

Construction Industry Coalition on Water Quality

December 7, 2015

Mr. Adam Fischer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

Via Email: adam.fischer@waterboards.ca.gov

RE: Comments on Draft Orange County Municipal Separate Storm Sewer System (“MS4”) Permit, NPDES Permit No. CAS618030

Dear Mr. Fischer:

The Construction Industry Coalition on Water Quality (CICWQ) is submitting comments concerning the Draft Orange County Municipal Separate Storm Sewer System (“MS4”) Permit, NPDES Permit No. CAS618030 (herein referred to as Draft Permit). We are submitting this letter on behalf of the CICWQ membership, which is described below.

CICWQ is an advocacy, education, and research 501(c)(6) non-profit group of trade associations representing builders and trade contractors, home builders, labor unions, landowners, and project developers. The CICWQ membership is comprised of members of four construction and building industry trade associations in southern California: The Associated General Contractors of California, Building Industry Association of Southern California, Engineering Contractors Association, and Southern California Contractors Association, as well as the United Contractors located in San Ramon. Collectively, members of these associations build a significant portion of the transportation, public and private infrastructure, and commercial and residential land development projects in California.

In preparing this comment letter, we draw from many years of our members’ collective experience working both on public infrastructure and facilities, and private commercial, industrial, and residential development projects in Orange County that are governed by NPDES permits issued by the Santa Ana Regional Water Quality Control Board (Regional Board).

As you know, CICWQ and our affiliated trade associations including Building Industry Association of Southern California, Orange County Chapter and Building Industry Legal Defense Foundation submitted comments on earlier permit drafts and participated in several workshops up to this point. Your communication and consideration of our input regarding the permit requirements since the latest Draft Permit

was released for public review is appreciated. We note that some substantive changes have been made in the Draft Permit regarding the planning and land development requirements affecting CICWQ's membership, principally regarding the use and utility of regional or off-project LID BMP facilities to meet priority project stormwater runoff retention requirements, and we offer here constructive suggestions for improvement.

Overall, we appreciate the intent of the Regional Board to recognize and allow priority development projects to use "Off-Site Structural Treatment Control BMPs" and "Credit Programs" under certain conditions (currently defined in Section XII. M and N), and elect to use such programs without performing an on-site LID BMP retention feasibility analysis. However, given the language appearing in the Draft Permit in parts of Section XII, the program requirements are not as clear as possible and the language restricts program participation and decreases flexibility already allowed in prior Santa Ana Regional Board MS4 permits and existing, adopted MS4 permits from other regions in California.

We believe some of the Draft Permit language could be eliminated or moved, and minor modifications made in sub-sections M and N to the benefit of the Regional Board and all regulated parties and stakeholders. The changes and suggestions we offer continue to support permit compliance within the framework already provided in sub-sections M and N. Below, we provide specific suggestions and supporting rationale in order of appearance in Section XII, and include as Attachment A, redline Draft Permit language for your consideration:

Section XII. H. Third Priority Consideration of All Other Structural Treatment Control BMPs: Non-LID BMPs

Within Section XII. H., the directional language of No. 5 is clear, but appears to be out of place, and could be moved to Section XII. C., and inserted as No. 13. The Regional Board made it clear at the last stakeholder workshop on November 5, 2015 that priority development projects who elect to use an "Off-Site Structural Treatment Control" regional LID BMP or enter into a "Credit Program" do not have to perform an on-site stormwater runoff retention feasibility analysis (as required in Section XII.C, D, F, and G). Moving the language in XII. H.5 to C. 13 would make the distinction clear.

In addition, Section XII. H. emphasis is on consideration of other, non-LID structural treatment controls as part of a priority project's on-site LID BMP feasibility analysis, and would not therefore apply to priority projects that elect to use LID BMP facilities subject to conditions in sub-sections M and N. While we can appreciate that election to use an "Off-Site Structural Treatment Control" regional LID BMP or enter into a "Credit Program" may be perceived as hierarchically subordinate within the first, second, and third priority consideration processes described in Section XII. F, G, H, and I, the expressed intent of the Regional Board is to allow participation in off-site or credit programs without going through those three (and even a fourth, Section XII. I.) priority consideration processes.

Section XII. M. Off-Site Structural Treatment Control BMPs: Regional and Subregional Facilities

We appreciate the Regional Board's inclusion of the ability for a priority project proponent to participate in a regional or sub-regional LID BMP or biotreatment control BMP program in lieu of performing an on-site LID BMP feasibility analysis and installing controls on-site to meet Draft Permit stormwater runoff retention performance standards. Within Section XII. M, we suggest strengthening accounting and performance demonstration requirements for sub-section M.b., by moving language that exists within sub-section M.d, and deleting the remaining portions of M.d. In addition, as LID BMP infiltration is a sub-category of retention LID BMPs (as defined in the Glossary, pg. 91 of 100), separate requirements for LID infiltration BMPs (XII. M.d) appear to be redundant with those contained in M.b.

We also note that it is not abundantly clear that Section M only allows a priority project(s) to direct runoff to a regional or subregional LID BMP that is downstream and hydraulically connected to it. As we understand the intent of Section M., the requirements and allowances for a priority project to participate in use of an off-site BMP are:

- (i) A single drainage area
- (ii) The service area is defined by the drainage area and the capacity of the BMP
- (iii) The contributing project(s) must be hydrologically connected to the BMP
- (iv) Physical and legal access must be provided for maintenance of the BMP in perpetuity
- (v) BMP ownership may be different than that of the contributing projects; public-private, or private-private transactions may be allowed, whether fee in lieu or water quality credit trade

We urge the Regional Board to include clarifying language and definitions in the Draft Permit relative to Section XII. M.

Section XII. N. Credit Programs

While we appreciate the intent of the Regional Board to allow water quality credit trading, the program as proposed is unnecessarily constrained by the requirement in N.1.c. that states:

“the credit must be generated by a structural treatment control LID BMP that is located on property which is owned or controlled by the proposed project proponent”

This requirement decreases permit compliance flexibility for private property development rather than encouraging it, limits and constrains opportunities relative to

capitalizing on potential stormwater runoff retention locations (such as those identified through preparation of watershed management plans and other stormwater capture opportunity analyses), and applies only to very few cases (large campus-type properties) in Orange County.

We understand from reading the Response to Comments to the Second Draft Order that:

“The Regional Board has structured the new Subsection to allow the use of credits by projects that may not necessarily be eligible for a waiver...credits may only be traded between projects under the same ownership...these limits are intended to prevent potential abuse of the credit program. (Response 3.2);

And, from a review of the Technical Report which states:

“Credit trading is permitted between projects, but the project owners must be the same. This is a limitation on the size of the trading market. This limitation is necessary at this time because permitting a larger trading market would require a more complex system of accounting and controls. Few Co-permittees may be prepared to effectively manage the credit trading. An expansion of the trading market to allow trading between different project owners in the same watershed may be considered as part of future permits (page 36 of 100).”

Concerns regarding clear and transparent program accounting and effective management of the system to eliminate any abuses are legitimate and we respect the Regional Board’s caution. However, a program restriction to limit credit trading to the same property owner effectively stops development of a credit trading program that would permit two different property owners from entering into a credit program administered by any of the cities in Orange County. It is our understanding that the County of Orange and its co-permittees also share our concerns, and would like to see the credit trading program expanded to include transactions between more than one property owner within the general construct of Section XII N.

And, our own research and outreach with local government in Orange County (including water and sanitation districts) and the building and construction industry indicates widespread support for developing a model water quality credit trading program, and offering optional participation in such a program where appropriate. The County of Orange is currently working on developing a Model LID BMP alternative compliance program (that considers fee in-lieu and water quality credit trading programs), and is collaborating with the San Diego Regional Board on a program for south Orange County (the alternative compliance program is also being implemented in the San Diego County area of the Regional Board’s jurisdiction). This project is expected to be completed in 2016. Clear performance and accounting standards are among the work products.

Rather than wait until the next permit term to offer the ability for more than one private property owner to participate in the credit program, we ask the Regional Board to consider allowing Orange County and its co-permittees to update the Model Water Quality Management Plan Technical Guidance Document (TGD) to include a section specifically addressing water quality credit program accounting and performance standards.

In fact, TGD Appendix VI., Approved Methods for Calculating Alternative Compliance Volume for LID already addresses in part accounting allowing a single property owner in Orange County to take advantage of water quality credit trading under the existing MS4 permit conditions. These standards can be updated and strengthened as part of the process described in Draft Permit footnote No. 11 (update of the 2011 Model WQMP and TGD “as amended or revised by the co-permittees to satisfy the requirements of this Order”). Should a city in Orange County elect to offer private development the option of entering into a credit program, it would be done according to Model standards, and at the discretion of the city. Furthermore, we believe that the watershed planning option now contained in the Draft Permit provides stimulus and direction for creating options for credit programs and in defining appropriate areas for application. The County and some co-permittees have already done extensive planning that focuses on selecting optimum locations to capture stormwater runoff that addresses pollutants of concern and augments ground water supply.

Finally, it appears some confusion exists about participation in a credit program relative to the watershed area and receiving water body where water quality credits would be generated and used. It is our understanding:

- (i) A credit program would allow priority projects to use (purchase) credit gained from an oversized BMP generating water quality credits (sell)
- (ii) The priority project using the water quality credit is not necessarily hydrologically connected to the oversized BMP generating water quality credits
- (iii) Trades may be made across more than one drainage area so long as all projects drain to the same Receiving Water
- (iv) Service area is defined by shared Receiving Water

We urge the Regional Board to include clarifying language and definitions in the Draft Permit relative to Section XII. N.

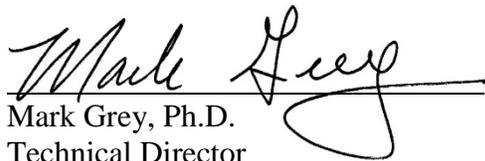
Section XII. O. General Requirements for Non-Priority Projects

We understand there are concerns being expressed by Orange County and the co-permittees that a new category of development--Non-priority Projects--is now being required to implement source control and site design BMPs and document those BMPs in a Project Plan. And, we understand that the County and co-permittees are proposing that

an alternative threshold be utilized so that the types of projects that are required to develop a Non-priority Project Plan are prioritized (in a watershed management plan) and would be those types of projects that would significantly contribute to a priority pollutant of concern. Our membership fully supports the concerns of the County and co-permittees, and the redline Draft Permit language they propose.

CICWQ's membership is in the forefront of water quality regulation, providing to water quality regulators practical ideas and solutions that are implementable and that have as their goal clean water outcomes. If you have any questions or would like to discuss the content of our comment letter, please feel free to contact me at (951) 781-7310, ext. 210, (909) 525-0623, cell phone, or mgrey@biasc.org.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark Grey", is written over a horizontal line.

Mark Grey, Ph.D.
Technical Director
Construction Industry Coalition on Water Quality

Attachment A. Suggested Permit Redline

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

**3737 Main Street, Suite 500, Riverside, CA 92501-3348
(951) 782-4130 • Fax (951) 781-6288
<http://www.waterboards.ca.gov/santaana>**

**ORDER NO. R8-2015-0001
NPDES PERMIT NO. CAS 618030**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (“NPDES”) PERMIT
AND WASTE DISCHARGE REQUIREMENTS**

**Orange County Flood Control District, the County of Orange
And
The Incorporated Cities therein within the Santa Ana Region

Area-wide Urban Runoff, Santa Ana Region**

The following Co-permittees, listed in Table 1, are subject to waste discharge requirements as set forth in this Order (or Permit):

Table 1: List of Entities Subject to the Requirements of this Order

County of Orange	
Orange County Flood Control District	City of La Palma
City of Anaheim	City of Lake Forest ¹
City of Brea	City of Los Alamitos
City of Buena Park	City of Newport Beach
City of Costa Mesa	City of Orange
City of Cypress	City of Placentia
City of Fountain Valley	City of Santa Ana
City of Fullerton	City of Seal Beach
City of Garden Grove	City of Stanton
City of Huntington Beach	City of Tustin
City of Irvine	City of Villa Park
City of La Habra	City of Westminster
	City of Yorba Linda

¹ This Order regulates discharges of urban runoff from the entire jurisdiction of the City of Lake Forest, including those discharges into the San Diego Region.

ADMINISTRATIVE INFORMATION

This Order was adopted by the Santa Ana Regional Water Quality Control Board ("Regional Board") on:	Month day, 2015
This Order shall become effective on:	Month day, 2015
This Order shall expire on:	Month day, 2020
The U.S. Environmental Protection Agency ("USEPA") and the Regional Board have classified the discharges from the Co-permittees' municipal separate storm sewer systems ("MS4s") as a "large municipal separate storm sewer system" pursuant to 40 CFR 122.26(b)(4).	

IT IS HEREBY ORDERED that the Co-permittees² subject to this Permit, in order to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and the provisions of the federal Clean Water Act ("CWA") and regulations and guidelines adopted thereunder, shall comply with the requirements of this Permit.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that this Order 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 MONTH DAY, 2015.

Kurt V. Berchtold
Executive Officer

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² This Order refers to all of the Co-permittees collectively as "Co-Permittees", including the Principal Permittee. Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

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Appendix A: Applicability of TMDL requirements to Co-permittees

Appendix B: Water Quality-Based Effluent Limits for Nutrients in Newport Bay

Appendix C: Water Quality-Based Effluent Limits for Fecal Coliform in Newport Bay

Appendix D: Water Quality-Based Effluent Limits for Sediment in Upper Newport Bay

Appendix E: Water Quality-Based Effluent Limits for Organochlorine Compounds in Newport Bay and San Diego Creek

Appendix F: Water Quality-Based Effluent Limits for the Diazinon and Chlorpyrifos TMDL for Upper Newport Bay and San Diego Creek

Appendix G: Water Quality-Based Effluent Limits for Toxic Pollutants (Metals and Selenium) into San Diego Creek and Newport Bay

Appendix H: Water Quality-Based Effluent Limits for Coyote Creek

FINDINGS

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

A. JURISDICTION

1. **MS4 Ownership or Operation.** Each of the Co-permittees owns or operates a municipal separate storm sewer system ("MS4), through which it discharges storm water and non-storm water (collectively "urban runoff") into waters of the U.S. within the Santa Ana Region. These MS4s fall 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) a small MS4 that is "interrelated" to a medium or large MS4; or (3) an MS4 which contributes to a violation of a water quality standard; or (4) an MS4 which is a significant contributor of pollutants to waters of the U.S.
2. **Designation of Board.** The City of Laguna Hills and the City of Laguna Woods are partly located within the Santa Ana Region but are excluded from Table 1 above. California Water Code section 13228 authorizes the Executive Officer of a regional board to grant a written request, made by an entity that is subject to regulation by more than one regional board, that one regional board be designated to regulate the matter. Written requests for designation have been received from the City of Laguna Hills, the City of Laguna Woods and the City of Lake Forest. The discharges of urban runoff from the respective watersheds of each of these cities are regulated by the San Diego Regional Water Quality Control Board and the Santa Ana Regional Water Quality Control Board. In letters respectively dated March 12, 2014 and September 8, 2014, the cities of Laguna Hills and Laguna Woods requested designation to the San Diego Regional Water Quality Control Board. In letters dated January 14, 2014 and April 4, 2014, the City of Lake Forest requested designation to the Santa Ana Regional Water Quality Control Board. These requests for designation were granted by the respective Executive Officers in separate Designation Agreement letters both dated February 10, 2015. Consequently, the Santa Ana Regional Water Quality Control Board is designated to regulate discharges of urban runoff from the entire jurisdiction of the City of Lake Forest, including those discharges into the San Diego Region. Likewise, the San Diego Regional Water Quality Control Board is designated to regulate discharges of urban runoff from the entire jurisdictions of the City of Laguna Hills and the City of Laguna Woods, including those discharges into the Santa Ana Region. These designations commence with the effective dates of those MS4 Permits adopted by the regional boards with terms and conditions that effectuate the Designation Agreements. For the Santa Ana Region, the designations commence with the

effective date of this Order.

3. **Regulated Sources and Activities.** This Order regulates the discharge of pollutants from anthropogenic sources in urban runoff from MS4s or activities within the jurisdiction and control of the Co-permittees. Except as noted in Finding 9 below, this Order authorizes discharges of urban runoff from MS4s subject to the conditions and provisions herein. This Order is not intended to obligate the Co-permittees to address background, naturally-occurring or non-anthropogenic pollutants or flows in receiving waters.
4. **Legal and Regulatory Authority.** This Order is issued pursuant to section 402 of the federal Clean Water Act ("CWA") and implementing regulations (Code of Federal Regulations [CFR] Title 40, Part 122 [40 CFR 122]) adopted by the United States Environmental Protection Agency ("USEPA"), and chapter 5.5, division 7 of the California Water Code ("CWC") (commencing with section 13370). This Order serves as a National Pollutant Discharge Elimination System ("NPDES") permit for discharges of urban runoff from MS4s to waters of the U.S. This Order also serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260). The Regional Board has the legal authority to issue a system-wide MS4 permit pursuant to its authority under CWA section 402(p)(3)(B) and 40 CFR 122.26(a)(1)(v). The USEPA has established that the permitting authority, in this case the Regional Board, has the flexibility to establish system- or region-wide permits affecting multiple Co-permittees (40 CFR 122.26(a)(3)(ii)). The system-wide nature of this Order will ensure consistency of regulation within watersheds and is expected to result in overall cost savings for the Co-permittees and the Regional Board. The federal regulations make it clear that the Co-permittees need only comply with permit conditions relating to discharges from the MS4s for which they are operators (40 CFR 122.26(a)(3)(vi)). This Order does not require the Co-permittees to manage storm water that originated outside of their jurisdictional boundaries, but rather to work collectively to improve storm water management within the Permit area.
5. **CWA NPDES Permit Conditions.** Pursuant to CWA section 402(p)(3)(B), NPDES permits for discharges from MS4s must include: (1) requirements to effectively prohibit non-storm water discharges into MS4s; (2) controls to reduce the discharge of pollutants to the maximum extent practicable ("MEP"), including management practices, control techniques, and system, design and engineering methods; and such other provisions as the Regional Board determines appropriate for the control of such pollutants. This Order prescribes conditions to comply with the CWA requirements for owners and operators of MS4s to effectively prohibit non-storm water discharges into the MS4s. This Order requires controls to reduce the discharge of pollutants in urban runoff from the MS4s to the MEP; including such other provisions that the Regional Board has determined are appropriate to control pollutants.
6. **CWA and CWC Monitoring Requirements.** CWA section 308(a) and 40 CFR

122.41(h),(j)-(l) and 122.48 require that NPDES permits specify monitoring and reporting requirements. Federal regulations applicable to large and medium MS4s also specify additional monitoring and reporting requirements in 40 CFR 122.26(d)(1)(iv)(D), 122.26(d)(1)(v)(B), 122.26(d)(2)(i)(F), 122.26(d)(2)(iii)(D), 122.26(d)(2)(iv)(B)(2) and 122.42(c). CWC section 13383 authorizes the Regional Board to establish monitoring, inspection, entry, reporting and recordkeeping requirements. This Order establishes monitoring and reporting requirements to implement federal and State requirements.

7. **Total Maximum Daily Loads.** CWA section 303(d)(1)(A) requires that each state “shall identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard applicable to such waters.” The CWA also requires states to establish a priority ranking of impaired water bodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (“TMDLs”) for such waters. This priority list of impaired water bodies is called the Clean Water Act Section 303(d) List of Water Quality Limited Segments, commonly referred to as the “303(d) List”. The CWA requires the 303(d) List to be updated every two years.

TMDLs are numerical calculations of the maximum amount of a pollutant that a water body can assimilate and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (waste load allocations or “WLAs”) and non-point sources (load allocations or “LAs”), background contribution, plus a margin of safety. Discharges from MS4s are point source discharges.

The federal regulations (40 CFR 122.44(d)(1)(vii)(B)) require that NPDES permits incorporate water quality based effluent limitations (“WQBELs”) developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available WLA for the discharge. Consistent with this requirement, this Order includes an iterative approach for developing BMPs through a Watershed Management Plan, subject to the approval of the Regional Board. The Watershed Management Plan must include BMPs selected to achieve water quality standards and waste load allocations. The Watershed Management Plan will be amended according to the results of evaluations of the effectiveness of the BMPs.

This Order implements TMDLs that have been adopted by the Regional Board and approved by USEPA as of the time this Order is issued. This Order also implements TMDLs that have been promulgated by the USEPA. This Order establishes WQBELs consistent with the assumptions and requirements of TMDL implementation requirements and WLAs assigned to discharges from the Permittees’ MS4s. The WQBELs are expected to be sufficient to cause the responsible Co-permittees to meet the WLAs by the compliance dates specified in their respective TMDLs and shown in Appendices B through H.

8. **Permit Modification.** In accordance with 40 CFR 122.41(f), this Order may be
- Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

modified, revoked or reissued prior to its expiration date for cause. This includes the following reasons:

- a. 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;
- b. To incorporate applicable requirements of state-wide water quality control plans adopted by the State Water Resources Control Board or any amendments to the Basin Plan approved by the Regional Board, the State Board, and, if necessary, by the Office of Administrative Law;
- c. To incorporate changes needed for consistency with standard provisions and precedential Orders adopted by the State Water Resources Control Board.
- d. To incorporate changes needed for consistency with standard provisions and precedential Orders adopted by the State Water Resourced Control Board;
- e. 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;
- f. Or to incorporate any requirements imposed upon the Co-permittees through the TMDL process.

9. **Non-Storm Water and Storm Water Discharges.** The discharge of pollutants from the MS4 is subject to the MEP standard and other provisions necessary to reduce pollutants whether the pollutants are transported by storm water or non-storm water. This Order requires each Co- Permittee to effectively prohibit discharges of non-storm water into its MS4 unless such discharges are authorized by an NPDES permit. The MS4s generally contain non-storm water flows such as wastewater from non-commercial car washing, wastewater from miscellaneous washing and cleaning operations, and other nuisance flows generally referred to as *de minimis* discharges. Federal regulations, 40 CFR122.26(d)(2)(i)(B), prohibit the discharge of non-storm water containing pollutants into the MS4s and to waters of the U.S. unless they are regulated under a separate NPDES permit, or are exempt, as indicated in Section III, Discharge Prohibitions, of this Order.

Certain non-storm water discharges may be permitted under various NPDES permits adopted by the Regional Board and the State Water Resources Control Board. These permits include NPDES Permit No. CAG998001 (commonly known as the *De Minimis* Permit); NPDES Permit No. CAG990002, Discharges from Utility Vaults and Underground Structures to Surface Waters; NPDES Permit No. CAG140001 for drinking water system discharges; and NPDES Permit No. CAG918002, for discharges to surface waters of certain groundwater at sites within the San Diego Creek/Newport Bay watersheds. Non-storm water discharges permitted under these and other NPDES permits do not need to be prohibited by the Co- Permittees.

This Order authorizes the Co-permittees to discharge urban runoff from their'

MS4s. Certain authorized non-storm water discharges are subject to requirements in Attachment A of this Order. These discharges would have otherwise been subject to the requirements of NPDES Permit Nos. CAG998001, the *De Minimis* Permit, or CAG140001 for drinking water system discharges. This Order does not authorize the Co-permittees' non-storm water discharges that are subject to NPDES Permit No. CAG918002. Authorization for such discharges must be obtained through the process described in NPDES Permit No. CAG918002.

Monitoring conducted by the Permittees, as well as the 303(d) List, have identified dry weather, non-storm water discharges from the MS4s as a source of pollutants causing or contributing to receiving water quality impairments in the Santa Ana Region. The federal regulations (40 CFR 122.26(d)(2)(iv)(B)(1)) require Co-permittees to have a program to prevent illicit discharges to the MS4. The federal regulations, however, allow specific categories of unpermitted non-storm water discharges or flows to be regarded as illicit discharges only where such discharges are identified as sources of pollutants to waters of the U.S. Such unpermitted non-storm water discharges are listed in this Order in Section III. However, this list of discharges is subject to modification during the term of this Order.

10. **Limits of Co-permittees' Jurisdiction over Urban Runoff.** The Co-permittees may lack or have limited legal jurisdiction over urban runoff into their MS4s from some state and federal facilities, Native American tribal lands, utilities, special districts, and other entities. The Regional Board recognizes that the Co-permittees can only be held responsible for discharges of pollutants from such entities to the extent that the Co-permittees have the authority to eliminate or control the pollutants. Recognizing these limitations, the Co-permittees are expected to control pollutants in discharges into their MS4s from such entities according to CWA Section 402(p)(3)(B).
11. **In-Stream Structural Treatment Control BMPs.** Pursuant to federal regulations (40 CFR 131.10(a)), in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of a structural treatment control BMP within a water of the U.S., or using the water body itself as a structural treatment control BMP or for conveyance to such a facility, would be tantamount to accepting waste assimilation as an appropriate use for that water body. Waters of the U.S. should not be converted into structural treatment control best management practices ("BMPs", a.k.a. storm water control measures or "SMCs"). However, this exclusion does not preclude stream restoration or rehabilitation projects; constructed wetlands; or regional BMPs that have been properly permitted and maintained; and whose water quality impacts have been fully mitigated. Construction, operation, and maintenance of a structural treatment control facility in a water body can otherwise negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body.

B. DISCHARGE CHARACTERISTICS AND RUNOFF MANAGEMENT

12. **Potential Beneficial Use Impairment.** The discharge of pollutants from MS4s may cause or threaten to cause the concentration of pollutants in receiving waters to exceed applicable water quality standards. Discharges from MS4s may result in alterations to the hydrology of receiving waters that negatively impact their physical integrity. These conditions may impair or threaten to impair designated beneficial uses resulting in a condition of pollution, contamination, or nuisance.
13. **Pollutants Generated by Land Development.** Land development has created, and threatens to create, new sources of non-storm water discharges and pollutants in storm water discharges as human population density increases. This brings higher levels of automobile emissions, automobile maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, and trash. Development typically converts natural ground cover to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Pollutants deposited on these surfaces are dumped or washed off by non-storm water or storm water flows into and from the MS4s. As a result of the increased imperviousness in urban areas, less rain water can infiltrate through and flow over vegetated soil where physical, chemical, and biological processes can remove pollutants. Therefore, runoff leaving a developed area can contain greater pollutant loads and have significantly greater runoff volume, velocity, and peak flow rate than pre-development runoff conditions from the same area. Certain best management practices can minimize these impacts to water quality.
14. **Runoff Discharges to Receiving Waters.** The MS4s discharge runoff into lakes, reservoirs, rivers, streams, creeks, bays, estuaries, coastal lagoons, the Pacific Ocean, and tributaries thereto within the Santa Ana Region. Development generally makes use of natural drainage patterns and features to convey runoff. Rivers, streams and creeks in developed areas used as conveyances of storm water and owned or operated by any of the Permittees are part of MS4s regardless of whether they are natural, anthropogenic, or partially-modified features. In these cases, the rivers, streams and creeks in the developed areas of the Permittees' jurisdictions may be both an MS4 and receiving water. Discharges of runoff from MS4s must occur through outfalls (point sources) into waters of the U.S. Outfalls do not include open conveyances connecting two municipal separate storm sewers. Outfalls also do not include 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))
15. **Pollutants in Urban Runoff.** The most common pollutants in urban runoff include total suspended solids, sediment, pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., cadmium, copper, lead, and zinc), petroleum products and polynuclear aromatic hydrocarbons, synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus), oxygen-demanding substances (e.g., decaying vegetation, animal waste), detergents, and trash. Pollutants in urban runoff are typically generated by persons or activities

over which the Co-permittees typically have the authority to enact measures to control those pollutants. The Regional Board recognizes that the Co-permittees' authority is not equal for all persons or activities in their jurisdictions. The limits of the Co-permittees' authority over some persons, such as school districts, are not clear. Nonetheless, the Co-permittees are required to exercise their authority consistent with the requirements of the Clean Water Act and this Order.

16. **Human Health and Aquatic Life Impairment.** Pollutants in runoff discharged from the MS4s may adversely affect human health and/or aquatic organisms. Adverse human health effects include gastrointestinal diseases and infections. Adverse physiological responses to pollutants in runoff include impaired reproduction, growth anomalies and mortality in aquatic organisms. These responses may be the result of different mechanisms, including bioaccumulation of toxicants. During bioaccumulation, toxicants carry up the food chain and may affect both aquatic and non-aquatic organisms, including human health. Increased volume, velocity, rate, and duration of storm water runoff greatly accelerate the erosion of downstream natural channels. This alters stream channels and habitats and can adversely affect aquatic and terrestrial organisms.
17. **Best Management Practices.** Wastes which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the U.S. unless they are removed. These discharges may cause or contribute to a condition of pollution in receiving waters. For this reason, pollutants in storm water discharges from the MS4s must be effectively reduced in runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention BMPs are practices that prevent or reduce the generation of potential pollutants, typically at their source. Pollution prevention is the "first line of defense". Source control BMPs (both structural and non-structural) eliminate or minimize the contact between potential pollutants and urban runoff, therefore preventing the transport of pollutants to receiving waters. Treatment control BMPs remove pollutants that have entered into urban runoff.

Certain structural treatment control BMPs, such as constructed wetlands, are or will be waters of the state, and may support beneficial uses. The operation and maintenance of these BMPs may impact the beneficial uses of those waters. Section III of this Order contains provisions to minimize impacts to those beneficial uses as the result of operating and maintaining structural treatment control BMPs. However, it is not the intent of the Regional Board to regulate discharges *within* structural treatment control BMPs in a way that interferes with efforts to comply with the requirements of this Order.

18. **BMP Implementation.** To reduce the discharge of storm water pollutants, to effectively prohibit non-storm water discharges, and to protect receiving waters, the water quality impacts of development need to be addressed during the three major phases of planning, construction, and use. Development which is not guided by water quality planning policies and principles can result in increased

pollutant load discharges, flow rates, and flow durations which can negatively affect receiving water beneficial uses. Construction sites without adequate BMP implementation may result in sediment or runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and potentially impairing the beneficial uses of the receiving waters. In addition, existing development can generate substantial pollutant loads which are discharged in runoff to receiving waters. Retrofitting areas of existing development with storm water pollutant control and hydro-modification management BMPs is necessary to address discharges of urban runoff that may cause or contribute to a condition of pollution or a violation of water quality standards.

19. **Water Quality Improvements.** Since 1990, the Permittees have been developing and implementing programs and BMPs intended to effectively prohibit non-storm water discharges into the MS4s and control pollutants in discharges from the MS4s to the MEP. As a result, beach closures have been significantly reduced, public awareness of water quality issues has increased, and several water body / pollutant combinations are being considered for removal from the CWA Section 303(d) List. The Permittees have been able to achieve improvements in water quality in some respects, but significant improvements to the quality of receiving waters and discharges from the MS4s are still necessary to meet the requirements and objectives of the CWA.
20. **Long Term Planning and Implementation.** Federal regulations require municipal storm water permits to expire 5 years from adoption, after which the permit must be renewed and reissued. The Regional Board recognizes that water quality degradation and impacts to beneficial uses in the Santa Ana Region occurred over several decades and will not be undone easily.
21. **“Iterative Process”.** This Order is based on an iterative approach that, in summary, is comprised of planning, implementing, evaluating, and improving BMPs carried out as part of the Co-permittees’ storm water programs. Multiple iterations will occur during this permit term, and are likely to occur over multiple permit terms, to achieve water quality standards. To fully effectuate the “iterative process”, this Order includes requirements for conducting program effectiveness assessments (“PEAs”). PEAs are a necessary component of the “iterative process”. As part of carrying out PEAs, Co-permittees must compare the outcomes of program activities to the requirements of this Order and to objective performance standards developed by the Co-permittees. The purposes of conducting PEAs include:
 - a. assessing compliance with the requirements of this Order;
 - b. tracking progress towards meeting performance standards and/or water quality standards;
 - c. justifying the Permittees’ commitment of resources, including the cessation of ineffective management practices;
 - d. providing feedback to Permittees’ program managers, in part, to identify the “best” or most effective management practices undertaken; and

- e. assessing reductions in pollutant loads to receiving waters and any relationship to management practices.

It is not the intent of the Regional Board that objective performance standards, which are developed exclusively by the Permittees as part of PEAs, be used as the basis for enforcement action against any of the Permittees for failure to satisfy those standards. The intent of the Regional Board is that the Permittees constructively use those performance standards, and the related monitoring, to iteratively improve the performance of their storm water programs in a timely way to remove pollutants in urban runoff to the maximum extent practicable. Permittees are also required to periodically evaluate the validity of their performance standards and methods of measurement and make modifications accordingly.

C. WATER QUALITY STANDARDS

- 21. **Basin Plan.** The Regional Board adopted the *Water Quality Control Plan for the Santa Ana River Basin* (Basin Plan) on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters addressed through the plan. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Water Board, the Office of Administrative Law, and where appropriate, the USEPA. The requirements of this Order implement the Basin Plan.

The Basin Plan identifies the following existing and potential beneficial uses for surface waters in the Santa Ana Region: Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Process Supply (PROC); Industrial Service Supply (IND); Ground Water Recharge (GWR); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC1); Non-contact Recreation (REC2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Limited Warm Freshwater Habitats (LWRM); Cold Freshwater Habitat (COLD); Preservation of Biological Habitats of Special Significance (BIOL); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Spawning, Reproduction, and Development (SPWN); Marine Habitat (MAR); Shellfish Harvesting (SHELL); and Estuarine Habitat (EST).

- 22. **Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, and 2009. The State Water Board adopted the latest amendment on October 16, 2012 and it became effective on August 19, 2013. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The requirements of this Order implement the Ocean Plan. The Ocean Plan identifies the following beneficial uses of ocean waters of the state to be protected: Industrial water supply; water contact and non-

contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance; rare and endangered species; marine habitat; fish spawning and shellfish harvesting.

23. **Sediment Quality Control Plan.** On September 16, 2008, the State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Sediment Quality Control Plan). The Sediment Quality Control Plan became effective on August 25, 2009. The Sediment Quality Control Plan establishes: 1) narrative sediment quality objectives for benthic community protection from exposure to contaminants in sediment and to protect human health, and 2) a program of implementation using a multiple lines of evidence approach to interpret the narrative sediment quality objectives. Requirements of this Order implement the Sediment Quality Control Plan.
24. **National Toxics Rule and California Toxics Rule.** USEPA adopted the National Toxics Rule (NTR) on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the California Toxics Rule (CTR). The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. The CTR and NTR contain water quality criteria for priority pollutants in discharges to surface water. 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. The 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). The USEPA also has articulated this position with respect to implementing TMDLs in their policy memorandum entitled *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on those WLAs*, November 22, 2002.
25. **Anti-degradation Policy.** Federal anti-degradation policy is applicable to all NPDES permits. 40 CFR 131.12 requires that State water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Resources Control Board established California's anti-degradation policy in State Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal anti-degradation 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 Santa Ana Water Board's Basin Plan implements, and incorporates by reference, both the State and federal anti-degradation policies. This Order requires the Co-permittees to implement programs and policies necessary to improve water quality; the Order

does not allow any degradation of existing water quality. Therefore, this Order is consistent with the anti-degradation provisions of 40 CFR 131.12 and State Board Resolution No. 68-16 as discussed further in the Technical Report.

26. **Anti-Backsliding Requirements.** Section 402(o)(2) 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 permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as effluent limitations in the previous permits. Further discussion regarding anti-backsliding is in the Technical Report to this Order.

D. CONSIDERATIONS UNDER FEDERAL AND STATE LAW

27. **Coastal Zone Act Reauthorization Amendments.** Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point source pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point source pollution: agriculture, silviculture, urban, marinas, and hydro-modification. This Order addresses the management measures required by CZARA for the urban category, with the exception of septic systems. The programs developed pursuant to this Order fulfill the need for coastal cities to develop a runoff non-point source plan identified in the Non-Point Source Program Strategy and Implementation Plan. The Regional Board addresses septic systems through the administration of other programs.
28. **Endangered Species Act.** 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 USC sections 1531 to 1544). This Order requires compliance with receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.
29. **Report of Waste Discharge Process.** The waste discharge requirements set forth in this Order are based upon the Report of Waste Discharge submitted by the Orange County Permittees prior to the expiration of Order No. R8-2009-0030 (NPDES No. CAS618030). The federal regulations (40 CFR 122.21(d)(2)) and CWC section 13376 impose a duty on the Permittees to reapply for continued coverage through submittal of a Report of Waste Discharge no later than 180 days prior to expiration of a currently-effective permit. This requirement is set forth in Provision XXIII.1. of Order No. R8-2009-0030. Order No. R8-2009-0030 (NPDES No. CAS618030) expired on May 22, 2014 but was administratively extended pursuant to 40 CFR 122.6(d). Once adopted and in effect, this Order supersedes

Order No. R8-2009-0030, except for purposes of enforcement, and is subject to any necessary revisions to its requirements made after the Regional Board considers the Report of Waste Discharge through the public process provided in 40 CFR Part 124.

30. **Integrated Report and Clean Water Act Section 303(d) List.** The Santa Ana Regional Water Quality Control Board and the State Water Resources Control Board submit an Integrated Report to USEPA to comply with the reporting requirements of CWA sections 303(d), 305(b) and 314, which lists the attainment status of water quality standards for water bodies in the Santa Ana Region. USEPA issued its Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act on July 29, 2005, which advocates the use of a five-category approach for classifying the attainment status of water quality standards for water bodies in the Integrated Report. Water bodies included in Category 5 in the Integrated Report indicate at least one beneficial use is not being supported or is threatened, and a TMDL is required. Water bodies included in Category 5 in the Integrated Report are placed on the 303(d) List. The most recent 303(d) List was issued in 2010.

Surface water bodies may be included in Category 4 of the Integrated Report if a TMDL has been adopted and approved by the USEPA for all identified pollutants or impairments (Category 4a); if other pollution control requirements required by a local, state or federal authority are stringent enough to implement applicable water quality standards within a reasonable period of time (Category 4b); or, if the failure to meet an applicable water quality standard is not caused by a pollutant, but caused by other types of pollution (Category 4c). According to the 2010 Integrated Report, no water bodies in the Santa Ana Region are identified in Category 4.

Information acquired as part of implementing this Order may be used by the Regional Board to include surface waters impaired by discharges from the Permittees' MS4s in Category 4 and Category 5 in the Integrated Report. The inclusion of those waters will allow for their consideration during the next 303(d) List submittal by the State to USEPA.

31. **Economic Considerations.** The California Supreme Court has ruled that, although CWC section 13263 requires the State and Regional Water Boards (collectively Water Boards) to consider factors set forth in CWC section 13241 when issuing an NPDES permit, the Water Board may not consider the factors to justify imposing pollutant restrictions that are less stringent than the applicable federal regulations require. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 626-627.) However, when pollutant restrictions in an NPDES permit are more stringent than federal law requires, CWC section 13263 requires that the Water Boards consider the factors described in CWC section 13241 as they apply to those specific restrictions.

As noted in the following finding, the Regional Board finds that the requirements in Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

this Order are not more stringent than the minimum federal requirements. The minimum federal requirements include: (1) the effective prohibition of non-storm water discharges into the MS4; and (2) controls to reduce the discharge of pollutants in storm water to the MEP, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Regional Board determines appropriate for the control of such pollutants. The minimum federal requirements also include requirements for limitations consistent with any applicable waste load allocation. Therefore, considerations pursuant to CWC section 13241 are not required. Notwithstanding the above, the Regional Board has taken into account economic considerations pertaining to the requirements in this Order, consistent with requirements in section 13241. The economic consideration is described in the accompanying Technical Report.

32. **Unfunded Mandates.** This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section (6) of the California Constitution for reasons detailed in the accompanying Technical Report.
33. **California Environmental Quality Act.** The issuance of this NPDES permit for the discharge of runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 *et seq.*) in accordance with CWC section 13389.

E. STATE WATER RESOURCES CONTROL BOARD DECISIONS

34. **Compliance with Prohibitions and Limitations.** The receiving water limitation language specified in this Order is consistent with language recommended by the USEPA and established in State Water Board Order WQ 99-05 (amending WQ 98-01), Own Motion Review of the Petition of Environmental Health Coalition to Review Waste Discharge Requirements Order No. 96-03, NPDES Permit No. CAS0108740, adopted by the State Water Board on June 17, 1999.
35. **Special Conditions for Areas of Special Biological Significance.** On March 20, 2012, the State Water Board approved Resolution No. 2012-0012 approving an exception to the Ocean Plan prohibition against discharges to Areas of Special Biological Significance ("ASBS") for certain nonpoint source discharges and NPDES permitted municipal storm water discharges. State Water Board Resolution No. 2012-0012 requires monitoring and testing of marine aquatic life and water quality in several ASBS to protect California's coastline during storms when rain water overflows into coastal waters. Specific terms, prohibitions, and special conditions were adopted to provide special protections for marine aquatic life and natural water quality in ASBS. The Special Protections contained in Attachment B to Resolution No. 2012-0012, applicable to discharges to ASBS, are hereby incorporated into this Order as if fully set forth herein (See Provision IV.H.).

F. ADMINISTRATIVE FINDINGS

38. **Executive Officer Delegation of Authority.** The Regional Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to CWC section 13223. Therefore, the Executive Officer is authorized to act on the Regional Board's behalf on any matter within this Order unless such delegation is unlawful under CWC section 13223 or this Order explicitly states otherwise.
39. **Standard Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in this Order.
40. **Fact Sheet/Technical Report.** The Technical Report for this Order contains background information, regulatory and legal citations, references and additional explanatory information and data in support of the requirements of this Order. The Technical Report serves as a fact sheet described in Parts 124.8 and 124.56 of the Code of Federal Regulations. The Technical Report is hereby incorporated into this Order and constitutes part of the Findings of this Order.
41. **Public Notice.** In accordance with State and federal laws and regulations, the Regional Board notified the Co-permittees, and interested agencies and persons of its intent to prescribe waste discharge requirements for the control of discharges into and from the MS4s to waters of the U.S. and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Technical Report.
42. **Public Hearing.** The Regional Board held a public hearing on **MONTH(S), DATE(S)** 2015, and heard and considered all comments pertaining to the terms and conditions of this Order. Details of the public hearing are provided in the Technical Report.
43. **Effective Date.** This Order serves as an NPDES permit pursuant to CWA section 402 or amendments thereto, and becomes effective fifty (50) days after the date of its adoption, provided that the Regional Administrator, USEPA, Region IX, does not object to this Order.
44. **Review by the State Water Board.** Any person aggrieved by this action of the Regional Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050, *et seq.* The State Water Board must receive the petition by 5:00 p.m., 30 days after the Regional Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next

business day. Copies of the law and regulations applicable to filing petitions will be provided upon request or may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

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PERMIT REQUIREMENTS

IT IS HEREBY ORDERED that the Co-permittees³, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended, and regulations and guidelines adopted thereunder, must comply with the following:

I. GENERAL RESPONSIBILITIES OF THE CO-PERMITTEES

- A. The Co-permittees (inclusive of the Principal Permittee), shall be responsible for the management of storm drain systems within their jurisdictions. To carry out the requirements of this Order, the Co-permittees must:
1. Accurately document and effectively implement best management practices, including programs, policies, and procedures, within each of their respective jurisdictions.
 2. Develop and apply valid objective performance measures to track and assess the effectiveness of individual best management practices or systems of best management practices and execute timely program improvements necessary to improve the effectiveness of those practices.
 3. Annually evaluate the validity of performance measures and the validity of those methods used to measure achievement of performance measures.
 4. Participate with one another in the development of necessary programs, plans, procedures, strategies, and reports that are of mutual interest.
 5. Coordinate the relevant plans, policies, procedures, and standards of their internal agencies, departments, and divisions.
 6. Develop and execute necessary interagency agreements.
 7. Establish and maintain adequate legal authority, as required by the Federal Storm Water Regulations.
 8. Maintain records and submit reports that are adequate to determine compliance with the requirements of this Order.
 9. Monitor and report the progress of any plans, projects, and programs implemented to control the discharge of pollutants in urban runoff to their MS4s. Reports must include comparisons of outcomes to objectives, performance measures, or milestones prescribed by this Order or developed individually or collectively by Co-permittees pursuant to Provision I.A.2..

II. GENERAL RESPONSIBILITIES OF THE PRINCIPAL PERMITTEE

- A. In addition to the General Responsibilities in Section I above, the Principal Permittee (County of Orange) is responsible for the overall management of the

³ As described in the Glossary of this Order, the term "Co-permittees" includes the Principal Permittee.
Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

storm water program. To carry out the requirements of this Order, the Principal Permittee must:

1. Coordinate the planning and execution of necessary common programs, plans, policies, procedures, strategies, and improvements thereof among the Co-permittees.
2. Monitor and report the progress of any plans, projects, and programs of mutual interest to the Co-permittees.
3. Conduct chemical and biological water quality monitoring and conduct any additional monitoring as directed by the Executive Officer and authorized by this Order.
4. Coordinate the preparation of written reports, programs, plans, and procedures, including the Annual Progress Report, and their submittal to the Executive Officer.

III. DISCHARGE PROHIBITIONS AND LIMITATIONS

A. Prohibitions

1. In accordance with the requirements of 40 CFR § 122.26(d)(2)(i)(B) and (F), the Co-permittees must effectively prohibit illicit/illegal discharges from entering into the municipal separate storm sewer system ("MS4") unless such discharges are authorized by an NPDES permit or are not prohibited according to Provision III.A.2., below.
2. The non-storm water discharges in Table 2 below do not need to be prohibited by the Co-permittees unless such discharges are identified by the Co-permittee(s) or the Executive Officer as a significant source of pollutants⁴.
3. Except for those discharges described in Table 2 below, non-storm water discharges from Co-permittees' activities into waters of the U.S. are prohibited unless the discharge is authorized under an NPDES Permit.
4. With the recommendation of the Co-permittees or based on Substantial Evidence, the Executive Officer is authorized to add other types of discharges to Table 2 below, by way of written notice to the Co-permittees and after providing a minimum of 30 days for public comment.
5. Discharges of urban runoff from MS4s owned or operated by the Co-Permittees must be in compliance with the applicable discharge prohibitions contained the Ocean Plan and in Chapter 5 of the Basin Plan.
6. Discharges of urban runoff into waters of the U.S. from MS4s owned or operated by the Co-permittees which cause or contribute to a condition of pollution, contamination, or nuisance (see CWC Section 13050) are prohibited.
7. The discharge to waters of the U.S. of any substance(s) in concentrations

⁴ Note that this Order now requires the effective prohibition of irrigation runoff into the MS4.
Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

- that are toxic to animal or plant life is prohibited.
8. The discharge to waters of the U.S. of any radiological, chemical, or biological warfare agent, or high-level radiological waste, is prohibited.

Table 2: Types of non-storm water discharges presumed to not be a significant source of pollutants

Air conditioning condensate
Passive foundation or footing drains
Water from crawl space pumps
Individual residential car washing and charity car washing events conducted by non-profit 501(c) organizations
De-chlorinated water from swimming pools (except cleaning wastewater and filter backwash)
Diverted stream flow
Rising ground water and natural springs
Uncontaminated ground water infiltration (as defined in 40 CFR § 35.2005(20) to MS4s
Uncontaminated pumped groundwater
Flow from riparian habitats and wetlands
Temporary non-storm water discharges authorized by USEPA pursuant to Sections 104(a) or 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") ⁵
Emergency firefighting flows necessary for the protection of life and property
Water not otherwise containing "waste", as defined in CWC Section 13050(d)

B. Limitations

1. The Co-permittees must implement an effective public education and outreach program for the purpose of reducing the volume of the anthropogenic non-storm water discharges to the MS4s..
2. With the exception of discharges subject to NPDES Permit No. CAG918002, as amended or revised, non-storm water discharges from facilities or activities owned or controlled by Co-permittees, and which are authorized by this Order, must be in compliance with the conditions and provisions in Attachment B to this Order.

⁵ These discharges must comply with water quality standards as applicable or relevant and appropriate requirements ("ARARs") under Section 121(d)(2) of CERCLA; or must be subject to either a written waiver of ARARs by USEPA pursuant to Section 121(d)(4) of CERCLA, or a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation pursuant to 40CFR300.415(j).
 Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

a.

IV. RECEIVING WATER LIMITATIONS

- A. Discharges of urban runoff from the Co-permittees' MS4s must not cause or contribute to a condition of nuisance or exceedances of water quality standards for surface waters and groundwaters.
- B. Discharges of urban runoff from the Co-permittees' MS4s must comply with Provision IV.A. through timely implementation of best management practices (BMPs) and other actions to reduce pollutants in discharges according to the conditions and provisions of this Order. If exceedances of receiving waters limitations persist, notwithstanding implementation of BMPs and other actions, the responsible Co-permittees must achieve compliance with prohibitions and receiving waters limitations according to Subsection IV.D. below.
- C. Determinations that discharges are causing or contributing to exceedances of water quality standards will be based, in part, on assessments of water quality data which are performed according to scheduled cycles of monitoring, analysis, and reporting required in attached Monitoring and Reporting Program No. R8-2015-0001 (Attachment A).
- D. Except for discharges of pollutants addressed by a WQBEL, where discharges from multiple Co-permittees are comingled, a Co-permittee shall demonstrate compliance with Provision IV.A. as follows:
 - 1. Pursuant to 40 CFR 122.26(a)(3)(vi), each Co-permittee is only responsible for discharges from the MS4 for which they are the owner or operator.
 - 2. Where Co-permittees have comingled discharges to the receiving water, or where Co-permittees' discharges comingle in the receiving water, compliance in the receiving water shall be determined for the contributing Co-permittees as a whole unless an individual Co-permittee can demonstrate that its discharge did not cause or contribute to the exceedance as follows:
 - a. Demonstrate that there was no discharge from the Co-permittee's MS4 into the applicable receiving water during the relevant time period;
 - b. (2) Demonstrate that the discharge from the Co-permittee's MS4 was controlled to a level that did not cause or contribute to the exceedance in the receiving water;
 - c. (3) Demonstrate that there is an alternative source of the pollutant that caused the exceedance, that the pollutant is not typically associated with MS4 discharges, and that the pollutant was not discharged from the Co-permittee's MS4; or
 - d. (4) Demonstrate that the Co-permittee is in compliance with the Watershed Management Plan provisions under Section XI.
- E. Where a Co-permittee determines that a discharge of urban runoff is causing or contributing to the exceedance of an applicable water quality standard, the responsible Co-permittee(s) must, within 60-days of making the determination,

either:

1. Provide objective evidence, acceptable to the Executive Officer, that there is a trend indicating that relevant pollutant loads or concentrations are decreasing and that the applicable water quality standard(s) are expected to be satisfied without further intervention;
 2. Provide evidence, acceptable to the Executive Officer that the source of pollution is background, naturally-occurring, or non-anthropogenic; or that the cause of pollution is not within the jurisdiction or control of the responsible Co-permittees; OR
 3. Provide notice to the Executive Officer of their intent to develop a Watershed Management Plan for the affected watershed according to the requirements of Section XI.
- F. Prior to accepting evidence or approving plans submitted pursuant to Provision IV.D., the Executive Officer shall provide a 30-day public review period.
- G. Where the Executive Officer determines that a discharge of urban runoff is causing or contributing to the exceedance of an applicable water quality standard, the Executive Officer will notify the potentially-responsible Co-permittees of this in writing. The potentially-responsible Co-permittees must respond to the notice, using the options specified in Provision IV.D., by a date specified therein. If cycles of monitoring, analysis, and reporting continue to result in determinations that there are continuing or recurring exceedances of water quality standards caused or contributed to by discharges from the Co-permittees' MS4s, the Co-permittees must reinitiate the procedure in this Section. Nothing in this Section shall prevent the Regional Board from enforcing any provision of this Order while the Co-permittees prepare and implement plans to achieve water quality standards or WQBELs.
- H. The Special Protections contained in Attachment B to Resolution No. 2012-0012, as amended or reauthorized by the State Water Resources Control Board, are hereby incorporated into this Order as if fully set forth herein. The Special Protections are specifically applicable to discharges of urban runoff from the City of Newport Beach's MS4 to Newport Coast and Crystal Cove (ASBS 32 and ASBS 33, respectively) which are authorized by this Order. Where there are conflicts between this Order and the Special Protections, the most protective requirements, as determined by the Executive Officer, shall prevail. The Special Protections are accessible at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0012.pdf

V. IMPLEMENTATION AGREEMENT

The Co-permittees must execute inter-agency and inter-Co-permittee agreements necessary to satisfy the requirements of this Order.

VI. LEGAL AUTHORITY/ENFORCEMENT

- A. Each Co-permittee must secure and maintain legal authority adequate to control the discharge of pollutants in urban runoff to their MS4s pursuant to the requirements of this Order.
- B. Each Co-permittee must track and evaluate challenges to their authority to control the discharge of pollutants in urban runoff to their MS4s.
 - 1. Where a formal or informal challenge indicates a weakness in the Co-Permittees' authority, the Co-permittee must act in good faith and in a timely manner to make their authority adequate.
 - 2. The Co-permittees must report any confirmed weaknesses in their legal authority in their Program Effectiveness Assessment. The report must include a plan, with a schedule of action(s), to make their authority adequate.
- C. Each Co-permittee must secure and maintain legal authority that is adequate to enter, inspect, and gather evidence (including pictures, video, samples, statements, and documents) from industrial, construction, and commercial establishments to determine compliance with ordinances, permits, conditions, and other requirements of the Co-permittees related to the control of discharges of pollutants to their MS4s.
- D. Each Co-permittee must maintain adequate legal authority to impose a series of effective, progressive sanctions to compel compliance with their regulatory requirements related to the control of discharges of pollutants to their MS4s.
- E. Within 90-days of the effective date of this Order, each Co-permittee must develop a formal, written program, which describes supporting policies and procedures that effectively promote the consistent and decisive use of their actions (inclusive of sanctions), and describes performance measures to track and objectively evaluate the actions' effectiveness.

VII. ILLICIT DISCHARGES, ILLICIT CONNECTIONS, AND ILLEGAL DUMPING; LITTER DEBRIS AND TRASH CONTROL

- A. Each Co-permittee must effectively prohibit illicit discharges and illicit connections to their respective MS4s through their ordinances and other appropriate mechanisms.
- B. Each Co-permittee must employ an effective mechanism for the public to report known or suspected illicit discharges, illicit connections, and illegal dumping. The reporting mechanism must be continuously advertised to the public by each Co-Permittee using a minimum of two media outlets (i.e. newsprint, internet, telephone directory, etc.).
- C. Each Co-permittee must advertise the availability of mechanisms for residents to dispose of wastes that have the potential to be discharged to their MS4s.
- D. The Co-permittees must implement an effective program to detect illicit discharges and illicit connections; to abate illegal dumping that has the potential to result in a discharge of pollutants to their MS4s; to trace the source of illicit discharges and connections; and to eliminate or permit such discharges and

connections. The Co-permittees' program must be fully described in written processes and procedures. Sanitary Sewer Overflows shall be treated as a subclass of illicit discharges subject to additional requirements of Subsection VII.F.

1. Co-permittees must provide mutual assistance to one another in detecting known or suspected illicit discharges, illicit connections, and illegal dumping.
 2. Each Co-permittee must maintain an electronic database that tracks instances of known or suspected illicit discharges, illicit connections, and illegal dumping within their respective jurisdictions.
 - a. The database must be designed and used to track compliance with the requirements of this Section (Subsection VII.D.).
 - b. The database must be designed and used to guide the Co-Permittees' most effective use of resources towards satisfying the requirements of this Section.
 3. Each Co-permittee must identify the personnel or staff positions that are responsible for satisfying the requirements of Subsection VII.D. of this Order in their written program.
 4. The Co-permittees must maintain maps of their respective MS4s that contain information of sufficient detail and quality to trace the source of suspected illicit discharges in a timely manner.
 - a. The maps must be distributed in a format that is readily available to personnel responsible for satisfying the requirements of Subsection VII.D. of this Order.
 - b. The maps must be reviewed and updated annually.
 5. The Co-permittee that is the local jurisdiction must initiate (or cause to be initiated) a source investigation where bacterial monitoring (see Monitoring and Reporting Program No. R8-2015-0001) indicates AB411 receiving water standards are exceeded in ocean outfalls/tributaries and in the nearby surf zone.
 6. A source investigation must occur in substantial conformance with a common set of written techniques and procedures developed by the Permittees as part of the written program described in Provision VII.D.
 - a. When the source of an illicit discharge or illicit connection is discovered, the Co-permittee(s) must take immediate action to eliminate the discharge or connection or require that it be subject to appropriate NPDES permit(s) within 120 calendar days of discovery.
- E. Each Co-permittees must implement an effective program to reduce and/or eliminate the discharge of trash and debris to waters of the U.S.
1. Measures employed for the control of trash and debris must be reported and reviewed annually by the Co-permittees to objectively evaluate the measures' effectiveness. The results of the reviews must be provided annually in the Annual Progress Report.
 2. The principle Co-permittee must demonstrate that the Co-permittees have formally evaluated new technologies for the control of trash and debris, as they become aware of them, and report the findings in the Annual Progress Report.

3. Co-permittees may discontinue control measures for trash and debris that they deem to pose an unmitigatable hazard or to be ineffective provided that the measure is replaced by an equal or more-effective measure.
 - a. The permanent substitution of control measures must be reported in the Annual Progress Report and approved by the Executive Officer. The proposed substitution must be supported by substantial objective evidence. This applies to program-level changes and not to the day-to-day operation of control measures.
 - b. Co-permittees must satisfy any conditions imposed by the Executive Officer as part of the approval of any substitution.
- F. For those Co-permittees that own or operate sanitary sewer systems over one mile in length, the State Board has established minimum requirements to prevent and mitigate sanitary sewer overflows ("SSOs") in Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Wastewater Collection Agencies". The Co-permittees that are not subject to the requirements of Order No. 2006-0003-DWQ, or subsequent renewals, must implement an effective program to detect and mitigate SSOs as follows⁶:
 1. The Co-permittees' SSO program(s) must be comprised of the following elements:
 - a. Procedures for responding to SSOs.
 - b. A hands-on field training program for Co-permittees' staff responsible for responding to SSOs.
 - c. An awareness-level training program for Co-permittees' field staff most likely to initially detect SSOs.
 - d. If necessary, executed Memorandum/Memoranda of Understanding ("MOU") for delineating jurisdictional and financial responsibilities for the program.
 2. Co-permittees must respond to SSOs according to the formal written response procedures unless there is cause to believe that such a response would not be most effective under the circumstances.
 3. Co-permittees must maintain records adequate to demonstrate that they implemented the SSO program and its elements; records must be maintained for a minimum of five (5) years.
 4. The Principal Permittee is responsible for developing a model SSO program and its elements; and for documenting and reporting the program(s) outcomes in the Annual Progress Report.

VIII. MUNICIPAL INSPECTIONS OF CONSTRUCTION SITES

- A. Each Co-permittee must maintain an inventory of all construction sites within its jurisdiction.
 1. The construction sites inventory must include sites where building or

⁶ This program is expected to be initially based on the Countywide Area Spill Control Program (CASC) as amended or revised to satisfy the requirements of this Order.

grading permits are applicable and where activities at the site include the following:

- a. Soil movement;
 - b. Uncovered storage of materials or wastes, such as dirt, sand, fertilizer, or landscaping materials; OR
 - c. Exterior mixing of cementitious products (i.e. concrete, mortar, or stucco).
2. All construction sites shall be included in the Co-permittees' inventory regardless of whether the site is subject to the Statewide General Construction Permit or an individual NPDES permit.
 3. The inventory of construction sites must be updated, at a minimum:
 - a. Twice during the dry season.
 - b. Once per month during the wet season.
 4. Each Co-permittees' inventory of construction sites must be maintained in an electronic-format database. The database records must include information on site/project ownership, project area, General Construction Permits WDID (if any), and location (latitude/longitude in decimal-degrees or NAD83/WGS84 format).
- B. Each Co-permittee must inspect construction sites in their inventory which have an expected or actual duration of more than two weeks. Each Co-permittee must have written policies and procedures that describe how inspections and related enforcement actions are carried out. Inspections and related enforcement actions must be carried out in a manner that enforces compliance with applicable ordinance(s), plans, permits, or other requirements related to the control of discharges of pollutants to their MS4s.
1. Co-permittees must categorize all construction sites in their inventory as either "high-priority", "medium-priority", or "low-priority". Construction sites with an expected or actual duration of more than two weeks must be inspected according to the following schedule:
 - a. May 1st through September 30th of each year (dry season): all construction sites must be inspected at a frequency where sediment and other pollutants are properly controlled and that unauthorized, non-storm water discharges are prevented.
 - b. October 1st through April 30th of each year (wet season):
 - i. High-priority sites must be inspected once every two (2) months in their entirety.
 - ii. Medium-priority sites must be inspected twice during the wet season.
 - iii. Low-priority sites must be inspected once during the wet season.
 - c. Where a Co-permittee determines that BMPs or their maintenance are inadequate or out of compliance, the site must be inspected once per month until the deficiency is corrected.
 2. A construction site must be considered "high priority" if it meets any of the following minimum criteria:
 - a. The site is 20-acres or larger;
 - b. The site is over one acre and tributary to a water body listed

- according to Clean Water Act Section 303(d), as being impaired by sediment or turbidity; OR
- c. The site is tributary to, and within 500-feet of, an area defined by the Ocean Plan as an Area of Special Biological Significance (“ASBS”).
 3. A construction site must be considered “medium-priority” if it consists of between 5 and 20 acres of disturbed soil and is not otherwise a high-priority site. All other sites may be considered “low-priority”.
 4. Co-permittees must consider other factors or circumstances that could cause a construction site to fall into a higher priority. These factors include, but are not limited to, soil erosion potential, site slope, proximity to a receiving water, and the sensitivity of the receiving water to potential pollutants from the site.
 5. Any Co-permittee may propose an alternative priority category distribution of their commercial sites and implement the related inspection schedule within their jurisdiction subject to the written approval of the Executive Officer.
 - a. The approved alternative distribution and schedule must be implemented in lieu of the distribution and inspection schedule prescribed in this Section subject to any conditions of approval established by the Executive Officer.
 - b. The Executive Officer may rescind that approval for cause with written notification to the Co-permittee(s).
 6. Co-permittees must inspect construction sites according to a checklist. The checklist must document, at a minimum, that the inspector:
 - a. Verified that the site has been covered by the General Construction Permit, if applicable, during the initial inspection;
 - b. Reviewed an Erosion and Sediment Control Plan, to verify that the BMPs on the site are appropriate for the phase of construction;
 - c. Identified, through visual observation, any non-storm water discharges and potential pollutant sources;
 - d. Assessed the effectiveness of BMPs implemented at the site; and
 - e. Identified and communicated to the site representative non-compliance with requirements related to the control of discharges of pollutants to the Permittee’s MS4s.
 7. Co-permittees must address non-compliance with applicable ordinance(s), plans, permits, or other requirements related to the control of discharges of pollutants to their MS4s with a series of effective, progressive actions in order to compel compliance.
 8. Completed inspections must be recorded in an electronic-format database. The database must be organized in a manner that is adequate to determine compliance with the requirements of this Order. Inspection records must be maintained a minimum of three (3) years from the date of the project’s completion.
 9. Construction site inspectors must be trained according to Section XVI of

- this Order; inspectors must undergo training once per year.
10. The Executive Officer must be notified of any known, suspected, or threatened violation of applicable waste discharge requirements (i.e. State-wide General Construction Permit, etc.), discovered during inspections of construction sites according to Section XVII.C. of this Order. Such violations include, but are not limited to:
 - a. Failure to obtain coverage under the applicable waste discharge requirements.
 - b. Unauthorized discharges.
 11. Except as provided for in Section XVII of this Order, Co-permittees must investigate complaints regarding potential or alleged discharge(s) of pollutants from construction sites, received by internal departments or divisions, external agencies, or the public, within three (3) business days of the complaint being brought to their attention.

IX. MUNICIPAL INSPECTIONS OF INDUSTRIAL SITES

- A. Each Co-permittee must maintain an inventory of all industrial sites with the potential to discharge pollutants to the MS4 within its jurisdiction.
 1. Industrial sites shall be included in the Co-permittees' inventory regardless of whether the site is subject to the Statewide Industrial General Permit or other NPDES permit.
 2. The inventory of industrial sites must be updated through multiple mechanisms. The inventory must be updated yearly through reconciliation with other database inventories of businesses in each Co-permittee's jurisdiction. From all other sources, the inventory must be updated within 15 business days of the Co-permittee first becoming aware of the presence of a new site.
 3. Each Co-permittees' inventory of industrial sites must be maintained in an electronic-format database. The database records must include information on site/project ownership, project area, Industrial General Permits WDID (if any), and location (latitude/longitude in decimal-degrees or NAD83/WGS84 format).
- B. Each Co-permittee must inspect industrial sites in their inventory. Each Co-permittee must have written policies and procedures that describe how inspections and related enforcement actions are carried out. Inspections and related enforcement actions must be carried out in a manner that consistently enforces compliance with applicable ordinance(s), plans, permits, or other requirements related to the control of discharges of pollutants to their MS4s.
 1. Co-permittees must categorize all industrial sites in their inventory as either "high-priority", "medium-priority", or "low-priority". Industrial sites must be inspected according to the following schedule:
 - a. High-priority sites must be inspected once per year in their entirety.
 - b. Medium-priority sites must be inspected once every two years.
 - c. Low-priority sites must be inspected once every five years.

- d. An inspection of an industrial site that is covered by the General Industrial Permit or other NPDES storm water permit and performed by Regional Board staff may be substituted for any one of the above-required inspections for the same site.
 - e. Where a Co-permittee determines that a site is out of compliance with requirements, the industrial site must be inspected, at a minimum, once per month until the site is in compliance.
2. An industrial site must be prioritized as high priority if the site meets any of the following criteria:
 - a. The site is subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 ("SARA");
 - b. The site requires coverage under the General Industrial Permit (except for sites regulated according to "No Exposure Certification"-related requirements) or has coverage under an individual NPDES storm water permit;
 - c. The site has a history of unauthorized non-storm water discharges;
 - d. The site is tributary to, and within 500-feet of, an area defined by the Ocean Plan as an Area of Special Biological Significance ("ASBS").
3. Co-permittees must consider additional site- specific risk factors that could cause an industrial site to be categorized into a higher priority. These risk factors include, but are not limited to:
 - a. quantity of materials or wastes used or stored outside;
 - b. the potential for pollutants to be mobilized by storm water;
 - c. facility size;
 - d. proximity to a receiving water;
 - e. the presence of an infiltration LID BMP that accepts "storm water associated with industrial activity"⁷;
 - f. the sensitivity of the receiving water to potential pollutants from the site (e.g. water bodies listed on the 303(d) List); AND
 - g. any other relevant factors.
4. Any Co-permittee may propose an alternative priority category distribution of their industrial sites and implement the related inspection schedule within their jurisdiction subject to the written approval of the Executive Officer.
 - a. The approved alternative distribution and schedule must be implemented in lieu of the distribution and inspection schedule prescribed in this Section subject to any conditions of approval established by the Executive Officer.
 - b. The Executive Officer may rescind that approval for cause with written notification to the Co-permittee(s).
5. Co-permittees must conduct inspections of industrial sites according to a checklist. The checklist must document, at a minimum, that:
 - a. During the initial inspection, the inspector verified that the site has been covered by the General Industrial Permit, if applicable;

⁷ See the Industrial General Permit for a detailed definition of "storm water associated with industrial activity".
Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

- b. The inspector identified, through visual observation, any non-storm water discharges and potential pollutant sources;
 - c. The inspector assessed the effectiveness of BMPs implemented at the site;
 - d. The inspector documents evidence of non-compliance or threatened non-compliance with requirements related to the control of discharges of pollutants to the Co-permittee's MS4s.
6. Industrial site inspections must be recorded in an electronic-format database in a manner that is adequate to determine compliance with the requirements of this Order. Inspection records for a facility operator must be maintained for a minimum of five (5) years while in business and three (3) years following termination of business at the site.
 7. Co-permittees must address instances of non-compliance with a series of effective, progressive actions to ultimately compel compliance.
 8. Industrial site inspectors must be trained according to Provision XVI of this Order; inspectors must undergo training once per year.
 9. The Executive Officer must be notified of any known, suspected, or threatened violation of applicable waste discharge requirements (i.e. State-wide General Industrial or Construction Permits, etc.), discovered during inspections of industrial sites according to Provision XVII.C. of this Order. Such violations include, but are not limited to:
 - a. Failure to obtain coverage under the applicable waste discharge requirements.
 - b. Unauthorized discharges.
 10. Except as provided for in Provision XVII of this Order, Co-permittees must investigate complaints regarding potential or alleged discharges of pollutants from industrial sites, received by internal staff, external public agency staff, or the public, within three (3) business days of the complaint being brought to their attention.

X. MUNICIPAL INSPECTIONS OF COMMERCIAL SITES

- A. Each Co-permittee must maintain an inventory of commercial sites listed in Subsection X.A.3 below within its jurisdiction.
 1. The inventory of commercial sites must be updated through multiple mechanisms. The inventory must be updated yearly through reconciliation with other database inventories of businesses in each Co-permittee's jurisdiction. From all other sources, the inventory must be updated within 15 business days of the Co-permittee first becoming aware of the presence of a new site.
 2. Each Co-permittees' inventory of commercial sites must be maintained in an electronic-format database. The database records must include information on the following attributes:
 - a. site/business ownership;
 - b. site area;
 - c. any related approved Water Quality Management Plans and

- associated structural treatment control BMPs; AND
- d. location (latitude/longitude in decimal-degrees or NAD83/WGS84 format).
3. Commercial sites include, but are not limited to those engaged in the following:
- a. Aircraft maintenance, fueling, or cleaning;
 - b. Animal care facilities such as petting zoos and boarding and training facilities;
 - c. Automobile and other motor vehicle body repair or painting;
 - d. Automobile impound and storage facilities;
 - e. Automobile mechanical repair, maintenance, fueling, or cleaning;
 - f. Botanical or zoological gardens;
 - g. Building material retail and storage facilities;
 - h. Cemeteries;
 - i. Eating or drinking establishments, including food markets and restaurants;
 - j. Golf courses, parks, and other recreational areas or facilities;
 - k. Landscape and hardscape installation;
 - l. Machinery and equipment repair, maintenance, fueling, or cleaning;
 - m. Marina operations;
 - n. Nurseries and greenhouses;
 - o. Painting and coating;
 - p. Pest control service facilities;
 - q. Pool, lake and fountain cleaning;
 - r. Portable sanitary service facilities;
 - s. Transportation services for passengers, parcels or freight;
 - t. Watercraft maintenance, fueling, or cleaning;
 - u. Any commercial sites that is tributary to, and within 500-feet of, an area defined by the Ocean Plan as an Area of Special Biological Significance; AND
 - v. Other commercial sites that the Co-permittee determines may be a significant contributor of pollutants to the MS4.
- B. Each Co-permittee must inspect commercial sites in their inventory. Inspections must occur according to written processes and procedures, and in a manner to enforce compliance with ordinance(s), plans, permits, WQMPs, or other requirements related to the control of discharges of pollutants to their MS4s.
- 1. Co-permittees must prioritize all commercial sites (except for eating or drinking establishments, see Subsection X.C. below) in their inventory as either "high-priority", "medium-priority" or "low-priority".
 - 2. Each Co-permittee must categorize a minimum of 5% of their inventoried commercial sites as "high-priority"; a minimum of 15% of their inventoried commercial sites as "medium-priority"; and the remainder as "low-priority".
 - 3. Prioritized commercial sites must be inspected according to the following schedule:
 - a. High-priority sites must be inspected once per year in their entirety.
 - b. Medium-priority sites must be inspected once every two years.
 - c. Low-priority sites must be inspected once every five (5) years.

4. Any Co-permittee may propose an alternative priority category distribution of their commercial sites and implement the related inspection schedule within their jurisdiction subject to the written approval of the Executive Officer.
 - a. The approved alternative distribution and schedule must be implemented in lieu of the distribution and inspection schedule prescribed in this Section subject to any conditions of approval established by the Executive Officer.
 - b. The Executive Officer may rescind that approval for cause with written notification to the Co-permittee(s).
5. Where a Co-permittee determines that BMPs or their maintenance is inadequate or out of compliance, the commercial site must be re-inspected within two weeks until BMPs and their maintenance is adequate or in compliance.
6. If Regional Board staff inspects a commercial site, the Co-permittee may substitute Regional Board staff's inspection for an inspection required under this Order for the same site.
7. Co-permittees must exercise their discretion and consider site-specific factors that could cause a commercial site to be categorized into a higher priority. These factors include, but are not limited to, soil erosion potential, site slope, proximity to a receiving water, and the sensitivity of the receiving water to potential pollutants from the site.
8. Co-permittees must conduct inspections of commercial sites according to a checklist. The Co-permittees must use the checklist to document, at a minimum, that:
 - a. The inspector identified, through visual observation, any non-storm water discharges, evidence of non-storm water discharges, and potential pollutant sources;
 - b. The inspector assessed the effectiveness of BMPs implemented at the site;
 - c. The inspector documented evidence of non-compliance or threatened non-compliance;
 - d. If the inspector identifies non-compliance or a threat of non-compliance with relevant requirements, or determines that BMPs are ineffective; the inspector notified the site operator and provided the applicable BMP Fact Sheet(s) and any other relevant published educational materials.
9. Commercial site inspections must be recorded in an electronic-format database in a manner that is adequate to determine compliance with the requirements of this Order. Inspection records for a site operator must be maintained for a minimum of five (5) years while in business and three (3) years following the termination of business at the site.
10. Co-permittees must address non-compliance with a series of effective, progressive actions to ultimately compel compliance.
11. Commercial site inspectors must be trained according to Provision XVI of this Order; inspectors must undergo training once per year.
12. The Executive Officer must be notified of any known, suspected, or

- threatened violation of applicable waste discharge requirements (i.e. State-wide Construction Permit, etc.), discovered during inspections of commercial sites according to Provision XVII of this Order.
13. Except as provided for in Provision XVII of this Order, Co-permittees must investigate complaints regarding potential or alleged discharges of pollutants from commercial sites, received by internal departments or divisions, external agencies, or the public, within three (3) business days of the complaint being brought to their attention.
- C. The Co-permittees must inspect eating or drinking establishments annually or cause such inspections to occur on their behalf by another party. These third-party inspections are anticipated to occur as part of the Orange County Health Care Agency ("HCA") restaurant inspection program.
1. The inspections must occur, in part, to enforce the local Co-permittee's requirements related to the control of discharges of pollutants to their MS4s (See Section III).
 2. Where the inspecting agency staff observes known or suspected violations of a local Co-permittee's requirements related to the control of discharges of pollutants to their MS4s, the known or suspected violation must be referred to the Co-permittee within two (2) business days of the inspection date.
 3. Co-permittees must respond to referrals from the HCA or other third-party within three (3) business days of the matter being brought to their attention.
- D. **Mobile Businesses:** The Co-permittees must implement an enforcement and outreach program for the following mobile businesses operating in the permit area: automobile wash/detail services, carpet cleaners, and pet services. The purpose of the program must be to identify potential dischargers and eliminate illicit non-storm water discharges into the MS4.

XI. WATERSHED MANAGEMENT PLANS

In response to determinations that a discharge of urban runoff is causing or contributing to an exceedance of water quality standards or to exceedances of a WQBEL, the responsible Co-permittees may develop and fully implement plans to address these exceedances according to the requirements of this Section XI. The development and implementation of these plans will serve as a means to comply with receiving water limitations in Section IV (*Receiving Water Limitations*) and with WQBELs whose final deadlines have not yet passed in Section XVIII (*Total Maximum Daily Load Implementation*). Co-permittees may also develop plans without waiting for the results of water quality monitoring, analysis, and reporting to indicate that urban runoff is causing or contributing to exceedances of water quality standards or exceeding WQBELs. Whether a plan is initiated reactively or proactively, the responsible Co-permittees' full compliance with the following requirements will constitute compliance with receiving water limitations in Section IV and with those WQBELs that implement WLAs whose final deadlines have not yet passed in Appendices B through H according to the procedures in Section XVIII.

- A. The responsible Co-permittees must provide written notice to the Executive Officer of their intent to develop a Watershed Management Plan (WMP) to achieve water quality standards and/or WQBELs within a watershed according to the following requirements:
1. The notice must include a schedule for the development of the draft WMP.
 - a. The schedule must include a work breakdown structure for the completion of discrete tasks and the achievement of specific milestones in the development of the draft plan. The plan development schedule must identify a minimum of three (3) critical milestones. The schedule must be sufficiently detailed to allow early detection of variances that may cause the Co-permittees to miss critical milestones or the final deadline. Deadlines may be either fixed dates or floating deadlines (e.g. "thirty days from").
 - b. The plan development schedule must be as short as practical, but the date for submitting a final draft WMP must not have a deadline that exceeds 12-months from the date of the notice. The Regional Board and the Executive Officer may approve extensions of time for meeting critical milestones and the final deadline. The Executive Officer may not approve extensions that exceed 6 months in total. For the duration of the extension period, the responsible Co-permittees must demonstrate compliance with receiving water limitations in Section IV and with applicable WQBELs according to Section XVIII.
 - c. All deadlines must be part of a measurable and verifiable schedule.
 - d. The development schedule is subject to the approval of the Executive Officer. The Executive Officer is authorized to approve subject to conditions. Upon approval, the responsible Co-permittees must implement the development schedule according to the critical milestones and final submittal deadline.
 2. The notice must also:
 - a. Identify the responsible Co-permittees who will be participating in the development of the WMP.
 - b. Include copies of executed or draft agreements that are necessary to fund the development of the WMP.
 - c. Provide the contact information for representatives for each of the responsible Co-permittees.
 - d. Describe the management area (watershed or sub-watershed) over which the plan will apply.
 - e. Describe any models or similar analyses that may be used to prepare the draft WMP according to Provision XI.E.8. below.
- B. The responsible Co-permittees must implement the development schedule for the draft WMP according to the critical milestones and final deadline provided in their notice except as follows:
- a. Any changes to the critical milestones and final deadline must be requested in writing and are subject to the approval of the Executive Officer or the Regional Board. The Executive Officer may approve extensions of time not to exceed 6 months in total. For the duration

- where the extension period causes them to deviate from the original development schedule, the responsible Co-permittees must demonstrate compliance with receiving water limitations in Section IV and with applicable WQBELs according to Section XVIII.
- b. Any written request for a change in the development schedule must include a statement of the purpose and need for the change.
 - c. The Executive Officer will provide a minimum of 10 days for public review of a request for a change prior to approving the request. Written requests must be received not less than 10-days prior to the affected scheduled deadline.
- C. WMPs may be developed for more than one pollutant or for similar classes of pollutants.
- D. The responsible Co-permittees must describe programs and projects in their Watershed Management Plan(s) which prioritize pollutants which are most likely to cause or contribute, or are known or suspected of causing or contributing to exceedances of water quality standards and WQBELs. The projects and programs must be designed to be carried out to reduce those pollutants in urban runoff according to a measurable and verifiable schedule. The responsible Co-permittees will prioritize pollutants based on any available information that is relevant to actual or probable exceedances of water quality standards and WQBELs, including, but not limited to the following:
1. Water quality information collected as part of efforts to detect illicit discharges and illicit connections;
 2. Information collected as part of inspections of industrial, commercial, and construction sites;
 3. Reports regarding pollutant source investigations;
 4. The results of watershed modeling studies; and
 5. Analyses of outfall monitoring data or receiving water monitoring data.
 6. The status of the receiving water on the Clean Water Act Section 303(d) list of impaired waters.
- E. The plan's projects and programs must be designed by the responsible Co-permittees to cause discharges of urban runoff from their MS4s to comply with relevant water quality standards and WQBELs. The WMP contents must include the following:
1. A description of the pollutant(s) that are most likely to cause or contribute, or are known or suspected of causing or contributing to exceedance(s) of water quality standards and/or WQBELs and a description of the supporting information and rationale used to identify the pollutant(s).
 2. A description of the persons or activities known or suspected of being the source of the pollutant(s); a description of other potential sources which were considered and excluded; and a description of the supporting information and rationale.
 3. A description of the BMPs that were being employed to control the pollutant(s). The description must be adequate to fully characterize the

- baseline conditions under which exceedances have occurred or may occur.
4. A description of any proposed new BMPs or modifications of currently-employed BMPs. BMPs may include:
 - a. Execution of studies or pilot programs that fill information gaps in storm water pollution control science and support the effective employment of BMPs.
 - b. Modification or substitution of procedures or practices at facilities owned or controlled by the responsible Co-permittees.
 - c. Modifications of the messages and target audiences of public education campaigns.
 - d. Adoption and enforcement of ordinances or standards designed to reduce certain pollutants.
 - e. Incentive programs designed to discourage, substitute, or preempt certain polluting practices.
 - f. Incentive programs designed to encourage source control, site design, and structural treatment control BMPs in existing development (retrofit programs).
 - g. Planning and execution of stream or habitat restoration or rehabilitation projects that provide or contribute to demonstrable improvements in the physical, chemical, and biological integrity of and to achievement of water quality standards in receiving waters.
 - h. Planning and implementation of regional or sub-regional structural treatment control BMPs.
 - i. Adoption and pursuit of land-use or transportation planning goals and objectives that implement and support LID.
 5. A time schedule for the implementation of new BMPs or modifications of currently-employed BMPs, to prevent or reduce the pollutant(s). The description must be adequate to measure and verify progress towards implementation and implementation of the BMPs by the responsible parties⁸. BMPs that are required by a WQBEL must be carried out according to the schedule specified in the related TMDL.
 6. A final date by which the responsible Co-permittees expect to cause discharges to comply with WQBELS or when water quality standards are expected to be met. The final date must be as short as practicable, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of BMPs; or otherwise must not exceed any applicable final deadline for WQBELS in Appendices B through H.
 7. A detailed strategy for financing implementation of the plan. The strategy must be completed by qualified persons using suitable standard practices (e.g. discounting, sensitivity analysis, disclosure of assumptions and limitations, etc.).
 8. An objective analysis which provides a reasonable assurance that the new or modified BMPs can be expected to cause discharges to achieve

⁸ Also known as a Work Breakdown Structure (WBS).

the applicable WQBELS or water quality standards are expected to be met.

- a. The analysis must be supported, in part, by peer-reviewed models that are in the public domain unless a determination can be made, to the satisfaction of the Executive Officer, that an appropriate model and/or a suitable dataset for use in a model are not available.
 - b. The analysis must include an assessment of the internal strengths and weaknesses of the plan, including entities responsible for its implementation, and the external opportunities and threats which may affect the likelihood of successfully achieving and/or maintaining compliance with water quality standards and WQBELS.
 - c. The analysis must be in substantial conformance with written guidance developed or referenced by Regional Board staff.
9. Proposed revisions to the Monitoring and Reporting Program designed to evaluate the effect of implementing the Watershed Management Plan on receiving water quality.
- F. The draft WMP is subject to review and approval by the Executive Officer. The Executive Officer is authorized to approve the draft plan, subject to conditions. The Executive Officer may also elect to seek consideration by the Regional Board of the draft plan.
- G. The Executive Officer will provide at least a 30-day public review period prior to consideration by the Executive Officer or Regional Board of any draft WMP or any proposed amendments to an already-approved (final) WMP.
- H. The draft WMP becomes a final plan upon approval by the Executive Officer or the Regional Board and must be fully implemented by the responsible Co-permittees according to critical performance measures identified in the plan or by the Executive Officer as part of conditions of approval.
- I. The responsible Co-permittees must provide any information that is missing from their draft WMP, and/or submit changes to the draft plan pursuant to a written request by the Executive Officer by a date specified in the request.
- J. The development, review and approval process of a WMP will occur according to the schedule shown in Table 3 below:

Table 3: Schedule for the Development, Review, and Approval of Watershed Management Plans

Step	Deadline
The responsible Co-permittees submit notice of intent to develop a plan to comply with water quality standards and/or WQBELS.	No deadline.

Initial draft is submitted to the Executive Officer.	Not more than one year from the date the Regional Board receives the written notice of intent to prepare a WMP.
The Executive Officer completes the initial review of the draft plan, determines if the initial draft is complete according to the required contents, and notifies the responsible Co-permittees of any missing information or any instructions for amendments in writing.	Within 60-days of receipt of the initial draft WMP.
The responsible Co-permittees provide any missing information to complete the initial draft plan and/or provide a second draft amended according to the Executive Officer's written instructions.	Within 60-days of receipt of the Executive Officer's written notice.
The Executive Officer provides draft conditions of approval for the draft plan, if any, to the responsible Co-permittees.	Within 60-days of receipt of a complete draft WMP which has been amended according to the Executive Officer's instructions.
The Executive Officer provides the complete, amended draft plan and any proposed conditions of approval for public notice.	Not less than 30-days prior to the expected date of approval of the draft plan.

- K. The responsible Co-permittees must make the final WMP, as later amended or revised, accessible to the public by posting the plan to their web site(s), the Principal Permittee's web site, or another method acceptable to the Executive Officer.
- L. Except for non-substantive grammatical or technical corrections, the final WMP may be amended by the Co-permittees only with the approval of the Executive Officer.
- M. Plan amendments must be requested in writing and are subject to the approval of the Executive Officer. All proposed amendments must include an explanation of the purpose and need for the amendments. The Executive Officer will respond to requests for amendments within 60-days of receipt of the request. The Executive Officer may either: (1) request additional information, (2) approve the proposed amendments as is, (3) approve, subject to conditions, or (4) reject the proposed amendments.
- N. In carrying out approved WMPs, the responsible Co-permittees are subject to all of the relevant management requirements of this Order. This includes, but is

not limited to requirements related to legal authority to carry out the approved WMP; execution of inter-agency and inter-Co-permittee agreements; execution of the “iterative process”; the performance of program effectiveness assessments using valid performance measures; and the collection and use of monitoring data to evaluate and improve the effectiveness of projects and programs described in the WMP.

- O. The effective requirements of the approved WMPs shall supplement and complement the requirements of this Order, unless provisions of this Order allow otherwise.
- P. Performance measures (inclusive of non-critical milestones) developed by the responsible Co-permittees for the BMPs in the WMPs will not be regarded as enforceable unless specified otherwise in the WMP or as part of the Executive Officer’s conditions of approval (critical performance measures). However, as with any performance measure, the responsible Co-permittees must use them constructively to improve projects and programs in order to achieve or maintain water quality standards or WQBELS according to the requirements of this Order.
- Q. Where regional and sub-regional structural treatment control BMPs are proposed in the WMPs and such facilities are not subject to requirements pertaining to project WQMPs, the Executive Officer and the responsible Co-permittees must provide that regional and sub-regional structural treatment control BMPs comply with the requirements of Section XII.D. (*General Requirements for Structural Treatment Control BMPs*) of this Order and, if applicable, Sections XII.K. (*Specific Requirements for Infiltration LID BMPs*) and XII.L. (*Specific Requirements for Harvest and Use LID BMPs*).
- R. If, despite the implementation of the final approved WMP, cycles of monitoring, analysis, and reporting continue to result in determinations that there are continuing or recurring exceedances of water quality standards or WQBELS that are caused or contributed to by discharges of urban runoff, the responsible Co-permittees must reinitiate the planning procedures in this Section. Successive iterations must include in the new draft WMP, in summary:
 - 1. Revised compliance schedule;
 - 2. an updated objective analysis which provides reasonable assurance that relevant RWLs or WQBELS will be met ;
 - 3. modifications to BMPs;
 - 4. additional BMPs; and
 - 5. if appropriate, changes to the monitoring program.
- S. Compliance Determination
 - 1. A submitted notice to prepare a draft WMP, compliance with the critical milestones and final deadline in a draft WMP development schedule, or implementation of an approved final WMP according to the requirements of this Order will serve as a mechanism to comply with receiving water limitations in Section IV (*Receiving Water Limitations*) and with WQBELS whose final deadlines have not yet passed in Section XVIII (*Total Maximum Daily Load Implementation*).
 - 2. In the absence of a submitted notice to prepare a draft WMP, compliance with the critical milestones and final deadline in a development schedule for a draft WMP, or implementation of an approved final WMP according

- to the requirements of this Order, the responsible Co-permittee must comply directly with the receiving water limitations in Section IV and achieve the WQBELs in Appendices B through H according to the requirements of Section XVIII; compliance will be verified through a process developed for this purpose in the Water Quality Monitoring Plan.
3. In the event that the Executive Officer determines that the Co-permittees have failed comply with any of the provisions in this Section related to developing a draft plan, or to fully implementing a final plan, the Executive Officer may provide written Notice to the responsible Co-permittees and provide not more than 90-days from the date of the Notice to correct the deficiencies.
 - a. If, after issuance of written Notices, a Co-permittee repeatedly fails to come into compliance with the requirements of this Section XI, either through performance of the requirement or by pursuing an acceptable amendment of the WMP, the Executive Officer may conclude that the Co-permittee has constructively abandoned development or implementation of the WMP.
 - b. Upon concluding that the WMP has been constructively abandoned, the Executive officer will provide written notice to the responsible Co-permittee that they have been relieved of responsibility for developing a draft WMP or implementing the approved final WMP and direct the responsible Co-permittee to immediately comply with the receiving water limitations and WQBELs.
 - c. Once the Executive Officer has issued any written Notice to the responsible Co-permittee, any action taken by the responsible Co-permittee(s) as a means to come back into compliance does not preclude any additional enforcement action by the Executive Officer or the Regional Board for violations of the requirement(s) in effect at the time of the Notice. The Executive Officer will make Notices issued according to this Subsection XI.S. available for public review.
 4. Where the responsible Co-permittee(s) believe that additional time is necessary to comply with an interim milestone or final deadline identified in a WMP with the exception of those final compliance dates established in a TMDL, the Co-permittee(s) may request an extension by way of amending the WMP, subject to public review. The requested extension must be provided to the Executive Officer and for public review not less than 30 days prior to the milestone or deadline and shall include the purpose and need for the extension. Extensions approved by the Executive Officer may not cause or allow a Co-permittee to exceed a final compliance date established in a TMDL.
 5. If, during the development phase for a WMP, the responsible Co-permittees are granted an extension of time to meet critical milestones or the final deadline for the submission of a draft WMP, the responsible Co-permittees must demonstrate compliance with receiving water limitations

in Section IV and with those WQBELs that implement WLAs whose final deadlines have not yet passed in Appendices B through H during the period where the extension causes them to deviate from the original development schedule.

6. Where the responsible Co-permittee(s) believe that additional time is necessary to comply with a final deadline for a WQBEL, the Co-permittee(s) may request a time schedule order pursuant to California Water Code Section 13300. The request must be in writing and received by the Regional Board not less than 180-days before the final deadline.

XII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT REDEVELOPMENT)

A. Planning Requirements

1. Each Co-permittee must adopt and implement policies and procedures that are effective at integrating source control, site design and structural treatment control BMPs as early in the land-use planning and development process as practicable.
2. The Executive Officer or his designee, must be given the appropriate notices where a Co-permittee initiates an amendment or update of their General Plan which may directly, indirectly, or cumulatively impact beneficial uses, consistent with the requirements of Government Code Section 65350 *et seq.* This requirement does not diminish any other obligations of the Co-permittees' to provide notice to the Regional Board as a Responsible Agency pursuant to CEQA.
3. Within 12-months of the effective date of this Order, the Principal Permittee must review, update and submit to the Executive Officer any studies performed to examine feasible opportunities to retrofit existing storm water conveyance systems, parks, and other recreational areas with regional or sub-regional structural treatment control BMPs. The update shall expand the scope of the examination to include areas owned or controlled by the Co-permittees. If necessary, work necessary to complete only the expanded scope may be phased, but all phases must be completed no later than 36-months from the effective date of this Order.
4. Within 12 months of the effective date of this Order, the Principal Permittee must, in coordination with the groundwater management agencies, develop a water quality monitoring project to assess the potential impacts of storm water infiltration on groundwater quality. The project shall consider other similar studies that have been conducted to ensure that this project will complement those studies and add new data and/or information. The monitoring project may be conducted by: (1) analyzing the quality of the runoff prior to infiltration; (2) by monitoring the quality of the infiltrate through the vadose zone; and/or (3) by monitoring groundwater quality upstream and downstream of the infiltration systems. The project shall be implemented over the permit term and reported on

within the Annual Progress Report.

B. Classifying and Processing Priority and Non-priority Projects

1. The requirements of Section XII.B., and subsequent sub-sections of Section XII., apply to initial project applications received by the Co-Permittees beginning 90-days after the effective date of this Order (50-days following adoption) and thereafter. For projects initiated by the Co-permittees, the requirements apply to projects where design has been initiated 90-days after the effective date of this Order and thereafter. In the interim, the relevant requirements of Order No. R8-2009-0030 shall apply.
2. Each Co-permittee must classify development and redevelopment projects over which they have approval authority as "priority projects" (see Subsection XII.B.5. below) or "non-priority projects". Non-priority projects may be further subdivided by the Co-permittees into those requiring Non-priority Project Plans and those that do not, as described in Subsection XII.M.
3. Each Co-permittee must employ a standardized form, checklist, or similar mechanism to document the basis for classifying a project as a priority project or a non-priority project.
 - a. Each Co-permittee is responsible for ensuring the accuracy of information relied on in support of the Co-permittee's classification.
 - b. The Co-permittees must maintain records of the basis for classification for a minimum of five years following the completion of the project.
4. Co-permittees must consider the whole of the project in classifying a project; the Co-permittees must not piecemeal a project.
5. Each Co-permittee must regard projects that fit any of the following categories of projects as priority projects; all other projects may be regarded as non-priority projects:
 - a. Significant redevelopment projects that include the addition or replacement of 5,000 square feet or more of impervious surfaces on a developed site.
 - i. Redevelopment projects do not include those areas where impervious surfaces are replaced as part of routine maintenance activities, or as part of activities that are conducted to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.
 - ii. Redevelopment projects do not include those areas where impervious surfaces are replaced as part of the replacement, upgrade, or installation of dry utilities (e.g. gas, electric, and telecommunications), sanitary sewer, petroleum pipelines, or water distribution lines in existing rights of way.
 - iii. Where a redevelopment project results in the addition or replacement of 50% or less of the impervious surfaces of an existing developed site, and the existing development was not subjected to a properly-implemented and properly-

approved WQMP, the numeric sizing requirements for structural treatment control BMPs apply only to runoff from the impervious areas added or replaced and not from the entire developed site.

- iv. Where a redevelopment project results in the addition or replacement of more than 50% of the impervious surfaces of an existing developed site, the numeric sizing requirements must be applied to runoff from the entire development.
 - b. New developments that create a total of 10,000 square feet or more of impervious surfaces, including commercial, industrial, and mixed-use developments; public and private capital improvement projects; and subdivisions for single and multi-family dwelling units. This category includes public or private land development projects subject to the planning and building authorities of the Co-permittees.
 - c. New automotive repair shops that engage in activities described by Standard Industrial Classification ("SIC") codes 5013, 5014, 5541, 7532 through 7534, and 7536 through 7539.
 - d. Restaurants where the area of land development is 5,000 square feet or more.
 - e. Hillside developments affecting 5,000 square feet or more, in areas with known erosive soil conditions or where the natural slope is 25% or more.
 - f. Development that includes the construction of 2,500 square feet or more of impervious surface that is located within 200 feet of, or which discharges the site's runoff into an Environmentally Sensitive Area where the discharge is not commingled with discharges from other sites.
 - g. Parking lots, or other land areas or facilities for the temporary storage of motor vehicles, that includes the construction of 5,000 square feet or more of impervious surface exposed to storm water.
 - h. Street, road, highway and freeway improvement or construction projects affecting 5,000 square feet or more of paved surface used for the transportation of vehicles.
 - i. This category excludes routine maintenance to restore or preserve the surface type and line and grade.
 - ii. Project WQMPs for this category must be consistent with the USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*⁹.
 - i. New retail gasoline outlets of 5,000 square feet or more and with a projected average daily traffic of 100 or more vehicles per day.
6. Each Co-permittee must require a preliminary WQMP or a non-priority project plan, where such plans apply, as part of a complete application for a

⁹ Lukes, Robb and Kloss, Christopher, *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*, USEPA, Low Impact Development Center, EPA-833-F-08-009, December 2008. Available at:
http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_green_streets.pdf

- project. Both the preliminary WQMP and non-priority project plan must be subject to the Co-permittee's approval. A preliminary WQMP must be approved prior to the project's approval by the Co-permittee's decision-making body (e.g. staff, city council, Board of Supervisors, etc.).
7. A WQMP or Non-Priority Project Plan is not required for a project which, in its entirety, is necessary to mitigate an emergency.
 8. The Co-permittees' staff, contractors, or vendors responsible for preparing, reviewing or approving WQMPs or non-priority project plans or for enforcing their implementation must be trained according to Section XVI of this Order.
 9. Each Co-permittee must employ an effective mechanism to inform potential project applicants of the need for a preliminary WQMP or a non-priority project plan as part of a complete application prior to the submittal of an application.
 10. A Co-permittee must not allow precise grading or final construction work to proceed on the subject phase of a project prior to approval of a final project WQMP or non-priority project plan for that phase.
 11. Each Co-permittee must have an effective process that enforces substantial conformance between relevant project plans (i.e. grading plans, drainage plans, landscaping plans, etc.) and the approved preliminary and final project WQMP or non-priority project plans.
 12. Each project WQMP or non-priority project plan approved by the Co-Permittees must contain sufficient information to demonstrate that the final WQMP or non-priority project plan was approved according to the requirements of this Order.
 13. Each Co-permittee must have effective standard processes to ensure that the final project WQMP and non-priority project plan is internally consistent and free of material contradictions.
 14. As part of the project approval process, each Co-permittee must apply standard conditions of approval, or some other effective measure(s), that requires the proper operation and maintenance of all source control, site design, and structural treatment control BMPs by the project applicant, their successors and assigns over the life of the project according to the final approved project WQMP or non-priority project plan. Each Co-permittee must effectively enforce the measure(s) accordingly.
 15. Each Co-permittee must implement an effective program to identify and correct missing, damaged, or deficient source control, site design, and structural treatment control BMPs during the construction or development of priority and non-priority projects.
 16. In addition to using published and generally-accepted engineering design criteria (see Subsection D below), each Co-permittee must develop, publish, and apply guidelines developed for the purpose of providing that site design and structural treatment control BMPs be readily inspected and maintainable and generally of a quality that is satisfactory to the Co-permittee.
 17. Co-permittees are prohibited from permitting final occupancy or otherwise effectively issuing final approval of a priority or non-priority project site

which requires a project WQMP or a Non-Priority Project Plan until all source control, site design, and, where applicable, structural treatment control BMPs are constructed, serviceable, and satisfactory to the Co-permittee or otherwise certified as such by a licensed professional engineer and by the project applicant.

- a. Serviceable facilities must be in working order and operate as intended; where the Co-Permittee is unable to conclusively determine that a facility is serviceable, the Co-permittee must require that the project applicant conduct and document a satisfactory field demonstration.
 - b. Where deficiencies exist, the Co-permittee may permit final occupancy or issue final approval only if written enforcement action is taken and a time schedule to bring the site into compliance with its WQMP or non-priority project plan has been approved by the Co-permittee.
 - c. Co-permittees must require that certifications by the licensed professional engineer be affixed with said engineer's stamp and maintained as part of the WQMP or non-priority project plan.
18. Each Co-permittee must have effective standard processes that provide the following:
- a. Approved final project WQMPs and non-priority project plans are retained using a system that allows for their ready retrieval for the life of the project.
 - b. The Co-permittee is able to validate the authenticity of approved final project WQMPs and non-priority project plans.
 - c. Approved final WQMPs and non-priority project plans are protected by the Co-permittee's standard record protection practices in the event of fire, information system failure or attack, or other loss or damage.
 - d. Documentation of a written acknowledgement of the obligations on the project proponent as established in the final project WQMP and the related municipal ordinance(s),

C. General Requirements for Priority Projects

1. Co-permittees must require priority projects to use source control, site design, and structural treatment control BMPs to remove pollutants in urban runoff¹⁰. These BMPs and other information necessary to demonstrate compliance with this Order must be documented in a project WQMP.
2. Source control, site design, and structural treatment control BMPs must be designed to maximize retention of the site's design capture volume unless such measures pose an unmitigatable environmental hazard.
3. Project WQMPs must be prepared in substantial conformance with uniform written technical guidance¹¹. The technical guidance must implement the

¹⁰ See Glossary for the meaning of "structural treatment control BMP".

¹¹ This guidance is anticipated to consist of the 2011 Model Water Quality Management Plan and its accompanying Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

- requirements of this Order for the benefit of persons responsible for preparing, reviewing and approving, enforcing, and implementing WQMPs.
4. Project WQMPs must be prepared by or under the supervision of a registered civil engineer or licensed landscape architect (See Provision XII.D.9. below).
 5. Final project WQMPs must be approved by or under the supervision of a registered civil engineer acting on behalf, and with the expressed permission, of the Co-permittee.
 6. Each Co-permittee must employ effective, uniform mechanisms to provide efficiency and consistency in their WQMP-approval process. The mechanisms must be subject to a bi-annual review by the Co- Permittees for the purpose of promoting the mechanisms' continual improvement. Such mechanisms may include the following:
 - a. Use of written standard instructions, processes, procedures, and methods.
 - b. Use of standardized paper forms, checklists, and worksheets.
 - c. Use of model language for project WQMPs or categories of project WQMPs.
 - d. Use of standardized models, spreadsheets, web-based tools, and other software.
 - e. Prepared maps, tables and other sources of information necessary for preparers and reviewers to evaluate the feasibility of structural treatment control BMPs.
 7. The Co-permittees must provide and promote a mechanism for stakeholder input in the continual improvement process for the preparation, review, enforcement, and implementation of WQMPs.
 8. Co-permittees must require project proponents to identify, in each approved project WQMP, a source of available funding and a party that will be legally responsible for the long-term performance, operation, and maintenance of source control, site design, and on-site or off-site structural treatment control BMPs over the life of the project.
 9. Co-permittees must provide that approved WQMPs are maintained in public records in a manner that allows for their discovery by interested parties and facilitates the transfer of responsibility in the event of the sale, lease, or other transfer of ownership or control of the affected site.
 10. Co-permittees must provide that any covenants, conditions, and restrictions, easements or other similar mechanisms necessary for the implementation of an approved WQMP are properly maintained in public records with the County and/or the relevant city.
 11. Co-permittees must maintain an electronic database adequate to identify sites affected by an approved WQMP.
 - a. The database must be established within 6-months of the effective

date of this Order. The database must include records identifying all structural treatment control BMPs installed after May 22, 2009 and their following attributes:

- i. Type of structural treatment control. If a 'type' does not comply with Provision XII.C.5., the facility must be identified as "undetermined".
 - ii. For infiltration LID BMPs: depth of invert and screen interval, if applicable.
 - iii. Standards applied to the design of the facility.
 - iv. Location by watershed and by a scale sufficient for location in the field.
 - v. Date of construction or date first placed in service.
 - vi. Identifying information for the party responsible for maintenance and their contact information, including emergency contact information.
 - vii. Actual or alleged performance, maintenance, or nuisance problems identified during any site inspections by the Co-Permittees or brought to their attention.
- b. Information regarding WQMPs that were approved prior to May 22, 2009 must populate the database on an opportunistic basis.
 - c. Sites that are part of the Co-permittees' industrial and commercial inspection program inventories and which are subject to any approved WQMPs must have their information populated in the database no later than 60 months from the effective date of this Order.
12. Co-permittees must refer nuisance problems associated with structural treatment control BMPs to the Orange County Vector Control District within 5 business days of the problem becoming known. The Co-Permittees must cooperate in good faith with the Orange County Vector Control District to remedy any confirmed nuisance problems.

D. General Requirements for Structural Treatment Control BMPs

1. Structural treatment control BMPs must be sized to infiltrate, filter, or remove pollutants from the design capture volume or design capture flow from their respective tributary areas as required by this Subsection (Subsection XII.D.).
2. The Co-permittees must have effective processes and policies in their written technical guidance that provide that the selection of structural treatment control BMPs conforms to the requirements of Subsections XII.E. through M. and XII.P. of this Order (See also Provision XII.C.3.).
3. A singular or set of structural treatment control BMPs that are volume-based must be sized to infiltrate, filter, or remove pollutants from any of the following design capture volumes from their tributary area:
 - a. The volume of runoff produced by a 24-hour, 85th percentile storm event. The volume must be calculated using the County of

- Orange's 85th Percentile Precipitation Isopluvial map.
- b. 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/American Society of Civil Engineers Manual of Practice No. 87 (1998).
 - b. 80% or more of the annual runoff volume, based on published and generally accepted methods (e.g. *California Stormwater Best Management Practices Handbook – Industrial/Commercial*).
 - c. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as would be achieved by treatment of the volume of runoff produced by an 85th percentile, 24-hour rain event.
4. A singular or set of structural treatment control BMPs that are flow-based must be sized to infiltrate, filter, or remove pollutants from any of the following design flows from their tributary area:
 - a. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event.
 - b. 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.
 - c. The maximum flow rate of runoff, as determined from the local historical rainfall record, which achieves approximately the same reduction in pollutant loads and flows as would be achieved by treatment of the flow produced by the 85th percentile hourly rainfall intensity multiplied by a factor of two.
 5. Structural treatment control BMPs intended to retain the design capture volume must be designed to infiltrate, evaporate, evapotranspire, or use the volume over a period not to exceed 48-hours; this drawdown period may be extended or shortened provided that the combination of design capture volume and drawdown time achieve retention of 80% or more of the average annual storm water runoff. Any remaining volume must be passed on to another structural treatment control BMP selected according to the requirements of this Order.
 6. The design capture volume or flow may be treated by routing the runoff through multiple structural treatment control BMPs organized in series or parallel. Co-permittees must require that the design capture volume or flow be calculated for each area tributary to a structural treatment control or group of structural treatment control BMPs.
 7. Co-permittees must require practical and durable mechanisms designed to indicate the need for maintenance of structural treatment control BMPs for the benefit of the party responsible for long-term maintenance. The mechanism(s) must be readily identifiable and located on, within, or in close proximity to structural treatment control BMPs; such mechanisms must be documented in the related approved project WQMP.

8. Prior to approval, Co-permittees must identify a party that will be responsible for the long-term operation and maintenance of structural treatment control BMPs.
9. Structural treatment control BMPs must be sized and designed by, or under the direction of, a registered civil engineer.
10. Structural treatment control BMPs must incorporate design features to minimize the entrainment and bypass of captured pollutants in the course of routine maintenance, normal operation, or overflow.
11. Where a structural treatment control BMP satisfies all requirements of this Order except that it is undersized relative to the volume or flow that it accepts from its tributary area, Co-permittees must require that the WQMP disclose any unconventional operation and maintenance requirements for the facility that are necessary to maintain the performance of the facility or to address unusual hazards.
12. Co-permittees must conduct inspections of all approved structural treatment control BMPs according to the following schedule:
 - a. All privately-owned or operated structural treatment control BMPs, must be inspected a minimum of once every 5 years¹².
 - b. All Co-permittee-owned or operated structural treatment control BMPs must be inspected annually prior to the wet season (October 1st).
13. Structural treatment control BMPs must not cause a condition of nuisance or pollution, as defined in CWC Section 13050.
14. Structural treatment control BMPs must not cause or contribute to an exceedance of groundwater quality objectives.
15. Structural treatment control BMPs must not be approved in a final WQMP if they are located within waters of the U.S. unless the related discharges have been authorized pursuant to a Clean Water Act Section 401 Water Quality Standards Certification, waste discharge requirements, or waiver thereof.
16. Except as permitted by Subsection XII.E, below, structural treatment control BMPs must:
 - a. Be identified using standard nomenclature; AND
 - b. Must be sized and designed in substantial conformance with non-proprietary standards and methods found in published and generally-accepted engineering design manuals; unnecessary deviations from those standards and methods are prohibited. Where those manuals conflict with the requirements of this Order, this Order shall prevail; Or
 - c. Have had their expected performance substantiated by qualified independent third parties in field tests using published and recognized protocols.
17. All requirements in this Order for the design of structural treatment control

¹²Structural treatment controls that are part of sites in the Co-permittees' industrial and commercial inventories are required to be inspected as part of the requirements of Sections IX and X of this Order. This requirement does not supersede the inspection schedules in those Sections.
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BMPs apply to both on-site and off-site facilities.

18. Where the tributary area to an on-site facility includes areas outside of the project boundary, the facility does not need to be sized to treat the design capture volume or flow from outside the project boundary unless appropriate agreements are in place for that facility to function as a regional or sub-regional facility according to Subsection XII.M.

E. Nonconforming Structural Treatment Control BMPs: Demonstration Facilities

1. The Co-permittees are prohibited from approving or allowing to be placed into service structural treatment control BMPs which do not substantially conform to published and generally-accepted engineering design criteria or whose expected performance has not been substantiated in field tests by qualified independent third parties using published and recognized protocols (nonconforming structural treatment control) unless the following requirements are satisfied:
 - a. The design of the nonconforming structural treatment control BMP must be based on sound principles of operation and pollutant-removal mechanisms exhibited by similar conforming structural treatment control BMPs.
 - b. The tributary area of any single nonconforming structural treatment control BMP is three (3) acres or less.
 - c. The Co-permittees approve no more than ten (10) nonconforming structural treatment control BMPs in total during the term of this Order.
 - d. Each nonconforming structural treatment control BMP must be subject to a performance monitoring plan designed and carried out to substantiate the expected performance of the facility using published and recognized protocols. The results must be evaluated by a qualified independent third party.
 - e. The results of the performance monitoring plan must be submitted to the Executive Officer if the responsible Co-permittee concludes that the expected performance of the facility is similar or better as compared to the most similar conforming structural treatment control BMP.
 - f. The nonconforming structural treatment control BMP is subject to all other requirements of this Order.
2. The responsible Co-permittees must provide that a non-conforming structural treatment control BMP be replaced with a conforming BMP in the event that the facility fails to perform in a similar or better manner as compared to the most similar conforming BMP or that the facility fails to perform to the Co-permittee's satisfaction. The Co-permittee must require financial assurance instruments that are adequate to carry out the replacement.
3. Co-permittees must report both the application for approval and approval of any nonconforming structural treatment control BMPs within their jurisdiction

to the Principal Permittee in writing.

4. The Principal Permittee is responsible for coordinating the Co-permittees in complying with the requirements of this Subsection.

F. First Priority Consideration of Retention LID BMPs in WQMPs

1. The Co-permittees must require that low impact development (“LID”) controls that employ harvest and use, evaporation/transpiration, infiltration (collectively “retention LID BMPs”) , or any combination thereof, of the entire design capture volume be given preference and first consideration in all WQMPs. That consideration must be demonstrated in the approved final WQMP in substantial conformance with uniform written technical guidance (see Provision XII.C.2.).
2. The Co-permittees must require retention LID BMPs for the design capture volume, or the maximum portion thereof, unless such controls are:
 - a. Technically infeasible;
 - b. Economically infeasible; OR
 - c. Where environmental and public health hazards cannot be mitigated to an acceptable level.
3. Co-permittees must document the specific basis for their rejection of retention LID BMPs in the approved final WQMP. The rejection of retention LID BMPs must be supported with Substantial Evidence¹³.
4. The Co-permittees must require project applicants to mitigate the environmental and public health hazards of retention LID BMPs to an acceptable level where the absence of such mitigation would, by itself, make the use of retention LID BMPs infeasible. Mitigation is limited to activities that may be reasonably undertaken as part of the development project and are within the authority of the Co-permittees to mandate. Mitigation is not necessary if the costs disproportionately outweigh the pollution control benefits; any such finding must be documented in the final WQMP and be supported with Substantial Evidence.

G. Second Priority Consideration of Biotreatment Control BMPs in WQMPs

1. The Co-permittees must require that structural treatment control BMPs that employ biological uptake, transformation, or degradation of pollutants and incidental infiltration and evapotranspiration (“biotreatment control BMPs”) be given secondary consideration in the project final WQMP, when, based on Substantial Evidence, any of the following conditions exist:
 - a. Retention LID BMPs have been demonstrated to be technically or economically infeasible;
 - b. The hazards of using retention LID BMPs cannot be mitigated to an acceptable level; OR

¹³ See Glossary.

- c. A retention LID BMP is proposed but cannot be sized to treat the tributary area's entire design capture volume and a complementing biotreatment control BMP can be designed to treat the remainder of the design capture volume or flow or a portion thereof.
 2. The Co-permittees must ensure that the final approved project WQMP demonstrates preferential consideration of biotreatment control BMPs over non-LID BMPs.
 3. When retention LID BMPs are demonstrated to be infeasible according to Section XII.G.1. above, the Co-permittees must require biotreatment control BMPs unless such controls are:
 - a. Technically infeasible;
 - b. economically infeasible; OR
 - c. where the environmental and public health hazards cannot be mitigated to an acceptable level.
 4. Where biotreatment control BMPs cannot meet the above criteria, the Co-Permittees must document the specific basis for their rejection in the approved final WQMP. The rejection of biotreatment control BMPs must be based on Substantial Evidence.
 5. The Co-permittees must mitigate the environmental and public health hazards of biotreatment control BMPs to an acceptable level where the absence of such mitigation would, by itself, make the use of biotreatment control BMPs infeasible. Mitigation is not necessary if the costs disproportionately outweigh the pollution control benefits; any such finding must be documented in the final WQMP and be supported with Substantial Evidence.
 6. Biotreatment control BMPs must be designed to maximize the infiltration of the design capture volume or flow.
 7. Biotreatment control BMPs must be sized and designed to treat 1.5 times the design capture volume not retained or using an alternative sizing factor acceptable to the Executive Officer.
- H. Third Priority Consideration of All Other Structural Treatment Control BMPs: Non-LID BMPs
1. The Co-permittees must maintain and employ a common schedule which rates the expected performance of specific structural treatment control BMPs, or categories of structural treatment control BMPs.
 - a. Any category of structural treatment control BMPs must include only those controls that employ the same principal of operation; use similar treatment mechanisms, and which can reasonably be expected to exhibit similar performance in the removal of pollutants.
 - b. The performance of structural treatment control BMPs must be rated based on the reasonably-expected level of removal of categories of pollutants. The performance ratings must be classified as "high", "medium", and "low" level of removal. These ratings must be distinguished by fixed numeric thresholds.

- c. The Co-permittees' assignment of the expected level of performance for the structural treatment control BMPs must be based on the best available objective evidence. The evidence must include field performance test data specific to the BMP and the data must have been collected according to published and recognized protocols and evaluated by a qualified independent third party.
- d. The categorizations of structural treatment control BMPs and their performance ratings must be reviewed and updated within 12-months of the effective date of this Order so that they are supported by the best available information.
- 2. Structural treatment control BMPs, which are not LID BMPs ("non-LID BMPs") may be necessary to complement LID BMPs. Non-LID BMPs must not be accepted in an approved project WQMP in lieu of LID BMPs unless LID BMPs cannot be employed pursuant to Sections XII.F. and XII.G. above.
- 3. The Co-permittees must maintain and employ a common schedule of project categories and a corresponding common list of pollutants which can reasonably be expected to be found in urban runoff from those project categories.
- 4. If non-LID BMPs, or systems of non-LID BMPs, are the only type of structural treatment control BMP employed to treat the design capture volume or flow from a tributary area of a project, the Co-Permittees must only accept the use of non-LID BMPs, or systems of non-LID BMPs, that provide either a "medium" or "high" level of treatment for the expected pollutants.
 - a. The Co-permittees must use the performance rating schedule in Provision XII.H.1. above and the project category schedule in Provision XII.H.3. above to identify acceptable non-LID BMPs for a project.
 - b. Approved WQMPs must reflect the use of this prescribed methodology.
- 5. If a regional or sub-regional off-site LID BMP, that meets the requirements in Section XII.M. below, is planned to serve the project, the Co-permittees may allow the use of the regional or sub-regional facility in lieu of on-site LID BMPs and subject to the requirements in Subsection XII.M. The Co-permittees must require any BMPs that are needed to satisfy pre-treatment requirements for that facility where applicable.

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I. Fourth Priority Consideration of Offsets through Retrofit of Existing Development

- 2. Co-permittees must require that project proponents give fourth priority consideration to offsetting all or any portion of the untreated design capture volume or flow with treatment of the same or greater design capture volume or flow using structural treatment controls (according to Subsections XII.F.

XII.G. and XII.H. above) through retrofits of existing development at an off-site location.

3. The retrofit site must be located within the same watershed of the nearest receiving waters of the U.S.
4. The off-site location must not have a pending or submitted development application which would produce similar structural treatment controls on its own.
5. The structural treatment control(s) selection process at the off-site location must be subject to the requirements of Section XII as applicable.
6. The operator of the structural treatment control(s) at the retrofit site must be subject to requirements in the project WQMP or another equally-effective mechanism that provides for its proper operation and maintenance.
7. Future redevelopment projects on either the retrofit site or the project site using the retrofit option must consider incorporation of structural treatment controls according to the requirements of the Order in effect at the time.

J. Waiver of Structural Treatment Control BMPs

1. Co-permittees are authorized to waive their requirement to provide structural treatment control BMPs (see Provision XII.C.1 above) to remove pollutants and subsequently approve a WQMP if all of the following conditions are met:
 - a. Employing structural treatment control BMPs has been demonstrated in the project WQMP to be technically and economically infeasible; or there is no structural treatment control BMP available for which the environmental and public health impacts can be mitigated to an acceptable level;
 - b. No feasible opportunities are available to retrofit existing development to treat the untreated design capture volume or flow;
 - c. Source and site design BMPs have been incorporated to maximize the infiltration of urban runoff;
 - d. If a schedule has been designed to mitigate the water quality impacts of the untreated design capture volume or flow and the schedule has been approved by the Executive Officer, the Co-permittee has collected the related impact fees or services from the project proponent;
 - e. The Executive Officer has been provided written notice of the Co-Permittee's intent to issue the waiver, along with adequate supporting documentation, at least 30-days prior to issuance by the Co-permittee; AND
 - f. The Executive Officer approves the proposed waiver or 30-days has elapsed without action by the Executive Officer on the proposed waiver, whereby it is "deemed approved".

K. Specific Requirements for Infiltration LID BMPs

1. The requirements of this Section apply to retention LID BMPs that are intended to infiltrate the entire design capture volume or a portion thereof (infiltration LID BMPs). The requirements of this Section are not intended to apply to bio-treatment control or other structural treatment control BMPs that incidentally infiltrate a portion of the design capture volume or flow.
2. Co-permittees must provide the local groundwater management agency with an opportunity for consultation on the potential impacts of any proposed infiltration LID BMPs that (1) utilizes a pipe or conveyance to direct flow to a subsurface system, such as a dry well, vault, or infiltration trench, (2) is comprised of surface infiltration with a cumulative tributary area that exceeds 5,000 square feet, or (3) is proposed to be located over known soil or groundwater contamination, prior to the approval of the final WQMP.
3. The vertical separation from the bottom of the infiltration LID BMPs to the seasonal high groundwater must be a distance of 10-feet or more unless the facility is known to pose a low risk of contaminating groundwater; if the facility is low risk, the vertical separation may be reduced to 5 feet according to criteria established in the Co-permittees' written technical guidance. Where the groundwater does not support, or does not have the potential to support, beneficial uses, the Co-permittee may approve infiltration LID BMPs with less vertical separation, provided that groundwater quality is maintained and that other potential hazards presented by such facilities can be mitigated to an acceptable level.
4. The approval of any infiltration LID BMP with a vertical separation from the bottom of the facility to groundwater that is less than 10-feet must be based on site-specific information on groundwater depth wherever available.
5. Infiltration LID BMPs must be located a minimum horizontal distance of 100-feet from any water supply wells.
6. The construction method must not result in the compaction of the subgrade of infiltration LID BMPs.
7. Infiltration LID BMPs must not be designed to infiltrate the design capture volume outside of minimum or maximum rates recommended in published and generally-accepted engineering design manuals. This provision does not prohibit the use of engineered infiltration substrate or other methods used to bring the infiltration rate within the recommended design parameters¹⁴.
8. Infiltration LID BMPs which are proposed to be located over known soil or groundwater contamination must not be approved without substantial evidence that the facility will not adversely impact groundwater conditions.
9. Infiltration LID BMPs must not be used to treat storm water runoff associated with industrial activity¹⁵, storm water runoff from highways

¹⁴ This does not permit the designer to install a flow restrictor on some vessel to meet design parameters: the flow rate from the vessel to the infiltrated substrate is not the same as the infiltration rate through the substrate.

¹⁵ This does not exclude areas of an industrial site where no industrial activity occurs, such as a roof which has no Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

subject to motorized vehicular traffic of 25,000 average annual daily traffic, automotive repair shops, car washes, motorized fleet vehicle storage, nurseries, or other land uses or activities that pose a high-threat to ground water quality.

10. Infiltration LID BMPs must incorporate one or more practical mechanisms to allow verification of the loss rate of the design capture volume. The mechanisms must be durable and useful over the life of the project and designed for the benefit of the party responsible for the operation of the facility.
11. Infiltration LID BMPs which constitute Class V Injection Wells must comply with all applicable County and municipal well construction or destruction ordinances and standards, and USEPA's Class V Rule, as amended or revised¹⁶.
12. Structural treatment control BMPs must be provided to pre-treat and remove pollutants that could unreasonably diminish the performance of the infiltration LID BMP for the duration of the project unless pre-treatment mechanisms are incorporated into the facility design itself.
13. The Co-permittees must develop, publish, and employ a common factor(s) of safety in their written technical guidance that must be used to size infiltration facilities. The factor(s) of safety must be based on those recommended in published and generally- accepted engineering design manuals.
14. The Co-permittees must develop, publish, and employ a uniform protocol in their written technical guidance for estimating the loss or draw-down rate used for designing LID BMPs that infiltrate.
 - a. The protocol must be consistent with those used in published and generally-accepted engineering design manuals.
 - b. The protocol must employ the best available information for estimating the loss rate.
 - c. The Co-permittees must require that the following categories of projects use relevant site-specific methods to estimate soil infiltration rates:
 - i. Residential projects affecting more than 10-acres or greater than 30 dwelling units.
 - ii. Commercial or institutional projects affecting more than 5-acres or greater than 50,000 square feet of floor space.
 - iii. Industrial projects affecting more than 2-acres or greater than 20,000 square feet of floor space.

L. Specific Requirements for Harvest and Use LID BMPs

1. The Co-permittees must not accept insufficient demand for harvested storm

roof-mounted industrial equipment or exhausts from industrial equipment which may emit potential storm water pollutants.

¹⁶ USEPA, Office of Water, "Revisions to the Underground Injection Control Regulations for Class V Wells", 64 FR 68545-68573, December 7, 1999 (or as amended or revised)

water as the sole basis for rejecting harvest and use LID BMPs unless the basis is supported by water demand calculations. Calculated estimates must demonstrate that the expected wet season water demand is insufficient to use the harvested design capture volume within a 48-hour period according to the following:

- a. The Co-permittees must publish and employ tables of daily average wet-season (October 1st through April 30th) demand rates and objective project characteristics necessary to provide sufficient demand for harvested storm water. The demand rates must be used for estimating anticipated non-potable uses of harvested storm water.
 - i. The rates and thresholds must be based on published and generally accepted rates or methods for calculating average daily demand of harvested storm water for non-potable uses such as toilet and urinal flushing, landscape irrigation, industrial process supply, evaporative cooling, and vehicle washing.
 - ii. The rates and thresholds must account for the off-setting effects of rainfall, reclaimed water, water conservation or the inconsistent nature of demand.
 - iii. Reclaimed water supplies must be based on available supplies, not speculative supplies.
- b. Where demand rates are dependent upon variable site occupancy, average daily occupancy during the wet season must be used.

M. Off-Site Structural Treatment Control BMPs: Regional and Sub-Regional Facilities

1. Co-permittees must require that structural treatment control BMPs be located on the project site except under the following conditions:
 - a. A regional or sub-regional structural treatment control BMP has been planned as part of a WQMP for a Specific Plan, parcel map, master tract map, master plan of drainage, or similar larger plan of development that was approved prior to the effective date of this Order and all of the following requirements will be met:
 - i. The project and the regional or sub-regional structural treatment control BMP are both located within the approved Specific Plan, parcel map, or similar larger plan of development.
 - ii. The WQMP for the larger plan of development has been prepared and approved according to the requirements of this Order, Order No. R8-2009-0030 or Order No. R8-2002-0010, whichever was in effect at the time.
 - iii. The WQMP for the project complies with all other requirements of this Order to the extent that those requirements do not conflict with this Subsection (Subsection XII.M.).

- iv. The regional or sub-regional facility is constructed, serviceable, and satisfactory to the Co-permittee prior to final occupancy or use of the project site(s) in its tributary area.
- b. A regional or sub-regional retention LID BMP has been planned and approved by the Co-permittees' land-use authority, another public agency, or other legal entity and the Co-permittees' approval for use would not otherwise cause the Co-permittee to violate any provision of this Order. The following requirements will be met:
 - i. Site design and source control BMPs have been provided in the project WQMP.
 - ii. Any structural treatment control BMPs deemed necessary by the party responsible for the facility's performance ("Operator") to pre-treat and remove pollutants that could unreasonably diminish the performance of the facility or cause or contribute to a condition of nuisance over its service life have been provided in the project WQMP.
 - iii. An Operator will maintain ownership or control over the facility over the life of projects located within the facility's tributary area.
 - iii-iv. Adequate funding for the construction, operation, and maintenance for the life of the facility must be demonstrated.
 - v. The facility complies with, and/or is subject to, the requirements in Section XII.D. and, if applicable, Sections XII.K. or XII.L. above.
 - iv-vi. The capacity of the facility to remove pollutants from the design capture volume or flow discharged from projects utilizing the facility should be demonstrated.
 - v-vii. The regional or sub-regional facility is constructed, serviceable, and satisfactory to the Co-permittee prior to final occupancy of the project site(s) in its tributary area.
 - vi-viii. The project WQMP is prepared according to the requirements of this Order.
- c. A regional or sub-regional biotreatment control BMP has been planned and approved by the Co-permittees' land-use authority, another public agency, or other legal entity and the following requirements will be met:
 - i. Retention of the design capture volume has been maximized on the project site using site design and source control BMPs.
 - ii. The requirements in Section XII.M.1.b. (for regional or sub-regional retention LID BMPs above) have been or will be met as appropriate.
- ~~d. There is an infiltration LID BMP located offsite for which the Co-permittees' approval for use would not otherwise cause the Co-~~

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~~permittee to violate any provision of this Order⁴⁷. The requirements include, but are not limited to, the requirements to:~~

- ~~i. maximize retention of the site's design capture volume;~~
- ~~ii. demonstrate the capacity of the off-site facility to remove pollutants from the design capture volume or flow discharged from the project;~~
- ~~iii. demonstrate adequate funding for the off-site facility's construction, and operation and maintenance for the life of the project; AND~~
- ~~iv. place the facility in service prior to final occupancy or use of the project site.~~

2. Where a structural treatment control BMP has been approved or constructed according to a final project WQMP, the Co-permittees are authorized to amend the relevant project WQMP(s) to replace the facility and, if applicable, decommission the facility, only if:
 - a. The facility's design capture volume or flow will be treated by an off-site facility that satisfies the provisions in Subsection XII.M.1. above;
 - b. The expected performance of the off-site facility in removing pollutants from its effluent is equal or better than the combined expected performance of the facilities that it will replace; and
 - c. Co-permittees employ decommissioning standards and conditions which effectively address the water quality hazards that the decommissioned facility may pose.

N. Credit Programs

1. Co-permittees are authorized to allow the transfer of design capture volume or flow "credits" to priority projects. These credits may be used by a priority project to satisfying requirements in this Order to treat the design capture volume or flow from the project using structural treatment controls subject to the following limitations:
 - a. The "credit" shall only be generated when a structural treatment control LID BMP has been designed to treat the design capture volume or flow from a tributary area that does not include the area of a proposed project. The "credit", as a unit of trade, must be directly related to a unit of design capture volume or flow treated by the structural treatment control LID BMP (e.g. acre-foot, cfs, etc.).
 - b. Credits may only be generated based on the design capture volume or flow produced by the area tributary to, and treated by, the structural treatment control LID BMP – upsizing a facility to treat the design capture volume or flow from a fictitious area is not allowed. The installation of the structural treatment control LID BMP may

⁴⁷ ~~In other words, the Co-permittee is faced with the choice of approving a WQMP where either a retention-LID control could be located on-site or off-site, or where an eligible biotreatment control could be located on-site or off-site. Except for the facility's location, the approval would not violate the requirements of this Order~~

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occur independent of a development project; in this case, the entire design capture volume or flow may be traded. If the facility is installed in association with a priority project, only the design capture volume or flow from that area outside of the project boundary may be traded.

- c. The credit must be generated by a structural treatment control LID BMP ~~that is located on property which is owned or controlled by the proposed project proponent~~. The property on which the facility is located and the property where the project is located need not be contiguous. However, credits must not be allowed to be applied to projects outside of the watershed ~~of the nearest receiving water of the U.S. in which the structural treatment control LID BMP is located~~.
- d. The selection process for the structural treatment control LID BMP must give first priority consideration to retention LID BMPs according to the criteria in Subsection XII.F. The basis for selection must be documented in a plan accordingly, but not necessarily in a project WQMP. The plan must be subject to the same requirements in this Order related to providing that the plan is authentic, readily discoverable by interested parties, and protected over the life of the related projects.
- e. The structural treatment control LID BMP must be subject to applicable provisions of Subsections XII.D., XII.F., XII.G., XII.K., and XII.L. of this Order. Where there is a conflict, the provisions of this subsection prevail.
- f. The structural treatment control LID BMP must be constructed, serviceable, and satisfactory to the responsible Co-permittee prior to final occupancy or use of the first project that is entitled to use the credit generated by the facility.
- g. Prior to allowing credit trading, the Co-permittee(s) within whose jurisdiction(s) the affected projects are located must have and employ an effective system of accounting and controls to provide that credits are sold and used once, to relate all uses of credits to the originating structural treatment control LID BMP, to track the ownership and use of credits, and to protect against fraud and abuse.
- h. Any projects tributary to the structural treatment control LID BMP are subject to the provisions of Subsection XII.M of this order, however, any credits generated by the structural treatment control LID BMP pursuant to Subsection XII.N must take into account the structural treatment control LID BMP capacity utilized by tributary projects.

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O. General Requirements for Non-Priority Projects

- 1. Where a non-priority project includes modifications or improvements that are, or affect areas that are exposed to storm water and which may be

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sources of pollution in urban runoff, Co-permittees must require such projects (see Section XII.B.) to implement source control and site design BMPs to remove pollutants in urban runoff consistent with the maximum extent practicable standard¹⁸.

- a. Each Co-permittee must develop policies and procedures to identify non-priority projects that include modifications or improvements that are, or affect areas that are, exposed to storm water and which may be sources of pollution in urban runoff.
 - b. Each Co-permittee must report the policies and procedures used to comply with this Subsection in the first Annual Report due not less than 6-months from the effective date of this Order. Updates must be reported in subsequent Annual Reports thereafter.
2. BMPs for non-priority projects identified in Section XII.O.1.a. must be documented in a Non-Priority Project Plan. The Non- Priority Project Plan must include a summary rationale for BMP selection.
 4. Source and site design BMPs must generally conform to published and generally-accepted designs or methods.
 5. Non-priority Project Plans must be prepared by persons with qualifications and competencies that are commensurate with the complexity of the project and plan.
 6. Non-priority Project Plans must be approved by the responsible Co-permittee by a person with qualifications and competencies that are commensurate with the complexity of the plan.

P. Hydrologic Conditions of Concern

1. Co-permittees must address the changes in a priority project site's hydrology in the project WQMP according to the requirements of this Section except under any of the following conditions:
 - a. The runoff volume and time of concentration for the two-year frequency, 24-hour storm event are not significantly affected by the project. A significant effect must be deemed to occur only where:
 - i. The calculated runoff volume from the site increases by 5% or more over the pre-project condition and/or
 - ii. The calculated time of concentration for runoff from the site decreases by 5% or more over the pre-project condition.
 - b. All downstream conveyance channels that will receive runoff from the project are engineered and regularly maintained to accommodate the necessary design flow capacity as dictated by the latest version of the Orange County Hydrology Manual, and no sensitive stream habitat areas have the potential to be adversely

¹⁸ This requirement must not be construed to mean that structural treatment control BMPs are not required for non- priority projects; only that there is no presumption requiring rebuttal that treatment control BMPs are economically or technically feasible.

- affected by discrete or cumulative changes in hydrology.
- c. The project has the demonstrated capacity to infiltrate, harvest and use, evaporate, or evapotranspire the volume of runoff produced by a two-year storm event within a 48-hour period.
 - d. The Executive Officer grants an individual or general variance in writing to the Permittee(s).
 - i. The granting of such variances must be supported by objective and relevant studies.
 - ii. The Co-permittees must comply with any conditions placed on the issuance of the variance by the Executive Officer.
 - iii. The Executive Officer and the requesting Co-permittee(s) must provide the public an opportunity to comment on the proposed variance for a period of not less than 30-days prior to its issuance.
2. For those priority projects that do not meet the conditions in Subsection XII.P.1. above, the Co-permittees must apply the following conditions:
- a. The project WQMP must include a hydrology study that quantifies the pre- and post-project runoff volumes, peak flow rates, and times of concentration for a 2-year, 24-hour storm event.
 - b. Except as provided in Section XII.P.2.c., the project WQMP must provide BMPs that modify runoff volumes and times from the project site for the 2-year, 24-hour storm event such that:
 - ii. Post-project runoff volumes for the 2-year, 24-hour storm event do not increase by more than 10% compared to the pre-project runoff volumes for the 2-year, 24-hour storm event; AND
 - iii. Post-project times of concentration for the 2-year, 24-hour storm event do not decrease by more than 10% compared to the pre-project times of concentration for the 2-year, 24-hour storm event.
 - c. The provisions of Section XII.P.2.b. above apply unless any of the following have occurred:
 - i. A Clean Water Act Section 401 Water Quality Standards Certification has been issued authorizing discharges of fill associated with channel modifications that would accommodate the project's changes in hydrology while protecting beneficial uses.
 - ii. Site design and/or structural treatment control BMPs proposed for the site to reduce pollutants in urban runoff already effectively modify runoff volumes and times of concentration such that they satisfy Provision XII.P.2.b. above.
 - iii. The proponent has demonstrated in the project WQMP that it is infeasible to satisfy the criteria of Provision XII.P.2.b. above and there are site design, structural treatment control, and/or flow-control BMPs such that the post-project peak runoff flow rates for the 2-year, 24-hour

storm event are not increased by more than 10% compared to the pre-project peak runoff flow rates for the 2-year, 24-hour storm event.

3. Co-permittees must prepare a set of watershed maps that identify management areas tributary to drainages that have not been engineered and regularly maintained to accommodate the design flow capacity for the planned build-out of the tributary area, as dictated by the latest version of the Orange County Hydrology Manual, and management areas that are tributary to sensitive stream habitat areas have the potential to be adversely affected by discrete or cumulative changes in hydrology (see Provision XII.P.1.b. above).
 - a. The Co-permittees must submit the watershed maps in draft form to the Executive Officer for approval no later than 6 months following the effective date of this Order.
 - b. The Co-permittees must make changes requested by the Executive Officer within 30-days of receipt of the request. The Executive Officer is authorized to approve the watershed maps conditioned upon completion of the changes.
 - c. Upon approval by the Executive Officer, the Co-permittees must consistently use the applicable maps to identify projects that will be subject to the limitations on changes in runoff volumes, peak flow rates, and times of concentration provided in this Section (Section XII.P.).

XIII. PUBLIC EDUCATION AND OUTREACH

- A. The Co-permittees must implement an effective public education program that is designed to raise awareness of pollution-prevention best practices and cause the audience to take action to reduce pollution of urban runoff. The program must include a general audience, consisting of residents of school age and older and commercial and industrial establishments, and a target audience selected from the general audience to address high-priority urban runoff pollution issues identified by the Co-permittees.
- B. The public education program must be described in a written plan. The Co-permittees must:
 1. Make a minimum of 10 Million annual impressions on the general audience using educational content in multiple media to raise awareness of pollution in urban runoff;
 2. Identify goals and related measurable objectives that address a minimum of three high-priority urban runoff pollution issues over the term of this Order. Issues must be identified for the entire permit area, for each watershed, or for each city;
 3. Identify and analyze target behaviors and target audiences to address the selected high-priority urban runoff pollution issues;
 4. Create specific messages that are appropriate to the target audiences and to specific sub-groups within the general audience;

5. Develop educational content for media with the most potential to appeal to the audiences;
 6. Determine the methods and processes of distributing the educational content;
 7. Objectively evaluate the effectiveness of the program; AND
 8. Provide opportunities for public input, and demonstrate consideration of that input, in the development of the program.
- C. The Co-permittees must provide a rationale in a written plan to justify the selected high-priority urban runoff issues and related target audiences.
- D. During the term of this Order, the Co-permittees must distribute the educational content, using one or more of the selected methods and procedures determined most appropriate by the Co-permittees. The content must be distributed in a manner that is designed to communicate the program's messages to the general and target audiences annually, beginning with the next full monitoring and reporting period after the effective date of this Order.
- E. The Co-permittees must implement an effective program to measure the achievement of the objectives and requirements in this Section XIII.
1. The program must include an annual assessment of progress towards meeting the goals and objectives of the education program.
 2. The Co-permittees must adapt their educational program in response to any shortcomings found as a result of the annual assessment.
 3. The program must include a statistically valid survey to measure:
 - a. the general audiences' knowledge regarding the sources of urban runoff pollution;
 - b. the general audiences' knowledge of the impacts of the pollutant(s) on the environment; awareness of what the general audience can do to help prevent urban runoff pollution; AND
 - c. specific changes in the general audiences' behavior(s) to prevent urban runoff pollution.
 4. The survey must be completed no later than 60 months from the effective date of this Order.
 5. The survey results must be made available to the public through a press-release, web site, or similar method acceptable to the Executive Officer.

XIV. MUNICIPAL FACILITIES/ACTIVITIES

- A. Each Co-permittee must implement an effective program for maintenance activities for fixed facilities, field operations, and drainage facilities for the purpose of ensuring that such activities do not adversely impact water quality.
- B. Each Co-permittee must maintain an inventory of fixed facilities, owned or controlled by the Co-permittee, that have the potential to discharge pollutants in urban runoff.
 1. The inventory must include the following:
 - a. Catch basins, storm drain inlets, and open channels;
 - b. Municipal landfills;
 - c. Waste incinerators;

- d. Solid waste transfer facilities;
 - e. Land application sites;
 - f. Sewage collection and treatment facilities;
 - g. Potable water distribution facilities;
 - h. Hazardous waste treatment, disposal, and recovery facilities;
 - i. Corporation, maintenance, and storage yards;
 - j. Airfields;
 - k. Parks, golf courses, and recreation areas;
 - l. Cemeteries;
 - m. Public buildings (police and fire stations and training facilities, libraries, etc.)
 - n. Stadiums and other special event venues;
 - o. Equestrian facilities;
 - p. Animal shelters and kennels;
 - q. Boat yards and marinas;
 - r. Public parking facilities; and
 - s. Areas or facilities that discharge directly to lagoons, the ocean, or Environmentally Sensitive Areas.
- C. Each Co-permittee must maintain an inventory of fixed facilities under their ownership or control which may discharge subject to the provisions in Attachment B of this Order.
- D. Each Co-permittee must report their inventory of fixed facilities with the exception of catch basins, storm drain inlets, and open channels. The initial report must be provided within 90-days of the effective date of this Order in an electronic format consistent with guidance provided by the Executive Officer. Subsequent updates must be reported bi-annually thereafter no later than November 15th of the year that the update is required.
- E. The Principal Permittee may propose a schedule for visual inspection and mechanical or physical cleaning of catch basins, storm drain inlets, and open channels (collectively referred to as “systems” in this Section) under the Co-Permittees’ control. The proposed schedule is subject to the approval of the Executive Officer. If approved, the schedule will serve as an alternative to the schedule prescribed by Subsection XIV.F. below.
- F. Each Co-permittee must visually inspect a minimum of 80% of catch basins, storm drain inlets, and open channels under their control annually. 100% of the systems must be inspected every two years. Each Co-permittee must prepare a written inspection and maintenance schedule for all facilities that are subject to this requirement.
- 1. Trash and debris must be physically removed from the systems in a timely manner when found.
 - 2. Where other agencies’ authorization is required to remove trash and debris from the systems (i.e. CWA Section 404 permit), the Co-permittee must make a good faith effort to secure the necessary authorizations and remove the accumulated trash and debris in a timely manner.
 - 3. Co-permittees must exercise their discretion and increase the inspection and cleaning frequency as necessary for those portions of the systems which accumulate “unusually large quantities” of trash and debris.

4. Each Co-permittee must establish objective thresholds to define “unusually large quantities” of trash and debris in systems that they own or control.
 5. Each Co-permittee must implement an effective management system to identify portions of the systems which accumulate unusually large quantities of trash and debris and remove them.
 6. Each Co-permittee must implement an effective program to detect and eliminate or minimize the seepage of wastewater from sanitary sewers to the storm drain system.
- G. Except for catch basins, storm drain inlets, and open channels, each Co-Permittee must categorize fixed facilities that they own or control into “high-priority”, “medium-priority”, and “low-priority” sites.
1. The Co-permittee must inspect each fixed facility according to the following schedule:
 - a. High-priority sites must be inspected once per year.
 - b. Medium-priority sites must be inspected once every two years.
 - c. Low-priority sites must be inspected once every five years.
 2. The following fixed facilities must be categorized as “high-priority” sites:
 - a. Municipal landfills
 - b. Publicly-owned treatment works
 - c. Waste incinerators
 - d. Solid waste transfer facilities
 - e. Land application sites
 - f. Corporation, maintenance, and storage yards
 - g. Hazardous waste treatment, disposal, and recovery facilities
 - h. Land-side areas of airfields
 - i. Facilities that are located adjacent or within an Environmentally Sensitive Area or that discharge directly to an Environmentally Sensitive Area.
 3. Co-permittees must categorize all other fixed facilities according to a uniform objective ranking system developed by the Principal Permittee. The ranking system must be based on the following factors:
 - a. The degree to which potentially polluting activities occur in areas exposed to storm water.
 - b. The quantity of potentially-polluting materials used or stored at the facility.
 - c. Whether or not the activities at a site could produce pollutants that cause or contribute to the impairment of a water body listed according to CWA Section 303(d).
 - d. The risk of a release of a pollutant.
 - e. The occurrence of known or suspected non-storm water discharges.
 - f. The size of a facility, the number of employees assigned to the facility, and the number of visitors.
 4. Co-permittees must carry out inspections of fixed facilities to: identify and correct observed violations of the municipal ordinance or other requirements related to the control of pollutants to the MS4; identify and correct unnecessary deviations from standard operating procedures (see

Section XIV.H. below); internally enforce relevant discharge requirements; and identify and eliminate known or suspected unauthorized non-storm water discharges.

- H. Co-permittees must implement an effective program to prevent the discharge of pollutants from Co-permittees' field activities and fixed facilities.
1. The program must include the imposition of written standard requirements on the person(s) performing field activities on behalf of Co-permittees. The requirements must direct the person(s) to effectively employ BMPs that are specific and relevant to the activity to prevent the discharge of pollutants in urban runoff.
 2. The program must include written standard operating procedures for Co-Permittees' staff who engage in field activities and activities at fixed facilities that have the potential to discharge pollutants in urban runoff.
 - a. The standard operating procedures must incorporate BMPs to prevent or minimize such discharges of pollutants.
 - b. The standard operating procedures must be written in plain, straightforward language, avoiding technical terms as much as possible, and using a coherent and easily readable style.
 - c. The standard operating procedures must be subject to an annual review to verify their relevance and effectiveness. Each standard operating procedure must display the date of the last review, the identity of the reviewing personnel, and the due date for the next review.
 3. The program must include a training program to provide Co-permittees' staff with an awareness of the responsibilities described in standard operating procedures relevant to their duties (See Section XVI below).
 4. The program must include an inspection program for field activities to: identify and correct observed violations of the municipal code or ordinance related to protecting water quality; identify and correct unnecessary deviations from standard operating procedures; internally enforce compliance with relevant waste discharge requirements; and identify and eliminate or minimize known or suspected non-storm water discharges.
- I. Each Co-permittee must implement an effective program: to reduce the use of unwarranted or excessive applications of pesticide and fertilizer at facilities that they own or control; to ensure that pests are controlled using the best available methods while protecting water quality; and to ensure that pesticides are used according to with Federal, State, and local laws and regulations¹⁹.
1. Each Co-permittee must develop and implement Integrated Pest Management, Pesticide and Fertilizer Guidelines.
 2. Each Co-permittee must conduct annual integrated pest management audits for chemicals known or suspected of impairing water quality to enforce the use Integrated Pest Management Strategies that reduce their potential entry into MS4s.
 3. Each Co-permittee must conduct annual fertilizer use audits to verify that

¹⁹ The term "pesticide" includes herbicides, rodenticides, insecticides, etc., consistent with the common meaning of the term.

application rates do not exceed those recommended by University of California Integrated Pest Management Research, or similarly qualified organizations, and to enforce fertilizer application methods that eliminate or minimize fertilizer entry into MS4s.

XV. MUNICIPAL CONSTRUCTION PROJECTS AND ACTIVITIES

- A. This Order authorizes the discharge of storm water runoff from construction projects that are under the ownership or direct responsibility of any of the Co-Permittees and that may result in land disturbance of one acre or more; or less than one acre if the project is part of a larger common plan of development or sale which is one acre or more.
- B. All construction activities must be in compliance with the conditions and provisions of the latest version of the State Board's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES Permit No. CAS000002) as amended or revised with the following exceptions:
 - 1. A Notice of Intent must be submitted in an electronic format acceptable to the Executive Officer.
 - 2. No additional fees are necessary to authorize discharges associated with construction and land disturbance activities.
 - 3. The conditions and provisions in this Order pertaining to post-construction BMPs prevail.

XVI. TRAINING PROGRAMS

- A. Each Co-permittee must have an effective training program for their staff, contractors and vendors whose duties or responsibilities directly or indirectly affect the Co-permittee's capacity to satisfy the requirements of this Order (collectively, "personnel").
 - 1. Those personnel include, but are not limited to, the following:
 - a. Storm water program managers;
 - b. CEQA practitioners;
 - c. Inspectors;
 - d. Maintenance personnel;
 - e. Plan checkers;
 - f. Planners;
 - g. The division heads of all of the above staff;
 - h. Contractors and vendors who perform duties similar to the above staff.
 - 2. Each Co-permittee must maintain a roster of personnel or staff positions whose duties or responsibilities directly or indirectly affect the Co-Permittee's capacity to satisfy the requirements of this Order.
 - 3. Except for industrial, commercial, and construction site inspectors, personnel must undergo training a minimum of once every two years. New hires must receive their initial training within 6 months of their initial

- hire date.
4. The training program must be subjected to an annual review, for the purpose of achieving continual improvement of its effectiveness, and must be updated accordingly.
 5. Training materials must be written in plain, straightforward language, avoiding technical terms as much as possible, and using a coherent and easily readable style.
 6. The Co-permittees must employ a method that objectively demonstrates that personnel individually have the necessary level of expertise and competence commensurate with their duties and responsibilities.
 7. The Co-permittees must maintain records demonstrating that personnel have satisfied the requirements of the training program; records must be maintained for a minimum of three (3) years.
 8. Training records must be maintained for staff and contract and vendor records, as part of a region-wide training registry, or through another mechanism acceptable to the Executive Officer.
- B. The Principal Permittee must establish a written training curriculum for use by the Co-permittees. The contents of the curriculum must be commensurate with the duties and responsibilities of the affected personnel.
1. Affected personnel must be able to demonstrate proficient knowledge of the following subject matter:
 - a. An overview of Federal, state and local water quality laws and regulations pertaining to urban runoff.
 - b. The potential direct and indirect impacts of urban runoff on receiving waters.
 - c. Current water quality impairments.
 - d. The potential sources of pollutants in urban runoff.
 - e. Specific actions that personnel are obligated to take to reduce pollutants in urban runoff.
 2. At a minimum, personnel who are responsible for inspecting construction sites must be trained in the following subject matter:
 - a. Federal, state and local water quality laws and regulations pertaining to construction and grading activities.
 - b. The potential effects of construction and grading activities and urbanization on water quality.
 - c. The proper application and use of erosion and sediment control BMPs.
 - d. The Co-permittee's enforcement tools and procedures.
 3. At a minimum, personnel responsible for inspecting commercial and industrial sites must be able to demonstrate proficient knowledge of the following subject matter:
 - a. Federal, state and local water quality laws and regulations pertaining to commercial and industrial activities.
 - b. The potential effects of commercial and industrial activities and urbanization on water quality.
 - c. The proper application and use of non-structural and structural treatment control BMPs.

- d. Methods for affecting compliance, including enforcement tools and procedures.
- 4. At a minimum, personnel responsible for inspecting restaurants must be able to demonstrate proficient knowledge of the following subject matter:
 - a. Proper oil and grease disposal.
 - b. Proper housekeeping of trash bins and trash bin enclosures.
 - c. Proper cleaning of floor mats, mops, filters, and garbage containers and proper disposal of related waste water.
 - d. Proper methods of cleaning parking lot areas.
 - b. Proper spill clean-up methods.
 - c. Proper operation and maintenance of devices designed to separate fat, oil, and grease from wastewater.
 - d. Methods for affecting compliance, including enforcement tools and procedures.
- 5. At a minimum, personnel responsible for investigating, eliminating or permitting illicit discharges and illicit connections must be able to demonstrate proficient knowledge of the following subject matter:
 - a. The potential effects of illicit discharges and illicit connections on water quality.
 - b. SSO and general spill response and coordination procedures.
 - c. Investigation techniques and procedures.
 - b. Methods for affecting compliance, including enforcement tools and procedures.
- 6. At a minimum, personnel responsible for preparing, reviewing or approving Water Quality Management Plans or non-priority project plans or for ensuring their implementation must be able to demonstrate proficient knowledge of the following subject matter:
 - a. The requirements found in Section XII of this Order.
 - b. The related written processes, procedures, and methods for selecting, sizing, and designing source control, site design, and structural treatment control BMPs.
 - c. Investigation techniques and procedures.
 - d. The Co-permittee's enforcement tools and procedures.

XVII. NOTIFICATION REQUIREMENTS

- A. When Co-permittees become aware of a site or incident within their jurisdiction that poses an imminent threat to human health or the environment, the Co-Permittee(s) must take the following actions:
 - 1. Provide oral or electronic mail notification to Regional Board staff of the imminent threat within 24 hours of becoming aware.
 - 2. Submit a written report within five (5) business days following the initial notification to Regional Board staff. The report must provide the following information:
 - a. Details of the location, nature and circumstances of the threat to human health or the environment.

- b. Details of any corrective action(s) taken or planned to mitigate the threat and prevent its reoccurrence.
 - c. Identity of the responsible parties.
 - d. Describe any enforcement actions taken or planned by the Co-Permittee.
 3. Record incidences and the related report in the applicable construction, industrial or commercial site database.
 - B. For the purposes of this Section, sewage spills in excess of 1,000 gallons and all reportable quantities of hazardous waste spills, as per 40 CFR § 117 and 40CFR § 302, constitute imminent threats to human health or the environment.
 - C. If, during the course of a site inspection or complaint investigation, Co-permittees or their representatives become aware of a known, suspected, or threatened violation of applicable waste discharge requirements (i.e. State-wide General Industrial or Construction Permits, etc.), the Permittee must provide written notice to the Executive Officer.
 1. Where circumstances do not pose an imminent threat to human health or the environment, the written notice must be provided on a quarterly basis. For the purposes of this Provision, each calendar quarter of the monitoring and reporting period constitutes a reporting period, with the notice due within 30-days of the end of each period.
 2. The notice must include the location, nature and circumstance of the known, suspected, or threatened violation(s); prior history of any relevant violations of state and local requirements; and action(s) taken or planned by the Co-permittee(s) to bring the site operator into compliance.

XVIII. TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION

The provisions in this section require compliance with water quality-based effluent limits ("WQBELs") that implement waste load allocations ("WLAs"). The WLAs have been established in Total Daily Maximum Loads ("TMDLs") that have been adopted and approved by the Regional Board or promulgated by USEPA. The Co-permittees that are subject to each TMDL are shown in Appendix A. The applicable WQBELs are specified in Appendices B through H.

A. General TMDL Provisions

1. The responsible Co-permittees identified in Appendix A must comply with the applicable WQBELs shown in Appendices B through H according to the methods described in this Section (Section XVIII). Additionally, the City of Lake Forest must comply with any conditions or provisions within the Phase 1 MS4 Permit issued by the San Diego Regional Water Quality Control Board that are associated with any TMDL.
2. Unless a future deadline to comply with a WQBEL is shown in Appendices B through H, Co-permittees responsible for complying with the WQBELs

must either: (1) demonstrate that the applicable WQBELs have been achieved by the effective date of this Order; OR (2) demonstrate compliance through any one of the means identified in Subsections XVIII.B. through XVIII.D. below

3. A Co-permittee may comply with WQBELs through any lawful means.
4. In cases where a WQBEL is assigned jointly to a group of Co-permittees or other parties whose discharges are, or may be comingled prior to entering the receiving water, pursuant to 40 CFR122.26(a)(3)(vi), each Co-permittee is only responsible for discharges from the MS4 for which they are owners or operators.
5. Where Co-permittees have comingled discharges to the receiving water, compliance at the outfall or in the receiving water shall be determined for the group of Co-permittees as a whole unless an individual Co-permittee demonstrates that its discharge did not cause or contribute to the exceedance. A Co-permittee may demonstrate compliance with WQBELs using monitoring data to:
 - a. Demonstrate that there are no violations of receiving water limitations using monitoring data that has been collected and analyzed pursuant to an approved TMDL monitoring plan; OR
 - b. Demonstrate that there are no exceedances of WQBELs at monitoring locations which have been designated pursuant to the requirements of Monitoring and Reporting Program R8-2015-0001; OR
 - c. Demonstrate that there is no discharge from the responsible Co-permittees' MS4(s) to the receiving water during the time period subject to the WQBEL.
 - d. For exceedances of WQBELs for pathogens, demonstrate through the use of generally-accepted source-identification protocols, or, if applicable, through protocols established under California Water Code Section 13178, that sources within the Co-permittee's jurisdiction or MS4 have not caused or contributed to the exceedance.
6. A Watershed Management Plan may be developed separately for a specific WQBEL or a group of WQBELs may be combined and addressed in one plan, subject to the discretion of the Regional Board.
7. For water body-pollutant combinations subject to an adopted TMDL, full compliance with the TMDL, as incorporated in this Order, will be regarded as compliance with the receiving water limitations for the water body-pollutant combination.
8. The responsible Co-permittees must submit reports which are consistent with the requirements of the TMDL.

B. Provisions for WLAs in State-Adopted TMDLs Where Final Compliance Deadlines Have Passed

1. Appendices B, C, D and F include WQBELs where the final compliance deadline established by the underlying TMDL has passed²⁰. The responsible Co-permittees must comply immediately with these final WQBELs. Compliance with final WQBELs shall be determined using one of the following methods:
 - a. The responsible Co-permittees may demonstrate compliance with final WQBELs using monitoring data according to Subsection XVIII.A.5. above.
 - b. Co-permittee(s) may fully implement a Time Schedule Order ("TSO") issued by the Regional Board pursuant to California Water Code Section 13300. The responsible Co-permittees may request a TSO if they believe that additional time to comply with final WQBELs is necessary.

C. Provisions for WLAs in State-Adopted TMDLs Where Final Compliance Deadlines Have Not Passed

1. WQBELs set forth in Appendices C and E are based on TMDLs where the final compliance deadlines have not passed²⁰. The responsible Co-permittees must achieve compliance with the WQBELs by the final compliance dates set forth in Appendices C and E by one of the following methods:
 - a. The responsible Co-permittees may demonstrate compliance with applicable WQBELs using monitoring data according to Subsection XVIII.A.5. above.
 - b. The responsible Co-permittees may initiate development of and implement a Watershed Management Plan according to the requirements of Section XI and the following:
 - i. For WQBELs where the related TMDL has an implementation plan that includes a requirement that the Co-permittees develop a compliance plan, the draft Watershed Management Plan must be submitted consistent with the schedule specified in the implementation plan.
 - ii. For WQBELs where a plan has already been developed for the related TMDL and is currently being implemented, the responsible Co-permittees may request in their written notification that the Executive Officer approve the plan as satisfying the requirements of Section XI.
 - iii. Where monitoring data indicates that discharges of urban runoff are not achieving applicable WQBELs, submit a notice of their intent to develop and implement a Watershed Management Plan according to the

²⁰ Appendix C contains compliance dates where some have passed and others have not. Consequently, Appendix C appears in both Subsections XVIII.B. and XVIII.C.
Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

requirements of Section XI within 60-days of becoming aware of the situation.

D. Provisions for TMDLs Established by USEPA

1. WQBELs in Appendices G and H are based on TMDLs promulgated by USEPA. These TMDLs do not include an implementation plan adopted pursuant to California Water Code Section 13242. However, USEPA has included recommendations for implementation as part of the TMDLs. The responsible Co-permittees, subject to the WQBELs in Appendices G and H must achieve compliance with these WQBELs by one of the following methods:
 - a. The responsible Co-permittees may demonstrate compliance with applicable WQBELs using monitoring data as follows:
 - i. Demonstrating that there are no exceedances of receiving water limitations using monitoring data that has been collected and analyzed pursuant to an approved TMDL monitoring plan; OR
 - ii. Demonstrating that there are no exceedances of WLAs at MS4 outfalls which have been designated pursuant to the requirements of Monitoring and Reporting Program R8-2015-0001; OR
 - iii. There is no discharge from the responsible Co-permittees' MS4(s) to the receiving water during the time period subject to the WLA.
2. The responsible Co-permittees may initiate development of and fully implement a Watershed Management Plan according to the requirements of Section XI and the following:
 - i. For WQBELs where a plan has already been developed for the related TMDL and is currently being implemented, the responsible Co-permittees may request in their written notification that the Executive Officer approve the plan as satisfying the requirements of Section XI.

XIX. PROGRAM EFFECTIVENESS ASSESSMENTS

- A. Each Co-permittee must have a program in place to objectively assess the effectiveness of best management practices or groups of best management practices employed in each of the elements of their storm water program and any Watershed Management Plan which has been approved by the Executive Officer or the Regional Board. The assessment program must be documented in writing.
- B. The Principal Permittee must develop a model program effectiveness assessment. The model assessment must address storm water program elements that are common to all or a majority of the Co-permittees and that

- are necessary to compile information on the overall performance of the Co-Permittees' collective efforts.
- C. Methods used to monitor and measure program activities must be carried out in a manner that is representative of the monitored activity.
 - D. Each Co-permittees' assessment program must be comprised of the following elements:
 - 1. Conceptual generalized model(s) of how each pollutant, or functionally similar group of pollutants, are released to the environment and transported to the receiving water(s) (pollution process).
 - 2. A description of each of the best management practices (interventions) in the pollution process and where in the process they are intended to be applied.
 - 3. A system to objectively measure the performance of each intervention or group of interventions. The system must include valid performance metrics (or measures), the method(s) to measure and analyze the metrics, and a method to track and document outcomes.
 - 4. Annual evaluation of the validity of the program; how effective the interventions are in achieving the desired outcomes; if the performance metrics and the method(s) for measuring outcomes are valid; and any changes found necessary to improve the effectiveness of the interventions or the overall process.
 - E. Each Co-permittee must perform assessments of their best management practices annually. The results must be included in the Annual Progress Report (see Monitoring and Reporting Program No. R8-2015-0001). Reported outcomes must be expressly compared to the objective requirements of this Order (prescribed performance standards or measures) where they are provided or where they have been established in a Watershed Management Plan which has been approved by the Executive Officer or the Regional Board. The Principal Permittee is responsible for compiling and analyzing information where necessary to demonstrate compliance with the requirements of this Order.
 - F. Where a Watershed Management Plan has been approved, the responsible Co-permittees' report must include:
 - i. The status of completion of proposed structural treatment control BMPs.
 - ii. The status of implementation of non-structural BMPs.
 - iii. Information related to the validity of the reasonable assurance analysis performed in support of the Watershed Management Plan and any underlying assumptions and risks.
 - iv. The results of any monitoring undertaken to evaluate the impact of implementation of the Watershed Management Plan on receiving water quality.
 - G. Each Co-permittee must have an effective mechanism that solicits input from stakeholders in the development and implementation of the program effectiveness assessments.

XX. FISCAL ANALYSIS

- A. The Co-permittees must prepare and submit a unified fiscal analysis to the Executive Officer of the Regional Board. The analysis must conform to fiscal reporting guidance issued by USEPA when available. The analysis must be submitted with the Annual Progress Report (see Monitoring and Reporting Program No. R8-2015-0001) and, at a minimum, include:
1. An accounting of each Co-permittee's expenditures for the previous fiscal year;
 2. An accounting of each Co-permittee's budget for the current fiscal year;
 3. A description of the source of funds; AND
 4. Each Co-permittee's estimated budget for the next fiscal year.

XXI. PROVISIONS

- A. All reports that are submitted by the Co-permittees according to the requirements of this Order and which are subject to the approval of the Executive Officer will be publicly-noticed and made available at the Regional Board's web site or through other means. Noticed reports will be subject to public review and comment. The Executive Officer will consider all comments received prior to approval of the reports. Any unresolved, significant issues will be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.
- B. The Co-permittees must comply with the requirements of Monitoring and Reporting Program No. R8-2015-0001 ("MRP"), as amended or revised during the term of this Order. The MRP is hereby made a part of this Order. The requirements of the MRP are subject to revision under the direction of the Executive Officer.
1. Any proposed revisions to the MRP must be submitted in writing to the Executive Officer for approval.
 2. The Principal Permittee must provide public notice of any proposed revisions. The public notice must include direct notice given to potential and known interested stakeholders.
 3. The Executive Officer will provide a minimum of 30-days to interested parties to comment before approving any revisions.
 2. The Co-permittees must make available to the public the results of field and laboratory analyses performed on all samples collected pursuant to the MRP.
- C. The NPDES program requirements contained in 40CFR§122.21(a), (b), (d)(2), (f), (p), (h), (i), (j), (k), and (l); and 40CFR§122.42(c) are incorporated into this order by reference.
- D. The Co-permittees must report to the Executive Officer of the Regional Board

any known discharges of storm water or non-storm water which may have an impact on human health or the environment.

- E. The Co-permittees must report to the Executive Officer any suspected or known activities on federal, state, or other entity's land or facilities where the Co-Permittees do not have jurisdiction, where the activities may be contributing pollutants to waters of the U.S.

XXII. PERMIT MODIFICATION

- A. In accordance with 40CFR§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 state-wide water quality control plans adopted by the State Water Resources Control Board or any amendments to the Basin Plan approved by the Regional Board, the State Board, and, if necessary, by the Office of Administrative Law;
 - 3. To incorporate changes needed for consistency with standard provisions and precedential Orders adopted by the State Water Resources Control Board.
 - 4. 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
 - 5. To incorporate any requirements imposed upon the Co-permittees through the TMDL process.
- B. The filing of a request by the Co-permittees for modification, revocation, and reissuance or termination or a notification of planned changes or anticipated noncompliance does not stay any conditions of this Order.

XXIII. PERMIT EXPIRATION AND RENEWAL

- A. This Order will expire on MONTH DAY, 2019. The Co-permittees must file a report of waste discharge (permit application) no later than 180 days in advance of the expiration of this Order after which this Order may be administratively extended (40 CFR §122.6). The submittal of a report of waste discharge will constitute an application for issuance of new waste discharge requirements (40 CFR § 122.41(b)).
- B. All permit applications (reports of waste discharge), Annual Progress Reports, and other information submitted under this Order must 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 a National Pollutant Discharge Elimination System (NPDES) Permit pursuant to Section 402(p) of the Clean Water Act, or amendments thereto. This Order shall become effective ninety (90) days after the date of its adoption, provided that the Regional Administrator of the USEPA has no objections. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.
- D. Except for enforcement purposes, Order No. R8-2009-0030 is hereby withdrawn upon the effective date of this Order.

XXIV. STANDARD PROVISIONS

A. Duty to Comply

1. The Co-permittee(s) must comply with all of the conditions and provisions of this Order. Any noncompliance with the requirements of this Order constitutes a violation of the CWA and the CWC. Noncompliance is grounds for enforcement action and/or removal from Permit coverage.
2. Any failure to take appropriate corrective action(s) as specified in this Order or as directed by the Executive Officer is also a violation of this Order.
3. The Co-permittee(s) must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants. Compliance must be achieved within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement.

B. General Permit Actions

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standards or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the Co-permittees so notified.

C. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Co-permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

D. Duty to Mitigate

The Co-permittee(s) must take all responsible steps to minimize or prevent any discharge which has a reasonable likelihood of adversely

affecting human health or the environment.

E. Proper Operation and Maintenance

The Co-permittees must at all times properly operate and maintain any facilities and systems of treatment and control (and related equipment and apparatuses) which are installed or used by the Co-permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of back-up or auxiliary facilities or similar systems installed by a Co-permittee when necessary to achieve compliance with the conditions of this Permit.

F. Property Rights

This Permit does not convey any property rights or any sort of exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of Federal, State, or local laws or regulations.

G. Duty to Provide Information

The Co-permittees must provide to the Regional Board, State Board, or USEPA, within a reasonable time, any requested information to determine compliance with this Permit. The Co-permittees must also furnish, upon request, copies of records that are required to be kept by this Permit.

H. Inspection and Entry

1. The Co-permittees must allow Regional Board staff, State Board staff USEPA staff, or an authorized representative of the municipal operator of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Co-permittees premises at reasonable times where a regulated activity is being conducted or where records must be kept under the conditions of this Order;
 - b. Access and copy at reasonable times any records that must be kept under the conditions of this Order.
 - c. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; AND
 - d. Sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Clean Water Act or the Water Code, any substances or parameters at any location.

I. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.
2. Records of monitoring must include:

- a. The date, exact place, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The individual(s) who performed the analyses;
 - d. The analytical techniques or methods used; AND
 - e. The results of such analysis.
3. The Co-permittees must maintain a paper or electronic copy of all storm water monitoring information, copies of all reports (including the Annual Progress Reports), SWPPPs, and all other required records, including a copy of this Permit, for a period of at least five (5) years from the date generated or date submitted, whichever is later.

J. Electronic Signature and Certification Requirements

All Annual Progress Reports or other information required by this Permit or requested by the Regional Board, State Board, USEPA, or local storm water management agency must be certified and submitted by the Legally Responsible Person ("LRP") or the Duly Authorized Representative ("DAR").

K. Certification

Any person signing documents under Section XXIV.J. 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 information submitted is 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."

L. Anticipated Noncompliance

The Co-permittee(s) must give notice to the Regional Board and local storm water management agency of any planned changes in any municipal activity which may result in noncompliance with this Permit's requirements.

M. Penalties for Falsification of Reports

Section 309(4) of the CWA provides that any person who knowingly makes a false material statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years, or by both.

N. Oil and Hazardous Substance Liability

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Co-permittee(s) from any responsibilities, liabilities, or penalties to which the Co-permittee(s) is or may be subject to under Section 311 of the CWA.

O. Severability

The provisions of this Permit are severable; and, if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

P. Penalties for Violations of Permit Conditions

Section 309 of the CWA provided significant penalties for any person who violated a permit condition the implements Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any such section in a permit issued under section 401. Any person who violated any permit condition of this Permit is subject to civil penalty not to exceed \$37,500 per calendar day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties, which in some cases are greater than those under the CWA

Q. Transfers (not applicable)

R. Continuation of Expired Permit

1. This Permit continues in full force and effect until a new Permit is issued or the Regional Board rescinds this Permit.
2. Only those Co-permittees authorized to discharge under the expiring Permit are covered by the continued Permit.

S. Other Federal Requirements

All other requirements of 40 CFR § 122.41 and 40 CFR § 122.42 are incorporated into this Permit by reference.

ACRONYMS

ASBS Areas of Special Biological Significance

BMPs Best Management Practices

CCC Criterion Continuous Concentration

CCR California Code of Regulations (State Water Board regulations are in Title 23)

CEQA California Environmental Quality Act

CFR Code of Federal Regulations

CMC Criterion Maximum Concentration

CTR California Toxics Rule

CWA Clean Water Act

CWC California Water Code

DAMP Drainage Area Management Plan

DAR Duly Authorized Representative

DDT Dichlorodiphenyltrichloroethane

HCA Health Care Agency

LA Load Allocation

LID Low Impact Development

LIP Local Implementation Plan

LRP Legally Responsible Person

MOU Memorandum of Understanding

MPN Most Probable Number

MRP Monitoring and Reporting Program, R8-2015-0001

MS4 Municipal Separate Storm Sewer System

NPDES National Pollutant Discharge Elimination System

PCB Polychlorinated Biphenyl

PEA Program Effectiveness Assessment

POTW Publicly-Owned Treatment Works

QAPP Quality Assurance Project Plan

SARA Superfund Amendments and Reauthorization Act of 1986

SIC Standard Industrial Classification

SIP State Implementation Plan or, more formally, Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

SSO Sanitary Sewer Overflow

SWAMP Surface Water Ambient Monitoring Program

SWRCB State Water Resources Control Board

TDS Total Dissolved Solids

TMDL Total Maximum Daily Load

USEPA United States Environmental Protection Agency

WEF Water Environment Federation

WDID Waste Discharger Identification

WDR Waste Discharge Requirements

WLA Waste Load Allocation

WQBEL water quality-based effluent limit

WQMP Water Quality Management Plan

GLOSSARY

This Glossary has been prepared for the convenience of the reader. This Glossary is not an exhaustive catalog of terminology used in this Order. Additional terminology is defined in the Clean Water Act, USEPA regulations, and the California Water Code; all such terms not appearing below are incorporated into this Permit by reference.

Authorized non-Storm Water Discharges – Non-storm water discharges authorized pursuant to an NPDES permit. Authorized non-storm water includes: uncontaminated condensate from air conditioners, coolers, and compressors and from the outside storage of refrigerated gases or liquids; flows from riparian habitats and wetlands; passive footing and foundation drains or crawlspace pumps; non-commercial vehicle washing; de-chlorinated water from swimming pools; diverted stream flows; uncontaminated groundwater or spring water; discharges from emergency fire-fighting activities; and waters otherwise not containing waste.

Basin Plan – The Water Quality Control Plan for the Santa Ana River Basin (1995) and subsequent amendments.

Beneficial Uses – The 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 against 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 uses that were attained in the surface or groundwater on or after November 28, 1975; and potential beneficial uses are uses 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.

Best Management Practices (“BMPs”) – Also known as storm water control measures. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. 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 (40 CFR § 122.2).

Bioaccumulate – The progressive accumulation of contaminants in the tissues of organisms to a higher concentration than in the surrounding environment. Bioaccumulation may occur through any route, including respiration, ingestion, or direct contact with contaminated water, sediment, pore water, or dredged material. Bioaccumulation occurs with exposure and is independent of the trophic level of the organism.

Bioassessment – The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bio-assessment is the collection and analysis of samples of the benthic macro invertebrate community together with physical/habitat quality measurements associated with the sampling site and the watershed to evaluate the biological condition (i.e. biological integrity) of a water body.

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’.

Biotreatment Control BMP – A sub-category of structural treatment control BMPs that employ biological uptake, transformation, or degradation of pollutants as their principal mechanism(s) of pollutant removal. Although a significant portion of the design capture volume or flow will incidentally infiltrate, evaporate, or evapotranspire, the principal of operation involves the discharge of the treated storm water after detention in a densely-vegetated basin and after passing through porous, biologically-active medium, dense vegetation or both.

California Toxics Rule – Numeric water quality criteria for certain Priority Toxic Pollutants and other water quality standards provisions promulgated by the USEPA for waters in the state of California. The California Toxics Rule is found in 40 CFR § 131.

Clean Water Act Section 402(p) – The federal statute, codified at 33 USC 1342(p), requiring municipal and industrial Co-permittees to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d)-Listed Water Body – An impaired water body; a water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology-based pollution controls required by the CWA.

Construction Site – Any project, including projects requiring coverage under the General Construction Permit, that involves soil disturbing activities including, but not limited to, clearing, grading, disturbances to ground such as stockpiling, and excavation.

Contamination – 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 State (inclusive of waters of the U.S.) are affected. (California Water Code Section 13050(k))

Co-permittee(s) – Entities regulated under Order No. R8-2015-0001, inclusive of the Principle Co-permittee.

Criteria – The numeric values and the narrative standards that represent contaminant concentrations that are not to be exceeded in the receiving environmental media (surface water, groundwater, sediment) to protect beneficial uses.

Debris – Debris is defined as the remains of anything destroyed or broken, or accumulated loose fragments of rock.

Design Capture Flow – The calculated flow rate of storm water runoff, typically expressed as cubic feet per second (“cfs”), that must be treated in one or more structural treatment control BMPs according to the requirements of this Order.

Design Capture Volume – The calculated volume of storm water runoff, typically expressed in gallons or cubic feet, that must be treated in one or more structural treatment control BMPs according to the requirements of this Order.

Dry Weather – Weather in which there is no precipitation.

Duly Authorized Representative – All reports required by this permit, and other information by the Executive Officer shall be signed by the legally responsible party (“LRP”) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- The authorization is made electronically submitted by either a principal executive officer or ranking elected official;
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated activity such as a position of plant manager, superintendent, position of equal responsibility, or

an individual or position having overall responsibility for environmental matters for the municipality (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

- The written authorization is submitted to the Executive Officer.

Effluent – Any discharge of water either to the receiving water or beyond the property boundary controlled by the discharger.

Effluent Limit/Limitation – Means any restriction on quantities, discharge rates, and concentrations of pollutants which are discharged from point sources into Waters of the United States, waters of the “contiguous zone,” or the ocean. (40 CFR §122.2)

Emergency – A sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services (Public Resources Code Section 21060.3).

Environmentally Sensitive Area (“ESA”) – 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 (Public Resources Code Section 30107.5). These areas include, but are not limited to: water bodies designated with the RARE beneficial use in the Basin Plan (Water Quality Control Plan for the Santa Ana River Basin [1995] and amendments); an area designated in the Ocean Plan as an Area of Special Biological Significance; Marine Protected Areas designated as such pursuant to the Marine Life Protection Act; a water body listed as being impaired pursuant to CWA Section 303(d); areas designated as preserves or their equivalent under the Natural Communities Conservation Program (Multiple Species Habitat Conservation Plan, “MSHCP”) within the Cities and Counties of Orange, Riverside and San Bernardino; or any area designated as such by a public agency with designation powers.

Erosion – The process whereby material (such as sediment) is detached and entrained in water or air and can be transported to a different location. Chemical erosion involves materials that are dissolved and removed and transported.

Executive Officer – The Executive Officer of the Santa Ana Regional Water Quality Control Board or delegated staff.

Grading – The cutting and/or filling of the land surface to a desired slope or elevation.

Harvest and Use Low-Impact Development Best Management Practice (“Harvest
Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

and Use LID BMP”) – A sub-category of retention LID BMPs that uses harvest and use of the design capture volume or quantified portion thereof. The captured volume is typically used for non-potable uses such as toilet-flushing, industrial process supply, and landscape irrigation.

Hazardous Substance – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity; any substance designated under 40 CFR §116 pursuant to Section 311(b)(2) of the Clean Water Act (40 CFR § 122.2).

Hydrologic Condition of Concern (“HCOC”) – A condition of a stream or channel, or some reach thereof; or a condition of some other water body (e.g. a vernal pool), where its hydrology is, or is proposed to be, altered by past or future development such that there has been, or could be, cumulatively significant adverse impacts to the physical or biological integrity of the water body. A condition where a proposed development site discharges directly or indirectly to a water body where such conditions are known or suspected to exist based on Substantial Evidence.

Illicit Discharge – Any discharge to a municipal separate storm sewer that is not composed entirely of storm water. This does not include discharges that occur pursuant to an NPDES permit, other than the MS4 Permit, and discharges resulting from fire-fighting activities (40 CFR § 122.26(b)(2)).

Impaired Water Body – 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 water body must be listed under Section 303(d) of the CWA as an Impaired Water Body.

Impervious Surface – That part of a developed parcel that has been modified to reduce the land’s natural ability to absorb and hold rainfall. It includes hard surfaces which cause water to run off the surface in greater quantities or at an increased rate of flow from the flow that existed under natural conditions prior to development. For example, common impervious surfaces include, but are not limited to, rooftops, walkways, patios, courtyards, driveways, parking lots, storage areas, concrete or asphalt paving, gravel roads, or any cleared, graded, graveled, paved, or compacted surfaces, or other surfaces which similarly impede the natural infiltration of surface water into the soil.

Infiltration – The flow of water into the soil by crossing the soil surface.

Infiltration Low-Impact Development Best Management Practice (“Infiltration LID BMP”) – A type of retention LID BMP that employs infiltration at the principal mechanism for the loss of the design capture volume or quantified portion thereof.

Isopluvia – A line on a map drawn through geographical points having the same pluvial (rain, precipitation) index.

Land Disturbance – The clearing, grading, excavation, stockpiling, or other construction activity that results 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.

Legally Responsible Person (“LRP”) –For a municipality: a principal executive officer or ranking elected official. The LRP designates the duly authorized representative.

Load Allocations (“LA”) – Distribution or assignment of TMDL pollutant loads to entities or sources for existing and future nonpoint sources, including background loads.

Low-Impact Development (“LID”) – A storm water management and land development strategy 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-filter or detain runoff close to its source.

Maximum Extent Practicable (“MEP”) - refers to a 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 Co-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 Co-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.

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 be 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 based 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.”

Monitoring and Reporting Period – For purposes of this Order, the monitoring and reporting period is July 1 to June 30 with a reporting deadline of the following November 15th of each year for Annual Progress Reports.

Municipal Storm Water Conveyance System – (See Municipal Separate Storm Sewer System or MS4).

Municipal Separate Storm Sewer System (“MS4”) – A conveyance or system of conveyances designed to collect and/or transport urban runoff (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, 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; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR § 122.2 (40 CFR § 126.26(b)(8)).

Most Probable Number (“MPN”) – The most probable number (MPN) of coliform or fecal coliform bacteria per unit volume of a sample. It is expressed as the number of organisms which are most likely to have produced the laboratory results noted in a particular test.

National Pollutant Discharge Elimination System (“NPDES”) Permit – A national program under section 402 of the Clean Water Act for regulation of discharges of pollutants from point sources to waters of the United States. Discharges of pollutants are prohibited unless specifically exempted or authorized by an NPDES permit.

Non-Storm Water – Non-storm water consists of all discharges to and from a storm water conveyance system that do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water). Non-storm water includes illicit discharges, prohibited discharges, and NPDES permitted discharges.

Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

Nuisance – 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 (CWC Section 13050(m)).

Outfall - A *point source*, as defined by 40 CFR 122.2, at the point where an MS4 discharges to waters of the United States. An outfall does not include open conveyances connecting two municipal separate storm sewers. An outfall does not include 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)).

Party – Defined as an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof (40 CFR § 122.2).

Permit Area – Areas that are under the jurisdiction of the Santa Ana Regional Water Quality Control Board. These include north and northwestern portions of Orange County, north and western portions of Riverside County and western portions of San Bernardino County. See the Basin Plan for a detailed description of the Regional Board boundaries.

Permit Registration Documents (“PRDs”) – Include the Notice of Intent, Storm Water Pollution Prevention Plan, Site Map and the appropriate filing fee necessary to authorize a discharge under general waste discharge requirements.

Person – A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof (40 CFR § 122.2).

pH - An indicator of the acidity or alkalinity of water.

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, runoff from concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant – 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. It includes any type of industrial, municipal, and agricultural waste discharged into water. The term “pollutant” is defined in section 502(6) of the Clean Water Act as follows: “The term ‘pollutant’ means dredged spoil, solid waste, incinerator residue, sewage, garbage, Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.” It has also been interpreted to include water characteristics such as toxicity or acidity.

Pollution – The alteration of the quality of the Waters of the U.S. by waste, to a degree that unreasonably affects either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses. Pollution may include contamination (CWC Section 13050(l)).

Pollution Prevention – Practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

Principal Permittee – The County of Orange

Priority Toxic Pollutant – A pollutant identified in the California Toxics Rule.

Receiving Waters – Waters of the United States within the Permit area.

Receiving Water Limitations – Waste discharge requirements issued by the Regional Board typically include both: (1) “Effluent Limitations” (or “Discharge Limitations”) that specify the technology-based or water-quality-based effluent limitations; and (2) “Receiving Water Limitations” that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the “Receiving Water Limitations” provision is the provision 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.

Retention Low-Impact Development Best Management Practice (“Retention LID BMP”) – A sub-category of structural treatment control BMPs that employ retention of the design capture volume or a quantified portion thereof. The retained volume is infiltrated, evaporated, evapotranspired, or used (typically for non-potable uses).

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 can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic

plants.

Source Control and Site Design 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, industrial area sweeping, facility maintenance, detection and elimination of illegal and unauthorized discharges, 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 storm water and pollutants

Standard Industrial Classification (“SIC”) Code – 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 Industrial Activities Storm Water Permits.

State Implementation Plan (“SIP”) – Formally known as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The SIP implements the California Toxics Rule.

State Board – California State Water Resources Control Board

Storm Water – Storm water runoff, snowmelt runoff and surface runoff and drainage (40 CFR § 122.26(b)(13)).

Storm Water General Permits – General Permit-Industrial (State Board Order No. 97-03 DWQ, NPDES No. CAS000001), and General Permit-Construction (State Board Order No. 2009-0009-DWQ, NPDES No. CAS000002).

Structural treatment control BMPs – Any system designed and constructed according to published and generally-accepted engineering criteria to remove pollutants from urban runoff. Pollutants are removed by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption or any other physical, biological, or chemical process. In this Order, structural treatment control BMPs treat the design capture volume or flow or a portion thereof. They are classified as LID BMPs and non-LID BMPs. LID BMPs are further sub-classified into Retention LID BMPs and Biotreatment Control BMPs. All of these classes of structural treatment control BMPs are subject to general and specific requirements in this Order.

Substantial Evidence – Facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. Substantial Evidence does not include argument, speculation,

unsubstantiated opinion or narrative, or evidence which is clearly erroneous or inaccurate (Public Resources Code Section 21080(e)).

Storm Water Pollution Prevention Plan (“SWPPP”) – A plan developed to minimize and control the discharge of pollutants from the industrial site to storm water conveyance systems. The plan shall identify pollutant sources, control measures for each pollutant source, good housekeeping practices and employee training programs.

Total Dissolved Solids (“TDS”) – A measure of the total dissolved minerals in the water; the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR § 136 (40 CFR § 122.2)

Total Maximum Daily Load (“TMDL”) – The 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 Clean Water Act § 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).

Toxicity – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Turbidity – The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU)

Uncontaminated Groundwater – Groundwater that is not impaired by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease

Urban Runoff – Urban runoff is defined as all flows in a storm water conveyance system from urban areas which include residential, commercial, industrial, and

construction areas. Urban runoff consists of the following components: (1) storm water runoff and (2) authorized non-storm water discharges (See Section III of this Order). Urban runoff does not include runoff from undeveloped open space, feedlots, dairies, farms, and agricultural fields.

Waste – 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 (CWC Section 13050(d)). Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system which applies to solid and semi-solid waste which cannot be discharged directly or indirectly to water 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, nonhazardous solid waste, and inert waste.

Waste Discharge Requirements (“WDR”) – 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 uses the terms “permit” and “Order” to refer to Waste Discharge Requirements for discharges to Waters of the U.S.

Waste Load Allocations (“WLA”) – WLA is the distribution or assignment of pollutant loads to entities or sources for existing and future point sources according to a TMDL; the maximum quantity of pollutants a discharger 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.

Water Quality Assessment – An assessment conducted to evaluate the condition of water bodies which receive process wastewater, storm water and non-storm water discharges.

Water Quality Objective – The 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 – Consist of beneficial uses, water quality objectives to protect those uses, an anti-degradation policy, and policies for implementation. Water quality standards are found in Regional Water Quality Control Plans and statewide Attachment A. MS4 Permit vsn 8 0 (clean) (with section M and N edits_CICWQ)

water quality control plans. The USEPA has also adopted water quality criteria (the same as objectives) for California in the National Toxics Rule and California Toxics Rule.

Waters of the State – Any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code Section 13050(e)). Waters of the State includes waters of the United States.

Waters of the United States – Waters of the United States can be broadly defined as navigable surface waters and tributaries thereto. Groundwater is not considered to be Waters of the United States. 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, sand flats, “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 United States 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 United States 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 Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

Watershed – That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers; a drainage area, catchment, or river basin.

Wet Season – The period of October 1st through May 31st of each year, except where specifically defined otherwise in an approved TMDL Implementation Plan.