I. Introduction

A. Background

This document provides responses to the third round of written comments received on Tentative Order No. R9-2008-0001. A second revised Tentative Order was distributed on December 12, 2007, following review of comments on a revised Tentative Order that was distributed on July 6, 2007. The original Tentative Order was distributed on February 9, 2007. This document summarizes and responds to written comments received between December 11, 2007 and February 8, 2008 on the second revised Tentative Order. Two previous responses to comments documents (RTC I and RTC II) have addressed comments from the prior comment periods.

B. Contents of This Document

Every written comment received has been reviewed and considered. Responses are provided within this document for substantive comments and are abbreviated for comments that have been previously addressed in RTC I and RTC II. Nine commenters provided written comments during the third written comment period (December 11, 2007 through January 24, 2008), and two others subsequently submitted comments (Table 1).

Few comments responded to revisions incorporated in the December 2007 second revised Tentative Order. Most comments reiterated concerns that were previously addressed in RTC 1 and RTC II. New responses have not been drafted for repeat comments that lacked sufficient new information. Other comments reiterated previous concerns and provided additional supporting material. The new material, however, generally did not sufficiently refute the factors supporting the requirements within the December 12, 2007 second Revised Tentative Order and resulted in no substantive changes. In a few instances, consideration of these comments has resulted in proposed revisions to clarify the requirements in the Tentative Order. The California Regional Water Quality Control Board, San Diego Region (Regional Board) is scheduled to consider adoption of the Tentative Order on February 13, 2008.
In this document, the comments have been summarized and paraphrased. When comments received from one commenter were similar to other comments received, those comments have been grouped in order to minimize redundancy.

**Table 1**  
Organizations providing written comments on the December, 12 2007 second Revised Tentative Order No. R9-2008-0001 (formerly identified as No. R9-2007-0002)

<table>
<thead>
<tr>
<th>Organization</th>
<th>Support Organization</th>
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<tbody>
<tr>
<td>Building Industry Association of Orange County and Building Industry Legal Defense Foundation</td>
<td>County of Orange&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>City of Dana Point</td>
<td>Natural Resources Defense Council and Defend the Bay</td>
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<tr>
<td>City of Laguna Beach</td>
<td>Orange County Coastkeeper&lt;sup&gt;c&lt;/sup&gt;</td>
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<tr>
<td>City of Laguna Hills</td>
<td>Rancho Mission Viejo</td>
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<tr>
<td>Construction Industry Coalition on Water Quality&lt;sup&gt;a&lt;/sup&gt;</td>
<td>South Laguna Civic Association&lt;sup&gt;d&lt;/sup&gt;</td>
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<tr>
<td>Contech Stormwater Solutions, Inc.</td>
<td>U.S. Environmental Protection Agency</td>
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<sup>a</sup> CICWQ provided technical documents to support comments submitted by the Building Industry Association. Additional comments were not provided.

<sup>b</sup> Comments submitted by the County of Orange are supported by the Cities of Aliso Viejo, Dana Point, Laguna Beach, Laguna Niguel, Laguna Woods, Laguna Hills, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, and San Clemente.

<sup>c</sup> Coastkeeper’s written comment supported the letter from NRDC. Additional comments were not provided.

<sup>d</sup> The South Laguna Civic Association provided comments in November 2007, ahead of the second Revised Tentative Order, but past the date for consideration in the Response to Comments II document.
II. Responses to Comments

A. General Comments

1. The Tentative Order Exceeds Federal Law


Comment: Several commenters reiterated concerns that various aspects of the Revised Tentative Order exceed the requirements outlined in the Clean Water Act (CWA) and as a result, they assert that the Tentative Order imposes unfunded mandates on local governments.

Response: These comments largely repeat earlier comments. These arguments have previously been responded to in RTC I, Response No. 5; RTC II, Response Nos. 1 and 9. Section 13263 of the California Water Code (CWC) provides that in prescribing waste discharge requirements, the Regional Water Board must consider the facts in CWC section 13241. Section 13263 does not require a consideration of Section 13241 factors unless the requirements exceed federal requirements. The provisions in the Tentative Order are necessary to meet the requirements of Clean Water Act section 402(p). No changes are proposed in response to this comment.

2. The Tentative Order Imposes Unfunded Mandates


Comment: As in earlier comments, several commenters assert that the Tentative Order imposes requirements that exceed requirements outlined in the Clean Water Act (CWA) and therefore the Tentative Order imposes unfunded mandates upon local governments.

Response: These comments, including comments concerning specific elements of the Revised Tentative Order, were previously considered and addressed in developing the Revised Tentative Order and responding to previous comments. As indicated in RTC II, Section II.1., Finding E.6 and related Fact Sheet sections have been revised. Comments specific to revised Finding E.6 and related changes to the Revised Fact Sheet are adequately addressed by the Fact Sheet and no further changes to Finding E.6 or the related Fact Sheet sections are proposed in response to these comments.

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1 Clean Water Act in this document refers to the Federal Water Pollution Control Act, as amended.
3. The Tentative Order Fails to Consider the Balancing Factors in Water Code Section 13241, Fails to Include Cost-Benefit Analysis Pursuant to Water Code Sections 13241 and 13263 and Fails to Demonstrate that Federal Law Preempts the Water Code Section 13241 Balancing Factors

Commenters: City of Dana Point, Building Industry Association of Orange County/Building Industry Legal Defense Foundation

Comment: The commenters repeat their concerns that the Regional Board failed to appropriately consider the factors outlined in California Water Code section 13241. The City of Dana Point asserts that the Tentative Order lacks a necessary cost-benefit analysis required by California Water Code (CWC) sections 13241 and 13263. The Building Industry Association of Orange County/Building Industry Legal Defense Foundation assert that the Tentative Order is required to consider the factors in CWC Section 13241 because it has the discretion to do so under CWC section 13772. The Building Industry Association of Orange County/Building Industry Legal Defense Foundation also asserts that the Regional Board must demonstrate that federal law preempts CWC Section 13241.

Response: Previous responses to comments and the Revised Fact Sheet address these issues and show that the requirements in the Tentative Order do not exceed federal law. See RTC I, Response No. 5; RTC II, Response Nos. 1 and 9. In addition, to the extent economic information was submitted, the Regional Board staff considered economic considerations in developing elements of the Tentative Order, but the Regional Board is not required to conduct a cost-benefit analysis. No changes have been made in response to this comment.

4. The Tentative Order Must Include a Cost-Benefit Analysis under Water Code Sections 13225 and 13267

Commenter: City of Dana Point

Comment: The commenter asserts that the Tentative Order lacks a cost-benefit analysis required by Water Code sections 13267 and 13225 and therefore the monitoring and reporting requirements in the Tentative Order are void.

Response: The monitoring and reporting requirements are imposed pursuant to authority in California Water Code (CWC) Sections 13267 and 13383 (Note: Through errata, the Tentative Order is revised to include reference to the authority contained in Section 13383). Although the commenter references several provisions purportedly requiring economic consideration, the commenter relies in part on CWC section 13225(c) for the proposition that a cost-benefit analysis is required to support monitoring and reporting requirements in the Tentative Order.

California Water Code Section 13225 does not govern the issuance of this permit. Section 13225 appears in Article 2 (General Provisions Relating to Powers and Duties of Regional Board) of Chapter 4 (Regional Water Quality Control) of the Porter Cologne Act. Section 13225 empowers the Regional Board to require local agencies to report on “technical factors involved in water quality control.” (Wat. Code, § 13225.) This authority is a general authority that the Regional Board can use outside the context of a specific investigation or waste discharge requirements as part of the Regional Board’s responsibilities to assess water quality and to develop water quality control strategies for the region.
The Regional Board relies on the authority of CWC Sections 13267 and 13383 to require monitoring and reporting requirements. CWC Section 13267, subdivision (b), does not require a cost-benefit analysis, but requires the regional board to provide a written explanation of the need for monitoring reports, to identify the evidence that supports requiring the person to provide the reports. Under this section, the “burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports.”

California Water Code Section 13383 (within Chapter 5.5 of the Porter-Cologne Act), also authorizes the Regional Board to impose monitoring and reporting requirements for Municipal Separate Storm Sewer System (MS4) permits. Section 13383(a) provides in part that “[t]he state board or a regional board may establish monitoring, inspection, entry, reporting, and recordkeeping requirements . . . for any person who discharges, or proposes to discharge, to navigable waters,... “

As with Section 13267, Section 13383 does not require a cost-benefit analysis, nor does it require that the Regional Board provide a written explanation with regard to the need and benefits to be gained from the requirements relative to the burden of complying with the requirement. The federal regulations governing Part 2, application contents, require multiple proposed monitoring programs, management programs and other similar program. (See, e.g., 40 C.F.R. Part 122.26(d)(2)(i)-(v).) To the extent that monitoring and reporting programs are required by federal regulations, any purported need under State law alone to perform a cost-benefit analysis is inapplicable.

In any case, the Regional Board staff has considered economic considerations in developing this Tentative Order. The Tentative Order and Revised Fact Sheet consider economic considerations and the need for monitoring and reporting in order to evaluate whether the Copermittees are achieving compliance with the Tentative Order. Moreover, the monitoring and reporting requirements are consistent with similar requirements in the current MS4 permit as well as the recently adopted MS4 permit for San Diego County (R9-2007-001) which supports the reasonableness of the requirements.

5. Copermittees Cannot Passively Receive and Discharge Pollutants from Third Parties

Commenter: City of Dana Point

Comment: The commenter objects to Finding D.3.d that states that copermittees cannot passively receive and discharge pollutants from third parties and assert this is a requirement that exceeds federal law.

Response: The commenter appears to believe that the Tentative Order is imposing a requirement that prohibits municipalities from passively receiving pollutants from third parties. Instead the Tentative Order is making a finding informed by federal regulations. This comment was responded to in RTC I, Response No. 2. No changes to the Tentative Order are made in response to this comment.
6. The Tentative Order Improperly Shifts the Obligation to Regulate Construction and Industrial Sites and Infringes on Municipalities’ Exercise of Enforcement Discretion

Commenters: City of Dana Point, Building Industry Association of Orange County/Building Industry Legal Defense Foundation

Comment: The commenters assert that the Tentative Order mandates detailed enforcement requirements relative to construction, commercial and industrial sites that is supposed to be performed by the State Water Board under its regulatory authority. They assert these provisions shift State responsibilities to local entities and are therefore mandates that must be funded.

Response: The commenters largely reiterate comments that have been responded to in earlier Response to Comments I, Response 2. No changes have been made to the Tentative Order in response to these comments.

Comment: The City of Dana Point comments that multiple provisions in the Tentative Order amount to unfunded mandates but also mandate prosecution of certain activities associated with discharges to MS4s.

Response: As set forth in the federal regulations at 40 C.F.R. Part 122.26(d)(2)(i), copermittees are required to include a demonstration of adequate legal authority to authorize or enable them to carry out minimum legal authorities. Consistent with these requirements, the Tentative Order requires Copermittees to adopt adequate legal authority to control pollutant discharges into and from its MS4 and to implement such authorities as necessary to achieve compliance with the Tentative Order. No changes have been made to the Tentative Order in response to these comments.

7. The Tentative Order Dictates the Manner of Compliance

Commenter: City of Dana Point, Building Industry Association of Orange County/Building Industry Legal Defense Foundation

Comment: The commenter reiterates arguments that the Tentative Order improperly dictates the methods of compliance in violation of California Water Code (CWC) section 13360. For example, the commenter asserts that CWC section 13360 prevents the Regional Board from imposing requirements on enforcement at industrial, commercial and construction sites. The commenter states that the Tentative Permit unlawfully includes provisions in the JURMP, SUSMP, and low-impact development site design provisions that contain detailed means by which cities must comply with the Tentative Order and detailed requirements on what construction, commercial and industrial programs must be adopted and how they are to be implemented.

Response: The issue of prescribing the manner of compliance and the relationship to the MEP standard was previously addressed in RTC 1, Response No. 6. In addition, it should be noted that the federal statutes and regulations authorize the permitting agency to specify the practices and requirements that will result in compliance with federal law. (Environmental Defense Center v. EPA, 344 F.3d 832 (9th Cir. 2003).) No changes have been made in response to this comment.
8. Responsibility for Naturally Occurring Pollutants
Commenter: City of Dana Point

Comment: The commenter asserts that the Tentative Permit improperly holds cities responsible for non-anthropogenic sources of pollutants, essentially imposing liability on cities for naturally occurring pollutants.

Response: This comment was previously addressed in RTC II, Response No. 12. No further changes are made to the Tentative Permit in response to this comment.

9. The Tentative Order Improperly Delegates the Development of Permit Requirements
Commenters: Rancho Mission Viejo, Building Industry Association of Orange County/Building Industry Legal Defense Foundation

Comment: The commenters assert that substantive standards for Copermittee compliance with the Tentative Order must be subject to a public hearing under the California Administrative Procedures Act and have been improperly delegated to others. The commenters assert that public review of the development of criteria for SUSMPs/WQMPs at the local level is inadequate because the substantive criteria will take effect as part of the Tentative Order.

Response: These comments were addressed in RTC II, Response No. 20. Public participation at the local level is an important part of the process of developing criteria for management plans. The Regional Board is not foreclosed from later deciding it is appropriate to hold public hearings on the incorporation of detailed criteria into copermittee management plans.

10. The Tentative Order’s SUSMP and LID Provisions Unlawfully Remove Dana Point’s Discretion to Review Projects Under CEQA
Commenter: City of Dana Point

Comment: The City of Dana Point comments that the Tentative Order’s provisions contradict the discretion afforded to local entities by the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.). The City asserts that the Tentative Permit’s provisions regarding Development Planning and Construction mandate adoption of ordinances which conflict with existing State CEQA law and are preempted. The Tentative Permit’s components directly conflict with CEQA and are an unlawful attempt to direct how a local agency is to approve a project under CEQA. The Tentative Order eliminates a local agency’s discretion to consider and approve feasible alternative mitigation measures.

Response: The City of Dana Point appears to generally object to all of the Development Planning and Construction provisions in the Tentative Order, set forth at sections D.1.a through .h and D.2.F. of the Tentative Order. Absent greater specificity in the comment, it is difficult to discern precisely how these provisions directly conflict with requirements of CEQA. Within the sections to which the City objects are provisions requiring that the Copermittees revise their General Plans, as needed to provide effective water quality and watershed protection principles and policies that direct land use decisions (see Section D.1.a.) and requiring that each Copermittee revise “as needed its current environmental review processes to accurately evaluate water quality impacts and cumulative impacts and identify appropriate measure to avoid, minimize and mitigate those impacts for all Development Projects.” (See Section D.1.b.)

11. The Tentative Order Violates State Laws Because It Is Too Lenient  
*Commenter: South Laguna Civic Association*

Comment: The South Laguna Civic Association asserts that the Tentative Order is inappropriate and improper in that it violates laws and regulations pertaining to enforcement of Cleanup and Abatement Orders in California Water Code (CWC) section 13304, the State’s Water Quality Enforcement Policy, and the Porter-Cologne Clean Water Act. Further, it constitutes a discriminatory Environmental Justice violation. Further, the commenter recommends that the Regional Board issue a Cleanup and Abatement Order aimed at numerical reductions of contaminated flow.

Response: The Tentative Order implements the federal NPDES requirements. It is not an enforcement action. The Regional Board will take appropriate enforcement actions if the requirements are violated. The comment pertaining to environmental justice is unfounded.

12. The Regional Board Should Issue Enforcement Pertaining to Dry-Weather Discharges  
*Commenter: South Laguna Civic Association*

Comment: The South Laguna Civic Association asserts that MS4 discharges from the Co-permittees are creating and perpetuating a public nuisance because the discharges accumulate and pollute coastal aquatic resources. Therefore, the Regional Board should take prompt enforcement actions. In addition, the commenter provides suggestions for specific intervention actions by Regional Board.

Response: As noted above, the Tentative Order establishes requirements. It is not an enforcement action. Therefore, the comment is misplaced. The Regional Board agrees, however, that dry-weather discharges can cause or contribute to conditions of pollution and nuisance. As a result, the Tentative Order includes provisions for reducing the adverse effects of problematic dry-weather flows. The iterative approach in Section A.3. will be the primary tool for ensuring that problematic dry-weather discharges receive appropriate attention.
B. Comments on Requirements within the Tentative Order

13. **Low-impact Development (LID)**

Commenters: U.S. Environmental Protection Agency (USEPA), Natural Resources Defense Council / Defend the Bay (NRDC/DB), Orange County Coastkeeper, South Laguna Civic Association

Comment: Both the USEPA and NRDC/DB recommend that the Tentative Order be revised to put more emphasis on LID. Both cite concerns that LID is only distinguished within Section D.1.d.8, which allows the Copermittees to develop a LID site design BMP substitution program that would allow a priority development project to substitute implementation of a high level of site design BMPs for implementation of some or all treatment control BMPs.

To increase the emphasis on LID in the permit, USEPA recommended that the permit include provisions similar to Part 5.E.III.2 of the August 28, 2007 draft MS4 permit for Ventura County proposed by the Los Angeles Regional Water Board (NPDES permit No. CAS004002), which specifically requires that LID be woven into the design of specified new development and redevelopment projects.

Response: The concerns are unwarranted. The cited section is specifically for a process to use LID to reduce the requirements for treatment control. The Tentative Order does emphasize LID throughout Section D (Development Component). Section D.1.c, D.1.d and D.1.h directly incorporate LID measures under the requirements for site design best management practices (BMPs). However, minor modifications are proposed in the errata to clarify the importance of LID.

LID is a planning strategy developed to enable planners to use hydrologic cycle principles to match pre-development hydrology or meet particular (e.g., regulatory or planning) watershed or resource goals. Site design BMPs are part of the generally recognized approach to successful implementation of the LID strategy. As such, the Tentative Order requires LID site design BMPs be considered as a primary tool in storm water management.

For instance, the Tentative Order requires site design BMPs to be implemented at every development and redevelopment site where their application is feasible (Section D.1.c.2). Site design BMPs are also required to be implemented at every priority development project (Section D.1.d.4). Most importantly, site design BMPs are also required to be the first step in addressing hydromodification (Section D.1.h.3.b).

The Tentative Order is similar to the cited provisions within the MS4 Permit proposed for Ventura County. For instance, the Tentative Order clearly requires LID in Standard Urban Storm Water Mitigation Plan (SUSMP) projects (Section D.1.d.4), but had not previously used the phrase “LID.” Although the tentative Order does not require a guidance manual like the proposed Ventura Permit, it does require the Copermittees to develop siting, design, and maintenance criteria for site design BMPs and LID techniques (Section D.1.d.9) in their local SUSMPS. Finally, as in the Ventura draft permit, the Orange County Tentative Order requires training and education for site design BMPs (Section D.1.i.), but it does not specify the associated content to the same degree.
As noted in a recent report prepared for the State Water Board by the Low Impact Development Center, one problem is that site design, source control, and pollution prevention are often “added-on” options to traditional end-of-pipe controls that preserve the centralized collection and treatment system of control. The Tentative Order appropriately addresses this issue by requiring that site design BMP be considered foremost in storm water management plans.

14. Improve the Precision of Vague Requirements for Site Design BMPs

Commenters: U.S. Environmental Protection Agency (USEPA)

Comment: USEPA expressed concerns about the site design BMP requirements in Sections D.1.d.4.b.ii and iii that have requirements for "a portion" of impervious areas, and walkways and trails, etc. USEPA notes the term "a portion" is vague and recommends LID provisions similar to the draft Ventura County permit where more precise requirements would be developed.

Response: Presumably, the comment refers to the provision in the draft Ventura County permit which requires SUSMP projects to limit the percentage of effective impervious area (EIA) to less than five percent of total project area. The tentative Orange County permit does not include a numeric criterion for impervious area, as described below in Response to Comment No. 16.

Nonetheless, proposed revisions in the errata would replace the phrase “a portion…” with reference to the maximum extent practicable (MEP). It is anticipated that MEP would be evaluated using the criteria that is required to be developed for site design BMPs in Section D.1.d.9. That section requires the Copemittees to develop criteria for design and applicability of the site design BMPs in their Water Quality Management Plan (WQMP). This approach incorporates the widespread recognition that there may be limits in the extent to which various LID site design approaches may be suitable for particular sites.

15. Site Design and Low-impact Development Provisions are Vague and Indefinite

Commenters: NRDC/DB, South Laguna Civic Association, Orange County Coastkeeper

Comment: NRDC/DB asserts, and other commenters agree, that the site design BMP requirements lack specificity, rendering them inappropriate for an MS4 Permit. For instance, they object to requirements to apply certain BMPs “where applicable and feasible” because such provisions fail to adequately articulate the acts required. Similarly, they contend that such open-ended provisions are inappropriate on grounds that they escape assessment by the Regional Board because its unclear what actions are required. Further, they assert that USEPA guidance requires that measurable goals be included for each BMP to be implemented. Finally, they suggest that such provisions conditioning action based on “feasibility,” or “minimize,” fail to make certain that water quality standards will be met.

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3 For example, see USEPA 2000. Low Impact Development (LID): A Literature Review. EPA-841-B-00-005.
Response: The Tentative Order does establish clear requirements for evaluation and implementation of site design BMPs (e.g., Sections D.1.c, D.1.d, D.1.h). The responsibility to apply particular site design BMPs to particular projects is appropriately placed upon the municipalities. To ensure site design BMPs are appropriately applied, the Tentative Order includes specific requirements for the considerations that must take place, and further, requires the municipalities to develop specific criteria by which “feasibility” and “applicability” will be assessed. It is not necessary, nor desirable, for the Regional Board to review and approve each practice and procedure used or required by the municipalities. Rather, the Regional Board, when considering adoption of the Tentative Order, establishes requirements for both specific control measures (such as inspections) and the practices, procedures, and activities that ensure BMPs will be implemented to the MEP.

16. Establishing a specific numerical threshold for impervious surfaces

Commenters: NRDC/DB, South Laguna Civic Association

Comment: Commenters recommend that in order to meet the MEP standard and water quality standards, the permit should adopt three percent (3%) maximum allowable effective impervious area in all priority development projects. NRDC/DB restate comments previously submitted and provide additional supporting documents to support the recommendation.

Response: The Regional Board appreciates and is encouraged by the direction of the investigations by Dr. Horner, SCCWRP, and others cited by the commenters. However, it is inappropriate at this time to include a three percent threshold for total or effective impervious area in the Orange County Tentative Order.

The Tentative Order’s approach to LID and hydromodification is more appropriate than establishing a numeric impervious threshold. It will ensure that LID and appropriate hydromodification controls are implemented and it provides for appropriate site-specific considerations. Further, it places the emphasis on the conditions of receiving waters. Moreover, it is tailored to specifically address existing impairments and modifications, rather than only preventing new problems.

Hydromodification is caused by changes in land cover. While numerous studies have found relationships between imperviousness and stream degradation, focusing on changes to impervious cover risks over-simplifying the matter in a way that may not achieve the desired results of protecting and improving conditions within receiving waters. Hydromodification effects are driven by numerous factors including, but not limited to, land terrain, soil characteristics, precipitation patterns, runoff patterns, conditions of the receiving waters, land uses, and degree of proposed changes affecting the hydrologic cycle of a site. As a result, site specific considerations are especially important when determining appropriate levels of hydromodification control, whether through site design and/or additional control measures.
Changes in land cover alter the conversion of precipitation to runoff, which is the essence of hydrology-induced hydromodification. These could include changes that maintain pervious areas, but change a site’s runoff and transport characteristics. Changes in soil density via compacted soils, changes in vegetation types such as conversion of trees to turf, changes in landform contours such as creating large manufactured slopes in areas once having more topographic complexity, are a few examples where percent imperviousness is unchanged, but the drainage area must be considered hydrologically modified. Such activities are common in south Orange County, particularly in areas affected by landslides. Therefore, assessments of imperviousness may miss important design features that affect runoff patterns.

17. Requirements Must Include Objective Performance Standards, Particularly for Site Design and Hydromodification

Commenters: NRDC/DB

Comment: NRDC/DB recommends that objective performance standards be included in the MS4 requirements for site design and hydromodification BMPs.

Response: For reasons cited above, establishing numeric standards for site design BMPs is problematic at this point. However performance standards are included for interim hydromodification controls at large projects. One measurable goal within the Tentative Order is to have 100 percent of projects appropriately conditioned by the municipality to include LID site design BMPs and hydromodification controls using a sound project review process to determine feasibility. Other measurable goals include the development of criteria to determine feasibility of site design and treatment BMPs, as well as for the design and maintenance of them. The use of numeric and narrative measurable goals is consistent with USEPA guidance.

The Tentative Order does require numeric criteria be developed and implemented for hydromodification control (Section D.1.h), but recognizes that there are many approaches to control hydromodification. Examples of metrics for hydromodification control include hydrograph matching, effective (or total) impervious area, flow duration control, volume control, and erosion potential. Section D.1.h.4 requires that numeric criteria be developed following a logical and scientifically-defensible process. It neither requires a specific numeric criterion, nor requires the use of a specific technique. Rather, the Tentative Order allows the Copermittees to develop criteria ensuring that local studies and factors are the foundation for the criteria.

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4 Other hydromodification effects derive from physical changes to the stream channel and also its relationship to the floodplain. For example, disconnecting a channel from its floodplain through levees or confining the active channel through hardscaping can severely affect the flow regime within and downstream of the subject channel.


Moreover, the Tentative Order appropriately recognizes that LID and hydromodification control criteria could reasonably differ between newly developing areas and redevelopment in urbanized areas. This approach is consistent with the State Water Board LID report, USEPA guidance, and numerous other studies.

18. Failing to Include LID and Hydromodification Provisions That Are Required in Other Permits

Commenters: NRDC/DB

Comment: NRDC/DB contend that failing to include LID and Hydromodification provisions that are required in other permits, without explanation, is a failure to meet MEP. They specifically cite examples in the San Diego MS4 Permit (Regional Board Order No. R9-2007-0001).

Response: All requirements within the San Diego MS4 Permit were considered when developing the Tentative Order for Orange County. Determining which requirements to include, modify, or not include were based on factors outlined in the USEPA guidance for reissuing MS4 Permits.

One important factor considered when developing the tentative requirements for LID and hydromodification was the permit application package from the Copermittees. With respect to LID and hydromodification, the application from Orange County was more fully developed than that from the San Diego County copermittees, thus the Tentative Order could focus on fine-tuning, rather than constructing, related requirements. For instance, the process for requiring site design BMPs in development projects was generally well planned and documented. However, it did lack any guidance for determining the applicability and feasibility of site design BMPs. As a result, a requirement to do so was included in the Tentative Order. Further, the Orange County Copermittees committed to developing criteria for LID site design in their permit application.

Similarly, the permit application package recognized the need to address hydromodification and the physical alteration of stream channels because the monitoring program had made the connection between poor physical habitat and low quality biotic habitat. The sophistication exhibited within the Permit application package for the connection between hydromodification and receiving water condition lessens the risk that inappropriate hydromodification controls would be developed. Therefore, it is appropriate for the Regional Board to establish process-based requirements for updating SUSMPs in lieu of requiring formal review of a draft model program as was written into the San Diego Permit.

Additionally, it should be noted that in some cases cited in the NRDC/DB comment letter, the actual requirements in the two Permits are similar and even strengthened for clarity in the Tentative Order for Orange County.

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8 Federal Register / Vol. 61, No. 155 / Friday, August 9, 1996 / Rules and Regulations. Interpretive policy memorandum on reapplication requirements for MS4s.
Finally, another important factor in considering LID, hydromodification, and other permit requirements is necessarily the local conditions of both the programs and urban runoff issues that form the context for the programs. MS4 permits must be tailored to the permits’ areas. The emphasis within and among program components rightly varies between the San Diego and tentative Orange County requirements. The important factor is not whether one permit’s requirements are omitted in another’s, but rather the justification for the requirements themselves. And, that justification is strongly determined by the factors specific to the singular permit area.

19. **Incorporating Future Research into Hydromodification Criteria (Section D.1.h.4)**


Comment: Commenters express concern that the studies cited in Section D.1.h.4 upon which the future hydromodification criteria would be based have yet to be completed and are not available for public review at this time. To ensure adequate public participation, they recommend that the Regional Board solicit public comment and formally review and approve the criteria developed by the Copermittees in a public setting.

Response: The reference to specific studies by the Stormwater Monitoring Coalition and Southern California Coastal Waters Research Program are proposed to be deleted and replaced with requirements to consider local studies. It is important for hydromodification criteria to be based on studies conducted in the local region because factors such as terrains, soil types, channel morphology, hydrology, etc. strongly influence the effects of hydromodification. The Tentative Order contains requirements for a process to ensure that the Copermittees develop and implement appropriate hydromodification criteria. If the process outlined in the Tentative Order is followed, the resulting criteria will be appropriate. If the process is not followed, then the Copermittees will be subject to enforcement actions. This is similar to how appropriate BMPs are often selected at the local level, provided their selection conforms to the criteria outlined in MS4 permits. For that reason, intermediate review and/or approval of a model hydromodification control program by the Regional Board is not necessary. In addition, Section D.5 of the Tentative Order requires that each Copermittee must incorporate a mechanism for public participation in the updating, development, and implementation of the Jurisdictional Urban Runoff Management Program.

20. **Hydromodification Control Waiver Provisions (Section D.1.h.3.c.i)**

Commenters: Building Industry Association of Orange County / Building Industry Legal Defense Foundation

Comment: Representatives from the building industry repeat their concerns with the tentative requirements under which waivers for hydromodification controls may be issued (Section D.1.h.3.c). Comments highlight three concerns with the metric: (1) focusing on total impervious cover at a site is “myopic,” partly because it ignores the conditions of the receiving water; (2) criteria should rely on “effective,” rather than “total,” imperviousness; and (3) deferring development of a criterion to published reports by specific third-parties in Section D.1.h.3.c.i is improper. Commenters also recommend additional revisions to the criterion used for the metric, specifically that waivers should be based on consideration of the overall imperviousness, rather than the net change in impervious area caused by a project.
Response: The Tentative Order does allow Permittees to develop waiver criteria based on effective, rather than total, impervious area. It does not require a waiver program to be established, but it does set some criteria by which the waiver program would be expected to ensure protection of receiving waters if total imperviousness is the metric selected by a municipality. The Tentative Order states that “Copermittees may develop a strategy for waiving hydromodification requirements for on-site controls (not site design BMPs) in situations where assessments of downstream channel conditions and proposed discharge hydrology clearly indicate that adverse hydromodification effects to present and future beneficial uses are unlikely” (Section D.1.h.c.3).

Section D.1.h.3.c.i establishes the criteria by which waivers may be granted based on consideration of proposed on-site hydrological changes. The following subsection (Section D.1.h.3.c.ii) establishes criteria for when waivers may be granted based on the condition of the receiving waters. Ultimately, the criteria developed per Section D.1.h.4 will establish a more precise assessment and implementation of hydromodification controls.

Similarly, contrary to the implication in the comment, Section D.1.h.3.c does not require that findings from the SMC/SCCWRP studies be used. Instead, it allows the use of local studies, which is entirely reasonable given that measures selected by municipalities should be based on scientific literature.

Finally, the Tentative Order provides reasonable flexibility for the development of waiver criteria. However, a revision is recommended in the errata based on the comment to revise the numeric criteria in Section D.1.h.3.c.i to focus on a site’s imperviousness, rather than the net change caused by the project.

21. One-acre Threshold for SUSMP Requirements
Commenters: U.S. Environmental Protection Agency (USEPA)

Comment: USEPA recommends that the SUSMP requirements apply to all new projects disturbing one or more acres. USEPA notes that its Phase II stormwater regulations at 40 CFR 122.34(b)(5) require post-construction BMPs for all new developments and significant redevelopments disturbing one or more acres. As a Phase I permit, the requirements for Orange County should be no less stringent.

Response: The tentative Order does establish a one-acre trigger for SUSMPs within 3 years of adoption (Section D.1.d.1.c).

22. Clarify “Enhanced” BMPs
Commenters: USEPA

Comment: USEPA recommends clarifying the term “enhanced BMPs” as used in Section D.2.d.1.c and elsewhere for discharges to 303(d) water bodies and environmentally sensitive areas. USEPA also wanted to ensure the Tentative Order requires the enhanced BMP approach for all impaired water bodies.

Response: As used in the Tentative Order, “enhanced BMPs” means control actions specifically tailored to the condition of concern that are expected to be more capable of addressing the condition of concern than are the minimum required BMPs in a municipality. The Tentative Order does require enhanced BMPs for all applicable discharges into impaired water bodies. A footnote is proposed to clarify the meaning of “enhanced.”
23. Replace Revised Language for Treatment Control BMPs and Allow for In-stream BMPs in Unvegetated Waters

Commenters: Rancho Mission Viejo, Building Industry Association of Orange County / Building Industry Legal Defense Foundation

Comment: Commenters opposes the revision to Section D.1.d.6.c that calls for the treatment BMPs to “remove” pollutants rather than the previous language to “infiltrate, filter, or treat” pollutants. The commenters are specifically concerned that the requirement implies that all pollutants must be removed, rather than just the amount necessary to comply with water quality standards. One commenter recommends the word “reduce” rather than “remove,” in order to be consistent with federal statute (33USC §1342p.e.B.iii). Another commenter recommends changing the language to be consistent with Finding E.7 that alludes to the protection of values and functions of a water body, and then suggests that ephemeral and intermittent streams be used as treatment BMPs when they are dry because they presumably lack aquatic values and functions.

Response: A revision was made previously in the second Revised Tentative Order (December 2007) to maintain consistency with prior changes to Section D.1.d.6.b (July 2007) to accommodate pollutant removal processes that may not have been previously listed. However, “reduce” is generally the more appropriate term for storm water treatment, rather than dry-weather treatment. A further revision to Section D.1.d.6.c. is proposed.

There is no requirement to remove all pollutants from every storm discharge. The design criteria for SUSMP BMPs do not anticipate all pollutants would be removed from all storm water discharges. However, if a certain level of treatment is causing a condition of pollution, then the iterative process in Section A.3 must be used to improve the BMPs.

It is inappropriate for any stream to be used as a treatment BMP to comply with the MS4 requirements. BMPs must be implemented to reduce pollutants prior to the discharge from the MS4. The Water Quality Control Plan for the San Diego Basin establishes the standards that protect values and functions of a water body, not the MS4 Permit. Accordingly, the values and functions of ephemeral and intermittent streams are protected by various means, including the MS4 permit. The beneficial uses designated in the Basin Plan apply to unvegetated waters, and the discharges into such waters must be treated to a level that protects the beneficial uses.

24. Allow Regional Conservation Plans to Govern SUSMP Reviews

Commenters: Rancho Mission Viejo

Comment: Rancho Mission Viejo repeats a previous recommendation to allow SUSMP reviews (Section D.1.d) to be subservient to the Special Area Management Plan (SAMP) and Southern Subregion Habitat Conservation Plan (HCP).

Response: The recommendation remains inappropriate. While the SAMP and HCP consider water quality, it is not considered at a level equivalent to the MS4 NPDES program. The MS4 requirements are needed to ensure that water bodies receiving discharges from MS4s in the area are protected.
As stated in previous responses, the value of the SAMP is best appreciated at a large scale, being somewhat equivalent to a macro-scale LID approach because areas most important for regional hydrological functions are protected from physical destruction. However, that does not obviate the need to ensure that MS4 discharges do not cause or contribute to conditions of pollution in ephemeral, intermittent, and perennial streams, be they vegetated or unvegetated.

25. Active Sediment Treatment (Section D.2.d.1.c.i)

Commenters: Rancho Mission Viejo, Building Industry Association of Orange County

Comment: Commenters recommend adding language to the evaluation of active sediment treatment in order to ensure that potential toxicity effects are fully considered. One commenter provided specific recommendations for factors to consider.

Response: The Regional Board agrees that the inappropriate application of active treatment systems could result in aquatic toxicity. A revision is proposed in response to the recommendation for specifying additional factors previously considered relevant, but not spelled out in the Tentative Order.

It is important to recall that the Tentative Order prohibits discharges into and from the MS4 in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance in waters of the state. If a municipality requires a construction site operator to use a chemical additive that could cause a condition of pollution, contamination or nuisance in waters of the State, the municipality and discharger would have to ensure that adequate filtration is implemented to prevent that chemical additive from discharging in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance in waters of the state. No part of the active treatment requirements allows a construction site to pollute waters of the State. Therefore, when active treatment is used, adequate steps must be in place to maintain and prevent the system from causing, or threatening to cause a condition of pollution, contamination, or nuisance in receiving waters.

Response: The BIA recommends deferring provisions regarding the appropriateness of active treatment systems until the statewide general construction NPDES permit is reissued.

26. BMP implementation for Flood Control Structures (Section D.3.a.4)

Commenters: City of Laguna Hills

Comment: The City of Laguna Hills requests revising the deadline for completing the evaluation of flood control facilities and also repeats previous recommendations to remove the deadline and limit applicability of this section to the Orange County Flood Control District.
Response: The deadline is being revised to reflect the delayed issuance of the Tentative Order. The deadline is necessary to ensure that management measures are implemented in a timely fashion. As stated previously, the requirements apply only to municipalities that own and/or operate such facilities.

27. Investigations: Responding to Data (Section D.4.e.2.b)
Commenters: City of Laguna Hills

Comment: The City of Laguna Hills repeats a request to clarify that the Tentative Order does not require a fully completed investigation within two days of receiving dry weather field screening results.

Response: As stated previously, the Copermittees must begin conducting an investigation within this time frame. The Tentative Order requires that “...the Copermittees must either conduct an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation.” It is not necessary to change the language of the Tentative Order. It is recognized that completion of an investigation may occur within or beyond two days, depending on a variety of circumstances.

28. Elimination of Illicit Discharges and Connections (Section D.4.f)
Commenters: City of Laguna Hills

Comment: The City of Laguna Hills repeats previous recommendations to soften the requirement to immediately eliminate illegal discharges that pose a serious threat to the public’s health or environment. The commenter recommends that “immediately” be replaced with “in a timely manner.”

Response: The language in the Tentative Order is appropriate. It requires a different standard for elimination based on the threat posed by the discharge or connection. No further revisions are proposed.

29. Storm Water Funding Business Plan (Section F.3)
Commenters: City of Laguna Hills

Comment: The City of Laguna Hills repeats its objection to the requirement to develop and submit a Municipal Storm Water Funding Business Plan that identifies a long-term funding strategy for program evolution and funding decisions.

Response: As previously stated, the development of the Business Plan is an important measure for ensuring that proposed management practices will be implemented and maintained in a sustainable fashion. No revisions are proposed to this section.
30. Authority to Establish Requirements for Discharges from Facilities that Extract, Treat, and Discharge (FETD) to Waters of the U.S. (Section B.5)

Commenters: County of Orange

Comment: The County of Orange continues to oppose requirements regarding the effluent from FETDs. The County asserts that the Regional Board has no authority to regulate the effluent from such facilities, in part because the FETDs are not part of the MS4 and because the FETDs do not add pollutants to the water being processed and discharged. The County appears to accept the revision to Section B.5.c regarding the use of the iterative approach in Section A.3 to address conditions of pollution or nuisance caused by the FETD effluent.

Response: Previous such comments were addressed in RTC II, Response No. 14 with corresponding revisions in the Second Revised Tentative Order. The Regional Board is responsible for establishing NPDES requirements for point source discharges of pollutants to waters of the U.S. Discharges from FETDs are point source discharges that do have the potential to cause or contribute to conditions of pollution, nuisance, and contamination. As such, regulation of the discharge of effluent via NPDES permits is warranted where the discharge contains pollutants. Effluent from MS4 point sources under MS4 NPDES permits is generally not held to numeric criteria (as in individual NPDES permits), but the effluent may be subject to NPDES regulation.

The procedure outlined in Section A.3 describes the process for implementing progressively better-tailored BMPs to ultimately protect water quality standards in the receiving waters. However, it is appropriate to prohibit the FETD effluent from causing erosion because the effluent flow characteristics are managed as part of the standard design process for such facilities. Further water quality monitoring requirements are necessary as part of determining the effectiveness of BMPs to mitigate the threats caused by the effluent. The Tentative Order properly establishes adaptive monitoring requirements specifically tailored to the expected and actual effluent and receiving water characteristics.

The Regional Board agrees, in part, with the comment that the MS4 NPDES permit may not be the most appropriate method for ensuring discharges meet water quality standards. As stated in Finding E.9 and has been communicated to the Copermittees since 2001, the Regional Board anticipates developing general or individual NPDES requirements for FETDs where appropriate. In addition, the interim use of the MS4 requirements was based, in part, on support for doing so from the County of Orange in response to previous plans to require individual NPDES requirements for the FETD proposed at Poche Beach.9

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9 By letter dated May 31, 2007 the County of Orange objected to a condition within the Clean Water Act Section 401 Water Quality Certification for the proposed ultraviolet facility at Poche Beach. The County stated its expectation that the facility’s effluent would be subject to MS4, rather than individual, NPDES requirements. In response, the 401 Certification was amended to remove the requirement to obtain individual NPDES requirements.
31. **FETD Requirements Unnecessarily Burden Attempts to Improve Water Quality**  
Commenters: County of Orange

Comment: The County of Orange repeats its concern that the FETD requirements in Section B.5, and associated monitoring and reporting requirements, would impose unnecessary obligations on the facility’s operator since the intent is generally for a specific pollutant. Further the comment contends that discharges from a FETD should be considered a “diverted stream flow,” subject to Section B.2 (non-prohibited discharges).

Response: As previously noted, the operator of a FETD has an obligation to discharge water that does not adversely affect beneficial uses. The Regional Board does acknowledge that, for the time being, the iterative approach of Section A.3 is appropriate for ensuring water quality standards are met. The Regional Board disagrees that such effluent from typical FETD facilities constitutes a diverted stream flow as considered by the federal NPDES regulations. Nonetheless, because such discharges contribute pollutants that cause or contribute to conditions of pollution, the regulations would anyway require that the effluent be prohibited or subject to the iterative BMP approach of Section A.3. Under that reasoning, the monitoring requirements in the Tentative Order’s Monitoring and Reporting Program are clearly necessary to ensure that the iterative approach is achieving results. Specific requirements for the FETD effluent and monitoring are warranted based on the unique nature of the FETDs as compared to conventional MS4 discharges. No additional changes to the Tentative Order are proposed based on this comment.

32. **Treatment BMP Review and SUSMP Updates (Section D.1.d.11)**  
Commenters: Contech Stormwater Solutions, Inc.

Comment: The commenter recommends revising the language within Section D.1.d.11 to link BMP performance to specific design criteria. It recommends consideration of an approach to assess performance of actual BMPs rather than classes of BMPs. Further, it recommends that the Permit require specific pollutant and water quantity reduction assessments be included in SUSMP updates and that minimum design standards for LID BMPs be developed.

Response: The Regional Board appreciates the contributions of the storm water BMP industry to the advancement of improved practices. The Tentative Order does not require how the BMP effectiveness tables in the SUSMP are updated, but does, as the commenter suggests, require that actual data be used in the development of the tables (Section D.1.d.11.b). In addition, the Tentative Order does require that effectiveness assessments evaluate both receiving water quality and the performance of BMPs (Section G).
33. **FETD Provisions and Dana Point’s Efforts to Remove Fecal Indicator Bacteria**  
**Commenters:** City of Dana Point

**Comment:** The City of Dana Point repeats concerns that the FETD provisions (Section B.5 and associated monitoring requirements) unfairly regulate and unjustly “punish” the City, which has expended significant funds for an ozone-based urban runoff treatment facility at Salt Creek. The City of Dana Point identifies a grant agreement with the State Water Board that it asserts gave the City “express approval” to install and operate this particular facility. The City proffers various legal arguments, such as equitable estoppel, and claims that regulation of its treatment facility would amount to unconstitutional “ex post facto” elimination of existing contractual rights and duties such that it asserts the Tentative Order’s application to the City’s ozone treatment facility would be barred. The City requests that the project be “grandfathered” from the FETD requirements in the Tentative Order.

**Response:** The City’s arguments are misplaced. The City wrongly concludes that the Tentative Order requires separate discharge permits for the Salt Creek facility. Rather Finding E.9 declares the intention of the Regional Board is to ultimately require individual or general NPDES permits, but it does not do so at this time. Further, the Regional Board has previously informed the City that the facility would be subject to monitoring requirements, potentially alternative NPDES regulation, and even subject to removal if impacts from the project are substantial without mitigation.

In March 2003, the Regional Board agreed to regulate the facility’s discharge with the MS4 NPDES permit, provided that certain conditions, including monitoring and source controls, were implemented. At that time, preliminary monitoring requirements were established on the facility pursuant to California Water Code Section 13267. In July 2005, the Regional Board again notified the City that the facility, especially if the discharge location was moved to the Ocean, would likely be subject to individual or general NPDES requirements. Further, the Regional Board’s Section 401 water quality certification to the City for the project, issued in April 2003, clearly states that “If at any time impacts from the project are determined by the Regional Board to be substantial and not proportional to the mitigation measures, the Regional Board may consider requiring the applicant or operator to remove the facility and restore the site to pre-project conditions.”

In addition, the monitoring and response approach in the Tentative Order is similar to what was required in March 2003. Although limited monitoring requirements were established in March 2003, the clear intent of those monitoring requirements was to evaluate pollutants known to pose threats to water quality and to implement source control activities in the watershed as required by the existing MS4 permit in south Orange County. Monitoring requirements were limited in March 2003 because limited data was available that identified potential pollutants of concern.

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10 Letter dated March 6, 2003 from John H. Robertus, Executive Officer of the San Diego Regional Water Board, to Pat Felt, Senior Civil Engineer for the City of Dana Point.  
11 Letter dated July 5, 2005 from John H. Robertus, Executive Officer of the San Diego Regional Water Board, to Matt Sinacori, City Engineer.  
12 Condition II.A.10 of the Section 401 water quality certification no. 02C-145, issued April 18, 2003.
It should be noted that the Tentative Order does not single out FETDs in general or within the jurisdiction of any one Copermittee to impose additional regulatory requirements than would otherwise be applicable. The Regional Board lacks the discretion to exempt or “grandfather” FETDs from independently applicable regulatory requirements such as NPDES requirements if the effluent from an FETD is a point source discharge of pollutants to waters of the U.S.

Finally, the tentative monitoring requirements are adaptive and responsive to the existing data collected by the City. At the time monitoring requirements were established in March 2003, there was limited data on the quality of water in Salt Creek. The City should have reasonably foreseen the expectation that future monitoring requirements could be established should future data indicate potential pollution concerns. Conversely, the monitoring collected to date has demonstrated, somewhat, the effect of the facility on certain constituents. It is reasonable for the City to request that those previous monitoring results be considered by the Regional Board. In fact, the Monitoring and Reporting provisions provide for reduced monitoring requirements upon proper justification (Attachment E, Section II.C.4.b). It is anticipated that the City of Dana Point will seek to avail itself of that option. No changes are proposed in response to this comment.

34. Placing Treatment Control Measures within Receiving Waters

Commenters: City of Dana Point

Comment: The City of Dana Point recommends that the Tentative Order expressly recognize that pollution control measures can be employed within receiving waters.

Response: The Findings (Finding E.7 and E.9) and Fact Sheet were previously revised to clarify the types of situations under which a treatment control BMP could conceivably be located within receiving waters.