Lake and Lake Elsinore, the TMDLs specify causal numeric targets (nitrogen and phosphorus) and response numeric targets (chlorophyll *a*, dissolved oxygen and un-ionized ammonia). The TMDLs also specify nitrogen and phosphorus WLAs (point source discharges) and LAs (nonpoint source discharges) for each lake. Compliance with interim dissolved oxygen and chlorophyll a numeric targets is to be achieved by December 31, 2015. Compliance with the final numeric targets and WLAs and LAs is to be achieved by December 31, 2020. The LAs and WLAs are specified as 10-year running average.

18. The nitrogen and phosphorus WLAs and LAs for Canyon Lake are applicable to those discharges tributary to Canyon Lake. The nitrogen and phosphorus WLAs and LAs for Lake Elsinore apply to those areas downstream of Canyon Lake and to overflows from Canyon Lake.

19. TMDL Implementation Plans for each TMDL assign responsibilities to specific MS4 dischargers/stakeholders to identify sources of Impairment, to propose BMPs to address those sources, and to monitor, evaluate and revise BMPs based on monitoring results. Specific TMDL Implementation Plan tasks associated with Urban Runoff are described in Chapter 5 of the Basin Plan and are assigned to one or more of the Permittees. Requirements of the TMDL implementation plan tasks are incorporated into this Order and were proposed for inclusion in Chapter 13 of the DAMP (see 2007 ROWD). Several of these tasks are also jointly assigned to non-Permittee stakeholders. The Permittees have established TMDL Task Forces to jointly implement and coordinate those tasks.

20. To evaluate compliance with TMDL WLAs as per the Implementation Plans, the Permittees proposed to submit a Comprehensive Nutrient Reduction Plan to:

    a. Evaluate the effectiveness of BMPs and other control actions implemented; and

    b. Evaluate the progress towards compliance with the nutrient WLA for Urban Runoff.

21. The Canyon Lake and Lake Elsinore Nutrient TMDL Task Force (also referred to as the San Jacinto Watershed Urban Dischargers) members are tabulated below:

Table 6 - Canyon Lake and Lake Elsinore Nutrient TMDL Task Force

Riverside MS4 Permittees	Non-Permittees
Beaumont, City of	California Department of Fish and Game
Canyon Lake, City of	California Department of Transportation (Caltrans),
Hemet, City of	Eastern Municipal Water District
Lake Elsinore, City of	Elsinore Valley Municipal Water District
Moreno Valley, City of	U.S. Air Force (March Air Reserve Base), March Joint Powers Authority,
Murrieta, City of	U.S. Forest Service
Perris, City of	Western Riverside County Agricultural Coalition
San Jacinto, City of	
Riverside, City of	
Riverside, County of	
RCFC&WCD	

22. The cities of Menifee and Wildomar were recently incorporated and are responsible for compliance with the Canyon Lake and Lake Elsinore Nutrient TMDL requirements. They have the option to participate in the TMDL Task Force or comply with the TMDL requirements on their own.

23. Interim compliance (compliance determination prior to the final WLA compliance dates) determination with the WLAs in the TMDLs will be based on the Lake Elsinore and Canyon Lake (LE/CL) Permittees progress towards implementing the various TMDL Implementation Plan tasks as per the resultant studies and plans approved by the Regional Board. The CL/LE Permittees are required to develop a Comprehensive Nutrient Reduction Plan (CNRP) designed to achieve compliance with the WLAs by the final compliance date for approval of the Regional Board. In the absence of an approved CNRP, the WLAs specified in the approved Canyon Lake/Lake Elsinore Nutrient TMDL will constitute the final numeric WQBELs.

G. NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT – WQMP /LID

1. The California Constitution and Government Code provide the Co-Permittees planning policy powers that mandate that the Co-Permittees review and condition New Development consistent with the Subdivision Map Act, CEQA, and their respective general plans, ordinances, and resolutions to ensure the general public's health and safety. If these constitutional and statutory mandates are not properly implemented and local ordinances and resolutions are not properly enforced, there is a creditable potential that New Development could result in the discharge of Pollutants via Urban Runoff to the Waters of the U.S within the Permit Area.

2. Significant development has taken place in Riverside County in the last decade. These developments have resulted in the urbanization of many areas. Urbanization generally increases Urban Runoff volume and velocity of runoff and the amount of Pollutants in the runoff. As development occurs, natural vegetated

pervious ground cover is converted to impervious surfaces such as highways, streets, rooftops and parking lots. Natural vegetated soil can both absorb rainwater and remove Pollutants providing an effective natural purification process. In contrast, impervious surfaces can neither absorb water nor remove Pollutants, and the natural purification characteristics are lost. Additionally, urban development can significantly increase Pollutant loads as the increased population density causes proportionately higher levels of vehicle emissions, vehicle maintenance wastes, municipal sewage wastes, pesticide, household hazardous wastes, pet wastes, trash, and other Anthropogenic Pollutants.

3. Urbanization can especially threaten environmentally sensitive areas (ESAs) and stream geomorphology. ESAs typically have a much lower capacity to withstand Pollutant loads. In essence, development that is ordinarily insignificant in its impact on the environment may in a particular sensitive environment become significant. Designated ESAs are defined in the Glossary (Appendix 4).

4. Unmitigated high volumes and velocities of discharges from MS4 facilities associated with new development (which may include non-Urban Runoff) into natural watercourses can alter the natural rate of change of a stream and adversely impact aquatic ecosystems and stream habitat and cause stream bank erosion and physical modifications. These changes are the result of Hydromodification. Typically, Hydromodification especially impacts those natural streams in the developing foothills and in other urbanizing fringe portions of the Permit Area.

5. On October 5, 2000, the State Board adopted Order No. WQ-2000-11, which is a precedential order. Order No. WQ-2000-11 required that Urban Runoff generated by 85th percentile storm events from specific types of development categories be infiltrated, filtered or treated. The essential elements of this precedential order were incorporated into the 2002 MS4 Permit and are incorporated herein. In accordance with the requirements specified in the 2002 MS4 Permit, the Permittees developed a model WQMP and Template.

6. The WQMP and Template provide a framework to incorporate some of the watershed protection principles into the Co-Permittees' planning, construction and post-construction phases of New Development and Significant Redevelopment projects. The WQMP includes site design (including, where feasible, LID principles), Source Control and Treatment Control elements to reduce the discharge of Pollutants in Urban Runoff. On September 17, 2004, the Regional Board approved the WQMP. The Co-Permittees are requiring proponents of New Developments and Significant Redevelopments to develop and implement site-specific WQMPs. This Order requires Co-Permittees to continue requiring preliminary project-specific WQMPs as early as possible during the environmental review or planning phase (land use entitlement) and to review and approve final project-specific WQMP that is in substantial conformance with the preliminary

project-specific WQMP prior to the issuance of any building or grading permit. This Order also requires Co-Permittees to verify functionality of post-construction BMPs prior to issuance of certificate of occupancy and to track and ensure long term operation and maintenance of those BMPs as per the approved project-specific WQMPs.

7. An audit of each of the Pemittees' Urban Runoff management programs during the term of the 2002 MS4 Permit indicated no clear nexus between the watershed protection principles, including LID techniques specified in the WQMP and the Permittees' General Plan or related documents such as Development Standards, Zoning Codes, Conditions of Approval and Project Development Guidance. Existing procedures, ordinances, local codes, and development standards may be barriers to implementation of LID practices. This Order requires the Permittees to evaluate their General Plans, comprehensive or master plans, zoning codes, subdivision ordinances, project development standards, conditions of approval or related documents to determine whether the removal of any barriers, within their control, is feasible for implementation of LID techniques and other requirements of this Order. Where feasible, the Co-Permittees will make appropriate changes to remove barriers to implement LID techniques and other requirements of this Order.

8. This Order also requires the Permittees to review and enforce covenants, conditions and restrictions (CC&R) or develop other mechanisms to ensure proper long term operation and maintenance of post-construction BMPs.

9. In addition to addressing post-development water quality, the WQMP includes requirements to protect ESAs and address potential Hydromodification issues. Section 4.4 of the WQMP requires identification of Hydrologic Conditions of Concern (HCOC). An HCOC exists when a site's hydrologic regime is altered and there are significant impacts on downstream channels and aquatic habitats, alone or in conjunction with impacts of other projects. Currently, New Development and Significant Re-development projects are required to perform this assessment and incorporate appropriate BMPs to ensure existing hydrologic conditions are maintained. This Order requires the Permittees to implement LID techniques to minimize HCOC.

10. Management of the impacts of urbanization on water quality and stream stability in the Permit Area is more effective if the techniques are implemented at the project site, within the neighborhood and within each Co-Permittee's jurisdiction based on an overall watershed plan. The Permittees have identified Major Outfalls and have submitted maps of existing MS4 facilities. This Order requires the Permittees to expand upon the existing maps to include a map of its lined and unlined channels and streams within the Permit Area with the goal of identifying, prioritizing, and developing specific action plans for protecting those segments of streams that are vulnerable to development impacts.

11. This Order further requires the Permittees to develop a Watershed Action Plan that would address TMDL Implementation Plan BMP strategies and provide regional tools to address Hydromodification. The Permittees may choose to implement a single Watershed Action Plan for the entire Permit Area, or subdivide the Permit Area into sub-watersheds as appropriate to cost-effectively address TMDL requirements. The Watershed Action Plan integrates existing watershed based planning efforts and incorporates watershed tools to manage cumulative impacts of development on vulnerable streams, preserve structure and function of streams, and protect source, surface and groundwater quality and water supply in the permitted area. The Watershed Action Plan should integrate Hydromodification and water quality management strategies with land use planning policies, ordinances, and plans within each jurisdiction. Existing Permittee watershed planning efforts include the Western Riverside County Multiple Species Habitat Conservation Plan, Special Area Management Plan, Santa Ana and San Jacinto Integrated Regional Watershed Management Plans, Lake Elsinore and Canyon Lake and Middle Santa Ana River TMDL Task Forces, SCCWRP Hydromodification sensitivity mapping project, and various regional BMP evaluations being conducted by the Principal Permittee in conjunction with various water districts should be evaluated and incorporated into the Watershed Action Plan as necessary to address TMDL Implementation Plan requirements and Hydromodification. The regional efforts should be evaluated, and if necessary, enhanced to provide Permittees with the tools to integrate Hydromodification and TMDL management strategies with Permittee MS4 Permit compliance programs and land use planning policies, ordinances, and plans within appropriate Permittee jurisdictions within the Permit Area.

12. Pending completion of a Watershed Action Plan and implementing tools, management of the impacts of urbanization shall be accomplished on a per project and per jurisdiction basis through jurisdictional implementation of the watershed tools incorporated into the local general plans, ordinances and other requirements and the project-specific WQMPs.

13. The SMC in collaboration with SCCWRP and the California Storm Water Quality Association (CASQA) with funding from the State Water Resources Control Board and CASQA is developing a LID manual for Southern California. This manual will be incorporated into the CASQA BMP Handbooks. The Permittees are encouraged to utilize the LID manual as a resource to implement LID techniques once completed.

14. This Order requires the project proponents to first consider preventative and conservation techniques (e.g., preserve and protect natural features to the MEP) prior to considering mitigative techniques (Structural BMPs such as infiltration systems, or other Treatment Control BMPs). The mitigative measures should be

prioritized with the highest priority for BMPs that remove Pollutants in Urban Runoff and reduce the volume of Urban Runoff, such as infiltration, then other BMPs, such as harvesting and use, evapotranspiration and bio-treatment should be considered. Consistent with the MEP standard, these LID BMPs must be implemented at the project site. Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs. The Regional Board also recognizes that site conditions, including site soils, contaminant plumes, high groundwater levels, etc., could limit the applicability of infiltration and other LID BMPs at certain project sites. Where LID BMPs are not feasible or appropriate at the project site, more traditional, but equally effective BMPs (proprietary or non-proprietary) should be implemented. This Order provides for alternatives and in-lieu programs where preferred LID BMPs are infeasible or inappropriate. In addition, extra diligence should also be performed when proposing infiltration BMPs in areas where the proposed land use is often associated with soil and groundwater contamination. Pre-treatment of the water prior to infiltration is necessary in most cases. Proprietary treatment devices may be utilized when it is demonstrated that they meet or exceed the MEP standard.

15. The USEPA has determined that LID/green infrastructure can be a cost-effective and environmentally preferable approach for the control of storm water pollution and to minimize downstream impacts by mimicking pre-development hydrology. LID techniques promote the reduction of impervious areas which may achieve multiple environmental and economic benefits in addition to enhanced water quality and supply, stream and habitat protection, cleaner air, reduced urban temperature, increased energy efficiency and other community benefits such as aesthetics recreation, and wildlife areas. This Order incorporates a volume capture metric based on the design volume specified in the WQMP.

16. If not properly designed and maintained, Treatment Control BMPs could create a nuisance and/or habitat for vectors[16] (e.g., mosquitoes and rodents). The 2002 MS4 Permit required the Permittees to closely collaborate with the local vector

[16] Managing Mosquitoes in Storm water Treatment Devices, Marco E. Metzger, University of California Davis, Division of Agriculture and Natural Resources, Publication 8125.

control agencies during the development and implementation of such Treatment Control BMPs. The Permittees should continue these collaborative efforts with the vector control agencies to ensure that Treatment Control BMPs do not become a Nuisance or a potential source of Pollutants. The requirements specified in this Order include identification of responsible agencies for maintaining the Treatment Control BMPs and for providing funding for operation and maintenance.

17. If not properly designed and maintained, groundwater infiltration systems may adversely impact groundwater quality. Restrictions placed on Urban Runoff infiltration in this Order (Section XI.D.8) are based on recommendations provided by the USEPA Risk Reduction Laboratory. The Permittees should work closely with the water districts and water conservation districts to insure groundwater protection.

18. This Order incorporates new project categories and revised thresholds for several categories of new development and redevelopment projects that trigger the requirement for a WQMP. The 2008 National Research Council (NRC) report[17] indicates that roads and parking lots constitute as much as 70% of total impervious cover in ultra-urban landscape, and as much as 80% of the directly connected impervious cover. Roads tend to capture and export more storm water Pollutants than other impervious covers. As such, roads are included as a priority development category for which WQMPs are required. Private New Development and Significant Redevelopment projects incorporating roads typically allow road runoff to be addressed as part of the overall water quality strategy for the larger common plans of development. Permittee streets, roads and highways capital projects have special limitations. For example, the footprint of street, road and highway capital projects is often limited and may have hydraulic constraints due to lack of underground storm drain systems that would otherwise be necessary to hydraulically facilitate treatment of runoff. There are also limitations specified in state and federal design and code specifications that may limit or prohibit certain BMPs. Permittees may also be subject to flow diversion liability and limited road maintenance budgets and equipment. Street, road and highway projects that function as part of the MS4 also receive runoff and associated Pollutants from both existing urban areas and other external sources, including adjacent land use activities, aerial deposition, brake pad and tire wear and other sources that may be outside the Co-Permittee's authority to regulate and/or economic or technological ability to control. These offsite flows can overwhelm Treatment Control BMPs designed to address the footprint (consistent with the typical requirements for a WQMP) of street, road or highway capital projects incorporating curb and gutter as part of its storm water conveyance function. Despite these limitations, the Regional Board finds that Permittee construction of streets, roads and highway capital

[17] National Research Council Report (2008), http://www.nap.edu/catalog.php?record_id=12465

projects may provide an opportunity to address Pollutant loads from existing urban areas. However, due to the nature of the facilities and projects, it would be unduly burdensome for the Co-Permittees to maintain WQMP documents for transportation projects (in addition to Facility Pollution Prevention Plans and other overlapping requirements of this Order). The Permittees are therefore not required to prepare WQMP documents for street, road and highway capital projects, but instead are required to develop functionally equivalent documents that include site specific consideration utilizing BMP guidance to address street, roads and highway capital project runoff to the MEP.

19. The NRC report also indicates that there is a direct relationship between impervious cover and the biological condition of downstream receiving waters. The Permittees are required to address HCOC from New Development and Significant Redevelopment projects to minimize downstream impacts.

H. CO-PERMITTEE INSPECTION PROGRAMS

1. Each Co-Permittee conducts inspections of those Construction Sites for which it has issued either a grading or building permit to determine compliance with its ordinances, regulations, and codes, including its Storm Water Ordinance. Each Co-Permittee, consistent with its ordinances, rules and regulations, inspects each site for compliance with the conditions of approval governing the grading or building permit. These inspections have been expanded by the Co-Permittees to determine that sites requiring coverage under the General Construction Activity Storm Water Permit have obtained permit coverage by verifying that a Waste Discharge Identification (WDID) number has been issued by the State Board..

2. The DAMP addresses compliance strategies with regard to industrial and commercial facilities. As part of their Urban Runoff management activities, the Principal Permittee and the County entered into an agreement, dated August 10, 1999 by which they have developed and funded, in cooperation with the Riverside County Environmental Health Department, the "Compliance Assistance Program" (CAP) which includes a storm water survey component as part of existing inspections of hazardous material handlers and retail food service activities. The CAP consists of educational outreach to the inspected facilities and detailed storm water compliance surveys for each facility that must secure a hazardous materials permit for either storing, handling or generating such materials (there are approximately 5,500 facilities of which approximately 2,300 are inspected annually, and all facilities are inspected at least once during a two year cycle) and retail food facilities (there are approximately 6,750 facilities, all of which are inspected 1 to 3 times annually). Storm Water Compliance Surveys are conducted with each inspection of hazardous materials facilities, and at least once during the MS4 Permit term for restaurants. Restaurant inspectors are authorized to conduct

additional surveys if they observe an IC/ID or ordinance violation. The type of industrial/commercial establishment that is inspected includes, but is not limited to, automobile mechanical repair, maintenance, fueling, or cleaning operation, automobile or other vehicle body repair or painting operations, and painting or coating operations. Completed surveys that indicate non-compliance are forwarded to the appropriate Co-Permittee's enforcement division for follow up action. In addition, the cities of Corona and Riverside, which operate publicly owned treatment works (POTW), conduct annually on average, approximately 4,400 wastewater pre-treatment inspections, on a variety of industrial and commercial establishments within their respective jurisdictions, including, but not limited to, retail food establishments, car washes, and carpet, drape & furniture cleaning establishments. The Permittees have agreed to notify Regional Board staff when conditions are observed during such inspections that appear to be in violation of either the Storm Water General Permits or a permit issued by the Regional Board.

3. An evaluation of the Permittees' inspection programs during the 2002 MS4 Permit indicated a wide range of compliance and non-compliance with the Construction Cite and Industrial and Commercial Facilities inspection requirements. In many instances, the Construction Site and Facilities' return to compliance was not properly documented. This Order includes requirements for a more effective inspection program and includes a performance measure, time to return to compliance, as a metric for program effectiveness.

I. ILLICIT CONNECTIONS/ ILLEGAL DISCHARGES (IC/ID)

1. Illegal Discharges to the MS4 can contribute to contamination of Urban Runoff and other surface waters. During the term of the 1990 MS4 Permit, the underground MS4 facilities were inspected and only one Illicit Connection was identified. Open channels and other aboveground elements of the MS4 are inspected for evidence of Illegal Discharges as an element of routine maintenance by the Permittees. The Permittees also developed a program to prohibit IC/IDs to their MS4 facilities. Continued surveillance and enforcement of these programs are required to eliminate IC/IDs. The Permittees have a number of procedures in place to eliminate IC/IDs to the MS4, including Construction Site and Commercial, and Industrial Facility inspections, MS4 facility inspections, water quality monitoring and reporting programs, and public education.

2. The Permittees have the authority to control Pollutants in Urban Runoff, to prohibit IC/ID, to control spills, and to require compliance and carry out inspections of the MS4 facilities within their respective jurisdictions. The Co-Permittees have been extended necessary legal authority through California

statutes and local charters. Consistent with this statutory authority, each of the Co-Permittees have adopted their respective Storm Water Ordinances.

3. Even though the Permittees have established the authority and the procedures to detect and eliminate IC/IDs, audits conducted during the term of the 2002 MS4 Permit indicated that this program element is generally carried out passively through complaint response. IC/IDs are also detected through inspection programs and maintenance activities. Reports from maintenance inspectors are also typically logged as complaints. This Order requires each Permittee to revise this program element based on the Center for Watershed Protection's Illegal Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, or equivalent program.

J. TECHNOLOGY-BASED EFFLUENT LIMITATIONS (Not Applicable)

K. WATER QUALITY-BASED EFFLUENT LIMITATIONS (WQBELs) AND TMDL WLA

1. 40 CFR 122.44(d) requires that NPDES permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the Beneficial Uses of the Receiving Water. Where numeric water quality criteria have not been established, 40 CFR 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter. In *Defenders of Wildlife, et al* v. *Browner,* No. 98–71080 (9th Cir, October 1999), the Court held that the CWA does not require strict compliance with State Water Quality Standards for MS4 permits under section 301(b)(1)(C), but that at the same time, the CWA does give the permitting authority the discretion to incorporate appropriate WQBEL under another provision, CWA Section 402(p)(3)(B)(iii). The use of BMPs to control or abate the discharge of Pollutants is allowed by 40 CFR 122.44(k)(3) when Numeric Effluent Limitations are infeasible or when practices are reasonably necessary to achieve Effluent Limitations and standards or to carry out the purposes and intent of the CWA. The legislative history and the preamble to the federal storm water regulations indicate that the Congress and the USEPA were aware of the difficulties in regulating Urban Runoff solely through traditional end-of-pipe treatment. It is the Regional Board's intent to require the Permittees to implement BMPs consistent with the MEP standard in order to support attainment of Water Quality Standards. This Order includes Receiving Water Limitations based on Water Quality Objectives; it prohibits the creation of Nuisance and requires the reduction of Water Quality Standards Impairment in Receiving Waters. The Permit includes a procedure for determining whether Urban Runoff is causing or contributing to exceedances of Receiving Water Limitations and for evaluating whether the DAMP must be revised to include additional or more effective BMPs designed to meet

Water Quality Standards. The Order establishes an iterative process to determine compliance with the Receiving Water Limitations.

2. To support attainment of Water Quality Standards, consistent with the MEP standards, this Order aims to reduce the discharge of Pollutants in Urban Runoff from the MS4 by requiring Permittees to:
   a. Implement BMPs at Permittee facilities and activities,
   b. Require BMPs, including where appropriate, LID techniques, to be implemented at New Development and Significant Redevelopment project sites prior to accepting discharges into their MS4 facilities, where feasible,
   c. Implement and annually evaluate the DAMP and each Permittee's LIP for effectiveness in reducing Pollutants in Urban Runoff, and
   d. Determine if Urban Runoff is contributing to exceedances of Water Quality Objectives or Beneficial Uses in Receiving Waters by comparing outfall and receiving water monitoring results to: (1) Water Quality Objectives (WQOs), (2) California Toxic Rule (CTR), (3) USEPA Multi-Sector Permit Parameter Benchmark Values and (4) other appropriate data identified by the Permittees. The Permittees should also evaluate the Regional Monitoring reports prepared by SCCWRP to assess trends in Urban Runoff and Receiving Water quality within the Permit Area.
3. Federal regulations (40 CFR 122.44(d)(1)(vii)(B) require inclusion of Effluent Limits that are "consistent with the assumptions and requirements of any available WLA for the discharge prepared by the State and approved by USEPA." Consistent with this requirement, this Order includes interim effluent limits and a process for developing a BMP-based approach which, if adopted by the Regional Board prior to the compliance dates(s) specified in the associated comprehensive plan, shall become the final WQBEL(s). The Permittees are required to submit a comprehensive plan describing the proposed BMPs and the documentation demonstrating that the BMPs are expected to attain the WLAs by the compliance dates when implemented. If the Regional Board approves this comprehensive plan, this Order will be amended to include the comprehensive plan as the final WQBEL(s). If the Regional Board does not approve the comprehensive plan prior to the compliance date; the WLAs will become the final WQBEL(s) on the applicable compliance date and will remain in effect until a comprehensive plan is approved by the Regional Board. The comprehensive plan will be updated, as necessary, to reflect evaluations of the effectiveness of the BMPs, including evaluations presented in the annual reports.

4. These WQBELs are consistent with the assumptions and requirements identified in the TMDL Implementation Plans adopted with the TMDLs because the WQBELs are expected to be sufficient to meet the WLAs by the compliance dates. The

TMDLs within the Permit Area are described in Section F, above. These include the following:

a. MSAR Bacterial Indicator TMDL

i. The TMDL relies on this Order to implement the WLAs for Urban Runoff from the MSAR Permittees.

ii. This Order requires the MSAR Permittees to fully comply with the TMDL Implementation Plan. The TMDL Implementation Plan includes requirements for monitoring, and submittal of plans and schedules to implement short term solutions and develop long-term solutions to achieve TMDL compliance by the specified compliance dates.

iii. There are two components in the MSAR TMDL (fecal coliform and *E. coli*). The Basin Plan currently does not have an established objective for *E. coli*. The work that is currently being done by SWQSTF is expected to make recommendations for the adoption of *E. coli* objectives and revised WLAs based on *E.coli*. This Order incorporates the current WLAs as WQBELs. If the WLAs are revised, this Order will be reopened to incorporate the new WLAs.

iv. Upon adoption of this Order, the tasks identified in the MSAR TMDL Implementation Plan that have been developed by the MSAR Permittees and approved by the Regional Board become the interim Effluent Limits.

v. The MSAR Permittees are required to develop a Comprehensive Bacteria Reduction Plan(CBRP) designed to achieve WLAs by the compliance date. Once approved by the Regional Board, the CBRP becomes the final Effluent Limit. In the absence of an approved CBRP, the WLAs become the final numeric WQBEL by the compliance date specified in the TMDL.

b. Canyon Lake and Lake Elsinore Nutrient TMDLs

i. This Order is consistent with the Urban WLAs specified in the Canyon Lake and Lake Elsinore Nutrient TMDLs.

ii. Consistent with the TMDL Implementation Plan, this Order requires the LE/CL Permittees to identify sources of Impairment, propose BMPs to address those sources, and to monitor, evaluate and revise BMPs based on the monitoring results. Specific TMDL Implementation Plan tasks are described in Chapter 5 of the Basin Plan and are assigned to one or more of

the Permittees. Requirements of the TMDL Implementation Plan tasks are incorporated into this Order and Chapter 13 of the 2007 DAMP.

iii. In Chapter 13 of the 2007 DAMP submitted with the ROWD, the LE/CL Permittees have proposed BMP programs, consistent with the aforementioned TMDL Implementation Plan tasks.

iv. This Order also requires the LE/CL Permittees to monitor at representative Urban Runoff monitoring locations defined in the Consolidated Program for Water Quality Monitoring (CMP), (Phase 2 TMDL Monitoring is specified in the Lake Elsinore and Canyon Lake Nutrient TMDL Monitoring Plan dated February 15, 2006) and TMDL Implementation Plan and to evaluate the effectiveness of BMPs implemented in the Permit Area in reducing Pollutants of Concern in Urban Runoff to determine progress towards attainment of WLAs by the specified compliance date.

v. The Regional Board recognizes that additional research is needed to determine the most appropriate control mechanism to attain Water Quality Standards for nutrients in these two lakes. This Order provides the LE/CL Permittees the flexibility to meet the WLAs through a variety of techniques. Even though, the WLAs for the Canyon Lake and Lake Elsinore Nutrient TMDLs are expressed as WQBELs, if Water Quality Standards in the Lakes are met through biological or other in-Lake control mechanisms, the LE/CL Permittees' obligation to meet the WLAs is satisfied. as the impairment for which the TMDLs were developed would not exist anymore. The Permittees in the affected watersheds are required to develop a CNRP designed to achieve the WLAs by the compliance dates specified in the TMDL. In the absence of an approved CNRP, the WLAs become the final numeric WQBELs for nutrients.

L. WATER QUALITY CONTROL PLAN (BASIN PLAN)

1. The Regional Board adopted a revised Water Quality Control Plan for the Santa Ana River Basin (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates Beneficial Uses, establishes Water Quality Objectives, and contains implementation programs and policies to achieve those Water Quality Objectives for all waters in the Santa Ana Region addressed through the Basin Plan.

2. More recently, the Basin Plan was significantly amended to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground

waters. This Basin Plan Amendment was adopted by the Regional Board on January 22, 2004. The State Board and the Office of Administrative Law (OAL) approved the amendment on September 30, 2004 and December 23, 2004, respectively. The USEPA approved the surface water standard and related provisions of the amendment on June 20, 2007.

3. TDS and TIN limitations in Table 4-1 of the Basin Plan are specified in this Order for Permittees' discharges subject to the De Minimus Permit. Where Dry Season flows are identified as part of the IC/ID program element, this Order also requires Permittees to establish their baseline discharge concentration for Dry Season conditions.

4. As discussed in Section K, WQBELs, and TMDL WLA, the Basin Plan has been amended to incorporate several TMDLs and TMDL Implementation Plans adopted for waterbodies within the Permit Area. In addition, the Basin Plan implements State Board Resolution 88-63, which established a state policy that all waters, with certain exceptions, are suitable or potentially suitable for municipal or domestic water supply. Thus, as discussed in detail in the Fact Sheet, Beneficial Uses recognized in the Basin Plan for Receiving Waters in the Permit Area are as follows:

    a. Municipal and Domestic Supply,
    b. Agricultural Supply,
    c. Industrial Service Supply,
    d. Industrial Process Supply,
    e. Groundwater Recharge,
    f. Hydropower Generation,
    g. Water Contact Recreation,
    h. Non-contact Water Recreation,
    i. Warm Freshwater Habitat,
    j. Limited Warm Freshwater Habitat,
    k. Cold Freshwater Habitat,
    l. Preservation of Biological Habitats of Special Significance,
    m. Wildlife Habitat,
    n. Rare, Threatened or Endangered Species, and
    o. Spawning, Reproduction, and Development

5. The existing and potential Beneficial Uses of groundwater that could be impaired by the discharge of Urban Runoff within the Permit Area include one or more of the following:

    a. Municipal and Domestic Supply,
    b. Agricultural Supply,
    c. Industrial Service Supply, and

d. Industrial Process Supply

6. The Basin Plan also incorporates by reference all State Board water quality control plans and policies including the 1990 Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and the 1974 Water Quality Control Policy for Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Policy). Water Quality Objectives specified in the Basin Plan are local numeric and narrative objectives that may be more stringent than the national or statewide water quality criteria.

M. NATIONAL TOXICS RULE (NTR) AND CALIFORNIA TOXICS RULE (CTR)

NTR and CTR are blanket water quality criteria that apply to all surface water discharges. However, the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* states that the Policy does not apply to regulation of storm water discharges. Regional Board believes that compliance with Water Quality Standards through implementation of BMPs is appropriate for regulating Urban Runoff. The USEPA articulated this position on the use of BMPs in storm water permits in the policy memorandum entitled, ‘‘Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits’’ (61 FR 43761, August 9, 1996).[18]

N. STATE IMPLEMENTATION POLICY (SIP)

See Section M, above.

O. COMPLIANCE SCHEDULES AND INTERIM REQUIREMENTS

The Basin Plan contains schedules for achieving compliance with WLAs for Bacterial Indicators in the MSAR watershed and nutrients in the San Jacinto watershed (Canyon Lake/Lake Elsinore). It is appropriate to require the CL/LE Permittees to comply with those time schedules for various deliverables as specified in the approved TMDL Implementation Plans. Consistent with the State Board’s Compliance Schedule Policy (Resolution No. 2008-0025), this Order incorporates interim and final Effluent Limits, where applicable. Additionally, since the TMDL compliance dates are outside the term of this MS4 Permit, it is also appropriate to require the Permittees to monitor and report the effectiveness of BMPs implemented in the Permit Area to evaluate progress towards attainment of WLAs by the time schedules specified in the adopted TMDLs. This Order includes the schedules for deliverables as part of the TMDL Implementation Plans as well as a requirement to monitor the effectiveness of BMPs in the Permit

[18] See discussions on Wet Weather Flows in the Federal Register/Vol. 65, No. 97/Thursday, May 18, 2000/Rules and Regulations

Area in reducing Pollutant discharges and to report progress towards compliance with the TMDL WLAs by the compliance dates.

P. ANTIDEGRADATION POLICY

40 CFR 131.12 requires that State Water Quality Standards include an antidegradation policy consistent with the federal policy. The State Board established California's antidegradation policy in Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet (see sections IV and V), the permitted discharges are consistent with the antidegradation provisions of 40 CFR 131.12 and State Board Resolution No. 68-16.

Q. ANTI-BACKSLIDING

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require Effluent Limitations in a reissued NPDES permit to be as stringent as those in the previous permit, with some exceptions where Effluent Limitations may be relaxed. All Effluent Limitations in this Order are at least as stringent as the Effluent Limitations in the 2002 Order.

R. PUBLIC EDUCATION/PARTICIPATION

1. Public participation during the development of Urban Runoff management programs and implementation plans is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered. In addition, the federal storm water regulations require public participation in the development and implementation of the Urban Runoff management program. As such, the Permittees are required to solicit and consider all comments received from the public and submit copies of the comments to the Executive Officer of the Regional Board with the Annual Reports. In response to public comments, the Permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

2. There are Pollutants in Urban Runoff from privately owned and operated facilities such as residences, businesses and commercial establishments and public and private institutions. A successful NPDES MS4 permit program should include the participation and cooperation of public entities, private businesses, and public and private institutions. Therefore, public education is a critical element of the DAMP. As the population increases in the Permit Area, it will be even more important to

continue to educate the public regarding the impact of human activities on the quality of Urban Runoff.

3. In addition to the Regional Board, a number of other stakeholders are involved in the management of the water resources of the Region. These include, but are not limited to, the incorporated cities in the Region, POTWs, the three counties, and the Santa Ana Watershed Project Authority and its member agencies. The entities listed in Appendix 2 are considered as potential dischargers of Urban Runoff in the Permit Area. It is expected that these entities will also work cooperatively with the Permittees to manage Urban Runoff. The Regional Board, pursuant to 40 CFR 122.26(a), has the discretion and authority to require non-cooperating entities to participate in this Order or to issue individual MS4 permits. The Permittees may request the Regional Board to issue a separate NPDES Permit to any discharger into MS4 facilities they own or operate.

4. Cooperation and coordination among the stakeholders (regulators, Permittees, the public, and other entities) are critical to optimize the use of finite public resources and ensure economical management of water quality in the Region. Recognizing this fact, this Order focuses on integrated watershed management and seeks to integrate the programs of the stakeholders, especially the holders of the three MS4 permits within the Regional Board's jurisdiction.

5. Education is an important aspect of every effective Urban Runoff management program and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staff is especially critical to ensure that in-house staff understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions affect Receiving Water quality and how adverse effects can be minimized.

6. Some Urban Runoff issues, such as public education and training, can be effectively addressed on a regional or statewide basis. Regional approaches to Urban Runoff management can improve program consistency and promote sharing of resources, which can result in implementation of more efficient programs. In particular the counties of San Bernardino and Riverside and their collective municipalities are encouraged to cooperatively work together and generate a unified education and training program.

S. PERMITTEE FACILITIES AND ACTIVITIES

1. The Permittees own/operate facilities where industrial or related activities take place that may have an impact on Urban Runoff quality. Some of the Permittees

enter into contracts with outside parties to carry out activities that may also have an impact on Urban Runoff quality. These facilities and related activities include, but are not limited to, street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape and swimming pool maintenance activities, MS4 maintenance activities and the application of herbicides, algaecides and pesticides.

2. This Order requires continued implementation of BMPs intended to reduce Pollutant discharges from those Permittee activities/facilities that are found to be significant sources of Pollutants in Urban Runoff. This Order prohibits non-storm water discharges from facilities owned or operated by the Permittees unless the discharges are exempt under Section VI of this Order or are permitted by the Regional Board under an individual NPDES permit.

3. Program evaluations conducted during the term of the 2002 MS4 Permit indicated varying degrees of compliance/noncompliance at Permittee facilities and activities. This Order requires each Permittee to review its inventory of fixed facilities, field operations and drainage facilities to ensure that Permittee facilities do not cause or contribute to a Pollution or Nuisance in Receiving Waters. Permittee fixed public facilities and field operations are to be inspected annually.

T. MUNICIPAL CONSTRUCTION PROJECTS

1. The 2002 MS4 Permit authorized the discharge of storm water from construction activities on an acre or more, that are under ownership or direct responsibility of the Permittees. Permittees were required to notify the Regional Board prior to commencement of construction activities, and to comply with the latest Statewide General Construction Permit. Permittees were also required to develop a SWPPP and monitoring program specific to the Construction Site. Program evaluations conducted during the term of the 2002 MS4 Permit indicated that some Permittees were not submitting or were not aware of the requirement to submit a NOI and subsequent Notice of Termination (NOT) for Permittee Construction Sites. This Order continues the notification requirement.
2. This Order builds upon the requirement of the 2002 MS4 Permit by requiring Permittees to include post-construction BMP information for Permittee Construction Sites meeting WQMP and General Construction Permit criteria along with the NOT submitted to the Executive Officer upon completion of the construction activity. The NOT must include photographs of the completed project, a site map including structural post-construction BMP locations, long term operation and maintenance responsibility information, field verification report and copies of the final field verification reports required under Section XII.I. Permittees are required to develop

a database of post-construction BMPs per Section XII.K.4. for which they are responsible and reference this database in the LIPs.

3. Emergency Permittee public works projects required to protect public health and safety are exempted from these requirements, until the emergency ends, at which time they need to comply with the requirements.

U. MONITORING AND REPORTING

1. 40 CFR 122.48 requires that all NPDES permits specify requirements for monitoring and reporting. Sections 13267 and 13383 of the CWC authorize the Regional Board to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment 3, establishes monitoring and reporting requirements to implement federal and State requirements.

2. An effective monitoring program characterizes Urban Runoff, identifies problem areas, and determines the impact of Urban Runoff on receiving waters and the effectiveness of BMPs. The Principal Permittee administers the CMP for the Permittees. The CMP includes Wet and Dry Season monitoring of MS4 Outfalls and Receiving Waters throughout Riverside County.

3. The Regional Board recognizes the importance of watershed management efforts and regional planning and coordination in the development and implementation of programs and policies related to Receiving Water quality protection, including the Urban Runoff program and TMDL processes. In light of recent TMDLs that have been developed and the expectation of future TMDLs, this Order allows the Permittees to develop a Coordinated Watershed Monitoring Plan that shows the nexus among various Urban Runoff related monitoring programs that the Permittees are participating and the MS4 permit requirements including but not limited to WLA pre-compliance, BMP effectiveness, urban source and trend evaluation, Receiving Water quality and Hydromodification effects monitoring as part of the requirements of the Monitoring and Reporting Program.

4. Multiple entities, such as POTWs, MS4, CAFOs, and other permitted and non-permitted dischargers, discharge into the same water bodies. The discharges from these various sources could potentially affect the water quality of these water bodies even when these dischargers are complying with their discharge permits. Monitoring the Receiving Waters where these multiple types of discharges take place is necessary to determine these water bodies' compliance with Water Quality Objectives and their attainment of Beneficial Uses.

5. In the past, multiple entities have individually monitored the water bodies receiving their discharges to determine impacts to these waters from their discharges. The

monitoring has resulted in fragmented data that is inconsistent in quality, and that has potentially resulted in duplication of resources.

6. The SMC's "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California", August 2004 Technical Report #419 indicated that "…the lack of mass emissions stations in the inland counties hampers their ability to estimate the proportional contribution of these inland areas to cumulative loads downstream." The SMC consists of representatives from the Counties of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego and the City of Long Beach. Consistent with this coordinated effort, this Order includes requirements for mass emissions monitoring.
7. Every two years, the Regional Board will assess readily available data to determine if the water bodies within its jurisdiction comply with the Water Quality Objectives and attain the assigned Beneficial Uses. The data reviewed for the assessment comes from sources such as municipalities, POTWs, individual public submittals, TMDL monitoring, and special studies. The data necessary for the assessment is of known and documented quality and generated under the auspices of a Quality Assurance Project Plan (QAPP). The data also is required to be statistically sufficient to assess if the water body is meeting Water Quality Objectives and to determine if water quality is declining over time.
8. A coordinated monitoring effort is needed for each sub-watershed in the Santa Ana Region that will provide statistically sufficient data. These data should be collected with appropriate quality control and quality assurance programs and should be made available in an electronic format to meet assessment objectives.
9. The Regional Board has identified sub-watersheds in the Santa Ana Region where potential duplication of effort is taking place. These sub-watersheds include: the Upper Santa Ana River watershed, MSAR watershed, Lower Santa Ana River watershed, and the San Jacinto River watershed.
10. Regional Board staff proposes to require the various entities discharging into the waterbodies in these sub-watersheds to coordinate monitoring efforts, prepare, submit for approval, and implement a watershed monitoring plan; a QAPP, and a data management, validation, verification mechanism in order to meet the assessment objectives.
11. Under the direction of the MS4 permittees, SCCWRP is coordinating a watershed monitoring effort in Southern California. The Santa Ana Region is included in their monitoring effort. This effort will potentially produce data that will meet the needs of the Regional Board in assessing water quality. This Order requires the Permittees to continue their participation in this regional effort.

V. STANDARD AND SPECIAL PROVISIONS

The dischargers must comply with all standard provisions and with those additional conditions that are applicable under Federal NPDES Regulations 40 CFR122.41 and 40 CFR 122.42.

W. NOTIFICATION OF INTERESTED PARTIES

The Regional Board has notified the dischargers and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet for this Order.

X. CONSIDERATION OF PUBLIC COMMENT

The Regional Board has notified the Permittees, all known interested parties, and the public of its intent to issue WDRs for this discharge and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and the requirements of this Order. Details of the Public Hearing are provided in the Fact Sheet for this Order.

Y. ALASKA RULE

On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal Water Quality Standards become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska rule), USEPA must approve new and revised Water Quality Standards submitted to USEPA after May 30, 2000 before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

Z. COMPLIANCE WITH CZARA

The Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), Section 6217(g), requires coastal states with approved coastal zone management programs to address Non-Point Source Pollution impacting or threatening coastal water quality. The CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and Hydromodification. This Order addresses the management measures required for the urban category. Compliance with requirements specified in this Order relieves the Permittees for developing a Non-Point Source Plan, for the urban category, under CZARA.

AA. NON-POINT SOURCE DISCHARGES

Consistent with the State Board's 2004 "Policy for the Implementation and

Enforcement of the Nonpoint Source Pollution Control Program," the Regional Board may issue WDRs for Non-Point Source (NPS) Pollutant discharges, such as agricultural irrigation runoff or return flows that are not subject to NPDES requirements, if identified as a significant source of Pollutants. In addition, if the water quality significance of Non-Point Source discharges is not clearly understood, the Regional Board may issue conditional waivers of WDRs to Non-Point Source dischargers, and require monitoring to gather the information necessary to effectively manage these discharges.

BB. STRINGENCY REQUIREMENTS FOR INDIVIDUAL POLLUTANTS. (N/A)

CC. FISCAL RESOURCES

California is experiencing a fiscal crisis unprecedented since the Great Depression. The November 2009 unemployment rate is 12.2 percent in California and 14.7 percent in Riverside County.[19] The seasonally adjusted national unemployment rate in November 2009 is at a 26-year high of 10.2 percent. The Federal Reserve projected that the national unemployment rate, currently at a 26-year high of 9.4 percent, will pass 10 percent by the end of the year. Most federal policymakers said it could take "five or six years" for the economy and the labor market to get back on a path of long-term health.[20] State and local governments are experiencing significant budgetary shortfalls and are reducing staffing and programs across the board. Given this economic environment, priority will be given to preserving the most essential elements of existing Urban Runoff programs and identifying and implementing strategies to improve the efficiency of existing programs in protecting Receiving Waters.

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[19] Employment Development Department, State of California, December 18, 2009. http://www.calmis.ca.gov/file/lfmonth/rive$pds.pdf
[20] http://www.msnbc.msn.com/id/31963779/ns/business-stocks_and_economy/

PERMIT REQUIREMENTS:

IT IS HEREBY ORDERED that the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Norco, Perris, Riverside, San Jacinto, and Wildomar, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, and the provisions of the CWA, as amended, and the regulations and guidelines adopted there under, must comply with the following:

III. PERMITTEE RESPONSIBILITIES:

A. RESPONSIBILITIES OF THE PRINCIPAL PERMITTEE:

1. The Principal Permittee shall be responsible for managing the overall Urban Runoff program and shall:

   a. Coordinate revisions to the DAMP.

   b. Implement area-wide management programs, monitoring and reporting programs, and related plans as required by this Order.

   c. Coordinate chemical and biological water quality monitoring and any other monitoring as required by the Executive Officer.

   d. Prepare, coordinate the preparation of, and submit to the Executive Officer, those reports and programs necessary to comply with this Order.

   e. Provide staff support to the Management Steering Committee (Appendix 4, Glossary) to address Urban Runoff management policies for the Permit Area and coordinate the review, and necessary revisions to the DAMP and Implementation Agreement. The Management Steering Committee will continue to meet consistent with the requirements of Section XVII.D of this Order.

   f. Coordinate and conduct Technical Committee (Appendix 4) meetings consistent with the requirements of Section XVII.D of this Order. The Technical Committee will continue to direct the development of the DAMP and coordinate the implementation of the overall Urban Runoff program.

   g. Take the lead role in initiating and developing area-wide programs and activities necessary to comply with this Order.

h. Coordinate activities and participate in committees/subcommittees formed to comply with this Order.

i. Coordinate the implementation of this Order with the Regional Board and Co-Permittees, including the submittal of joint reports, plans, and programs as required under this Order.

j. Provide technical and administrative support to the Co-Permittees, including informing them of the status of known pertinent municipal programs, pilot projects, and research studies.

k. Coordinate with the Co-Permittees the implementation and necessary updates to Urban Runoff quality management programs, monitoring and reporting programs, implementation plans, public education, other Pollution Prevention measures, household Hazardous Waste collection, and BMPs outlined in the DAMP and take other actions consistent with the MEP standard.

l. Gather and disseminate information on the status of statewide Urban Runoff programs and evaluate the information for potential use in the execution of this Order. Hold workshops focused on Urban Runoff regulatory requirements, BMPs, and other related topics.

m. Compile information provided by the Co-Permittees and determine the effectiveness of the overall Urban Runoff program in attaining Receiving Water Quality Standards. This determination must include a comparative analysis of monitoring data to the applicable Water Quality Objectives for Receiving Waters as specified in Chapter 4 of the Basin Plan.

n. Solicit and coordinate public input for major changes to the Urban Runoff management programs and the implementation thereof.

o. Coordinate the development and implementation of procedures and performance standards, to assist in the consistent implementation of BMPs consistent with the MEP standard, as well as Urban Runoff management programs, among the Co-Permittees.

p. Participate in watershed management programs and regional and/or statewide monitoring and reporting programs.

q. In collaboration with the Co-Permittees, other MS4 Programs and/or CASQA, develop guidelines for defining expertise and competencies of storm water program managers and inspectors and develop and submit for approval a training program for various positions in accordance with these guidelines and Section XV of this Order.

r. Within 6 months of adoption of this Order, the Principal Permittee shall develop a library of BMP performance reports, and revise the library annually thereafter. At a minimum, obsolete performance reports should be removed and updated reports from the Permittees, CalTrans, CASQA, American Society of Civil Engineers or other appropriate sources that include more effective and proven BMPs should be added. The library may use national, statewide or regional reports. The purpose of this library is to facilitate the Permittees approval of BMPs, review and approval of WQMPs, etc.

s. Within 6 months of adoption of this Order, the Principal Permittee shall coordinate a review of the DAMP with the Co-Permittees to determine the need for update or revisions to ensure compliance with the requirements of this Order and establish a schedule for those revisions.

2. The activities of the Principal Permittee shall also include, but not be limited to, the following for MS4 owned or operated by the Principal Permittee:

a. To cause appropriate enforcement actions as necessary against IC/IDs to its MS4 to ensure compliance with Urban Runoff management programs, ordinances and implementation plans, including physical removal of Illicit Connections and prohibition of Illegal Discharges.

b. Ensure that applicants for encroachment permits for permanent connection to its MS4 facilities are notified in writing of their obligations to comply with Storm Water Ordinances, WQMP, and General Stormwater Permit requirements. The Principal Permittee shall make sure that encroachment activities within the limits of its rights-of-way comply with the General Construction Permit post construction standards. An encroachment project with a WQMP reviewed and approved by the Co-Permittee with jurisdictional authority may constitute compliance with the General Construction Permit post construction standards[21].

c. Conduct inspections and maintain the MS4 facilities over which it has jurisdiction.

d. Review and revise, if necessary, those agreements to which it is a party and those regulations and policies it deems necessary to provide adequate legal authority to maintain the MS4 facilities for which it has jurisdiction and to take those actions required of it by this Order and the federal Storm Water Regulations (see Section VIII);

[21] The State General Construction Permit Order No. 2009-0009-DWQ, Section XII

e. Monitor, document, and report that appropriate enforcement actions against Illegal Discharges to the MS4 facilities for which it has jurisdiction are taken and pursued as necessary to ensure compliance with Urban Runoff management programs, implementation plans, and regulations and policies, including physical elimination of IC/IDs (see Section IX);

f. Continue to respond or cause the appropriate entity or agency to respond to emergency situations such as accidental spills, leaks, and IC/IDs to prevent or reduce the discharge of Pollutants to its MS4 facilities and to the Receiving Waters (see Section XVI).

g. Track, monitor, and keep training records of all personnel involved in the implementation of the Principal Permittee's Urban Runoff management program.

B. RESPONSIBILITIES OF THE CO-PERMITTEES:

1. Each Co-Permittee shall complete a LIP, in conformance with Section IV of this Order and the approved LIP template.

2. Each Co-Permittee shall be responsible for managing the Urban Runoff program within its jurisdiction and shall:

   a. Maintain adequate legal authority to control the contribution of Pollutants to the MS4 and enforce those authorities.

   b. Conduct inspections of and maintain its MS4 facilities in accordance with the criteria developed pursuant to Section XIV.

   c. Continue to implement management programs, monitoring and reporting programs, appropriate BMPs listed in the DAMP and LIP, and related plans as required by this Order and take such other actions consistent with the MEP standard.

   d. Continue to seek sufficient funding for the area-wide Urban Runoff management plan, local Urban Runoff program management, Urban Runoff enforcement, public outreach and education activities and other Urban Runoff related program implementation.

   e. Continue to coordinate with other public agencies as appropriate, to facilitate the implementation of this Order and the DAMP/LIP.

   f. Ensure that applicants for encroachment permits for permanent connection to Permittee MS4 facilities are notified of their obligations to comply with Storm

Water Ordinances, WQMP, and the State General Construction Permit post construction standards. The Permittees shall enforce their Storm Water Ordinances to the extent of their legal authority. An encroachment project with a WQMP reviewed and approved by the Co-Permittee who owns the MS4 may constitute compliance with the General Construction Permit post construction standards[22].

g. Maintain up-to-date MS4 facility maps. Annually review these maps and if necessary, submit revised maps to the Principal Permittee with the information required for preparation of the Annual Report.

h. Prepare and submit to the Principal Permittee in a timely manner specific reports/information, related to the Co-Permittees' Urban Runoff management program, necessary to develop an Annual Report for submittal to the Executive Officer.

3. The Co-Permittees' activities shall include, but not be limited to, the following:

a. Participate in the Management Steering Committee and the Technical Committee meetings consistent with the requirements of Section XVII.D of this Order.

b. Conduct and coordinate with the Principal Permittee surveys and monitoring needed to identify Pollutant sources and drainage area characteristics within its jurisdiction. Where an Illegal Discharge crosses jurisdictional boundaries, to the extent feasible coordinate with neighboring jurisdictions to locate and end the Illegal Discharge.

c. Prepare and submit reports to the Principal Permittee to facilitate compilation of joint reports to the Regional Board in compliance with submittal deadlines.

d. Participate in the development and implementation of plans, strategies, management programs, monitoring and reporting programs that are proposed by the Principal Permittee, Technical Committee, or the Management Steering Committee to comply with this Order.

e. Participate in subcommittees formed by the Principal Permittee, Technical Committee, or the Management Steering Committee to comply with this Order.

[22] The State General Construction Permit Section XIII

f. Respond to or arrange for the appropriate entity or agency to respond to Emergency Situations such as accidental spills, leaks, IC/IDs, etc., to prevent or reduce the discharge of Pollutants to their MS4 facilities and the Receiving Waters.

g. Continue to pursue enforcement actions as necessary within its jurisdiction for violations of Storm Water Ordinances, and other elements of its Urban Runoff management program.

C. IMPLEMENTATION AGREEMENT

The Permittees shall allow any cities that were not signatories to the original Implementation Agreement but have been subsequently added to this Order to participate in the Implementation Agreement. The Permittees must annually review their Implementation Agreement and determine the need, if any, for additional revision. Beginning with the first Annual Report after adoption of this Order the Permittees must include the findings of this review and a schedule for any necessary revision(s) to the Implementation Agreement, if any. A copy of the signature page and any revisions to the Agreement shall be included in the Annual Report.

IV. LOCAL IMPLEMENTATION PLAN:

A. Within 6 months of adoption of this Order, the Permittees shall develop and submit for approval of the Executive Officer a LIP template. The LIP template shall be amended as the provisions of the DAMP are amended to address the requirements of this Order. The LIP template shall facilitate a description of the Co-Permittee's individual programs to implement the DAMP, including the organizational units responsible for implementation and identify positions responsible for Urban Runoff program implementation. The description shall specifically address:

1. Overall program management, including internal reporting requirements and procedures for communication and accountability;

   a. Interagency or interdepartmental agreements necessary to implement the Permittee's Urban Runoff program

   b. A summary of fiscal resources available to implement the Urban Runoff program;

   c. The ordinances, agreements, plans, policies, procedures and tools (e.g. checklists, forms, educational materials, etc.) used to execute the DAMP, including legal authorities and enforcement tools.

   d. Summarize procedures for maintaining databases required by the Permit;

   e. Describe internal procedures to ensure and promote accountability;

2. WQBELs to implement the TMDLs (Section VI.D);
3. Receiving Water Limitations (Section VII.D).
4. Legal authority/enforcement (Section VIII)
    a. Identify enforcement procedures, and
    b. Identify actions and procedures for tracking return to compliance;
5. Illicit Connections/Illegal Discharges (IC/ID); Litter, Debris and Trash Control (Section IX).

    The procedures and the staff positions responsible for different components of their IC/ID and Illegal Discharge Detection and Elimination (IDDE) Programs.
6. Sewage Spills, Infiltration into the MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges (Section X)

    A description of the interagency or interdepartmental sewer spill response coordination within each Permittee's jurisdiction.
7. Co-Permittee inspection programs(Section XI),
    a. Maintenance of Construction, Industrial, Commercial, and Post-Construction BMP databases;
    b. Procedures for incorporating erosion and sediment control BMPs into the permitting of Construction Sites (Section XI.B)
    c. Implementation of the Residential Program (Section XI.E.)
    d. Specify the verification procedure(s) and any tools utilized to verify that coverage under the General Construction Permit;
8. New Development (Including Significant Redevelopment) (Section XII)
    a. A list of discretionary maps and permits over which the Permittee has the authority to require WQMPs;
    b. Permittee procedures to implement the Hydromodification Management Plan.
    c. Permittee procedures and tools to implement the WQMP.(Sections XII.H, XII.I & XII.K)
    d. Permittee procedures for Municipal Road Projects (Section XII.F).
    e. A description of the credits programs or other in-lieu programs implemented (Section XII.G).
9. Public education and outreach (Section XIII)
10. Permittee Facilities and Activities (Section XIV)
    a. A description of the Permittee's MS4 facilities;
    b. At a minimum a list of facilities that include the following:

i. Parking facilities;

ii. Fire fighting training facilities;

iii. Facilities and activities discharging directly to environmentally sensitive areas such as 303(d) listed waterbodies or those with a RARE beneficial use designation;

iv. POTWs (including water and wastewater treatment plants) and sanitary sewage collection systems;

v. Solid waste transfer facilities;

vi. Land application sites;

vii. Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles;

viii. Household hazardous waste collection facilities;

ix. Municipal airfields;

x. Maintenance Facilities serving parks and recreation facilities;

xi. Special event venues following special events (festivals, sporting events);

xii. Other municipal areas and activities that the Permittee determines to be a potential source of Pollutants.

11. Compliance of Permittee Facilities and Activities with the General Construction Permit and De-Minimus Permit (Section XIV.G).

12. Training Program for Storm Water Managers, Planners, Inspectors and Municipal Contractors (Section XV);

    a. Training log forms

    b. Identify departments and positions requiring training

B. Within 12 months of approval of the LIP template, and amendments thereof, by the Executive Officer, each Permittee shall complete a LIP[23], in conformance with the LIP template. The LIP shall be signed by the principal executive officer or ranking elected official or their duly authorized representative pursuant to Section XX.M of this Order.

[23] As the Principal Permittee is not a general purpose government, some portions of the NPDES MS4 Program may not be applicable to it. The Principal Permittee should identify the basis for its exclusion from the applicable program elements in the appropriate LIP section.

C. Each Permittee shall annually review and evaluate the effectiveness of its Urban Runoff programs to determine the need for revisions to its LIP as necessary in compliance with Section VIII.H of this Order, and document revisions in the Annual Report.

V. DISCHARGE PROHIBITIONS:

A. In accordance with the requirements of 40 CFR 122.26(d)(2)(i)B) and 40 CFR 122.26(d)(2)(i)(F), the Permittees shall prohibit IC/IDs (see Appendix 4) from entering the MS4.

B. The discharge of Urban Runoff from the MS4 to Receiving Waters containing Pollutants, including trash and debris, that have not been reduced consistent with the MEP standard is prohibited.

C. Non-storm Water discharges from public agency activities into Waters of the US are prohibited unless the Non-storm Water discharges are permitted by a NPDES permit, granted a waiver, or as otherwise specified in Section VI, below.

D. Discharges from the MS4 shall be in compliance with the discharge prohibitions contained in Chapter 5 of the Basin Plan.

E. Discharges of Urban Runoff from the Permittee's MS4 shall not cause or contribute to a condition of Pollution, Contamination, or Nuisance (as defined in CWC Section 13050).

F. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

VI. EFFLUENT LIMITATIONS, DISCHARGE SPECIFICATIONS AND OTHER TMDL RELATED REQUIREMENTS

For purposes of this Order, a discharge may include storm water or other types of discharges identified below.

A. ALLOWED DISCHARGES:

The discharges identified need not be prohibited by the Permittees unless identified by the Permittees or the Executive Officer as a significant source of Pollutants. The DAMP shall include public education and outreach activities directed at reducing these discharges even if they are not substantial contributors of Pollutants to the MS4.

1. Discharges composed entirely of storm water;

2. Air conditioning condensate;
3. Irrigation water from agricultural sources ;
4. Discharges covered by a NPDES Permit, WDRs, or waivers issued by the Regional Board or State Board.
5. Discharges from landscape irrigation, lawn/garden watering and other irrigation waters. These shall be minimized through public education and water conservation efforts, as prescribed under this Order Section XI.E. Residential Program.
6. Passive foundation drains[24];
7. Passive footing drains[25];
8. Water from crawl space pumps[26];
9. Non-commercial vehicle washing,(e.g. residential car washing (excluding engine degreasing) and car washing fundraisers by non-profit organization);
10. Dechlorinated swimming pool discharges (cleaning wastewater and filter backwash shall not be discharged into the MS4 or to Waters of the US)
11. Diverted stream flows[27];
12. Rising ground waters[28] and natural springs;
13. Uncontaminated ground water infiltration as defined in 40 CFR 35.2005 (20) and uncontaminated pumped groundwater (as defined in Appendix 4, glossary),
14. Flows from riparian habitats and wetlands;
15. Emergency fire fighting flows (i.e., flows necessary for the protection of life and property do not require BMPs and need not be prohibited. However, appropriate BMPs to reduce the discharge of Pollutants to the MEP must be implemented when they do not interfere with health and safety issues [see also Appendix K of the DAMP]).
16. Waters not otherwise containing Wastes as defined in California Water Code Section 13050 (d), and
17. Other types of discharges identified and recommended by the Permittees and approved by the Regional Board.

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[24] Allowed discharges only if the source water drained from the foundation is storm water or uncontaminated groundwater. Discharges from contaminated groundwater may require coverage under the De Minimus Permit (Order No. R8-2009-0003, NPDES No. CAG998001) or General Groundwater Cleanup Permit (Order No. R8-2007-0008, NPDES Permit No CAG918001) or its latest version.

[25] See footnote 24, above.

[26] Allowed discharges only if the discharge is uncontaminated, otherwise permit coverage under the De Minimus Permit or Order No. 2006-0008-DWQ (NPDES No. CAG990002), General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters (General Permit-Utility Vaults).

[27] Diversion of stream flows that encroach into Waters of the US requires a 404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification from the Regional Board. Stream diversion that requires active pumping also requires coverage under the De Minimus Permit, Order No. R8-2009-0003.

[28] Discharge of rising ground water and natural springs into surface water is only allowed if groundwater is uncontaminated. Otherwise, coverage under the General Groundwater Cleanup Permit, Order No. R8-2007-0008 may be required.

When types of discharges listed above are identified as a significant source of Pollutants to Waters of the US, a Permittee must either: prohibit the discharge category from entering the MS4 or ensure that Source Control BMPs and Treatment Control BMPs are implemented to reduce or eliminate Pollutants resulting from the discharge. The Permittees shall evaluate the permitted discharges, as listed above to determine if any are a significant source of Pollutants to the MS4 and notify the Executive Officer if any are a significant source of Pollutants to the MS4.

B. DISCHARGE SPECIFICATIONS FOR DISCHARGES FROM PERMITTEE OWNED AND/OR OPERATED FACILITIES AND ACTIVITIES - DE-MINIMUS DISCHARGES[29] :

The following types of discharges from Permittee owned and/or operated facilities and activities are authorized by this Order provided they are in compliance with the terms and conditions of the General De Minimus Permit except that separate coverage under that permit is not required.

1. *Discharges from potable water sources, including water line flushing, superchlorinated water line flushing, fire hydrant system flushing, and hydrostatic test water from pipelines, tanks and vessels*: These discharges shall be dechlorinated to a concentration of 0.1 ppm[30] or less, pH adjusted if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments.

2. *Discharges from lawn, greenbelt and median watering and other irrigation runoff[31] from non-agricultural operations*: These discharges shall be minimized through requirements consistent with Section 5.3 of the DAMP and Section XIV of this Order.

3. *Dechlorinated swimming pool discharges:* Dechlorinated to a concentration of 0.1 ppm[32] or less, pH adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.

4. *Discharges from facilities that extract, treat and discharge water diverted from Waters of the US*: These discharges shall meet the following conditions:

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[29] General De Minimus Permit for Discharges to Surface Waters, Order NO. R8-2009-0003, NPDES No. CAG 998001 (General De Minimus Permit).

[30] Total residual chlorine = 0.1 mg/l or parts per million (ppm) or less; compliance determination shall be at a point before the discharge mixes with any Receiving Water.

[31] Non-agricultural irrigation using recycled water must comply with the statewide permit for Landscape Irrigation Using Recycled Water and the State Department Health guidelines.

[32] See footnote 30.

a. The discharges to Waters of the US must not contain Pollutants added by the treatment process or Pollutants in greater concentration than the influent;

b. The discharge must not cause or contribute to a condition of erosion;

c. Be in compliance with Section 401 of the CWA; and

d. Conduct monitoring in accordance with Section XIX of this Order.

5. *Construction dewatering wastes:* The maximum daily concentration limit for Total Suspended Solids (TSS) shall not exceed 75 mg/L; sulfides shall not exceed 0.4 mg/L; total petroleum hydrocarbons shall not exceed 0.1 mg/L; and oil and grease shall not exceed 15 mg/L.

6. *For all de-minimus type of discharges:* The pH of the discharge shall be within 6.5 to 8.5 pH units and there shall be no visible oil and grease in the discharge.

7. Table 4-1 of the Basin Plan incorporates TDS/TIN objectives for groundwater and surface waters within the Santa Ana Region. Permittees discharging to those Receiving Waters shall ensure compliance with the following for Dry Season conditions:

   a. For discharges to surface waters where groundwater will not be affected by the discharge, the maximum daily concentration (mg/L) of TDS and/or TIN of the effluent shall not exceed the Water Quality Objectives for the Receiving Water where the effluent is discharged, as specified in Table 4-1 of the Basin Plan[33].

   b. For discharges to surface waters where the groundwater will be affected by the discharge, the TDS and/or TIN concentrations of the effluent shall not exceed the Water Quality Objectives for the surface water where the effluent is discharged and the affected groundwater management zone, as specified in Table 4-1 of the Basin Plan. The more restrictive Water Quality Objectives shall govern. However, treated effluent exceeding the groundwater management zone Water Quality Objectives may be returned to the same management zone from which it was extracted without reduction of the TDS or TIN concentrations so long as the concentrations of those constituents are no greater than when the groundwater was first extracted. Incidental increases in the TDS and TIN concentrations (such as may occur during air stripping) of treated effluent will not be considered increases for the purposes of determining compliance with this discharge specification.

8. The Regional Board may add categories of Non-storm Water discharges that are not significant sources of Pollutants or remove categories of Non-storm Water discharges

[33] Resolution No. R8-2004-0001

listed above based upon a finding that the discharges are a significant source of Pollutants.

C. NON-POINT SOURCE (NPS) DISCHARGES:

The NPS discharges are being addressed through the Non-Point Source Program.

D. WATER QUALITY BASED EFFLUENT LIMITATIONS TO IMPLEMENT THE TOTAL MAXIMUM DAILY LOADS (TMDLs)

1. The MIDDLE SANTA ANA RIVER (MSAR) WATERSHED BACTERIA INDICATOR TMDL

Interim WQBELs (effective upon adoption of this Order)

a. The MSAR Permittees[34] as part of the MSAR Task Force (Table 5) shall:

i. Continue to implement the watershed-wide water quality monitoring program (including any future amendments thereto) approved by the Regional Board (Resolution No. R8-2007-0046) as per Task 3 of the MSAR TMDL Implementation Plan.

ii. Submit reports summarizing all relevant data from the MSAR watershed-wide water quality monitoring program. Beginning in 2010, the cool (or wet) season report is due to the Executive Officer by May 31st of each year (for monitoring conducted from November 1st through March 31st) and the warm (dry) season report is due to the Executive Officer by December 31st of each year (for monitoring conducted from April 1st through October 31st).

iii. Submit comprehensive reports every three years summarizing the data collected for the preceding 3 year period and evaluating progress towards achieving the Urban WLA by the dates specified in the TMDL. The first report is due to the Executive Officer on February 15, 2010.

iv. Continue to implement the approved (Regional Board Resolution No. R8-2008-0044) USEP developed as per Task 4.1 of the MSAR TMDL Implementation Plan. The USEP must describe the specific methods that will be used to identify urban sources, strategies, and BMPs to address

[34] Riverside County MS4 Permittees in the MSAR watershed (County of Riverside, and the Cities of Corona, Norco, Riverside are collectively referred to as the "MSAR Permittees")

those sources. Submit semi-annual reports on January 31st and July 31st of each year as required under the approved USEP, and any amendments thereto. In years where the comprehensive report referenced in VI.D.1.a.iii above is due on February 15, the comprehensive report, Dry Season report (Due December 31st) and the January 31st USEP reports may be combined into a single submittal due February 15th

v. Revise the DAMP as specified in Task 4.3 of the MSAR-TMDL Implementation Plan. Summarize any such revisions in the annual report due to the Executive Officer by November 30 of each year.

vi. Revise the WQMP as specified in Task 4.5 of the MSAR TMDL Implementation Plan. Summarize any such revisions in the Annual Report due to the Executive Officer by November 30 of each year.

vii. Amend the LIP to be consistent with the revised DAMP and WQMPs within 90 days after said revisions are approved by the Regional Board. Summarize any such LIP amendments in the Annual Report due to the Executive Officer by November 30 of each year.

Final WQBELs for MSAR Bacterial Indicator TMDL under Dry Season Conditions

b. The final WQBELs for Bacterial Indicators during the Dry Season shall be achieved by December 31, 2015. These final Effluent Limits shall be considered effective for enforcement purposes on January 1, 2016.

c. The Final WQBELs for MSAR Bacterial Indicator TMDL during the Dry Season shall be developed and implemented in the following manner:

i. The MSAR Permittees shall prepare for approval by the Regional Board a Comprehensive Bacteria Reduction Plan (CBRP) describing, in detail, the specific actions that have been taken or will be taken to achieve compliance with the Urban WLA during the Dry Season (April 1st through October 31st) by December 31, 2015. The CBRP must include:

(1) The specific ordinance(s) adopted to reduce the concentration of Bacterial Indicator in urban sources.

(2) The specific BMPs implemented to reduce the concentration of Bacterial Indicator from urban sources and the water quality improvements expected to result from these BMPs.

(3) The specific inspection criteria used to identify and manage the urban sources most likely causing exceedances of Water Quality Objectives for Bacterial Indicators.

(4) The specific regional treatment facilities and the locations where such facilities will be built to reduce the levels of Bacterial Indicator discharged from urban sources and the expected water quality improvements to result when the facilities are complete.

(5) The scientific and technical documentation used to conclude that the CBRP, once fully implemented, is expected to achieve compliance with the Urban WLA for Bacterial Indicator by December 31, 2015.

(6) A detailed schedule for implementing the CBRP. The schedule must identify discrete milestones to assess satisfactory progress toward meeting the Urban WLA during the Dry Season by December 31, 2015. The schedule must also indicate which agency or agencies are responsible for meeting each milestone.

(7) The specific metric(s) that will be established to demonstrate the effectiveness of the CBRP and acceptable progress toward meeting the Urban WLA for Bacterial Indicator by December 31, 2015.

(8) The DAMP, WQMP and LIPs shall be revised consistent with the CBRP no more than 180 days after the CBRP is approved by the Regional Board.

(9) Detailed descriptions of any additional BMPs planned, and the time required to implement those BMPs, in the event that data from the watershed-wide water quality monitoring program indicate that Water Quality Objectives for Bacterial Indicator are still being exceeded after the CBRP is fully implemented.

(10) A schedule for developing a CBRP needed to comply with the Urban WLA for Bacterial Indicator during the Wet Season (November 1st thru March 31st) to achieve compliance by December 31, 2025.

ii. The draft CBRP must be submitted to the Regional Board by December 31, 2010. The Permittees may submit the plan individually, jointly or through a collaborative effort with other urban dischargers such as the existing MSAR-TMDL Task Force. Regional Board staff will review the draft CBRP and recommend necessary revisions no more than 90 days after receiving the draft CBRP. The MSAR Permittees must submit the final version of the CBRP no more than 90 days after receiving the comments from Regional

Board staff. The Regional Board will schedule a public hearing to consider approving the CBRP, as a final WQBEL for the Dry Season Urban WLA, no more than 120 days after the final plan is submitted by the MSAR Permittees. In approving the CBRP as the final WQBELs, the Regional Board shall find that the CBRP, when fully implemented, shall achieve the Urban WLA for Bacterial Indicator by December 31, 2015.

iii. Once approved by the Regional Board, the CBRP shall be incorporated into this Order as the final WQBELs for Bacterial Indicator for the Dry Season. Based on BMP effectiveness analysis, the CBRP shall be updated, if necessary. The updated CBRP shall be implemented upon approval by the Regional Board.

d. Should the process set forth in Section VI.D.1.c, above not be completed by January 1, 2016, then the Urban WLA for the Dry Season specified in the MSAR-TMDL shall become the final numeric WQBELs for Bacterial Indicator in the Dry Season as follows:

i. WLA for Fecal Coliform from Urban Sources for the Dry Season (April 1st through October 31st)[35]
5-sample/30-day logarithmic mean less than 180 organisms/100mL and not more than 10% of the samples exceed 360 organisms/100mL for any 30-day period.

ii. WLA for *E. Coli* from Urban Sources for the Dry Season (April 1st through October 31st)[36]
5-sample/30-day logarithmic mean less than 113 organisms/100 mL and not more than 10% of the samples exceed 212 organisms/100mL for any 30-day period.

Final WQBELs for Bacterial Indicator during the Wet Season (effective Jan. 1, 2026)

In the event this Order is still in effect on December 31, 2025, and the Regional Board has not adopted alternative final WQBEL during the Wet Season by that date, then the Urban WLAs specified in the MSAR TMDL for the Wet Season

[35] 5-sample/30-day logarithmic mean less than 180 organisms/100mL and not more than 10% of the samples exceed 360 organisms/100mL for any 30-day period.

[36] 5-sample/30-day logarithmic mean less than 113 organisms/100 mL and not more than 10% of the samples exceed 212 organisms/100mL for any 30-day period.

(November 1st through March 31st) will automatically become the final numeric WQBEL for the MSAR Permittees on January 1, 2026.

2. **LAKE ELSINORE/CANYON LAKE (SAN JACINTO WATERSHED) NUTRIENT TMDLS**

   Interim WQBELS:

   a. *Lake Elsinore In-Lake Sediment Nutrient Reduction Plan:* Pursuant to Resolution No. R8-2007-0083, or as amended by subsequent adopted Regional Board resolutions, each LE/CL Permittee shall continue to implement the approved strategy for reducing in-lake sediment nutrient loads as summarized in Table 7, below:

Table 7 - Lake Elsinore In-lake Sediment Nutrient Reduction Strategy

Lake Elsinore In-lake Sediment Reduction Strategy Task	Due Date
Submit Phase 2 Alternatives	December 31, 2010*
Submit O&M Agreement for Fishery Management Program	December 31, 2010*
Submit O&M Agreement for Aeration and Mixing Systems	December 31, 2010*
Submit Phase 2 Projects Plans	June 30, 2011*
Complete Phase 2 Project Implementation	December 31, 2014
Implement in-lake and watershed monitoring programs	Annual reports due August 31 every year.

*Within 60 days of receipt of comments from Regional Board staff, Permittees shall submit a final revised plan that will be acceptable for adoption by the Regional Board, unless otherwise directed by the Executive Officer.

   b. Lake Elsinore/Canyon Lake Model Update Plan*:* Pursuant to Resolution No. R8-2007-0083, or as amended by subsequent adopted Regional Board resolutions, each LE/CL Permittee shall continue to implement the Model Update Plan as per the schedule summarized Table 8 below: The Model Update Plan shall specify how the Permittees will determine compliance with the WLAs.

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Table 8 - Lake Elsinore/Canyon Lake Model Update Plan

Model Update Task	Due Date
Linkage Analysis Study	August 31, 2010
Watershed Source Loading Study	August 31, 2010
Model Evaluation	December 31, 2010
Construct/Calibrate Model	June 30, 2011
Conduct Model Scenarios	August 31, 2011
Model Update Final Report	November 30, 2011

c. Revise the DAMP, WQMP and LIPs as necessary to implement the interim WQBEL compliance plans submitted pursuant to paragraph a and b of this section and summarize all such revisions in the Annual Report.

Final WQBELs (Effective December 31, 2020)

d. To achieve compliance with TMDL WLAs as per the TMDL Implementation Plans, the LE/CL Permittees shall submit a Comprehensive Nutrient Reduction Plan (CNRP) by December 31, 2011 describing, in detail, the specific actions that have been taken or will be taken to achieve compliance with the urban WLA by December 31, 2020. The CNRP must include the following:

i. Evaluation of the effectiveness of BMPs and other control actions implemented. This evaluation shall include the following:

(a) The specific ordinance(s) adopted or proposed for adoption to reduce the concentration of nutrient in urban sources.

(b) The specific BMPs implemented to reduce the concentration of urban nutrient sources and the water quality improvements expected to result from these BMPs.

(c) The specific inspection criteria used to identify and manage the urban sources most likely causing exceedances of water quality objectives for nutrients.

(d) The specific regional treatment facilities and the locations where such facilities will be built to reduce the concentration of nutrient discharged from urban sources and the expected water quality improvements to result when the facilities are complete.

and

ii. Proposed method for evaluating progress towards compliance with the nutrient WLA for Urban Runoff. The progress evaluation shall include:

(a) The scientific and technical documentation used to conclude that the CNRP, once fully implemented, is expected to achieve compliance with the urban waste load allocation for nutrient by December 31, 2020.

(b) A detailed schedule for implementing the CNRP. The schedule must identify discrete milestones decision points and alternative analyses necessary to assess satisfactory progress toward meeting the urban waste load allocations for nutrient by December 31, 2020. The schedule must also indicate which agency or agencies are responsible for meeting each milestone.

(c) The specific metric(s) that will be established to demonstrate the effectiveness of the CNRP and acceptable progress toward meeting the urban waste load allocations for nutrient by December 31, 2020.

(d) The DAMP, WQMP and LIPs shall be revised consistent with the CNRP no more than 180 days after the CNRP is approved by the Regional Board.

(e) Detailed descriptions of any additional BMPs planned, and the time required to implement those BMPs, in the event that data from the watershed-wide water quality monitoring program indicate that water quality objectives for nutrient are still being exceeded after the CNRP is fully implemented.

e. The draft CNRP must be submitted to the Regional Board by December 31, 2011. The LE/CL Permittees may submit the plan individually, jointly or through a collaborative effort with other urban dischargers such as the existing LE/CLTMDL Task Force. Regional Board staff will review the document and recommend necessary revisions no more than 90 days after receiving the draft plan. The LE/CL Permittees must submit the final version of the plan no more than 90 days after receiving the comments from Regional Board staff. The Regional Board will schedule a public hearing to consider approving the CNRP, as a final water quality-based effluent limitation for the Nutrient WLA, no more than 90 days after the final plan is submitted by the LE/CL Permittees. In approving the CNRP as the final WQBELs, the Regional Board shall make a finding that the CNRP, when fully implemented, shall achieve the urban WLA for nutrient by December 31, 2020; and,

f. Once approved by the Regional Board, the CNRP shall be incorporated into this Order as the final WQBELs for LE/CL Nutrient TMDL. Based on BMP effectiveness analysis, the CNRP shall be updated, if necessary. The updated CNRP shall be implemented upon approval by the Regional Board.

g. Compliance with the WLA is based on a 10-year running average. Hence, data collection consistent with the approved Phase 2 LE/CL TMDL monitoring program required in the Monitoring and Reporting Program must commence by December 31, 2010[37].

h. A summary of all relevant data from water quality monitoring programs shall be submitted in the Annual Report. This will include an evaluation of compliance with the LE/CL TMDL by reporting the effectiveness of the BMPs implemented in the watershed to control nutrient inputs into the lake from Urban Runoff pursuant to Regional Board Resolution No. R8-2006-0031 and R8-2007-0083, or as amended by subsequent Regional Board adopted resolutions.

i. The DAMP, WQMP and LIPs shall be revised as necessary to implement the plans submitted pursuant to paragraph a through h of this section and summarize all such revisions in the Annual Report.

j. In the event that the Regional Board has not adopted alternative final WQBELs, in accordance with Section VI.D.2.d., above, by December 31, 2020, the Urban WLAs specified in Tables 9 and 10, below, shall automatically become the final numeric WQBELs for the LE/CL Permittees to be achieved by December 31, 2020. These final Effluent Limits shall be considered effective for enforcement purposes on January 1, 2021.

Table 9 - Canyon Lake Nitrogen and Phosphorus Waste Load and Load Allocations[a]

Canyon Lake Nutrient TMDL	Final Total Phosphorus Waste Load Allocation (kg/yr)[b, c]	Final TN Waste Load Allocation (kg/yr) [b, c]
Urban	306 (675 lbs/yr)	3,974 (8763 lbs/yr)
Septic systems	139 (306 lbs/yr)	4,850 (10692 lbs/yr)

[a] The WLAs for Canyon Lake apply to those land uses located upstream of Canyon Lake.

[b] Final WLA compliance to be achieved by December 31, 2020.

[c] TMDL and WLA specified as 10-year running average.

Table 10 - Lake Elsinore Nitrogen and Phosphorus Waste Load and Load Allocations[a]

[37] Resolution No. R8-2004-0037 requires initiation of the Phase 2 watershed-wide Wet Season monitoring upon completion of the Phase 1 in-lake monitoring program. Regional Board staff is currently in discussion with LE/CL TMDL Task Force regarding this transition and are expected to identify reductions in Phase 1 monitoring program that will offset the costs of the enhanced Phase 2 program.

Lake Elsinore Nutrient TMDL	Final Total Phosphorus WLA (kg/yr)[b, c]	Final TN WLA (kg/yr)[c, d]
Urban	124 (273.3 lbs/yr)	349 (769.4 lbs/yr)
Septic systems	69 (152 lbs/yr)	608 (1340 lbs/yr)

[a] The Lake Elsinore TMDL WLAs for septic systems only apply to those land uses located downstream of Canyon Lake.

[b] Final compliance to be achieved by December 31, 2020.

[c] TMDL and WLA specified as 10-year running average.

[d] WLA for supplemental water should be met as a 5 year running average by December 31, 2020.

[e] WLA for Canyon Lake overflows

k. The LE/CL Permittees may demonstrate compliance with the WLAs using either of the following two methods:

i. Directly, using relevant monitoring data and approved and approved modeling procedures to estimate actual nitrogen and phosphorus loads being discharged to the lakes, or,

ii. Indirectly, using water quality monitoring data and other biological metrics approved by the Regional Board, to show Water Quality Standards are being consistently attained (as measured by the response targets identified in the LE/CL TMDL).

l. The TMDLs explicitly support the trading of pollutant allocations among sources to the extent that such allocation tradeoffs optimize point and non-point source control strategies to achieve the WQBELs in the most efficient manner.

VII. RECEIVING WATER LIMITATIONS

A. Urban Runoff discharges from the Permittees' MS4 shall not cause or contribute to exceedances of Receiving Water Quality Standards (as defined by Beneficial Uses and Water Quality Objectives in Chapter 4 of the Basin Plan) for surface waters or ground waters.

B. The DAMP and its components, including the LIPs, must be designed to achieve compliance with Receiving Water Limitations associated with discharges of Urban Runoff to the MEP. It is expected that compliance with Receiving Water Limitations will be achieved through an iterative process and the application of increasingly more effective BMPs.

C. The Permittees shall comply with Section V.B and VII.A of this Order, through timely implementation of control measures and other actions to reduce Pollutants in Urban Runoff in accordance with the DAMP and other requirements of this Order, including modifications thereto.

D. If exceedances of Water Quality Standards persist notwithstanding implementation of the DAMP and other requirements of this Order, the Permittees shall assure compliance with Sections V.B and VII.A of this Order, by complying with the following procedure:

1. Upon a determination by either the Permittees or the Executive Officer that the discharges from the MS4 are causing or contributing to an exceedance of an applicable Water Quality Standard, the Permittees shall:

   a. Promptly, within two (2) working days, provide oral or e-mail and thereafter submit a report to the Executive Officer that describes the BMPs that are currently being implemented and the additional BMPs that will be implemented to prevent or reduce those Pollutants that are causing or contributing to the exceedance of the applicable Receiving Water Quality Standards.

   b. The report may be incorporated in the annual update to the DAMP, unless the Executive Officer directs an earlier submittal.

   c. The report shall include an implementation schedule.

   d. The Executive Officer may require modifications to the report.

   e. Submit any modifications to the report required by the Executive Officer within 30 days of notification;

2. Within 30 days following approval by the Executive Officer of the report described above, the Permittees shall revise the DAMP, applicable LIPs, and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;

3. Implement the revised DAMP, applicable LIPs and monitoring program in accordance with the approved schedule.

4. If the exceedance is solely due to discharges to the MS4 from activities or areas outside the Permittees jurisdiction or control, the Permittees must, within two (2) working days of becoming aware of the situation, provide oral or e-mail notice to the Executive Officer of the determination of the exceedance and provide written documentation of these discharges to the Executive Officer within ten (10) calendar days of becoming aware of the situation.

5. So long as the Permittees have complied with the procedures set forth above and are implementing the revised LIP, DAMP, and monitoring program, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same Receiving Water Limitation unless the Executive Officer determines it is necessary to develop additional BMPs

6. Nothing in Section VII.D prevents the Regional Board from enforcing any provision of this Order while the Permittee prepares and implements the above report.

VIII. LEGAL AUTHORITY/ENFORCEMENT

A. The Permittees shall maintain adequate legal authority to control the discharge of Pollutants to the MS4 from Urban Runoff and enforce those authorities. This may be accomplished through ordinance, statute, permit, contract or similar means. Such legal authority must address all IC/IDs into the MS4, including those from residential, commercial, industrial and construction sites. The Permittees shall use the enforcement guidelines developed in Section 3.4 and 4.5 of the DAMP or develop their own enforcement program and shall incorporate the enforcement program into their LIP. Such legal authority must also at a minimum include and authorize the Permittees to:

1. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with their ordinances and permits. The Permittee must have authority, to the extent permitted by California and federal Law and subject to the limitations on municipal action under the constitutions of California and the United States, to enter, monitor, inspect, and gather evidence (pictures, videos, samples, documents, etc.) from residential, industrial, commercial, and construction sites discharging into the MS4 within the limits of its statutory authority. The Permittees shall progressively and decisively take enforcement actions against any violators of the Storm Water Ordinance. These enforcement actions must, at minimum, meet the guidelines and procedures listed in Sections 3.4 and 4.5 of the DAMP.

2. Control the contribution of Pollutants to the MS4;

3. Stop Pollutant discharge or threat of discharge if a discharger is unable or unwilling to correct significant non-compliance where there is a serious threat to public health or the environment;

4. Require the use of BMPs to prevent or reduce the discharge of Pollutants into MS4 consistent with the MEP standard.

5. Require documentation on the effectiveness of BMPs implemented to reduce the discharge of Pollutants to the MS4; and

6. The Co-Permittees' Storm Water Ordinances or other local regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include but are not limited to: oral and/or written warnings, notice of violation or non-compliance, administrative compliance orders, stop work or cease and desist order, a civil citation or injunction, the imposition of monetary penalties or criminal prosecution (infraction or misdemeanor). These sanctions shall be issued in a decisive manner within a predetermined timeframe, from the time of the violation's occurrence and/or follow-up inspection.

B. The Co-Permittees shall take progressive and decisive enforcement actions against violators of their Storm Water Codes and Ordinances, in accordance with the federal storm water regulations (40CFR, Part 122.26(d)(2)(I)(A-F)), and adopted/established guidelines and procedures as described in Section 3.4 of the DAMP. The Co-Permittees shall consider the time to return to compliance as one measure of effectiveness of their Storm Water Ordinances or enforcement response procedure. The Co-Permittees shall document these actions in their records (including electronic databases as outlined in the DAMP) and Annual Reports. The Co-Permittees shall use their authority to bring dischargers into immediate compliance with enforcement actions.

C. Within three (3) years of adoption of this Order, the Co-Permittees shall promulgate and implement ordinances that would control known pathogen or Bacterial Indicator sources such as animal wastes, if necessary.

D. The Co-Permittees shall continue to provide notification to the Executive Officer of storm water related information obtained during site inspections of construction and industrial sites regulated by the General Storm Water Permits and of sites that should be regulated under the General Storm Water Permits. The notification should include perceived violations of the General Storm Water Permits or local requirements, prior history of violations of the Permittee's Storm Water Ordinance, enforcement actions related to the Storm Water Ordinance taken by the Permittee, and other relevant information. In addition, Sections XVI.B of this Order addresses additional notification requirements for construction, industrial and commercial sites not covered under the General Storm Water Permits. Notification shall not prevent or delay the Co-Permittees from independently taking appropriate actions to bring Construction Sites and Industrial Facilities into compliance with their local ordinances, rules, regulations and WQMP.

E. The Permittees are encouraged to enter into interagency agreements with owners of other MS4, such as CalTrans, school and college districts, universities, Department of Defense, Native American Tribes, etc., to control the contribution of Pollutants into their

MS4 from the non-Permittee MS4. The Regional Board will continue to notify the owner/operator of the MS4 systems and the Permittee if the Board issues a permit for discharges into the MS4.

F. The Co-Permittees shall annually review their Storm Water Ordinances and provide findings within the Annual Report on the effectiveness of these ordinances and enforcement programs in prohibiting the following types of discharges to the MS4 (the Co-Permittees may propose appropriate BMPs in lieu of prohibiting these discharges, where the Co-Permittees are responsible for ensuring that dischargers adequately maintain those BMPs):

1. Sewage, where a Co-Permittee operates the sewage collection system (also prohibited under the Statewide SSO Order[38]);
2. Wash water resulting from the hosing or cleaning of gas stations, auto repair garages, and other types of automobile service stations;
3. Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility, including motor vehicles, concrete mixing equipment, portable toilet servicing, etc.;
4. Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet/upholstery cleaning, pool cleaning and other such mobile commercial and industrial activities;
5. Water from cleaning of municipal, industrial, and commercial sites, including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
6. Runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other Hazardous Materials[39];
7. Discharges of runoff from the washing of hazardous material from paved or unpaved areas;
8. Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine;
9. Pet waste, yard waste, litter, debris, sediment, etc.; and,
10. Restaurant or food processing facility wastes such as grease, floor mat and trash bin wash water, food waste, etc.

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[38] State Board WQO No. 2006-0003.

[39] Hazardous material is defined as any substrate that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by EPA to be reported if a designed quantity of the material is spilled into the waters of the United States or emitted into the environment.

G. Within 24 months after Order adoption, each Co-Permittee shall submit a certification statement, signed by its legal counsel, that the Co-Permittee has obtained all necessary legal authority in accordance with 40 CFR 122.26(d)(2)(i) (A-F) and to comply with this Order through adoption of ordinances and/or municipal code modifications. A copy of the certification shall also be placed in the LIP.

H. Annually thereafter, Permittees shall evaluate the effectiveness of implementation and enforcement response procedures with respect to the above items. The findings of these reviews, along with recommended corrective actions, where appropriate, and schedules shall be submitted as part of the Annual Report for the corresponding reporting period. The LIP shall be updated accordingly.

IX. ILLICIT CONNECTIONS/ILLEGAL DISCHARGES (IC/ID); LITTER, DEBRIS AND TRASH CONTROL

A. Consistent with each Co-Permittees statutory authority, the Co-Permittees have adopted Storm Water Ordinances. The Co-Permittees must continue to prohibit IC/IDs to the MS4 through their Storm Water Ordinances and the Principal Permittee must do so through its statutory authority. In addition, the Permittees must continue to implement and improve routine inspection and monitoring and reporting programs for their MS4 facilities. If routine inspections or Dry Season monitoring indicate IC/IDs, they must be investigated and eliminated or permitted within sixty (60) calendar days of receipt of notice by its staff or from a third party.

B. The Permittees upon being put on notice by staff or a third party must immediately (within 24 hours of receipt of notice by its staff or from a third Party) investigate all spills, leaks, and/or other illegal discharges to the MS4. Based upon their assessment and as specified below, the Permittees must provide notifications and reporting as described in Section 4 of the DAMP and Section XVI of this Order.

C. The Permittees shall control Illegal Dumping that may result in a discharge of Pollutants to the MS4 to the MEP. The Permittees shall describe their procedures and authorities for managing Illegal Dumping in their LIP.

D. Within 18 months of adoption of this Order, the Permittees shall review and revise their IC/ID program to include a pro-active IDDE using the Guidance Manual for Illicit Discharge, Detection, and Elimination by the Center for Watershed Protection[40] or any

[40] USEPA (Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments) by the Center for Watershed Protection and Robert Pitt, University of Alabama, October 2004, updated 2005).

other equivalent program consistent with Section IX.E below. The result of this review shall be reported in the Annual Report and include a description of the Permittees' revised pro-active program, procedures and schedules. The LIP shall be updated accordingly.

E. The Permittees' revised IC/ID programs shall specify an IDDE program for each Co-Permittee to individually, or in combination:

   a. Develop an inventory and map of Permittee MS4 facilities and Outfalls to Receiving Waters.

   b. Develop a schedule to be submitted within 18 months to conduct and implement systematic investigations of MS4 open channels and Major Outfalls.

   c. Use field indicators to identify potential Illegal Discharges, if applicable;

   d. Track Illegal Discharges to their sources[41] where feasible; and

   e. Educate the public about Illegal Discharges and Pollution Prevention where problems are found.

F. The Permittees shall continue to integrate IC/ID detection and elimination into their inspection programs, training of Permittee staff, and monitoring data collection and other indicator data.

G. The Permittees shall annually review and evaluate their IC/ID program, including litter/trash BMPs, to determine if the program needs to be adjusted. Findings of the review and evaluation shall be submitted with the Annual Report.

H. The Permittees shall maintain a database summarizing IC/ID incident response (including IC/IDs detected as part of field monitoring activities). This information shall be updated on an ongoing basis and submitted with the Annual Report.

I. The Permittees shall control, consistent with the MEP standard, Illegal Discharges (including the discharge of spills, leaks, or dumping of any materials other than storm water and authorized non-storm water) into the MS4. All reports of Illegal Discharge shall be promptly investigated and reported as specified in Section XVI (Notification Requirements).

J. In the 2004-2005 Annual Report, the Permittees characterized trash, determined its main source(s) and developed and implemented appropriate BMPs to reduce and/or to eliminate the discharge of trash and debris to Waters of the US to the MEP. The BMPs should be continued and their effectiveness must be reported in the Annual Report.

K. Where non-jurisdictional IC/IDs within a Permittees jurisdiction are identified, the Permittees will notify the responsible party and the Executive Officer of the discharge.

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[41] Table 2: Land uses, Generating Sites and Activities that Produce Indirect Discharges from IDDE, A Guidance Manual for Program Development and Technical Assessments, October 2004 CWP.

X. SEWAGE SPILLS, INFILTRATION INTO THE MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, SEPTIC SYSTEM FAILURES, AND PORTABLE TOILET DISCHARGES

A. The Permittees shall continue to provide local sanitation districts 24-hour access to the MS4 to address sewage spills. The Permittees shall continue to work cooperatively with the local sewer agencies to determine and control the impact of infiltration from leaking sanitary sewer systems on Urban Runoff quality. Each Permittee shall implement control measures necessary to minimize infiltration of seepage from sanitary sewers to the MS4 through routine preventative maintenance of the MS4.

B. Each Permittee shall continue to cooperate and coordinate with the sewage collection/treatment agencies as described in Appendix I of the DAMP to swiftly respond to and contain sewage spills that may discharge into its MS4. Management and/or preventive measures shall continue to be implemented for sources including portable toilets, failing septic systems, and failing private laterals that may cause or contribute to Urban Runoff Pollution problems in Permittee jurisdictions.

C. Permittees who are regulated under the SSO Order No. 2006-0003-DWQ, shall continue to comply with that Order to control sanitary system overflows.

D. Permittees with septic systems in their jurisdiction shall maintain the inventory of septic systems within its jurisdiction completed in 2008. Updates to the inventory will be maintained by County Environmental Health via a database of new septic systems approved since 2008.

XI. CO-PERMITTEE INSPECTION PROGRAMS

The Permittee inspection programs are outlined in Sections 7 and 8 of the DAMP and describe some of the minimum inspection and enforcement procedures utilizing existing inspection programs, provides criteria for characterizing the significance of violations, criteria for prioritizing violations, appropriate response actions corresponding to the priority of violations and identifies the hierarchy of enforcement/compliance responses. Section 3.4 of the DAMP provides a framework to standardize the implementation and enforcement by the Co-Permittees of their respective Storm Water Ordinances. The Co-Permittees shall continue to enforce their respective Storm Water Ordinances consistent with the DAMP and this Order.

A. GENERAL REQUIREMENTS

1. The Co-Permittees shall continue to maintain and update a database inventory of all active Construction Sites, and Industrial and Commercial Facilities within their jurisdiction consistent with the database requirements of Section 7 and 8 of the DAMP. Construction Sites and Industrial and Commercial Facilities shall be

included in the database inventories regardless of whether the Construction Sites or Commercial and Industrial Facilities are subject to the General Construction Permit or the General Industrial Permit or other individual NPDES permit or WDRs.

2. The Co-Permittee inspection database inventory described in Section XI.A.1 shall be maintained in an electronic database format that may be made available to the Regional Board upon request (e.g. request via phone call, e-mail, letter, etc,). The database inventory must be consistent with the requirements of Sections 7 and 8 of the DAMP. Supporting paper (or electronic) files shall also be maintained and made available upon Regional Board request. Supporting files should include a record of inspection dates, the results of each inspection, photographs (if any), video (if any) and a summary of any enforcement actions taken. The inventory databases shall be updated on an annual basis and an electronic copy shall be provided with each Annual Report.
3. The Co-Permittee shall not issue an occupancy permit to an Industrial Facility or other license authorizing the facility to operate, unless the applicant is informed of the General Industrial Permit and that it may have to secure coverage under the General Industrial Permit. The Co-Permittees shall verify during Industrial Facility inspections whether a site has obtained necessary permit coverage under the General Industrial Permit.
4. If the Industrial Facility's SIC code falls under the mandatory category the Co-Permittee shall notify the Regional Board and the applicant that they may be required to obtain coverage under the General Industrial Permit.
5. Permits for Construction Sites shall not be granted until appropriate coverage under the General Construction Permit (s) is verified.
6. Perceived Non-filers for the General Storm Water Permits shall be reported consistent with Section XVI.E.
7. If a Co-Permittee receives notice by its staff or from a third party of a non-Emergency Situation representing a possible violation of the General Storm Water Permit or other permit issued by the State or Regional Board to an Industrial Facility or Construction Site, the Co-Permittee shall, within two (2) working days, provide oral or e-mail notice to Regional Board staff of the location within its jurisdiction where the incident occurred and describe the nature of the incident. After notifying the Regional Board, no further action is necessary regarding the General Storm Water Permits. However, each Co-Permittee shall take appropriate actions to bring an Industrial Facility or Construction Site into compliance with its Storm Water Ordinances.
8. The Co-Permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period. Regional

Board staff inspection information is available at www.ciwqs.ca.gov[42].

9. Each Co-Permittee shall respond to complaints received from third parties regarding Construction Sites and Industrial and Commercial Facilities in a timely manner to ensure that the sites are not a source of Pollutants to the MS4 and the Receiving Waters.
10. The Co-Permittees shall enforce their Storm Water Ordinances and permits at all Construction Sites and Industrial, and Commercial Facilities in a fair, firm and consistent manner. Sanctions for non-compliance as required under Section VIII (Legal Authority/Enforcement) shall be deemed adequate to bring the site into compliance with their Storm Water Ordinances and permits.
11. Each Co-Permittee shall document, evaluate and annually report the effectiveness of its enforcement procedures in achieving prompt and timely compliance with inspection programs. Sanctions for non-compliance shall be adequate to bring the site into compliance and to stop the Pollutant discharge consistent with the requirements of Section VIII of this Order.
12. The Principal Permittee and the County have implemented the CAP. Through the Riverside County Department of Environmental Health, the CAP addresses storm water compliance issues at restaurant facilities and businesses that must have a hazardous material permit for either storing, handling or generating hazardous materials. As described in Section 8 of the DAMP, the Permittees must either participate in the CAP or implement an equivalent inspection program. The cities of Corona and Riverside maintain such programs through their respective POTW pre-treatment programs that may be supplemented by the activities of the Department of Environmental Health during routine inspections. The County is establishing a stand-alone NPDES Storm water Compliance Inspection and Enforcement Program (CIEP) for Industrial and Commercial Facilities in the unincorporated areas of the County.
13. Where inspections and/or enforcement required by this Order are carried out on behalf of the Co-Permittee by other agencies or departments such as the County Department of Environmental Health, county and local fire departments, hazardous materials programs, code enforcement, industrial pretreatment, and building and safety, the Co-Permittee shall monitor and annually evaluate and report adequacy of program coverage and enforcement response in complying with this Order.
14. All inspectors shall be trained in accordance with Section XV.

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[42] To obtain access to the State database, registration at the following link is necessary: http://www.waterboards.ca.gov/water_issues/programs/ciwqs/chc_npdes.shtml. Contact information is available at http://www.waterboards.ca.gov/water_issues/programs/ciwqs/contactus.shtml.

B. CONSTRUCTION SITES

1. Each Co-Permittee shall include in the electronic database identified in Section XI.A.2 an inventory of all Construction Sites within its jurisdiction for which building or grading permits have been issued and activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar or stucco.

2. Each Permittee shall continue to prioritize Construction Sites within its jurisdiction as a high, medium or low threat to water quality. Evaluation of construction sites shall be based on factors, which shall include but not be limited to: soil erosion potential, project size, proximity and sensitivity of Receiving Waters and any other relevant factors. At a minimum, high priority Construction Sites shall include: sites disturbing 50 acres and greater; sites disturbing over 1 acre with Direct Discharge to Receiving Waters with CWA Section 303(d) listed waters for sediment or turbidity impairments; site specific characteristics[43] ; and any other relevant factor. At a minimum, medium priority construction sites shall include: sites disturbing between 10 to less than 50 acres of disturbed soil.

3. Each Permittee shall conduct Construction Site inspections for compliance with its ordinances (grading, WQMPs, etc.) and local permits (building, grading, etc.). The Permittees shall develop a checklist for conducting Construction Site inspections. Inspections of Construction Sites shall include, but not be limited to:

    a. Verification of coverage under the General Construction Permit (PRDs or Waste Discharge Identification Number [WDID]) during the initial inspection. As Permittees become aware of changes in ownership, they shall notify Regional Board staff.

    b. Ensure that the BMPs implemented on-site are effective for the appropriate phase of construction (preliminary stage, mass grading stage, streets and utilities stage etc.).

    c. Visual observations for Illegal Discharges, potential Illicit Connections, and potential Pollutant sources.

    d. Implementation and maintenance of BMPs required under local requirements.

    e. An assessment of the effectiveness of BMPs implemented at the site and the need for any additional BMPs.

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[43] The recently adopted General Construction Permit Order No. 2009-0009-DWQ includes risk-based characterization of construction sites based on site-specific conditions.

4. At a minimum, the inspection frequency shall include the following:

   a. During the Wet Season (October 1 through May 31 of each year), all high priority Construction Sites are to be inspected, in their entirety, once a month. All medium priority Construction Sites are to be inspected at least twice during the Wet Season. All low priority Construction Sites are to be inspected at least once during the Wet Season. Construction Sites that disturb less than one acre may be inspected on an as needed basis. When BMPs or BMP maintenance is deemed inadequate or out of compliance, an inspection frequency of at least once per week should be maintained until BMPs and BMP maintenance are brought into compliance.

   b. During the Dry Season (June 1 through September 30 of each year), all Construction Sites shall be inspected at a frequency sufficient to ensure that sediment and other Pollutants are properly controlled and that unauthorized, Non-storm Water discharges are prevented.

C. INDUSTRIAL FACILITIES

1. To establish priorities for inspection, the Permittees shall continue to prioritize Industrial Facilities within their jurisdiction as a high, medium, or low threat to water quality. Continual evaluation of these Industrial Facilities should be based on such factors as type of industrial activities (i.e., SIC codes), materials or wastes used or stored outside, Pollutant discharge potential, compliance history, facility size, proximity and sensitivity of Receiving Waters and any other relevant factors described in Section 8 of the DAMP. At a minimum, a high priority shall be assigned to: Industrial Facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); Industrial Facilities that handle or generate Pollutants for which the receiving water is impaired, facilities that have a significant potential to release pre-production plastics or nurdles into the environment, and Industrial Facilities with a high potential for or history of unauthorized, Non-storm Water discharges.
2. Each Co-Permittee shall conduct Industrial Facility inspections for compliance with its ordinances, permits and this Order. Industrial Facility inspections shall be consistent with Section 8 of the DAMP. If an inspection indicates the need for follow-up, Co-Permittee follow-up inspections shall include a review of the Industrial Facility's material and waste handling and storage practices, written documentation of Pollutant control BMP implementation and maintenance procedures, digital photographic documentation of water quality violations as well as evidence of past or present unauthorized, Non-storm Water discharges and enforcement actions issued at the time of the Co-Permittee inspection. Report of inspections shall be included in the Annual Report and shall provide the basis for downgrading or upgrading priority ranking of Industrial Facilities.

3. All high priority Industrial Facilities are to be inspected at least once a year; all medium priority Industrial Facilities are to be inspected at least once every two years; and all low priority Industrial Facilities are to be inspected at least once during the term of this Order. In the event that inappropriate material or waste handling or storage practices are observed, or unauthorized, non-storm water discharges are observed, an enforcement order shall be issued and a re-inspection frequency adequate to bring the Industrial Facility into compliance must be maintained (at a minimum, once a month or within the compliance schedule prescribed by the Co-Permittee in a written notice to the discharger). Once compliance is achieved, a minimum inspection frequency of once every six months should be maintained for the annual reporting period.
4. Each Co-Permittee shall continually identify undocumented Industrial Facilities within its jurisdiction and shall add them to the database, as identified in Section XI.A.2. Additionally, each Industrial Facility shall be listed as per the criteria in specified in Section XI.C.1 within 15 days from the initial date of discovery of the Industrial Facility.
5. Each Permittee shall require Industrial Facilities to implement source control and pollution prevention measures consistent with the requirements of Section 8.of the DAMP.

D. COMMERCIAL FACILITIES

1. Each Permittee shall continue to implement the CAP or equivalent, pursuant to Section 8. of the DAMP and Section XI.A.9 (complaints) of this Order; Section 8 shall be modified to clarify the types of facilities specifically addressed by the CAP. Within 18 months, the Co-Permittees shall also identify any facilities that transport, store or transfer pre-production plastic pellets and managed turf facilities (e.g. private golf courses, athletic fields, cemeteries, and private parks) within their jurisdiction and determine if these facilities warrant additional inspection to protect water quality.
    2. The Permittees shall continue to develop BMPs applicable for each of the Commercial Facilities described in Section 8 of the DAMP.
    3. The Co-Permittees shall continue to prioritize Commercial Facilities within their jurisdiction as a high, medium, or low threat to water quality based on such factors as the type, magnitude, and location of the commercial activity, proximity and sensitivity of Receiving Waters, potential for discharge of Pollutants to the MS4, Commercial Facilities that handle or generate Pollutants for which the Receiving Water is Impaired, frequency of inspections and facilities with a high potential for or history of unauthorized, Non-storm Water discharges.
    4. All high priority Commercial Facilities shall be inspected at least once per year; all medium priority Commercial Facilities shall be inspected at least every two years; and all low priority Commercial Facilities shall be inspected at least once during the

term of this Order. At a minimum, each Commercial Facility shall be required to implement source control and pollution prevention BMPs consistent with the requirements of Section 8 of the DAMP. Co-Permittee follow-up inspections should include a review of BMPs implemented, their effectiveness and maintenance; written and photographic documentation of materials and waste handling and storage practices; evidence of past or present unauthorized, Non-storm Water discharges; and an assessment of management/employees awareness of storm water pollution prevention measures.

5. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, Non-storm Water discharges, a written enforcement order shall be issued at the time of the initial inspection for CAP equivalent inspection programs or at the time of the CAP follow-up inspection, to bring the Commercial Facility into compliance.
6. Within 18 months of adoption of this Order, the Co-Permittee shall notify all mobile businesses based within their jurisdiction concerning the minimum Source Control and Pollution Prevention BMPs that they must develop and implement. For purposes of this Order, mobile businesses include: mobile auto washing/detailing; equipment washing/cleaning; carpet, drape, furniture cleaning; and mobile high pressure or steam cleaning activities that are based out of a Co-Permittee's jurisdiction. The mobile businesses shall be required to implement appropriate BMPs within 3 months of being notified by the Co-Permittees. The Co-Permittees shall also notify mobile businesses discovered operating within their jurisdiction.
7. Within 24 months of adoption of this Order, the Co-Permittees shall develop an enforcement strategy to address mobile businesses.
8. The Co-Permittees should continue to maintain the CAP restaurant inspection program, or equivalent. Inspections for Commercial Facilities with restaurants shall, at a minimum, address:
    a. Oil and grease disposal to verify that these wastes are not poured onto a parking lots, streets or adjacent catch basins;
    b. Trash bin areas, to verify that these areas are clean, the bin lids are closed, the bins are not used for liquid waste disposal and wash water from the bins is not disposed of into the MS4;
    c. Parking lot, alley, sidewalk and street areas to verify that floor mats, filters and garbage containers are not washed in those areas and that no wash water is disposed of in those areas;
    d. Parking lot areas to verify that they are cleaned by sweeping, not by hosing down, and that the facility operator uses dry methods for spill cleanup; and,
    e. Violations of the Storm Water Ordinance shall be enforced by the jurisdictional Co-Permittee.

E. RESIDENTIAL PROGRAM

1. Within 18 months of adoption of this Order, each Co-Permittee shall develop and implement a residential program consistent with these requirements to reduce the discharge of Pollutants from residential activities to the MS4, consistent with the MEP standard.
2. The Co-Permittees shall identify residential activities that are potential sources of Pollutants and develop and/or enhance Fact Sheets/BMPs as appropriate. At a minimum, this should include: residential auto washing and maintenance activities; use and disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet wastes. The Permittees shall distribute the Fact Sheets/BMPs and appropriate information from organizations such as the Riverside-Corona Resource Conservation District[44] and USDA's Backyard Conservation Program[45] to the residents to ensure that discharges from the residential areas are not causing or contributing to a violation of Water Quality Standards in the Receiving Waters.
3. The Co-Permittees, collectively or individually, shall facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes. The Permittees should continue distribution of information regarding the dates and locations of temporary and permanent household hazardous waste and antifreeze, oil, battery and paint collection events and facilities, and financial support of household hazardous waste and antifreeze, oil, battery and paint collection facilities and events or curbside or special collection sites managed by the Co-Permittees or private entities, such as solid waste haulers.
4. The Regional Board recommends continuation of Co-Permittee efforts to coordinate with local water purveyors and other stakeholders to encourage efficient irrigation and minimize runoff from residential areas.
5. The Co-Permittees shall enforce their Storm Water Ordinance as appropriate to control the discharge of Pollutants associated with residential activities.
6. Each Co-Permittee shall include an evaluation of its residential program in the Annual Report starting with the second Annual Report after adoption of this Order.

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[44] The Riverside-Corona Resource Conservation District (RCRCD) provides gardening and horticulture information appropriate for the area including native plant selection, backyard management, alternatives to pesticide, irrigation scheduling and composting. The RCRCD is sponsored by the cities and county of Riverside Only Rain Down the Storm Drain Pollution Prevention Program.

[45] Backyard Conservation, Bringing Conservation from the Countryside to Your Backyard, USDA Natural Resources Conservation Service, National Association of Conservation Districts, Wildlife Habitat Council and National Audubon Society.

XII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT REDEVELOPMENT)

A. GENERAL REQUIREMENTS:

1. Each Co-Permittee, consistent with the DAMP, and requirements of this Order, when considering any map or permit for a New Development or Significant Redevelopment project for which discretionary approval is sought, must continue to require such map or permit to obtain coverage under the General Construction Permit, where applicable, prior to the issuance of grading or construction permits. Each Co-Permittee shall specify its verification procedure and any tools utilized for this purpose in its LIP.

2. Each Co-Permittee must continue to implement those BMPs identified in Section 7.1 of the DAMP. Each Permittee shall ensure that the erosion and sediment control plans it approves include appropriate erosion and sediment control BMPs (i.e., erosion measures for slopes greater than a certain length or hill-side developments, ingress/egress controls, perimeter controls, run-on diversion, if significant) such that a distinct and effective combination of BMPs consistent with site risk is implemented through all phases of construction.

3. The land use approval process of each Co-Permittee must continue to require post-construction BMPs, Source Control BMPs and Treatment Control BMPs and identify their locations and long-term maintenance responsibilities consistent with the requirements of this Order.

4. Each Permittee shall ensure, consistent with the MEP standard and within the limits of its legal authority, that runoff from New Development and Significant Redevelopment projects not regulated under this Order but that require encroachment permits for connections to the MS4 regulated under this Order are consistent with the requirements of this Order including the model WQMP for the Permit Area.
5. Each Permittee shall ensure that appropriate BMPs to reduce erosion and mitigate Hydromodification are included in the design for replacement of existing culverts or construction of new culverts and/or bridge crossings to the MEP[46].
6. Each Permittee shall ensure, consistent with the MEP standard, that runoff from development projects it approves, does not cause nuisance to adjoining downstream properties and stream channels.
7. Each Permittee shall ensure to the MEP that MS4s[47] are appropriately maintained consistent with Section XIV of this Order or are adequately maintained by a legally responsible party.

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[46] This type of project may require a CWA Section 404 Permit.

8. Each Permittee shall require applicants to minimize the short and long-term adverse impacts on Receiving Water quality from New Development and Significant Redevelopment maps or permits where discretionary approval is sought, as required in Section XII.D below, by: (1) continuing to review, approve, and verify implementation of project-specific WQMPs, implementation of LID principles, where feasible; (2) addressing HCOCs; and (3) ensuring that long term BMP operation and maintenance mechanisms are in place prior to project closure or issuance of certificates of occupancy.

9. The requirements of Section XII.D below shall apply to Permittee projects that meet the New Development and Significant Redevelopment criteria.

10. Each Permittee shall participate in the development of a Watershed Action Plan, described in Section XII.B, below, to integrate water quality, stream protection and storm water management and use within the Permit Area with land use planning policies, ordinances, and plans.

B. WATERSHED ACTION PLAN

1. An integrated watershed management approach may facilitate integration of planning and project approval processes with water quality and quantity control measures. Management of the impacts of Permit Area urbanization on water quality and stream stability is more effectively done on a per-site, neighborhood and municipal basis based on an overall watershed plan. Pending completion of the Watershed Action Plan consistent with this section, management of the impacts of urbanization shall be accomplished using existing programs. The Permittees shall develop a Watershed Action Plan to address the entire Permit Area. The Permittees may choose to develop sub-watershed action plans based on the overall Watershed Action Plan in the future based on new 303(d) impairments, TMDL requirements, or other factors.

2. The Permittees shall develop and submit to the Executive Officer for approval a Watershed Action Plan that describes and implements the Permittees' approach to coordinated watershed management. The objective of the Watershed Action Plan is to address watershed scale water quality impacts of urbanization in the Permit Area associated with Urban TMDL WLAs, stream system vulnerability to Hydromodification from Urban Runoff, cumulative impacts of development on

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[47] Urban runoff conveyance systems created or resulting from development projects approved by Permittees.

vulnerable streams, preservation of Beneficial Uses of streams in the Permit Area, and protection of water resources, including groundwater recharge areas.

3. Within three years of Permit adoption, the Co-Permittees shall develop the Watershed Action Plan and implementation tools to address impacts of urbanization in a holistic manner. At a minimum, the Watershed Action Plan shall include the following:

   a. Describe proposed Regional BMP approaches that will be used to address Urban TMDL WLAs.

   b. Develop recommendations for specific retrofit studies of MS4, parks and recreational areas that incorporate opportunities for addressing TMDL Implementation Plans, Hydromodification from Urban Runoff and LID implementation.

   c. Description of regional efforts that benefit water quality (e.g. Western Riverside County Multiple Species Habitat Conservation Plan, TMDL Task Forces, Water Conservation Task Forces, Integrated Regional Watershed Management Plans) and their role in the Watershed Action Plan. The Permittees shall describe how these efforts link to their Urban Runoff Programs and identify any further coordination that should be promoted to address Urban WLA or Hydromodification from Urban Runoff to the MEP.

4. Within two years of adoption of this Order, the Permittees shall delineate existing unarmored or soft-armored stream channels in the Permit Area that are vulnerable to Hydromodification from New Development and Significant Redevelopment projects.

5. Within two years of completion of the delineation in Section XII,B.4 above, develop a Hydromodification management plan (HMP) describing how the delineation will be used on a per project, sub-watershed, and watershed basis to manage Hydromodification caused by urban runoff. The HMP shall prioritize actions based on drainage feature/susceptibility/risk assessments and opportunities for restoration.

   a. The HMP shall identify potential causes of identified stream degradation including a consideration of sediment yield and balance on a watershed or sub-watershed basis.

   b. Develop and implement a HMP to evaluate Hydromodification impacts for the drainage channels deemed most susceptible to degradation. The HMP will identify sites to be monitored, include an assessment methodology, and required follow-up actions based on monitoring results. Where applicable, monitoring sites may be used to evaluate the effectiveness of BMPs in preventing or reducing impacts from Hydromodification.

6. Identify Impaired Waters [CWA § 303(d) listed] with identified Urban Runoff Pollutant sources causing impairment, existing monitoring programs addressing those Pollutants, any BMPs that the Permittees are currently implementing, and any BMPs the Permittees are proposing to implement consistent with the other requirements of this Order. Upon completion of XII.B.4, develop a schedule to implement an integrated, world-wide-web available, regional geodatabase of the impaired waters [CWA § 303(d) listed], MS4 facilities, critical habitat preserves defined in the Multiple Species Habitat Conservation Plan and stream channels in the Permit Area that are vulnerable to Hydromodification from Urban Runoff.

7. Develop a schedule to maintain the geodatabase required in Section XII.B.4 and other available and relevant regulatory and technical documents associated with the Watershed Action Plan.

8. Within three years of adoption of this Order, the Watershed Action Plan shall be submitted to the Executive Officer for approval and incorporation into the DAMP. Within six months of approval, each Permittee shall implement applicable provisions of the approved revised DAMP and incorporate applicable provisions of the revised DAMP into the LIPs for watershed wide coordination of the Watershed Action Plan.

9. The Permittees shall also incorporate Watershed Action Plan training, as appropriate, including training for upper-level managers and directors into the training programs described in Section XV. The Co-Permittees shall also provide outreach and education to the development community regarding the availability and function of appropriate web-enabled components of the Watershed Action Plan.

10. Invite participation and comments from resource conservation districts, water and utility agencies, state and federal agencies, non-governmental agencies and other interested parties in the development and use of the Watershed Geodatabase;

C. INCORPORATION OF WATERSHED PROTECTION PRINCIPLES INTO PLANNING PROCESSES

1. Within 24 months of adoption of this Order, each Co-Permittee shall review its General Plan and related documents including, but not limited to its development standards, zoning codes, conditions of approval and development project guidance to eliminate any barriers to implementation of the LID principles and HCOC discussed in Section XII.E of this Order. The results of this review along with any proposed action plans and schedules shall be reported in the Annual Report for the corresponding reporting year. Any changes to the project approval process or procedures shall be reflected in the LIP.

2. The Co-Permittees shall continue to ensure that their General Plan and related land use ordinances and land use approval processes (including, but not limited to, its approved development standards, zoning ordinances, standard conditions of approval, or project development guidelines) ensure the principles and policies enumerated below are properly considered and are incorporated, as appropriate, into the land use approval process to the MEP:

   a. Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; minimize significant adverse impacts from Urban Runoff on the biological integrity of natural drainage systems and water bodies;

   b. Minimize changes in hydrology and Pollutant loading; require incorporation of controls including Source Control and Treatment Control BMPs to mitigate any projected increases in Pollutant loads and flows; ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion and stream habitat; minimize the quantity of Urban Runoff directed to impermeable surfaces and the MS4; and maximize the percentage of permeable surfaces to allow more percolation of Urban Runoff into the ground;

   c. Preserve wetlands, riparian corridors, and buffer zones that provide important water quality benefits; establish reasonable limits on the clearing of vegetation from the project site;

   d. Encourage the use of BMPs to manage Urban Runoff quantity and quality, consistent with XII.C.1 above;

   e. Provide for appropriate permanent measures to reduce Pollutant loads in Urban Runoff from the development site; and

   f. Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

3. The Co-Permittees, when acting as a CEQA Lead Agency for a project requiring a CEQA document, must identify at the earliest possible time in the CEQA process resources under the jurisdiction by law of the Regional Board which may be affected by the project. The preliminary WQMP should identify the need for any CWA Section 401 certification. The Co-Permitees should coordinate project review with Regional Board staff pursuant to the requirements of CEQA. Upon request by Regional Board staff, this coordination shall include the timely provision of the discharger's identity and their contact information and the facilitation of early-consultation meetings.

4. The following potential impacts shall be considered during CEQA review:

   a. Potential impact of project construction on Urban Runoff.

   b. Potential impact of project's post-construction activity on Urban Runoff.

c. Potential for discharge of Pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor areas.

d. Potential for discharge of Urban Runoff to affect Beneficial Uses of the Receiving Waters.

e. Potential for significant changes in the flow velocity and/or volume of Urban Runoff that could cause environmental harm.

f. Potential for significant increases in erosion of the project site or surrounding areas.

5. Each Permittee shall provide the Regional Board with the draft amendment or revision when a pertinent General Plan element or the General Plan is noticed for comment in accordance with Govt. Code § 65350 et seq.

D. WATER QUALITY MANAGEMENT PLAN (WQMP) FOR URBAN RUNOFF (FOR NEW DEVELOPMENT/ SIGNIFICANT REDEVELOPMENT):

1. Each Permittee shall continue to require project-specific WQMPs for those maps and permits described below for which discretionary approval is sought and as further described in Section 6 and Appendix O of the DAMP. Within 18 months of adoption of this Order, the Permittees shall submit a revised WQMP to incorporate new elements required in this Order. The primary objective of the WQMP, by addressing Site Design, Source Control and Treatment Control BMPs applied on a regional, sub-regional or site specific basis, is to ensure that the land use approval process of each Co-Permittee will minimize Pollutant loads in Urban Runoff from maps or permits for which discretionary approval is given.
2. Each Co-Permittee shall ensure that an appropriate WQMP is prepared for the following categories of New Development and Significant Redevelopment projects for which a map or permit for discretionary approval is sought:

a. *All significant re-development projects:* Significant re-development is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site. Significant Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site.

Where redevelopment results in an increase of fifty percent or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development.

b. For purposes of this Order, the categories of development identified below, shall be collectively referred to as "New Development".

   i. New developments that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial and industrial projects and residential housing subdivisions requiring a Final Map. (i.e., detached single family home subdivisions, multi-family attached subdivisions, condominiums, apartments, etc.); mixed use and public projects (excluding Permittee road projects). This category includes development projects on public and private land, which fall under the planning and building authority of the Co-Permittees.

   ii. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532-7534, 7536-7539).

   iii. Restaurants (with SIC code 5812) where the land area of development is 5,000 square feet or more.

   iv. Hillside developments disturbing 5,000 square feet or more which are located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more.

   v. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into ESAs.

   vi. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary parking or storage of motor vehicles.

   vii. Retail Gasoline Outlets (RGOs) that are either 5,000 square feet or more with a projected average daily traffic of 100 or more vehicles per day.

   viii. Emergency public safety projects in any of the above-listed categories may be excluded if the delay caused due the requirement for a WQMP compromises public safety, public health and/or environmental protection.

3. WQMPs shall include BMPs (on-site and/or watershed-based), for the discharge of any urban sourced 303(d) listed Pollutant to an Impaired Waterbody on the 303(d) list such that the discharge shall not cause or contribute to an exceedance of Receiving Water Quality Objectives.

4. Treatment Control BMPs shall be in accordance with the approved WQMP and must be sized to comply with one of the following numeric sizing criteria:

a. VOLUME - Volume–based Treatment Control BMPs shall be designed to infiltrate, filter, or treat either:

   i. The volume of runoff produced from a 24-hour, 85th percentile storm event, as determined from the County of Riverside's 85th Percentile Precipitation Isopluvial Map; or,

   ii. The volume of annual runoff produced by the 85th percentile, 24-hour rainfall event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998); or,

   iii. The volume of annual runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in California Storm Water Best Management Practices Handbook – Industrial/Commercial (1993); or,

   iv. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in Pollutant loads and flows as achieved by mitigation of the 85th percentile, 24-hour runoff event;

   OR

b. FLOW - Flow-based BMPs shall be designed to infiltrate, filter, or treat either:

   i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or,

   ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or,

   iii. The maximum flow rate of runoff, as determined from the local historical rainfall record that achieves approximately the same reduction in Pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

5. Within 24 months of adoption of this Order, the Permittees shall develop a procedure for streamlining regulatory agency approval of regional Treatment Control BMPs. The recommendations should include information needed to be submitted to Regional Board for consideration of regional Treatment Control BMPs. At a minimum, it should include: BMP location; type and effectiveness in removing Pollutants of Concern; projects tributary to the regional treatment system; engineering design details; funding sources for construction, operation and maintenance; and parties responsible for monitoring effectiveness, operation and maintenance.

6. The Permittees shall continue to require other development projects for which a map or permit for discretionary approval is sought (projects that are not New Developments or Significant Re-developments required to develop project-specific

WQMPs) to incorporate conditions of approval, to require appropriate Site Design, Source Control and any other BMPs which may or may not include Treatment Control BMPs.

7. The Permittees shall ensure that the revised WQMP addresses:
   a. A review and update of Source Control BMPs required for New Development and Significant Redevelopment.
   b. Update of the list of Treatment Control BMPs, including an evaluation of their effectiveness based on national, statewide or regional studies.
8. Groundwater Protection:

   Treatment Control BMPs utilizing infiltration [exclusive of incidental infiltration and BMPs not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.)] must comply with the following minimum requirements to protect groundwater:

   a. Use of structural infiltration Treatment Control BMPs shall not cause or contribute to an exceedance of groundwater Water Quality Objectives.
   b. Use of structural infiltration Treatment Control BMPs shall not cause a Nuisance or pollution as defined in Water Code Section 13050.
   c. Use of structural infiltration Treatment Control BMPs shall not be used in areas of known soil or groundwater contamination[48], without written authorization from the Regional Board Executive Officer.
   d. Located at least 100 feet horizontally from any water supply well.
   e. The vertical distance from the bottom of any infiltration structural Treatment Control BMP to the historic high groundwater mark shall be at least 10 feet. Where the groundwater basins do not support Beneficial Uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.
   f. Source Control and Pollution Prevention BMPs shall be implemented to protect groundwater quality.
   g. Adequate pretreatment of runoff prior to infiltration shall be required in gas stations and large commercial parking lots.
   h. Unless adequate pre-treatment of runoff is provided prior to infiltration, structural infiltration Treatment Control BMPs must not be used for areas of industrial or light industrial activity, such as: areas subject to high vehicular traffic (25,000 or more daily traffic), car washes; nurseries; or any other high threat to water quality land uses or activities.

[48] Extra diligence should also be performed when proposing infiltration BMPs in areas where the proposed land use is often associated with soil and groundwater contamination.

i. Class V injection wells or dry wells must not be placed in areas subject to vehicular[49] repair or maintenance activities[50], such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.

E. LOW IMPACT DEVELOPMENT (LID) AND HYDROMODIFICATION MANAGEMENT TO MINIMIZE IMPACTS FROM NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT PROJECTS:

1. Within 18 months of adoption of this Order, the Permittees shall update the WQMP to address LID principles and HCOC consistent with the MEP standard. A copy of the updated WQMP shall be submitted to the Executive Officer for approval. Within six months of approval, each Permittee shall implement the updated WQMP. Onsite LID principles as close to Pollution sources as possible shall be given preference, however, project site, sub-regional or regional LID principles may also be applied.

2. The Permittees shall require those projects identified in Section XII.D.2. to infiltrate, harvest and use, evapotranspire and/or bio-treat[51] the 85th percentile storm event ("Design Capture Volume"). The Design Capture Volume should be calculated as specified in Section XII.D.4.a, above. It is recognized that LID principles are not universally applicable and they are dependent on factors such as: soil conditions including soil compaction and permeability, groundwater levels, soil contaminants (Brownfield development), space restrictions (in-fill projects, redevelopment projects, high density development, transit-oriented developments), highest and best use of Urban Runoff (to support downstream uses), etc. Any portion of this volume that is not infiltrated, harvested and used, evapotranspired, and/or bio-treated shall be treated and discharged in accordance with the requirements set forth in Section XII.G, below.

3. The Permittees shall incorporate LID site design principles into the revised WQMP to reduce runoff to a level consistent with the MEP standard. The Co-Permittees

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[49] Vehicles include automobiles; motor vehicles include trucks, trains, boats, motor cycles, farm machineries, airplanes, and recreation vehicles such as snow mobiles, all terrain vehicles, and jet skis.

[50] United States Environmental Protection Agency, Office of Water, EPA 816-R-00-008, September 2000 *State Implementation Guidance - Revisions to the UIC Regulations for Class V Injection Wells and* "Class V Rule" (*Revisions to the Underground Injection Control Regulations for Class V Injection Wells*, 64 FR 68546) *indicate that these activities are prohibited from Class V injection wells.*

[51] A properly engineered and maintained bio-treatment system may be considered only if infiltration, harvesting and use and evapotranspiration cannot be feasibly implemented at a project site (feasibility criteria will be established in the WQMP [Section XII.G.1]. Specific design, operation and maintenance criteria for bio-treatment systems shall be part of the WQMP that will be produced by the Permittees.

shall require that New Development and Significant Redevelopment projects include Site Design BMPs during the development of the project-specific WQMP. The design goal shall be to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed infiltration, retention, detention, evapotranspiration, filtration and treatment systems. The revised WQMP should continue to consider Site Design BMPs described in Appendix O of the DAMP and LID principles described in the pending Southern California Stormwater Monitoring Coalition/CASQA *LID Guidance Manual for Southern California*.

4. Within 18 months of adoption of this Order, each Permittee shall revise, where feasible its ordinances, codes, building and landscape design standards to promote green infrastructure/LID techniques including, but not limited to, the following:

   a. Landscaping designs that promote longer water retention and evapotranspiration such as 1 foot depth of compost/top soil in commercial and residential areas on top of 1 foot of non-compacted subsoil, concave landscape grading to allow runoff from impervious surfaces, and water conservation by selection of water efficient native plants, weather-based irrigation controllers, etc.

   b. Allow permeable surface designs in low traffic roads and parking lots. This may require land use/building code amendment.

   c. Allow natural drainage systems for street construction and catchments (with no drainage pipes) and allow vegetated ditches and swales where feasible.

   d. Require landscape in parking lots to provide treatment, retention or infiltration.

   e. Reduce curb requirements where adequate drainage, conveyance, treatment and storage are available.

   f. Amend land use/building codes to allow no curbs, curb cuts and/or stop blocks in parking areas and residential streets with low traffic.

   g. Use of green roof, rain garden, and other green infrastructure in urban/suburban area.

   h. Allow rainwater harvesting and use.

   i. Narrow streets provide alternatives to minimum parking requirements, etc. to facilitate LID where acceptable to public safety departments.

j. Consider vegetated landscape for storm water treatment as an integral element of streets, parking lots, playground and buildings.

k. Consider and facilitate application of landform grading techniques[52] and revegetation as an alternative to traditional approaches, particularly in areas susceptible to erosion and sediment loss such as hillside development projects,

l. Other site design BMPs identified in the WQMP not included above.

5. Consistent with the requirements of AB 1881, each Co-Permittee is mandated to update its landscape ordinance. The bill requires the local agencies to adopt the State Model Water Efficient Landscape Ordinance[53] or prepare one that is "at least as effective" as the State Model by January 2010. The proposed state model ordinance applies to landscape requiring a building or landscape permit, plan check or design review. Each Permittee shall provide the Regional Board a copy of its report to Department of Water Resources (DWR).
6. Each Permittee shall implement effective education programs to educate property owners to use Pollution Prevention BMPs and to maintain on-site hydrologically functional landscape controls.
7. To reduce Pollutants in Urban Runoff, address Hydromodification, and manage Urban Runoff as a resource to the MEP, the revised WQMP shall specify preferential use of Site Design BMPs that incorporate LID techniques, where feasible, in the following manner (from highest to the lowest priority):
   a. Preventative measures (these are mostly non-structural measures, e.g., preservation of natural features to a level consistent with the MEP standard; minimization of Urban Runoff through clustering, reducing impervious areas, etc.) and
   b. Mitigation measures (these are structural measures, such as, infiltration, harvesting and use, bio-treatment, etc.).
8. The mitigation or structural Site Design BMPs shall also be prioritized (from highest to lowest priority):
   a. Infiltration BMPs (examples include permeable pavement with infiltration beds, dry wells, infiltration trenches, surface and sub-surface infiltration basins. The Permittees should work with local groundwater management agencies to ensure that infiltration Treatment Control BMPs are designed appropriately;

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[52] http://www.epa.gov/Region3/mtntop/pdf/appendices/d/aquatic-ecosystem-enhanc-symp/symposiumfinal.pdf

[53] http://www.owue.water.ca.gov/docs/final_reg_text.pdf

b. BMPs that harvest and use (e.g., cisterns and rain barrels); and

c. Vegetated BMPs that promote infiltration and evapotranspiration including bioretention, biofiltration and bio-treatment. Upon the Permittees' determination of LID infeasibility per Section XII.G, design capture volume specified in Section XII.D.4, that is not addressed by onsite or offsite LID *Site Design BMPs* as listed above shall be treated using *Treatment Control BMPs* as described in Section XII.G.

9. Hydrologic Condition of Concern (HCOC):

a. The Permittees shall continue to ensure, consistent with the MEP standard, through their review and approval of project-specific WQMPs that New Development and Significant Redevelopment projects do not pose a HCOC due to increased runoff volumes and velocities.

b. A New Development and Significant Redevelopment project does not cause a HCOC if any one of the following conditions is met:

i) The project disturbs less than one acre and is not part of a common plan of development.

ii) The volume and the time of concentration[54] of storm water runoff for the post-development condition is not significantly different from pre-development condition for a 2-year return frequency storms (a difference of 5% or less is considered insignificant). This may be achieved through Site Design and Treatment Control BMPs.

iii) All downstream conveyance channels to an adequate sump (e.g. Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River or other lake, reservoir or natural resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity, and no sensitive stream habitat areas will be affected; or not identified in the Permittees Hydromodification sensitivity maps required in Section XII.B.3, and no sensitive stream habitat areas will be affected.

iv) The Permittees may request a variance from these criteria based on studies conducted by the Southern California SMC, SCCWRP, CASQA, or other regional studies. Requests for consideration of any variances should be submitted to the Executive Officer.

c. If a HCOC exists, the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. This evaluation should include consideration of pre- and post-development hydrograph volumes, time of concentration and peak discharge velocities for a

[54] Time of concentration is defined as the time after the beginning of rainfall when all portions of the drainage basin are contributing simultaneously to flow at the outlet.

2-year storm event, construction of sediment budgets, and a sediment transport analysis. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional Site Design BMPs, on-site BMPs, Treatment Control BMPs and/or in-stream BMPs[55] to mitigate the impacts. The project proponent should first consider Site Design BMPs and on-site BMPs prior to proposing in-stream BMPs; in-stream BMPs must not adversely impact Beneficial Uses or result in sustained degradation of Receiving Water quality and shall require all necessary regulatory approvals[56]:

d. HCOC are considered mitigated if they meet one of the following conditions:

   i. Require additional onsite or offsite mitigation to address potential erosion or habitat impact using LID BMPs.

   ii. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC for the downstream Receiving Waters.

   iii. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

e. If site conditions do not permit items i, through iv, above, the alternatives and in-lieu programs discussed under Section XII.G, below, may be considered.

F. ROAD PROJECTS

1. Within 24 months of adoption of this Order, the Co-Permittees shall develop standard design and post-development BMP guidance to be incorporated into projects for streets, roads, highways, and freeway improvements, under the jurisdiction of the Co-Permittees to reduce the discharge of Pollutants from the projects to the MEP. The draft guidance shall be submitted to the Executive Officer for review and approval and shall meet the performance standards for site design/LID BMPs, Source Control and Treatment Control BMPs as well as the

[55] In-stream measures involve modifying the receiving stream channel slope and geometry so that the stream can convey the new flow regime without increasing the potential for erosion and aggradation. In-stream measures are intended to improve long-term channel stability and prevent erosion by reducing the erosive forces imposed on the channel boundary.

[56] In-stream control projects require a Stream Alteration Agreement from the California Department of Fish & Game, a CWA section 404 permit from the U.S. Army Corps of Engineers, and a section 401 certification from the Water Board. Early discussions with these agencies on the acceptability of an in-stream modification are necessary to avoid project delays or redesign.

HCOC criteria. The guidance and BMPs shall address streets, roads or highways under the jurisdiction of the Co-Permittees used for transportation of automobiles, trucks, motorcycles, and other vehicles, and excludes routine road maintenance activities where the surface footprint is not increased. The guidance shall incorporate principles contained in the USEPA guidance, "Managing Wet Weather with Green Infrastructure: Green Streets" to the MEP and at a minimum shall include the following:

a. Guidance specific to new road projects;

b. Guidance specific to projects for existing roads;

c. Size or impervious area criteria that trigger project coverage;

d. Preference for green infrastructure approaches wherever feasible;

e. Criteria for design and BMP feasibility analyses on a project-specific basis.

2. Within six months of approval by the Executive Officer, the Permittees shall implement the standard design and post-development BMP guidance for all road projects. Pending approval of the standard design and post-development BMP guidance, site specific WQMPs for streets road and highway projects shall be required pursuant to Section XII.D.2.

G. ALTERNATIVES AND IN-LIEU PROGRAMS

1. Within 18 months of adoption of this Order, the Permittees shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs which may include factors such as a groundwater protection assessment to determine if infiltration BMPs are appropriate for the site[57]. These criteria shall be submitted to the Executive Officer for approval. Only those projects that have completed a feasibility analysis as per the approved criteria should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the Pollution control benefits, the Co-Permittees may grant a waiver of the BMPs. All waivers, along with waiver justification documentation, must be submitted to the Executive Officer for approval in writing within 30 days prior to Permittee approval.

[57] Such feasibility determinations may be based on regional analyses conducted by the Permittees (see finding G-14) or on site specific conditions. Site specific determinations shall be certified by a Professional Civil Engineer registered in the State of California, and will be documented in the project WQMP, which shall be approved by the Permittee prior to submittal to the Executive Officer. Within 30 days of submittal to the Executive Officer, the Permittee will be notified if the Executive Officer intends to take any action.

If a waiver is granted, the Permittees shall ensure that project proponents participate in one of the in-lieu programs discussed in this section.

2. The Permittees may collectively or individually propose to establish an Urban Runoff fund to be used for urban water quality improvement projects within the same watershed that is funded by contributions from developers granted waivers. The contributions should be at least equivalent to the cost savings for waived projects and the urban runoff funds shall be expended for projects that provide at least an equivalent amount of water quality improvement (there shall be no net impact on water quality due to a waived project). If a waiver is granted and an Urban Runoff fund is established, the Annual Report for the year should include:
   a. Total amount deposited into the funds; and
   b. The party responsible for managing the Urban Runoff fund;
   c. Projects funded or proposed to be funded with monies from the urban runoff fund with details on expected water quality improvement;
   d. Party or parties responsible for designing, construction, operation and maintenance of urban runoff funded projects, and
   e. Current status and a schedule for project completion.

3. The obligation to install Treatment Control BMPs at a New Development or Significant Redevelopment project is met if, for a common plan of development, BMPs are constructed with the requisite capacity to serve the entire common project, even if certain phases of the common project may not have BMP capacity located on that phase in accordance with the requirements specified above. The goal of the WQMP is to develop and implement practicable programs and policies to minimize the effects of urbanization on site hydrology, Urban Runoff flow rates, velocities, duration and time of concentration and Pollutant loads. This goal may be achieved through watershed-based Treatment Control BMPs, in combination with site-specific BMPs. All Treatment Control BMPs should be located as close as possible to the Pollutant sources, should not be located within Waters of the US, and Pollutant removal should be accomplished prior to discharge to Waters of the US. Regional Treatment Control BMPs shall be operational prior to occupation of any of the New Development or Significant Redevelopment project sites tributary to the regional Treatment Control BMP.

4. The Permittees may establish, where feasible and practicable, a water quality credit system for alternatives to infiltration, harvesting and use, evapotranspiration and other LID and Hydromodification requirements specified above. The following types of projects may be included in this credit system:
   a. Redevelopment projects that reduces the overall impervious area
   b. Brownfield redevelopment

c. High density developments (>7 units per acre)

d. Mixed use and transit-oriented development (within ½ mile of transit)

e. Dedication of undeveloped portions of the project site to parks, preservation areas and other pervious uses

f. Regional treatment systems with a capacity to treat flows from all upstream developments

g. Offsite mitigation or dedicated mitigation areas within the same watershed

h. Highly urbanized areas such as city center area

i. Historic Districts and Historic Preservation areas

j. Live-work developments

k. In-fill projects

l. Projects that enhance the transport of coarse sediment to the coast for beach replenishment.

5. The water quality credit system should not result in a net impact on water quality.

6. A summary of waivers of LID (along with a short description of the Section XII.G.2 through XII.G4 In-Lieu program selected), Hydromodification and Treatment Control BMPs along with any water quality credit granted, in-lieu projects, or urban runoff fund contribution required by each Co-Permittee shall be included in the Annual Report.

H. APPROVAL OF WQMP

Within 18 months of adoption of this Order, each Permittee shall develop and implement standard procedures and tools and include in its LIP the following:

1. The Permittees shall utilize a mechanism for review and approval of WQMPs, including a checklist that incorporates the minimum requirements of the model WQMP. The process for review and approval shall be described in the Permittees LIP.

2. The Co-Permittees shall maintain a database to track structural post-construction BMPs (consistent with XII.K.4 below).

3. Continue to ensure that the entity(ies) responsible for BMP maintenance and the mechanism for BMP funding is identified prior to WQMP approval.

4. The Permittees shall train those involved with WQMP reviews in accordance with Section XV, Training Requirements.

I. FIELD VERIFICATION OF BMPS

1. The Co-Permittees' permit close-out procedures shall include field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved WQMP.
2. Prior to occupancy, the Co-Permittees shall verify through visual observation that the BMPs are working and functional.
3. The Co-Permittees may accept self-certification or third-party certification of BMPs from State-licensed professional engineers.

J. CHANGE OF OWNERSHIP AND RECORDATION

The Co-Permittees shall establish a mechanism to ensure that appropriate easements and ownerships are properly recorded in public records at the County and/or the city and the information is conveyed to all appropriate parties when there is a change in project or site ownership.

K. OPERATION AND MAINTENANCE OF POST-CONSTRUCTION BMPS

1. The Co-Permittees shall ensure that structural post construction BMPs are designed and implemented with control measures necessary to effectively minimize the creation of Nuisance or Pollution associated with vectors, such as mosquitoes, rodents, flies, etc. The Co-Permittee should work with the local vector agencies to ensure that structural post construction BMPs are designed to minimize the potential for vector breeding during operation and maintenance.
2. The Co-Permittees shall specify conditions of approval and as built inspections ensure that require proper maintenance and operation of any structural post construction BMPs including requirements for vector control.
3. The parties responsible for the maintenance and operation of the structural post construction BMPs, and a funding mechanism for operation and maintenance of structural post construction BMPs for the life of the project shall be identified prior to issuance of occupancy permits. Design of these structures shall allow adequate access for maintenance.
4. Each Co-Permittee shall maintain a database to track the operation and maintenance of the structural post construction BMPs installed after adoption of this Order. The database shall include: type of BMP; watershed where it is located; date of certification; party responsible for maintenance and any problems identified during inspection including any vector or nuisance problems.
5. Within 18 months of adoption of this order and annually thereafter, all Permittee-owned structural post construction BMPs installed after the date of this Order shall be inspected prior to the Rainy Season. The Co-Permittees shall also develop an

inspection frequency for New Development and Significant Redevelopment projects, based on the project type and the type of structural post construction BMPs deployed. Pursuant to XII.K.4, all New Development and Significant Redevelopment, structural post construction BMPs shall be inspected within the five-year Permit Term. The Co-Permittees shall ensure that the BMPs are operating and are maintained properly and all BMPs are working effectively to remove Pollutants in runoff from the site. If vector problems are identified, the Co-Permittees should work with the vector control agencies to remedy vector control problems. All inspections shall be documented and kept as Permittee record. The Co-Permittees may accept inspection reports conducted and certified by state licensed professional engineers in lieu of Co-Permittee inspections.

6. The Annual Report shall include a list of all structural post construction BMPs approved contained in the database required in XII.K.4 above.

L. PRE-APPROVED PROJECTS

The above provisions for LID and HCOC are not applicable to projects that have an approved WQMP as of the date of approval of the revised WQMP. The above provisions shall be implemented in a manner consistent with the MEP standard for all other projects 45 days from the date of approval of the revised WQMP. The Regional Board recognizes that full implementation may not be feasible for certain projects which have received tentative tract or parcel map or other discretionary approvals.

XIII. PUBLIC EDUCATION AND OUTREACH

A. The Permittees shall continue to implement the public education efforts already underway and shall continue to promote the most effective elements of the comprehensive public and business education strategy contained in the ROWD and Section 10 of the DAMP. As part of the Annual Report, the Permittees shall review their public education and outreach efforts and revise their activities to adapt to the needs identified in the annual reassessment of program priorities with particular emphasis on addressing the Pollutants of Concern. Results of this review shall direct the focus of its public education effort and cause recommendations for any changes to the public and business education program including: (1) how to make the multimedia efforts more effective; (2) a reevaluation of audiences and key messages for targeted behaviors; and (3) opportunities for participation in regional and statewide public education efforts. The goal of the public and business education program shall be to target 100% of the residents, including businesses, commercial and industrial establishments.

B. A status report on the requirements of this section and any changes to the on-going public education program shall be described in the Annual Report.

C. The Permittees shall implement an assessment program to measurably increase public knowledge of its communities regarding MS4 and impacts of Urban Runoff on Receiving Waters. The Permittees shall implement programs that can measure the change in behavior of its target communities to reduce Pollutant releases to the MS4 and the environment. A description of the program tasks, schedule and measurable goals shall be included in the first Annual Report due after adoption of this Order.

D. When feasible, the Permittees shall participate in joint outreach programs with other agencies including, but not limited to, the Santa Ana Watershed Project Authority, Caltrans, and other county and municipal storm water programs to ensure that a consistent message on storm water pollution prevention is disseminated to the public.

E. The Permittees shall continue to ensure that appropriate outreach materials are available for construction, industrial and commercial inspection programs. Outreach materials should be provided to Permittee inspectors for distribution to inspected facilities.

F. Within 18 months from the date of adoption of this Order, the Permittees shall ensure that they have developed, maintained and distributed BMP guidance for the control of those potentially polluting activities identified during the term of the 2002 MS4 Permit, which are not otherwise regulated by any agency, including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals, and guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting. These guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings and/or by mail.

G. The Permittees shall ensure that appropriate educational materials, including the BMP brochures, are provided to all new industrial and commercial enterprises within their jurisdiction at the time appropriate permits (e.g. business licenses or occupancy permits) are issued.

H. The Permittees shall continue to maintain, and if necessary enhance, public education materials to encourage the public to report: Illegal Dumping and unauthorized, non-storm water discharges from residential, industrial, construction and commercial sites into public streets, storm drains and to surface waterbodies and their tributaries; clogged storm drains; and faded stencils or missing catch basin markers. The Principal Permittee's hotline and web site shall provide guidance regarding where to locate information regarding general Urban Runoff pollution control measures. The hotline and website information shall be included in outreach materials and shall be listed in the governmental pages of prominent regional phone books and on the Co-Permittees' website.

I. The Permittees shall maintain a Public Education Committee to provide oversight and guidance for the implementation of the public education program. The Permittees shall

continue to participate in the Public Education Committee to review and update existing guidance for the implementation of the public education program. One of the functions of the Public Education Committee shall be to review outreach materials for construction, industrial and commercial inspection programs and residential outreach to ensure they appropriately address common violations observed during inspections. Once deficiencies are identified, alternative text to address the deficiency shall be developed within 6 months and reported in the Annual Report. The Public Education Committee shall meet at least twice per year.

J. The Permittees shall continue to sponsor or staff a table or booth at community, regional, and/or countywide events to distribute public education materials related to Urban Runoff pollution prevention to the public. Each Permittee shall participate in at least one event per year.

K. Successful implementation of the provisions and limitations in this Order will require the cooperation of all the public agency organizations within Riverside County having programs/activities that have an impact on Urban Runoff quality. This may include, but not be limited to, those listed in Appendix 2. As such, the Permittees should coordinate their efforts with those organizations where feasible and appropriate to ensure participation in implementing the requirements of this Order. The Permittees should notify the Regional Board where assistance is needed improving local cooperation.

L. Within 18 months of adoption of this Order, each Permittee shall develop BMP Fact Sheets for mobile businesses for distribution consistent with the requirements of Section XI.D.6. At a minimum, the mobile business Fact Sheets/training program should include: laws and regulations dealing with Urban Runoff and discharges to MS4; appropriate BMPs and proper procedures for disposing of Wastes generated from each mobile business category.

M. The Principal Permittee shall continue to develop and distribute BMP guidance for Permittee and contract field operations and maintenance staff to provide guidance in appropriate Pollution Prevention measures, how to respond to spills and reports of Illegal Discharges, etc.

XIV. PERMITTEE FACILITIES AND ACTIVITIES

A. Each Permittee shall continue to implement measures to ensure that their facilities and activities do not cause or contribute to a Pollution or Nuisance in Receiving Waters, as defined in Section 13050 of the Water Code. The Permittees must annually review their activities and facilities to determine the need for revisions to Section 5 of the DAMP and to their LIP. The Annual Report shall include the findings of this review and a schedule for any needed revisions. The Permittees should continue to use Facility Pollution Prevention Plans as noted in Chapter 5 of the DAMP to ensure that the Permittee facilities are not sources of Pollutants to the Waters of the US to the MEP.

B. Within 12 months of adoption of this Order, each Permittee shall review its inventory of fixed facilities listed in the DAMP, its field operations and MS4 facilities to ensure that Permittee facilities and activities are addressed by Facility Pollution Prevention Plans consistent with Chapter 5 of the DAMP and do not cause or contribute to a Pollution or Nuisance in Receiving Waters. Existing Facility Pollution Prevention Plans shall be reviewed to insure proper BMPs for these facilities. For Permittee facilities and/or activities tributary to CWA Section 303(d) Impaired Water Bodies that generate Pollutants for which the water body is Impaired, additional Pollutant-specific Source Control BMPs to target that Pollutant shall be identified and implemented in the Facility Pollution Prevention Plan to the MEP.

C. Each Permittee shall conduct inspections of its fixed facilities and field operations identified in Chapter 5 of the DAMP annually to ensure that they do not contribute Pollutants to Receiving Waters. The Permittees shall record the findings in the inspection forms developed by the Permittees. Each Permittee shall implement BMPs to manage the application, storage, and disposal of pesticides, herbicides, and fertilizers associated with their facilities and activities. At a minimum, the Facility Pollution Prevention Plans for these facilities and activities shall:

1. Ensure that Permittee applicators (including contractors) and distributors have appropriate training, permits, and certifications;
2. Utilize integrated pest management measures that rely on non-chemical solutions, to the extent practicable;
3. Promote the use of native vegetation into facility landscaping;
4. Include schedules for irrigation and chemical application to the extent feasible; and
5. Collect and properly dispose of unused pesticides, herbicides, and fertilizers.
6. The following BMP fact sheets are identified as minimum BMPs::
   i. SC-35/SC-61, Safer Alternative Products
   ii. SC-41, Building & Grounds Maintenance
   iii. SC-60, Housekeeping Practices
   iv. SC-73, Landscape Maintenance

D. Each Permittee shall review, update, and implement the individual clean out schedules and frequency for its MS4, including open channels, catch basins, retention/detention facilities and wetlands created for Urban Runoff treatment during the Wet and Dry Season to protect Receiving Water quality consistent with the MEP standard. The inspection and cleaning frequency for all portions of the specified MS4 shall be included in each Permittee's LIP and shall be evaluated annually to determine the need for adjusting the inspection and cleaning frequency. Each Permittee must clean those MS4 facilities where there is evidence of Illegal Discharge. In addition, each Permittee must clean those retention/detention basins and MS4 where the inspection reveals that the storage

volume is about 25% full or if accumulated sediment or debris impairs the hydraulic capacity of the facility.

E. Unless otherwise supported by field information, each Permittee shall at a minimum inspect, clean, and maintain at least 80% of its open channels, catch basins, retention/detention basins, and wetlands created for Urban Runoff treatment on an annual basis, with 100% of the facilities in a two year period. The MS4 clean out schedule shall continue to be included in the Annual Report.

F. Each Permittee shall examine opportunities to retrofit existing MS4 facilities with water quality protection measures, where feasible.

G. PERMITTEE COMPLIANCE WITH GENERAL PERMITS

1. GENERAL CONSTRUCTION PERMIT

a. All Permittee Construction Sites shall be in compliance with the latest adopted version of the General Construction Permit.

b. This Order authorizes the discharge of storm water runoff from Permittee Construction Sites that may result in land disturbance consistent with the acreage criteria of the General Construction Permit.

c. Prior to commencement of construction activities, the Permittees shall notify the Executive Officer of the proposed Construction Site by submitting a NOI, or Permit Registration Documents (PRDs) as provided in Attachment 5, and a location map depicting the Construction Site location. The filing fees for these NOIs/PRDs are waived for the Permittees.

d. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project by submitting (1) A Notice of Termination (NOT), provided in Attachment 5. (2) Photographs of the completed project; (3) A site map (depicting the project location and the locations of structural post-construction BMPs, including the latitude and longitude if appropriate); and (4) copies of the final field verification reports required under Section XII.I.

e. The Permittees shall develop, approve, and implement a WQMP for Permittee projects that meet the requirements of Section XII.D. of this Order.

f. The Permittees shall develop and implement a SWPPP and the monitoring and reporting program for their construction projects that meet the requirements of the latest version of the General Construction Permit. The Permittee must review and approve SWPPPs prepared by their contractors.

g. The Permittees shall give advance notice to the Executive Officer of planned changes in the construction activity, which may result in non-compliance with the latest version of the General Construction Permit.

h. Emergency Permittee projects required to protect public health and safety are exempted from compliance with the requirements of this subsection until the emergency ends, at which time they need to comply with the requirements of this section.

2. GENERAL DE-MINIMUS PERMIT DISCHARGES

a. The Permittees are authorized to discharge de-minimus types of discharges listed under the latest adopted version of the Regional Board's General De Minimus Discharge Permit, currently Order No. R8-2009-0003. The de-minimus discharges from Permittee owned and/or operated facilities and/or activities shall be in compliance with Order No. R8-2009-0003 except that the Permittees need not pay the filing fee.

b. The Permittees shall notify the Executive Officer of the proposed discharge at least 15 days prior to start of the discharge, by submitting a NOI and supporting documents, as provided in Attachment 7.

c. For existing Permittee Dischargers (authorized to discharge under Order No. R8-2009-003 prior to the adoption date of this Order), discharges will continue to be regulated under the terms and conditions of Order No. R8-2003-0003 until a new discharge authorization is issued, provided that the Discharger submits, by June 10, 2010, an updated NOI, a copy of the current Monitoring & Reporting Program previously issued to the Discharger, and proposed treatment modifications (if any). If no application for continued discharges are submitted by that date, the Discharger shall do one of the following:

i. Cease discharge and submit a letter informing the Regional Board that coverage under Order R8-2009-003 is no longer needed; or

ii. Apply for new discharge authorization as a new de-minimus discharge, under this Order.

XV. TRAINING PROGRAM FOR STORM WATER MANAGERS, PLANNERS, INSPECTORS AND MUNICIPAL CONTRACTORS

A. Within 24 months of adoption of this Order, the DAMP and each Permittee's LIP shall be updated to include a program to provide formal and where necessary, informal training to Permittee staff that implement the provisions of this Order. Formal training must be implemented as described herein and may consist of regional training provided by the Permittees or individual Co-Permittee training provided in-lieu of Principal Permittee training. Informal training (i.e. tailgate training) shall be implemented by each Permittee on an as-needed basis to supplement the formal

training. Each Permittee shall maintain a written and/or electronic record of stormwater training provided to its storm water and related program staff.

B. The training programs should be coordinated with the local Vector Control District to ensure that vector control issues related to post-construction BMPs maintenance and operation are incorporated into the training curriculum.

C. **Formal Training**: The formal training programs shall educate Permittee employees responsible for implementing requirements of this Order, by providing training on the following Permittee activities: construction site inspection, WQMP review, residential/industrial/commercial site inspection, and Permittee facility maintenance. Formal training may be conducted in classrooms or using videos, DVDs or other multimedia. The program shall consider all applicable Permittee staff such as storm water program managers, construction/industrial/ commercial/residential inspectors, planners, engineers, public works crew, etc. and shall: define the required knowledge and competencies for each Permittee compliance activity, outline the curriculum, include testing or other procedures to determine that the trainees have acquired the requisite knowledge to carry out their duties, and provide proof of completion of training such as Certificate of Completion, and/or attendance sheets. The formal training curriculum shall:

1. Highlight the potential effects that Permittee or Public activities related to their job duties can have on water quality.
2. Overview the principal applicable water quality laws and regulations that are the basis for the requirements in the DAMP.
3. Discuss the provisions of the DAMP that relate to the duties of the target audience, including but not limited to:
    a. The requirements of the DAMP regarding Storm Water Ordinances, resolutions, codes, and standards that relate to the duties of the target audience, including enforcement thereof;
    b. Overview of CEQA requirements contained in Section XII.C of this Order.
    c. Implementation and assessment of SWPPPs and Facility Pollution Prevention Plans relative to the duties of the target audience;
    d. Selection, implementation and maintenance of appropriate BMPs relative to the duties of the target audience;
    e. Tools, checklists and procedures included in the DAMP to assist in implementing the requirements of this Order relative to the duties of the target audience.

D. **Informal Training:** The informal training shall ensure that staff have the requisite knowledge to implement the applicable provisions in the Permittee's LIP, such as (but not limited to):

1. The requirements of local Storm Water Ordinances, resolutions, codes, and standards that relate to the duties of the target audience;
2. Local tools, checklists and/or procedures to implement the requirements of this Order relative to the duties of the target audience.
3. The proper use and maintenance of erosion and sediment controls;
4. Vector control issues related to storm water pollution control BMPs.

E. **Reporting**: Formal training shall be summarized and documented in the Annual Reports.

F. **Schedule**: At a minimum, the training schedule should include the following:

1. New Permittee employees responsible for implementing requirements of this Order must receive informal training within six months of hire and formal training within one year of hire.
2. Permittee facility maintenance staff must receive formal training at least once every two years.
3. Permittee inspection and code enforcement (if applicable) employees must receive formal or informal refresher training focused on appropriate BMP implementation at least once a year prior to the rainy season.
4. Other existing Permittee employees responsible for implementing the requirements of this Order must receive formal training at least once during the term of this Order.
5. The start date for training programs described in this Section shall be included in the schedule required in Section III.A.1.q, but shall be no later than six months after Executive Officer approval of DAMP updates applicable to the Permittee activities described in Section XIV.

G. The Permittees shall require verification of BMP training from contract staff where applicable.

H. The Permittee(s) shall include designated Regional Board staff on training notification e-mails announcing upcoming formal training sessions.

XVI. NOTIFICATION REQUIREMENTS

A. Within 24 hours of discovery, the Permittees shall provide oral or email notification to Regional Board staff of events within its jurisdiction that are determined to be an Emergency Situation. Following oral notification, a written report must be submitted within 10 days of receipt of notice of the Emergency Situation, detailing the nature of the non-compliance, any corrective action taken by the site/facility owner, other relevant information (e.g., past history of the Emergency Situation, environmental damage resulting from the Emergency Situation, site/facility owner responsiveness) and the type of enforcement, consistent with Section 4 of the DAMP, that will be carried out by the Co-Permittee. Further, incidences of noncompliance shall be

recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the databases for Construction Sites, and Industrial or Commercial Facility inspections, as appropriate.

B. Notification requirements for non-Emergency Situations that are discovered during the course of Construction Site and Industrial Facility inspections that may be a violation of the General Stormwater Permits are addressed in Sections XI.A.7 of this Order.

C. Sewage spill notification shall be consistent with the timelines specified in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ.

D. All reportable quantities of Hazardous Waste spills as per 40CFR 117 and 302 shall be reported within 24 hours. All spill incidents shall be also included in the Annual Report. These requirements are consistent with the Notification requirements for IC/IDs that are addressed in Section IX.B of this Order.

E. Enforcement requirements for Construction Sites and Industrial Facilities operating without an applicable General Stormwater Permit are specified in Section XI.A.7. These Sites and Facilities shall be reported within 14 calendar days to Regional Board staff by electronic mail or other written means. Permittees' notifications of facilities' failure to obtain required coverage under the General Construction Permit, or General Industrial Permit, including requirements to file PRDs. A PRD, NOI, No Exposure Certification, Notice of Non-applicability, and/or 401 Certification must include, at a minimum, the following documentation:

   1. Name of the Site or Facility
   2. Operator of the Site or Facility
   3. Owner of the Site or Facility
   4. Construction or Commercial/Industrial activity being conducted at the Site or Facility that is subject to the General Construction Permit, General Industrial Permit or 401 Certification
   5. Records of communication with the facility operator regarding the violation, which must include at least an inspection report.

F. The Permittees shall report to the Executive Officer:

   1. Any enforcement actions and known discharges of Urban Runoff to MS4 facilities, known to the Permittees, which may have an impact on human health or the environment consistent with Sections XI.A and XI.B above; if the discharge is to Canyon Lake or any tributary to Canyon Lake, Elsinore Valley Municipal Water District shall also be notified immediately; and
   2. Any suspected or reported activities on federal, state, or other entity's land or facilities, where the Permittees do not have any jurisdiction, and where the suspected or reported activities may be contributing Pollutants to Waters of the US

XVII. PROGRAM MANAGEMENT ASSESSMENT/DAMP REVIEW

A. By November 30 of each year, the Permittees shall evaluate the effectiveness of the Urban Runoff management program described in the DAMP to determine the need for any revisions in order to reduce Pollutants in MS4 discharges consistent with the MEP standard consistent with the reporting requirements in Appendix 3, Section IV.B. In addition, the first Annual Report (November 2010) after adoption of this Order shall include the following:

1. Review of the formal training needs of Permittee employees.
2. Review of coordination meeting/training for the designated NPDES inspectors.
3. Proposal for assessment of Urban Runoff management program effectiveness on an area wide as well as jurisdiction-specific basis. Permittees shall utilize the CASQA Guidance[58] for developing these assessment measures at the six outcome levels. The assessment measures must target both water quality outcomes and the results of municipal enforcement activities consistent with the requirements of Appendix 3, Section IV.B.

B. The Annual Report shall include the findings of this review and a schedule to address necessary revisions, or a copy of the amended DAMP with the proposed changes. Replacement pages are acceptable if modifications are not extensive. Annual Reports shall also be submitted in electronic format.

C. Upon the effective date of this Order, the Permittees shall implement the 2007 DAMP and modify it to be consistent with the requirements of this Order and the schedules contained herein.

D. Each Permittee shall designate at least one representative to the Management Steering Committee and Technical Committee. The Principal Permittee shall be notified immediately, in writing, of changes to the designated representative to either Committee. The designated representative for each Committee shall attend that Committee's meeting as follows: at least one (1) out of two (2) Management Steering Committee meetings and eight (8) out of ten (10) Technical Committee meetings per year to discuss issues related to permit implementation and regional and statewide issues.

E. The Permittees shall continue to implement all elements of the approved DAMP. Program elements revised in compliance with the requirements of this Order must be implemented in conformance with the schedules specified in this Order following approval of the Executive Officer.

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[58] CASQA, May 2007. Municipal Storm Water Program Effectiveness Assessment Guidance.

XVIII. FISCAL RESOURCES

A. Each Permittee shall exercise its full authority to secure the resources necessary to meet the requirements of this Order. This Order may be revised to adjust time schedules to accommodate prioritization of available resources.

B. The Permittees shall prepare and submit a financial summary to the Executive Officer. The financial summary shall be submitted with the Annual Report each year and shall, at a minimum, include the following:

1. Each Permittee's MS4 Permit compliance expenditures for the previous fiscal year;
2. Fiscal developments that may impact availability of funding for MS4 Permit compliance program implementation and to achieve the required implementation schedule;
3. Each Permittee's MS4 Permit compliance program budget for the current fiscal year;
4. A description of the source of funds to implement the MS4 Permit compliance program, and;
5. Each Permittee's estimated budget to implement the MS4 Permit compliance program for the next fiscal year.

XIX. MONITORING AND REPORTING PROGRAM

The Permittees must comply with Monitoring and Reporting Program No. R8-2010-0033, Appendix 3, and any revisions thereto, which are hereby made a part of this Order. The Executive Officer is hereby authorized to revise the Monitoring and Reporting Program in a manner consistent with this Order to allow the Permittees to participate in regional, statewide, national or other monitoring and reporting programs in lieu of or in addition to Monitoring and Reporting Program No. R8-2010-0033. In addition, dates for completion and implementation of certain program elements and reporting requirements are outlined in the Monitoring and Reporting Program.

XX. PROVISIONS

A. All reports submitted by the Permittees as per the requirements in this Order for the approval of the Executive Officer shall be publicly noticed and made available on the Regional Board's website, or through other means, for public review and comments. The Executive Officer shall consider all comments received prior to approval of the reports. Any unresolved significant issues shall be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.

B. Permittees shall demonstrate compliance with all the requirements in this Order and shall implement the DAMP and any modifications, revisions, or amendments thereto, which are developed pursuant to this Order or determined by the Permittees to be necessary to

meet the requirements of this Order. The DAMP, including any approved amendments thereto is hereby made an enforceable component of this Order.

C. The Permittees shall implement all elements of the DAMP and its components. Where the dates in the DAMP are different from the corresponding dates in this Order, the dates in this Order shall prevail. Any proposed revisions to the DAMP shall be submitted with the Annual Report for review and approval by the Executive Officer. All approved revisions to the DAMP shall be implemented as per the time schedules approved by the Executive Officer. In addition to those specific controls and actions required by: (1) the terms of this Order and (2) the DAMP and its components, each Permittee shall implement additional controls, if any are necessary, to reduce the discharge of Pollutants in Urban Runoff consistent with the MEP standard.

D. Certain BMPs implemented or required by the Permittees for Urban Runoff management may create habitat for vectors (e.g., mosquitoes and rodents) if not properly designed and maintained. Close collaboration and cooperative effort between the Permittees and local vector control agencies and the State Department of Health Services are necessary to minimize potential vector habitat and public health impacts resulting from vector breeding. Nothing in this Order is intended to prohibit inspection or abatement of vectors by the State or local vector control agencies in accordance with the respective Health and Safety Code.

E. Upon approval by the Executive Officer all plans, reports and subsequent amendments required by this Order shall be implemented and shall become an enforceable part of this Order. Prior to approval by the Executive Officer, these plans, reports and amendments shall not be considered as an enforceable part of this Order.

F. The MS4 permit application and special NPDES program requirements are contained in 40 CFR 122.21 (a), (b), (d)(2), (f), (p); 122.41 (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l); and 122.42 (c), and are incorporated into this Order by reference.

G. The Permittees must comply with all terms, requirements, and conditions of this Order. Any violation of this Order constitutes a violation of the CWA, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and re-issuance, denial of an application for re-issuance, Order revisions, or a combination thereof.

H. Permittees must continue to take reasonable steps to minimize or prevent any discharge to the MS4 that has a reasonable likelihood of adversely affecting human health or the environment.

I. Regional Board staff, USEPA, and other authorized representatives must be allowed to:

1. Inspect Permittee records associated with compliance of this Order.

2. Access and copy records that are kept under the conditions of this Order.

3. Photograph and inspect any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge or authorized Non-storm Water discharge.

4. Conduct sampling, and monitoring activities for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA and/or the Water Code.

5. Review the Permittee's programs and request the Regional Board to authorize modification to Permittee programs to comply with the requirements of this Order.

6. Request copies of data, monitoring reports, and sampling data and copies of the Permittee's conclusions and evaluations of the data.

J. This Order does not convey any property rights or any exclusive privileges.

K. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

L. When Permittees become aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Board, or USEPA, the Permitttees must promptly submit such facts or information.

M. All applications, reports, or information submitted to the Regional Board, State Board, and/or USEPA are to be signed and certified by either:

1. A principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA)

2. A duly authorized representative of the person in 1, above. A person is a duly authorized representative only if the authorization is made in writing by a person described above;

3. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

4. The written authorization is submitted to the Executive Officer.

5. If an authorization described above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Executive Officer prior to or together with any reports, information, or applications, to be signed by an authorized representative.

6. Any person signing a document described above must make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

XXI. PERMIT MODIFICATION

A. Following appropriate public notice, and in accordance with 40 CFR 122.41(f), this Order may be modified, revoked or reissued prior to its expiration date for the following reasons:
   1. To address significant changes in conditions identified in the technical reports required by the Regional Board which were unknown at the time of the issuance of this Order;
   2. To incorporate applicable requirements of statewide water quality control plans adopted by the State Water Resources Control Board or any amendments to the Basin Plan (including TMDLS) approved by the Regional Board, the State Board and, if necessary, by the Office of Administrative Law and the USEPA;
   3. To comply with any applicable requirements, guidelines, or regulations issued or approved under the Clean Water Act, if the requirements, guidelines, or regulations contain different conditions or additional requirements than those included in this Order; or,
   4. To incorporate new or revised program elements and compliance schedule(s) necessary to comply with this Order;

B. The filing of a request by the Permittees for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any conditions of this Order.

C. Pursuant to Section 13228 of the Water Code, the Regional Board may exercise its option for allowing the portion of the City of Murrieta located within the Santa Ana Region to be regulated by the San Diego Regional Water Quality Control Board under its Riverside County MS4 Permit. Similarly, if the San Diego Regional Water Quality Control Board authorizes this Regional Board to exercise authority over the City of Menifee within the

portions of the City regulated by the San Diego Regional Water Quality Control Board, this Regional Board will exercise its authority under this Order in those Regions.

XXII. PERMIT EXPIRATION AND RENEWAL

A. This Order expires on January 29, 2015, and the Permittees must file a ROWD no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements. The ROWD shall, at a minimum, include the following:

1. Names and mailing address(es) of the primary administrative and technical contacts for the Permittees that operate the MS4;
2. Any revisions to the DAMP including, but not limited to, all the activities the Permittees propose to undertake during the next permit term, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs, any proposed pilot studies, etc.;
3. Changes in land use and/or population including map updates;
4. Any significant changes to the MS4 including map updates of the MS4; and
5. An assessment of the overall Urban Runoff management program and its effectiveness in meeting Water Quality Standards. If Water Quality Standards are not being met, the ROWD shall include new or revised program elements and compliance schedule(s) necessary to comply with Section VI of this Order.

B. The ROWD, Annual Reports and other information submitted under this Order shall be signed by either a principal executive officer or a ranking elected official (40 CFR 122.22(a)(3)) or a duly authorized representative as per 40 CFR 122.22(b).

C. This Order shall serve as an NPDES Permit pursuant to Section 402(p) of the Clean Water Act, or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator of the USEPA has no objections. If the Regional Administrator objects to its issuance, the Permit shall not become effective until such objection is withdrawn.

D. The Regional Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13385, 13386, and 13387.

E. Order No. R8-2002-0011 is hereby rescinded.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 29, 2010**.**

_____

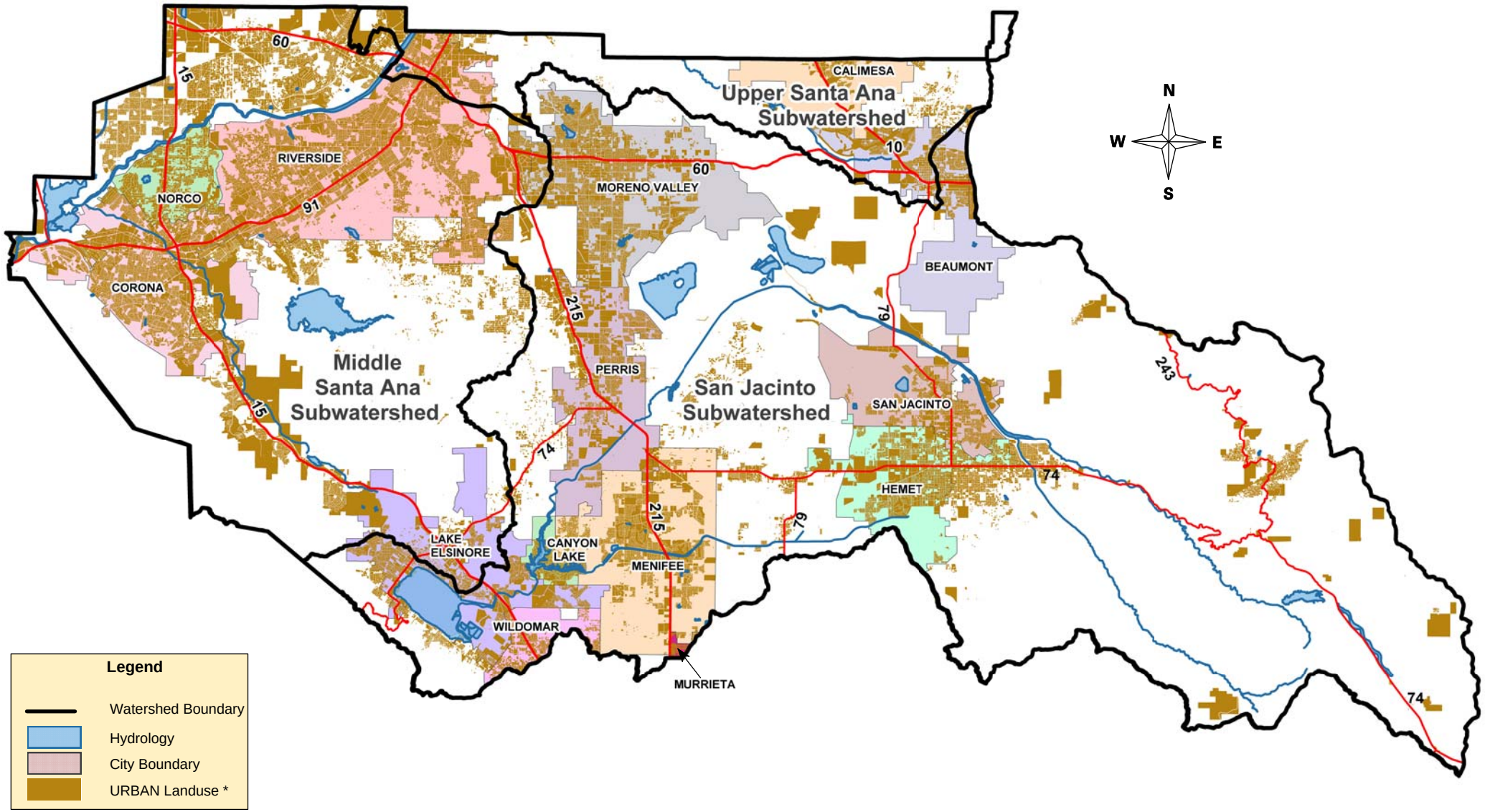
Gerard J. Thibeault
Executive Officer

APPENDIX 1

PERMIT AREA

ORDER NO. R8-2010-0033

ORDER NO. R8-2010-0033 (NPDES NO. CAS618003)
RIVERSIDE COUNTY AREA-WIDE URBAN RUNOFF MANAGEMENT PLAN



APPENDIX 1

*** Areas not in URBAN: Agricultural, State, Federal, Tribal, Preserves & Open Space, Rural-Residential, Highways/Freeways**

APPENDIX 2

OTHER ENTITIES THAT MAY DISCHARGE POLLUTANTS TO THE MS4

ORDER NO. R8-2010-0033

Appendix 2

OTHER POTENTIAL DISCHARGERS TO THE MS4s

Government Agencies

Department of the Air Force,
March Air Force Base – Special Districts
(regulated under an individual NPDES permit)
State Parks
U.S. Army Corps of Engineers
Caltrans (regulated under a state-wide NPDES permit)
Department of Corrections
U.S. Forest Service
U.S. Department of the Interior – Bureau of Land Management

Hospitals

Corona Community Hospital
Hemet Valley Medical Center
Kaiser Foundation Hospital – Riverside
Loma Linda Hospital (Sun City)
Parkview Memorial Hospital
Riverside Community Hospital
Riverside County Regional Medical Center
Riverside General Hospital

Railroads

AT&SF Railway Company
Burlington Northern Railroad Company
Southern Pacific Railroad Company
Union Pacific Railroad

Special Districts/ Wastewater Agencies

Edgemont Community Services District
Jurupa Community Services District
Santa Ana Watershed Project Authority
Rubidoux Community Services District
Valley Wide Park and Recreation District

School Districts

Alvord Unified School District
Corona – Norco Unified School District
Hemet Unified School District
Lake Elsinore Unified School District
Menifee Union School District
Moreno Valley Unified School District
Nuview Union School District
Perris Elementary School District
Perris Union High School District
Riverside Unified School District
Romoland School District
San Jacinto Unified School District
Val Verde School District

Universities and Colleges

California Baptist University
La Sierra University
Mt. San Jacinto College
Riverside Community College
University of California, Riverside
California School for the Deaf, Riverside

Water Districts

Eastern Municipal Water District
Elsinore Valley Municipal Water District
Lake Hemet Municipal Water District
Lee Lake Water District
Metropolitan Water District
Western Municipal Water District

Tribal Lands

Soboba Band of Luiseno Indians
Morongo Band of Mission Indians

APPENDIX 3

MONITORING AND REPORTING PROGRAM

ORDER NO. R8-2010-0033

State of California
California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2010-0033
NPDES No. CAS618033

for
Riverside County Flood Control and Water Conservation District,
The County of Riverside and the Cities of Riverside County
Within the Santa Ana Region
AREA-WIDE URBAN STORM WATER RUNOFF MANAGEMENT PROGRAM

I. OBJECTIVES

The overall goal of the Urban Runoff monitoring program is to support the development of an effective Urban Runoff management program. The following are the major objectives:

A. To identify those Receiving Waters, which, without additional action to control pollution from urban storm water runoff, cannot reasonably be expected to achieve or maintain applicable Water Quality Standards required to sustain the designated beneficial uses, the goals, and the objectives of the Basin Plan.

B. To develop and support an effective Urban Runoff management program.

C. To identify significant water quality problems, related to discharges of Urban Runoff within the Permit Area.

D. To determine water quality status, trends, and Pollutants of concern associated with Urban Runoff and their impact on the Beneficial Uses of the Receiving Waters.

E. To analyze and interpret the collected data to determine the impact of Urban Runoff and/or validate relevant water quality models.

F. To characterize Pollutants associated with Urban Runoff, and to assess the influence of urban land uses on Receiving Water quality and associated Beneficial Uses.

G. To identify other sources of Pollutants in Urban Run off to the maximum extent possible (e.g., including, but not limited to, atmospheric deposition, contaminated sediments, other non-point sources, etc.)

H. To identify and permit or prohibit Illicit Connections.

I. To identify, verify and prohibit Illegal Discharges.

J. To verify and to identify sources of Pollutants in Urban Runoff.

K. To evaluate the effectiveness of the DAMP and WQMPs, including an estimate of Pollutant reductions achieved by the Site Design (Low Impact Development [LID], Treatment Control and Source Control BMPs implemented by the Permittees.

L. To evaluate the effectiveness of proposed Urban Runoff management programs to protect Receiving Water quality.

II. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR 122.41(j)].

1. This includes any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality in the case of storm channels and flow quality in the case of streams and lakes

2. All sample collection, handling, storage, and analysis shall be in accordance with test procedures under 40 CFR Part 136 (latest edition) "*Guidelines Establishing Test Procedures for the Analysis of Pollutants*," promulgated by the USEPA, the guidance being developed by the State Board pursuant to Water Code Section 13383.5, or other methods which are more sensitive than those specified in 40 CFR 136 and approved by the Executive Officer.

3. For priority Toxic Pollutants that are identified in the California Toxics Rule (CTR) (65 Fed. Reg. 31682), the Minimum Levels (MLs) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) shall be used for all analyses, unless otherwise specified.

4. For priority Toxic Pollutants, if the Permittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Principal Permittee must submit documentation from the laboratory to the Regional Board Executive Officer for approval prior to raising the ML for any constituent.

B. All chemical, bacteriological, and Toxicity analyses shall be conducted at a laboratory certified for such analyses by an appropriate governmental regulatory agency.

C. Analytical methods, target reporting limits and data reporting formats shall be compatible with California's Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Management Plan and with SWAMP's Procedures for Conducting Routine Field Measurement unless otherwise specified in this Monitoring and Reporting Program (MRP).

D. Revisions of this MRP are appropriate to ensure that the Permittees are in compliance with requirements and provisions contained in this Order. Revisions may be made under the direction of the Executive Officer at any time during the term of the Order, and may include redistribution of monitoring resources to address TMDL needs, a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.

E. The Executive Officer is authorized to allow the Permittees to participate in regional, statewide, national, or other monitoring programs in addition to or as part of this Urban Runoff monitoring program. Also, the Permittees are authorized to complement their Urban Runoff monitoring data with data from other monitoring sources, provided the monitoring conditions and sources are similar to those in the Santa Ana River watershed.

F. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both [40 CFR 122.41(j)(5)].

III. MONITORING PROGRAM

A. The Principal Permittee has been monitoring Urban Runoff and Receiving Waters since the first MS4 permit term. The Principal Permittee currently implements the Consolidated Monitoring Program (CMP) and participates in a number of other storm water or TMDL related monitoring programs such as: TMDL Bacterial and Nutrient Monitoring, WLA Compliance, BMP Effectiveness, Urban Source and Trend Evaluation, Receiving Water Quality, Hydromodification and Bioassessment. The Principal Permittee shall continue to implement the CMP and continue to participate in other related monitoring programs.

B. The Principal Permittee, on behalf of the Co-Permittees, participates (through a memorandum of understanding and cooperative agreements) with the 16 member agencies of the Storm Water Monitoring Coalition (SMC). The Permittees shall continue to cooperate with other MS4 permittees (including

Orange County and San Bernardino County), Southern California Coastal Water Research Project (SCCWRP), POTW operators, the dairy industry, the Santa Ana Watershed Project Authority (SAWPA), and other public and private organizations in the watershed to develop coordinated surface water quality monitoring programs, databases, and special studies as appropriate. The Regional Board supports continued coordination with SCCWRP and the SMC to facilitate and implement coordinated watershed based monitoring programs. The Permittees may use coordinated monitoring efforts such as the Middle Santa Ana River (MSAR) and Lake Elsinore/Canyon Lake (LE/CL) TMDL Task Forces, SCCWRP and SMC regional monitoring programs to address partially, or in full, the requirements of this MRP. A proposed coordinated monitoring program shall result in the development and implementation of a monitoring plan that:

1. Fully addresses the requirements of this MRP;

2. Describes how the external monitoring programs address the requirements of the MRP;

3. Include a quality assurance plan, including data management, validation, verification mechanism for the portions of the monitoring directly conducted by the Permittees;

4. Reference the locations of the quality assurance plans for regional components; and

5. Result in a coordinated Annual Report summarizing the pertinent Urban Runoff data from the coordinated programs necessary to address this MRP.

C. Within 12 months of adoption of this Order, the Permittees shall review the CMP, Regional and TMDL related monitoring programs that they conduct or participate to determine their effectiveness in achieving the Urban Runoff assessment requirements contained in Section IV.B, below. If this review indicates any data gaps, the Principal Permittee shall submit a revised CMP, or coordinate revisions to other regional programs for approval of the Executive Officer to ensure that the combined efforts adequately address the requirements of Section IV.B. The revised CMP, including a description of how other regional efforts combine with the CMP to address requirements of Section IV.B shall be submitted within 16 months of adoption of this Order and shall be implemented within six months of its approval by the Executive Officer. Pending approval of the revised CMP, current monitoring efforts will continue to be implemented.

D. <u>TMDL/303(d) Listed Waterbody Monitoring</u>: The Permittees identified as dischargers in adopted TMDLs shall continue to participate in TMDL monitoring programs as required by TMDL Implementation Plans. The compliance schedules for the two approved TMDLs within the Permit Area are beyond the five year MS4 Permit term. This Order requires Permittees identified as

dischargers in their respective TDMLs to conduct monitoring required by the TMDL Implementation Plans to determine the effectiveness of the BMPs implemented in reducing Pollutant loads and eventually to attain WLA by the deadlines specified in the respective TMDL Implementation Plans.

1. MSAR Bacteria WLA TMDL USEP monitoring

    a. On June 14, 2007, the TMDL task force members submitted a source evaluation plan and a monitoring plan. The Regional Board approved these plans on June 29, 2007, Resolution No. R8-2007-0046. A revised monitoring plan and an urban Bacterial Indicator source evaluation plan were approved by the Regional Board on April 18, 2008, Resolution No. R8-2008-0044. The MSAR Permittees within the MSAR watershed shall continue to conduct monitoring and source evaluations in accordance with the approved plans and report the findings in accordance with the schedules specified in the approved plans or as updated by subsequent Regional Board approved revisions.

    b. In conformance with Task 3 of the TMDL Implementation Plan contained in Resolution R8-2005-0001, the Permittees shall individually, or in conjunction with the MSAR TMDL Task Force, prepare a triennial report summarizing the data collected for the preceding 3 year period and evaluating compliance with the WLAs. The first report shall be due February 15, 2010.

    c. The Permittees shall conduct monitoring and reporting consistent with Section VI.D. of this Order to evaluate the effectiveness of the BMPs implemented in the watershed and determine their progress towards attaining compliance with the interim WQBELs, and final BMP-based WQBELS, if approved, or the final numeric WQBELS/WLAs.

2. Lake Elsinore/Canyon Lake Nutrient TMDL

    a. Monitor and report the effectiveness of the BMPs implemented in the watershed to control nutrient inputs into the lakes from Urban Runoff. Submit an Annual Report summarizing all relevant data from water quality monitoring programs and evaluating compliance with the LE/CL TMDL by reporting the effectiveness of the BMPs implemented in the watershed to control nutrient inputs into the lake from Urban Runoff pursuant to Regional Board Resolution No. R8-2006-0031 and R8-2007-0083, or as amended by subsequent Regional Board adopted resolutions.

    b. The Permittees shall conduct monitoring and reporting consistent with Section VI.D. of this Order to evaluate the effectiveness of the BMPs implemented in the watershed and determine their progress towards attaining compliance with the interim WQBELs, and final BMP-based WQBELS, if approved, or the final numeric WQBELS/WLAs.

E. In addition, any requirements developed by the State Board in accordance with Water Code Section 13383.5 shall be considered during any revision of the CMP. The revised CMP shall, at a minimum, include the following:

1. Mass Emissions Monitoring – Core Stations:

a. An estimate of flow in cubic feet per second (cfs) from the Outfall/stream at the time of sampling.

b. Monitor mass emissions in Urban Runoff to:

i) Estimate the total mass emissions from the MS4s to Receiving Waters.

ii) Assess trends in mass emissions associated with specific urban storm water discharges from the MS4 over time.

iii) Determine if Urban Runoff may be contributing to exceedances of Water Quality Objectives or Beneficial Uses in Receiving Waters by comparing water quality data from Outfall and Receiving Water results to: (1) Water quality Objectives (WQOs); (2) California Toxic Rule (CTR) (3) USEPA Multi-Sector Permit Parameter Benchmark Values and (4) other MS4 discharger's monitoring data or other appropriate data identified by the Permittees. The Permittees should also evaluate the Regional Monitoring reports prepared by SCCWRP to assess trends in Urban Runoff and Receiving Water quality within the Permit Area.

iv) Representative samples from the first sampleable storm event (based on mobilization criteria to be established in the CMP) of the Wet Season (October 1 to May 31) and two more storm events shall be collected during the Wet Season. A minimum of two Dry Weather samples shall also be collected. Samples from the first sampleable storm event each year shall be analyzed for constituents according to the list provided in the 2007-2008 Santa Ana Region Monitoring Annual Report, Attachment A. This list includes 40 CFR 122 Appendix D Tables II and III, and Tables IV and V if expected to be present, and additional constituents. All samples shall be analyzed for *E. coli*, nutrients (Nitrates + Nitrites, potassium, and phosphorous), hardness[1], metals, pH, TSS, TOC, pesticides/herbicides, and Pollutants/stressors for 303(d) listed Receiving Waters. Dry Weather samples should also include analyses for TPH (8015M – direct injection) and oil and grease. The analyte list will be reviewed annually. Constituents may be added to the list for a selected monitoring station if they are expected to be present, and removed from the list if three consecutive samples from the station have not had detectable concentrations of the constituent.

[1] Hardness is necessary to evaluate some metal Water Quality Objectives in receiving waters.

v) Monitoring locations shall be integrated into a GIS database system. All monitoring data shall continue to be placed in an electronic database.

2. Water Column Toxicity Monitoring: Analyses for Toxicity to aquatic species shall be performed on receiving water samples to determine if there may be impacts of Urban Runoff on Toxicity of Receiving Waters. The *Ceriodaphnia dubia* survival (acute), Fathead Minnow larval survival (acute), and Selenastrum Capricornutum growth (chronic) tests shall be used to evaluate Toxicity on the sample from the first sampleable storm event, plus one other Wet Season storm event sample. Where applicable, two Dry Weather samples shall also be collected or equivalent procedures shall be proposed in the CMP. In addition, criteria shall be identified which will trigger the initiation of Toxicity Identification Evaluations (TIEs) and Toxicity Reduction Evaluations (TREs).

   To the extent that the Toxicity testing developed as part of the Regional Bioassessment Monitoring described in item 5 and Section D below, or other standardized Toxicity testing protocols developed by the State Board, Regional Board, SMC or SCCWRP, satisfies the objective of determining the impact of Urban Runoff on Toxicity of Receiving Waters, the Permittees may satisfy this requirement by participating in the regional bioassessment effort or conducting Toxicity testing consistent with the standardized protocols.

3. Illicit Connection/Illegal Discharge (IC/ID) Monitoring: The Permittees shall review and update their Dry Weather and Wet Weather reconnaissance strategies to identify and eliminate IC/IDs using the Guidance Manual for Illicit Discharge, Detection, and Elimination developed by the Center for Watershed Protection[2] or any other equivalent program. Where possible, the use of GIS to identify geographic areas with a high density of industries associated with gross Pollution (e.g. electroplating industries, auto dismantlers) and/or locations subject to maximum sediment loss (e.g. New Development) may be used to determine areas for intensive monitoring efforts. The Dry Weather monitoring for nitrogen and total dissolved solids shall be used to establish a baseline dry weather flow concentration for TDS and TIN at each Core monitoring location.

4. Sources of Data: Where possible and applicable, water quality data shall be obtained from monitoring efforts of other public or private agencies/entities (e.g., Caltrans).

5. Bioassessment: In lieu of developing an independent bioassessment program as required in the prior term permit, the Principal Permittee, on behalf of the Co-Permittees, participates (through a memorandum of understanding and cooperative agreements) with the 16 member agencies of the SMC. The SMC's Bioassessment Working Group conducts bioassessments on a regional basis. The Principal Permittee in coordination with SCCWRP shall ensure that

[2] USEPA (Illicit Discharge Detection and Elimination - A Guidance Manual for Program Development and Technical Assessments) by the Center for Watershed Protection and Robert Pitt, University of Alabama, October 2004, updated 2005).

a sufficient number of monitoring stations are selected for this program from locations within the Permit Area.

a. The Principal Permittee, in collaboration with the SMC, shall conduct sampling, analysis, and reporting of specified in-stream biological and habitat data within the 5-year permit cycle according to the protocols specified in the SCCWRP Tech Report No. 539.

b. Within Riverside County, the bioassessment project area consists of the lower half of the MSAR watershed, the San Jacinto watershed, and the northern Santa Margarita watershed (northern San Diego) for a total of 1.5 watershed units, a minimum of 9 samples shall be collected per year[3]. Within Riverside County's Santa Ana and San Jacinto Watersheds, which are in the Permit Area, the Permittees shall sample 5 sites per year. SWAMP samples 2 sites per year.

c. For long-term trend monitoring, the Principal Permittee shall collect a minimum of 1 sample per year during the dry weather index period, as noted in the SCCWRP Tech Report No. 539. Additional samples may be collected to improve data quality for trend analysis. At a minimum, chemistry and aquatic Toxicity should be used as indicators for trend analysis.

d. Any baseline and historic information on stream geomorphology and ecological health, including aquatic habitats, in the Receiving Waters and the findings from the trend analysis shall be used to evaluate the effectiveness of Urban Runoff management program, including the requirements specified in the Order.

6. A Quality Assurance Program Plan (QAPP) within the CMP that describes how data will be collected and analyzed to ensure that data is consistent with State and Regional Board monitoring programs and is of high quality. Dischargers shall develop a QAPP that is compatible with the State's Surface Water Ambient Monitoring Program (SWAMP) QAPP and approved by the Regional Board's Quality Assurance Officer. A QAPP template is available, upon request, through the State Board's SWAMP website (http://www.waterboards.ca.gov/water_issues/programs/swamp/qapp.shtml). All analytical methods, target reporting limits, and data reporting formats should be SWAMP compatible unless otherwise specified in this MRP. The QAPP will include location of sample site(s), description of analytical techniques, data quality objectives, and other standard quality assurance information.

[3] See Table 4 page 15 of Technical Report No.539.

7. A procedure for the collection, analysis, and interpretation of existing data from local, regional or national monitoring programs. These data sources may be utilized to:
   a. Characterize different sources of Pollutants discharged to the MS4;
   b. Determine pollutant generation, transport and fate;
   c. Develop a relationship between land use, development size, storm size and the event mean concentration of Pollutants;
   d. Determine spatial and temporal variances in Urban Runoff quality and seasonal and other bias in the collected data; and
   e. Identify any unique features of the permitted area.
   f. The Permittees are encouraged to use water quality data from similar studies, if available.

8. The CMP update shall include descriptions of:
   a. The number of monitoring stations;
   b. Monitoring locations within MS4s, Major Outfalls, and Receiving Waters; environmental indicators (e.g., ecosystem, flow, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring; The initial update shall at least contain the sampling stations listed in Table 1, below:

Table 1 Current Core Monitoring Stations

Station Number	Class	Station Description	Latitude	Longitude
40	Outfall	Corona Storm Drain – Line K Harrison & Sheridan St.	33.885	-117.568611
316	Outfall	Sunnymead Chanel – Line B Alessandro & Heacock	33.917778	-117.242222
318	Outfall	Hemet Channel @ Sanderson Ave.	33.734167	-117.005556
364	Outfall	Magnolia Center – SD @ Santa Ana River	33.964722	-117.414444
702	Outfall	University Wash – Market & Bowling Green	33.9975	-117.370833
707	Outfall	North Norco Channel @ Country Club Lane	33.907778	-117.583889
752	Outfall	Perris Line J - Sunset Ave below Murrieta Rd.	33.803333	-117.2075

   c. Total number of samples to be collected from each station, frequency of sampling during Wet Weather and Dry Weather, short duration or long duration storm events, type of samples (grab, 24-hour composite, etc.), justification for composite versus discrete sampling, type of sampling equipment, quality assurance/quality control procedures followed during sampling and analysis, analysis protocols to be followed (including sample preparation and maximum reporting limits), and qualifications of laboratories performing analyses;

d. A procedure for analyzing the collected data and interpreting the results. This procedure shall include the evaluation of the effectiveness of the BMPs, a comparative analysis of the Permittees' monitoring data to the USEPA Multi-Sector Permit Parameter Benchmark Values and applicable Water Quality Objectives specified in Chapter 4 of the Basin Plan, and the need for any refinement of the WQMPs, the DAMP and or/the LIPs.

e. Parameters selected for field screening and for laboratory work; and

f. A description of the responsibilities of all the participants in this program, including cost sharing.

g. Receiving Water Monitoring:

Permittees shall select at least one representative receiving water location within each of the San Jacinto River and Santa Ana River watersheds. These locations should be close Major Outfalls, coordinated with other regional monitoring programs to the extent feasible, include locations where chronic and/or persistent water quality problems associated with Urban Runoff have been identified, and should be selected so as to be useful to determine if Urban Runoff is causing or contributing to violations of Water Quality Standards in the Receiving Waters.

h. Monitoring within MS4s:
Permittees shall evaluate their current CMP MS4 monitoring locations (identified in Table 1, above) to ensure that they are representative of urban runoff. The objective of this monitoring element is to determine the pollutant loads from the MS4s and to determine their trend. This monitoring requirement may be incorporated into the mass emissions monitoring described in III.E.1, above.

F. REGIONAL WATERSHED MONITORING

1. The objectives of the Regional Watershed Monitoring Program overseen by the SWAMP and the SMC and coordinated by SCCWRP are:

   a. To assess the current status of streams in Southern California.

   b. To identify major stressors to aquatic life.

   c. To monitor the trend in water quality in Southern California streams.

2. The bioassessment discussed above, should provide information about the biological, chemical and toxicological integrity of Receiving Waters. Baseline and trend monitoring information on the biotic and geomorphological condition of the Receiving Waters should be used to evaluate the effectiveness of the Urban Runoff pollution control measures.

3. The Riverside County Regional Watershed monitoring area is within the lower half of the MSAR watershed, the San Jacinto watershed, and the northern Santa Margarita watershed (northern San Diego) for a total of 1.5 watershed units[4]. Within Riverside County's Santa Ana and San Jacinto watersheds, the Permittees sample 5 sites per year. SWAMP samples 2 sites per year.

4. The sampling sites in each watershed unit were determined according to distribution or abundance of the three land uses: urban, agriculture, or open. The sampling grid includes 15 watershed units located from Ventura to San Diego and as far east as San Bernardino and Riverside Counties. A total of 450 samples in the 15 watershed units will be collected within a five year period to assess the spatial extent of impacts to streams within the area. Samples will be collected at sites representing each of the three land use types. Each site will be sampled only once during an index period and not all sites need to be sampled during the same year. One-fifth of the samples (90 samples) will be collected each year for the 15 watersheds. Sampling events shall be conducted between 4 to 12 weeks following the last significant rainfall. No sampling shall occur within 72 hours of any measurable rainfall. The default index period will be from May 15 to July 15. The specifics and details of the Regional Watershed Program are discussed in "The Regional Monitoring of Southern California's Watershed SMC Bioassessment Working Group", SCCWRP, Technical Report No. 539, December 2007 (The Tech Report).

5. Any baseline and historic information on stream geomorphology and ecological health, including aquatic habitats, in the Receiving Waters and the findings from the trend analysis shall be used to evaluate the effectiveness of Urban Runoff management program, including the requirements specified in the Order.

G. HYDROMODIFICATION MONITORING PROGRAM

This Order requires development and implementation of a Hydromodification Monitoring Plan as part of the Watershed Action Plan (WAP) to evaluate the effectiveness of hydromodification controls implemented within the Permit Area (Some or all of the following requirements may be satisfied by the Permittees participation in the "Development of Tools for Hydromodification Assessment and Management' Project" undertaken by the SMC and coordinated by SCCWRP and follow on efforts to develop Hydromodification monitoring guidance).

1. The Order requires the Permittees to revise the DAMP to incorporate Watershed Action Plan principles within three years of adoption of the Order. The hydromodification requirements require the Permittees to identify

[4] See Table 4 page 15 of Technical Report No.539.

vulnerable streams and possible BMPs to minimize HCOCs and tools to measure any impacts on geomorphology and aquatic resources.

2. The Hydromodification monitoring program shall:

   a. Assess the effectiveness of Hydromodification management within the Permit Area.

   b. Predict the effects of urbanization on stream stability within the Permit Area.

H. LOW IMPACT DEVELOPMENT BMP MONITORING

The Principal Permittee shall continue to participate in data collection and monitoring to assess the effectiveness of LID techniques in semi-arid climate as part of the SMC project titled, "Quantifying the Effectiveness of Site Design/ Low Impact Development Best Management Practices in Southern California". The Principal Permittee is also developing a regional LID BMP testing and demonstration facility at the main office that meets the intent of this requirement (currently the facility data is intended to be integrated into the SMC project).

IV. RECORD KEEPING REQUIREMENTS

A. All monitoring activities shall meet the following requirements:

1. The Permittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all reports prepared as per this MRP and records of all data used to complete the Report of Waste Discharge and Annual Reports for a period of at least five years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or USEPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge [40 CFR 122.41(j)(2), CWC section 13383(a)].

2. Records of monitoring information shall include [40 CFR 122.41(j)(3)]:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

3. Calculations for all Effluent Limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this MRP [40 CFR 122.41(l)(4)(iii)].

B. PROGRAM EFFECTIVENESS ASSESSMENT AND REPORTING

1. All progress reports and proposed strategies and plans required by this Order shall be signed by the Principal Permittee, and copies shall be submitted to the Executive Officer under penalty of perjury.

2. The Permittees shall submit an Annual Report to the Executive Officer and to the Regional Administrator of the USEPA, Region 9, no later than November 30th, of each year. This progress report shall also be submitted in a mutually agreeable electronic format that is text searchable. Any monitoring data shall also be submitted electronically in the form outlined in Section IV.B.4 of this MRP. At a minimum, the Annual Report shall include the following:

   a. A review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this Order;

   b. An assessment of the effectiveness of BMPs established under the IC/ID program and the DAMP. The effectiveness may be measured in terms of how successful the program has been in eliminating IC/IDs and/or reducing pollutant loads in urban storm water runoff, including summaries of Permittee actions to investigate and eliminate or permit IC/IDs and measures to reduce and/or eliminate the discharge of Pollutants, including trash and debris

   c. As assessment of BMPs and their effectiveness in addressing Pollutants causing or contributing to an exceedance of water quality objectives in Receiving Waters that are on the 303(d) list of impaired waters. The effectiveness evaluation shall consider changes in land use and population on the quality of Receiving Waters and the impact of development on sediment loading within sediment impaired Receiving Waters and recommend necessary changes to program implementation and monitoring needs.

   d. An assessment of the Permittees compliance status with the Receiving Waters Limitations, Section VII of this Order, including any proposed modifications to the DAMP if the Receiving Water Limitations are not fully achieved.

   e. An overall program assessment. The Permittees are encouraged to use the program assessment methodology described in the 2007 ROWD. The Permittees should determine, to the extent practicable, water quality

improvements and Pollutant load reductions resulting from implementation of various program elements. The Permittees may also use the "Municipal Storm Water Program Effectiveness Assessment Guidance" developed by CASQA in May 2007 as guidance for assessing program effectiveness at various outcome levels. The assessment should include each program element required under this Order, the expected outcome and the measures used to assess the outcome. The Permittees may propose any other methodology for program assessment using measurable targeted outcomes.

f. Description of program modifications and improvements identified during the program assessment above along with implementation schedule for incorporation of revisions into the Local Implementation Plans (LIPs).

g. An assessment of any modifications to the WQMPs, or the DAMP made to comply with CWA requirements to reduce the discharge of Pollutants to the MEP;

h. A summary, evaluation, and discussion of monitoring results from the previous year and any changes to the monitoring program to be made the following year;

i. A fiscal resources analysis progress report as described in Section XVIII.B of Order No. R8-2010-0033 including:

   i. Each Permittee's expenditures for the previous fiscal year;

   ii. Each Permittee's budget for the current fiscal year; and

   iii. A description of the source of funds.

j. A draft work plan that describes the proposed implementation of the LIPs and DAMP for next fiscal year. The work plan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each Permittee's actions for the next fiscal year;

k. Major changes in any previously submitted plans/policies;

l. If the Implementation Agreement is revised, a copy of the signature page and revisions to the Implementation Agreement.

m. A review of each Permittee's Storm Water Ordinances and their enforcement practices to assess their effectiveness in prohibiting non-exempt, Non-storm Water discharges to the MS4 (The Permittees may propose appropriate BMPs in lieu of prohibiting these discharges, where the Permittees are responsible for ensuring that dischargers adequately maintain those BMPs).

3. The Co-Permittees shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner to the Principal Permittee. A duly authorized representative of the Co-Permittee shall sign all such submittals under penalty of perjury.

4. The monitoring data transmittals to the Regional Board shall be in the form developed by the SMC and approved by the State Board in the document entitled "Standardized Data Exchange Formats". This document was developed in order to provide a standard format for all data transfers so that data can be universally shared and evaluated from various programs.

V. REPORTING SCHEDULE

All reports required by this Order shall be submitted to the Executive Officer in accordance with the following schedule:

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
III.A.1.e III.B.3.a,d,e & XVII.D.		Management Steering Committee meetings to discuss MS4 Permit implementation	Held at least twice per year.	Annual Report
III.A.1.f III.B.3.a,d,e & XVII.D.		Permittee Technical Committee meetings to discuss permit implementation	Held at least 10 times each year	Annual Report
III.B.3.a,d,e & XVII.D.		Co-Permittees participate in Management Steering and Technical Committee meetings to discuss MS4 Permit implementation	Attend at least 1 out of 2 Management and 8 out of 10 Technical meetings each year	Annual Report
III.A.1.r		The Principal Permittee shall develop a library of BMP performance reports, and revise the BMP performance report annually thereafter.	Within 6 months of permit adoption	
III.A.1.s		The Principal Permittee shall coordinate a review of the DAMP with the Co-Permittees to determine the need for update or revisions and establish a schedule for those revisions.	Within 6 months of permit adoption	
III.B.2.g		Submit up-to-date MS4 facility maps	Annually to Principal Permittee	Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
III.B.2.h		Submit reports & information for Annual Report	Annually to Principal Permittee	Annual Report
III.C.		Evaluate Implementation Agreement annually to determine need for revision.	Annually	Report findings and schedule for revisions to the Implementation Agreement in 2009-2010 Annual Report.
III.C.		Allow new permittees to join MS4 permit	Per schedule required in Section III.A.1.s	Report findings and schedule for revisions to the Implementation Agreement in 2009-2010 Annual report.
IV.A.		Permittees shall develop and submit for approval a LIP Template	Within 6 months of adoption of Order	
IV.B.		Complete a Co-Permittee specific LIP	Within 12 months of approval of the Template	Within 12 months of approval of the Template
VI.D.1.a.ii		Submit reports summarizing all relevant data from the watershed-wide water quality monitoring program.	Beginning in 2010 Cool (or wet) weather Warm (or dry) weather	 May 31st December 31st.
VI.D.1.a.iii		Submit comprehensive reports every three years summarizing the data collected for the preceding 3 year period and evaluating progress towards achieving the urban waste load allocation by the dates specified in the TMDL.	Beginning in 2010 every three years	February 15, 2010.
VI.D.1.a.iv		Submit semi-annual reports each year as required under the approved USEP, and any amendments thereto.	The Dec 31st report (VI.D.1.a.ii) and the Jan 31st report (VI.D.1.a.iv) may be incorporated into the (VI.D.1.a.ii) report for the years the tri-annual report is generated.	Semi-annually on January 31st and July 31st

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
VI.D.1.a.v		Revise the DAMP as specified in Task 4.2 of the MSAR-TMDL Implementation Plan.	Sumarize data in Annual Report.	Annual Report
VI.D.1.a.vi		Revise the Water Quality Management Plan (WQMP)	As specified in Task 4.4 of the MSAR-TMDL Implementation Plan.	Annual Report
VI.D.1.a.vii		Amend the Local Implementation Plans (LIP) to be consistent with the revised DAMP and WQMPs within 90 days after said revisions are approved by the Regional Board. Summarize any such LIP amendments in the annual report		Annual Report
VI.D.1.b. & VI.D.1.c.		The MSAR Permittees shall submit a Comprehensive Bacteria Reduction Plan (CBRP) to achieve the final WQBELs for bacterial indicators during the Dry Season by December 31, 2015. Enforcement starts no sooner than January 1, 2016		Draft by December 31, 2010 Final by Dec 31, 2015.
VI.D.1.c.i.(8)		Revise the DAMP, WQMP, & LIPs	Within 180 days of CBRP approval.	
VI.D.2.a.		Submit Phase 2 Alternatives	December 31, 2010	
		Submit O&M for Agreement for Fishery Management Program	December 31, 2010	
		Submit O&M for Agreement for Aeration and Mixing Systems	December 31, 2010	
		Submit Phase 2 Projects Plans	June 30, 2011	
		Complete Phase 2 Project Implementation	December 31, 2014	
		Implement in-lake and watershed monitoring programs	Annual Reports due August 31 every year.	
VI.D.2.b.		Linkage Analysis Study	August 31, 2010	
		Watershed Source Loading Study	August 31, 2010	

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
		Model Evaluation	December 31, 2010	
		Construct/Calibrate Model	June 30, 2011	
		Conduct Model Scenarios	August 31, 2011	
		Model Update Final Report	November 30, 2011	
VI.D.2.c.		Revise DAMP, WQMP, & LIPs to incorporate the compliance plans required above.		Annual Report
VI.D.2.h.		Summarize all relevant data from water quality monitoring programs and evaluate compliance with the LE/CL TMDL	Annually	Annual Report
VI.D.2. d. & VI.D.2. e.		Submit CNRP	December 31, 2011	December 31, 2020.
VI.D.2.a.		Initiate Phase 2 LE/CL TMDL data collection.	December 31, 2010	
VI.D.2.j.		Tables 9 & 10 become WQBELs if CNRP is not adopted by Regional Board	December 31, 2020	
VII.D.1		Report upon determination that discharges from the MS4 are causing or contributing to an exceedance of an applicable WQS	Within two (2) working days	Within Annual update of DAMP
VII.D.2		Modify DAMP, LIP, and MRP to address Receiving Water Limit Violations and implementation schedule.	---	30 days after approval of Subsection VI.D. report by Executive Officer
VII.D.4		Report any exceedance solely due to discharges outside the Permittees jurisdiction.		Within two (2) working days of becoming aware of the situation, provide oral or e-mail notice and provide written documentation within ten (10) calendar days of becoming aware of the situation.
VIII.C.		Promulgate ordinances that would control for known pathogen or Bacterial Indicator sources	Within 3 years of adoption	Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
VIII.F.		Review Storm Water Ordinances for effectiveness in prohibiting discharges to the MS4	Annual Report	
VIII. G.		Certification statement, signed by the Chief legal counsel, that the Permittee has obtained all necessary legal authority	Within 24 months of Order adoption.	Annual Report
VIII.H.		Permittees shall effectiveness of, implementation and enforcement response procedures.	Annually	Annual Report
IX. A.		Eliminate or permit IC/IDs		60 calendar days from receipt of notice from a third party.
IX.D.		Review and revise IC/ID program	18 months after Order adoption	Annual Report
IX.G.		Annually review and evaluate their IC/ID or IDDE program to determine if the program needs to be adjusted.	Annually	Annually
IX.H.		Maintain database summarizing IC/ID incident response	Annually	Annual Report
X.D.		Maintain inventory of septic systems within its jurisdiction completed in 2008.	Ongoing	Annual Report.
XI.A.11.		Each Permittee shall document, evaluate and annually report the effectiveness of its enforcement procedures in achieving prompt and timely compliance.	Annually	Annual Report
XI.A.13.		Permittees to evaluate and report adequacy of inspection programs conducted by other agencies on behalf of Permittee.	Annually	Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XI.B.4.		An inventory and inspection frequency of: Wet Season(Oct 1 – May 31): High = 1/mo., Med = 2/season, low = 1/season Dry Season: All construction sites shall be inspected at a frequency sufficient to ensure that sediment and other Pollutants are properly controlled and that unauthorized, Non-Storm Water discharges are prevented		Annual Report
XI.C.3		All high priority industrial facilities are to be inspected at least once a year; all medium priority sites are to be inspected at least once every two years; and all low priority sites are to be inspected at least once per permit cycle.		Annual Report
XI.D.4		All high priority sites shall be inspected at least once a year; all medium priority sites shall be inspected at least every two years; and all low priority sites shall be inspected at least once per MS4 Permit cycle.		Annual Report
XI.D.6		Notify all mobile businesses operating within the County concerning the minimum source control and pollution prevention measures that they must develop and implement.	Within 18 months of adoption of this Order	Annually
XI.D.7		The Principal Permittee shall develop an enforcement strategy to address mobile businesses.	Within 24 months of adoption of this Order	Annually

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XI.E.1		Each Permittee shall develop and implement a residential program to reduce the discharge of Pollutants from residences to the MS4s to the MEP.	Within 18 months of adoption of this Order	Annually
XI.E.6.		Co-Permittees to provide an evaluation of its residential program	Annually starting with the second Annual Report following MS4 Permit adoption	Annually starting with the third Annual Report following MS4 Permit adoption
XII.B.3 & B8.		The Co-Permittees shall submit to the Regional Board a Watershed Action Plan	Within three years of adoption of MS4 Permit.	Annual Report
XII.B.5		Develop HMP	Submit within 4 years of adoption	
XII.C.1.		Each Permittee shall review the watershed protection principles and policies in its General Plan and related documents to eliminate barriers to LID.	Within 24 months of adoption of this Order	Annually
XII.D.1.		Each Permittee to submit a revised WQMP to incorporate new elements required in the Order	Within 18 months of adoption of this Order	Annual Report
XII.D.5.		Principal Permittee to develop recommendations for streamlining regulatory agency approval of regional Treatment Control BMPs.	Within 24 months of adoption of this Order	Annually
XII.E.1		Permittees shall update the WQMP to incorporate LID principles,	18 months of Order adoption	
XII.E.4.		Revise Ordinances to promote Green Infilstructure	18 months of Order adoption. Implement within 6 months of EO approval.	
XII.E.5.		Each Permittee to update its landscape ordinance consistent with requirements of AB 1881 and annually evaluate effectiveness with respect to water efficiency and water conservation goals	January 31, 2010	2011-2012 Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XII. F.		Develop standard design and post-development BMP guidance for streets, roads etc. projects.	Within 24 months of adoption of this Order, Implement within 6 months of EO approval.	
XII.G1.		Permittees shall establish technically-based feasibility criteria for project evaluation to determine feasibility of implementing LID	Within 18 months of MS4 Permit adoption	No reporting specified
XII.H.		Each Permittee shall develop and implement standard procedures and tools, and include in its LIP.	Within 18 months of adoption of this Order	Annually
XII.K.4.		The Permittees shall maintain a database to track operation and maintenance of post-construction BMPs.		Annually
XII.K.5		Public Agency Treatment Control BMPs, shall be inspected prior to the Wet Season.	Within18 months of Order adoption and within the 5 year permit term.	Annually
		New Development (Redevelopment) Treatment Control BMPs, shall be inspected prior to the Wet Season.	Based on schedule submitted but at least once within the 5 year permit term.	Annually
XII.K.6.		Provide list of all post-construction Treatment Control BMPs approved, constructed and/or operating	Annually	Annual Report
XII.L.		Provisions for LID and HCOC included in WQMP.	Within 45 days of approval of WQMP.	
XIII.A.		Review public education and outreach efforts and revise their activities to adapt to the needs identified in the annual reassessment.		Annual Report
XIII.B.		Status report on Public Education and Outreach requirements and changes to the ongoing program	Annually	Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XIII.C.		Implement assessment program to measure increases in public knowledge of impacts of Urban Runoff on Receiving Waters	First Annual Report following MS4 Permit adoption	
XIII.F.		The Permittees shall develop, maintain and distribute BMP guidance for the control of those potentially polluting activities identified during the previous permit cycle, which are not otherwise regulated by any agency, including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals, and guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting.	Within 18 months of adoption of this Order	Annual Report
XIII.I.		The Public Education Committee shall meet at least twice per year.		Annual Report
XIII.J.		Sponsor or staff an Urban Runoff table or booth at community, regional, and/or countywide events to distribute public education materials to the public.	Each Permittee shall participate in at least one event per year.	Annually
XIII.K.		Involve public agency organizations, listed in Appendix 2, in Urban Runoff program. Notify the Regional Board where assistance is needed in improving local cooperation.		Annual Report
XIII.L		Develop and distribute BMP Fact Sheets for mobile businesses	Within 18 months of adoption of this Order	
XIV.A.		Review activities and facilities to determine the need for revisions to Section 5 of the DAMP and LIP.	Annually	Annual Report

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XIV.B.		Each Permittee shall review its inventory of fixed facilities listed in the DAMP, its field operations and MS4 facilities to ensure that public agency facilities and activities do not cause or contribute to a Pollution or nuisance in Receiving Waters.	Within 12 months of adoption of this Order	Annual Report
XIV.C.		Conduct inspections of its fixed facilities and field operations.	Annually	Annual Report
XIV. D.		Evaluate cleaning schedule.	Annually	Annual Report
XIV.E.		Unless otherwise determined, each Permittee shall inspect, clean & maintain at least 80% of it's open channels, catch basins, retention/detention basins, and wetlands created for Urban Runoff treatment.	Annually	Annual Report
XIV.G1.c.		Notify the Executive Officer of the proposed construction project by electronically submitting Permit Registration Documents (PRDs).	Prior to commencement of each construction project.	
XIV.G1.d.		the Executive Officer shall be notified of the completion of the project by submitting a Notice of Termination (NOT).	Upon completion of each construction project.	
XIV.G2.b.		Notify the Executive Officer of each proposed deminimus discharge at least 15 days prior to start of the discharge	At least 15 days prior to discharge.	At least 15 days prior to discharge.
XV.A		DAMP and each Permittee's LIP shall be updated to include a program to provide formal and where necessary, informal training to Permittee staff that implement the provisions of this Order	Within 24 months of adoption of Order	DAMP will be updated within 24 months of adoption of Order. LIP will be updated within 12 months of approval of LIP template by EO

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[(a)]**			
XV.A., XV.E. .		Each Permitee's LIP shall describe a program to provide formal and informal training to Permittee staff and contractors that implement the provisions of this Order. Provide the specified training.	Within 24 months of adoption of this Order and annually thereafter.	LIP will be updated within 24 months of order adoption.
XV.F.		Principal Permittee shall provide and document training to applicable Permittee staff on area wide procedures such as the DAMP, and any other applicable guidance and procedures developed by the Permittees to address activities in fixed facilities as well as field operations, including MS4 maintenance.	Within 12 months of adoption of this Order, within 12 months of hire and every two years, thereafter.	Bi-annually
XV.H*		Principal Permittee shall notify Regional Board staff		When notifying Permittees of training session.
XVI.A.		Notify of emergency events..		Within 24 hours of discovery
XVI.C		Sewage spill notification shall be consistent with the timelines specified in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ.		Consistent with 2006-003-DWQ.
XVI.D.		Hazardous Waste Spills	Notify within 24 hours.	
XVI.E.		Facilities operating without an applicable General permit.		Reported within 14 calendar days
XVII.A.		Evaluate the effectiveness of the Urban Runoff management program.	By November 30 of each year.	Annually by November 30.
XVII.B.		Amended DAMP pages.		Annual Report
XVIII.B.		Financial analysis report		Annual Report
XXII.A.		Report of Waste Discharge	180 days before permit expires	Jan 29, 2015

Reference		Item	Completion Time after Permit Adoption or Frequency	Report Due Date
Permit	**DAMP[a]**			
Appendix 3, III.C.		Review CMP to determine their effectiveness in Urban Runoff program assessment	Within 12 months of adoption of this Order	N/A
		Submit Revised CMP	Within 16 months of adoption of this Order and implement within 6 months of approval.	
Appendix 3, III.D.1.b.		Prepare a triennial report summarizing the data collected for the preceding 3 year period and evaluating compliance with the WLAs.	Every three years	The first report shall be due February 15, 2010.
Appendix 3, III.D.2		Submit an annual report summarizing all relevant data from water quality monitoring programs and evaluating compliance with the LE/CL TMDL by reporting the effectiveness of the BMPs implemented in the watershed to control nutrient inputs into the lake from Urban Runoff pursuant to Regional Board Resolution No. R8-2006-0031 and R8-2007-0083, or as amended by subsequent Regional Board adopted resolutions.	Annually	Annual Report
Appendix 3, IV.B.2.		Annual Report	Annually	November 30th

(a) This column to be completed by Permittees.

Date: 1-29-10

Ordered by

Gerard J. Thibeault
Executive Officer

APPENDIX 4

GLOSSARY

ORDER NO. R8-2010-0033

Appendix 4, GLOSSARY

40 CFR – Code of Federal Regulations Title 40: Protection of the Environment.

Annual Report – Report summarizing compliance information required to be submitted annually to the Regional Board on or before each November 30th.

Anthropogenic – Generated from human activities

APN – Assessor's parcel number

Basin Plan – Water Quality Control Plan developed by the Regional Board for the Santa Ana River watershed.

BAT [Best Available Technology] – Technology-based standard established by Congress in CWA Section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of Pollutant reductions that dischargers must achieve, typically by treatment or by a combination of Source Controls and Structural BMPs. BAT generally emphasizes treatment methods first and Pollution Prevention and Source Control BMPs secondarily. The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all Pollutants is determined in accordance with regulations issued by the USEPA Administrator. Factors relating to the assessment of BAT shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

BCT [Best Conventional Technology] – Treatment techniques, processes, and procedure innovations, and operating methods that eliminate or reduce chemical, physical, and biological Pollutant constituents.

Beneficial Use – Uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. “Beneficial Uses” that may be protected include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing Beneficial Uses are those that were attained in the surface or ground water on or after November 28, 1975; and potential Beneficial Uses are those that would probably develop in future years through the implementation of various control measures. “Beneficial Uses” are equivalent to “Designated Uses” under federal law. [California

Water Code Section 13050(f)] Beneficial Uses for the Receiving Waters are identified in the Basin Plan.

Biological Integrity – Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: "A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region." Also referred to as ecosystem health.

BMP [Best Management Practices] – Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the Pollution of Waters of the U.S. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of MS4 permits, BMPs are typically used in place of Numeric Effluent Limits.

CAFO – Concentrated animal feeding operation.

Caltrans – California Department of Transportation.

CAP – The Commercial and Industrial Compliance Assistance Program is a Riverside County Environmental Health Department program that includes a storm water survey and educational outreach as part of existing inspections of Hazardous Material handlers and retail food service activities. Hazardous Waste handling facilities are inspected at least once during a two-year cycle. Restaurants are inspected at least once during the MS4 Permit cycle. Any completed surveys that indicate non-compliance are forwarded to the appropriate jurisdiction's code enforcement division. The Permittees notify Regional Board staff when conditions are observed during such inspections that appear to violate the General Storm Water Permits or a permit issued by the Regional Board.

CEQA – California Environmental Quality Act (Section 21000 et seq. of the California Public Resources Code).

CIEP – Compliance Inspection and Enforcement Program

Cleaning – Removal of litter or debris that can impact Receiving Waters.

CMP – Consolidated Program for Water Quality Monitoring, Riverside County Flood Control and Water Conservation District, October 2008.

Commercial Facilities – Businesses that have the potential to discharge Pollutants to the MS4 not otherwise covered by the General Industrial Permit that are described in Section 8.1 of the DAMP. These businesses are inspected as part of the CAP or equivalent as described in Section 8.1 of the DAMP. Commercial Facilities include businesses based in a Permittee's jurisdiction that perform mobile carpet, drape or

furniture cleaning; mobile automobile or other vehicle washing and mobile high pressure or steam cleaning.

Comprehensive TMDL Plan – A plan presenting a long-term solution designed to achieve compliance with the WLAs by the dates specified in the TMDLs. This plan includes a description of the proposed BMPs and the documentation demonstrating that the BMPs are expected to attain the WLAs by the compliance dates when implemented.

Conditions of Concern – Scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition), and changes in fluvial geomorphology, hydrology or the aquatic ecosystem.

Construction Site – A site with activities for which building or grading permits have been issued and activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar or stucco.

Contamination – As defined in the Porter-Cologne Water Quality Control Act, contamination is "an Impairment of the quality of waters of the State by Waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease." Contamination includes any equivalent effect resulting from the disposal of Waste whether or not Waters of the U.S. are affected.

Co-Permittees – County of Riverside and the cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Menifee, Murrieta, Moreno Valley, Norco, Perris, Riverside, San Jacinto and Wildomar.

County – County of Riverside, a legal subdivision of the State of California.

CSA 152 – County Service Area 152

CWA – Federal Clean Water Act

CZARA – Coastal Zone Act Reauthorization Amendments of 1990

DAMP [Drainage Area Management Plan] – The DAMP is a programmatic document developed by the Permittees and approved by the Executive Officer that outlines the major programs and policies that the Permittees individually and/or collectively implement to manage Urban Runoff in the Permit Area.

DDT – Dichlorodiphenyltrichloroethane – An insecticide first used in 1939. Most uses of DDT were banned in 1972, with limited exception for public health purposes.

De Minimus Permit – General De Minimus Permit for Discharges to Surface Waters, Order NO. R8-2009-0003, NPDES No. CAG 998001

Design Capture Volume – (See Permit, XII.E.2)

Discretionary Project – Per Section 15357 of the Guidelines for CEQA "Discretionary Project" means a project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations. A timber harvesting plan submitted to the State Forester for approval under the requirements of the Z'berg-Nejedly Forest Practice Act of 1973 (Pub. Res. Code Sections 4511 et seq.) constitutes a discretionary project within the meaning of the California Environmental Quality Act. Section 21065(c).

Direct Discharge (Table 3a) – A discharge directly from an MS4 to a receiving water such that the MS4 discharge does not first co-mingle with waters from another receiving water or conveyance.

Dry Season/Dry Weather - The season excluding the Wet Season. Generally it will be June 1 through September 30 of each year, unless specifically defined otherwise in a applicable TMDL Implementation Plan.

Effective Impervious Area (EIA) – EIA is the portion of the total impervious area that is directly connected to the drainage collection system. EIA includes street surfaces, paved driveways connecting to the street, rooftops which are hydraulically connected to the curb or storm sewer system, and paved parking lots that drain to a storm sewer system.

Impervious area such as rooftops, streets, sidewalks, and parking areas do not allow water to drain into the soil. Impervious area that collects and drains the water directly to a stream or wetland system via pipes or sheet flow is considered “effective impervious area” because it effectively drains the landscape. Impervious area that drains to landscaped areas, swales, parks and other impervious areas is considered “ineffective” because the water is allowed to infiltrate through the soil and into ground water, without a direct connection to the stream or wetland.

Reducing effective impervious area is defined as disconnecting impervious surfaces such as sidewalks, rooftops, parking areas, and streets, from the drainage system so that runoff percolates into the soil and does not flow directly to streams. Disconnecting the stormwater system allows the watersheds’ hydrologic cycle to respond in a manner that more closely reflects pre-disturbed conditions. EIA reduction can occur as part of new development, redevelopment, or be part of a retrofit design. The level of benefit is determined by how well the practices minimize runoff in small to mid size storm events.

Effectiveness Assessment Outcome Level 1 - Compliance with Activity-based Permit Requirements – Level 1 outcomes are those directly related to the implementation of specific activities prescribed by this Order or established pursuant to it.

Effectiveness Assessment Outcome Level 2 - Changes in Attitudes, Knowledge, and Awareness – Level 2 outcomes are measured as increases in knowledge and awareness among target audiences such as residents, businesses, and municipal employees.

Effectiveness Assessment Outcome Level 3 - Behavioral Change and BMP Implementation – Level 3 outcomes measure the effectiveness of activities in affecting behavioral change and BMP implementation.

Effectiveness Assessment Outcome Level 4 - Load Reductions – Level 4 outcomes measure load reductions which quantify changes in the amounts of pollutants associated with specific sources before and after a BMP or other control measure is employed.

Effectiveness Assessment Outcome Level 5 - Changes in Urban Runoff and Discharge Quality – Level 5 outcomes are measured as changes in one or more specific constituents or stressors in discharges into or from MS4s.

Effectiveness Assessment Outcome Level 6 - Changes in Receiving Water Quality – Level 6 outcomes measure changes to receiving water quality resulting from discharges into and from MS4s, and may be expressed through a variety of means such as compliance with water quality objectives or other regulatory benchmarks, protection of biological integrity, or beneficial use attainment.

Effluent Limitations – means any restriction on quantities, discharge rates, and concentrations of Pollutants which are discharged from Point Sources into Waters of the U.S., waters of the "contiguous zone," or the ocean (40 CFR 122.2).

Emergency Situation – At a minimum, sewage spills that could impact water contact recreation, all sewage spills above 1,000 gallons, an oil spill that could impact wildlife, a Hazardous Material spill where residents are evacuated, all reportable quantities of Hazardous Waste spills as per 40CFR 117 and 302, and any incident reportable to the OES (1-800-852-7550).

Erosion and Sediment Control Plan (ESCP) – These are water quality protection plans that include control measures for erosion prevention and sediment controls that would minimize the mobilization of sediment from the project site.

ESA – Environmentally Sensitive Area - An area "in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in

an ecosystem and which would be easily disturbed or degraded by human activities and developments" (Reference: California Public Resources Code § 30107.5).

ESAs subject to storm water mitigation requirements are:

1. Areas adjacent to Receiving Waters designated as "Preservation of Biological Habitats of Special Significance (BIOL)", "Spawning, Reproduction, and Development (SPWN)" or "Rare, Threatened, or Endangered Species (RARE)" Beneficial Uses in the Basin Plan;

2. Areas within the MSHCP that contain rare or especially valuable plant or animal life or their habitat. These areas are considered mitigated as the MSHCP contains substantive alternatives analysis for any proposed development that has the potential to impact resources.

3. Areas adjacent to CWA 303(d) Listed Water Bodies or adopted TMDLs with implementation plans that have yet to achieve the Urban WLA or LA goals; and

4. Any other equivalent environmentally sensitive areas which the Permittees have defined.

Executive Officer - The Executive Officer of the Regional Board.

General Construction Permit – State Board Order No. 2009-0009 DWQ (NPDES No. CAS000002) or the most recent draft of the General Construction Permit issued by the State Board subsequent to issuance of this Order.

General Dairy Permit – Regional Board Order No. R8-2007-0001 (NPDES No. CAG018001) for CAFOs.

General De Minimus Discharges Permit – Regional Board Order No. R8-2009-0003.

General Industrial Permit – State Board Order No. 97-03 DWQ (NPDES No. CAS000001) or the most recent General Permit for Storm Water Discharges Associated with Industrial Activities issued by the State Board subsequent to issuance of this Order.

General Storm Water Permits – General Industrial Permit (State Board Order No. 97-03 DWQ, NPDES No. CAS000001) and General Construction Permit (State Board Order No. 2009-0009-DWQ NPDES No. CAS000002), or the most recent applicable General Permit issued by the State Board subsequent to the issuance of this Order.

General Utility Vaults Permit-– State Board Order No. 2006-0008-DWQ, NPDES No. CAG990002.

GIS – Geographical Information System.

Green Infrastructure – Generally refers to technologically feasible and cost-effective systems and practices that use or mimic natural processes to infiltrate, evapotranspirate, or reuse stormwater or runoff on the site where it is generated. This is a concept that highlights the importance of the natural environment in decisions about land use planning. In particular there is an emphasis on the "life support" functions provided by a network of natural ecosystems, with an emphasis on connectivity to support long term sustainability. (Also see Low Impact Development.)

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the USEPA to be reported if a designated quantity of the material is spilled into the Waters of the U.S. or emitted into the environment.

Hazardous Waste – defined as "any waste, which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code." [CCR Title 22, Division 4.5, Chapter 11, Article1]

HCOC – Hydrologic Condition of Concern - An HCOC exists when a site's hydrologic regime is altered and there are significant impacts on downstream channels and aquatic habitats, alone or in conjunction with impacts of other projects.

Hydromodification - the "alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources."[1] (USEPA 2007)

IC/ID – Illicit Connection/Illegal Discharge

IDDE - Illicit Discharge Detection and Elimination Program

Illegal Discharge –Defined at 40 CFR 122.26(b)(2) as any discharge to the MS4 that is not composed entirely of storm water, except discharges pursuant to an NPDES permit, discharges that are identified in Section VI.A. of this Order, and discharges authorized by the Executive Officer.

Illicit Connection – Any connection to the MS4 that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term Illicit Connection includes all non storm-water discharges and connections except discharges pursuant to an NPDES permit, discharges that are identified in Section V, Effluent Limitations and

[1] USEPA. 2007. *National Management Measures to Control Nonpoint Source Pollution from Hydromodification.* EPA 841-B-07-002. U.S. Environmental Protection Agency, Office of Water, Washington DC

Discharge Specifications, of this Order, and discharges authorized by the Executive Officer.

Impaired – Relates to waterbodies where it is presumed Beneficial Uses are not attained.

Impaired Waterbody / Impaired Waters – Section 303(b) of the CWA requires each of California's Regional Water Quality Control Boards to routinely monitor and assess the quality of waters of their respective regions. If this assessment indicates that Beneficial Uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an Impaired Waterbody. The 2006 water quality assessment found a number of water bodies within the Permit Area as Impaired pursuant to Section 303(d). In the Permit Area, these include: Canyon Lake (for pathogens); Lake Elsinore (for PCBs and unknown toxicity); Lake Fulmor (for pathogens); Santa Ana River, Reach 3 (pathogens); and Santa Ana River, Reach 4 (for pathogens).

Impairment – A waterbody condition where Beneficial Uses are not attained.

Implementation Agreement – The Implementation Agreement establishes the responsibilities of each Permittee and a procedure for funding the shared costs.

Impressions – The most common measure is "gross impressions" that includes repetitions. This means if the same person sees an advertisement or hears a radio or sees a TV advertisement a thousand times, that will be counted as 1000 Impressions.

Industrial Facility – Facilities defined in Attachment 1 of the General Industrial Permit. These facilities are also addressed by the CAP or equivalent as described in Section 8.1 of the DAMP.

LA – [Load Allocations] – Distribution or assignment of TMDL Pollutant loads to entities or sources for existing and future Non-Point Sources, including background loads.

Land Disturbance – The clearing, grading, excavation, stockpiling, or other construction activity that result in the possible mobilization of soils or other Pollutants into the MS4. This specifically does not include routine maintenance activity to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. This also does not include emergency construction activities required to protect public health and safety. The Permittees should first confirm with Regional Board staff if they believe that a particular routine maintenance activity is exempt under this definition from the General Construction Permit or other Orders issued by the Regional Board.

Local Implementation Plan (LIP) – Document describing an individual Permittee's procedures, ordinances, databases, plans, and reporting materials for compliance with the MS4 Permit.

Low Impact Development (LID) – Comprises a set of technologically feasible and cost-effective approaches to storm water management and land development that combines a hydrologically functional site design with Pollution Prevention measures to compensate for land development impacts on hydrology and water quality. LID techniques mimic the site's predevelopment hydrology by using site design techniques that store, infiltrate, evapotranspire, bio-treat, bio-filter, bio-retain or detain runoff close to its source.

Major Outfall – Outfalls with a pipe diameter of 36 inches or greater or drainage areas draining 50 acres or more.

Management Steering Committee – Committee to address Urban Runoff management policies for the Permit Area and coordinate the review and necessary revisions of the DAMP and Implementation Agreement. The Management Steering Committee consists of one or more city manager or equivalent representatives from each Permittee.

MEP [Maximum Extent Practicable] MEP is an acronym for "Maximum Extent Practicable" and refers to the standard for implementation of storm water management programs.
Section 402(p)(3)(B)(iii) of the Clean Water Act requires that municipal storm water permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system design and engineering
methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."

In practice, compliance with the MEP standard is evaluated by how well the Permittees implement the "minimum measures" identified by EPA, including: (1)Public education and outreach on storm water impacts; (2) Public involvement/participation; (3) Illicit discharge detection and elimination; (4) Construction site storm water runoff control; (5) Post-construction storm water management in new development and redevelopment; and (6) Pollution prevention/good housekeeping for municipal operations. Collectively, these minimum measures are often referred to as "Best Management Practices" or BMPs. The MEP standard does not require Permittees to reduce pollutant concentrations below natural background levels, nor does it require further reductions where pollutant concentrations in the receiving water already meet water quality objectives. In implementing the MEP standard, it is appropriate for Permittees to prioritize their resource allocation to address the storm water pollution problems that pose the greatest and most immediate threat to human health or the environment.

MEP is a technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source control and treatment control BMPs. MEP

generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their urban runoff management programs. Their total collective and individual activities conducted pursuant to the urban runoff management programs becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance). In the absence of a proposal acceptable to the Regional Board, the Regional Board defines MEP.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

“To achieve the MEP standard, municipalities must employ whatever Best management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPS only where other effective BMPS will serve the same purpose or the BMPS would not be technically feasible, or the cost would be prohibitive. In selecting BMPS to achieve the MEP standard, the following factors may e useful to consider:

a. Effectiveness: Will the BMPS address a pollutant (or pollutant source) of concern?

b. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?

c. Public Acceptance: Does the BMP have public support?

d. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?

e. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPS and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPS except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPS that should provide generally comparable

effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPS that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPS the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPS, it is the responsibility of the discharger to ensure that all BMPS are implemented."

Ministerial – Per Section 15369 of the CEQA Guidelines, Ministerial describes a governmental decision involving little or no personal judgment by the public official as to the wisdom or manner of carrying out the project. The public official merely applies the law to the facts as presented but uses no special discretion or judgment in reaching a decision. A ministerial decision involves only the use of fixed standards or objective measurements, and the public official cannot use personal, subjective judgment in deciding whether or how the project should be carried out. Common examples of ministerial permits include automobile registrations, dog licenses, and marriage licenses. A building permit is ministerial if the ordinance requiring the permit limits the public official to determining whether the zoning allows the structure to be built in the requested location, the structure would meet the strength requirements in the Uniform Building Code, and the applicant has paid his fee.

MSAR – Middle Santa Ana River

MSHCP – Western Riverside County Multiple Species Habitat Conservation Plan

MS4 – **[Municipal Separate Storm Sewer System]** – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to Waters of the U.S.; (ii) Designated or used for collecting of conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the POTW as defined at 40 CFR 122.2.

New Development – The categories of development identified in Section XI.D of this Order. New Development does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of a facility, nor does it include emergency New Development required to protect public health and safety. Dischargers should confirm with Regional Board staff whether or not a particular routine maintenance activity is subject to this Order.

New Urbanism – New Urbanism refers to the use of creative strategies to develop ways that preserve natural lands and critical environmental areas, protect water and air quality, and reuse already-developed land. This is based on principles of planning and architecture that work together to create human-scale, walkable communities that preserve natural resources.

NOI [Notice of Intent] – A NOI is an application for coverage under the General Storm Water Permits.

Non-Point Source – Refers to diffuse, widespread sources of Pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non-Point Sources, include but are not limited to urban, agricultural or industrial area, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. Non-Point Source Pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up Pollutants from these numerous, diffuse sources and deposits them into rivers, lakes and coastal waters or introduces them into groundwater.

Non-storm Water – All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges to a MS4 other than storm water). Non-storm Water includes Illicit Discharges, non-prohibited discharges and NPDES permitted discharges.

NOT - Notice of Termination – Formal notice to the Regional Board of intent to terminate water discharge for projects covered under a General Stormwater Permit.

NPDES [National Pollutant Discharge Elimination System] – Permits issued under Section 402(p) of the CWA for regulating discharge of Pollutants to Waters of the U.S.

Nuisance – As defined in the Porter-Cologne Water Quality Control Act a Nuisance is "anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of Wastes."

Numeric Effluent Limitations – A quantitative limitation on Pollutant concentrations or levels to protect Beneficial Uses and Water Quality Objectives of a water body. When Numeric Effluent Limits are met at the "end-of-pipe," the effluent discharge generally will not cause Water Quality Standards to be exceeded in the receiving waters (i.e., Water Quality Standards will also be met).

Nurdles – A plastic pellet, also known as pre-production plastic pellet or plastic resin pellet.

NURP - National Urban Runoff Program

OES – The Governor's Office of Emergency Services, an agency of the State of California.

"Only Rain Down The Storm Drain" Pollution Prevention Program – County Urban Runoff public education program.

Open Space – Any parcel or area of land or water that is essentially unimproved or devoted to an open-space use for the purposes of (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety. [Riverside County General Plan, adopted October 7, 2003. Technical Appendix A , Glossary]

Order – Order No. R8-2010-0033 (NPDES No. CAS618033)

Outfall – Means a Point Source as defined by 40 CFR 122.2 a, the point where a municipal separate storm sewer discharges to Waters of the U.S. and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other Waters of the U.S. and are used to convey Waters of the U.S.. [40 CFR 122.26 (b)(9)]

PAHs – Polycyclic aromatic hydrocarbons. PAHs occur in oil, coal, and tar deposits, and are produced as byproducts of fuel burning (whether fossil fuel or biomass). As a Pollutant, they are of concern because some compounds have been identified as carcinogenic, mutagenic, and teratogenic. PAHs are also found in foods.

Party – Defined as an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof. [40 CFR 122.2]

PCBs – Polychlorinated biphenyls. Due to PCB's toxicity and classification as persistent organic Pollutants, PCB production was banned by the United States Congress in 1976 and by the Stockholm Convention on Persistent Organic Pollutants in 2001.

Permit Area – In the Santa Ana Region, the portion of the Santa Ana River watershed that is within the County and regulated under the MS4 Permit. The Permit Area is identified on Appendix 1 as "Permittee Urban Area" and those areas under the Permittee's jurisdictions designated as "Agriculture" and "Open Space" on Appendix 1 that will convert to Permittee Urban Area when developed to industrial, commercial, or residential use during the term of the Order.

Permittees – Co-Permittees and the Principal Permittee

Point Source – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollutant – Broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of Pollution or Contamination is created or aggravated.

Pollutants of Concern –Pollutants expected to be present on the project site. In developing this list, consideration should be given to the chemicals and potential Pollutants available for storm water to pick-up or transport to Receiving Waters and legacy Pollutants at the project site. Pollutants of Concern for New Development and Significant Redevelopment projects are those Pollutants identified above for which a downstream water body is also listed as Impaired under the CWA Section 303(d) list or by a TMDL.

Pollution – As defined in the Porter-Cologne Water Quality Control Act, Pollution is the alteration of the quality of the Waters of the U.S. by Waste, to a degree that unreasonably affects either of the following: A) the waters for Beneficial Uses (i.e., when the Water Quality Objectives have been violated); or B) facilities that serve these Beneficial Uses. Pollution may include Contamination.

Pollution Prevention –Defined as practices and processes that reduce or eliminate the generation of Pollutants, in contrast to Source Control, Pollution Control, Treatment Control BMPs, or disposal.

Post-Construction BMPs – A subset of BMPs including Site Design, Source Control, and Treatment Control BMPs which detain, retain, filter or educate to prevent the release of Pollutants to surface waters during the final functional life of development.

POTW – [Publicly Owned Treatment Works] – Wastewater treatment facilities owned by a public agency.

Principal Permittee – Riverside County Flood Control and Water Conservation District [RCFC&WCD].

Public Education Committee – Committee established by the Permittees to provide oversight and guidance for the implementation of the public education program.

QAPP - Quality Assurance Project Plan

Rainy Season – See Wet Season.

RCFC&WCD – Riverside County Flood Control and Water Conservation District

REC – Recreational Beneficial Use.

Receiving Water(s) – Waters of the U.S.within the Permit Area.

Receiving Water Limitations – Requirements included in the Orders issued by the Regional Boards to assure that the regulated discharges do not violate Water Quality Standards established in the Basin Plan at the point of discharge to Waters of the U.S. Receiving Water Limitations are used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet Water Quality Standards.

Receiving Water Quality Objectives – Water Quality Objectives specified in the Basin Plan for Receiving Waters.

Region – The portion of the Santa Ana River watershed within Riverside County.

Regional Board – California Regional Water Quality Control Board, Santa Ana Region.

RGO – Retail gasoline outlet

Riverside County – Territory within the geographical boundaries of the County.

ROWD [Report of Waste Discharge] – Application for issuance or re-issuance of WDRs.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system.

Santa Ana Region – Area under the jurisdiction of the Regional Board.

SARA – Superfund Amendments and Reauthorization Act. SARA amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) on October 17, 1986. SARA reflected USEPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program. SARA:

- stressed the importance of permanent remedies and innovative treatment technologies in cleaning up Hazardous Waste sites;
- required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations;
- provided new enforcement authorities and settlement tools;

- increased State involvement in every phase of the Superfund program;
- increased the focus on human health problems posed by Hazardous Waste sites;
- encouraged greater citizen participation in making decisions on how sites should be cleaned up; and
- increased the size of the trust fund to $8.5 billion.

SARA also required USEPA to revise the Hazard Ranking System (HRS) to ensure that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled Hazardous Waste sites that may be placed on the National Priorities List (NPL).

SAWBAA – Santa Ana Watershed Benefit Assessment Area

SCCWRP – Southern California Coastal Water Research Project

Sediment – Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a Pollutant. This Order regulates only the discharges of Sediment from anthropogenic sources and does not regulate naturally occurring sources of Sediment. Sediment may destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

SIC [Standard Industrial Classification] – Four digit industry code, as defined by the US Department of Labor, Occupational Safety and Health Administration. The SIC Code is used to identify if a facility requires coverage under the General Industrial Activities Storm Water Permit.

Significant Redevelopment – As defined in Section XI.D.3.a.

SIP - Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Site Design BMPs – Any project design feature that reduces the creation or severity of potential pollutant sources or reduces the alteration of the project site's natural flow regime. Redevelopment projects that are undertaken to remove Pollutant sources (such as existing surface parking lots and other impervious surfaces) or to reduce the need for new roads and other impervious surfaces (as compared to conventional or low-density New Development) by incorporating higher densities and/or mixed land uses into the project design, are also considered site design BMPs

Smart Growth Principles – Smart Growth refers to the use of creative strategies to develop ways that preserve natural lands and critical environmental areas, protect water and air quality, and reuse already-developed land.

SMC - Storm Water Monitoring Coalition

Source Control BMPs – In general, activities or programs to educate the public or provide low cost non-physical solutions, as well as facility design or practices aimed to limit the contact between Pollutant sources and storm water or authorized Non-Storm Water. Examples include: activity schedules, prohibitions of practices, street sweeping, facility maintenance, detection and elimination of IC/IDs, and other non-structural measures. Facility design (structural) examples include providing attached lids to trash containers, canopies for fueling islands, secondary containment, or roof or awning over material and trash storage areas to prevent direct contact between water and Pollutants.

Southern California Monitoring Coalition (SMC) - A regional group working to improve monitoring program design, parameter test methods, calibrate labs, evaluate the effectiveness of BMPs, and/or advance the science and understanding of Urban Runoff impacts on Receiving Waters.

SSMP – Sewer System Management Plan

SSO Order – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ.

State Board – California State Water Resources Control Board

Storm Water – Storm water runoff and snow melt runoff from urban, open space, and agricultural areas consisting only of those discharges that originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the MS4 or receiving waters. Examples of this phenomenon include: the water that flows off a building's roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all other factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water may pick up and transports Pollutants through storm water conveyance systems, and ultimately to Waters of the U.S.

Storm Water Ordinance – The Storm Water/Urban Runoff Management and Discharge Control Ordinances and ordinances addressing grading and erosion control adopted by each of the Co-Permittees.

Structural BMPs – Physical facilities or controls that may include secondary containment, treatment measures, (e.g. first flush diversion, detention/retention basins, and oil/grease separators), run-off controls (e.g., grass swales, infiltration trenches/basins, etc.), and engineering and design modification of existing structures.

Subdivision Map Act - Section 65000 et seq. of the California Government Code

SWAMP - Surface Water Ambient Monitoring Program

SWPPP [Storm Water Pollution Prevention Plan] – Plan required by the General Construction Permit to minimize and manage Pollutants to minimize Pollution from entering the MS4, identifying all potential sources of Pollution and describing planned practices to reduce Pollutants from discharging off the site.

SWQSTF – Storm Water Quality Standards Task Force

TDS – Total dissolved solids.

Technical Committee – A committee consisting of one or more representatives from each Permittee that provides technical direction on the development of the DAMP and the implementation of the overall Urban Runoff program.

Technology-Based Effluent Limitations – A permit limit for a Pollutant that is based on the capability of a treatment method to reduce the Pollutant to a certain concentration.

TIN – Total Inorganic Nitrogen

TMDL [Total Maximum Daily Load] – Maximum amount of a Pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain Water Quality Standards. Under CWA Section 303(d), TMDLs must be developed for all water bodies that do not meet Water Quality Standards after application of technology-based controls.

TMDL Implementation Plan – Component of a TMDL that describes actions, including monitoring, needed to reduce Pollutant loadings and a timeline for implementation. TMDL Implementation Plans can include a monitoring or modeling plan and milestones for measuring progress, plans for revising the TMDL if progress toward cleaning up the waters is not made, and the date by which Water Quality Standards will be met (USEPA Final TMDL Rule: Fulfilling the Goals of the CWA, EPA 841-F-00-008, July 2000).

Toxic Substance – A substance that can cause Toxicity.

Toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Treatment Control BMPs – Any engineered system designed and constructed to remove Pollutants from Urban Runoff. Pollutant removal is achieved by simple gravity

settling of particulate Pollutants, filtration, biological uptake, media adsorption or any other physical, biological, or chemical process.

Tributary – a stream, river, or MS4 which flows into downstream receiving water, MS4 or BMP.

TSS – Total suspended solids.

Uncontaminated Pumped Groundwater – Groundwater that meets the surface Water Quality Objectives specified in the Basin Plan to which it is proposed to be discharged.

Urban Runoff – Urban Runoff includes those discharges from residential, commercial, industrial, and construction areas within the Permit Area and excludes discharges from Open Space[2], feedlots, dairies, farms and agricultural fields. Urban Runoff discharges consist of storm water and non-storm water surface runoff from drainage sub-areas with various, often mixed, land uses within all of the hydrologic drainage areas that discharge into the Waters of the U.S. In addition to Urban Runoff, the MS4s regulated by this Order receive flows from Open Space, agricultural activities, agricultural fields state and federal properties and other non-urban land uses not under the control of the Permittees. The quality of the discharges from the MS4s varies considerably and is affected by, among other things, past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed disposal practices and Illicit Connections.

The Permittees lack legal jurisdiction over storm water discharges into their respective MS4 facilities from agricultural activities, California and federal facilities, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by or under the jurisdiction of the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate Pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, leaching of naturally occurring minerals from local geography. Urban Runoff does not include background Pollutant loads or naturally occurring flows.

USEP – Urban Source Evaluation Plan for the MSAR TMDL.

USEPA – United States Environmental Protection Agency.

[2] This use of Open Space excludes Open Space integrated into urbanized areas such as pocket parks, landscaped medians, walking trails, etc. Open Space is intended to address essentially unimproved areas in strictly unurbanized settings.

Waste – As defined in Water Code Section 13050(d), "Waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal." Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system that applies to solid and semi-solid waste that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, non-hazardous solid waste, and inert waste.

Waste Discharge Requirements (WDRs) – As defined in Section 13374 of the California Water Code, the term "Waste Discharge Requirements" is the equivalent of the term "permits" as used in the Federal Water Pollution Control Act, as amended. The Regional Board usually reserves reference to the term "permit" to Waste Discharge Requirements for discharges to surface Waters of the U.S.

Waste Load Allocations (WLAs)– Maximum quantity of Pollutants a discharger of waste is allowed to release into a particular waterway, as set by a regulatory authority. Discharge limits usually are required for each specific water quality criterion being, or expected to be, violated. Distribution or assignment of TMDL Pollutant loads to entities or sources for existing and future Point Sources.

WQBEL – Water Quality Based Effluent Limitations

Water Code – California Water Code

Waters of the U.S. – Waters of the U.S. can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the U.S. As defined in 40 CFR 122.2, the Waters of the U.S. are defined as: (a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as Waters of the U.S. under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)

through (f) of this definition. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Water Quality Objectives – Means the numeric or narrative limits or levels of water quality constituents or characteristics which are established for the reasonable protection of Beneficial Uses of water or the prevention of Nuisance within a specific area. [California Water Code Section 13050(h)]

Water Quality Standards –The water quality goals of a waterbody (or a portion of the waterbody) designating Beneficial Uses to be made of the water and the Water Quality Objectives or criteria necessary to protect those uses. These standards also include California's anti-degradation policy.

Watershed – That geographical area which drains to a specified point on a watercourse, usually a confluence of streams or rivers (also known as drainage area, catchments, or river basin).

Watershed Action Plan (WAP) – Integrated plans for managing a watershed that include consideration of water quality, Hydromodification, water supply and habitat protection. The Watershed Action Plan integrates existing watershed based planning efforts and incorporates watershed tools to manage cumulative impacts of development on vulnerable streams, preserve structure and function of streams, and protect source, surface and groundwater quality and water supply in the Permit Area. The Watershed Action Plan should integrate Hydromodification and water quality management strategies with land use planning policies, ordinances, and plans within each jurisdiction.

WDID [Waste Discharge Identification] – Identification number provided by the State when a Notice of Intent is filed.

Wet Season/Wet Weather – October 1 through May 31st of each year unless defined otherwise in the specific applicable TMDL implementation plan. The Middle Santa Ana River TMDL defines the wet season as November 1 through March 31st and the Canyon Lake/Lake Elsinore TMDL monitoring defines it as October 1st through May 31st.

WQMP – Water Quality Management Plan as discussed in Section 6 of the DAMP.

WRCOG - Western Riverside Council of Governments

APPENDIX 5

NOTICE OF INTENT AND NOTICE OF TERMINATION FOR MUNICIPAL CONSTRUCTION ACTIVITIES

ORDER NO. R8-2010-0033

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD – SANTA ANA REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE RIVERSIDE COUNTY MUNICIPAL STORMWATER PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES

ORDER No. R8-2010-0033 (NPDES No. CAS618033)

MARK ONLY ONE ITEM 1. ☐ New Construction/Reconstruction 2. ☐ Change of Information for WDID# _____

I. OWNER

Name	Contact Person		
Mailing Address	Title		
City	State **CA**	Zip	Phone ( ) – Fax ( ) – Email :

II. CONTRACTOR INFORMATION

Name	Contact Person		
Local Mailing Address	Title		
City	State	Zip	Phone ( ) – Fax ( ) – Email:

III. SITE INFORMATION

A. Project Title	Site Address		
City/Unincorporated Area	State **CA**	Zip	Contact Person Phone ( ) –
B. Construction commencement date: (Month / Day / Year)	C. Projected construction completion date: (Month / Day / Year)		

D. Type of Work: ☐ Utility ☐ Flood Control ☐ Transportation ☐ Other (Specify) Description of Work: _____	E. Total size of project/construction site: ____Acres Total size of area to be disturbed:_ ____Acres.

IV. RECEIVING WATER INFORMATION

A. Does the storm water runoff from the construction site discharge to (check all that apply):

1. ☐ Indirectly to Waters of the U.S.
2. ☐ MS4 Facility - Enter owner's name:_____
3. ☐ Directly to Waters of U.S. (e.g. , river, lake, creek, stream, or to a pipe/channel that flows without inflow from other sources between site and water body etc.)

V. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (mark one) ☐ A SWPPP has been prepared for this project and is available for review ☐ A SWPPP will be prepared and ready for review by (date): ___/___/___ B. Date WQMP approved by MS4 Permittee: ___/___/___ ☐ Not Applicable.	C. MONITORING PROGRAM (MP) (mark one) ☐ A MP has been prepared for this facility and is available for review ☐ A MP will be prepared and ready for review by (date): ___/___/___

VI. CERTIFICATIONS

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that Order No. R8-2010-0033; (specifically Sections XII.F., XIV, XVI, and XX), including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan, will be complied with."

Printed Name: _____ **Title:** _____

Signature: _____ **Date:** _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD – SANTA ANA REGION

NOTICE OF TERMINATION

OF COVERAGE UNDER THE RIVERSIDE COUNTY MUNICIPAL STORMWATER PERMIT
FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

ORDER No. R8-2010-0033 (NPDES No. CAS618033)

I. WDID No. _____

II. OWNER

Name	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone ( ) – Fax ( ) – Email:

III. SITE INFORMATION

A. Original Project Title	Site Address			
City/Unincorporated Area	State CA	Zip	Site Contact Person	
B. Contractor Name	Phone ( ) – Fax ( ) – Email:		Title	
Local Mailing Address	City		State	Zip
Qualified SWPPP Practitioner	Phone ( ) – Fax ( ) – Email:			

IV. BASIS OF TERMINATION

__ 1. The construction project is completed and the following conditions have been met.

- ☐ All elements of the Storm Water Pollution Prevention Plan have been completed.
- ☐ Construction materials and waste have been disposed of properly.
- ☐ The site is in compliance with all local storm water management requirements.
- ☐ A post-construction storm water operation and management plan is in place (Attach a description of the post construction BMPs, the location (Latitude /Longitude), and a map of the locations of the post construction BMPs).
- ☐ Date field verification inspection performed and include a copy of the field verification report. ___/___/___

__ 2. Construction activities have been suspended; either temporarily ____ or indefinitely ___ and the following conditions have been met.

- ☐ All elements of the Storm Water Pollution Prevention Plan have been completed.
- ☐ Construction materials and waste have been disposed of properly.
- ☐ The site is permanently stabilized (greater than 3 years without maintenance).
- ☐ The site is in compliance with all local storm water management requirements.

Date of suspension ____ / ____ / ____ Expected start up date ____ / ____ / ____

V. CERTIFICATION

I certify under penalty of law that all storm water discharges associated with construction activity from the identified site that are authorized by NPDES General Permit No. CAS000002 have been eliminated or that I am no longer the owner of the site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with construction activity under the General Permit, and that discharging pollutants in storm water associated with construction activity to Waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an owner of liability for any violation of the General Permit or the Clean Water Act.

Printed Name: _____ **Title:** _____

Signature: _____ **Date:** _____

APPENDIX 6

FACT SHEET

ORDER NO. R8-2010-0033

State of California

California Regional Water Quality Control Board

Santa Ana Region

3737 Main Street, Suite 500

Riverside, CA 92501- 3348

FACT SHEET

January 29, 2010

ITEM: 09

SUBJECT: Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County within the Santa Ana Region, Urban Runoff Management Program, Order No. R8-2010-0033 (NPDES No. CAS 618033)

I. INTRODUCTION

A. PROJECT

The attached pages contain information concerning an application for renewal of Waste Discharge Requirements and a National Pollutant Discharge Elimination System (NPDES) permit, Order No. R8-2010-0033 (Order), NPDES No. CAS 618033, which prescribes Waste Discharge Requirements for Urban Runoff (as defined in Appendix 4) from the cities and the unincorporated areas in Riverside County within the jurisdiction of the Santa Ana Regional Board Water Quality Control Board (Regional Board). This Order regulates discharges of Urban Runoff from the Permit Area, as defined in Order No. R8-2010-0033 and shown in Appendix 1.

If appropriate Pollution control measures are not implemented, Urban Runoff, (as defined in Appendix 4 – Glossary), may contain pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, mostly nitrogen and phosphorus compounds), oxygen-demanding substances (decaying matter), pesticides (DDT, chlordane, diazinon, chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil & grease, PAHs, petroleum hydrocarbons).

If not properly managed and controlled, urbanization may change the stream hydrology and increase Pollutant loading to Receiving Waters. As a watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity may increase, riparian habitats and wetland habitats decrease, the frequency and severity of flooding may increase, and Pollutant loading may increase. Most of these impacts occur due to human activities (Anthropogenic) that occur during and/or after urbanization. The Pollutants and hydrologic changes may

cause declines in aquatic resources, cause toxicity to aquatic organisms, and impact human health and the environment. Based on information provided in Section D of the Riverside County Flood Control and Water Conservation District's (RCFC&WCD or the Principal Permittee as context indicates) Hydrology Manual, it is feasible that, in semi-arid regions, development may result in the creation of a net increase in absorption.

Properly planned high-density development may reduce urban sprawl and problems associated with sprawl. Urban in-fill and high-density development are elements of smart growth, which creates the opportunity to maintain relatively natural open space elsewhere in the Permit Area (see Appendix 4). The goal of Low Impact Development (LID) is to mimic pre-development runoff quality and quantity.

On April 27, 2007, The RCFC&WCD in cooperation with the County of Riverside (the County) and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, and San Jacinto jointly submitted a NPDES Application No. CAS 618033, a Report of Waste Discharge (the ROWD) and a revised Drainage Area Management Plan (DAMP) to renew the Municipal Separate Storm Sewer System (MS4) NPDES permit for the Santa Ana River watershed (the Permit Area) within Riverside County. This Order renews the NPDES permit authorizing Urban Runoff in the Permit Area (see Appendix 1, "urban area" includes those portions of "agriculture" and "open space" that convert to industrial, commercial, or residential use during the term of this Order). To more effectively carry out the requirements of this Order, the Permittees have agreed that the RCFC&WCD will continue as the Principal Permittee and the County and the incorporated cities will continue as the Co-Permittees.

On February 5, 2008 Wildomar residents voted for cityhood and the City incorporated on July 1, 2008. Menifee residents voted for cityhood on June 3, 2008 and the City incorporated on October 1, 2008. On May 6, 2009, the City of Menifee and on May 5, 2009, the City of Wildomar submitted Letters of Intent to be a Co-Permittee in this Order and for the purposes of this Order shall be considered as such. The cities in the Permit Area, along with the County, are collectively referred to as the Co-Permittees, and collectively, with the Principal Permittee, the Permittees.

B. PROJECT AREA

The Permit Area contains 1,396 square miles or 19.1% of the 7,300 square miles within Riverside County and includes 15 of the 26 municipalities within Riverside County. The California Department of Finance estimates that as of January 1,

2006, the population of Riverside County is 1,953,330 of which 1,237,388[1] reside within the Permit Area. The California Department of Finance estimates that as of January 1, 2009, the population of Riverside County was 2,107,653[2]. Beaumont, Calimesa, and Canyon Lake have populations of 25,000 or less. The County, Corona, Moreno Valley and Riverside have populations of 100,000 or more. The Southern California Association of Governments estimates that the County of Riverside will grow by 16% between 2006 and 2010 (2008 RTP Growth Forecast by City). The most significant percentage growth in population between 2006 and 2010 occurred in the Cities of Beaumont, Calimesa, and San Jacinto.

Land uses in Riverside County within the Santa Ana River Region include open space, residential, commercial, light industrial, heavy industrial, and agriculture. The agricultural land uses include row crops, nurseries, citrus groves and vineyards, dairies, ranches, poultry and hog farms, and other agricultural related uses with one single-family residence allowed per 10 acres (County of Riverside General Plan, Land Use Element 2003). The conversion of agricultural lands and open space to other "developed" land uses has been ongoing and will continue. Based on Riverside County Assessor's Parcel Data as of February 2006, the land use mix of the County area within the Santa Ana Region was: 29,441 acres used or zoned for commercial/industrial purposes (3.3%), 70,499 acres for residential purposes (7.9%), 11,798 acres utilized for improved streets and roads (1.3%), 9,872 acres are used for parks and recreational facilities (1.1%), 70,164 acres are used for rural residential (7.9%), 453,976 acres are utilized for open space (50.8%), and 48,627 acres are used for agricultural purposes (5.4%). The federal, state, tribal, and non-Permittee jurisdictional lands within the portion of Riverside County within the Santa Ana Region total 199,064 acres (22.3%).

Less than one fifth (1/5) of Riverside County is within the Permit Area. The Permit Area includes the "urban area" as shown in Appendix 1 and those portions of "agriculture" and "open space" as shown on Appendix 1 that do convert to industrial, commercial or residential use during the term of this Order. The Permit Area is delineated by the San Bernardino-Riverside County boundary line on the north and northwest, the Orange-Riverside County boundary line on the west, the Santa Ana-San Diego Regional Board boundary line on the south, and the Santa Ana-Colorado River Basin Regional Board boundary line on the east. Sixty-seven percent of Riverside County's population resides within the Regional Board's jurisdiction. The San Diego and the Colorado River Basin Regional Water Quality Control Boards regulate Urban Runoff from those portions of Riverside County outside of the Permit Area shown in Appendix 1.

[1] As per Section 3.3.1 of the 2007 ROWD, (Western Riverside Council of Governments (WRCOG), excluding the cities of Menifee and Wildomar

[2] E-1 report dated April 30, 2009 (http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/2008-09/documents/E-1_2009%20Press%20Release.pdf).

C. CLEAN WATER ACT REQUIREMENTS

The federal Clean Water Act (the "CWA") established a national policy designed to help maintain and restore the physical, chemical and biological integrity of the nation's waters. In 1972, the CWA established the NPDES permit program to regulate the discharge of Pollutants from Point Sources to "Waters of the U.S.". From 1972 to 1987, the main focus of the NPDES program was to regulate conventional Pollutant sources such as sewage treatment plants and industrial facilities. As a result, on a nationwide basis, non-point sources, including agricultural runoff and Urban Runoff, now contribute a larger portion of many kinds of Pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities.

The National Urban Runoff Program (NURP) final report to the Congress (USEPA, 1983) concluded that the goals of the CWA could not be achieved without addressing Urban Runoff discharges. The 1987 CWA amendments established a framework for regulating Urban Runoff. Pursuant to these amendments, the Santa Ana Regional Board began regulating discharges from MS4s in 1990.

II. REGULATORY BACKGROUND AND CLEAN WATER ACT REQUIREMENTS

As water flows over streets, parking lots, construction sites, and industrial, commercial, residential, and municipal areas, it may intercept Pollutants from these areas and transport them to Waters of the U.S.. As indicated in I.A, above, Urban Runoff may contain pathogens, sediment, trash, fertilizers, oxygen-demanding substances, pesticides, heavy metals, and petroleum products. If not properly managed and controlled, urbanization may adversely impact water quality and quantity in the receiving waters.

However, urban development projects that incorporate LID concepts may reduce the impact of urban development on runoff water quality and quantity.

Studies[3] conducted in the Southern California area have established storm water runoff from urban areas as significant sources of Pollutants in surface waters. The Santa Ana River is impacted by agricultural, other discharges and Urban Runoff as it flows through the San Bernardino County and Riverside County areas prior to flowing through Orange County and into the Pacific Ocean.

If not properly controlled, Urban Runoff could be a significant source of Pollutants in the Waters of the U.S. Table 1 includes a list of Pollutants, potential sources, and some of the adverse environmental consequences mostly resulting from urbanization.

[3] Bay, S., Jones, B. H. and Schiff, K, 1999, Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Southern California Coastal Water Research Project (1992), Surface Runoff to the Southern California Bight.

Table 1[4]
Pollutant Sources and Impacts of a Number of Pollutants
On Waters of the U.S.

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewater; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into Waters of the U.S. have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (DDT, diazinon, chlorpyrifos)	Urban Runoff, agricultural runoff, commercial, industrial, residential and farm use	The use of legacy pesticides (DDT, chlordane, dieldrin) has been banned or restricted; still persists in the environment; some of the other pesticide uses are curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, and alter food chains supporting fisheries. While organic waste loading has decreased, nutrient loading has increased (NRC, 1993a, 2000a).
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Urban Runoff and atmospheric deposition from land activities; accidental spills; oil & gas production activities; natural seepage; and PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and aquatic life. While oil Pollution from accidental spills and production activities has decreased, diffuse inputs from land-based activities have not (NRC, 1985).
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Bioaccumulation may pose human health risks where contamination is heavy.
Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas.
Plastics and other debris	Ships, boats, fishing nets, containers, trash, Urban Runoff	Entangles aquatic life or is ingested; degrades, beaches, lake shores, near shore habitats, and wetland habitats. Floatables (from trash) are an aesthetic Nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban run off from impervious surfaces	Kills some temperature-sensitive species; and displaces others. Generally, less a risk to marine life than thought 20 years ago.
Noise	Vessel propulsion, sonar, seismic prospecting, low-frequency sound used in defense and research	May disturb marine mammals and other organisms that use sound for communication.
Pathogens (bacteria, protozoa, viruses)	Sewage, Urban Runoff, livestock, wildlife, and discharges from boats and cruise ships.	Pose health risks to swimmers and consumers of aquatic life. Sanitation has improved, but standards have been raised (NRC 1999a).
Alien species	Ships and ballast water, fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem (NRC 1996).

[4] Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

The CWA prohibits the discharge of any Pollutant to navigable waters from a Point Source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing Pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required MS4s and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the USEPA promulgated the final NPDES Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.This Order does not constitute an unfunded local government mandate subject to subvention under Article XIIIB, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under federal Clean Water Act section 402, subdivision (p)(3)(B). (33 U.S.C. § 1342(p)(3)(B).) This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (*Natural Resources Defense Council, Inc. v. U.S.E.P.A.* (9th Cir. 1992) 966 F.2d 1292, 1308, fn.17). The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (*cf. Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

Likewise, the provisions of this Order to implement total maximum daily loads (TMDLs) are federal mandates. The federal Clean Water Act requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. § 1313(d).) Once the U.S. Environmental Protection Agency or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable wasteload allocation. (40 C.F.R. § 122.44(d)(1)(vii)(B).)

Second, the local agency permittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne regulates the

discharge of waste (Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and nongovernmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Water Quality Control Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Except for municipal separate storm sewer systems, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Resources Control Board decisions, this Order does not require strict compliance with water quality standards. (SWRCB Order No. WQ 2001-15, p. 7.) The Order, therefore, regulates the discharge of waste in municipal storm water more leniently than the discharge of waste from non-governmental sources.

Third, the local agency permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. The fact sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

Fourth, the Permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in federal Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their discharges. To the extent, the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (Accord *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.) Likewise, the Permittees have voluntarily sought a program-based municipal storm water permit in lieu of a numeric limits approach. (See *City of Abilene v. U.S. E.P.A.* (5th Cir. 2003) 325 F.3d 657, 662-663 [noting that municipalities can choose between a management permit or a permit with numeric limits].) The local agencies' voluntary decision to file a report of waste discharge proposing a program-based

permit is a voluntary decision not subject to subvention. (See *Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832, 845-848.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIIIB, Section (6) of the California Constitution.

On July 13, 1990, the Regional Board adopted the first term Riverside County Area-wide MS4 Permit, Order No. 90-104 (NPDES No. CA 8000192), for Urban Runoff from areas in Riverside County within the Permit Area. On March 8, 1996, the Regional Board renewed Order No. 90-104 by adopting the second term area-wide MS4 Permit, Order No. 96-30, (NPDES No. CAS618033). On October 25, 2002, the Regional Board renewed Order No. 96-30 by adopting the third term area-wide MS4 Permit, Order No. R8-2002-0011.

This Order renews the area-wide NPDES MS4 Permit for the Permit Area for the fourth-term, in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this Order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Water Resources Control Board's (State Board) Plans and Policies.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Basin Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulation, including the CWA and the California Water Code. As required, the Basin Plan designates the Beneficial Uses of the waters of the Region and specifies Water Quality Objectives intended to protect those uses. (Beneficial Uses and Water Quality Objectives, together with an anti-degradation policy, comprise federal "Water Quality Standard"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating Beneficial Uses and setting Water Quality Objectives, i.e., the Beneficial Uses, and correspondingly, the Water Quality Objectives are assumed to apply year-round. (Note: In some cases, Beneficial Uses for certain surface waters are designated as "I", or intermittent, in recognition of the fact that surface flows (and Beneficial Uses) may be present only during wet weather.) Most Beneficial Uses and Water Quality Objectives were established in the 1971, 1975, 1983, and 1995 Basin Plans. The 1995 Basin Plan was updated in February 2008[5]. Amendments to the Basin Plan included new nitrate-nitrogen and TDS objectives for specified

[5] http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml

management zones, new nitrogen and TDS management strategies applicable to both surface and ground waters and various Total Maximum Daily Loads (TMDLs) and TMDL Implementation Plans that had been adopted for Impaired Waterbodies within the region.

Water Code Section 13241 requires that certain factors must be considered when Water Quality Objectives are established. These factors include economics and the need for developing housing in the Region. During the 2002 MS4 Permit development process, the Permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to Water Quality Objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on Urban Runoff. During the 2006 review of the Basin Plan, this matter was incorporated on the triennial review list. To begin addressing this issue, Regional Board staff, in collaboration with the MS4 Permittees in the Santa Ana River watershed, has organized a Storm Water Quality Standards Task Force (SWQSTF).

The SWQSTF is analyzing, monitoring and documenting actual and potential Beneficial Uses of surface waters within the Santa Ana River watershed. Based on the findings, the SWQSTF plans to recommend changes to the current Beneficial Use designations and Water Quality Objectives specified in the Basin Plan. This Order may be reopened to incorporate any changes to the Water Quality Standards. The SWQSTF is currently focusing on Recreational Beneficial Uses. In the meantime, the provisions of this Order will result in reasonable further progress towards the attainment of the existing Water Quality Objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in Defenders of Wildlife vs. Browner, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. EXCLUSIONS TO THE PERMIT AREA

Areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the Permittees were excluded from the area requested for coverage under the ROWD. These include the following areas and activities:

- Federal lands and State properties, including, but not limited to, military bases, national forests, hospitals, colleges and universities, and highways;
- Native American tribal lands;
- Open space and rural (non-urbanized) areas;

- Agricultural lands (return flows from irrigated agriculture and nonpoint source agricultural activities are exempted under the CWA); and

- Utilities, railroads, and special districts (including school districts, park districts, publicly owned treatment works (POTWs) and water utilities, etc.).

These areas in the Permit Area for which coverage under a NPDES MS4 permit is excluded, are shown in Appendix 1. The Regional Board will coordinate with these entities to implement programs that are consistent with the requirements of this Order. The Regional Board, pursuant to 40 CFR 122.26(a), has the discretion and authority to require non-cooperating entities to participate in this Order. The Regional Board may also consider such facilities for coverage under its NPDES permitting scheme pursuant to USEPA Phase II stormwater regulations.

The Regional Board recognizes that the Permittees should not be held responsible for discharges from such facilities or Pollutants in those discharges. However, to the extent that the Permittees authorize the connection of the discharges from these facilities into their MS4, this Order requires the Permittees to notify these facilities, in writing, of the state and local post-construction standards and/or other applicable requirements of this Order.

IV. BENEFICIAL USES

Stormwater flows discharged to MS4s in the Permit Area are tributary to various waterbodies (inland surface streams, lakes and reservoirs) of the State. The Beneficial Uses of these waterbodies may include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, water contact recreation, non-contact water recreation, and sport fishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this Order is to protect the Beneficial Uses and quality of the Receiving Waters.

To protect the Beneficial Uses of the Receiving Waters, the Pollutants from all sources, including Urban Runoff, need to be controlled. Recognizing this, and the fact that Urban Runoff contains Pollutants, an area-wide MS4 permit is the most effective way to develop and implement a comprehensive Urban Runoff management program in a timely manner. This area-wide MS4 permit contains requirements with time schedules that will allow the Permittees to continue to address water quality problems caused by Urban Runoff through their management programs to reduce Pollutants in Urban Runoff discharges consistent with the MEP standard [See Appendix 4, Glossary].

V. WATERSHED MANAGEMENT IN THE UPPER SANTA ANA RIVER BASIN

A. Management Approach

To regulate and control Urban Runoff from the Permit Area to the MS4, an area-wide approach is expected to be most effective. The entire MS4 is not controlled by a single entity; the RCFC&WCD, the County, several cities, the State Department of Transportation (Caltrans), and the U.S. Army Corps of Engineers, in addition to other smaller entities, manage portions of the MS4. In addition to the cities, the County and the RCFC&WCD, there are a number of other significant contributors of Urban Runoff to the MS4. These include: large institutions such as the State university system, prisons, schools, hospitals, etc.; federal facilities such as military sites, etc.; State agencies, such as Caltrans; water and wastewater management agencies such as Eastern and Western Municipal Water District; the National Forest Service and State parks. The State Board has issued a separate NPDES MS4 permit to Caltrans. In addition, Caltrans, and the other contributors identified, are not under the jurisdiction of the Permittees. The management and control of the entire MS4 cannot be effectively carried out without the cooperation and efforts of all these entities. Also, it would not be effective to issue a separate MS4 permit to each of the entities within the Permit Area whose land/facilities drain into the MS4 facilities operated by the Permittees and ultimately to Waters of the U.S.. The Regional Board has concluded that the best management option for the Permit Area is to issue an area-wide NPDES MS4 permit to the Permittees.

Although, the Urban Runoff from the Permit Area drains to the Prado Basin, and ultimately into Orange County, Urban Runoff from Orange County areas are regulated under NPDES No. CAS 618030. Some areas within Riverside County are within the Colorado River Basin and San Diego Regional Boards' jurisdictions. Permit requirements for Urban Runoff from the drainage areas of Riverside County within the jurisdiction of the San Diego and Colorado River Basin Regional Boards are addressed by those Regional Boards.

In developing Urban Runoff management and monitoring programs, consultation/coordination with other drainage management entities and other Regional Boards is essential. Common programs, reports, implementation schedules and efforts are desirable and will be utilized to the MEP.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the Santa Ana River watershed. It is also critical to manage Non-point Sources at a level consistent with the management of Urban Runoff in a watershed in order to successfully prevent or remedy water quality Impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders.

An integrated watershed management approach for Urban Runoff in the Santa Ana River watershed is consistent with the Strategic Plan (2008-2012[6]) and Initiatives for the State and Regional Boards and the draft California Water Plan Update[7]. A watershed wide approach is also necessary for implementation of the Load Allocations (LAs) and Waste Load Allocations (WLAs) developed under the TMDL process. The Permittees and all the affected entities are encouraged to participate in regional or watershed solutions, instead of project-specific and fragmented solutions.

The Pollutants in Urban Runoff originate from multiple sources and effective control of these Pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate Urban Runoff Pollution control methodologies. The program's success depends upon consideration of Pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate Pollution Prevention , Site Design , Source Control, and, if necessary, Treatment Control BMPs should be considered.

B. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Santa Ana River watershed is the major watershed within the Santa Ana Region. This watershed is divided into three sub-watersheds: the Lower Santa Ana, Upper Santa Ana, and San Jacinto.

1. The lower Santa Ana River sub-watershed (downstream from Prado Basin) includes the north half of Orange County. The Upper Santa Ana River sub-watershed includes the southwestern corner of San Bernardino County and the northwestern corner of Riverside County. The San Jacinto sub-watershed includes the northwest corner of Riverside County south of the Upper Santa Ana River sub-watershed within the Santa Ana Region.

   Generally, the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County through Prado Dam on the Santa Ana River. Most of the flow in the Santa Ana River is recharged into the groundwater in San Bernardino, Riverside, and Orange counties but infrequently some of the flow may be discharged to the Pacific Ocean as a result of heavy storm events.

   Water from rainfall and snow melt runoff, and surfacing ground water from various areas either discharge directly to the Santa Ana River or to watercourses tributary to the Santa Ana River. Other major rivers in the Permit Area include the San Jacinto River and Temescal Creek. The San

[6] State Water Resources Control Board, Strategic Plan Update, 2008-2012, September 2, 2008
[7] http://www.waterplan.water.ca.gov/docs/cwpu2009/1208prd/vol2/UrbanRunoff_PRD_09.pdf

Jacinto Mountain areas drain into the San Jacinto River, which discharges into Canyon Lake and then to Lake Elsinore. The San Jacinto River is ephemeral. Smaller storms tend to be fully captured by Canyon Lake, which the San Jacinto River drains into, with discharges from Canyon Lake to Lake Elsinore only occurring in larger events or wetter years. Any overflow from Lake Elsinore is tributary to Temescal Creek, which flows into the Santa Ana River at the Prado Flood Control Basin. Overflow from Lake Elsinore occurs infrequently, only once every 12 to 15 years.

2. Upper Santa Ana River Sub-watershed:

   a. Reach 3 of the Santa Ana River (Prado Dam to Mission Boulevard in Riverside): Pathogens are the Pollutant of Concern for Reach 3 based on adopted TMDLs and the 2006 303(d) list . With the adoption of the TMDL for Bacterial Indicators, the Basin Plan now contains schedules for achieving compliance with WLAs for Bacterial Indicators in the Middle Santa Ana River (MSAR) subwatershed.

   b. Reach 4 of the Santa Ana River: Reach 4 of the Santa Ana River is the portion of the River from Mission Boulevard Bridge in Riverside to the San Jacinto fault (Bunker Hill Dike) in San Bernardino. Reach 4 is also listed in the CWA Section 303(d) as an Impaired Waterbody. Most of Reach 4 of the River is in San Bernardino County. Pathogens are the Pollutant of Concern for Reach 4and a TMDL is scheduled for completion in 2019.

   c. Other water quality problems along this reach of the River include the buildup of total dissolved solids (TDS, dissolved salts or minerals) and nitrogen, largely in nitrate form. The buildup of TDS and nitrates can impact downstream Beneficial Uses, including groundwater recharge. The buildup of TDS and nitrate is mostly due to agricultural uses, including dairies and the application of fertilizers, municipal and industrial wastewater discharges, and reuse and recycling operations. A complex set of programs and policies are included in the Basin Plan to address this problem, including a water supply plan, a wastewater management plan, and a groundwater management plan. Other elements of the Basin Plan include the Non-point Source program and the storm water program. The Basin Plan identifies the Statewide General Permits and the MS4 permits as the regulatory tools for storm water management in the Basin. In light of the recently adopted Nitrogen-TDS objectives for certain management zones, this Order requires the Permittees to determine baseline concentration of these constituents in dry weather runoff, if any, from significant Outfall locations. The Order also includes Effluent Limitations for TDS and nitrates under dry weather conditions.

d. San Jacinto Sub-watershed: Canyon Lake and Lake Elsinore are in this watershed and are listed on the 2006 303(d) list for pathogens (Canyon Lake) and PCBs and unknown Toxicity (Lake Elsinore). Nutrient TMDLs have been developed for both Canyon Lake and Lake Elsinore. The Basin Plan contains schedules for achieving compliance with WLAs for nutrients in the San Jacinto sub-watershed (Canyon Lake/Lake Elsinore).

C. CWA SECTION 303(d) LIST AND TMDLS:

Pursuant to Section 303(b) of the CWA, the 2006 water quality assessment conducted by the Regional Board listed a number of waterbodies within the Region under Section 303(d) of the CWA as Impaired Waterbodies. These are waterbodies where Water Quality Objectives are being violated and it is presumed that the designated Beneficial Uses are not met. The sources of the Impairments include POTW discharges, and runoff from agricultural, open space and urban land uses. The Impaired Waterbodies in Riverside County within the Santa Ana Regional Board's jurisdiction are listed in Table 2. In addition, CWA Section 303(d) requires states to develop and submit to USEPA for approval a list of waterbodies that are not meeting Water Quality Standards and are not expected to attain these standards even with technology based controls. CWA Section 305(b) requires States to biennially prepare and submit to the USEPA for approval a report assessing statewide surface water quality.

Regional Board staff have reviewed and reevaluated all water quality monitoring and information, combined the CWA Section 305(b) Report with the Section 303(d) List of Impaired Waters and introduced the Proposed 2008 303(d)-305(b) Integrated Report that was adopted by the Regional Board on April 24, 2009. The additional Impaired Waterbodies that are on this list are also identified in Table 2. The Proposed 2008 303(d)-305(b) Integrated Report will not be effective until it has been approved by the State Board or the USEPA.

Federal regulations require that a TMDL be established for each 303(d) listed waterbody for each of the Pollutants causing Impairment. The TMDL is the total amount of the Pollutant that can be discharged without Impairing Water Quality Standards in the Receiving Water, i.e., Water Quality Objectives are met and the Beneficial Uses are protected. It is the sum of the individual WLAs for point source inputs, and LAs for Non-point Source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in Waste Discharge Requirements. TMDLs are being developed for all Pollutants identified in Table 2. The Permittees are required to revise their DAMP, at the direction of the Executive Officer, to incorporate TMDL Program Implementation Plans developed and approved pursuant to the process for the designation and implementation of TMDLs for Impaired Waterbodies.

For 303(d) listed waterbodies identified as potentially Impaired by Urban Runoff and without a TMDL, the Permittees are required to provide special protections such as requiring effective post-construction BMPs, enhanced training programs and developing targeted public outreach that would address the Pollutants of Concern.

This Order incorporates TMDLs that have been adopted for Bacterial Indicator in the MSAR watershed and for nutrients in the Lake Elsinore and Canyon Lake watersheds. On August 26, 2005, the Regional Board adopted Resolution No. R8-2005-001 amending the Basin Plan to incorporate Bacterial Indicator TMDL for MSAR watershed. On December 20, 2004, the Regional Board adopted resolution R8-2004-0037 amending the Basin Plan to incorporate the Lake Elsinore and Canyon Lake nutrient TMDLs. The stakeholders in these watersheds, including applicable Permittees, are collaborating in the development and implementation of the TMDLs.

This Order includes conditions necessary to implement the TMDLs already approved by the Regional Board as required by federal regulations at 40 CFR 122.44(d)(vii)(B). This Order incorporates the WLAs as Water Quality-Based Effluent Limitations (WQBEL) and requires Permittees to achieve the WLA for Urban Runoff through an iterative process of implementing BMPs. Failure to submit a TMDL Implementation Plan to the Regional Board or failure to implement the approved plan in a timely manner will be deemed to violate the conditions of this Order. The CWA requires the Permittees to have appropriate controls to reduce the discharge of Pollutants to the MEP, including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such Pollutants (33 USC 1342(p)(3)(B)). MEP is a dynamic performance standard and it evolves as the knowledge of Urban Runoff control measures increases. Permittees are required to monitor and report effectiveness of their BMPs with respect to Pollutant reduction goal(s) as one measure of progress toward reducing Pollutant loads from urban sources in accordance with the compliance schedules specified in the TMDL Implementation Plans. If on-going monitoring indicates that implemented BMPs are insufficient to assure compliance with the relevant Water Quality Standard(s), then the Permittees are required to develop and implement more effective BMPs for the controllable urban sources within their jurisdiction to the MEP. In addition, the Permittees are required to submit a revised Comprehensive TMDL Plan documenting the completion schedule for any additional and/or more effective BMPs and must execute the plan upon approval by the Executive Officer. Taken together, these permit conditions are consistent with the facts and assumptions specified in the TMDLs, including the TMDL Implementation Plans, and are expected to achieve compliance with the related WLAs.

Discharge specifications are included for de-minimus types of discharges from Permittee-owned or Permittee-operated facilities and activities and for TDS and total inorganic nitrogen for dry weather discharges.

Table 2

2006 CWA Section 303(d) Listed Waterbodies and April 24, 2009 Proposed 2008 Integrated Report of 305(b) and 303(d) List of Water Quality Limited Segments

WATERBODY	HYDRO UNIT	POLLUTANT/ STRESSOR	SOURCE	SIZE AFFECTED
Canyon Lake	802.120	Pathogens	Nonpoint Source	453 Acres
Lake Elsinore	802.310	Unknown Toxicity	Unknown Nonpoint Source	2431 Acres
		PCB's.	Unknown Nonpoint Source	2431 Acres
		Proposed for 2008 Sediment Toxicity	Unknown Point and/or Nonpoint Sources	2431 Acres
Lake Fulmor	802.210	Pathogens	Unknown Nonpoint Source	4.2 Acres
Santa Ana River, Reach 3	801.200	Pathogens	Unknownn Nonpoint Source	3 miles
		Proposed for 2008 Copper – Wet Season	Unknown Nonpoint Source	3 Miles
Temescal Creek Reach 1		Proposed for 2008 pH	Unknown	Unknown

VI. FIRST, SECOND, AND THIRD TERM PERMITS

1. STORM WATER POLLUTION CONTROL PROGRAMS AND POLICIES

1. Prior to USEPA's promulgation of the final regulations implementing the storm water requirements of the 1987 CWA amendments, the counties of Orange, Riverside and San Bernardino requested an area-wide NPDES permit for storm

water runoff for each of the county areas within the Regional Board's jurisdiction. On July 13, 1990, the Regional Board issued Order No. 90-104 to the Permittees (first term MS4 Permit). In 1996, the Regional Board adopted Order No. 96-30 for the Riverside County Permit Area (second term permit). On October 24, 2002, the Regional Board adopted Order No. R8-2002-0011 for the Riverside County Permit Area (third term MS4 Permit). These MS4 Permits included the following requirements:

a. Prohibited Non-storm Water discharges to the MS4s with certain exceptions.
b. Required the Permittees to develop and implement a DAMP to reduce Pollutants in Urban Runoff to the MEP.
c. Required the discharges from the MS4 to meet in Receiving Waters.
d. Required the Permittees to identify and eliminate IC/IDs to the MS4.
e. Required the Permittees to establish legal authority to enforce Storm Water Ordinances.
f. Required monitoring of dry weather flows, storm flows, and Receiving Water quality, and program assessment.
g. Required the Permittees to inventory, prioritize and inspect construction sites and industrial and commercial facilities based on threat to water quality.
h. Required the Permittees to develop a restaurant inspection program to address practices that may impact Urban Runoff quality such as oil and grease disposal, trash bin area management, parking lot cleaning, spill clean-up, and inspection of grease traps or interceptors to ensure adequate capacity and proper maintenance.
i. Required the Permittees to review and approve Water Quality Management Plans (WQMPs) for categories of New Development and Significant Redevelopment projects to address post-development Urban Runoff water quality and Hydromodification.
j. Required the Permittees to develop a unified response plan to respond to sewage spills that may impact Receiving Water quality.

2. During the first term MS4 Permit, the Permittees developed a DAMP that was approved by the Executive Officer on January 18, 1994. The DAMP included five BMP groups: environmental education activities, solid waste activities, road drainage system operations and maintenance, regulatory and enforcement activities, and structural controls. The DAMP was updated as part of the second and third-term MS4 Permits. The Permittees submitted a revised DAMP with the ROWD for the fourth term MS4 Permit renewal.

3. The RCFC&WCD performs water quality monitoring activities in support of three separate area-wide NPDES MS4 Permits (Santa Ana, San Diego and Colorado River Basin) under the Consolidated Monitoring Program (CMP). The CMP

contains a combined 132 historical, active, and special project sampling locations in the three MS4 Permit regions. Within the Permit Area, water column samples and/or sediment samples have been collected at a total of 93 locations over the last nineteen years. These 93 locations are comprised of 45 MS4 outfalls, 43 Receiving Water, 8 sediment, and 2 special interest sampling locations. In addition, the Permittees participate in a number of sub-regional and regional monitoring programs and special studies.

4. During the third term MS4 Permit, the Executive Officer approved the delay in implementing the bioassessment requirement to allow the development of indices of biological integrity applicable to inland waters. Subsequently, a regional bioassessment monitoring was initiated by the Surface Water Ambient Monitoring Program (SWAMP) to determine the conditions of the receiving waters in a more holistic way. The Southern California Watershed Research Project (SCCWRP), in conjunction with the southern California MS4 Permit programs, has developed a regional bioassessment monitoring program in which the Permittees participating. This Order requires the Permittees to continue to participate in the regional bioassessment monitoring program. It is expected that these regional monitoring stations combined with other Permittee and regional monitoring efforts will be used to identify water quality problem areas and to re-evaluate the monitoring program and the effectiveness of the DAMP. The future direction of some of the DAMP program elements will depend upon the results of the ongoing studies and a holistic approach to watershed management.

5. Other elements of the Urban Runoff management program included identification and elimination of IC/IDs and establishment of adequate legal authority to control Pollutants in Urban Runoff discharges. The Permittees have completed a survey of their MS4 to identify IC/IDs and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the second and third term MS4 Permits are as follows:

   a. During the second term MS4 Permit, the Permittees operated under an Implementation Agreement that sets forth the responsibilities of the Permittees as defined in the 1996 MS4 Permit. The Permittees update this agreement during each MS4 Permit term. The Permittees have adopted Storm Water Ordinances regarding the management of Urban Runoff. The Storm Water Ordinances provide the Permittees with the legal authority to implement the requirements of the MS4 Permit and the key regulatory requirements contained in 40 CFR Section 122.26(d)(2)(I)(A-F).

   b. Revised DAMP: Includes 28 Construction Site and 36 Municipal and Industrial Source Control BMPs that are to be implemented by the Permittees for purposes of controlling Pollutants associated with Urban Runoff to the MEP. The Permittees also strengthened enforcement and compliance elements of the DAMP. Enhanced the Construction Site

inspections, the Industrial and Commercial Facility inspections, New Development review requirements, and the Permittee facilities and activities program.

c. Cooperated in the establishment of TMDL Task Forces and workgroups for Lake Elsinore, Canyon Lake and the MSAR.

d. Assisted in development and implementation of the TMDLs for Canyon Lake, Lake Elsinore and the MSAR.

e. Developed and updated methods to track program effectiveness such as resident surveys, tracking hotline inquiries, and web counters.

f. In August 1999 the RCFC&WCD and the County's Environmental Health Department executed an agreement that provides the framework for an area-wide Commercial and Industrial Compliance Assistance Program (CAP).

g. The Permittees have participated in the CMP.

h. The Permittees administered area-wide programs including: Hazardous Materials emergency response, household hazardous waste collection, industrial/commercial CAP and public education and outreach. Some of these programs were coordinated with Caltrans and local agencies.

i. A Municipal Facilities Strategy was established then later incorporated into the DAMP, the Supplement "A" New Development Guidelines were amended to require compliance with the Riverside County WQMP for specific categories of New Development and Significant Redevelopment projects.

j. The Riverside County WQMP was developed in 2004. The Model WQMP is a post-construction planning tool to address Urban Runoff from New Development and Significant Redevelopment. The WQMP is implemented on a watershed-specific level, and provides guidance for project specific post-construction BMPs to address the quantity and quality of Urban Runoff from New Development and Significant Redevelopment projects. Any New Development or Significant Redevelopment project that requires discretionary approval must submit a project-specific WQMP to the appropriate Permittee. The project-specific WQMP ensures that management of Urban Runoff to protect Receiving Water quality is considered a priority during project design and operation.

k. Established the Management Steering Committee that brings together the city managers in the Permit Area promoting consensus and communication on a regional basis.

l. Formation of sub-committees to guide and develop specific program elements (Construction Activities, Industrial/Commercial Activities, New Development/ Significant Redevelopment, Public Education, Permittee Facilities & Activities, Monitoring, & Finance).

m. Evaluated and revised ordinances, regulations, rules, and codes to ensure appropriate level of legal authority.

n. A Technical Advisory Committee for overall program development and implementation was established.

o. Program Review: A number of existing programs were reviewed to determine their effectiveness in combating Urban Runoff Pollution and to recommend alternatives and or improvements, including Permittee activities and facilities, IC/IDs to the MS4 systems, and existing monitoring programs.

p. Enhanced Public Education program through development of new outreach materials and programs.

q. Public Education: A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in implementing Urban Runoff Pollution controls. The Industrial Facility dischargers were notified of the Urban Runoff regulatory requirements. For a number of unregulated activities, BMP guidance documents were developed and a toll free hotline was established for reporting any suspected water quality problems.

r. The Permittee's website hosted by RCFC&WCD, including the "Only Rain Down the Storm Drain" public information page, was developed and is continually enhanced. It contains resources for residential facilities, businesses, developers and contractors. The website is accessible from the RCFC&WCD home page. The website offers free brochures that all web site visitors can print in quantities or can order including:

  i. *After the Storm* – a citizen's guide to understanding MS4 Pollution in your neighborhood or when performing daily activities.

  ii. *Automotive Maintenance & Car Care* – guidelines for keeping your auto shop or retail fuel facility in environmental shape.

  iii. *Outdoor Cleaning Activities* – guideline for outdoor cleaning activities and wastewater disposal.

  iv. *Pools, Spas and Fountains* –Environmental maintenance suggestions for pool, spa, and fountain owners.

  v. *What's the Scoop* – tips for a healthy pet and a healthier environment.

  vi. *Household Hazardous Waste (HHW)* – A schedule of collection locations for proper disposal of HHW.

  vii. *Storm Water Pollution Found in Your Neighborhood* – door hanger.

s. In addition to the information provided on the Only Rain Down the Storm Drain website, the Public Education and Outreach Program has:

i. Tested and/or implemented several new Public Education and Outreach Program effectiveness tracking mechanisms including call tracking, web counters, testing, and surveys.

ii. Conducted a review of the efficacy of Permittee employee training programs.

iii. Enhanced the toll free storm water Pollution reporting hot line to include public education information and support for the public and other interested stakeholders.

iv. Enhanced on-line registration access for NPDES training to help facilitate training of appropriate Permittee employees.

v. Worked with the Riverside-Corona Resource Conservation District to develop home garden workshops and presentations to elementary and middle schools and staff to raise public awareness of Urban Runoff management issues and Source Control BMPs and to encourage volunteers, partners, and groups to gather annually for a trash and debris clean-up day along the Santa Ana River.

vi. Developed special newspaper and billing inserts, fliers and advertisements to raise public awareness of Urban Runoff management issues and Source Control BMPs. A radio advertising campaign was also developed and implemented for a limited time.

vii. Developed and presented workshops regarding household hazardous waste use and proper disposal at major home improvement stores throughout Riverside County.

viii. Placed numerous advertisements in the Penny Saver and Bargain Bulletin to raise public awareness of Urban Runoff management.

ix. In cooperation with certain County Service Areas and other programs, pet waste signs with bag dispensers have been installed at various parks to help encourage the proper disposal of animal waste.

x. Coordinated with County-wide Animal Control Facilities, as well as city-owned animal control facilities and Humane Societies, to distribute specific materials to the County Agricultural inspectors as well as Regional Board inspectors for use during facility inspections.

xi. Distributed educational and outreach materials to the County Agricultural inspectors as well as Santa Ana Regional Board staff inspectors for use during facility inspections.

xii. Cooperated with the Western Riverside Council of Government (WRCOG) in the Used Oil Block Cycle Grant that decreases the amount of illegally dumped motor oil by promoting the addition of new Certified Oil Collection Centers.

xiii. Participated in WRCOG's "Cleanest County in the West" program to address issues relating to litter and illegal dumping which targeted both students and adults.

xiv. Supplemental Environmental Projects: As a result of an environmental enforcement case settlement brought by the County Department of Environmental Health, Conoco Phillips and Downs Energy developed two posters and a billboard, respectively. These items were designed to increase the awareness of appropriate BMPs for retail fuel businesses.

t. Permittee Training: Training was provided to Permittee employees to implement New Development Guidelines and Public Works BMPs. The fourth-term MS4 Permit specifies additional training requirements to focus on necessary competencies for storm water program managers, Permittee planners and inspection staff. This was added following information collected during Regional Board staff audits of Permittees' storm water management programs, which found that a number of the Permittees' staff and/or contractors were not adequately trained to properly implement the required program elements contained within the third term MS4 Permit and/or training programs were not properly documented.

u. Related Activities: Modified MS4s by channel stabilization and creation of sediment basins; eliminated or permitted and documented Illicit Connections to the MS4s.

v. Pursued and received Proposition 50 Planning Grant to develop an Integrated Regional Watershed Management Plan for the San Jacinto watershed and to facilitate implementation of the Canyon Lake/Lake Elsinore Nutrient TMDL.

w. Pursued and received two Proposition 40 Integrated Regional Watershed Management Plan implementation grants to facilitate the MSAR TMDL and LE/CL TMDLs.

x. Co-Permittees developed and maintain an inventory database (or databases) of Construction Sites 1-acre or larger for which they have issued a building or grading permit. For each Construction Site/project included in a Co-Permittee's inventory, the Co-Permittees have assigned a priority of "high," "medium," or "low" to reflect the Construction Site's potential for Impairing Receiving Water quality.

y. Created databases for the Commercial and Industrial Facilities within each jurisdiction.

z. Developed a GIS Web Browser to assist developers and Permittees in identifying pertinent water quality information for proposed New Development projects.

aa. Developed Planning Application forms for Permittee use to ensure that the need for a project-specific WQMP was properly identified for New Development and Significant Redevelopment projects early in the planning process.

bb. Developed a FAQ and watershed Impairment maps to assist Permittees and developers with preparing and reviewing project-specific WQMPs.

cc. Enhanced online watershed maps to assist developers and the public with identifying areas tributary to Impaired Waterbodies.

dd. Developed a BMP design handbook to standardize BMP selection and design in Riverside County.

ee. Initiated development of an enhanced BMP Design Handbook to provide additional guidance for LID and post-construction BMP design.

ff. Participation in the Storm Water Monitoring Coalition (SMC) efforts to evaluate LID options and establish guidance for BMP implementation for Southern California areas.

gg. Participation in SCCWRP's Hydromodification studies to develop scientifically based design guidance for Southern California.

hh. Initiated cooperative program with County Environmental Health to promote environmental enhancement projects in lieu of fines for violations of environmental laws. This initiative resulted in the billboard advertising campaign to promote appropriate BMPs for gas stations and garages.

ii. Prepared a one-year evaluation of litter management BMPs. This evaluation assessed the relative efficiency and cost effectiveness of Anthropogenic litter management BMPs including: street sweeping, catch basin cleaning, deployment of trash receptacles, public education, and MS4 maintenance. As a result, a Litter Removal Inspection Form was developed that assisted the Permittees in identifying and prioritizing areas with litter problems. The Permittees augmented the litter management programs including employee/contractor training, Industrial and Commercial Facility inspections, recycling programs including bulk-item collection, participation in watershed clean-up efforts, and illegal dumping retrieval.

jj. The RCFC&WCD coordinated GIS-based maps for Permittee MS4 facilities. The MS4 maps are updated annually with new information provided by the Permittees as part of the Annual Reporting process. The GIS layers are also now available on the RCFC&WCD's website through an internet GIS browser.

kk. Updated Model Facilities Pollution Prevention Plan for Permittee facilities not requiring coverage under the General Permit for Storm Water Discharges Associated with Industrial Activities (General Industrial Permit).

ll. The Permittees completed a MS4 assessment in 2004 to identify opportunities for incorporation of regional BMP retrofits within the limits of existing infrastructure.

mm. Pursued a Proposition 13 Grant, through the Santa Ana Watershed Project Authority, to develop a LID BMP Demonstration and Testing Facility. RCFC&WCD has continued to develop this project and plans to start construction this winter despite the current freeze on new grant projects.

B. PRIOR TERM PERMITS - WATER QUALITY IMPROVEMENTS

An accurate and quantifiable measurement of the impact of the above stated Urban Runoff management programs is difficult, due to a variety of reasons, such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal Urban Runoff management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring, such as monitoring of the amount of HHW collected and disposed off at appropriate disposal sites, the amount of used oil collected, and the amount of Anthropogenic debris removed from the MS4, etc.

The Permittees' water quality monitoring data submitted to date document a number of exceedances of Basin Plan Water Quality Objectives for various Urban Runoff-related Pollutants; the most notable among these excceedances was fecal coliform bacteria. Where these exceedances have resulted in the development of TMDLs for the MSAR, this Order requires the Permittees named in the TMDL: to comply with the WLAs for Bacterial Indicators consistent with the Implementation Plan requirements defined in the MSAR Bacterial Indicator TMDL.

During the prior MS4 Permit terms, there was an increased focus on watershed management initiatives and coordination among the MS4 permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments. The Principal Permittee continues to be an active participant in the SWQSTF, the Canyon Lake/Lake Elsinore nutrient TMDL, the MSAR Bacterial Indicator TMDL, and the SMC studies. In addition to the TMDL implementation and monitoring activities, the Permittees participate in the Regional Integrated Freshwater Bioassessment Monitoring Program, the BMP Effectiveness Project assessing the effectiveness of LID techniques. Riverside and San Bernardino MS4 Programs are also coordinating on the development of several outreach programs.

It is anticipated that with continued implementation of the revised DAMP, the programs proposed in the ROWD incorporated into this Order and other

requirements specified in this Order, the goals and objectives of the storm water regulations will be met, including protection of the Beneficial Uses of all Receiving Waters.

VII. FUTURE DIRECTION/2007 ROWD

A. Recognizing the significant resources utilized in developing the 2002 MS4 Permit and the significant commitment the Permittees are making to address water quality Impairments, including those identified in the 2006 303(d) List as high priority for establishment of TMDLs, the Permittees proposed in the 2007 ROWD to maintain the fundamental structure and content of the 2002 MS4 Permit and the 2005 DAMP with modifications to reflect:

1. Removed descriptions of studies that have been completed;
2. Updated references to related orders by the Regional Board and State Board;
3. Adoption of TMDL requirements;
4. Evolution of compliance programs;
5. Further standardization and definition of terms;
6. Consolidation of similar compliance requirements [training requirements, reporting requirements, IC/ID requirements] to simplify the Order, increase readability and prevent the need for duplicative language;
7. Deletion of requirements in the 2002 MS4 Permit that described the development of compliance program elements which were incorporated into the 2005 DAMP;
8. Development of LIPs by the Permittees during the fourth term Order;
9. Addition of Permittee coverage under the Small Linear Underground Projects (State Board Order No. 2003-0007-DWQ, NPDES No. CAS000005) and Utility Vaults (State Board Order No. 2006-0008-DWQ, NPDES No. CAG990002) General Permits;
10. Recognition that the Municipal Facilities Strategy and Enforcement Compliance Strategies have been incorporated into the DAMP; and
11. Regional Board staff comments received by the Permittees during the third term permit, including comments received during the January 22, 2007 ROWD kick-off meeting regarding topics such as LID, Hydromodification, LIPs, etc.

B. In addition, the 2007 ROWD proposed continuing with the 2005 DAMP with some revisions. Based on an effectiveness assessment analysis, the following significant changes were incorporated into the Permittees 2007 draft DAMP compliance programs:

1. The Permittees proposed to complete preparation of LIPs within 12 months of Order adoption. The Permittees propose to develop LIPs that will:
   a. Specify how each program element of the DAMP shall be implemented;
   b. Describe the ordinances, plans, policies, procedures, and tools (e.g., checklists, forms, educational materials, etc.) used to execute the DAMP;
   c. Identify the organizational units responsible for implementation of each program element;
   d. Establish internal reporting requirements to ensure and promote accountability; and
   e. Describe an adaptive method of evaluation and assessment of program effectiveness for the purpose of identifying program improvements.

2. The final report "BMP Siting Study for the Santa Ana Permit Area" was released in May 2005. The sites identified in this study are likely to be further evaluated for opportunities to implement Regional BMPs necessary to comply with existing and future TMDLs.

3. Proposed revisions to the 2002 MS4 Permit provisions to reflect the unified IC/ID reporting procedures currently contained within the DAMP for simplicity and clarity.

C. Regional Board Approach to Consolidation of Overlapping NPDES Permit Requirements

1. During the third term MS4 Permit, the Permittees reviewed the applicability of the General Permit-Small Linear Underground Projects (State Board Order No. 2003-0007-DWQ, NPDES No. CAS000005), the General Permit-De Minimus Discharges (Order No. R8-2003-0061 as amended by Order Nos. R8-2005-0041 and R8-2006-0004), and the General Permit-Utility Vaults (Order No. 2006-0008-DWQ, NPDES No. CAG990002) to their activities such as hydrant flushing, maintenance on potable water supply system(s), construction dewatering, and the short-term and intermittent discharges from the de-watering of utility vaults and underground structures. Since the DAMP incorporates BMPs for the activities covered by these general permits, the Permittees recommended separate coverage under the Small Linear Underground Projects, De Minimus Discharges, or Utility Vaults General Permits was not necessary. This Order now includes coverage for De Minimus discharges from Permittee-owned facilities and activities specifically excluded from coverage under the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality, NPDES NO. CAG998001, Order No. R8-2009-0003. Permittees shall continue to obtain separate coverage for activities covered

by the Small Linear Underground Projects and Utility Vaults General Permits, unless these permits are incorporated into the General Construction Permit.

2. Specific identification of the types of discharges that must have coverage under the General De Minimus Permit and the General Construction Permit, is included in Section 5 of the 2007 DAMP. This Order requires the Permittees to include a description of those de minimus discharges into the Permittees' LIP, including a Regional Board notification process.
3. Prioritized inspections and monitoring based on sampling and monitoring results and other metrics to help target activities that present the highest risk to water quality.

D. During the fourth term Order, the following revisions to the Public Education and Outreach Program will be priorities:

1. Continue coordination of public education outreach with adjacent MS4s.
2. Continue to evaluate and enhance outreach materials for IC/IDs, nutrients, fertilizers, and pesticides.
3. Continue to focus the Public Education and Outreach Program on the Pollutants causing the greatest impacts to water quality, determined by the monitoring results and the list of Impaired Waterbodies [303(d) list].

The Permittees have already taken several steps in this direction. For example, the Permittees have provided spray bottles with environmentally friendly pesticide recipes printed on the side to residents at community fairs; the Permittees have developed or are in the process of developing brochures for septic system management, landscape management, and gardening; the Riverside and San Bernardino County Permittees are coordinating on a Curiosity Quest Episode (KVCR Family Show) to promote BMPs for nutrients, fertilizers and pesticides and the Permittees place information in hardware and gardening stores regarding pesticide and fertilizer management. The Permittees also incorporate other materials to address general Pollutants of Concern.

E. As a result of continued program effectiveness assessment the Permittees propose to update Annual Reporting forms to incorporate specific reporting requirements for all effectiveness assessment metrics.

F. Enhanced online watershed maps to assist developers and the public with identifying areas tributary to Impaired Waterbodies.

G. WQMP

1. The Permittees committed to maintain the "Frequently Asked Questions" information sheet for New Development and Significant Redevelopment projects to assist with the development and implementation of the revised WQMP.

2. The Permittees committed to update the Riverside County Storm Water Quality Best Management Practice Design Handbook to (1) better incorporate LID design concepts, (2) incorporate guidance to describe how developments can offset Hydromodification impacts with LID and (3) incorporate additional design guidance to ensure maintainability and functionality of BMPs, throughout the life of the development. This Order further requires the Permittees to revise the WQMP consistent with the requirements of the Order.
3. The Permittees committed to maintain the WQMP template to assist developers with developing a project-specific WQMP.
4. An audit of each of the Permittees' Urban Runoff management programs during the third term MS4 Permit indicated no clear nexus between the watershed protection principles, including LID techniques, specified in the WQMP and the Permittees' General Plan or related documents such as Development Standards, Zoning Codes, Conditions of Approval, Project Development Guidance, etc.. It appears that many of the existing procedures, Development Standards, Ordinances and Municipal Codes may be barriers to implement LID BMPs. This Order requires the Permittees to facilitate LID techniques specified in this Order.

H. The Regional Board has proposed a revised Notice of Intent and Notice of Termination for Permittee construction projects to assist Regional Board staff with identifying locations and owners of Permittee projects.

I. The Permittees have committed to annual updates to Sanitary Sewer Overflow Procedures to ensure proper contact information for Permittee and outside agencies.

J. WATERSHED APPROACH

1. TMDL for Bacterial Indicator in the MSAR subwatershed and nutrients in the Canyon Lake and Lake Elsinore subwatershed are incorporated into this Order (See Section V.C). The Permittees support TMDL implementation and agreed to participate in a comprehensive water quality monitoring program to ensure that Urban Runoff meets the Water Quality Objectives identified in the Basin Plan and are consistent with the WLAs specified in the TMDLs. This Order requires that, consistent with the requirements of the respective TMDL Implementation Plans, the Permittees use the water quality monitoring of Urban Runoff to evaluate the effectiveness of the BMP programs.

2. The USEPA has recommended a shift to watershed-based NPDES permitting[8] and watershed approach[9] to CWA programs, including NPDES programs. The Permittees and the Regional Board also recognize that a watershed-based approach is expected to be effective in controlling Pollutants in Urban Runoff. Consistent with this approach, this Order requires the Permittees to develop and implement programs that integrate Hydromodification and water quality management strategies with land use planning policies, ordinances, and plans within each jurisdiction. A *watershed approach* considers the diverse Pollutant sources and stressors and watershed goals within a defined geographic area (i.e., watershed boundaries). A watershed approach has three basic components:

   a. *Geographic Focus*: Watersheds are nature's boundaries. They are the land areas that drain to surface waterbodies, and they generally include lakes, rivers, estuaries, wetlands, streams, and the surrounding landscape. Groundwater recharge areas are also considered.

   b. *Sound Management Techniques Based on Strong Science and Data*: Sound scientific data, tools, and techniques are critical to evaluate the process. Actions taken include characterizing priority watershed water quality problems and solutions, developing and implementing action plans, and evaluating their effectiveness within the watershed.

   c. *Partnerships/Stakeholder Involvement*: Watersheds transcend political, social, and economic boundaries. Therefore, it is important to involve all the affected interests in designing and implementing goals for the watershed. Watershed teams may include representatives from all levels of government, public interest groups, industry, academic institutions, private landowners, concerned citizens, and others.

There are two major sub-watersheds in Riverside County within the Permit Area – the MSAR subwatershed, consisting of the portions of the Permit Area that drain to Reaches 3 and 4 of the Santa Ana River, and the San Jacinto River sub-watershed, which consists of the portions of the Permit Area that drain to Lake Elsinore. The Permittees participate in the MSAR TMDL Task Force and the Lake Elsinore and Canyon Lake TMDL Task Forces, which are stakeholder driven, watershed-based efforts to address Pollutants of Concern in the respective sub-watersheds. The Permittees have also implemented several stakeholder driven, watershed-based conservation programs such as the Special Area Management

[8] USEPA: Watershed-based NPDES permitting is a process that emphasizes addressing all stressors within a hydrologically-defined drainage basin, rather than addressing individual Pollutant sources on a discharge-by-discharge basis.

[9] USEPA (1996a): "The watershed approach is a coordinating framework for environmental management that focuses public and private sector efforts to address the highest priority problems within hydrologically defined geographic areas, taking into consideration both ground and surface water flow."

Plan, the Western Riverside County Multiple Species Conservation Plan, the San Jacinto River Integrated Watershed Management Plan and the Santa Ana Watershed Project Authority One Water One Watershed Plan.

These efforts are also addressed and discussed in the DAMP, which integrates these efforts into a coherent and uniform compliance program to protect Receiving Waters. Due to economies of scale and the fact that many of the Permittees have jurisdiction in both sub-watersheds, the Permittees have opted to continue to implement uniform MS4 Permit compliance programs across the entire Permit Area (for example Permittee training programs educate inspectors about the impacts and sources of pathogens and nutrients as opposed to offering separate sub-watershed specific training programs for the San Jacinto and MSAR sub-watersheds). The Permittees have indicated that as source assessments and monitoring data results from the aforementioned watershed efforts produce findings regarding potential urban sources of Pollutants of Concern that they may opt, in the future, to develop specific action plans for the MSAR and San Jacinto River sub-watersheds, or potentially even tributaries there-of. If so, the DAMP will be appropriately modified to clarify the sub-watershed specific components.

The Permittees also currently implement interim Hydromodification criteria and have committed to revising their Hydromodification management programs based on studies currently being conducted by the SCCWRP. This Order requires the Permittees to continue to pursue these watershed planning efforts and enhance them as appropriate to address Pollutants of Concern.

J. To promote program transparency, each Permittee proposed to develop its own LIP that:

   a. Specifies how each program element of the DAMP shall be implemented;

   b. Describes the ordinances, plans, policies, procedures, and tools (e.g., checklists, forms, educational materials, etc.) used to execute the DAMP;

   c. Identifies the organizational units responsible for implementation of each program element;

   d. Establishes internal reporting requirements to ensure and promote accountability; and

   e. Describes an adaptive method of evaluation and assessment of program effectiveness for the purpose of identifying program improvements.

K. The audits conducted by Regional Board staff have also shown a significant deficiency in measuring program effectiveness. This Order requires quantifiable measures for evaluating program effectiveness.

L. The above-mentioned strategies for the fourth-term Order build upon and continue the programs and policies developed by the Permittees during the prior MS4 Permit terms as described in Sections VI and VII above.

M. A combination of these programs and policies and the requirements specified in this Order should ensure control of Pollutants in Urban Runoff from the MS4 owned and/or controlled by the Permittees.

VIII. ORDER REQUIREMENTS AND PROVISIONS

The legislative history of storm water statutes (1987 CWA Amendments), USEPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Board (State Board Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES permitting strategy was anticipated for regulating Urban Runoff. Due to the economic and technical infeasibility of full-scale end-of-pipe treatments and the complexity of Urban Runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of Numeric Effluent Limits.

The requirements included in this Order are meant to specify those management practices, control techniques and system design and engineering methods that will result in protection of the Beneficial Uses of the Receiving Waters consistent with the MEP standard. State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based MEP standard and Water Quality Standards. The U.S. Court of Appeals for the Ninth Circuit subsequently held that strict compliance with Water Quality Standards in MS4 permits is at the discretion of the local permitting agency.

The ROWD included a discussion of the current status of Riverside County's Urban Runoff management program and the proposed programs and policies for the next five years (fourth-term Order). This Order incorporates these documents and specifies performance commitments for specific elements of the Permittees Urban Runoff management program.

This Order recognizes the significant progress made by the Permittees during the first three MS4 Permit terms in implementing the storm water regulations. This Order also recognizes regional and innovative solutions to such a complex problem, addresses deficiencies in the Permittees' Urban Runoff programs observed during the audits conducted by Regional Board staff, and considers comments by the USEPA on other draft MS4 Permits. This Order specifies quantifiable performance measures to determine compliance and assess the effectiveness of the Urban Runoff programs. This Order incorporates an integrated watershed approach in solving water quality and Hydromodification impacts resulting from urbanization and aims to promote LID techniques as a key element to mitigate impacts from New Development and Significant Redevelopment projects. The proposed Order also requires the Permittees

to implement TMDL WLA through iterative BMP programs as required in the respective approved TMDL Implementation Plans (See Section V.C). The goal of these programs and policies that are included in this Order is to achieve and maintain Water Quality Standards in the Receiving Waters.

The essential components of the Urban Runoff management program, as established by federal regulations [40 CFR 122.26(d)] are: (i) Adequate Legal Authority, (ii) Fiscal Resources, (iii) Storm Water Quality Management Program (SQMP) - (Public Information and Participation Program, Industrial/Commercial Facilities Program, Development Planning Program, Development Construction Program, Public Agency Activities Program, IC/IDs Elimination Program), and (iv) Monitoring and Reporting Program. The major sections of the requirements in this Order include: I. Facility Information, II. Findings, III. Permittee Responsibilities, IV. Local Implementation Plan, V. Discharge Prohibitions, VI. Effluent Limitations, Discharge Specifications and Other TMDL Related Requirements, VII. Receiving Water Limitations, VIII. Legal Authority/Enforcement, IX. Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control, X. Sewage Spills, Infiltration into MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges, XI. Co-Permittee Inspection Programs, XII. New Development (including Significant Redevelopment), XIII. Public Education and Outreach, XIV. Permittee Facilities and Activities, XV. Training Program For Storm Water Managers, Planners, Inspectors And Municipal Contractors, XVI. Notification Requirements, XVII. Program Management/DAMP Review, XVIII. Fiscal Resources, XIX. Monitoring and Reporting Program, XX. Provisions, XXI Permit Modification, and XXII. Permit Expiration and Renewal.

These programs and policies are intended to improve Urban Runoff quality and protect the Beneficial Uses of Receiving Waters of the Permit Area.

A. RESPONSIBILITIES

The responsibilities of the Principal Permittee are to coordinate the overall Urban Runoff management program and the Co-Permittees are responsible for managing the Urban Runoff program within their jurisdictions as detailed in the ROWD and the proposed Order, Order No. R8-2010-0033.

The existing Implementation Agreement needs to be revised to include the cities that were not signatories to this Agreement. The Order requires that a copy of the signature page and any revisions to the Agreement be included in the specified Annual Report.

B. DISCHARGE PROHIBITIONS

In accordance with CWA Section 402(p)(3)(B)(ii), this Order prohibits the discharge of Non-storm Water to the MS4s, with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the Permittees or the

Executive Officer determines that any of the exempted Non-storm Water discharges is a significant source of Pollutants, a separate NPDES permit or coverage under the Regional Board's De Minimus Permit will be required.

C. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS, INCLUDING WASTE LOAD ALLOCATIONS FOR DISCHARGES TO 303(d) LISTED WATERBODIES WITH ADOPTED TMDLS

The Order clarifies allowed discharges and those discharges (only from Permittee owned or operated facilities and activities) allowed only if certain discharge specifications are met, such as those covered under the De Minimus Permit. These discharges should be consistent with the Regional Board's General De Minimus Permit for Discharges to Surface Waters, Order No. R8-2009-0003, NPDES No. CAG 998001. Permittees' de minimus discharges covered under this Order include: 1) dewatering wastes from subterranean seepage, except for discharges from utility vaults; 2) discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.; 3) discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.; 4) discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.; 5) discharges from potable water supply systems resulting from initial system startup, routine startup, sampling of influent flow, system failures, pressure releases, etc.; 6) discharges from fire hydrant testing or flushing; 7) air conditioning condensate; 8) swimming pool discharges; 9) discharges resulting from diverted stream flows; and 10) construction dewatering wastes. The DAMP and the LIP are required to be revised to incorporate information regarding Permittees' de minimus discharges.

This Order requires Permittees to implement established TMDL WLAs specified for Urban Runoff through an iterative BMP approach (see Section V.C above).

D. RECEIVING WATER LIMITATIONS

Receiving Water Limitations are included to ensure that discharges of Urban Runoff from MS4s do not cause or contribute to violations of applicable Water Quality Standards in Receiving Waters. The compliance strategy for Receiving Water Limitations is consistent with the USEPA and State Board guidance and recognizes the complexity of Urban Runoff management.

This Order requires the Permittees to meet Water Quality Standards in Receiving Waters in accordance with USEPA requirements, as specified in State Board Order No. WQ 99-05. If Water Quality Standards are not met through implementation of certain BMPs, the Permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation process.

E. LEGAL AUTHORITY/ENFORCEMENT

Each Permittee has adopted ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The Permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D)).

The enforcement activities undertaken by a majority of the Permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of Illegal Discharges. In the case of the County, additional action has sometimes included recovery of investigation and clean-up costs from the responsible parties. In the event of egregious or repeated violations, the option exists for a referral to the County District Attorney for possible prosecution or to the Regional Board for enforcement under the California Water Code or the CWA. In order to eliminate unauthorized, Non-storm Water discharges, reduce the amount of Pollutants commingling with Urban Runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and District Attorney referrals.

The third term MS4 Permit required the Permittees to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their Storm Water Ordinances. The Permittees now have this authority for penalties. Within the fourth term Order, Permittees are required to exercise this authority by developing an enforcement program to be administered within the industrial, commercial and construction elements of their Urban Runoff management programs. The enforcement program has been required to be included as an update to each Permittee's LIP. The effectiveness of this program must be documented in the Annual Reports submitted by the Permittees. However, it is acknowledged that once cases have been referred to the District Attorney or Environmental Crimes Task Force, etc. for prosecution, case details are confidential.

The fourth term Order further requires the Permittees to document and implement progressive and decisive enforcement actions, evaluate the effectiveness of their enforcement program and sanctions by tracking compliance and evaluating the amount of time to return to compliance.

This Order requires the Permittees to include in the LIP their legal authority and mechanisms to implement the various program elements required by this Order to properly manage, reduce, and mitigate potential Pollutant sources within each Permittee's jurisdiction. The LIP shall include citations of appropriate local ordinances, identification of departmental jurisdictions and key personnel in the implementation and enforcement of those ordinances. The LIP shall include

procedures, tools and timeframes for progressive enforcement actions and procedures for tracking compliance.

F. ILLICIT CONNECTIONS/ILLEGAL DISCHARGES; LITTER, DEBRIS AND TRASH CONTROL

Federal regulation, 40 CFR 122.26(d)(2(iv)(B), requires the Permittees to eliminate illicit discharges to the MS4s. The Permittees have completed a survey of the MS4 and eliminated or permitted all identified Illicit Connections. The Permittees have also established a program to address Illegal Discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4.

The Permittees currently have several programs to address IC/IDs:

1. The Permittees operate a toll free phone line, provide e-mail access for filing complaints and take direct calls regarding IC/ID reports from third parties. These reports are investigated by Permittee staff and reported in IC/ID investigation forms. All Permittee public education outreach materials promote the use of these reporting mechanisms.
2. Permittee staff receive training on identification and reporting of IC/IDs to appropriate Permittee staff. These reports are investigated and reported in IC/ID reporting forms.
3. The Permittees conduct Industrial and Commercial Facility and Construction Site inspections to identify potential IC/IDs. The outcomes of these inspections are reported in inspection reporting databases.
4. The Permittees contribute funds to the County Hazardous Materials Response Team to train and educate them to handle Illegal Discharges or accidental hazardous waste discharges so as to prevent IC/IDs. A summary of HAZMAT activities is provided in the Annual Reports.
5. The RCFC&WCD monitors Office of Emergency Service reports for potential IC/ID incidents and investigates them as appropriate. Results are reported in the RCFC&WCD complaint call database and reported to the Permittees as appropriate.
6. The RCFC&WCD has developed an online GIS tool that identifies the location of District and Permittee MS4 facilities to facilitate IC/ID investigations and response.
7. The Permittees have developed a Sanitary Sewer Overflow Procedure to limit the potential for sewage spills to the MS4.
8. RCFC&WCD, as Principal Permittee, has dedicated staff that conducts dry weather monitoring and also evaluates RCFC&WCD MS4 facilities for maintenance problems and/or IC/IDs. Detected IC/IDs from monitoring data or field inspections are reported to the District's NPDES section, logged into

RCFC&WCDs complaint database, and reported to the appropriate Permittee for follow up action.

However, with a few exceptions, program evaluations conducted during the third term MS4 Permit showed that this program element is primarily complaint driven or an incidental component of municipal inspections or MS4 inspections for a number of Permittees. This Order requires the Permittees to ensure their LIPs describe each Permittee's plan for focused, systematic IC/ID investigations, outfall reconnaissance surveys, indicator monitoring, and track their sources[10]. A proactive Illicit Discharge Detection and Elimination (IDDE) program should be integrated with other LIP program elements as appropriate including: mapping of the Permittees' MS4 to track sources, aerial photography, Permittee inspection programs for construction, industrial, commercial, MS4, Permittee facilities, etc., watershed monitoring, public education and outreach, Pollution Prevention, and rapid assessment of stream corridors to identify dry weather flows and illegal dumping.

G. SEWAGE SPILLS, INFILTRATION INTO MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, SEPTIC SYSTEM FAILURES, AND PORTABLE TOILET DISCHARGES

Federal regulation, 40 CFR 122.26(d)(2)(iv)(B)(4), requires the Permittees to develop procedures to prevent, contain, and respond to spills that may discharge into the MS4s. The Permittees have already developed a program to address various types of spills to the MS4s. This Order requires the Permittees to continue to implement the unified sewer response plans in collaboration with the local sanitary sewer system operators. To facilitate swift response actions, the Permittees are required to provide 24-hour access to MS4s to the sanitary sewer system operators. The Permittees should also work cooperatively with the sanitary sewer system operators to determine if exfiltration from leaking sanitary sewer lines is causing or contributing to Urban Runoff Pollution problems. In addition, the Permittees are required to control infiltration or seepage from sanitary sewers to the MS4s through routine preventive maintenance of the MS4 (40 CFR 122.26(d)(2)(iv)(B)(7)). This Order also requires the Permittees to implement control measures and procedures to prevent, respond to, contain and clean up all sewage and other spills from sources such as portable toilets and septic systems.

On May 2, 2006, the State Board issued the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (SSO Order) to address proper management and operation of sewer collection systems and to control sanitary sewer overflows. It requires dischargers/enrollees to develop and implement a written Sewer System Management Plan (SSMP) approved by the discharger's governing board and

[10] Table 2: Land uses, Generating Sites and Activities that Produce Indirect Discharges from IDDE, A Guidance Manual for Program Development and Technical Assessments, October 2004 CWP.

report sewer spills through an on-line reporting system. This Order requires the Permittees have reviewed the unified sewage spill response plan developed during the third term MS4 Permit with the local sewering agencies and determined that it is consistent with the requirements of the SSO Order. This Order also requires each Permittee to include in its LIP the interagency or interdepartmental sewer spill response coordination and responsibilities.

The MS4 program audits indicated that a majority of the Permittees with septic systems have inadequate information with regard to the number and location of those systems within their jurisdiction. This Order requires the Permittees with septic systems to develop within 2 years of adoption of this Order, an inventory of septic systems within its jurisdiction and establish a program to ensure that failure rates are minimized.

H. CO-PERMITTEE INSPECTION PROGRAM;

Federal regulations, 40 CFR 122.26(d)(2)(iv)(A-D), require the Permittees to inventory, prioritize and inspect Industrial and Commercial Facilities and Construction Sites. This Order requires the Co-Permittees to continue inspections of Industrial and Commercial Facilities and Construction Sites within their jurisdiction in order to control the Pollutants entering the MS4. The Co-Permittees will continue to maintain the inventory of Industrial and Commercial Facilities and Construction Sites in the above categories, prioritize these facilities based on threat to water quality, and perform regular inspections to insure compliance with local ordinances. While initial observations of non-compliance may result in 'educational' type enforcement, repeated non-compliance will result in more disciplinary forms of enforcement, such as monetary penalties, stop work orders or permit revocation.

An evaluation of Permittee inspection programs during the third term MS4 permit indicated certain deficiencies in the Industrial and Commercial Facility and Construction Site inspection programs of some of the Permittees. In many instances, program documentation of progressive enforcement and facilities' return to compliance were not properly documented. This Order requires Permittees to document inspections and enforcement and evaluate the effectiveness of their inspection and enforcement program by tracking the time for facilities or sites to return to compliance. The Permittees who do not have an internet accessible database are required to initiate quarterly reporting and update of the inventory, inspection and enforcement database for facilities within their jurisdiction.

In order to address discharges to the MS4 from residential sources, the fourth term MS4 Permit requires the Permittees to develop and implement a residential program to prevent residential discharges from causing or contributing to a violation of Water Quality Standards in the Receiving Waters (40 CFR 122.26(d)(2)(iv)(A)).

I. NEW DEVELOPMENT (INCLUDING SIGNIFICANT REDEVELOPMENT)

Federal regulation, 40 CFR 122.26(d)(2)(iv)(A)(2), requires the Permittees to develop a comprehensive master plan to address discharges from New Development and Significant Redevelopment projects. During the third term MS4 Permit, the Permittees revised their New Development guidelines to address water quality and Hydromodification impacts resulting from urbanization. A WQMP for Urban Runoff was approved by the Regional Board in 2004 and became effective in 2005. This Order requires the Permittees to continue to work towards the goal of restoring and preserving the natural hydrologic cycles in proposed urban developments by reviewing and approving project-specific WQMPs to address post-construction impacts. The WQMP should be designed to address water quality impacts, including Hydrologic Conditions of Concern (HCOC), from New Development and Significant Redevelopment projects through: (1) Site Design BMPs, including LID techniques; (2) Source Control BMPs; and (3) Treatment Control BMPs. This Order recognizes the importance of LID techniques to minimize the impact of urbanization on water quality. This Order requires the project proponents to infiltrate, harvest and reuse, evapotranspirate, or bio-treat the volume of runoff from a 24-hour, 85th percentile storm event where feasible. The Order also provides alternatives and in-lieu programs for project sites where infiltration, harvesting and re-use, evapotranspiration and bio-treatment are not feasible.

Program evaluations conducted during the third term MS4 Permit indicated a need for establishing a clear nexus between the watershed protection principles (including LID) and the planning and approval processes of the Permittees. This Order requires the Permittees to review and revise their Development Standards, Zoning Codes, Conditions of Approval, Development Project Guidance, ordinances, and other related documents to identify and eliminate barriers to incorporate watershed protection principles.

The SMC, including project lead agency, the San Bernardino County Flood Control District, in collaboration with SMC member, SCCWRP and the California Storm Water Quality Association (CASQA), is developing a LID Manual for Southern California with funding from the State Board, CASQA and other sources. This manual will be incorporated into the CASQA BMP Handbooks. The Permittees are encouraged to utilize the manual as a resource for proper LID design and implementation techniques.

Program evaluations have also suggested a need for improvement in the Permittees' inspection, and tracking of post-construction BMPs. This Order requires the Permittees to revise their close-out procedures to include field

verification that Site Design, Source Control and Treatment Control BMPs are operational and consistent with the approved WQMP.

This Order incorporates new project categories and revised thresholds for several categories of New Development and Significant Redevelopment projects that trigger the requirement for a WQMP. New project categories include streets, roads and highways of 5,000 square feet or more of paved surface and retail gasoline outlets (RGOs) with 5,000 square feet or more with 100 or more average daily vehicle traffic. The threshold criteria that trigger the WQMP requirement for non-residential commercial/industrial construction projects have been reduced from 100,000 square feet to 10,000 square feet or more of impervious surface. The threshold for residential subdivision projects has also been revised from 10 units or more to a threshold of 10,000 square feet or more of impervious surface.

This Order incorporates new project categories and revised thresholds for several categories of New Development and Significant Redevelopment projects that trigger the requirement for a WQMP. The 2008 National Research Council (NRC) report[11] indicates that roads and parking lots constitute as much as 70% of total impervious cover in ultra-urban landscape, and as much as 80% of the directly connected impervious cover. Roads tend to capture and export more storm water Pollutants than other impervious covers. As such, roads are included as a priority development category for which WQMPs are required. The NRC report also indicates that there is a direct relationship between impervious cover and the biological condition of downstream receiving waters. The Permittees are required to address HCOC from New Development and Significant Redevelopment projects to minimize downstream impacts. Private New Development and Significant Redevelopment projects incorporating roads typically allow road runoff to be addressed as part of the overall water quality strategy for the larger common plans of development. Permittee streets, roads and highways capital projects have special limitations. For example, the footprint of street, road and highway capital projects is often limited and may have hydraulic constraints due to lack of underground storm drain systems that would otherwise be necessary to hydraulically facilitate treatment of runoff. There are also limitations specified in state and federal design and code specifications that may limit or prohibit BMPs. Permittees may also be subject to flow diversion liability and limited road maintenance budgets and equipment. Street, road and highway projects that function as part of the MS4 also receive runoff and associated Pollutants from both existing urban areas and other external sources, including adjacent land use activities, aerial deposition, brake pad and tire wear and other sources that may be outside the Co-Permittee's authority to regulate and/or economic or technological ability to control. These offsite flows can overwhelm Treatment Control BMPs designed to address the footprint (consistent with the typical requirements for a WQMP) of street, road or highway capital projects incorporating curb and gutter as part of its stormwater conveyance function. Despite these limitations, the Regional

[11] National Research Council Report (2008), http://www.nap.edu/catalog.php?record_id=12465

Board finds that Permittee construction of streets, roads and highway capital projects may provide an opportunity to address Pollutant loads from existing urban areas. However, due to the nature of the facilities and projects, it would be unduly burdensome for the Co-Permittees to maintain WQMP documents for transportation projects (in addition to Facility Pollution Prevention Plans and other overlapping requirements of this Order). The Permittees are therefore not required to prepare WQMP documents for street, road and highway capital projects, but instead are required to develop equivalent documents that include site specific consideration utilizing BMP guidance to address street, roads and highway capital project runoff to the MEP.

As public works, streets, roads and highway projects are the only facilities typically captured by the new WQMP category, and these projects typically have unique constraints that make them difficult to address through the WQMP process, a separate set of requirements has been established for addressing this category of development. Roads that are typically constructed as part of a development are typically incorporated into the broader WQMP for the development activity, providing more options for mitigation via the WQMP process.

Consistent with a long term holistic approach to address water quality and Hydromodification impacts resulting from urbanization, this Order requires Permittees to continue to develop tools that facilitate integration, to the extent practicable, of water quality, stream protection, storm water management and re-use strategies with land use planning policies, ordinances, and plans within each jurisdiction. These tools should address cumulative impacts of development on vulnerable streams, preserve or restore, consistent with the MEP standard, the structure and function of streams, and protect surface and groundwater quality. For 303(d) listed waterbodies with Urban Runoff Pollutant sources and without a TMDL, the Permittees are required to provide special protections such as requiring more effective post-construction BMPs focus training programs and develop targeted public outreach that would address the urban source of the Pollutant of Concern. The Permittees are also required to participate in the TMDL development and implementation.

J. PUBLIC EDUCATION AND OUTREACH;

Federal regulation, 40 CFR 122.26(d)(iv), requires the Permittees to develop a comprehensive storm water management plan with public participation and 40 CFR 122.26(d)(iv)(B)(6) requires the Permittees to engage in outreach activities to facilitate the proper management of Pollutants. Public outreach is an important element of the overall urban Pollution Prevention program. The Permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the Receiving Waters and their ability to sustain Beneficial Uses. The Principal Permittee has taken the lead role in the outreach programs and has targeted various groups including businesses, industry, development, utilities, environmental groups, institutions, homeowners, school

children, and the general public. The Permittees have developed a number of educational materials, have established a storm water Pollution Prevention hotline, started an advertising and educational campaign, and distributed public education materials at a number of public events. The Permittees are required to continue these efforts and to expand public participation and education programs.

The Permittees have already developed BMP fact sheets to address sources from residential activities such as auto washing and maintenance activities; use and disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet wastes.

This Order requires the Permittees to annually review their public education and outreach efforts and revise their activities, if necessary, to address public outreach needs fed back from other Urban Runoff program elements. Federal regulation, 40 CFR 122.26(d)(v), requires the Permittees to conduct a program assessment to determine the reduction in Pollutant loadings due to Urban Runoff management programs. Each Permittee is required to implement an assessment program, guided by the CASQA Guidance manual or equivalent alternative, to measure the change in behavior of its target communities to reduce discharge of Pollutants to the MS4 and the environment.

K. PERMITTEE FACILITIES AND ACTIVITIES;

Federal regulation, 40 CFR 122.26(d)(iv)(A), requires the Permittees to ensure that their activities and facilities do not cause or contribute to violations of Water Quality Standards in receiving waters. Education of Permittee planning, inspection, and maintenance staff is critical to ensure that Permittee facilities and activities do not cause or contribute to an exceedance of Receiving Water Quality Standards. The 2002 MS4 Permit also specified minimum requirements for street sweeping and inspection and maintenance of drainage facilities. The Permittees were also required to develop and distribute BMP fact sheets for various Permittee activities. Permittee as well as contract staff that perform Permittee activities were required to be properly trained. The second and third term MS4 Permits required the Permittees to prepare a Municipal Facilities Strategy (MFS) to ensure that Permittee facilities and activities do not contribute Pollutants to Receiving Waters. The MFS was incorporated into Section 5 of the DAMP during the third term MS4 Permit. Each year, by August 1st, the Permittees are required to review their activities and facilities to determine the need for revisions to Section 5 of the DAMP.

This Order continues and builds upon the requirement of the third term MS4 Permit by requiring Permittees to include structural post-construction BMP information for certain Permittee projects along with the Notice of Termination submitted to the Executive Officer upon completion of the construction activity. The Notice of Termination must include photographs of the completed project, a location map, and for public works projects subject to a WQMP, structural post-

construction BMP location, field verification report and identify long term operation and maintenance responsibility. Permittees are required to develop a database of post-construction BMPs for which the Permittees are responsible and shall reference this database in the LIP.

Program evaluations conducted during the third term MS4 Permit indicated varying degrees of compliance at Permittee facilities and activities. This Order requires each Permittee to inventory its fixed facilities, field operations and MS4 facilities to ensure that Permittee facilities do not cause or contribute to a Pollution or Nuisance in Receiving Waters. These facilities and field operations are to be prioritized for inspection according to threat to water quality.

Fixed Permittee facilities and field operations include, but are not limited to fire training facilities, corporate yards, maintenance and storage yards, animal shelters, water treatment facilities, swimming pools, warehouses, and hazardous materials storage facilities, and recreation facilities. The Permittees are required to include in their LIP procedures and schedules for inspections and maintenance of Permittee facilities and activities. Urban Runoff from other Permittee facilities, such as airports, wastewater treatment plants and landfills, is regulated under the General Industrial Permit.

L. PERMITTEE CONSTRUCTION PROJECTS

The third term MS4 Permit authorized the discharge of storm water from Construction Sites on one acre or more that are under ownership or direct responsibility of the Permittees. The Permittees were required to notify the Executive Officer prior to commencement of construction activities, and to comply with the substantive requirements of the latest Statewide General Construction Activities Storm Water Permit.

Program evaluations conducted during the third term MS4 Permit indicated that some of the Permittees were not submitting or were not aware of the requirement to submit a Notice of Intent and a Notice of Completion for Permittee construction projects.

M. TRAINING PROGRAM FOR STORM WATER MANAGERS, PLANNERS, INSPECTORS AND MUNICIPAL CONTRACTORS

Education of Permittee planning, inspection, and maintenance staff is important to ensure that land use decisions, local permit approvals and Permittee facilities and activities do not cause or contribute to an exceedance of Receiving Water Quality Standards. During the term of the 2002 MS4 Permit, the Permittees attended training classes specific to major Urban Runoff program elements including New Development/Significant Redevelopment, Construction Site and Industrial Facility inspections, and Permittee activities.

This Order requires the Permittees, in conjunction with a broader array of MS4 Programs or CASQA, to define the program implementation training needs for Urban Runoff program staff, including contractors, managers and inspectors. The training curriculum must be designed for Permittee facilities and field operations staff, Permittee inspection staff, Urban Runoff program managers and those involved in the review and approval of WQMPs and CEQA documents, including Permittee contractors. The audits of the Permittees indicated the need for better inter-departmental collaboration and communication in the local Urban Runoff program implementation. This Order requires LIPs to develop and document processes and procedures for coordination between planners, plan reviewers, engineers and inspectors to ensure that appropriate post-construction BMPs are approved, installed, and are operational.

N. NOTIFICATION REQUIREMENTS

Most of the notification requirements that were spread throughout the third term MS4 Permit were consolidated into one section.

O. PROGRAM MANAGEMENT ASSESSMENT/DAMP REVIEW

The DAMP is a management document that needs to be updated with the new requirements of this Order.

P. FISCAL RESOURCES

Each Permittee is expected to exercise its full authority to secure the resources necessary to meet all requirements of this Order. See Section IX for existing funding mechanisms and potential limitations to Permittee funding.

Q. MONITORING AND REPORTING REQUIREMENTS

During the first term MS4 Permit and part of the second term MS4 Permit, the Permittees conducted monitoring of the Urban Runoff flows, Receiving Water quality, and sediment quality. The Santa Ana Phase I NPDES Monitoring Program began in November 1991 with 27 monitoring sites. The program has been reduced in phases to more specifically address Urban Runoff program needs and to redirect monitoring resources to TMDL-related activities. There was a time where samples were collected on a rotational basis with no consistent monitoring from year to year. On April 14, 2003, with the submittal of an Interim Monitoring Program, monitoring at seven core sampling locations (Sampling Stations 040, 316, 318, 364, 702, 707, and 752) was established that provided representative and consistent monitoring results for the Permit Area.

The Riverside County monitoring programs, as well as other monitoring programs nationwide, have shown that there is a high degree of uncertainty in

the quality of Urban Runoff and that there are significant variations in the quality of Urban Runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there are a number of Pollutants in Urban Runoff. A link between Pollutants in Urban Runoff and Beneficial Use Impairments has been established in a few studies.

This Order requires the Permittees identified as TMDL stakeholders in an approved TMDL to continue to comply with applicable TMDL Implementation Plan requirements, including monitoring requirements, and to implement Urban TMDL WLAs through an iterative BMP approach (see Section V.C above).

Wet and Dry Seasons are defined differently by the various monitoring programs included in this Order. The Middle Santa Ana TMDL defines the Wet Season as November 1 through March 31st and the Canyon Lake/Lake Elsinore TMDL monitoring defines it as October 1st through May 31st. The Monitoring and Reporting Program for this Order generally defines the Wet Season as October 1st through May 31st. Monitoring required under this Order is expected to be conducted consistent with the applicable seasonal definitions.

The MSAR Bacterial Indicator TMDL and Canyon Lake/Lake Elsinore Nutrient TMDL requires the Permittees to comply with TMDL Implementation Plan requirements to revise the DAMP to incorporate BMPs in the Permittees Urban Runoff programs. This Order requires the Permittees to evaluate the effectiveness of the BMPs implemented as part of the DAMP in conformance with the TMDL Implementation Plan requirements.

This MS4 monitoring program includes sampling Urban Runoff at a variety of sites located throughout the Permit Area for three storm events per year. Urban Runoff samples will be collected and analyzed for a variety of constituents. In addition to these efforts, the Permittees are reevaluating their overall Urban Runoff monitoring program to determine its effectiveness in meeting the following objectives:

1. Assess rates of mass loading
2. Assess influence of land use on water quality
3. Assess compliance with Water Quality Objectives
4. Assess effectiveness of water quality controls
5. Detect IC/IDs
6. Identify problem areas and/or trends
7. Identify Pollutants of Concern
8. Identify baseline conditions
9. Establish/maintain a water quality database

To accomplish these goals, the following activities are conducted:

1. Collect water quality data
2. Collect rainfall/runoff data
3. Establish quality assurance/control procedures
4. Conduct data analysis and archiving
5. Install and maintain appropriate equipment
6. Prepare an Annual Report

RCFC&WCD, in its role as Principal Permittee, participates in the SMC and other task forces. The goal of the SMC is to develop the technical information necessary to better understand storm water mechanisms and impacts, and then develop the tools that will effectively and efficiently improve storm water decision-making. Some of the cooperative monitoring efforts conducted through the SMC and other task forces include Comparative Evaluation of Microbial Source Tracking Techniques, Model Monitoring Program Guidance, Peak Flow Study, and Laboratory Inter-Calibration Studies. Under the auspices of the SMC, SCCWRP prepared "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California", August 2004 Technical Report No. 419. This report noted, "...the lack of mass emissions stations in the inland counties hampers their ability to estimate the proportional contribution of these inland areas to cumulative loads downstream". The SMC consists of representatives from the Counties of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego and the Cities of Long Beach, and Los Angeles, the Los Angeles, Santa Ana and San Diego Regional Boards, the State Board, SCCWRP, Caltrans, and the USEPA. This Order requires the Permittees to continue mass emissions monitoring to determine Pollutant loading.

During the second and third term MS4 Permits, there was an increased focus on watershed management initiatives and coordination among the MS4 permittees in Orange, Riverside and San Bernardino Counties. The MS4 permittees participated in a number of regional monitoring programs and other coordinated program and policy developments, such as the Regional Integrated Freshwater Bioassessment Monitoring Program, and the BMP Effectiveness Assessment. The Principal Permittee continues to be an active participant in the SWQSTF, MSAR Bacterial Indicator TMDL, Canyon Lake/Lake Elsinore (San Jacinto) Nutrient TMDL and the SMC. This Order recommends that the Permittees continue their participation in these types of watershed coordination efforts and provides them with opportunities to use these efforts to comply with applicable requirements of the Permit.

The third term MS4 Permit required the Permittees to initiate bioassessment monitoring. To allow for a holistic approach, this Order requires the Permittees to participate in the Regional Integrated Freshwater Bioassessment Monitoring

Program in lieu of a separate bioassessment monitoring program for the Permit Area.

This Order requires the Permittees to re-evaluate their CMP and submit a revised plan for approval. The revised CMP should integrate the goals and objectives of the Watershed Action Plan and rectify data gaps from previous monitoring efforts.

R. PROVISIONS – Standard Language per NPDES regulations.

S. PERMIT MODIFICATION– Standard Language per NPDES regulations.

T. PERMIT EXPIRATION AND RENEWAL– Standard Language per NPDES regulations.

IX. WATER QUALITY BENEFITS, COST ANALYSIS, AND FISCAL ANALYSIS

There are direct and indirect benefits from clean lakes and beaches, clean water, and a clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the U.S. waters were swimmable and fishable. In 2008, more than 2/3 of the U.S. waters met these criteria. In the 1999 "*Money"* magazine survey of the "Best Places to Live", clean water and air ranked as two of the most important factors in choosing a place to live. Thus environmental quality has a definite link to property values.

The true magnitude of the Urban Runoff problem is still elusive and any cost estimate for cleaning up Urban Runoff would be premature short of end-of-pipe treatments. For Urban Runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the Permittees have attempted to define the problem and implemented BMPs to the MEP to combat the problem.

The costs incurred by the Permittees in implementing these programs and policies can be divided into three broad categories:

A. Shared costs: These are costs that fund activities performed mostly by the Principal Permittee under the Implementation Agreement. These activities include overall storm water program coordination; intergovernmental agreements; representation at the SWQSTF, Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits, responding to Water Code Section 13267 requests, budget and other program documentation; coordination of consultant studies, Co-Permittee meetings, and training seminars.

B. Individual Costs for DAMP Implementation: These are costs incurred by each Permittee for implementing the BMPs (drainage facility inspections for Illicit Connections, drain inlet/catch basin stenciling, public education, etc.) included in the DAMP. A number of programs and policies for Non-Point and Urban Runoff Pollution controls existed prior to the MS4 permit program. However, the DAMP that was developed and implemented in response to the MS4 Permits required additional programs and policies for Urban Runoff Pollution control.

C. Individual Costs of Pre-Existing Programs: These are costs incurred by each Permittee for water Pollution control measures which were already in existence prior to the MS4 permit program. These programs included recycling, litter control, street sweeping, drainage facility maintenance, and emergency spill response.

Historically, the Permittees have employed four distinct funding methods to finance their NPDES Activities. Many Permittees utilize a combination of these funding sources. The different methods include:

A. Santa Ana Watershed Benefit Assessment Area

In 1991, the RCFC&WCD established the Santa Ana Watershed Benefit Assessment Area (SAWBAA) to fund its NPDES activities. Currently, SAWBAA revenues fund both area-wide NPDES program activities and the RCFC&WCD's individual MS4 permit compliance activities.

B. County Service Area 152

In December 1991, the County of Riverside formed County Service Area 152 (CSA 152) to provide funding for compliance activities associated with its NPDES permit activities. Under the laws that govern CSAs, sub-areas may be established within the overall CSA area with different assessment rates set within each sub-area. The cities of Corona, Moreno Valley, Norco, Riverside, Lake Elsinore and San Jacinto elected to participate in CSA 152.

C. Utility Charge

The City of Hemet funds a portion of its NPDES program activities through a utility charge.

D. General Fund /Other Revenues

Permittees also utilize general fund revenue to finance their NPDES activities. Several Permittees also report using general fund and other revenue sources (e.g., gas taxes, developer fees, etc.) to fund a portion of their Urban Runoff management activities.

The Annual Report provides the most recent budgets and expenditure projections available for the costs incurred by the Permittees in implementing these programs and policies. The following information, in parenthesis, on the current economic conditions was provided by the Permittees.

{Current Economic Conditions
The following information was provided by the Permittees and does not constitute a finding by the Regional Board:

Historically, the Permittees have employed several funding methods to finance their MS4 Permit compliance activities. Unfortunately, the mortgage crisis, collapse of the housing market and the economic recession has resulted in the cessation of virtually all development activity and has significantly reduced sales tax revenue in the Santa Ana Region. Property tax revenues have been reduced by the high level of foreclosure activity and reduced property values. Property tax revenues have been further reduced by homeowner requests for reassessments to reflect the reduced property values. The impact of these economic conditions on the Permittees in the Santa Ana Region has been particularly severe. As a result, funds typically provided by these funding methods has been severely reduced, and it is anticipated that this condition will continue for an indefinite period. The funding methods historically used and the effects of the economic situation on the availability of funds through these sources are summarized as follows:

- Santa Ana Watershed Benefit Assessment Area. In 1991, the District established the Santa Ana Watershed Benefit Assessment Area to fund its MS4 Permit compliance activities. Currently, the Benefit Assessment revenues fund the District's share of the area-wide MS4 Permit program activities and the District's individual compliance activities as a Permittee. Under the Benefit Assessment each parcel is taxed based on the impervious area of each parcel at a set rate established through Proposition 218. This rate has not been increased since 1991 and increases in revenues have resulted from increases in the number of contributing parcels resulting from New Development. In 2007/08 the Santa Ana Watershed Benefit Assessment generated approximately $2,030,000 in revenue. These revenues are used to fund the District's compliance activities and the bulk of the administrative costs associated with the District's duties as Principal Permittee.

  Outlook: The District expects at best to maintain, if not see temporary reductions in Benefit Assessment revenues due to the significant number of homes that are not paying property tax due to foreclosure. An increase in the established Benefit Assessment rate to compensate for these reductions would require approval of 2/3 of the voters or 50% of the property owners and is unlikely, especially in the current economic climate. An increase in the number of contributing parcels will not occur until the development industry recovers.

- General Fund/Other Revenues. The County and the Cities utilize general fund revenue to finance most of their MS4 Permit compliance activities. General fund revenue is generated by property tax, sales tax, and auto license taxes.

  Outlook: The Permittees expect a continued reduction in the funds available through General Fund/Other Revenues through at least FY 2010/2011. Historically, the Permittees have investigated other funding sources, including a phone survey conducted by LESJWA with support from the District and the County of Riverside to evaluate the possibility of passing a new assessment to fund water quality improvements benefiting Lake Elsinore. The results of the survey found insufficient voter support for water quality-related issues to move forward with a special election. The Permittees have also formed a finance committee which has met several times to obtain information about actions that they can take to maximize revenues and potential alternative funding sources. These efforts met with some success, particularly in relation to maximizing fees for service; however significant new funding sources were not identified or available to the Permittees even during the more favorable economic conditions experienced during the term of the 2002 Riverside County MS4 Permit.

- Fees. Several Permittees charge fees for services such as inspections, plan check and other recoverable costs related to compliance with the 2002 Riverside County MS4 Permit. These fees cover both the direct and indirect costs associated with conducting these inspections/reviews including associated compliance tracking and reporting.

  Outlook: It is notable that, with the virtual collapse of the development industry in the Santa Ana Region, the fees received by the Permittees for review of New Developments and Construction Site inspections have been significantly reduced. With this reduced level of fee-based income, maintenance of the existing inspection and plan review programs will place a burden on overall funding of the compliance programs. The Permittees do not expect revenues from fees to recover until the development industry recovers. Even with recovery of the development industry, it is anticipated that revenues from fees will be reduced for the majority of the Cities within the Santa Ana Region and the County due to the reduced area remaining for development in their jurisdictions.

- Grants. The Permittees have actively pursued and, as available, used grants to fund compliance programs.

  Outlook: In December the State's budget crisis resulted in a directive to State agencies from the Department of Finance to halt projects that rely on bond funds, including those funded by Proposition 40, Proposition 50 or Proposition 84. The State of California is the primary source of grant funding for water

quality projects. Future availability of funds to resume compliance projects funded by grants is uncertain.

It is clear that the current economic climate and that of the foreseeable future is creating a significant burden upon the Permittees that will make the continuance of all existing MS4 Permit compliance programs difficult. If new funding sources or alternative combinations of funding sources cannot be identified, it is likely that compliance program funding will be further impacted.

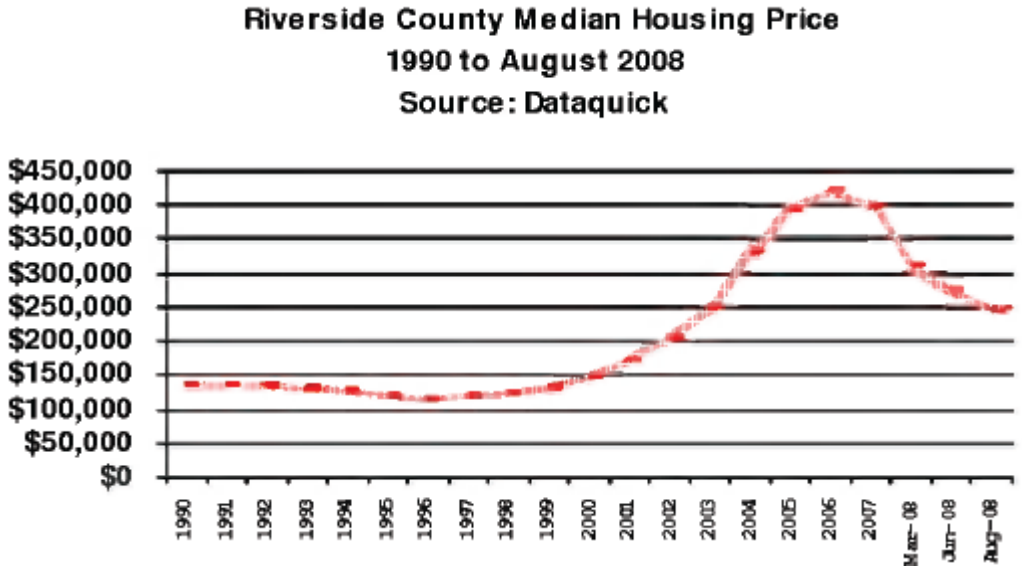
Economic Projections

According to Chicago Title, Southwest Riverside County has experienced a very significant increase in supply of single-family residential units on the market. As a result, housing price indicators are very negative. In the majority of the Southwest Riverside submarket, the pending price is less than closing price that suggests the weakness of the market. The October 2008 count of bank owned (REO) properties for Riverside County as a whole was 12,078. The number of foreclosures was 23,480. The presence of high levels of REO properties will continue to negatively affect the price line. In addition, the level of foreclosures is increasing. At the end of January 2009, 68% of the homes listed for sale are foreclosures or short sales[12].

With regard to other sectors of the economy, Riverside County has taken a serious turn for the worse in 2008, with projections indicating that the severe downturn will continue through 2009 at the very least. The economic difficulties being faced in the Southwest Riverside submarket is the result of the dramatic downturn in the housing market in this area, the national financial turmoil, the worldwide credit crisis, and the increasing consumer debt crisis. According to Beacon Economics, a respected economics consulting firm in Los Angeles, Inland Southern California is clearly at the epicenter of this economic turmoil, with extremely high rates of unemployment at present. Unemployment rates in Inland Southern California are expected to reach 12.4% (Riverside County beat that – unemployment was 14.6% in November 2009 – California Employment Development Department) before this deep recession is over. Housing prices are expected to continue their precipitous decline from their peak levels in the two Inland Southern California counties through at least 2011. According to Dataquick, median home prices in Riverside County peaked at $415,000 in January 2007. At the end of this cycle, the median home price in Riverside County is expected to be $198,000. Figure 1 depicts the median housing price in Riverside County over the period 1990 to August 2008.

[12] Orange County Register, January 27, 2009, p. 11.

Figure 1. Riverside County Median Housing Price (1990 – August 2008)

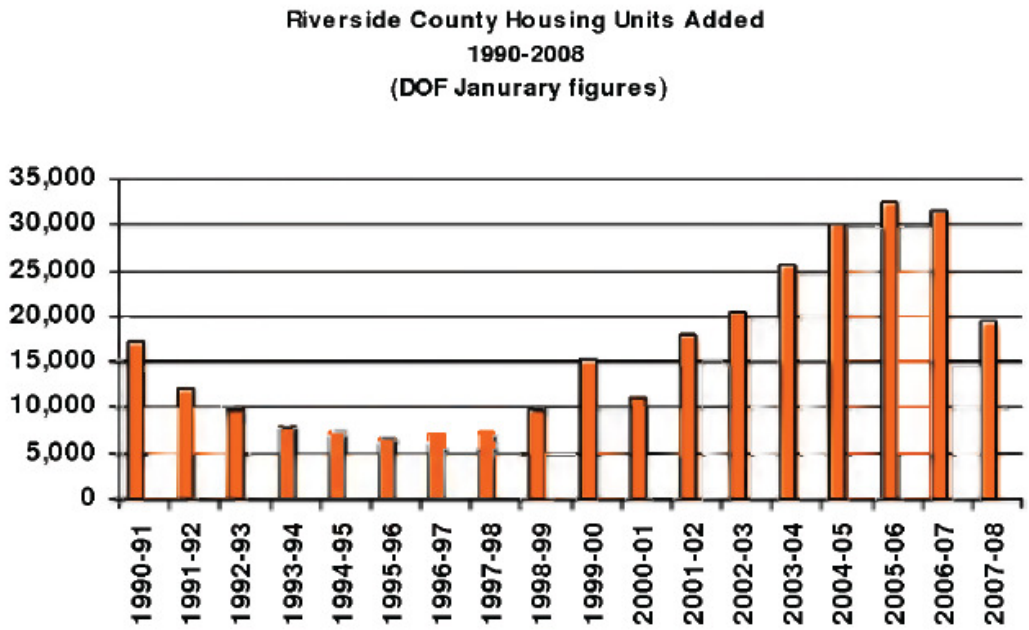


Source: Riverside County Center for Demographic Research. 2008. Riverside County Progress Report, pg 14.

Local Government sales tax revenues remained fairly stagnant through 2006 and began to decline in early 2007, according to Beacon. By the second quarter of 2008, the taxable sales in Riverside County declined by 7.7%. This will continue with taxable sales possibly bottoming out by 2010. These shocks are expected to continue and accelerate within the southwest Riverside County economy.

As a direct outcome of the current economy and the economic outlook into the term of the 2009 Riverside County MS4 Permit, the number of New Development proposals has plummeted and any significant rebound is not forecast. New and redevelopment projects will likely remain minimal. As shown in Figure 2, the number of housing units being added each year has dropped below the levels seen at any point in time during the 2002 Riverside County MS4 Permit. These numbers will likely continue to decrease for a significant portion of the new 2010 Riverside County MS4 Permit term.

Figure 2. Riverside County Housing Units Added (1990 – 2008)



Source: Riverside County Center for Demographic Research. 2008. Riverside County Progress Report, pg 12.

These economic issues and projections directly affect and limit both:

- The need for including enhanced New Development and Significant Redevelopment requirements in the 2010 Riverside County MS4 Permit, and

- The Permittees ability to fund, and even seek new funding sources for additional MS4 Permit requirements for New Development and Significant Redevelopment projects.

Permittee specific projections are as follows:

County of Riverside

The County is operating with a structural deficit of $12 million and plans a 25% budget reduction from FY 2008/2009 through FY 2011/2012. The County's current budget of $4.7 billion represents a 5% reduction from the previous year and next year's budget is expected to be cut by 10%. These cuts are directly associated with the decline in property values caused by the high number of foreclosures. There are concerns about having to use discretionary funds to meet State mental health and social service mandates. In addition, the County is dependent on funds from Federal and State sources. If during this time of economic crisis Federal and State funding sources are reduced or eliminated, any unfunded programs will be terminated. Only core County programs will continue.

The primary source of general fund revenue is from property taxes and sales tax. With the unprecedented number of foreclosures, reduced property values, and declining sales, general fund revenue is in a downward spiral. Another source of funding is through the Solid Waste Tipping Fees paid at the County landfills. Volume is down 15% since 2006 with anticipated downward trend to 40% reduction in solid waste through 2014. Programs that are partially funded through tipping fee allotments will be impacted. Due to the declining economy the recycling market has collapsed. Virtually no recyclable materials are being shipped for reprocessing. This loss of revenue and increased disposal costs is further impacting the general fund.

Cuts of 25% for all Net County Cost general fund programs will translate into reduction of County services and elimination of unfunded State and Federal programs. Only core value programs will be provided (including public safety and fee programs).

The County has instituted a hiring freeze and required each department to create a report outlining the projected effects of the budget cuts. The County currently employs over 20,000 people, and layoffs are expected to result from the findings of these departmental reports. It is anticipated that this will impact program delivery for stormwater related activities. No County department will be able to sustain current staffing levels as they try to meet the 25% budget reduction strategy.[13] [14]

City of Menifee

The newly incorporated City of Menifee FY 2008/2009 initial budget was estimated from their comprehensive fiscal analysis that was submitted to the Local Agency Formation Commission during the incorporation process. Because of the economic uncertainty, and the fact that the City is only now beginning to staff positions, it is unknown what the immediate impact of the fiscal crisis will be. The County is responsible for assisting the City in meeting its MS4 Permit compliance requirements during the first year of incorporation which expires October 1, 2009. Currently, the level of property tax revenue that will be available to the City is uncertain. Funding for MS4 Permit compliance requirements was not explicitly budgeted. A financial hardship currently exists because of the costs associated with incorporation.

City of Murrieta

The City of Murrieta's FY 2008/2009 budget did not increase compared to FY 2007/2008. The City has identified a $3.3 million budget shortfall for the current fiscal year ending on June 30, 2009. This represents approximately 8.2% of the City's projected revenue which must be absorbed in five months.

[13] "The Realities of Recession in California: A Statewide Report by U.S. Senator Barbara Boxer, December, 2008, p. 18.
[14] Riverside County Executive Office, January, 2008.

The shortfalls are primarily due to reduced sales tax and property tax revenues. Department heads are currently working on revised budgets to adjust for the loss in revenue.

Additional, budget cuts are anticipated for FY 2009/2010 because the immediate economic outlook is not good. There have been approximately 2,000 home foreclosures within the City. Sales tax revenue is estimated to drop 12.5%, property tax revenue will drop, and the State took approximately $525,000 out of redevelopment funds. Murrieta did not receive any vehicle licensing fees from the State and it appears likely that the State will take more revenue from the cities to solve its budget problems. New NPDES requirements that increase compliance costs will create a financial hardship for the City.

City of Riverside

The City of Riverside has seen declining general fund revenue over the last two fiscal years in virtually all categories. The City's most recent projection indicates that total general fund revenues for the current fiscal year will be under $200 million, down from a budget of $215 million as adopted, and $226.5 million in the prior fiscal year. This represents a decline over two fiscal years of approximately 12%. Specifically, property tax and sales tax revenue continue their decline, which is primarily attributable to decreased residential construction activity and in the case of sales tax declining automobile sales.

The decline in revenue has resulted in a corresponding reduction to general fund expenditures. Specifically, approximately 12% of the positions authorized for the general fund have been vacated and unfunded, either through transferring staff to other funds, attrition or limited layoffs of temporary and contract staff. Additionally, the level of service provided to the community in virtually all City departments has been reduced through funding reductions to items such as street maintenance, recreation programs and libraries, though great care has been taken to minimize the impact of cuts to the public. It is anticipated that in the near term the economic situation will not improve, and staff is preparing a budget for the upcoming fiscal year that anticipates further decreases in revenue.

City of Wildomar

The newly incorporated City of Wildomar FY 2008/2009 initial budget was estimated from their comprehensive fiscal analysis that was submitted to the Local Agency Formation Commission during the incorporation process. Because of the economic uncertainty, and the fact that the City is only now beginning to staff positions, it is unknown what the immediate impact of the fiscal crisis will be. The County is responsible for assisting the City in meeting its MS4 Permit compliance requirements the first year of incorporation that expires July 1, 2009. Currently, the level of property tax revenue that will be

available to the City is uncertain. Funding for MS4 Permit compliance requirements was not explicitly budgeted. A financial hardship currently exists because of the costs associated with incorporation.}

X. ANTIDEGRADATION ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these Urban Runoff discharges. The Regional Board finds that the Pollutant loading rates to the Receiving Waters will be reduced with the implementation of the requirements in this Order. As a result, the quality of Urban Runoff discharges and Receiving Waters will be improved, thereby improving protection for the Beneficial Uses of Waters of the U.S.. Since this Order will not result in a lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements.

XI. ANTI-BACKSLIDING

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require Effluent Limitations in a reissued NPDES permit to be as stringent as those in the previous permit, with some exceptions where Effluent Limitations may be relaxed. All Effluent Limitations in this Order are at least as stringent as the Effluent Limitations in the 2002 Order.

XII. PUBLIC WORKSHOP AND PUBLIC HEARING

Regional Board conducted a public workshop regarding the proposed Order on August 3, 2009 at the City of Loma Linda, Council Chambers, 25541 Barton Road, Loma Linda, CA. Based on the comments received, a second draft was released for public review and comments on October 22, 2009. The third draft, issued on December 15, 2009, will be considered for adoption at a public hearing as follows:

Date and time:	January 29, 2010; meeting starts at 9:00 a.m.
Location:	City of Loma Linda, Council Chambers 25541 Barton Road Loma Linda, CA

A Notice of Public Hearing and Hearing Procedure is posted on the Regional Board's website indicated below. An agenda for the public hearing to consider adoption of the proposed Order will be posted on the Regional Board's website approximately 10 days prior to the meeting date at:

http://www.waterboards.ca.gov/santaana/water_issues/programs/stormwater/riverside_permit.shtml

This information may be also obtained by calling the Regional Board office at 951-782-4130.

The Regional Board recognizes the significance of Riverside County's Storm Water/Clean Water Protection Program and will conduct, participate, and/or assist with any workshop during the term of this Order to promote and discuss the requirements of this Order and the progress of the Urban Runoff management program. The details of the public workshops will be posted on the Regional Board's website indicated above. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

XIII. PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. A Notice of Public Hearing was published in the Legal Notices section of the Press Enterprise, a local newspaper, on November 13, 2009. The public hearing on this item is scheduled as indicated above in Section XI. Additional information regarding the public hearing will also be posted on the website indicated above. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501. This and other information are also available at the website at: www.waterboards.ca.gov/santaana.

XIV. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Keith Elliott at (951) 782-4925. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday (excluding holidays, and furlough days).

XV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group for applications may leave his name, address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be available on the web for all interested parties to download.

E-mail registration:
http://www.waterboards.ca.gov/resources/email_subscriptions/reg8_subscribe.shtml

XVI. RECOMMENDATION

Staff recommendation is to adopt the tentative Order, Order No. R8-2010-0033, as presented.

APPENDIX 7

NOTICE OF INTENT AND NOTICE OF TERMINATION FOR DE-MINIMUS DISCHARGES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
NOTICE OF INTENT
TO COMPLY WITH THE TERMS AND CONDITIONS OF THE

☐ **Riverside County MS4 Permit**
ORDER NO. R8-2010-0033
NPDES NO. CAS 618033

☐ **San Bernardino County MS4 Permit**
ORDER NO.R8-2010-0036
NPDES NO. CAS618036

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGE TO SURFACE WATERS
THAT POSE INSIGNIFICANT (DE MINIMUS) THREAT TO WATER QUALITY

I. PERMITTEE (*Person/Agency Responsible for the Discharge*)
Agency/Company
Name:_____
Address/*Street* _____
City _____State _____ZIP_____ Contact Person: _____
Phone: (_____) _____; Email: _____

II. FACILITY
Name:_____
Address/Street _____
City _____State _____ZIP_____ Contact Person:_____
Phone: (_____) _____; Email: _____

a. Projected Flow Rate (gpd):_____,
b. Receiving Water (identify):_____

III. INDICATE EXISTING PERMIT NUMBER: (*if applicable*)
a. Individual Permit Order No. _____ NPDES No. _____
b. General Permit Order No. R8-2010-003-_____
c. Others (specify) _____

IV. CERTIFICATION:

I certify under penalty of law that I am an authorized representative of the permittee and that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the permittee will comply with the terms and conditions stipulated in Orders No. R8-2009-0003 and (R8-2010-0033 or R8-2010-0036, as applicable) including the monitoring and reporting program issued by the Executive Officer of the Regional Board.

Name: _____Title:_____
(type or print)

Signature: _____ Date: _____

Email: _____

Remarks: If changes to facility ownership and/or treatment processes were made after the issuance of the existing permit, please provide a description of such changes on another sheet and submit it with this Notice of Intent.

V. OTHER REQUIRED INFORMATION - FOR NEW DISCHARGERS AND FOR NEW DISCHARGES AND LOCATIONS NOT PREVIOUSLY REPORTED BY EXISTING DISCHARGERS.

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to:

a. A list of constituents and the discharge concentration of each constituent;

b. The estimated average and maximum daily flow rates at unit of gallons per day(gpd); the frequency and duration of the discharge and the date(s) when discharge will start;

c. The proposed discharge location(s) as latitude and longitude for each discharge point;

d. A description of the proposed treatment system (if appropriate);

e. The affected receiving water; the receiving water(s) shall be
   1) receiving storm drain/creek, and/or
   2) the ultimate receiving water, such as Santa Ana River, San Jacinto River, Lake Elsinore, Prado Park Lake, etc.;

f. A map showing the path from the point of initial discharge to the ultimate receiving water. Please try to limit your maps to size of 8.5" X 11".

g. A list of known or suspected leaking underground tanks and other facilities or operations that have, or may have impacted the quality of the underlying groundwater within 200 feet of the site property lines for projects with expected discharge flow rates of less than 100,000 gallons per day and within 500 feet of the site property lines for projects with expected discharge flow rates of greater than 100,000 gallons per day.

h. Any other information deemed necessary by the Executive Officer.

VI. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your application, pursuant to Division 7, Section 13260 of the California Water Code.