CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD,
SAN DIEGO REGION

Response to Comments

Section X of the Fact Sheet / Technical Report for

Tentative Order No. R9-2007-0002

July 6, 2007

I. Introduction

Tentative Order No. R9-2007-0002, for discharges from municipal storm drains in southern Orange County, was distributed for review on February 9, 2007. A public hearing was held on April 11, 2007 in the City of Mission Viejo, and the California Regional Water Quality Control Board, San Diego Region (Regional Board), accepted written comments on the Tentative Order until April 25, 2007. Oral comments from interested persons were also received during the public hearing. At the public hearing, a panel representing the Regional Board also provided comments and direction to the Executive Officer regarding the Tentative Order. Responses to written comments and Regional Board direction are provided herein. Adoption of the revised permit is tentatively scheduled to be considered during the Regional Board's regularly scheduled meeting on September 12, 2007. Public testimony on revisions to the Tentative Order is likely to be allowed by the Regional Board.

Over three hundred written comments were provided by the April 25, 2007 deadline by 23 commenters from members of the public and representatives of the MS4 Copermittees, governmental and non-governmental organizations. In addition, several Copermittees provided letters of support for the comments submitted by the County of Orange. Therefore, the comments of several Copermittees are represented where the County of Orange is listed as a commenter for a particular issue. A list of commenters is provided in Table 1.

In this document, the comments have been summarized and paraphrased. Many of the comments received were similar to other comments received. These comments have been grouped in order to minimize redundancy.

The overall organization of this document follows generally the organization of Tentative Order No. R9-2007-0002. Responses to "General Comments" are presented first, followed by responses to "Comments on Findings". The remainder of the document contains responses to "Comments on Specific Sections," presented in the same sequence as the sections in the Tentative Order. To the extent that a revision to the permit language is proposed as a result of a particular comment, that fact is noted in the response to that comment.

Table 1
Organizations providing written comments on Tentative Order No. R9-2007-0002

Building Industry Association of Orange County (BIAOC)	Construction Industry Coalition on Water Quality (CICWQ)
Capistrano Bay Community Services District (CBCSD)	Contech Stormwater Solutions, Inc.
City of Aliso Viejo	County of Orange
City of Dana Point	Nancy Palmer, City of Laguna Niguel
City of Laguna Beach	National Association of Industrial and Office Properties (NAIOP)
City of Laguna Hills	Natural Resources Defense Council (NRDC)
City of Laguna Niguel	Orange County Coastkeeper
City of Laguna Woods	Orange County Council of Governments (OCCOG)
City of Lake Forest	Orange County Vector Control District
City of Mission Viejo	Rancho Mission Viejo
City of San Clemente	South Laguna Civic Association
City of San Juan Capistrano	

II. Responses to Comments

A. General Comments

1. Flexibility, Prescriptive Requirements, and the Role of the Drainage Area Management Plan (DAMP)

Commenters: OCCOG, City of Mission Viejo, County of Orange, South Laguna Civic Association, City of Lake Forest, City of Laguna Niguel

Comment: Several commenters raised concerns about the role of the Drainage Area Management Plan (DAMP) in the reissuance process. Three commenters specifically cited that the Fact Sheet seemingly dismisses the DAMP as "procedural correspondence" which guides implementation, rather than serving as a substantive component of the Tentative Order. For instance, they felt that the DAMP, rather than the Permit, should include the detail and prioritization to achieve compliance with the Permit. Commenters generally expressed that the Tentative Order is too prescriptive to allow Copermittees to adaptively manage their programs. Where comments focused on specific requirements, they are addressed in the appropriate sections of this document.

Response: While the DAMP may play an important role in aiding the Copermittees in their development of effective local programs, its development is not required in the Tentative Order. It generally serves as a collection of model program components from which the Copermittees have chosen to base their own program components.

The DAMP and Report of Waste Discharge (ROWD) submitted to the Regional Board in August 2006 constitute the application for reissuance of the municipal storm water permit. The Regional Board is not obligated to accept the proposed program as the equivalent of the NPDES requirements. Instead, the Regional Board has the responsibility of requiring measures that are reasonable and necessary to protect water quality objectives in the Permit area. For example, many of the commitments proposed by the Copermittees in the ROWD can serve as guidance to the Copermittees. There are several proposed actions within the ROWD for which commensurate requirements are not included within the Tentative Order.[1]

[1] In advance of the March 12, 2007 public workshop, the Regional Board distributed a table to interested parties titled “Commitments Made in the Orange County Storm Water Co-Permittees’ Report of Waste Discharge (ROWD)” (March 7, 2007). This table identifies whether the ROWD commitments are included in Tentative Order No. R9-2007-0002 (version dated February 9, 2007). This table is available on the Regional Board website at http://www.waterboards.ca.gov/sandiego/programs/oc_stormwater.html.

Comment: Many comments addressed the issue of flexible or rigid requirements, and several felt it inappropriate to include rigid requirements if they were not proposed in the DAMP. Sometimes requirements within the same section were portrayed as too prescriptive by one commenter and too vague by another. Similarly, recommendations from commenters included adding both prescriptive and vague requirements. One commenter requested the Regional Board react to existing water quality problems by taking concurrent enforcement actions and instilling more detailed requirements to address those problems. Another commenter asserted incorrectly that the Permit is intended to provide maximum flexibility, and, therefore, prescriptive requirements were contrary to the very foundation of the Tentative Order.

Response: As described in the Fact Sheet, the Tentative Order attempts to strike an appropriate balance between setting enforceable criteria and providing Copermittees appropriate flexibility and discretion in how to meet requirements. For instance, the Tentative Order sets numeric criteria regarding commercial inspections, but relies on each Copermittee to select inspection targets based on its local knowledge. Importantly, this level of local knowledge has been attained by implementing the requirements of the existing third-term Permit and was not attained while implementing the relatively vague requirements of the first two permits. The Regional Board recognizes the progress made during the current Permit cycle, but that does not abrogate the need to assess compliance with Permit requirements. Certain requirements must have sufficient specificity to allow uncomplicated determinations of compliance with the Tentative Order.

As a result, the DAMP was reviewed to assess the program changes suggested by the Copermittees for the Permit cycle under the Tentative Order. The DAMP itself does not describe commitments of each Copermittee to revise its jurisdictional program. As such, it would be inappropriate to interpret the DAMP as the equivalent of 12 jurisdictional programs. Instead, where the roadmap provided by the DAMP is appropriate, the related provisions have been included in the Tentative Order. On the other hand, where provisions were either too vague or did not represent an adequate response to current information, more specific requirements were added in the corresponding sections of the Tentative Order. Often, a section within the Permit consists of a mix of such requirements.

While the Copermittees may elect to incorporate elements of the DAMP into their local programs, certain requirements in the Tentative Order must be specific enough to ensure that the local programs will reduce discharges of pollutants from municipal separate storm sewer systems (MS4s) to the maximum extent practicable (MEP).

2. Regulating Discharges Into MS4s, Especially from Third Parties and Phase II Communities
Finding D.3.a, Finding D.3.b, Finding D.3.d, Finding D.3.e, Section A, and Section C

Commenters: Building Industry Association of Orange County,, Construction Industry Coalition on Water Quality, Orange County Council of Governments,, County of Orange, City of Dana Point, City of Aliso Viejo, City of Mission Viejo, City of Lake Forest

Comment: Seven commenters questioned the rationale behind requirements of the Tentative Order to require control of polluted runoff entering the MS4, especially from various third-party dischargers such as entities subject to National Pollutant Discharge Elimination System (NPDES) Phase II Municipal permitting. For instance, Finding D.3.b states that certain types of management measures are necessary to ensure that discharges of pollutants into and from the MS4 are reduced to the MEP. Likewise, Finding D.3.d states that Copermittees cannot receive and discharge pollutants from third parties without accepting responsibility for effects from those discharges. Related requirements are found throughout the Tentative Order (e.g., Section A, Section B, Section C, and Section D).

Also, of particular concern to several commenters was the discussion of Finding D.3.b in the Fact Sheet which cites U.S. Environmental Protection Agency (U.S. EPA) guidance for the types of legal authority necessary to control contributions of pollutants into the MS4.

Response: Since the Copermittees own and operate their MS4s, they cannot passively receive discharges from third parties (Federal Register 68766).

Having the legal authority to terminate a storm water discharge to the MS4 can be a powerful tool for the Copermittees to effectively control discharges and to compel implementation of best management practices (BMPs) from various entities. Commenters cite this discussion as requiring Copermittees to terminate or cut-off access by various third parties to their MS4, which could lead to unintended damage from flooding. The Fact Sheet, however, clearly explains that the development and implementation of a comprehensive BMP-based program is appropriate for controlling the contribution of pollutants into the MS4 system. Preventing or terminating access of pollutants to the MS4 is one of the BMPs that must be available to the Copermittees.

Comment: Some comments suggested that placing requirements on discharges into the MS4 is inconsistent with State Water Resources Control Board (State Water Board) direction in Order No. WQ-2001-15.[2]

[2] In the Matter ofthe Petitions of Building Industry Association of San Diego County and Western States Petroleum Association for Review of Waste Discharge Requirements Order No. R9-2001-01 for Urban Runoff from San Diego County [NPDES No. CA50108758] Issued by the California Water Quality Control Board, San Diego Region SWRCB/OCCFILESA-1362,A-1362(a).

Response: In that Order, the State Water Board established the Receiving Waters Limitations language used in both the current Orange County MS4 permit and the Tentative Order. The State Water Board concluded that the specific prohibition language being challenged in Regional Board Order No. R9-2001-01 too broadly restricted all discharges into an MS4 and did not allow flexibility to use regional solutions in a manner that could fully protect receiving waters.

Importantly, the State Water Board further emphasized that dischargers contributing into MS4s would continue to be required to implement a "full range of BMPs, including source control." The State Water Board clearly recognized the responsibility of the Copermittees to implement measures to reduce the discharge of pollutants into the MS4. As a result, the State Water Board modified the Receiving Water Limitation language, and that revised language is included in Section A of the Tentative Order.

Finding D.3.b and Finding D.3.e, however, have been revised to reflect State Water Board direction for discharges of pollutants from, as opposed to into, the MS4 to be reduced to the MEP. This does not affect the requirements within the Tentative Order. The Copermittees must implement measures to reduce the discharge of pollutants into the MS4, including source and treatment controls. Instead, the revised Findings recognize that in certain cases a combination of source control measures and treatment measures within the MS4 system may be appropriate to reduce the discharge of pollutants to receiving waters from the MS4 to the MEP.

Comment: Other comments addressed the requirements to control discharges into the MS4 system from certain classes of entities, such as some State and Federal facilities, special districts, or those subject to Statewide NPDES permits and Phase II municipal NPDES permits.

Response: Federal regulations and guidance clearly establish a system of regulation by both the municipalities and the NPDES permitting authority (in this case the State) for industrial and construction sites that are subject to NPDES permits. This is clearly explained in the Fact Sheet discussion of Finding D.3.a. For instance, U.S. EPA discusses the "dual regulation" of construction sites in its Storm Water Phase II Compliance Assistance Guide (U.S. EPA, 2000. EPA 833-R-00-002.), which states "Even though all construction sites that disturb more than one acre are covered nationally by an NPDES storm water permit, the construction site runoff control minimum measure […] is needed to induce more localized site regulation and enforcement efforts, and to enable operators […] to more effectively control construction site discharges into their MS4s."

Similarly, Copermittees must attempt to control discharges of pollutants into their MS4s from other entities because discharges of pollutants from MS4s must be reduced to the maximum extent practicable, including discharges from MS4s originating outside the Copermittees' jurisdiction. In such cases, the MEP standard can be met through implementation of coordination efforts and agreements with the third parties outside of the Copermittees' jurisdictions (see Section C.1.g). The Tentative Order does not require the Copermittees to apply building, zoning, or related land use controls on parties outside of the Copermittees' jurisdiction. However, where the Government Code provides the Copermittees with jurisdiction to apply treatment control BMPs to local agency projects, the Copermittees must require treatment control BMPs as required by section D.1.d. Since the municipality's storm water management service can result in pollutant discharges to receiving waters, the municipality must accept responsibility for the water quality consequences resulting from this service.

3. The Relationship between the MS4 and Waters of the U.S., including Rapanos v. United States
Finding D.3.c
Commenters: City of Mission Viejo, County of Orange

Comment: Commenters raised concerns about how the Tentative Order portrays the relationship between the MS4 and waters of the U.S. First, commenters are concerned that the Regional Board finds that urban streams can be both an MS4 and a receiving water (Finding D.3.c). Second, the commenters assert that the recent Supreme Court decision in Rapanos v. United States and Carabell v. United States [126 S.Ct. 2208 (2006)] excludes all intermittent and ephemeral streams from the definition of waters of the U.S. subject to NPDES regulation under the federal Clean Water Act (CWA), and, therefore, from regulation under state authority implementing the CWA.

The issue of where waters subject to federal jurisdiction begin and end in MS4s has exercised commenters concerns about the ability to manage urban runoff in a manner that will ensure that stormwater runoff in channels that serve as part of the MS4 meets applicable standards. In addition, Copermittees and the development community are concerned about the availability of locations suitable for the deployment of treatment BMPs (see the response to comments on Finding E.7 in this document).

Response: The *Rapanos* decision is not a bright line that relieves Copermittees of obligations to reduce pollutant discharges into the MS4 or into intermittent and ephemeral channels. Watercourses incorporated into the MS4 may be "navigable waters" or tributaries thereto, with beneficial uses and applicable water quality objectives that require protection.

Urban streams as MS4s.

Man-made conveyances and other drainage features can be waters of the U.S., even if they serve functions within the MS4. For example, a creek which has been converted into a (even highly) modified flood control channel is a water of the U.S. Conversely, man-made drainage features which exist in locations where waters of the U.S. did not previously exist are not necessarily waters of the U.S., but may be part of the MS4. However, because of the vast array of drainage conditions, situations may need to be assessed on a case by case basis. It is also important to recall that the CWA places requirements on both discharges into and from an MS4. For example, most non-storm water discharges are prohibited from entering into an MS4, while discharges of pollutants from an MS4 must be reduced to the maximum extent practicable.

Likewise, natural drainage patterns and urban streams are frequently used by municipalities to collect and convey urban runoff away from development within their jurisdiction. Therefore, the Regional Board considers natural drainages that are used for conveyances of urban runoff, regardless of whether or not they have been altered by the municipality, as both part of the MS4s and as receiving waters. As noted in the Fact Sheet, the Regional Board clarified its position in a document titled, "Response in Opposition to Petitions for Review of California Regional Water Quality Control Board San Diego Region Order No. 2001-01 – NPDES Permit No. CAS0108758 (San Diego Municipal Storm Water Permit)." Specifically, an unaltered natural drainage, which receives runoff from a point source (channeled by a Copermittee to drain an area within their jurisdiction), which then conveys the runoff to an altered natural drainage or a man-made MS4, is both an MS4 and a receiving water.

Therefore, urban streams are part of the Copermittees' MS4s where the Copermittees channel urban runoff to the urban stream. This approach has been supported by the State Water Board, which stated in Order WQ 2001-15, "We also agree with the Regional Water Board's concern, stated in its response, that there may be instances where MS4s use 'waters of the United States' as part of their sewer system [...]"[3]

The *Rapanos* decision further supports the conclusion that urban streams can be both receiving waters and MS4s by confirming that ephemeral and intermittent streams can be waters of the U.S. subject to regulation under CWA Section 404 and also be considered point sources of pollution discharges regulated under CWA Section 402.[4]

[3] State Water Resources Control Board Order WQ 2001-15. In the Matter of the Petitions of Building Industry Association of San Diego County and Western States Petroleum Association for Review of Waste Discharge Requirements Order No. 2001-01 for Urban Runoff from San Diego County. SWRCB/OCC Files A-1362, A-1362(a).

[4] See discussion in Section V of the Opinion of Justice Scalia and Section A (p.14) of the Concurring Opinion of Justice Kennedy. 547 U. S. ____ (2006)

Rapanos Supreme Court Decision.

With respect to the *Rapanos* case, comments were submitted shortly following the Supreme Court's decision for remand of the case to lower courts. Remand was for additional factual analysis of the nexus between the adjacent wetlands and navigable waters at issue in the cases before the Court. Subsequently, on June 5, 2007, the U.S.EPA and Army Corps of Engineers released a memorandum providing guidance on implementing the Supreme Court's decision in the consolidated cases.[5]

The comment echoes certain parties that had incorrectly interpreted the divided U.S. Supreme Court decision in *Rapanos* as narrowing the scope of federal jurisdiction under the CWA over water bodies that are not actually "navigable" under traditional interpretations of Congress' power to regulate interstate commerce. In fact, the ruling does not preclude the extension of federal jurisdiction to intermittent or ephemeral streams if there was a sufficient nexus between the disputed watercourse and navigable waters. Rather, as stated by Chief Justice Roberts, "no opinion commands a majority of the Court on precisely how to read Congress' limits on the reach of the Clean Water Act. Lower courts and regulated entities will now have to feel their way on a case-by-case basis." This resulted because Justice Kennedy joined the dissenting plurality opinion that intermittent flow can constitute a stream.[6]

Most importantly to the discussion of MS4 NPDES requirements, the Supreme Court ruling and subsequent federal agency guidance specifically pertains only to federal jurisdiction regarding the dredge and fill permitting requirements of CWA Section 404. U.S. EPA is considering whether to provide additional guidance regarding the NPDES permitting requirements of CWA Section 402. This is articulated in footnote no. 17 of the guidance memorandum:

> *"This guidance focuses only on those provisions of the agencies' regulations at issue in Rapanos -- 33 C.F.R. §§ 328.3(a)(1), (a)(5), and (a)(7); 40 C.F.R. §§ 230.3(s)(1), (s)(5), and (s)(7). This guidance does not address or affect other subparts of the agencies' regulations, or response authorities, relevant to the scope of jurisdiction under the CWA. In addition, because this guidance is issued by both the Corps and EPA, which jointly administer CWA § 404, it does not discuss other provisions of the CWA, including §§ 311 and 402, that differ in certain respects from § 404 but share the definition of "waters of the United States." Indeed, the plurality opinion in Rapanos noted that "… there is no reason to suppose that our construction today significantly affects the enforcement of §1342 … The Act does not forbid the 'addition of any pollutant directly to navigable waters from any point source,' but rather the 'addition of*

[5] U.S. EPA and Department of the Army 2007. "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision In Rapanos v. United States & Carabell v. United States."

[6] See August 1, 2006 "Statement of Benjamin Grumbles, Assistant for Water, U.S. EPA and John Paul Woodley, Jr., Assistant Secretary of the Army for Civil Works, Department of the Army, Before the Subcommittee on Fisheries, Wildlife, and Water of the Committee on Environment and Public Works, United States Senate." Available on-line at: http://www.epa.gov/water/speeches.

any pollutant to navigable waters.'" (emphasis in original) 126 S. Ct. 2208, 2227. EPA is considering whether to provide additional guidance on these and other provisions of the CWA that may be affected by the Rapanos decision."

Justice Scalia's plurality interpretation of ''waters of the U.S.'' cited by commenters does not affect federal jurisdiction to require NPDES permits under CWA section 402. In fact, Justice Scalia specifically addressed the federal government's concern that the decision could complicate the NPDES program. Justice Scalia noted, however, that ''the Act does not forbid the ''addition of any pollutant directly to navigable waters from any point source,'' but rather the ''addition of any pollutant to navigable waters.'' U.S.C. Section 1362(12)(A); Section 1311(a). Thus, he reiterates that ''the discharge into intermittent channels of any pollutant that naturally washes downstream likely violates Section 1311(a), even if the pollutants discharged from a point source do not emit 'directly into' covered waters, but pass 'through conveyances' in between.''

With respect to CWA Section 404, the Corps must now establish a significant nexus on a case-by-case basis when considering to regulate discharges of fill to intermittent and ephemeral channels. The June 5, 2007 guidance notes that the assertion of jurisdiction over intermittent and ephemeral channels that have a significant nexus to traditional navigable waters is supported by a majority of the Justices.

Following direction from Justice Kennedy, the nexus required must be assessed in terms of the CWA goals and purposes, which is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," 33 U.S.C. Section 1251(a). Thus, the June 5, 2007 CWA Section 404 guidance instructs the federal agencies to consider hydrological and ecological factors when assessing whether a significant nexus exists between the channels and a traditional navigable water.

Additional insight into the consideration of Finding D.3.c regarding urban streams that are both an MS4 and receiving waters is provided in the June 5, 2007 guidance memorandum. In addition to the significant nexus instruction, the guidance notes that for the purposes of CWA Section 404, the agencies will assert jurisdiction over non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally. The guidance defines a non-navigable tributary (in Footnote 21) as "natural, man-altered, or man-made water bodies that carry flow directly or indirectly into a traditional navigable water. Furthermore, a tributary, for the purposes of this guidance, is the entire reach of the stream that is of the same order…"

As previously discussed, Justice Scalia's plurality opinion in *Rapanos* addressed NPDES regulations by stating that there is no reason to suppose that its decision significantly affects the enforcement of NPDES regulations. Specifically, the opinion noted that that the decision does not affect previous lower court rulings that discharges into intermittent channels of any pollutant that naturally washes downstream likely violates NPDES requirements even if the pollutants discharged from a point source do not emit "directly into" covered waters, but pass "through conveyances" in between. Further, Justice Scalia's plurality opinion noted that the CWA "does not forbid the 'addition of any pollutant directly to navigable waters from any point source,' but rather the 'addition of any pollutant to navigable waters.'[7]

Thus, in light of the June 5, 2007 *Rapanos* guidance, the discharge of fill into streams that have been modified for the purposes of conveying storm water would be subject to regulation under Section 404. Rather than removing such streams from CWA regulation, as the commenters assert, the *Rapanos* Supreme Court decision and subsequent federal agency guidance confirm the Tentative Order's Finding D.3.c that urban streams can be both part of the MS4 and receiving waters.

4. Public Notice for Comments on the Tentative Order

Commenters: Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: One comment suggested that the Regional Board did not provide adequate notice to comment on the Tentative Order. The comment claims that the Regional Board failed to properly identify the nature of the proceedings. Further, the comment suggests that the Regional Board did not allow stakeholders to access the evidence upon which the Tentative Order is based.

Response: The Regional Board has provided adequate notice of its proceedings to reissue the NPDES waste discharge requirements and has provided ample opportunities for affected Copermittees and other interested persons to review and comment on the tentative requirements.

On February 9, 2007 the Regional Board provide interested parties a notice that the Tentative Order was available for review, that a public workshop would be held on March 12, 2007, and that a hearing would be scheduled for April 11, 2007. This notice described the public comment period procedures and identified a Regional Board staff contact for further information. It also stated that further notice of the hearing would be provided to interested persons at least 45 days in advance of the hearing.

[7] 547 U. S. ____ 126 S.Ct 2208 (2006) Opinion of Scalia, J. p.24

On February 22, 2007 the Regional Board provided interested parties and the general public a notice that a hearing would be held on April 11, 2007. This notice described the hearing purpose, public participation procedures, location, intent of the hearing, and stated that adoption would be considered a later date. This hearing notice was also placed in the local newspaper, the Orange County Register, the following week. On April 2, 2007 interested persons were notified that the item may be conducted as a panel hearing pursuant to Water Code Section 13228.14. This notice reiterated that the hearing would be conducted for the purpose of hearing, discussion, and deliberating public testimony, rather than consideration of adoption of the Tentative Order.

Regional Board adjudicative proceedings are subject to Chapter. 4.5 of the California Administrative Procedure Act, including Article 6, Administrative Adjudication Bill of Rights, commencing with Section 11425.10. The Regional Board satisfies its obligations under Section 11425.10 by including the procedures used by the Regional Board in notices, including notices regarding public workshops and hearings for the development and issuance of waste discharge requirements, including the re-issuance of the NPDES requirements for MS4 in southern Orange County. Within public notices it is not necessary to prescribe in detail every step of the process that would be followed. In this case, hearing agenda notices clearly specified what matters would be considered by the Regional Board, when comments and documents must be submitted, that oral comments would also be accepted, and that the Regional Board would not be considering adoption at the April 11, 2007 hearing. Thus, the notices provided the applicable procedures, documented substantial flexibility to accommodate public participation, and promoted transparent Regional Board deliberation.

Attempts to characterize the proceedings in this case as an administrative rulemaking subject to Chapter 3.5 of the California Administrative Procedure Act (Government Code 11340, *et seq.*) reflect a fundamental misapprehension of the nature of the process. Section 402(p) of the CWA [33 U.S.C. 1342(p)] requires municipalities that own or operate MS4s to apply for and have permits regulating their discharges of urban runoff associated with stormwater under the NPDES program. Due to the geographic extent of MS4s, Section 402(p) and the implementing regulations promulgated by the U.S. EPA (40 C.F.R. 122.26) allow NPDES permits for MS4 discharges to be of regional extent. The process for issuance and reissuance of waste discharge requirements implementing the NPDES regulations for discharges subject to the CWA (such as MS4 discharges) has been conducted pursuant to the State Water Board regulations for adjudicative proceedings (California Code of Regulations, Title 23, Water, Division 3, State Water Resources Control Board, Chapter 1.5, Rules of Practice and Procedure, Article 2, Adjudicative Proceedings, commencing with Section 648). In fact, the public participation opportunities offered in the Regional Board's proceeding for the reissuance of the NPDES requirements for Orange County MS4 are substantially similar to those offered for the promulgation of administrative regulations despite differences in detail.

Finally, the documentation relied upon by the Regional Board in the development of the tentative NPDES requirements for Orange County MS4 are, and have been, readily available in published sources and in the files of the Regional Board related to the Orange County MS4 Copermittees and their stormwater management programs under prior iterations of the NPDES requirements for Orange County MS4 contained in Orders Nos. 90-38, 96-32, and 2002-01.

5. Using Federal Law as the Basis for Permit Requirements and Whether Requirements Constitute Unfunded Mandates
Finding E.6
Commenters: County of Orange, City of Mission Viejo, Building Industry Association of Orange County and Building Industry Legal Defense Fund, City of Lake Forest

Comment: Commenters assert that requirements within the Tentative Order exceed federal NPDES requirements and, therefore, are mandates imposed by the Regional Board based solely on its authority as a State agency. As such, commenters argue, because the Regional Board relied on its independent water quality control authority, it must comply with the California Environmental Quality Act (CEQA) and related statutory requirements of the Porter Cologne Water Quality Act (Sections 13263 and 13241) to undertake more economic analyses of the MS4 requirements. Further, that if the Regional Board imposes requirements that exceed federal regulations, then the requirements constitute unfunded mandates for which the municipalities may be reimbursed by the State. The commenters support this position by arguing that the Regional Board has improperly determined what constitutes the maximum extent practicable (MEP) standard.

These comments include related issues. Most importantly is whether the tentative requirements exceed NPDES requirements. Doing so could trigger additional CEQA-related analyses by the Regional Board. Related, but separate, is whether the requirements constitute an unfunded state mandate imposed on local governments.

Response: The requirements of the Tentative Order do not exceed federal law. The commenters misrepresent Finding E.6 when stating that the Finding acknowledges that certain requirements of the Tentative Order exceed federal law. Even if the MS4 requirements did quality as an unfunded state mandate, this would not preclude the Regional Board from requiring municipalities to comply.

The plain language of Finding E.6 states that the Tentative Order contains requirements more explicit than the federal NPDES storm water regulations, for the purpose of achieving compliance with the CWA provision that MS4 permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable" (CWA section 402(p)(3)(B)(iii)). As such, the Tentative Order's requirements are necessary to comply with federal law, rather than exceed it. Therefore, the Regional Board need not consider the factors listed in Water Code section 13241 in adopting the Tentative Order. (City of Burbank v. State Water Resources Control Board (2005) 35 Cal.4th 613.) This matter is further discussed in the Fact Sheet discussion for Finding E.6

The Regional Board is not precluded from issuing MS4 requirements that "go beyond" NPDES regulations, either, as in this case by providing more detail to implement performance standards in the CWA or NPDES regulations: NPDES regulations specify terms and conditions that must, at a minimum, be included in NPDES requirements; they do not limit states or U.S EPA from including other provisions that may be necessary to ensure that municipalities with MS4 reduce pollutants to the MEP.

No portion of the proposed MS4 requirements exceed the level of "governmental service" (*i.e.*, performance) necessary to reduce pollutants to the MEP as mandated by Section 402(p)(3)(B)(iii) of the CWA [33 U.S.C. Section 1342(p)(3)(B)(iii)]. While, technically, all NPDES requirements issued by the Regional Boards "fall under the legal authority of the state" because they are promulgated in waste discharge requirements issued pursuant to Sections 13260 and 13263 of the Water Code, requirements issued for discharges of pollutants from point sources to waters of the United States, including requirements for discharges of storm water in MS4s, implement the provisions of the federal CWA and the federal NPDES regulations, as contemplated by Chapter 5.5 of the Porter-Cologne Water Quality Control Act (Section 13370, *et seq*.). Therefore, nothing in the proposed order renewing NPDES requirements for discharges in Orange County MS4 exceeds the scope of regulation necessary to implement NPDES regulations for MS4.

The Tentative Order and its requirements do not constitute an unfunded state mandate. The contention that NPDES permits and their requirements are unfunded state mandates has been repeatedly heard and denied by the State Water Board. (See Order Nos. WQ 90-3 and WQ 91-08). Indeed, the unfunded state mandate argument was recently heard by the State Water Board when it considered the appeal of the Los Angeles Regional Board standard urban stormwater mitigation plan (SUSMP) requirements. The Los Angeles Regional Board SUSMP requirements are municipal storm water permit requirements for new development that are similar or identical to many of the requirements of the Tentative Order. The unfunded state mandate argument was summarily rejected by the State Water Board in that instance (Order WQ 2000-11).

Since that time, nothing has occurred that would change how unfunded state mandates are determined. While Proposition 1A elucidates the process for reimbursement when an unfunded state mandate occurs, it does not alter how unfunded state mandates are identified. As such, notice must be taken of the State Water Board's previous decisions that NPDES requirements do not constitute unfunded state mandates.

For instance, California Constitution, Article XIII B, Section 6 was not intended to address a permit, order, or requirements therein issued by a regulatory agency of state government imposing federal requirements upon parties prohibited from discharging waste into the waters of the State and the United States under both state and federal law. Indeed, the Legislature clarified that the unfunded mandate provision of the California Constitution does not apply to regional board orders. (Gov. Code section 17516). If the commenter's analysis was correct, every Permittee could file a "claim" for reimbursement to comply with any regulatory action, claiming that the regulatory action requires a "new program" or an "increased level of service." The Constitution addresses reimbursement for additional "services" mandated by the State upon local agencies, not regulatory requirements imposed upon all Permittees, including cities and counties. The intent of the constitutional section was not to require reimbursement for expenses incurred by local agencies complying with laws that apply to all state residents and entities. (See City of Sacramento v. State of California, 50 Cal. 3d. 51 (1990) citing County of Los Angeles v. State of California, 43 Cal. 3d. 46).

A central purpose of the principle of state subvention is to prevent the state from shifting the cost of government from itself to local agencies. (Hayes v. Commission on State Mandates, 11 Cal. App. 4th 1564, 1581 (1992)). In this instance, no such shifting of the cost of government has occurred. The responsibility and cost of complying with the CWA and Phase I NPDES municipal storm water regulations lies squarely with the local agencies which own and operate MS4s, not with the State. The State cannot shift responsibilities and costs to local agencies when the responsibilities and costs lie with the local agencies in the first place.

Second, even if the Tentative Order could be characterized as requiring a mandate for an increased level of governmental services, it is not an unfunded state mandate because it implements a federal program, rather than a state program. State subvention is not required when the federal government imposes the costs of a new program or a higher level of service. (Cal. Const. Art XIII B; Id).

Citing case law, the County of Orange (and those Copermittees who incorporated the County's comments by reference) attempts to assert that any use of discretion on the part of the Regional Board in implementing a federal program reflects "a matter of true choice," and is therefore a state mandate. This is a misrepresentation of the case law. In *Hayes v. Commission on State Mandates*, above, the Court only contemplates whether participation itself in a federal program is "a matter of true choice" in order to determine if an unfunded state mandate has occurred. It does not contemplate whether any use of discretion on the part of a regulatory agency in implementing the necessary details of a federal program constitutes an unfunded state mandate. Therefore, the case does not support the commenters' claims.

Any discretion exercised by the Regional Board in implementing federal law in the Tentative Order is in accordance with federal law and guidance. For example, use of permit writer discretion and the inclusion of more detailed requirements in the Tentative Order is consistent with USEPA guidance. The preamble to the Phase I NPDES storm water regulations states "this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions" (FR 48038). In addition, in its review of a City of Irving Texas NPDES municipal storm water permit, the USEPA Environmental Appeals Board stated that Congress "created the 'maximum extent practicable' ('MEP') standard and the requirement to 'effectively prohibit non-storm water discharges' into the MS4 in an effort to allow permit writers the flexibility necessary to tailor permits to the site-specific nature of MS4 discharges" (2001). The Tentative Order, to be issued to implement a federal program, does not become an unfunded state mandate simply because the Regional Board appropriately exercised its discretion in defining the particulars. The Regional Board's implementation of a federal program according to federal law and guidance does not constitute an unfunded state mandate.

Third, the Tentative Order is not an unfunded state mandate because its requirements do not exceed the requirements of federal law. As we have previously noted, all of the Tentative Order's requirements are necessary to comply with federal law mandates. The CWA requires that MS4s reduce the discharge of pollutants to the MEP. All requirements of the Tentative Order are necessary to achieve the MEP standard, and therefore do not exceed federal law.

In its review of the previous San Diego County Municipal Storm Water Permit (Order No. 2001-01), the State of California Court of Appeal, Fourth Appellate District reached the same conclusion. The Court "determined that none of the challenged Permit requirements violate or exceed federal law." (*Building Industry Association of San Diego County, et al., v. State Water Resources Control Board et al.*, 2004). This finding applies to a wide range of requirements, since the Building Industry of San Diego County used an across the board approach to the challenges it raised in its lawsuit. This is significant, since the Tentative Order's requirements mirror the requirements of Order No. 2001-01.

The current Orange County MS4 Permit is substantially similar to the San Diego MS4 Permit subject to the Appellate Court decision. The Tentative Order is also substantially the same as the current Orange County MS4 Permit. Where the Tentative Order contains modified requirements not specifically found in Order No. 2001-01, the requirements only provide additional detail to similar requirements and to implement the MEP performance standard. Any new requirements in the Tentative Order simply elaborate on existing requirements. For example, the Tentative Order's requirements addressing hydromodification expand on the pre-existing Order No. 2002-01 requirement that Copermittees develop criteria "to control peak storm water discharge rates and velocities in order to maintain or reduce pre-development downstream erosion and protect stream habitat" (Order No. 2002-01 section F.1.b.2.b). Since the requirements of the Tentative Order and Order No. 2001-01 are comparable, the Court's finding that requirements of that Order do not exceed federal law is also applicable to requirements of the Tentative Order.

Fourth, the Tentative Order and its requirements are not an unfunded state mandate because they do not constitute a new program or higher level of service. The performance standard applicable to MS4s has remained the same since subdivision (p), extending "point source" regulation to storm water discharges was added to CWA Section 402 (33 U.S.C. 1342) in 1987. The Regional Board has issued three prior iterations of requirements implementing this performance standard, each with incrementally greater detail to provide municipalities with guidance regarding elements of municipal storm water management programs that are practicable, and therefore, appropriate components for compliance with the performance standard. However, despite the incrementally increasing levels of detail, the fundamental requirement that municipalities reduce pollutants in MS4 discharges to the MEP remains the cornerstone of the mandate imposed upon municipalities by the federal CWA and the implementing NPDES regulations for storm water.

Fifth, the Tentative Order and its requirements are not an unfunded state mandate because the Copermittees have the authority to levy service charges, fees, or assessments to fund their efforts to comply with the Tentative Order. Government Code section 17556(d) provides that an unfunded state mandate will not be considered in such instances. Municipalities have ample governmental authority to levy service charges, fees, or assessments to pay for storm water management programs that reduce pollutants to the MEP. Municipalities also have the authority to levy taxes to provide adequate funding for storm water management programs; lack of political determination to impose taxes or fees for storm water management does not constitute lack of authority.

As exhibited, the commenters' claim that the Tentative Order is an unfunded state mandate fails on many fronts. Federal regulations that implement the storm water provisions of the CWA require municipalities to ensure appropriate funding for compliance with requirements for discharges of storm water in MS4s. Municipalities' applications for waste discharge requirements that implement the NPDES regulations for storm water must include assurances that the municipalities can provide adequate funding to reduce pollutants in MS4 in accordance with the MEP performance standard. (40 C.F.R. 122.26, implementing subdivision (p) of CWA Section 402; 33 U.S.C. 1342(p)).

In conclusion, the Regional Board does not propose to impose requirements that exceed the CWA and NPDES regulations. Therefore, the Regional Board does not have to undertake additional economic analyses and comply with CEQA requirements because the Tentative Order's requirements do not exceed the level of regulation necessary to implement performance standards for MS4 discharges.

6. Prescribing the Manner of Compliance

Commenters: County of Orange, City of Mission Viejo, Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: Commenters suggest that the Tentative Order improperly dictates the methods of compliance in contrast to Section 13360 of the Porter-Cologne Water Quality Control Act. They contend that the Tentative Order contains prescriptive requirements without appropriate Findings and supporting documentation in the Fact Sheet. Continuing, one commenter suggests that such action is in violation of the Tenth Amendment of the U.S. Constitution and Article XI, Section 7 of the California Constitution because the requirements dictate how the municipality must exercise its police power.

Another related comment from two commenters suggests that the Tentative Order amounts to an unwarranted exercise of land-use authority by the Regional Board because it seeks to prescribe land use and project design requirements. The commenters are worried that prescriptive requirements expand the liability of Copermittees for land use decisions. This comment specifically recommends that water quality and hydromodification control should be addressed at a programmatic level by providing a menu of options, rather than specific requirements. The suggestion that water quality be addressed at a programmatic level is founded on a contention that Finding D.1.f of the Tentative Order be modified to remove statements regarding land use power as the basis for water quality responsibility.

Response: The Regional Board contends that requirements of the Tentative Order provide the Copermittees with sufficient flexibility to choose how they will achieve compliance. The requirements provide the Copermittees with numerous compliance options. As such, the requirements do not specify design, location, type of construction, or particular manner in which compliance may be had.

Where the Tentative Order includes detailed requirements, it is to be in compliance with CWA section 402(p)(3)(B)(iii), which mandates that MS4 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." Clearly, the CWA provides the Regional Board with the discretion to include specific requirements in the Tentative Order. This discretion is supported in the preamble to the Phase I NPDES storm water regulations, which states "this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions" (FR 48038).

Hydromodification requirements in the Tentative Order (Section D.1.h) provide substantial discretion to the Copermittees. The requirements establish a broad strategy to be followed (Section D.1.h.3), including the ability to waive controls under certain conditions. Additional options are provided in the Revised Tentative Order for developing interim hydromodification criteria for large projects (Section D.1.h.5). While some specificity is necessary to ensure minimum measures are implemented, the Tentative Order allows Copermittees the flexibility to craft and implement a hydromodification control strategy based on local conditions.

In addition, the Fact Sheet discussion of Finding D.1.f is appropriately worded. The Copermittees are able to implement effective runoff management programs because they possess land use authority. Municipal NPDES requirements compel Copermittees to exercise that authority in a manner that protects water quality from adverse effects of MS4 discharges.

Waste discharge requirements for discharges subject to the CWA and NPDES are enforceable by individuals under the citizen suit provisions in section 505 of the CWA [33 US.C. 1365]. The Tentative Order includes requirements for the development and implementation of various runoff management programs (e.g., Jurisdictional Urban Runoff Management Programs, etc.), including requirements that the programs include certain elements and components; failure of a municipality subject to the requirements to develop and implement required programs with the requisite components to reduce discharges of pollutants to MS4s would be a violation of the Tentative NPDES requirements and would subject the deficient municipality to enforcement by the Regional Board or, by individual citizens in the absence of “diligent prosecution” of “a civil or criminal action in a court of the United States, or a State to require compliance with the [NPDES requirements]”. [33 U.S.C. 1365, see subdivisions (a) and (b)(1)(B).]

Failure of a municipal discharger to develop and implement appropriate and effective runoff management programs that comply with the NPDES requirements for MS4s would subject the municipal discharger to enforcement by the Regional Board, and potentially by citizens. The burden of proving the deficiency of the runoff management programs would be defined by the provisions describing the necessary elements of the program, and by the extent to which the program reduces pollutants in the MS4.

7. Regulation of Discharges from Third Parties

Commenters: County of Orange, City of Mission Viejo, Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: Commenters object to requirements regarding discharges from third parties that either (1) are not subject to municipal legal jurisdiction; or (2) are subject to regulation by the State Water Board or Regional Board. Examples of such discharges include sewage, construction/industrial storm water, and urban runoff from entities subject to Phase II NPDES permits. One commenter claims that the Regional Board is requiring Copermittees to duplicate the responsibilities of the State to implement statewide general NPDES permits for industrial and construction storm water.

Response: The Regional Board has followed federal guidance regarding third party discharges into the Copermittees' MS4s. The Regional Board recognizes the difficulties, expressed by commenters, with respect to working with Phase II entities that have often times claimed independence from the Copermittees. This is acknowledged in the manner in which the Tentative Order requires Copermittees to address discharges from Phase II entities compared with industrial and construction storm water activities. Again, these differences are based directly on federal guidance.

Since the Copermittees own and operate their MS4s, they cannot passively receive discharges from third parties (FR 68766). Discharges of pollutants from MS4s must be reduced to the maximum extent practicable, including discharges from MS4s originating outside the Copermittees' jurisdiction. In such cases, the MEP standard can be met through implementation of coordination efforts and agreements with the third parties outside of the Copermittees' jurisdictions. The Tentative Order does not require the Copermittees to apply building, zoning, or related land use controls on parties outside of the Copermittees' jurisdiction. This is further discussed in the Fact Sheet.

Finding D.3.f states "Each Copermittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction." In addition, where the Government Code provides the Copermittees with jurisdiction to apply treatment control BMPs to local agency projects, the Copermittees must mandate treatment control BMPs as required by Section D.1.d.

The Tentative Order does not shift responsibility for Phase II MS4 discharges to the Copermittees. As required by the Phase II NPDES storm water regulations and the General Phase II Storm Water Permit, Phase II MS4s are responsible for reducing their pollutant discharges to the MEP and ensuring that their discharges do not cause or contribute to violations of water quality standards. This responsibility exists regardless of whether the Phase II MS4 discharges into a Phase I MS4 or not. The Tentative Order does not alter this condition, since the Tentative Order only applies to Phase I Copermittees and not to Phase II MS4s.

Phase II MS4s which discharge to Phase I MS4s have the primary responsibility for their discharges. However, once Phase II MS4 discharges enter Phase I MS4s, the Phase I MS4 accepts secondary responsibility for the discharges. The reason Phase I MS4s have secondary responsibility for Phase II MS4 discharges entering their MS4s is because their MS4s enable the discharges to reach receiving waters unimpeded. The Preamble to the Phase II NPDES storm water regulations agrees with this approach, stating that MS4s “cannot passively receive and discharge pollutants from third parties” (Fed. Reg. 68766).

Since primary responsibility in such instances lies with the Phase II MS4, the Regional Board will first look to the Phase II MS4 in situations where compliance is an issue. However, involvement from the applicable Phase I MS4 will also be expected because it is also a discharger. The Phase I MS4 will be expected to ensure pollutant discharges from its MS4 are reduced to the MEP. Since the Phase I MS4 will likely not have direct jurisdiction over the Phase II MS4, approaches for achieving MEP may include interagency agreements, memoranda of understanding, shared resources, etc.

The Tentative Order does not shift general statewide NPDES enforcement obligations from the Regional Board to the Copermittees. The NPDES federal regulations clearly hold the Copermittees responsible for discharges into and from their MS4s from industrial and commercial sites (40 CFR 122.26(d)(iv)(2)(A) and (C). The Copermittees are required to reduce pollutant discharges to the MEP; assessing coverage under the General Industrial Storm Water Permit during inspections conducted for other purposes falls within this scope. Moreover, the Copermittees have conducted this practice under the current permit and do not object to continuing this practice. It has proven beneficial to both the Regional Board and the Copermittees in the past by compelling non-filers to obtain covererage under the permit. The Copermittees are only required to assess compliance with their own ordinances and permit requirements. They are not required to assess compliance with the General Industrial Storm Water Permit's requirements (see Finding D.3.a). The Copermittees are also clearly held responsible for illicit discharges into their MS4s. The CWA prohibits non-storm water discharges from entering the MS4 (section 402(p)(3)(B)(ii)). 40 CFR 122.26(d)(2)(iv)(B) requires the Copermittees to detect and remove illicit discharges into the storm sewer.

8. Due Process without Prescriptive Requirements

Commenters: Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: One comment from building industry representatives claimed that some requirements of the Tentative Order are so vaguely stated that the regulated community lacks adequate notice of what is required to comply. The contention is based on several arguments. One argument is that the iterative process of Section A.3 creates a “moving target” that will discourage water quality control activities because Copermittees may be in violation of water quality standards even if they are in the midst of the iterative process. The commenters request that the Tentative Order be revised to state that achievement of the MEP standard equates to full compliance with the MS4 Permit, regardless of the effect that MS4 discharges have on receiving waters. Another argument is that the requirements are not supported by evidence in the Fact Sheet. To support that argument, the commenters state that the hydromodification (Section D.1.h) and advanced sediment requirements (Section D.2. d.1.c.i) lack supporting evidence.

Response: The Copermittees must reduce the discharge of pollutants to the MEP and ensure that their MS4 discharges do not cause or contribute to violations of water quality standards. If the Copermittees have reduced pollutant discharges to the MEP, but their discharges are still causing or contributing to violations of water quality standards, the Tentative Order provides a clear and detailed process for the Copermittees to follow. This process is often referred to as the "iterative process" and can be found in Section A.3. The language of Section A.3 is prescribed by the State Water Board and is included in MS4 permits statewide. Section A.3 essentially requires additional BMPs to be implemented until MS4 discharges no longer cause or contribute to a violation of water quality standards.

The commenter's assertion that achievement of MEP serves as compliance with the Tentative Order, to the exclusion of the requirement that receiving water quality standards be met, is incorrect. This point was directly addressed by the Court of Appeal, Fourth Appellate District in its decision on the current permit, Order No. 2001-01 (Building Industry Association of San Diego County, et al., v. State Water Resources Control Board, et al). The court states: "If the maximum extent practicable standard is generally "less stringent" than another CWA standard that relies on available technologies, it would be unreasonable to conclude that anything more stringent than the maximum extent practicable standard is necessarily impossible." As such, achievement of MEP does not serve as a ceiling for Copermittee urban runoff management efforts. Copermittees must also ensure that MS4 discharges are not causing or contributing to violations of water quality standards.

Requirements regarding hydromodification (Section D.1.h) and advanced sediment requirements (Section D.2. d.1.c.i) are properly supported in the Fact Sheet. Responses to other comments on those Permit sections can be found in Section C of this document.

9. Consideration of Local Water Quality Conditions

Commenters: Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: One comment from building industry representatives suggested that the Regional Board did not consider local monitoring and scientific evidence. The comment suggests that only federal urban runoff reports are cited as support for the requirements, and as such, the Findings regarding the condition of local runoff and receiving waters are flawed.

Response: The assertion that local conditions were ignored is without merit. Local water quality conditions based on Copermittee monitoring reports and other sources are widely referenced in the Fact Sheet to support the Tentative Order Findings and requirements. Examples in the Fact Sheet include the discussions of Section D.1.h and Findings C.4, C.7, C.8, C.9, D.1.e, and E.5.

In addition, the Tentative Order stresses certain issues specifically in response to the local conditions. This is consistent with U.S. EPA guidance on permit reissuance. Examples in the Tentative Order include the requirements regarding hydromodification controls and flood control device retrofits. Finally, the Tentative Order specifically requires the local programs to focus on local water quality conditions. This allows each Copermittee to tailor its approach to the local receiving water conditions and local land-use activities, rather than simply the most common countywide issues.

10. Vector Control Issues
Sections: D.1.d.6.i; D.1.d.9; D.1.f.1; D.1.f.2.c.ix; D.1.i.1.c.viii;
Sections D.3.c.6.b.v; D.3.a.10.a.i.g;
Section E.1.f.2;
Commenters: Orange County Vector Control District

Comment: The Orange County Vector Control District (OCVCD) provided comments underscoring the relationship between urban runoff, storm water management, and disease vector control concerns. The Regional Board sought and received comments from the OCVCD to supplement its initial comment letter. The OCVCD emphasized the difficulty it faces carrying out its responsibilities when storm water management devices, such as treatment control BMPs, are not properly designed or maintained. In addition, the OCVCD recommended the Regional Board improve efforts to address dry-weather nuisance flows, pointing out that such flows tend to promote mosquito production by creating persistent sources of water and concentrated pollutants. The OCVCD also stressed the need for improved information exchange between the public, Copermittees, the Regional Board, and the OCVCD.

Response: The Regional Board agrees that there is room for improvement in the way storm water and urban runoff are managed with respect to vector control issues. In particular, involving vector control agencies early in the project planning process would help ensure that the most effective options are ultimately implemented. The revised Tentative Order also includes a provision (Section D.1.f.1.c.ix) for the OCVCD to be notified when Copermittee inspections of post-construction treatment BMPs identify conditions contributing to mosquito production.

The revised Tentative Order does not, however, include the majority of the specific recommendations from the OCVCD. Instead, the Tentative Order has been revised to more universally require consideration of vector control issues in the design, implementation, inspection, and evaluation of management measures. Many of the recommendations are more appropriately directed at the Copermittees, which are all members of the OCVCD. Such recommendations generally included requiring increased collaboration between the Copermittees and the OCVCD. For instance, the OCVCD is interested in information about the location and responsible parties for new and existing structural BMPs. The Regional Board encourages the Copermittees to actively seek guidance and recommendations from the OCVCD and is willing to participate in discussions when necessary.

B. Comments on Findings

In certain cases, comments related to a Finding and the associated requirements in the Tentative Order have been grouped within the response to comments on those specific sections, rather than discussed separately.

11. Finding E.7: In-Stream Best Management Practices

Commenters: County of Orange, Dana Point, Laguna Beach, Mission Viejo, Laguna Niguel, Nancy Palmer, Building Industry Association of Orange County, Orange County Council of Governments, Rancho Mission Viejo

Comment: Eight interested parties submitted written comments expressing concern for Finding E.7 of the Tentative Order. This Finding was also subject to much discussion from the public and members of the Regional Board during the April 11, 2007 public hearing. The Finding states, in part, that "Urban runoff treatment and/or mitigation must occur prior to the discharge of urban runoff into a receiving water… Authorizing the construction of an urban runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that water body."

Response: Finding E.7 has been revised for clarity. The intent of the Finding, and related requirements, is to prevent the conversion of waters of the U.S. and State into waste treatment facilities consistent with Federal guidance. It in no way prevents restoration of natural hydrological, biochemical, and habitat functions. Similarly, providing treatment of urban runoff after it has been discharged from the MS4 to waters of the U.S. does not relieve the Copermittees of their responsibility to implement source control, pollution prevention, and treatment BMPs before the water is discharged from the MS4. If diverted water is treated, then discharged back to waters of the U.S., it is likely to need an individual NPDES Permit. Diversion to the sanitary sewer for treatment is allowable, provided the effluent from the sewage treatment facility can meet its NPDES requirements.

Claims that the Finding violates California Water Code (CWC) section 13360(a) and misinterprets U.S. EPA guidance are unfounded. CWC section 13360(a) prohibits the Regional Board from specifying the design, location, type of construction, or particular manner in which compliance may be had. The Finding and related requirements appropriately restrict the location of urban runoff treatment facilities, but do not dictate how compliance with the Tentative Order must be achieved.

In addition, the Finding is consistent with federal guidance. The Fact Sheet specifically cites the U.S. EPA guidance manual for municipal NPDES permitting. One commenter cites U.S. EPA guidance for using constructed wetlands for waste water treatment (1993, EPA 832-R-93-005) as justification for creating wetlands as BMPs within receiving waters. A more recent and appropriate federal agency reference would be *Guiding Principles for Constructed Treatment Wetlands: Providing for Water Quality and Wildlife Habitat*, (2000, EPA 843-B-00-003). That guidance document was developed by the Interagency Workgroup On Constructed Wetlands, which included the U.S. EPA, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, National Marine Fisheries Service, and U.S. Bureau of Reclamation. This guidance states "*Constructed treatment wetlands should generally be constructed on uplands (outside waters of the U.S.) and outside floodplains or floodways (unless the next section, II.B, applies) in order to avoid damage to natural wetlands and other aquatic resources consistent with Federal guidance*."

The section for the exception describes opportunities to use pretreated effluent, or other source waters, to restore degraded wetland systems. The guidance goes on to state:

> *"In general, you should only locate constructed treatment wetlands in existing wetlands, or other waters of the U.S., if*
> *(1) the source water meets all applicable water quality standards and criteria, (2) its use would result in a net environmental benefit to the aquatic system's natural functions and values, and (3) it would help restore the aquatic system to its historic, natural condition. Prime candidates for restoration may include wetlands that were degraded or destroyed through the diversion of water supplies, a common occurrence in the arid western U.S., and in heavily farmed or developed regions. You should avoid siting in degraded wetlands if the functions and values of the existing wetland will be adversely affected or water quality standards will be violated. The appropriate Regional/District or State authorities will make these determinations on a case-by-case basis."*

With respect to municipal storm water, the guidance document includes the following question and answer:

> *Question: I am considering using constructed treatment wetlands to treat my municipality's stormwater flows. What general issues must I consider?*

Answer: First of all, the treatment wetland should not be constructed in a waters of the U.S. unless you can sufficiently pretreat the stormwater flows to protect the values and functions of the waters of the U.S. Because storm water is an unpredictable effluent source and can contain high levels of toxic substances, nutrients, and pathogens, we strongly encourage that you construct the treatment wetland in uplands and use best management practices in these projects (see EPA's Protecting Natural Wetlands: A Guide to Stormwater Best Management Practices, EPA/843-B-96-001). Depending on the size of your municipality and other factors, you may need to get a CWA Section 402 (NPDES) permit. Be sure to contact all the appropriate wastewater authorities in your area during the early planning stages of this type of project."

The Finding and related requirements in the Tentative Order are intended to be consistent with this guidance.

Comment: Several commenters suggested changes to allay concerns that the Finding and related requirements restrict the ability of municipalities to improve water quality and in-stream beneficial uses. Some commenters cited specific projects planned in the Aliso Creek watershed. Other commenters cited classes of projects, and another commenter recommended limiting in-stream controls to the extent practicable. In addition, one commenter suggested that placement of hydromodification control and/or treatment control BMPs in drainages within the boundaries of a development project should be allowed if authorized pursuant to a CWA Section 404 permit from the U.S. Army Corps of Engineers.

Response: The following discussion provides an overview of how the Finding and related requirements would affect the seven specific projects or types of projects cited by commenters. Note, these are necessarily generalizations intended to provide guidance. In addition, many activities that disturb waters of the U.S. will be considered on a case-by-case basis because they are subject to federal permitting under Clean Water Act (CWA) Section 404 and may be reviewed by the Regional Board under CWA Section 401.

1. Type of project: Construction of a series of low-grade control structures and reestablishment of aquatic habitat connectivity. Response: Provided the grade control structures are designed to re-establish a natural channel gradient and correct excessive changes to the sediment transport regime caused by urbanization, rather than to create a series of artificial hydrological impoundments for the purpose of treating pollution, this type of project is not considered an in-stream treatment BMP.

2. Type of project: Shaving of side slopes to reduce vertical banks. Response: Presumably, this is a project intended to restore hydrological connections between the creek and its floodplain or to restore riparian habitat, rather than modifying the stream to maximize treatment of pollutants. In such cases, this is not considered an in-stream treatment BMP.

3. Type of project: Invasive species removal and riparian revegetation and restoration of floodplain moisture. Response: These are habitat restoration measures and not considered in-stream treatment BMPs.

4. Type of project: Treatments or mitigations in receiving water channels or urban streams that protect and restore beneficial use. Response: The distinction in this case between "treatments or mitigations" and the protection or restoration of beneficial uses should be made on a case-by-case basis. Municipalities should generally be cautious of activities that could restore certain beneficial uses at the detriment to others.

5. Type of project: The removal of anthropogenically-induced excess flows for treatment and/or beneficial re-use. Divert excess flows from creeks or modified channels to treatment at strategic and technically feasible locations. Response: Extraction of water from a creek is not necessarily considered a treatment BMP. A key consideration in this case is the type and extent of modification of the existing waters of the U.S. to accommodate the extraction process. In addition, Copermittees must recognize when water has been extracted from a creek and processed, the discharge of the treated effluent back to receiving waters is subject to individual NPDES permit requirements, rather than the municipal NPDES permit. Finally, the extraction of water from waters of the State may be subject to water rights permitting from the State Water Board. The Tentative Order does not prohibit extraction of waters of the U.S.

6. Type of project: Construct multipurpose stream- and wetland-restoration and stabilization projects that have pollutant control or reduction capacities. Response: The assessment in this case should be made on a case-by-case basis. Projects to restore wetlands or stabilize stream channels will generally be subject to CWA section 404 permitting and associated review by the Regional Board under CWA Section 401. Provided the primary design is targeted at re-establishment of natural hydrological, biochemical, and habitat conditions, rather than an urban runoff pollutant treatment facility, the project would not be considered a treatment BMP subject to the findings and requirements of the Tentative Order.

7. Type of project: Exempt "structural BMPs" such as natural wetlands, which are created in receiving waters as well as in MS4s with natural bottoms, etc. Response: The assessment in this case should be made on a case-by-case basis. The establishment of a "natural" bottom (which generally means a channel bed of sediment, rather than some impervious surface) is not itself a sufficient descriptor of the characteristics of the project.

8. Type of project: Placement of hydromodification control and/or treatment control BMPs in drainages within the boundaries of a new development project should be allowed if authorized pursuant to a 401 certification of a CWA 404 permit and/or WDR issued for discharge into non-federal waters. Response: Where a CWA section 404 permit has been issued by the U.S. Army Corps of Engineers for the conversion of a water body into a non-jurisdictional water, then the placement of a treatment BMP in that area would be consistent with the Tentative Order. However, the placement of fill and other material into the water body may be subject to waste discharge requirements from the Regional Board. Generally, the Copermittees cannot assume that such conversion would be allowed. The Tentative Order requirements for priority projects (Section D.1.d.4) acknowledge that some conversion is likely to be permitted. However, the Copermittees must recognize that limiting such conversions can be a practical site design BMP.

Comment: Additionally, some commenters considered Finding E.7 to contradict other requirements of the Tentative Order. Specifically, they felt the requirement related to retrofitting an existing flood control device (section D.3.a.4) and requirements that allow for in-stream hydromodification controls (section D.1.h) would violate the prohibition on located treatment BMPs in receiving waters.

Response: The Tentative Order requirements for modifying flood control structures call for reducing the negative effects on water quality caused by those structures. Permittees must evaluate flood control structures to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible. In cases where the flood control facility falls within waters of the U.S., the discussion above pertaining to modifying streams to serve as BMPs applies. In cases where the structure falls outside of waters of the U.S., then the discussion regarding in-stream BMPs does not apply.

The Narco Channel Restoration Project in the City of Laguna Niguel is an example of a retrofitted flood control structure that was located within a water of the U.S. Narco Channel is an urban stream that was highly modified during urbanization. Retrofitting the channel was necessary because poor sediment transport in the modified flood control channel resulted in a decrease flood conveyance capacity and nuisance conditions from excessive ponding. This project includes the restoration and enhancement of approximately 1,000 linear feet of the channel where it emerges as a trapezoidal channel downstream from a 4,000-foot long concrete box culvert. The project was designed to improve hydrological conditions and restore native habitat conditions by grading back a portion of the upper trapezoidal channel. The project will improve water quality conditions, but was not designed to turn the channel into an urban runoff treatment BMP.

Similarly, the Tentative Order requirements related to in-stream hydromodification controls are for situations where urban streams have already been adversely affected by the effects of hydromodification. In these cases, hydromodification controls located within channels are intended to restore natural hydrological and sediment transport conditions of the channel, which in turn would improve water quality conditions. This is in contrast to situations in which a structural hydromodification control would be located within a stream in order to accommodate flow regime changes caused by new developments or to create a pollution treatment zone within the channel. For example, the proposed series of low-grade control structures in Aliso Creek (described above) is an in-stream hydromodification control that is intended to address significant water quality and habitat problems currently caused by hydromodification. Provided the grade control structures are designed to re-establish a natural channel gradient and correct excessive changes to the sediment transport regime caused by urbanization, rather than to create a series of artificial hydrological impoundments for the purpose of treating pollution, this type of project is not considered an in-stream treatment BMPs. No changes have been made to the Tentative Order regarding the association between hydromodification controls and in-stream treatment BMPs.

12. Finding C.1: Urban Runoff Contains Waste; and Finding C.3: Discharges from MS4s May Result in Pollution

Commenters: Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: Commenters suggest that Findings C.1 and C.3 should be revised to clearly acknowledge that not all MS4 discharges contain waste or pollutants. They note that storm water discharges may contain pollutants and that discharges may also contain non-anthropogenic loads of pollutants, such as sediment. They contend that as written, the Tentative Order improperly attempts to regulate storm water more broadly than necessary to address adverse effects on receiving waters.

Response: The Findings are appropriately supported and have not been revised. Finding C.1 states that "urban runoff contains waste." This was supported in State Water Board Order WQ 2001-15, which reviewed the previous San Diego County MS4 Permit (Regional Board Order No. R9-2001-01). Discharges from MS4s to receiving waters are considered point source discharges to be regulated by NPDES requirements. Finding C.3 notes that discharges from MS4s may cause or threaten to cause conditions of pollution, contamination, or nuisance. The Fact Sheet relies on national and local water quality studies to support this conclusion.

Clearly, not all storm water discharged from MS4s is waste. Much of it is precipitation. That storm water, however, can pick up waste and pollutants along its path to and through the MS4. The Copermittees must ensure implementation of storm water BMPs to limit the amount of pollution that is discharged with the precipitation from the MS4s. Limited storm water monitoring conducted by the Copermittees demonstrates this, and the Tentative Order includes requirements to conduct storm water monitoring at storm drains to better assess the conditions (Attachment E). Urban runoff also includes dry-weather discharges. In southern Orange County, dry-weather urban runoff has been increasingly monitored under the existing MS4 Permit. The data demonstrates significant amounts of pollution that cannot be attributed to non-anthropogenic sources.

13. Finding C.2: Categories of Pollutants

Commenters: County of Orange

Comment: One comment indicated that this Finding should be modified to identify the pollutants commonly found in urban runoff without specifying sources unless a more thorough discussion of sources is provided.

Response: The requested modifications are considered unnecessary. The Finding cites three technical reports that discuss the common pollutants and sources in greater detail.

14. Finding C.4 – Effects of Pollution on Human Health

Commenters: Building Industry Association of Orange County

Comment: One comment received stated that Finding C.4 is contrary to a proper and complete summary of available scientific evidence as a whole. The commenter cited reports that found indicator bacteria concentrations in receiving waters downstream from the developed/urban watersheds were not significantly different than concentrations in receiving waters downstream from undeveloped watersheds. This would imply that bacteria in surface water cannot be directly correlated with incidences of human illness. Further, they note other studies that demonstrate no link between concentrations of indicator bacteria and either an increased risk of human illness or the presence of human pathogens.

Response: The studies cited by the commenter address only the possible effects of indicator bacteria on human illness rates relative to the degree of urbanization and not on the effects of urban runoff and storm water pollution in general. The evidence in the record supporting Finding C.4 is cited in the Fact Sheet. The study linking recreation near storm drains and occurrence of illness was conducted by R.W. Haile in 1996, titled "An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay." The study found that swimmers near storm drains had a 57 percent greater incidence of fever than those swimming farther away. This study also confirmed the increased risk of illness associated with swimming in areas with high densities of indicator bacteria. Illnesses were reported more often on days when water samples tested positive for enteric viruses.

In addition, a recent study by Ryan Dwight found that of the more than 5 million people who swam at the two beaches from 1998 to 2000, there were about 36,000 cases of stomach ailment and 38,000 cases of respiratory, eye and ear infections caused by exposure to waters polluted by urban runoff and other sources (Dwight, et al., 2005). Dwight also found that surfers in urban North Orange County reported nearly twice as many illnesses as surfers in rural areas of Santa Cruz in 1998 (Dwight, et al., 2004). These studies support the finding that "pollutants in urban runoff can threaten human health" (Finding C.4). The Finding has not been revised.

15. Finding C.6: Clean Water Act 303(d) Impaired Water Bodies

Commenters: County of Orange, City of Lake Forest

Comment: Two comments stated that representation of the 303(d) list, as presented in Table 2a, incorrectly connotes systemic water quality issues that are actually limited to specific segments and incorrectly attributes benzo[b]flouranthene, dieldrin, and sediment toxicity for Aliso Creek.

Response: Footnote 1 on page 4 of the Tentative Order, however, correctly notes that the pollutants of concern indicated in Table 2a do not reflect an impairment of the entire waterbody. The Table simply lists the impairments that occur within the respective watershed management areas.

16. Finding C.7: Water Quality Monitoring Data

Commenters: County of Orange

Comment: One comment proposes that the term “violation” be changed to “exceedances” and that the last sentence of the Finding be modified to indicate that “exceedances may be due to urban runoff” and “warrant special attention” to account for inadequate data and uncertainty within many of the studies that have been conducted.

Response: The word "violation" is appropriately used in Finding C.7 as a violation is an exceedance of a Basin Plan water quality objective and such violations have persistently been documented with sufficient, reliable data for a number of urban runoff-related pollutants in water bodies in Orange County, as discussed and cited in the Fact Sheet (Finding C.7). The Finding has not been revised.

17. Finding C.9: Urban Development Creates Pollution

Commenters: Building Industry Association of Orange County

Comment: One comment indicated that Finding C.9 did not consider the complex relationship between urban development land uses and pollutant loading, the effect that treatment control has on the quality of urban runoff, or the conversion of agricultural lands to urban land uses that for many pollutants (e.g., nutrients) will reduce pollutant concentrations in runoff. Another comment proposed that there is no evidence in the record to suggest that the Finding generally applies to urbanization in Orange County.

Response: Finding C.9, however, describes the general circumstances that occur with new development. The Fact Sheet supports the Finding by citing a variety of technical studies, including ones from the southern California region. While it is likely that exceptions may exist, Finding C.9 is accurate and appropriate to support the tentative requirements.

18. Finding C.10: Environmentally-Sensitive Areas

Commenters: Building Industry Association of Orange County

Comment: One commenter suggested that the Fact Sheet lacks sufficient evidence to support the statement within Finding C.10 that development and urbanization threaten environmentally-sensitive areas (ESAs) and impaired water bodies.

Response: The Fact Sheet appropriately describes why such areas require additional controls and focused attention. Furthermore, a summary of impaired waters is provided in Table 2a of the Tentative Order. Although the Tentative Order does not include a map, as seemingly requested by the commenter, maps of ESAs are provided within the JURMPs and WURMPs developed by the Copermittees. In addition, the vast majority of listed water bodies are impaired because of urban runoff. This Finding has not been revised.

19. Finding D.1.c: New or Modified Requirements
Commenters: County of Orange

Comment: One comment asserted that in many cases the new or modified requirements do not have adequate findings of fact and technical justification, partly because it does not address the program analysis conducted by the Copermittees as a part of their preparation of the ROWD. The commenter suggests that the Tentative Order should rely on the deficiencies and program modifications that Copermittees themselves identified as necessary for the program.

Response: As discussed in the Fact Sheet, new and modified requirements in the Tentative Order generally address program improvements necessary to meet the MEP standard, address high priority water quality problems, and target program deficiencies noted during audits, report reviews, other compliance activities and the Copermittees' ROWD. Where appropriate, modifications are discussed in related sections of the Tentative Order.

20. Finding D.1.e: Best Management Practices (BMPs)
Commenters: Construction Industry Coalition on Water Quality

Comment: One comment noted that the studies cited in the Fact Sheet discussion of Finding D.1.e primarily focused on dry weather flow treatment systems and wet weather hydrodynamic devices, which would not be expected to be effective on a number of pollutants. The commenter suggests that Finding D.1.e should be based upon a more comprehensive look at treatment control BMP effectiveness.

Response: The Regional Board agrees that some BMPs may be more effective than others. The Fact Sheet specifically lists studies conducted on treatment BMPs within the Copermittees' jurisdictions during the current Permit cycle. The conclusion from the synthesis of these studies is that source control and pollution prevention BMPs are necessary to complement end-of-pipe treatment approaches. Thus, Finding D.1.e appropriately notes that a combination of such BMPs is necessary. The Finding has not been revised.

C. Comments on Specific Sections

SECTION A – Prohibitions and Receiving Water Limitations

21. Section A.3.c: Regional Board Enforcement of Water Quality Standards
Commenters: Building Industry Association of Orange County and Building Industry Legal Defense Fund

Comment: Commenters suggest that Section A.3.c of the Tentative Order should be revised or deleted. Specifically, the commenters claim that implementing an iterative process) of urban runoff management (adaptive BMP management) is equivalent to complying with the MS4 Permit. The commenters argue that State Water Board Order 2001-11 dictates that the iterative process is the only appropriate recourse for violations of discharge prohibitions.

Response: This comment is misguided and no changes have been made to this section of the Tentative Order. Section A.3.c prohibits discharges from MS4s that cause or contribute to the violation of water quality standards. The Tentative Order (section A) describes the process each Copermittee must implement in response to situations where MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard. Preparation and implementation of an iterative process report alone does not constitute compliance with this section, since the effectiveness of the report implementation is not assured. The preparation and implementation of the iterative process report is not a "safe harbor" from enforcement as violations of water quality standards continue. The preparation and implementation of the report is a means to achieve compliance with section A.3, but does not constitute compliance. This issue was raised during the Building Industry Association of San Diego County appeal of the current permit, Order No. 2001-01. In its review of the issue, the State Water Board stated: "Compliance is to be achieved over time, through an iterative approach requiring improved BMPs." In other words, the iterative approach of report preparation and implementation does not constitute compliance with water quality standards, but rather leads to achieving receiving water quality standards over time.

Section A.3.c of the Tentative Order makes clear that the Copermittees are responsible for discharges causing or contributing to violations of water quality standards until the situation is rectified. The Regional Board will require the process be followed and pursue enforcement consistent with the Water Quality Enforcement Policy (State Water Board, 2002).

SECTION D.1 – Development Planning

22. Section D.1: General Comments

Commenters: Construction Industry Coalition on Water Quality, Contech Stormwater Solutions, Inc., County of Orange, Rancho Mission Viejo

Comment: Several commenters recommended that the Tentative Order provide for BMP design and implementation at various development scales. For instance, treatment control and site-design BMPs should be considered at a broader context than an individual project. Specifically, some commenters want the ability to share treatment BMPs, and others want to have priority project requirements (SUSMP) satisfied by implementation of large-scale watershed-development plans. Four commenters are concerned that the Tentative Order prohibits or unreasonably restricts the use of regional treatment facilities.

Response: The Regional Board agrees with the commenter who suggested regional treatment facilities should be allowed as long as regional treatment is provided without using waters of the U.S./State to convey the untreated, polluted storm water. (A discussion of comments concerning in-stream regional treatment BMPs is provided in the response to comments on Finding E.7.)

Comment: One commenter suggested that the requirement to treat runoff prior to being discharged means that regional treatment facilities are prohibited and mandates a lot-by-lot approach for treatment BMPs in new developments. Another commenter suggested that end-of-pipe or shared treatment BMPs implemented at a sub-watershed scale can be more effective than relying on smaller, distributed treatment control BMPs.

Response: These concerns are addressed within the Tentative Order, which provides for shared treatment BMPs as long as the treatment occurs prior to discharges from the MS4 to receiving waters. However, the implementation of shared, end-of-pipe treatment BMPs does not eliminate the need to implement source control and pollution prevention BMPs at the particular pollutant-generating facilities within the drainage area.

Comment: Other comments recommended that the Tentative Order should also allow for a regional approach to site design BMPs. One commenter suggested that the site design BMP requirements directed toward maximizing infiltration, slowing runoff, and minimizing impervious footprint could be more valuable if applied at a broader scale than project-by-project considerations. In this approach, a watershed-based plan would concentrate development on soils with naturally impervious characteristics and restrict development on soils with naturally high infiltration capabilities. A similar argument was offered for waiving site design BMPs requirements related to riparian buffer protection if a watershed-based plan has been established to protect high-value riparian habitats.

Response: Several issues are particularly relevant in the discussion of whether regional development plans provide an adequate level of protection from MS4 discharges.

First, regional development and conservation plans provide a framework for development that may extend far beyond the five-year NPDES permit term. The Tentative Order acknowledges that certain projects may have a vested status that legally precludes the municipality from applying requirements in the reissued permit. However, reissued permits appropriately include requirements based on new information, and municipalities must ensure that they use their legal authority to ensure the updated requirements are met by new developments. "Grandfathering" projects subject to regional habitat conservation plans, for example, could preclude the implementation of important storm water management measures that may either be included in future reissuances of the MS4 permit or desired by Copermittees.

Second, regional development or habitat conservation plans might not include specific provisions for meeting water quality standards in all waters of the U.S. In the case of south Orange County, the Special Area Management Plan (SAMP) cited by a commenter is being created by the U.S. Army Corps of Engineers for its CWA Section 404 permitting program. The purpose of the SAMP is to provide for reasonable economic development and the protection and long term management of sensitive aquatic resources. It provides for streamlined section 404 permitting in certain areas. The SAMP seeks to ensure that degradation of beneficial uses caused by MS4 discharges is avoided or minimized only within the designated Aquatic Resources Conservation Area, which was established to protect sensitive species. The SAMP recognizes the need for section 404 applicants to comply with municipal storm water regulations adopted to implement the MS4 Permit.

Third, the scale and context of particular regional plans varies; some plans are watershed-based, others may be broader or narrower. But, federal regulations and guidance state that municipalities must ensure appropriate BMPs are implemented by new developments based on the land use and receiving water conditions. For example, a project cannot be allowed to forgo adequate BMP implementation for discharges to one water body just because it promises to avoid discharging into a higher-valued water body.

The Tentative Order is intended to provide some discretion to the Copermittees for evaluating multi-phase development projects as a whole, provided that each phase includes an appropriate mix of site design, source control, and treatment BMPs. The site design requirements are flexible enough to be met by all phases of a development. The requirements acknowledge site constraints, and only require site design BMPs to the extent that the project has capacity for them. For example, a multi-phase project that cumulatively minimizes the loss of existing infiltration capacity could include one phase that lacks pervious soils. The Tentative Order requirements (Section D.1.d.4.b and c) allow for municipalities to consider the lack of pervious soils when determining whether certain site design BMPs can be implemented. However, that would not preclude the need for other types of site design, source control, and treatment BMPs to be implemented within that phase. The Regional Board recognizes that such discretion could be subject to abuse and intends to assess such implementation during program evaluations and audits during the permit term.

23. Section D.1.c.5: Long-term Maintenance of Structural BMPs
Commenters: Rancho Mission Viejo

Comment: One comment suggested that Copermittees should require submittal of proof of a mechanism to ensure long-term maintenance of all structural post-construction BMPs prior to issuance of final permit approval rather than during the planning process.

Response: This revision is unnecessary because language in the Tentative Order already affords Copermittees the flexibility to allow submittal of this mechanism at any point during the planning and permitting process prior to approval and issuance of local permits.

24. Section D.1.c.6: Infiltration and groundwater protection, and Finding C.11: Groundwater Protection
Commenters: Building Industry Association of Orange County, Contech Stormwater Solutions, Inc., City of Dana Point, Construction Industry Coalition on Water Quality, County of Orange, Rancho Mission Viejo

Comment: One comment suggested that pretreatment be added as a management technique for reducing the risk of groundwater contamination by infiltration BMPs on sites with moderate to high pollutant loading, particularly for sites with high average traffic volume or a high potential for spills. Another comment requested that the Tentative Order be revised to discuss mixed land use. Specifically, the recommendation was made to allow areas of mixed land uses to use infiltration for treatment and/or hydromodification control and to clarify the applicability of restrictions placed on water supply wells used for domestic consumption versus those used for agricultural consumption.

Several comments were received regarding the design restrictions that must be applied to centralized infiltration devices to protect the quality of groundwater. One comment also requested clarification of "centralized" as it is used in this section. The technical comments were concerned with restrictions being applied relative to project size rather than pollutant loading, justification for pretreatment, depth to groundwater and soil type. Procedural comments were concerned with the restrictions being so conservative as to impede the use of infiltration as a treatment BMP and possible inconsistencies with site design and hydromodification requirements.

Response: The restrictions in Section D.1.c.6 are intended to protect groundwater quality and are to be applied to any application that is designed to primarily function as a centralized infiltration device, regardless of land use type. A centralized infiltration device refers to applications such as large infiltration trenches and infiltration basins that collect water from various locations for the purpose of infiltration and does not refer to small infiltration systems dispersed throughout a development. The language proposed in Section D.1.c.6 is consistent with the language used in Section F.1.b.2.h of Order No. R9-2002-0001 (the current Permit). As discussed in the Fact Sheet for Order No. R9-2002-0001, the restrictions placed on urban runoff infiltration are based on recommendations provided by the U.S. EPA Risk Reduction Engineering Laboratory and supported by the State Water Board. The language contained in the Tentative Order also allows the Copermittees to develop alternative criteria to replace the suggested restrictions.

Pre-treatment has been added as a potential management technique in Finding C.11. The Regional Board, however, recognizes that pre-treatment may not be an effective management technique in all situations. Copermittees must properly evaluate proposals involving pre-treatment as a measure to protect groundwater quality.

25. Section D.1.d: Standard Urban Storm Water Mitigation Plans (SUSMPs) "Grandfathering"

Commenters: Building Industry Association of Orange County

Comment: One comment recommended that footnote 4 on page 23 of the Tentative Order be revised to make it a standalone provision and to clarify the scope of the clause. Specific language was recommended to account for approved tentative tract maps, commencement of construction/grading activities, and legality. The comment also requested further clarification regarding whether or not the Copermittee has the authority to determine "illegal" as used in this provision.

Response: Footnote 4 on page 23 of the Tentative Order has been revised. The language, however, regarding final tentative tract maps was omitted because such maps may be approved years in advance of construction. Construction activities should comply with water quality regulations in place at the time of construction. The permit language allows the Copermittee sufficient latitude to determine "illegal" as used in this provision.

26. Section D.1.d: Timeframe to Update SUSMPs

Commenters: Building Industry Association of Orange County, City of Laguna Hills, City of Aliso Viejo, City of Dana Point, County of Orange, City of Lake Forest

Comment: Several commenters requested that the timeframe for updating locals SUSMPs be extended. They stated that 24 months is necessary due to the time required to develop standards, coordinate with other Copermittees and provide for public participation. One comment also recommended that the Copermittees collaboratively update the Model SUSMP to include site design BMPs instead individual efforts.

Response: The requested changes were not included in the revised Tentative Order. First, the Copermittees may collaboratively update the Model SUSMP, but that does not itself ensure that each Copermittee would adopt the model at that time. Thus, the Tentative Order requires that each Copermittee implement an updated SUSMP, but does not specify the process used to develop the updates. Second, while the Tentative Order requires a number of changes to the existing SUSMPs, few of the changes require a significant time investment for developing policy. Many of the improvements can be taken directly from the permit language, the DAMP or by reference from existing resources such as the California Association of Stormwater Quality Agencies (CASQA) or County of Ventura. The annual treatment control BMP review is intended to ensure data sharing between Copermittees and should be reflected annually in the ranking matrix and/or Model SUSMP language. The LID Substitution Program is an optional program that may be incorporated at any time during the permit cycle. Time intensive programs, such as the development of hydromodification requirements and incorporation of a one-acre threshold for Priority Project categories, have already been granted extended timeframes.

27. Section D.1.d.1: Acreage Thresholds for SUSMP Projects

Commenters: County of Orange

Comment: One comment requested clarification of the applicability of Section D.1.d.1.b. Another comment requested clarification for a scenario where a “right turn pocket” is added to a roadway and triggers a SUSMP classification. The commenter suggested that only the sub-drainage area where the roadway improvements are occurring is subject to SUSMP requirements for BMPs, not the entire roadway.

Response: Section D.1.d.1.b has been revised for clarity. The concern regarding the right-turn pocket scenario is not warranted. As stated in Section D.1.d.1.b, “where redevelopment [e.g., the right pocket turn lane] results in an increase of less than 50% of the impervious surfaces of a previously existing development (the road)…the numeric sizing criteria…applies only to the addition, and not the entire development.”

28. Section D.1.d.2: Priority Project Categories for SUSMPs; and Finding D.2.e

Commenters: County of Orange

Comment: Two comments were received regarding the applicability of Municipal Storm Water NPDES Phase II rules for Phase I communities, specifically relative to Finding D.2.e and the one-acre threshold for heavy industrial sites and commercial developments in Section D.1.d.2. Another comment noted that "single-family homes" should be exempted from SUSMP requirements because SUSMP development poses an unnecessary burden on homeowners and could result in minimal water quality benefit.

Finally, another comment asserted that it is unreasonable and costly to expect that runoff from an entire project be subject to SUSMP requirements when just one feature of the project triggers the requirements. The comment gives the example of a 100,000 square-foot development, that itself may not be considered a Priority Project, with a 5,000 square-foot parking lot that is considered a Priority Project. The comment further expresses that the Fact Sheet does not adequately address the risk of water quality pollution associated with specific land uses.

Response: State Water Board Order No. WQ 2000-11 indicates that it is appropriate to apply SUSMP requirements to categories of development where evidence shows the category of development can be a significant source of pollutants. As discussed in the Fact Sheet (Finding D.2.e), heavy industrial sites can be a significant source of pollutants. Therefore, section D.1.d.2.b of the Tentative Order was modified from the existing Permit to add heavy industrial sites as a SUSMP Priority Development Project category.

Additionally, the Tentative Order is a Phase I NPDES municipal storm water permit, reflecting a program that has been in place for over 15 years. The Tentative Order, therefore, should be at least as stringent as the Phase II NPDES storm water regulations, which have been in place approximately five years. The Phase II NPDES storm water regulations require development, implementation, and enforcement of a "program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre" (40 CFR 122.34(b)(5)). In order to be consistent and as protective of water quality as the Phase II NPDES storm water regulations, the commercial development Priority Development Project category threshold was reduced from 100,000 square feet to one acre (43,560 square feet).

A single family home project would only need to prepare a SUSMP in the event that the project meets specific sizing criteria and drains directly to an ESA or results in development of a hillside comprised of erosive soils. Because both circumstances require additional planning and pollution prevention measures to protect surface water quality, regardless of the type of development, it would not be appropriate to exclude single family homes from SUSMP requirements.

The language in the introduction of Section D.1.d.2 of the Tentative Order regarding the inclusion of the entire project when at least one aspect of the project is categorized as a Priority Project is consistent with the Regional Board's 2002 approval of the San Diego SUSMP. This is a particularly important requirement since municipalities have greater latitude during development to require pollution prevention than they have with existing development. Moreover, this is a reasonable requirement in that it limits confusion for property owners and ensures consistent implementation of SUSMP requirements. This section and related Finding have not been revised.

29. Section D.1.d.2.j: Retail Gasoline Outlets as SUSMP Category; and Finding D.2.d: Retail Gasoline Outlets (RGOs)
Commenters: County of Orange, City of Dana Point

Comment: One comment requested that the Fact Sheet provide justification to support Finding D.2.d, which discusses retail gasoline outlets (RGOs). Another comment suggested that RGOs do not need to be included as SUSMP projects because the DAMP already prescribes a suite of BMPs specific to RGOs. This commenter further cited State Water Board WQ Order No. 2000-11 guidance stating that "…treatment may not always be feasible or safe" at RGOs.

Response: Section D.1.d.2.j of the Fact Sheet discusses the inclusion of RGOs in the Tentative Order at length, specifically addressing the issue of applicability, feasibility and safety. Additionally, the Fact Sheet discusses State Water Board WQ Order No. 2000-11 and subsequent State Water Board actions regarding RGOs. This section and related Finding have not been revised.

30. Section D.1.d.4: Site-Design BMP Requirements; Section D.1.d.8: ID Site-Design BMP Substitution Program; and Finding D.2.c: Low Impact Development (LID)
Commenters: Building Industry Association of Orange County, Contech Stormwater Solutions, Inc., City of Dana Point, Rancho Mission Viejo, Orange County Coastkeeper, County of Orange,

Comment: Several comments were received regarding the applicability of site-design BMPs on various sites dependent upon soil, slope stability, potential contamination of vegetation/groundwater and aesthetics. Recommendations included modifying language in this section to address feasibility concerns, to allow treatment controls in lieu of site-design BMPs, and to substitute watershed and subwatershed based planning rather than project-by-project site design. One comment also noted that lot-by-lot placement of site design or LID BMPs may not be as effective or practical as locating BMPs with the entire development in mind. Other comments stated that site-design and LID BMPs are not adequately regulated by the Tentative Order as the Order lacks pretreatment, performance, inspection and maintenance requirements.

Comments regarding the LID Substitution Program indicated that Section D.1.d.8 does not provide sufficient flexibility for innovativeness, that retrofit projects should be encouraged to include LID, and that it is not clear how one would distinguish between an LID practice that is a treatment control BMP and one that is not. Additionally, one commenter recommended removing "freeways" from D.1.d.8.e because the Copermittees do not design, construct or operate freeways.

Response: The Tentative Order has not been revised. It clearly states that site-design BMPs must be considered and should be based on soil, slope, and other pertinent site conditions and should be placed where applicable and feasible, considering the entire development. This section does not preclude pretreatment of runoff or the design of aesthetically pleasing and safe site-design BMPs, nor does this section prohibit the incorporation of site design BMPs on a watershed or subwatershed basis as applicable. The Regional Board intends to evaluate information generated during this permit cycle when considering whether to incorporate additional standards regarding site design BMPs in the next reissuance. Comments regarding site design BMPs and the LID Substitution Program are addressed at greater length in Fact Sheet Sections D.1.d.6 and D.1.d.8.

31. Section D.1.d.6: Treatment Control BMP Requirements for SUSMPs
Commenters: Contech Stormwater Solutions, Inc., Rancho Mission Viejo

Comment: One commenter requested that the Tentative Order allow additional methods for use in determining volume-based sizing criteria for treatment control BMPs (Section D.1.d.6.a.i).

Response: As discussed in the Fact Sheet for this section, the Order intentionally limits the selection of methods used to determine the appropriate volume of runoff to be treated. This is done to ensure the greatest degree of accuracy and consistency. The Fact Sheet had referred readers to the County's Model WQMP for the isopluvial maps. As requested, the Tentative Order has been revised to include a reference to the Orange County 85th Percentile Isopluvial Maps.

Comment: Two comments also requested that the language in Section D.1.d.6.b be modified to recognize that filtration is a method of treating water and that infiltration and filtration are both treatment control BMP options.

Response: The Tentative Order has been revised based on these comments.

32. D.1.d.11: Reviews of Treatment BMP in Local SUSMPs
Commenters: City of Dana Point

Comment: One commenter requested that the requirement to review and update the treatment BMPs lists within the local SUSMPs be changed from an annual activity to one conducted twice during the Permit term. The rationale is that the local SUSMPs list categories of BMPs, rather than specific proprietary devices, and significant changes in the expectations of each BMP category would not change on an annual basis.

Response: The Regional Board notes that the Copermittees have failed to adequately integrate findings from their own treatment BMP effectiveness studies into the local SUSMPs. Several examples are listed in the Fact Sheet. The Tentative Order requires that findings from projects conducted by the Copermittees using State funds must be incorporated into the local SUSMPs.

The Regional Board agrees with the premise of the comment that less frequent updates can suffice for keeping the countywide Model SUSMP up to date with the general, nationwide effectiveness reports cited in the Model SUSMP. However, Copermittees need the ability to rapidly incorporate findings from local projects. This is especially important for various types of proprietary products within the broad categories of the Model SUSMPs.

As a result, the Tentative Order has been revised to allow for less frequent updates, provided that Copermittees use their discretion and professional judgment when considering types of BMPs within the categories. That is, if they have reliable information about a particular product that discredits claims purported in an applicant's storm water plan, the Copermittees cannot approve the use of that particular product just because it falls under a certain category on the Model SUSMP chart.

33. Section D.1.e: BMP Construction Verification; and
Section D.1.f: Treatment Control BMP Tracking
Commenters: Contech Stormwater Solutions, Inc., City of Laguna Hills, City of Aliso Viejo, City of Dana Point, County of Orange, Rancho Mission Viejo, City of Lake Forest

Comment: One commenter suggested revisions to Section D.1.f so that only structural source control and treatment control BMPs be verified and that such verification should occur during regular construction inspections. Several other comments indicated that compliance with inspection requirements will require a significant commitment from Copermittee staff and may require the addition of staff, an outlay of funds with questionable value. Recommendations were made to allow self-certification by facilities, inspection by a third party and/or verification by the Copermittee on an as-needed basis.

Response: To the extent that site design and non-structural source control BMPs are properly employed, they play a critical role in the prevention of storm water pollution and urban runoff on developments, a tenet of the Tentative Order. For this reason, the proper construction of all BMPs, not just structural BMPs, must be verified. The language proposed in the Tentative Order affords the Copermittee maximum flexibility in determining at what point during the construction process inspections are performed, so long as the BMPs are verified prior to occupancy. The language in Section D.1.f.c.iii of the Tentative Order has been modified to allow the Copermittees more latitude with verifying treatment control BMP operations through self-certification, third party inspection and/or verification by the Copermittee.

34. Section D.1.h: Hydromodification; and Finding C.8

Commenters: County of Orange, City of Laguna Niguel, City of Mission Viejo, City of Lake Forest, Construction Industry Coalition on Water Quality, Building Industry Association of Orange County, Contech Stormwater Solutions, Inc. Rancho Mission Viejo, Natural Resources Defense Council, South Laguna Civic Association

Ten commenters directly or indirectly addressed issues pertaining to Tentative Order requirements for hydromodification and downstream erosion in priority development projects (Section D.1.h). Commenters generally acknowledge that the Tentative Order properly includes more specific requirements for hydromodification, but that certain changes should be made to reflect conditions in the region and the state of technical knowledge regarding the matter.

General Hydromodification Comments

Comment: One commenter suggested the requirements for LID and site design BMPs should be strengthened in order to more effectively address concerns for hydromodification. That commenter asserted that LID approaches can often be used to fully satisfy hydromodification concerns. Another commenter recommended that the Copermittees be directed to restore certain high value water bodies, such as the estuary at the mouth of Aliso Creek, which have been adversely affected by hydromodification. That commenter also suggests that the Regional Board consider hydromodification effects to downstream water bodies from increased dry-weather flows, which has led to ecological and water quality problems as intermittent streams are converted to perennial streams.

Response: The Regional Board agrees that LID approaches can be used to lessen potential hydromodification effects from priority projects and expects many of the measures required by Copermittees to fall under the umbrella of LID. This approach is consistent with the State Water Board's Panel on Numeric Effluent Limits (Numeric Effluent Panel)[8], which encouraged minimizing the amount of impervious areas to reduce adverse hydromodification effects. In some situations, however, other approaches or a combination of approaches may be suitable.

The Regional Board also acknowledges that changes to the dry-weather flow regime have caused or contributed to conditions of pollution in the region's water bodies. The Annual Reports and ROWD submitted by the Copermittees also reflect this awareness. The Tentative Order includes requirements for addressing dry-weather discharges within the development of each Copermittee's hydromodification management strategy (see Sections D.1.h.1 and D.1.h.2). Other requirements, including Sections A and B of the Tentative Order, properly address the discharge of pollutants in dry-weather discharges.

The Tentative Order does not directly require restoration of water bodies currently affected by hydromodification, but it does provide for measures to be implemented that will improve problematic conditions. For example, consistent with Federal regulations, the Copermittees must address water quality when retrofitting structural flood control devices (Section D.3.a.4). In addition, the Tentative Order requires that Copermittees develop control measures for non-storm water discharges that are determined to be a significant source of pollutants, even if those discharges would otherwise be exempt from the prohibition on non-storm water discharges into the MS4 (Section B).

Implementing a Hydromodification Control Strategy (Section D.1.h.3)

The Tentative Order requires that the local SUSMPs be updated to include adequate considerations of hydromodification effects from proposed projects (Section D.1.h.1 through D.1.h.4) in a phased approach. First, the current assessment of hydrological conditions of concern within local SUSMPs would be refined within one year through the development of a hydromodification control strategy (Section D.1.h.3). Specific criteria would be added within two years based on future reports produced by the Stormwater Monitoring Coalition (SMC) and the Southern California Coastal Water Research Project (SCCWRP), since those reports represent the most locally-appropriate technical investigations into this issue (Section D.1.h.4). Until the SUSMPs are modified to include the specific criteria, certain interim requirements would apply to large projects (Section D.1.h.5).

Comment: Several comments sought additional time to develop the control strategy and specific criteria. Some comments sought exemptions from the requirements for certain types of projects. Other comments focused on the interim requirements.

[8] Storm Water Panel Recommendations to the California State Water Resources Control Board. 2006. The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial, and Construction Activities.

Response: Reports already produced by SMC and SCCWRP were used to establish requirements for developing the hydromodification control strategy. Because new development activity in most municipalities is not expected to be substantial, the Regional Board considers the preliminary conclusions from existing SMC/SCCWRP reports to be sufficiently descriptive for the Copermittees to make appropriate modifications to their SUSMPs.

Requirements in the Tentative Order for developing appropriate hydromodification controls consists of three parts: (1) Assessment of conditions downstream from a proposed project site; (2) Assessing the proposed discharge characteristics of the project to understand whether the project has the potential to affect the downstream conditions; and (3) Requiring appropriate management measures to prevent adverse downstream effects.

This approach is consistent with the current Permit's requirements to "maintain or reduce pre-development downstream erosion, and to protect stream habitat." (Section F.1.b.2.b of Regional Board Order No. R9-2002-01). The current Permit requires the Permittees to consider both "changes in storm water discharge flow rates, velocities, durations, and volumes resulting from the development project" and the "sensitivity of receiving waters to changes in storm water discharge flow rates, velocities, durations, and volumes." (Section F.1.b.2.e of Order No. R9-2002-01).

Comment: Several comments sought to postpone development of the hydromodification management strategy.

Response: As discussed in the Fact Sheet, the Tentative Order emphasizes the need to develop and implement a hydromodification control strategy based on findings from the Copermittees, the SMC, and the State Water Board's Numeric Effluent Panel. The Copermittees recognize the need to improve their consideration of hydromodification, but the approach proposed in the ROWD and DAMP is to wait and see if the SMC/SCCWRP studies provide specific recommendations that could be included into the model WQMP. Because the Copermittees have indicated elsewhere that two years are needed to revise the model WQMP, that could result in at least four years before any changes are made to the way Copermittees address hydromodification. The Regional Board considers such a delay inappropriate, so the Tentative Order provides a pathway for developing a strategy consistent with the current state of knowledge that also incorporates future findings from the local studies.

Comment: In addition to suggesting postponing the requirement to develop the hydromodification strategy, other comments suggested allowing an alternative approach based on watershed management plans if those plans address hydromodification.

Response: The Regional Board understands that hydromodification is often a problem suitable for watershed-based assessments and recommendations. It is anticipated that the strategy developed by the Copermittees considers the issues within a watershed context. This is recognized in the Tentative Order's requirements for waivers (Section D.1.h.3.c), where implementation of measures may occur at locations within the same watershed as the project, rather than in the area directly affected by the proposed discharge. This type of approach is consistent with practices encouraged by the State Water Board Panel on Numeric Effluent Limits. Copermittees are encouraged to incorporate findings from watershed-based studies into their hydromodification control strategies.

Comment: Other comments recommended exempting two classes of projects from the hydromodification requirements. Exemptions were suggested for projects that discharge into engineered or hardened channels that were built to accept such flows and for high-density urban redevelopment projects because they already provide a more efficient ratio of land-use to imperviousness than other types of projects and may not have area available to allocate to hydromodification controls.

Response: The Regional Board agrees that the potential for adverse effects from hydromodification is a function of the condition of receiving waters and the details of the development project. The Tentative Order includes provisions allowing the Copermittees to consider these factors in their review of proposed priority development projects and their selection of appropriate management measures.

A waiver provision is also included in the Tentative Order (Section D.1.h.3.c, discussed below) that establishes criteria based on the likely effect of the project. Exemptions for additional specific situations are not necessary. A broad exemption for dense urban redevelopment would discount the opportunity to improve hydrological conditions, contrary to the rationale used to require treatment control BMPs within redevelopment projects. A broad exemption for projects that discharge to waters that have been modified to accommodate storm flows similarly discounts potential improvements to water quality and beneficial uses. For instance, a segment of a hardened channel may be able to safely convey increased runoff velocities or flows from a priority development project, but that does not guarantee that reaches downstream of the hardened segment would not be affected by the changed flow regime. In addition, implementing hydromodification controls for sites that discharge to hardened channels provides an opportunity to lessen the need for that hardscape to be maintained when the facility is scheduled for retrofit opportunities. The cumulative effects of limiting the need for hardened channels will result in significant improvement to water quality and associated beneficial uses.

Waivers for On-Site Hydromodification Controls (Section D.1.h.3.c)

Comment: Several commenters discussed the criteria under which waivers of on-site hydromodification controls could be issued (Section D.1.h.3.c). The waiver provision allows the Copermittees to require that a project improve degraded stream channel conditions if that would produce better results than on-site hydromodification controls. Comments generally focused on the appropriateness of the numeric criteria for meeting waiver provisions and the feasibility of implementing in-stream measures to improve beneficial uses in areas affected by hydromodification.

The Tentative Order requires that certain determinations be made before a waiver for on-site controls is granted. One determination is that there is a lack of discharge-caused hydrology changes (as opposed to hydrology changes induced by physical changes to the receiving waters). The determination must be based on the numeric thresholds established in the Tentative Order. One set of commenters objected to the use of total impervious cover as the metric associated with the criteria. Other comments questioned how the numeric criteria for changes to total impervious cover were selected.

Response: The Regional Board agrees with commenters that alternatives to total impervious area (TIA) may provide a better indication of the potential hydrology changes from a project. Three commenters suggest using the amount of directly-connected impervious area (DCIA). A SMC/SCCWRP report "Managing Runoff to Protect Natural Streams," agrees that a more appropriate assessment would be based on "effective impervious cover," the amount of impervious cover that is hydrologically connected to the stream channel. The report notes that previous studies relying on TIA would likely have found observed channel responses at lower levels of imperviousness had the effective cover indicator been used. The Copermittees, however, may not have the ability to feasibly assess the amount of alternatives to total impervious cover, and numeric thresholds have not been established by technical investigations. Nonetheless, the Tentative Order has been revised to allow DCIA or effective impervious cover to be used as indicators provided that numeric criteria are established based on local studies.

As noted in the Fact Sheet discussion of Section D.1.h, the criteria within the Tentative Order for a threshold of five percent increase in impervious cover is based on reports from SMC/SCCWRP. Those reports note that physical degradation of stream channels in this semi-arid region may be detectable when basin impervious cover is between three percent and five percent. And, they note that biological effects are probably occurring at lower levels. The criterion for redevelopment projects is not based on similar technical reports. It is necessary, however, to address hydromodification effects, rather than waive controls, from redevelopment projects. Thus, numeric criteria are proposed in the Tentative Order.

Comment: One commenter suggested redevelopment projects receive waivers if they simply do not increase the impervious area and do not decrease the infiltration capacity of pervious areas. No commenters provided alternative numeric waiver criteria that would improve conditions.

Response: The result of the comment would be no change from current conditions. The intent of hydromodification controls is to maintain or reduce downstream erosion conditions and protect habitat. Rather, Copermittees must seek to improve water quality conditions in urban environments as redevelopment occurs. To address concerns regarding redevelopment, the Tentative Order has been revised to reduce the related threshold to receive waivers for on-site hydromodification control. This section has also been revised to provide for changes to the criteria in the waiver program based on findings from future SMC/SCCWRP reports.

Comment: Commenters also questioned whether the waiver condition to implement in-stream measures elsewhere within the watershed was feasible. They questioned whether anything could be done to improve the beneficial uses within waters affected by hydromodification.

Response: The requirement, however, is based on the recognition that many control measures can be implemented to improve conditions of a degraded channel. Numerous studies have documented how restoration or enhancement measures can improve degraded channel conditions. This approach is also consistent with an approach to implementing measures based on a watershed assessment of problem areas.

Developing Hydromodification Criteria (Section D.1.h.4)

Comment: Comments were received suggesting that two years is insufficient to develop specific criteria for the updated hydromodification control strategy. A concern was also expressed that reports from the SMC and SCCWRP may not be available within that timeframe.

Response: Section D.1.h.4 of the Tentative Order has been revised to allow three years before numeric criteria must be implemented.

Interim Hydromodification Requirements (Section D.1.h.5)

The Tentative Order contains interim requirements for large projects, which would be developed within six months and apply until the specific criteria are established for all priority development projects (Section D.1.h.4). The requirements include management measures that can be applied to all projects, but the Tentative Order limits the interim requirements to projects 20 acres and larger in order to focus short-term attention on larger projects. Based on a review of the state construction NPDES database in February 2007, this threshold represents approximately 25 percent of construction projects that are over one acre in the south Orange County region.

Comment: Some comments suggested that six months was inadequate to ensure that interim requirements would be implemented. Commenters suggested that up to two years should be allowed in order to develop criteria that would be substantially similar to the criteria required by Section D.1.h.3.

Response: The Tentative Order has been revised to allow 12 months to develop the interim criteria. This will allow for a similar timeframe as the implementation of updated SUSMP treatment control BMP requirements.

Comment: Some comments suggested that the interim requirement to control runoff using a hydrograph matching technique was inappropriate. Commenters were concerned that this would not represent geomorphically-referenced criteria, and alternatives were recommended. One commenter recommended that peak flow rate and runoff volume criteria should be used instead of hydrograph matching. Another commenter suggested using flow-duration control criteria that was developed for the Santa Clara Valley region or developing a local implementation tool based on nomographs derived from hydrological modeling and local rain patterns and soil types.

Response: The Regional Board sought clarification from the commenter (Construction Industry Coalition on Water Quality) and sought comments on the flow-duration recommendation from the County of Orange. The Tentative Order has been revised to allow Copermittees to select from alternatives for assessing hydromodification effects. Hydrograph matching of a range of storm events remains as one option. The two recommendations from the Construction Industry Coalition on Water Quality have also been added.

Hydrograph matching was included in the Tentative Order instead of flow-duration control because it would be somewhat easier to implement. Flow-duration controls would likely provide better protection of water quality, but requires project proponents (or municipalities) to conduct hydrologic modeling that is more sophisticated than traditional techniques. Furthermore, establishing numerical criteria for flow-duration involves calculating an amount of deviation from pre-existing flow-duration curves that ideally should be done based on local hydrogeomorphic conditions. Using the flow-duration criteria developed for the Santa Clara Valley region may be inappropriate for long-term use in Orange County, but is reasonable as interim criteria. Although there is a risk that the 10-percent deviation criteria appropriate for the Santa Clara Valley may overestimate the resiliency of natural channels in southern Orange County, it represents an improvement over the current method used by the Copermittees. It is also widely recognized as the most technically-sound approach to developing hydromodification assessment tools.

The assessment tool based on nomographs has received less peer-review and industry evaluation than either hydrograph matching or flow-duration criteria. It represents a simplified approach to developing flow-duration criteria based on local conditions. Development requires the use of calibrated hydrological models for the region. It is likely that if hydrologic models need to be developed, then the Copermittees would not select this option. If calibrated models are available, then development of the nomograph tool could be a more cost-effective approach than either of the other alternatives.

Comment: Additional comments suggested that the interim requirements regarding on-site controls, including the disconnection of impervious surfaces were inappropriate (Sections D.1.h.5.a.i and ii).

Response: The Regional Board agrees that interim requirements for large projects should allow for off-site areas to be used to manage hydromodification effects of small precipitation events, provided that the controls are implemented prior to the receiving waters. The Regional Board expects that the waiver provision of Section D.1.h.4 would be used to determine when on-site hydromodification controls would appropriately be waived. However, this does not supercede the requirements for site-design treatment BMPs (Section D.1.d). The Regional Board also agrees with the commenter who suggested that the requirement for stream channel buffer zones (Section D.1.h.5.a.iv) be applied where appropriate, but disagrees that the current condition should dictate whether the requirement is appropriate. The Regional Board does agree with the commenters who suggested geomorphically-referenced channel design techniques be applied to in-stream control measures.

Comment: Commenters also offered suggestions for exempting certain types of projects from the interim hydromodification requirements. Similar to the comments on the general hydromodification requirements, commenters suggested exempting projects that discharge to hardened or engineered channels and projects within areas covered by a watershed plan. In addition, one commenter suggested offering exemptions for projects already approved with hydromodification BMPs.

Response: Since development of the interim requirements has been extended to one year to match development of the general hydromodification strategy, the waiver provisions in Section D.1.h.3 will apply to the large projects. Thus, no additional exemptions are necessary.

SECTION D.2 - Construction

35. Section D.2: General Comment
Commenters: Building Industry Association of Orange County, Orange County Coastkeeper

Comment and Response: Comments were received asking the Regional Board to encourage Copermittees to collaborate with the regulated community and to allow Copermittees the use of discretion in the planning process. The Tentative Order already provides for both.

36. Section D.2: General Comment
Commenters: Building Industry Association of Orange County

Comment: One commenter stated that the Tentative Order improperly applies prescriptive requirements to very small construction sites. The commenter suggested a better approach to regulate sites less than one acre is through ordinances that require preparation of an erosion control plan for construction sites of all sizes.

Response: The Tentative Order requires that general site management as well as erosion and sediment control BMPs be applied to all construction sites regardless of size. The Tentative Order, however, does provide the Copermittees the ability to determine the appropriate specific BMPs to be included in local erosion control plans for small sites.

37. Section D.2.c.1.i: Designating advanced treatment BMPs
Commenters: County of Orange, City of Dana Point, Building Industry Association of Orange County, Construction Industry Coalition on Water Quality, Rancho Mission Viejo

Comment: Five commenters discussed the requirement (D.2.c.1.i) for each Copermittee to require implementation of advanced treatment for sediment at construction sites (or portions thereof) that are determined by the Copermittee to be an exceptional threat to water quality. Two commenters suggested the requirement be deleted because of uncertainty for the costs and benefits (or technical feasibility) of the practice. Another commenter suggested requirements for advanced treatment should be addressed within the context of the Statewide General Construction NPDES permit. Another commenter noted that the State Water Board Numeric Effluent Panel expressed concerns with the use of advanced treatment BMPs. Other commenters asked for clarification that advanced treatment is not the only type of "enhanced" measure that is required in Section D.2.c.1, which requires Copermittees to designate enhanced BMPs for construction discharges to water bodies that are impaired for sediments/turbidity or that discharge to environmentally-sensitive areas (ESAs).

Response: The Tentative Order does not limit the scope of "enhanced" measures to advanced treatment. Rather it allows each Permittee to establish the conditions under which it would require the use of advanced treatment (a.k.a. active treatment). This is consistent with the findings of the Numeric Effluent Panel that found advanced treatment is technically feasible, but may be cost-prohibitive for certain sites that are small or short-term. The Numeric Effluent Panel also noted that consideration of potentially toxic or detrimental environmental effects is important. The requirement within the Tentative Order allows each Copermittee to take such important considerations. No revisions have been made to this section.

38. Section D.2.c.2: Construction Storm Water Management Plans and the Statewide General Construction Storm Water Permit

Commenters: Building Industry Association of Orange County, City of Aliso Viejo, City of Dana Point, City of Mission Viejo, County of Orange, City of Lake Forest

Comment: Several commenters discussed the requirement (D.2.c.2) to review a project proponent's storm water management plan. A few thought the Regional Board intended for the Copermittees to review the project's *Storm Water Pollution Prevention Plan (SWPPP)* prepared for compliance with the Statewide General Construction NPDES permit (State Board Order No. 99-08-DWQ). Two commenters suggested changes to the language to clarify that the requirement applies to review of local construction storm water plans.

Response: As discussed at the March 2007 workshop, the intent of the requirement is for Copermittees to review the plans required by their local ordinances, not the Construction NPDES permit. Section D.2.c.2 has been revised for clarification.

Comment: One commenter also asked whether the Copermittees must comply with the Statewide General Construction NPDES permit (State Board Order No. 99-08-DWQ) and stated that the Tentative Order places the Copermittees in charge of ensuring compliance with the Construction NPDES permit.

Response: The Copermittees must comply with the Construction NPDES Permit. The Tentative Order does not require the Copermittees to ensure compliance with the conditions of the Construction NPDES Permit. It does require that prior to issuing local grading and construction permits, that each Copermittee verify that project proponents subject to the Construction NPDES Permit have existing coverage under the General Construction Permit. This involves having the project proponent provide a WDID number or a copy of the State Water Board letter acknowledging enrollment.

39. Section D.2.d.1.a and Section D.2.d.1.b: BMP Designation for Site Management and Erosion and Sediment Controls

Commenters: City of Dana Point, City of Mission Viejo, Rancho Mission Viejo

Comment: Three commenters discussed the requirement to designate BMPs for general site management (D.2.d.1.a) and erosion and sediment controls (D.2.d.1.b). One suggested that the preservation of natural hydrologic features and riparian buffers are not construction BMPs. Other commenters addressed slope stabilization. One comment suggested that slope stabilization is unworkable on all active slopes during rain events, and another comment suggested the need to define slope stabilization.

Response: The Tentative Order requires the preservation of natural hydrologic features and riparian buffers where feasible. Those requirements have not changed from the existing Storm Water Permit (Regional Board Order No. R9-2002-01). The preservation of riparian buffers and natural hydrologic features as construction BMPs provide a variety of benefits for water quality and associated beneficial uses of the stream that may be affected by the construction activities. This practice is referenced in the construction BMP fact sheets for Streambank Stabilization (EC-12) and Preservation of Existing Vegetation (EC-2) used by the Copermittees in the County of Orange.

The requirement to stabilize slopes in Section D.2.d.1.b has been clarified from the existing Permit to provide further guidance for meeting the maximum extent practicable standard. The existing Permit requires project proponents to stabilize all slopes, without any reference to when stabilization is necessary. The Tentative Order does not define slope stabilization because it is expected that the Copermittees will rely on standard industry guidance and their own studies of slope stabilization.

40. Section D.2.g: Reporting of Non-Compliant Construction Sites

Commenters: City of Dana Point

Comment: One commenter requested the deletion of the requirement (D.2.g) for Copermittees to notify the Regional Board when the Copermittee issues a stop work order or other high level enforcement to a construction site in its jurisdiction as a result of storm water violations. The commenter stated the notification would be unnecessary since a compilation of such information is already reported in the Annual Reports.

Response: This tentative requirement to notify the Regional Board was clarified from a similar existing requirement that requires oral and written notification of non-compliant sites that are determined to pose a threat to human or environmental health. The existing requirement was established in order to help ensure that compliance has been achieved and to enable the Regional Board to participate in follow-up efforts, if necessary, to assure that the construction site is in compliance. The tentative requirement was modified to clarity understanding of when notification is necessary.

SECTION D.3 – Existing Development

41. Section D.3: Minimum BMPs

Commenters: Contech Stormwater Solutions, Inc.

Comment: One comment was received regarding minimum and enhanced BMPs for existing development asking for clarification about the intent of the section, timelines for BMP implementation and whether or not structural BMPs may be required.

Response: Because existing development retrofits with structural treatment systems are generally more complicated and costly than with new development, it is anticipated that these systems will only be used in situations where non-structural practices are impractical or ineffective.

42. Section D.3.a.4.c: Assessment of Existing Flood Control Devices

Commenters: City of Laguna Hills, City of Aliso Viejo, City of Dana Point, City of Mission Viejo, County of Orange, City of Lake Forest, City of Laguna Niguel

Comment:

Several commenters questioned the rationale behind requirements to address flood control devices (Section D.3.a.4). One point was that flood control devices do not inherently generate pollution. Rather, they simply convey storm water or urban runoff from a facility to a discharge point, and the storm water or urban runoff itself may or may not contain pollutants. Others noted that many flood control devices in this region are owned and operated by the Orange County Flood Control District. Other comments requested a clear definition of "flood control device," examples of devices that should be replaced, additional justification and rationale for the provision, flexibility with retrofitting devices only as needed over time, and removal of the evaluation deadline from the Tentative Order.

The County of Orange also argued that the provision is unnecessary because it duplicates work that has already been completed under the existing permit. They cite a technical memorandum *Identification of Retrofitting Opportunities – Existing Channel Assessment* (County of Orange, November 2003), which they claim sufficiently identifies locations within the flood control channel system that appear to have potential for modification to enhance beneficial uses or provide a pollution control function.

Other comments suggested this section conflicts with Finding E.7, one asserting that such retrofit efforts are fruitless unless the Regional Board allows structural flood control device retrofits. A discussion of Finding E.7 and the requirements for retrofitting flood control device is provided in the "Comments on Findings" section of this document.

Response: Section D.3.a.4.c has not been revised. As described in the Fact Sheet, the requirements are clearly based on federal regulations at 40 CFR 122.26(d)(2)(iv)(A)(4). The requirements are based on the recognition, articulated by U.S. EPA (cited in the Fact Sheet), that flood management projects can harm aquatic habitat and aesthetic values. The Tentative Order does not establish a time period in which retrofits must be completed, rather development of an implementation schedule is specifically left to each Copermittee in Section D.3.a.4.c. The Fact Sheet also provides examples of retrofit projects. The discussion of comments on Finding E.7 within this document provides another example from southern Orange County.

The Regional Board appreciates the fact that many structural flood control devices are owned and operated by the Orange County Flood Control District, which is also a Copermittee. Each Copermittee must meet the requirements of the Tentative Order for its structural flood control devices. The Regional Board expects that the Flood Control District and other Copermittees will communicate with each other regarding structures owned by the District that serve other municipalities.

Even though the purpose of the County's November 2003 Report was to provide a first step in identifying opportunities for channel modification, it did not provide a complete assessment of structural flood control devices in the region. For instance, the report only evaluated channel segments owned or under easement to the Flood Control District. In addition, the only consideration for hardscaped channels was to install trash/debris removal devices. In doing so, it neglects significant potential improvements for concrete structures as they need repair or replacement. Furthermore, evaluation of retrofit opportunities in unlined channels was severely restricted. As a result, the section on planned retrofit opportunities includes only one project in the Copermittees' area. That project was only included because the Flood Control District had plans to do something. The Report did not include any evaluation of effects on water quality or potential improvements. Similarly, the Report's section on channel segment assessments did not include any projects in the Permit region and states that the field review of channel segments was restricted to the Santa Ana Regional Board's area. As a result, the November 2003 Report cannot be relied upon for a description of retrofit opportunities in the region, and the requirements in the Tentative Order are justified.

43. Section D.3.a.5: Street Sweeping

Commenters: City of Laguna Hills, City of Aliso Viejo, City of Dana Point, County of Orange, City of Lake Forest

Comment: Generally, the Copermittees commented that the language in the Tentative Order should propose objectives rather than criteria and that the objectives should be determined based on local needs and experience. The Copermittees requested additional technical basis for this requirement and for the relationship between traffic counts and frequency of materials deposited on the street, a definition of "toxic automotive byproducts", and recognition that street sweepers cannot remove liquid byproducts once absorbed into the asphalt.

The County of Orange also noted that the Copermittees are supportive of designing and implementing a street sweeping program that maximizes water quality benefits. They believe that this has already been accomplished in that the Copermittees have observed an 87% increase in the weight of material collected from 2001-2002 to 2004-2005.

Response: Subsection (a) of Section D.3.a.5 has been removed from the Tentative Order. The intent of Section D.3.a.5 is not to require that street sweeping be conducted, but to ensure that its use is optimized for storm water pollution prevention if reported as a storm water BMP. Subsection (a) had called for that optimization to be based on traffic counts. The qualitative criteria in the Section remain. Furthermore, as discussed in the Fact Sheet, Copermittees must evaluate current street sweeping programs to optimize efficiency and effectiveness in order to claim street sweeping as a BMP meeting the MEP standard.

44. Section D.3.a.7: Sanitary Sewer Infiltration

Commenters: County of Orange, City of Lake Forest

Comment: Two comments indicated that this provision is more applicable to sanitary sewer agencies and that it is an unnecessary duplication of other regulatory programs, citing the State Board's stay on a similar provision, WQ 2002-0014. The comments further requested that other provisions such as plan checking, incident response training, code enforcement, MS4 maintenance, interagency cooperation and staff and public education should be moved to the ID/IC or municipal programs sections or should be deleted from the Order.

Response: Section D.3.a.7 identifies requirements regarding infiltration of sewage into the MS4 and preventive maintenance of the MS4. The requirements in the Tentative Order are specific to maintenance of the storm drain system and other tasks typically performed by the Copermittee and not the sanitary sewer agency, except in circumstances where the Copermittee operates its own sanitary sewer system. The requirements that apply to agencies which also operate sanitary sewers are clearly identified. Other requirements are reasonable functions of MS4 operators. This section has not been revised.

45. Section D.3.b.3: BMP Implementation for Mobile Businesses

Commenters: City of Laguna Hills, City of Aliso Viejo, City of Dana Point, County of Orange, City of Lake Forest, City of Laguna Niguel

Comment: Several comments received indicate that "mobile business" is not well-defined in the permit, the Findings do not address this provision, and Copermittees do not have adequate staff to identify mobile businesses. Four Copermittees also indicate that they do not have a business license program, and one requested that other business codes may be used in lieu of SIC. Because mobile businesses typically operate in multiple jurisdictions, one commenter felt that this is an element of the program that is best addressed regionwide, while the County of Orange indicates that this is a program better handled locally. Additionally, one commenter indicated that although this provision is not a significant change from the existing Permit, it would best be managed first through a pilot program handling those businesses that may be a significant source of pollutants. Several comments supported a pilot program.

The County of Orange, however, indicated that this is significantly different from the existing commercial/ industrial program, which largely focuses on fixed facilities. The County continues that rather than finding a solution for this problem, the Permit directs Copermittees to implement a number of non-descript solutions that will not necessarily make regulation of mobile businesses any easier. It requests the Regional Board revise this section to provide Copermittees with discretion to focus on mobile sources when they feel it is necessary, or if they identify mobile businesses as a significant source of storm water pollution within their jurisdiction.

Response: The use of the term "mobile businesses" is defined in the Fact Sheet as being service industries that travel to the customer to perform the service rather than the customer traveling to the business to receive the service. Examples of such mobile businesses are provided. SICs, other business identification systems and, oftentimes, common sense are appropriate for designating such businesses.

As discussed in the Fact Sheet, the inclusion of mobile businesses in the Tentative Order is not a significant change from the existing Order which also requires BMP implementation for certain mobile businesses. However, because of the unique difficulties associated with regulating mobile businesses, it is appropriate to segregate mobile businesses from fixed location businesses in the reissued Permit.

The language in the Tentative Order is intended to provide broad flexibility to the Copermittees to account for the individual make-up of each municipality and for the difficulties with identifying and communicating with mobile business operators. This section has not been revised.

46. Section D.3.b.4.c – Food Facility Inspection Protocols; and Section D.3.b.4.d – Third Party Inspections

Commenters: City of Laguna Hills, City of Aliso Viejo, County of Orange, City of Lake Forest

Comment: Several comments indicated that the requirement for inspectors to access building roofs is infeasible and poses a safety concern. Comments also noted that grease discharges are already regulated by the countywide Fats, Oils and Grease (FOG) program. Further, they suggest that the current restaurant inspection program, conducted by the Orange County Health Care Agency (OCHCA) on behalf of the Copermittees, has claimed significant success, therefore, any new requirements are unjustified. The County of Orange further indicates that the Findings and the Fact Sheet do not address the need for expanded requirements for third party inspections. They reason that the ability to utilize third-party inspections (the OCHCA) to-date has allowed the Copermittees to maximize their resources.

Response: The requirement to address greasy roof vents (Section D.3.b.4.c.iv) has been removed. This requirement had been included based on findings from inspectors as reported during Aliso Creek Watershed meetings. Non-OCHCA restaurant inspectors have found that greasy roof vents may be a significant source of oil and grease pollution in the drainage. A significant amount of grease may accumulate on the roofs, which is then washed into the MS4 during rain events because most commercial roofs are likely directly connected via impervious surfaces to MS4 inlets. Sewer agency involvement through FOG programs is limited to the oil and grease that drains to the sewer system and not to the storm drain system. Unless roof drains are tied to the sanitary sewer line, which in most cases they will not be, the FOG program will not be helpful in abating oil and grease pollution from improperly maintained roof vents.

If greasy roof vents continue to be a concern through the term of the reissued Order, the Regional Board may consider a similar provision in the future. Alternatively, with proper cause, the Regional Board may require a technical investigation, pursuant to California Water Code Sections 13225 and 13267, to determine the extent or severity of pollutant loading associated with these facilities.

47. Section D.3.c.5: Common Interest Area (CIAs) and Home-owners Association areas (HOAs)

Commenters: Building Industry Association of Orange County, City of Laguna Hills, City of Aliso Viejo, City of Laguna Niguel

Comment: One comment indicated that while the Tentative Order requires Copermittees to regulate HOAs and CIAs, it does not allow Copermittees to collaborate with these groups. Agreements with HOAs, CIAs and similar entities may improve water quality and such collaboration may allow the Copermittees to expand their water quality reach, allowing for greater water quality benefits. Another comment states that Copermittees should be given flexibility to develop and implement a plan to ensure that urban runoff from CIA/HOA activities meets the objectives of the Tentative Order. One commenter felt that the intent and scope of this section is not clear. Another suggested that the limitation on car washing activities in HOAs is contradictory to Section B.2.p and may cause residents to resist all urban runoff regulations.

Response: The Tentative Order and the Fact Sheet document do not preclude Copermittees from collaborating with CIAs/HOAs, nor do they prohibit residential car washing (unless the Copermittee determines such activities to be a significant source of pollution in the watershed). The regulations intentionally afford the Copermittees significant flexibility with program development. No revisions have been made to this section.

SECTION D.4 – Illicit Discharge Detection and Elimination

48. Section D.4.e – Investigation / Inspection and Follow-up

Commenters: City of Aliso Viejo, City of Dana Point, City of Mission Viejo, City of Laguna Hills, County of Orange, Orange County Coastkeeper,

Comment: Six commenters offered suggestions for revising the requirement to implement procedures to investigate and inspect portions of the MS4 when data or other information indicates a reasonable potential of an illicit discharge (Section D.4.e). One commenter requested that the public be involved in establishing the process of updating action levels (Section D.4.e.1). Other commenters requested the timeframes for conducting follow-up activities in response to data or notifications be lengthened in order to pull together adequate resources for a response.

Response: The Tentative Order already requires each Copermittee to incorporate public participation in the updating and implementation of the JURMPs (Section D.5). The Tentative Order requires obvious illicit discharges to be investigated immediately (Section D.4.e.2.a). This is an appropriate response when personnel are collecting information in the field and directly observing incidents of obvious illicit discharges. Several commenters object to the use of "immediately," instead preferring up to two days to initiate the investigation. The Tentative Order does not define the actions to be included in the investigation because of the varied nature of potential illicit discharges. In some cases, field staff might notify appropriate personnel to perform reconnaissance or may begin a field investigation themselves. In other cases, the field staff may need to initiate consultations with experts or begin collecting resources to aid the field investigation. Regardless, the initial steps of an investigation need not be delayed up to five days as suggested by commenters.

Comment: Two commenters objected to the Tentative Order requirement to conduct an investigation within two days of receiving dry weather field screen or laboratory data that exceed action levels. One commenter suggested changing the language from "conduct an investigation" to "initiate an investigation."

Response: The requirement was not intended to have a fully-completed investigation within two business days, but rather to begin conducting the investigation procedures. No revisions have been made to this section of the Tentative Order.

49. Section D.4.f – Elimination of Illicit Discharges

Commenters: City of Laguna Hills, City of Mission Viejo, County of Orange

Comment: Three commenters suggested the Regional Board consider changes to the Tentative Order requirement to immediately eliminate illicit discharges that pose a serious threat to the public's health or the environment (third sentence of Section D.4.f). The commenters suggested changing the language from "immediately" to "as soon as practicable," or "in a timely manner."

Response: This requirement has already been relaxed from the current storm water permit requirement to immediately eliminate all detected illicit discharges, discharge sources, and connections (Section F.5.d of Regional Board Order No. R9-2002-01). The Regional Board expects that the Copermittee take action immediately to eliminate detected illicit discharges, but acknowledges that actual elimination may not occur immediately in some cases. No revisions have been made to this section of the Tentative Order.

50. D.4.h – Prevent and Respond to Spills

Commenters: City of Dana Point, City of Mission Viejo, Orange County Council of Governments

Comment: Three commenters took exception to the provision to prevent and respond to sewage spills (contained within Section D.4.h), noting that most Copermittees do not own or operate the sewage collection systems and that the State Water Board stayed this same provision in the existing storm water permit.

Response: Both of those facts are already acknowledged in the Fact Sheet. The Tentative Order includes sewage and non-sewage spills in the requirement for spill prevention and response. Federal regulations clearly define sewage as an illicit discharge that must be addressed by municipalities (see Phase II Final Rule, p.68758). Sewage is an illicit discharge to the MS4 that threatens public health. As such, the Copermittees must implement measures to prevent sewage from entering the MS4 system and must respond to illicit discharges that have entered the system. This section has been revised to clarify that that management measures and procedures must be implemented to prevent, respond to, and cleanup spills.

When the State Water Board stayed the sewage provision from Regional Board Order No. R9-2002-01, it found that the costs of the requirement did not constitute harm, but agreed that harm could ensue from potential response delay and confusion (Order WQO 2002-0014). Subsequently, the Copermittees and the local sewer agencies have developed mature relationships regarding sewage spill response. As a result, the concerns expressed by the State Water Board are no longer warranted. For instance, the Copermittees have developed and implemented procedures for spill response and sewage spill response. The Model Sewage Spill Response Procedure is outlined in the Copermittees' Proposed 2007 Drainage Area Management Plan (DAMP). According to the 2007 DAMP, regardless of where the spill originates, if the spill has entered or may enter the storm drain system, the Permittees respond to assist with the cleanup and remediation of the area.

Section D.3.a.7 of the Tentative Order includes requirements for measures that must be taken to prevent sewage spills. Examples of measures being implemented by Copermittees include inspections of fats, oils, and grease management at restaurants. Other preventative measures can be implemented during routine planning efforts for new development and redevelopment projects. Similarly, building permit inspections should be used to verify the integrity of the sanitary and storm sewer infrastructure and ensure that cross-connections between the two are avoided.

SECTION E – Watershed Urban Runoff Management

51. Section E: General Comments

Commenters: City of Dana Point, County of Orange, Building Industry Association of Orange County

Comment: Three commenters suggested the watershed urban runoff management program (WURMP) requirements are too prescriptive. One commenter suggested the requirements be modified to allow the stakeholders to identify BMPs and the details of implementation. Two commenters suggested that less-prescriptive requirements are warranted since the Copermittees already have watershed-based runoff management programs in-place. One commenter also suggested that the Regional Board should limit revisions in this section to those that fill gaps left by the rest of the requirements.

Response: The Tentative Order includes more detailed requirements to clarify the expectations for the process of BMP selection, implementation, and evaluation. However, the requirements within the Tentative Order do not specify what BMPs must be implemented. That, appropriately, is to be determined by the Copermittees with consideration to other watershed stakeholders. The Tentative Order does include common-sense requirements to ensure accountability to the process used to consider and select BMPs for implementation. For instance, it requires that Copermittees demonstrate that BMPs were considered with respect to the priority pollutant of the watershed and that realistic expectations were considered. Importantly, it also requires that Copermittees annually assess the effectiveness of the BMPs.

52. Section E.1: Update the Watershed Urban Runoff Management Program

Commenters: City of Dana Point

Comment: One commenter suggested changes to the assignments of Copermittees within the watershed urban runoff management programs and pointed out inconsistencies between Table 2b and Table 3 of the Tentative Order. For instance, Dana Point Harbor is included in the Dana Point Coastal Streams watershed management area. It was included in Table 2B, but left out of Table 3.

Response: The Regional Board agrees with the commenter that suggested the watershed urban runoff management programs (WURMPs) be focused on the highest-priority watersheds in the region, rather than continuing the existing watershed management area delineations from the current Permit. As a result, the Tentative Order has been revised to eliminate four of the six watershed management areas. The two remaining ones are the Aliso Creek watershed and the San Juan Creek watershed. Two Copermittees, the Cities of San Clemente and Laguna Beach would not be required to be involved in any watershed urban runoff management program activities.

Though seemingly a significant revision, this will not likely result in any significant decrease in water quality protection. The watersheds eliminated are the coastal streams watersheds, in which the vast majority of each urbanized drainage area lies within the jurisdiction of a single Copermittee. As a result, the potential benefits gained by developing and implementing a WURMP in those watersheds is much less than in the Aliso Creek and San Juan Creek watersheds. For example, BMP consideration, implementation, and assessment activities will be conducted overwhelmingly by a single Copermittee, and that Copermittee would likely be doing similar activities within its local JURMP. Other avenues exist for communication and information exchange between Copermittees of those coastal watersheds, such as general Copermittee meetings and other watershed meetings. And, nothing prevents the Copermittees within a particular watershed management area from electing to continue the current approach. The Regional Board expects that program savings from the revision would be transferred into implementation and assessment of BMPs to address the priority pollutants already identified.

53. Section E.1.a: Lead Watershed Permittee Identification

Commenters: Rancho Mission Viejo, City of Dana Point, City of Lake Forest, County of Orange

Comment: Commenters suggested the Tentative Order either not specify which Copermittees serve as default lead watershed Permittee, or be revised to specify the County of Orange as default lead Permittee (Section E.1.a). Two comments suggested that the Copermittees be allowed to select the lead watershed Permittee via a collaborative process.

Response: The Regional Board agrees a collaborative process should be used to select a lead watershed Permittee. The Tentative Order clearly indicates that any Copermittee may be designated lead watershed Permittee. A default Permittee was included in the unlikely event that one could not be selected by a collaborative process.

SECTION F – Fiscal Analysis

54. Section F.2: Annual Fiscal Analyses

Commenters: County of Orange, City of Aliso Viejo, City of Lake Forest, City of Laguna Hills, City of Dana Point, City of Laguna Niguel

Comment: Six commenters provided written statements generally opposing certain requirements for annual fiscal analyses within Section F.2. This was also a topic of significant discussion at the April 11, 2007 public hearing. Most commenters object to the Tentative Order requirement to include a qualitative or quantitative description of fiscal benefits realized from implementation of the storm water program (Section F.2.c). Reasons cited for the objection to this provision were often vague. Some commenters recognized the value of the exercise, but suggested the requirement be changed to a recommendation.

Response: Because Copermittees are unlikely to conduct quantitative assessments and qualitative assessments could be overly subjective, this requirement has been removed from the revised Tentative Order.

Comment: One commenter also suggested the requirement for a narrative description of budget changes of 25 percent or greater be deleted (Section F.2.b), but failed to provide any justification.

Response: This requirement is intended to demonstrate that significant changes to the municipal programs are based upon appropriate evaluations of the program's effectiveness and are consistent with the jurisdictional urban runoff management plan (JURMP). Previous annual reporting failed to demonstrate that budget changes had any relation to the JURMPs. This requirement has not been revised.

55. Section F.3: Long Term Business Plan for Municipal Storm Water Funding
Commenters: County of Orange, City of Lake Forest, City of Laguna Hills, City of Laguna Beach, City of Aliso Viejo, City of Dana Point, City of Mission Viejo, City of Laguna Niguel, Orange County Council of Governments

Comment: Nine commenters provided written statements generally opposing the requirement to prepare a Municipal Storm Water Funding Business Plan that identifies a long-term funding strategy (Section F.3). This was also a topic of significant discussion at the April 11, 2007 public hearing, where oral comments were similar to the written comments. Some commenters recognized the value of developing the plan, but suggested the requirement be changed to a recommendation. Several commenters noted producing such a plan would be difficult because knowledge of future funding sources may not be available. Others suggested a long-term plan would have no value because it provides no direct water quality improvement and Copermittees have already demonstrated a commitment to adequately funding the programs on an annual basis. One commenter suggested the requirement be deleted, except for the requirement to identify available funding methods and associated legal constraints (Section F.3.g).

Response: The Tentative Order requires each Copermittee to develop a long-term funding plan within five years. The Federal requirements call for municipalities to identify sources of revenue for the costs associated with implementing the proposed management programs (40 CFR §122.26.d.2.vi). As stated in the Fact Sheet, the intent of this requirement is to improve the long-term viability of the urban runoff programs. Currently each Copermittee provides an annual estimate of its budget for the upcoming annual reporting period. This does not demonstrate that each proposed program activity will be fully implemented because many proposed activities either have longer construction periods or require future expenditures for operation and maintenance (O&M). This presents challenges to the Regional Board when reviewing annual reports because, for example, future O&M costs for end-of-pipe treatment BMPs can become significant components of unreported future annual program costs.

For instance, recent estimates for a proposed ultraviolet urban runoff disinfection facility at the mouth of the Prima Deshecha Channel suggest that annual costs for operations and maintenance will be $250,000. Although the project proponents intend to construct the project in the Summer of 2007 and have committed to at least 20 years of operation, neither has attempted to identify such expenditures in the annual storm water program reports. Such a significant long-term obligation could threaten the viability of sustaining basic requirements of the storm water permit, such as source control, pollution prevention, inspections, and training.

Similarly, many Copermittees report relying on general funds and transient grants, which demonstrates that program components are susceptible to significant changes in availability of funds. This places at risk the future obligations being proposed in the JURMPs and annual reports. Identification of planned funding mechanisms to support the urban runoff programs is a basic step toward ensuring their long-term viability.

Comment: In addition, some commenters expressed misunderstanding about the actual requirements of Section F.3.

Response: Although the requirement is to submit a plan that identifies planned funding methods and mechanisms, it does not commit or restrict the Copermittees to implementing those methods, and the business plan is not subject to approval by the Regional Board. This requirement has not been revised.

SECTION G – Program Effectiveness Assessment

56. Section G: General Comments

Commenters: City of Aliso Viejo, City of Dana Point, County of Orange

Comment: One commenter requested that the Copermittees be given one-year to develop an assessment effectiveness strategy.

Response: The Regional Board intended for such a timeframe to be provided. The Tentative Order has been clarified. The effectiveness assessment requirements in Section G must be included in the 2nd Annual Report (2008/2009) for the reissued Permit.

Comment: Two commenters discussed the requirements for assessing effectiveness. One commenter suggested that the Tentative Order does not provide enough specificity regarding how to assess effectiveness. The other suggested the requirements do not provide enough flexibility for the Copermittees to develop strategies for assessing effectiveness of their programs. That commenter also objected to requirements for developing specific objectives for impaired water bodies and environmentally-sensitive areas.

Response: The requirements in the Tentative Order are intended to set the context for the assessments, while providing flexibility to the Copermittees for developing the metrics and methods within that context.

The Regional Board disagrees with the commenter who suggested that the Tentative Order not require each Copermittee to conduct annual effectiveness assessments. The commenter based its recommendation on the grounds that assessments are more appropriately conducted on a regional basis, rather than jurisdictional basis. The Regional Board considers annual assessments of individual programs crucial to the implementation of effective programs. For instance, without such assessments, the Copermittees would be challenged to properly implement the iterative process of the Receiving Waters Limitation language. Annual assessments should be based on an evaluation of the findings of the individual program's components and water quality data. A regional assessment can help provide some context for the total effort or proportional effort of various components, but it cannot substitute for an assessment of the actual effectiveness of the jurisdictional program.

ATTACHMENT E – Monitoring Program

57. Attachment E: General Monitoring Comments

Commenters: Dana Point, County, LN, Coastkeeper, Mission Viejo

Comment: Several comments focused on changes to the constituents within the monitoring program.

Response: The Regional Board agrees with the two commenters who felt that DDE should not be included in the mass loading program at San Juan Creek. DDE is included on the 2006 section 303(d) list of impaired water bodies, but the source is unknown and the ability to detect DDE at low concentrations is not readily available from local commercial laboratories. The Regional Board also agrees with the commenter who suggested that nitrite and nitrate be analyzed together as in prior monitoring programs. The Regional Board disagrees, however, with the commenter who suggested that E.coli should be added to the mass loading station list of parameters. This is unnecessary since the fecal coliform and enterococcus measurements provide a reasonable evaluation of indicator bacteria.

Comment: One commenter suggested that the Tentative Order be modified to allow third-party organizations, such as universities and non-government organizations, to collect bioassessment samples.

Response: The Tentative Order, however, appropriately requires that a professional environmental laboratory perform all sampling, laboratory, quality assurance, and analytical procedures (Section II.A.2.d).

Comment: One commenter suggested speeding up the implementation of the inland aquatic habitat monitoring program and the periphyton sampling within the bioassessment program.

Response: These requirements are phased in order to provide the Copermittees adequate time to accommodate the changes to the monitoring program. For instance, the Regional Board expects development of the inland aquatic habitat monitoring program to include substantial consultation among Copermittees and between the Copermittees and third parties.

58. Attachment E, Section II.A.5. Coastal Storm Drain Monitoring
Commenter: County of Orange

Comment: One commenter pointed out that urban runoff flows from four of the storm drains listed in Table 3 of the Tentative Order section on Coastal Storm Drain Outfall Monitoring (Section II.A.5.c.1) are diverted to the sanitary sewer during the summer. These stations were selected because they commonly have elevated levels of indicator bacteria (which is probably why they were targeted for sewer diversions). The commenter requested that there should be no requirement to collect samples while the flows are diverted.

Response: This section of the Tentative Order has been revised to require sampling only when the diversions are inoperable. The Tentative Order requires that when drains are not discharging to coastal waters, the weekly sampling program must include the storm drain flows, but can omit collecting samples from the receiving waters. Identification of indicator bacteria concentrations in those drains could be useful to assess the effectiveness of source control and other BMP implementation within the watersheds and to estimate the risk to coastal waters when the diversions are inoperable. However, the Regional Board agrees that weekly sampling of diverted urban runoff flows is not necessary.

Comment: The Copermittees also recommended postponing requirements for special investigations for the stations identified in Table 3 (Section II.A.5.c.ii). The Copermittees felt bacterial source investigations should be stayed pending development of emerging source tracking methodologies.

Response: Postponement of these special investigations is not warranted. The Copermittees are referring to research on analytical methods for identifying the animal sources of fecal bacteria within a particular water sample. Such techniques, however, are not the only methods used in conducting investigations into the sources of bacteria entering the MS4 system. Other approaches have involved identifying which storm drain outfalls are major contributors, determining whether discharges are likely coming from non-prohibited discharge activities, or determining whether physical conditions within the MS4 or receiving water are adversely or positively affecting concentrations.

In addition, the six stations identified for special investigations have been recognized as problem areas for several years, yet there is no certainty when the analytical techniques referred by the Copermittees will be available for use. Some special investigations, pointed out in the comment, are either underway or in development for some of the stations. The Tentative Order does not exclude those investigations from satisfying the requirements of this section.

59. Attachment E, Section II.A.1.d: Mass Loading Composite Sampling Protocols

Commenters: County of Orange, City of Mission Viejo

Comment: The County of Orange requested several changes to the protocols for mass loading sample collection and toxicity testing.

Response: The Regional Board considers the requests for changes to the mass loading protocols for sample collection reasonable, though some of the concerns expressed by the County were unfounded. For wet-weather mass loading sampling, the County requested the ability to continue the protocols it has been using, rather than implement the protocol identified in the Tentative Order that is similar to protocol used in San Diego County. The County also proposed that dry-weather event monitoring protocols at the mass loading stations be consistent with what it uses within watersheds of the Santa Ana Regional Board's municipal storm water program.

Notably, the County's proposal for using a constant time / constant volume approach to composite sampling is not consistent with the U.S.EPA guidance document noted in the Tentative Order. Further review of the U.S. EPA guidance suggests that the Copermittees can, however, propose alternative monitoring programs that collect representative data. This was confirmed via correspondence with the U.S. EPA, Region IX. The County of Orange proposed to conduct an assessment of the two protocols to determine whether any significant deviations occur. The Regional Board will not require such an assessment be made at this time. However, should such an investigation be warranted in the future, the Regional Board may require such an investigation pursuant to California Water Code sections 13225 and 13267.

60. Attachment E, Section II.A.1.i: Toxicity Monitoring

Commenters: County of Orange

Comment: Copermittees also requested changes to the Tentative Order requirements for toxicity testing (Section II.A.1.i). They sought the ability to substitute fresh water indicator organisms where background conductivity levels could affect the interpretation of results. In addition, they suggested that freshwater indicator organisms are unnecessary for wet-weather mass loading events and ambient coastal receiving waters stations.

Response: The Tentative Order has been revised to accommodate most of these requests, but retains the requirement for using a freshwater organism to assess acute toxicity at mass loading stations.

61. Attachment E, Section II.B.1: Wet-weather storm drain monitoring
Commenters: County of Orange, City of Mission Viejo

Comment: Two commenters objected to the requirement to collect storm water samples from MS4 outfalls (Section II.B.1).

Response: The Regional Board disagrees with the commenter who suggested that MS4 outfall monitoring is only useful for detecting illicit discharges. The Regional Board also disagrees with the other commenter, who claimed that wet weather monitoring does not aid in source investigations. As noted in the Fact Sheet, the wet weather MS4 outfall monitoring is useful for assessing the effectiveness of storm water BMPs and for targeting storm water program efforts. Currently, the Copermittees do not monitor the quality of the water being discharged during storm events from their MS4s. This is a significant data gap that must be corrected. Presently the mass loading and ambient coastal monitoring stations are providing information about the quality of storm water, but those locations are inadequate to determine which MS4 outfalls are the likely sources of pollutants. As a result, Copermittees cannot effectively determine where to target storm water BMP measures.