

Thank you for your attention to the County's concerns with the December 2007 Order. As mentioned previously, we appreciate the effort you and your staff have devoted to the development of the fourth-term MS4 permit for the Orange County Program. We look forward to discussing the Order with you and with Regional Board members at the public hearing on February 13, 2008.

Thank you for your attention to our concerns. Please contact me directly if you have any questions. For technical questions, please contact Chris Crompton at (714)834-6662 or Richard Boon at (714)973-3168.

Sincerely,

A handwritten signature in black ink, appearing to read 'MAS' with a flourish at the end.

Mary Anne Skorpanich, Director
Watershed & Coastal Resources Division

Attachment A: Letter of April 4, 2007

Attachment B: Letter of August 22, 2007

cc: Technical Advisory Committee
Permittees

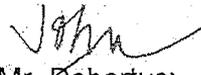
County of Orange Comment Letter
Dated May 15, 2009

May 15, 2009

By E-mail and U.S. Mail

John Robertus
Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Subject: Comment Letter, Tentative Order No. R9-2009-0002 NPDES No. CAS0108740


Dear Mr. Robertus:

We are in receipt of the March 13, 2009, *Waste Discharge Requirements for Discharges of Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watershed of the County of Orange, the Incorporated Cities of Orange County, and the Orange County Flood Control District within the San Diego Region*, Tentative Order No. R9-2009-0002, NPDES No. CAS0108740. The County of Orange as Principal Permittee welcomes the opportunity to provide comments on the San Diego Regional Water Quality Control Board's Tentative Order as prepared and distributed by Regional Board staff. When adopted, the Tentative Order will be the fourth term MS4 permit for South Orange County. The Permittees were involved in the development of these comments and the cities of Aliso Viejo, Dana Point, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, Mission Viejo, Rancho Santa Margarita, San Clemente, and San Juan Capistrano have directed that they be recognized as concurring entities. Additional comments may be submitted up to the close of the public comment period.

In February 2008 the Permittees were broadly supportive of the previous version of the Tentative Order (R9-2008-0001) except for provisions that were deemed problematic to the continued use of regional treatment controls for public health protection. At the same time USEPA was critical of a perceived absence of measureable goals in R9-2008-0001 and the Tentative Order was withdrawn. From February 2008 until March 2009 staff provided no information regarding the status of the permit. Consequently, the Permittees were surprised when they received the substantially revised current draft of the Tentative Order.

Subsequent meetings with your staff have been very helpful and a number of our concerns appear to have been resolved. However, while we certainly hope to continue meeting with your staff, it is now apparent that there are fundamental differences in opinion between our respective agencies regarding the requirements for a fourth term permit across a significant number of key programmatic areas.

Our overarching concerns with the Tentative Order are presented as General Comments in this letter. Our specific comments and concerns pertaining to the legal and policy, technical, and monitoring and reporting provisions of the Tentative Order are presented in the following Attachments:

- Attachment A presents initial comments on our main legal and policy issues.
- Attachment B presents initial technical comments and suggested language on specific requirements contained within the Tentative Order.
- Attachment C includes initial comments on the Monitoring and Reporting Program.

GENERAL COMMENTS

I. Permitting Consistency

Last February, the Permittees took from your closing remarks a commitment that your staff would look at consistency with existing and draft MS4 permits, including those from the Regional Water Quality Control Boards (RWQCBs) for the Santa Ana and Los Angeles regions. At the same time, USEPA also expressed an interest in seeing greater permitting consistency between RWQCBs. More recently, the final report of the Little Hoover Commission identified the lack of consistency between RWQCBs as a critical area of concern with respect to the ability of the State to deliver on its water quality protection mandates. It is also a key issue for the Orange County Stormwater Program which is subject to the jurisdiction of two RWQCBs.

Nonetheless, and in spite of previous assurances and concerns, the March 13, 2009 Tentative Order is fundamentally different from the current draft MS4 permit for North Orange County (Tentative Order R8-2009-0030) in many key programmatic areas. While your staff has acknowledged that they will likely incorporate the North Orange County permit's land development provisions, they are reluctant to eliminate other areas of inconsistency. This disinclination erodes the credibility of the regulatory framework for stormwater in California and serves to confound the ability of local government and the regulated community to effectively address a key environmental mandate at a time of unprecedented fiscal constraint. It is therefore necessary for us to continue to seek revisions to the Tentative Order supportive of a cohesive and cogent alignment of the North and South County permits on the basis that consistency is important to the credibility of our respective efforts to manage urban runoff and is vital to sustaining the obvious cost effectiveness of a single and coordinated Countywide program in Orange County.

II. Action Levels vs. Effluent Limits

The Permittees' concerns with the imposition of Municipal Action levels (MALs) and Numeric Effluent Limits (NELs) have been presented to your staff. The Permittees' fundamental concern is that the method of application is clearly inconsistent with the definitive guidance in this area, specifically the State Water Board's Blue Ribbon panel report on the feasibility of numeric effluent limits. In June 2006, this panel concluded that it is not feasible at this time to set numeric effluent criteria for municipal BMPs and in particular urban discharges. In 2009, this conclusion continues to be the published position of USEPA on this issue.

Clearly, both the RWQCBs and the Permittees have a keen interest in being able to demonstrate and report the effectiveness of their stormwater protection and management efforts. However, this effort by your staff to include MALs as the basis for compliance with the MEP standard in the permit is inappropriate on both technical and legal grounds. Likewise, the water quality based NELs established for non-stormwater discharges are legally and regulatorily

unsupported. Nonetheless, we recognize the value of action levels and will continue to seek provisions that support the better application of published guidance on program effectiveness assessment including the development and application of benchmarks. Indeed, the Permittees commend the Dry Weather Reconnaissance Program to you as the model application of water quality benchmarks in a manner entirely consistent with the recommendations of the Blue Ribbon Panel.

III. Increasing Administrative Burden

At the inception of the Stormwater Program, the County of Orange, as Principal Permittee, and the Permittees developed a Drainage Area Management Plan (DAMP) to serve as the principal policy and programmatic guidance document for the Program. Since 1993, the DAMP has been modified through an adaptive management process to reflect the needs of the Permittees, ensure Permittee accountability, and deliver positive water quality and environmental outcomes. The DAMP now provides definitive guidance to each Permittee in the development of its Local Implementation Plan (LIP) which specifically describes how the Program will be implemented on a city/jurisdiction basis. It also includes Watershed Action Plans (WAPs) for each of the six South Orange County watersheds targeting pathogen indicator bacteria.

Concurrently, the annual progress report has been developed into a systematic assessment of program effectiveness at jurisdictional, watershed and countywide levels of resolution, using program effectiveness assessment guidance from the California Stormwater Quality Association (CASQA) and a comprehensive environmental quality dataset. Nevertheless, the Tentative Order seeks to impose additional planning requirements including jurisdictional workplans, a business plan and additional planning efforts that might be triggered by exceedances of a water quality action level. The Permittees believe that strategically adjusting the existing planning processes, rather than simply creating additional planning requirements, should be the basis of the Tentative Order's programmatic requirements. Such an approach also offers the additional potential benefit of identifying opportunities to reduce rather than increase the administrative burden of the Program for both the RWQCB and for the Permittees.

IV. Extending the Regulatory Reach of Local Jurisdictions

In the most recent Annual Report, the Permittees noted that over 30,000 industrial and commercial facilities in Orange County were subject to inspection for compliance with local water quality ordinances. Nonetheless, the Tentative Order includes new requirements that arbitrarily establish municipal responsibility for sanitary sewer collection systems that already are subject to separate State regulation. It also mandates the annual inspection of treatment controls in completed land development and re-development projects and, more prescriptively, turns the attention of the Permittees toward residences and mobile businesses. Moreover, these new requirements create significant resource implications for cities.

With land development projects, the installation and subsequent maintenance of treatment controls certainly needs to be verified. However, self certification is already a verification mechanism being used by Permittees and it and other third party verification mechanisms should not be precluded by the Tentative Order in exclusive favor of Permittee inspection. The current opportunity to strategically re-consider the use of inspection resources should be used to target and focus these activities rather than simply expand their scope. Furthermore, given the current state of the economy, the Permittees, like all municipalities, are facing shrinking budgets. Consequently the RWQCB should give great weight to the best use of limited resources in achieving water quality objectives.

The prescribed prohibition on irrigation runoff also needs to be very carefully considered. *Project Pollution Prevention*, the public education and outreach initiative of the Program, is already targeting overwatering as a residential practice of concern. Moreover, the effectiveness of the overall public education effort has been validated by public opinion surveys that show incremental and statistically significant increases in public awareness of stormwater issues, as well as positive changes in protective behaviors. In light of this progress, implementation of the prohibition would risk eroding general public support for a Program that is successfully fostering a stewardship ethic in residential environments. There is also concern that the provision would force the expenditure of scarce resources on an issue that is already being addressed by water districts dealing with water conservation imperatives.

The last area of prescribed new regulatory oversight is mobile businesses. The Permittees have already produced educational materials for these businesses, cooperatively developed wash water disposal options with Orange County's sewerage agencies, and coordinated on enforcement. The further required regulation of these businesses is a potentially resource intensive undertaking that currently appears to lack a strong technical rationale.

V. Creating a New Basis for the Land Development Requirements of the Order.

In February 2008 there was a considerable amount of discussion on the issue of a performance standard for low impact development (LID). Since that time, LID has become the defining issue of fourth term MS4 permits in California. Indeed, at the end of 2008 a stakeholder group convened to look specifically at this issue. Comprising regulatory agency, local government, environmental advocacy group and development industry representation, this group was initially able to identify a number of early general areas of agreement.

1. Performance standards for implementing LID BMPs other than an Effective Impervious Area (EIA) percentage (3-5%) are acceptable if a technically equivalent standard can be identified.
2. Sizing LID BMPs to capture the 85th percentile storm event (current DAMP criteria for water quality volume) is an acceptable alternative to EIA as a performance standard provided that technically-based, strict, and clear feasibility criteria are developed for any project that cannot meet the LID BMP requirements.
3. Prioritized LID/SUSMP BMPs for water quality volume capture are represented by: a) infiltration BMPs; b) harvesting and reuse BMPs; c) vegetated (or evapotranspiration) BMPs including bioretention and biofiltration. Water quality volume not captured by LID BMPs shall be treated consistent with DAMP requirements

The County endorsed these areas of agreement in a letter of February 13, 2009, to the Executive Officer of the Santa Ana RWQCB and continues to believe they should represent the basis of a fourth term permit's land development provisions.

More recently the County provided the Santa Ana RWQCB with a more detailed conception of a framework for land development. It predicates permit compliance on management of the 85th percentile storm volume, presumes the application of LID BMPs based upon a prioritized consideration of infiltration, capture and re-use, evapotranspiration, and bio-retention/bio-filtration, and requires treatment of residual runoff volumes for which the application of LID BMPs has been determined to be infeasible at site, sub-regional and regional scales. The framework also integrates options for water quality credits and provides for alternate compliance approaches including participation in a watershed project and contributions to an "in-lieu" fund.

It also explicitly recognizes bio-retention/bio-filtration BMPs as LID BMPs and the continued and entirely legitimate contribution of effective structural BMPs such as constructed wetlands and detention ponds to the practice of stormwater quality management.

The Permittees believe that it is imperative that there be a uniform countywide development standard for water quality protection. Consequently, the framework language that is currently being supported by both the North Orange County Permittees and staff of the Santa Ana Regional Board should be the starting point for discussion with respect to the subject Tentative Order.

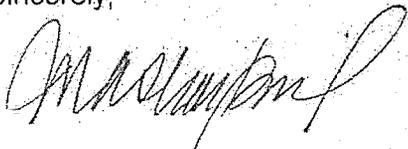
VI. Technical Justification

In advance of preparing the Report of Waste Discharge (ROWD) the Permittees undertook a detailed program assessment drawing upon prior annual report findings, a comprehensive environmental quality database, audit findings, facilitated workshops, and the CASQA Program Effectiveness Guidance. This assessment provided a strong technical basis for the further improvements to the Orange County Stormwater Program recommended in the ROWD. These improvements have been subsequently validated in later annual progress reports. These informational resources and, in particular, the environmental quality database, have been compiled at great expense and provide unique and site specific information on the state of Orange County's surface waters and the performance of the Orange County Stormwater Program. To the extent that the Tentative Order prescribes requirements supplemental to the ROWD recommendations they need to be explicitly supported by a strong technical justification that is developed from the information that has been compiled over the last 18 years by the Permittees. New requirements also need to be consistent with the federal stormwater regulations and within the scope of the Clean Water Act.

In conclusion, while we recognize that there may be fundamental differences in opinion between our organizations as to how the fourth term permit should be structured, we appreciate the effort that your staff has devoted to the development of the fourth term permit for the Orange County Stormwater Program. We look forward to continuing to meet with your staff to try to resolve the Permittees' concerns regarding the Tentative Order to ensure that it meets our mutual goals.

Thank you for your attention to our comments. Please contact Richard Boon at (714) 955-0670 or Chris Crompton at (714) 955-0630 with any questions on this matter.

Sincerely,



Mary Anne Skorpanich
Director, OC Watersheds Program

Attachment A: County of Orange Legal Comments
Attachment B: County of Orange Technical Comments
Attachment C: County of Orange Monitoring & Reporting Program Comments

cc: City Permittees

Attachment A

**ORANGE COUNTY LEGAL COMMENTS ON
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
TENTATIVE ORDER No. R9-2009-0002
NPDES NO. CAS0108740**

INTRODUCTION

This Attachment A contains the principal legal comments of the County of Orange (the "County") on Tentative Order No. R9-2009-0002 dated March 13, 2009 ("Tentative Order"). Although the Supplemental Fact Sheet dated April 15, 2009 is referenced in this attachment, the County has not attempted, at this time, to provide detailed legal comments on the Fact Sheet. The County reserves the right to provide additional legal comments, on both the Tentative Order and Fact Sheet, before the close of public comment.

Staff for the Regional Board has circulated several tentative updates to the Tentative Order, most recently on May 5th. However, in the May 5th update, staff emphasized that the changes were only proposed and draft. Accordingly, while the County generally is supportive of the changes made in the tentative updates, the County's comments are limited to the public release draft of the Tentative Order dated March 13, 2009.

The County incorporates by reference its written comments on the prior versions of the Tentative Order (Nos. R9-2007-0002 and R9-2008-0001) to the extent they have not been addressed by the current version (No. R9-2009-0002).

PRIMARY LEGAL COMMENTS

- I. **Contrary To Established Federal Law, the Tentative Order Would Require Permittees to Meet Numeric Effluent Limits for Discharges from the MS4**
 - A. ***Basing Permit Compliance on Municipal Action Levels is Inconsistent with Federal and State Guidance and Not Required by the Clean Water Act***

The March 13, 2009 draft of the Tentative Order imposes on Permittees for the first time the concept of "Municipal Action Levels" or "MALs." Beginning in the fourth year after adoption of the permit, discharges from the MS4 that exceed the MALs (which are numeric concentration levels for designated pollutants) would give rise to a presumption that the Permittee was not complying with the MEP standard. In other words, the Permittee would be presumed to be in violation of the permit. The County objects to this significant new requirement for several reasons.

1. **As Proposed, the Municipal Action Levels for Discharges from the MS4 Could Be Considered Numeric Effluent Limits Not Required by Federal Law**

First, to the extent the MALs are considered numeric effluent limitations, they are not required by the Clean Water Act. The Clean Water Act defines "effluent limitation" as "any restriction established by a State or [the U.S. EPA] on quantities, rates, and concentrations of chemical,

physical, biological, and other constituents which are discharged from point sources...” CWA § 502; 33 U.S.C. § 1362(11). The proposed MALs meet this definition. Because an exceedance of a MAL may result in a permit violation, the MALs represent a restriction on concentrations of designated constituents discharged from the MS4. Because they are expressed numerically rather than through narrative, they would be considered numeric effluent limitations.

The Clean Water Act does not require that MS4 permits include numeric effluent limitations. Instead, 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...” CWA § 402(p)(3)(B)(iii); 33 U.S.C. § 1342(p)(3)(B)(iii). In other words, discharges from the MS4 must meet the so-called “MEP” standard. Unlike other technology-based standards, the MEP standard is not defined in the Clean Water Act or in federal regulations. It is intended to be flexible, to allow the development of site-specific permit conditions based on the best professional judgment of the permit writer. *See, e.g.,* 55 Fed. Reg. 47989, 48038 (Nov. 16, 1990); 64 Fed. Reg. 68721, 68754 (Dec. 8, 1999); U.S. EPA Region IX, *Storm Water Phase I MS4 Permitting: Writing More Effective, Measurable Permits* (February 2003).

The Clean Water Act also provides that MS4 permits include “other provisions as [U.S. EPA] or the State determines appropriate for the control of [] pollutants” discharged from the MS4. CWA § 402(p)(3)(B)(iii); 33 U.S.C. § 1342(p)(3)(B)(iii). Case law has interpreted this language to allow, but not require, U.S. EPA or a State to impose requirements in MS4 permits that go beyond the MEP standard, such as numeric effluent limits. *See, e.g., Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166-67 (9th Cir. 1999); *Building Industry Association of San Diego County v. State Water Resources Control Board*, 124 Cal.App.4th 866, 885-86 (2005). In other words, the MEP standard is the statutory floor for MS4 permits. MS4 permits must require that discharges from the MS4 meet the MEP standard. The Clean Water Act allows, but does not require, MS4 permits to include requirements more stringent than the MEP standard. Therefore, to the extent the MALs are considered numeric effluent limitations, more stringent than what is required by the MEP standard, they are not required by the Clean Water Act.

2. Defining MEP in Terms of the MALs is Inconsistent with Established State and Federal Guidance.

To the extent the MALs are defining MEP rather than imposing requirements that go beyond MEP, they also are inappropriate. As proposed, the Tentative Order provides that if a discharge exceeds a MAL, it will be presumed that the Permittee has not met the MEP standard. In other words, at a minimum, the MAL for a given pollutant represents MEP. This is inconsistent with federal and state guidance on the MEP standard.

As discussed above, the MEP standard is not defined by the Clean Water Act or by U.S. EPA. After its initial experience with the MEP standard as implemented through the Phase I MS4 permits, U.S. EPA provided additional guidance as to the standard in the preamble to its Phase II regulations for small MS4s:

EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis. EPA envisions that this evaluative process will consider such factors as conditions of receiving

waters, specific local concerns, and other aspects included in a comprehensive watershed plan. Other factors may include MS4 size, climate, implementation schedules, current ability to finance the program, beneficial uses of receiving water, hydrology, geology, and capacity to perform operation and maintenance.

The pollutant reductions that represent MEP may be different for each small MS4, given the unique local hydrologic and geologic concerns that may exist and the differing possible pollutant control strategies. . . .

EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards. . . .

64 Fed. Reg. at p. 68754.

Similarly, the State Water Board has not defined the MEP standard. However, it too has provided guidance that emphasizes the flexible nature of the standard:

If, from [a] list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive.

State Water Board Order WQ 2000-11 at p. 20.

In light of this state and federal guidance, it is inappropriate for the Tentative Order to attempt to define MEP for a given pollutant with a numeric concentration, i.e., a MAL.

For the above reasons, the County requests that Section D be removed from the next draft of the Tentative Order.

B. *The Proposed Numeric Effluent Limits For Discharges of Non-Stormwater From The MS4 Are Not Supported By Federal Law.*

1. The Clean Water Act Requires That MS4 Permits Include Requirements To "Effectively Prohibit" Discharges Of Non-Storm Water *Into* The MS4 And Controls To Reduce The Discharge Of Pollutants *From* The MS4 To The Maximum Extent Practicable; The Act Does Not Require That Non-

Stormwater Discharges From The MS4 Meet Numeric Effluent Limitations.

The Tentative Order would explicitly impose numeric effluent limits (NELs) on discharges from MS4s. Section C incorporates NELs for non-stormwater dry weather discharges into receiving waters. The Tentative Order provides no legal authority for imposing this new and significant requirement. The Supplemental Fact Sheet simply states that because Permittees' past efforts at controlling pollutants in non-stormwater discharges have been ineffective, NELs on those pollutants are necessary. To the extent there is legal authority for imposing NELs on non-stormwater discharges from the MS4, it is not found in the Clean Water Act.

The Clean Water Act very clearly defines the discharge requirements for permits for discharges from municipal storm sewers (*i.e.*, MS4s permits). Such permits may be issued on a system or jurisdiction-wide basis, must include a requirement to effectively prohibit non-stormwater discharges **into the storm sewer**, and must require controls to reduce the discharge of pollutants **from the storm sewer** to the maximum extent practicable. CWA § 402(p)(3)(B); 33 U.S.C. § 1342(p)(3)(B). It is the discharge of pollutants from the MS4, regardless of whether they are in stormwater or non-stormwater, which must be reduced to the maximum extent practicable. Section 402(p) of the Clean Water Act does not distinguish between wet weather and dry weather discharges. Thus the Clean Water Act does not require or provide authority for imposing NELs on the discharge of non-stormwater from MS4s.

2. The Federal Stormwater Regulations Implement the Clean Water Act's "Effective Prohibition" Requirement.

Nor do the federal stormwater regulations impose separate requirements on discharges of non-stormwater from the MS4. Instead, tracking the Clean Water Act language, the federal regulations and preamble impose specific requirements as to how Permittees are to address non-stormwater discharges **into the MS4** (*i.e.*, "effectively prohibited"). The regulations use the term "illicit discharge," which means any discharge to the MS4 that is not composed entirely of stormwater, except discharges pursuant to a separate NPDES permit and discharges resulting from fire fighting activities. 40 C.F.R. § 122.26(b)(2). Permittees must have a program to prevent illicit discharges into the MS4. 40 C.F.R. § 122.26(d)(2)(iv)(B)(1). The regulations also require Permittees to address "improper disposal" into the MS4 of used oil and toxic materials through educational activities on the proper management and disposal of these materials. 40 C.F.R. § 122.26(d)(2)(iv)(B)(6).

U.S. EPA (and presumably Congress) was very aware of the problem that discharges of non-stormwater into the MS4 could create. However, rather than imposing on MS4 owners and operators (*e.g.*, Permittees) numeric limits on the discharge of non-stormwater from the MS4, the federal scheme requires that the owners/operators of such non-stormwater discharges obtain NPDES permits to discharge into the MS4. Permits for such discharges must meet applicable technology-based and water-quality based requirements of the Clean Water Act. By comparison, as part of the MEP standard applicable to discharges of all pollutants from the MS4 (regardless of whether in stormwater or non-stormwater), the owner/operator of the MS4 must develop a program to prevent illicit discharges into the MS4.

The Supplemental Fact Sheet suggests that 40 C.F.R. § 122.44(k) somehow requires the imposition in MS4 permits of NELs for the discharge of non-stormwater from the MS4. That is not correct. As discussed above, the only standard applicable to discharges from an MS4 is the

Clean Water Act-mandated MEP standard. Section 122.44(k) simply provides that BMPs are to be included in NPDES permits generally when authorized under Clean Water Act section 402(p) or when NELs are infeasible. It says nothing about requiring NELs in MS4 permits.

3. Non-Stormwater Discharges Into The MS4 May Be Controlled By Separate NPDES Permits For The Discharger Of The Non-Stormwater.

To the extent discharges of non-stormwater into the MS4 are permitted under separate NPDES permits, the Permittees likely have no control over the pollutants, or pollutant concentrations, discharged from the MS4. Depending on the terms of the non-stormwater NPDES permits, the discharge from the MS4 may or may not meet the proposed effluent limits in Section C of the Tentative Order. Permittees cannot be held strictly responsible for meeting numeric limits when they have no control over such discharges.

For the above reasons, the County requests that Section C be removed from the next draft of the Tentative Order.

II. The Tentative Order's Retrofit Requirements Are Onerous, Impracticable and Not Supported by Law.

Section F.3.d of the Tentative Order imposes a new mandate on Permittees to retrofit existing development. Permittees are required under this new provision to do everything short of solving world hunger: As proposed in the Tentative Order, each Permittee must implement a retrofitting program that:

- meets the requirements of Section F.3.d,
- solves chronic flooding problems,
- reduces impacts from hydromodification,
- incorporates LID,
- supports stream restoration,
- systematically reduces downstream channel erosion,
- reduces the discharges of stormwater pollutants from the MS4 to the MEP, and
- prevents discharges from the MS4 from causing or contributing to a violation of water quality standards.

T.O. Section F.3.d. As drafted, Permittees could meet the new retrofitting requirements of Section F.3.d and still be in violation of the Order if, among other things, they didn't also solve chronic flooding problems.

Aside from the breadth of the new requirements, the County objects to the retrofit provision to the extent it would be impracticable and incredibly onerous (if possible at all) to implement and is not required by the Clean Water Act. To the extent such a provision is appropriate in an MS4 permit, it must be clear that Permittees may have no means of compelling private property owners to retrofit their existing developments.¹ Proposed section F.3.d.(3), which says that

¹ The Supplemental Fact Sheet says that retrofitting existing development is "practicable" for a permittee but does not say how.

Permittees “must” require select developments to implement retrofitting activities, and section F.3.d.(4), which talks about “requiring retrofitting on existing development,” should be revised accordingly. And since Permittees cannot force owners to retrofit their developments, it makes little sense to require Permittees to identify existing developments that are sources of pollutants and then evaluate and rank them to prioritize retrofitting as sections F.3.d(1) and (2) would do.

Without legal support for the retrofitting requirement and unless the requirement is substantially revised to reflect that it would be largely a voluntary program, the County requests that Section F.3.d be removed from the next draft of the Tentative Order.

III. While The Federal Regulations May Not Define “Urban Runoff,” The History Of The Federal Storm Water Regulations Makes Clear That It Is Urban Runoff, Not All Runoff, That Is The Problem To Be Addressed; The Tentative Order’s Proposal To Strike “Urban” From “Urban Runoff” Will Only Lead To Confusion Without Any Benefit To Water Quality.

Without explanation, the Tentative Order universally deletes the word “urban” from everywhere it formerly modified the word “runoff” (and sometimes the term “Stormwater”). Thus Jurisdictional Urban Runoff Management Plans (JURMPs) are now simply Jurisdictional Runoff Management Plans (JRMPs). The Standard Urban Storm Water Mitigation Plan or SUSMP is now just the Standard Stormwater Mitigation Plan or SSMP. Staff has indicated that this universal change was intended to clarify that Permittees are responsible not just for urban runoff that is discharged from their MS4s, but all runoff.

Even if “urban runoff” is not defined in the Clean Water Act or federal stormwater regulations, it is clear that it is urban runoff that is the problem the federal regulations seek to address. Stormwater runoff from natural, undeveloped land generally does not create water quality problems.

Regulation of stormwater has always focused on urban runoff. After the 1972 amendments to the Federal Water Pollution Control Act (aka the Clean Water Act) began regulating point source discharges of industrial process wastewater and municipal sewage, “it became evident that more diffuse sources (occurring over a wide area) of water pollution, such as agricultural and urban runoff were also major causes of water quality problems.” 55 Fed. Reg. at p. 47991. Because agricultural stormwater discharges are statutorily exempt from the NPDES program, the focus turned to urban runoff. *Id.* “[I]t is the intent of EPA that [stormwater] management plans and other components of the programs focus on the urbanized and developing areas of the county.” *Id.* at p. 48041.

This emphasis on urban runoff is reflected in the foreword to the 1982 Final Report of EPA’s Nationwide Urban Runoff Program (NURP):

The possible deleterious water quality effects of nonpoint sources in general, and urban runoff in particular, were recognized by the Water Pollution Control Act Amendments of 1972. Because of uncertainties about the true significance of urban runoff as a contributor to receiving water quality problems, Congress made treatment of separate stormwater discharges ineligible for Federal funding when it enacted the Clean Water Act in 1977. To obtain information that would help resolve these uncertainties, the

Agency established the Nationwide Urban Runoff Program (NURP) in 1978. This five year program was designed to examine such issues as:

- The quality characteristics of urban runoff, and similarities or differences at different urban locations;
- The extent to which urban runoff is a significant contributor to water quality problems across the nation; and
- The performance characteristics and the overall effectiveness and utility of management practices for the control of pollutant loads from urban runoff.

NURP Report at p. iii. According to the NURP Report, as early as 1964 the federal government had become concerned about identified pollutants in urban runoff and concluded that there may be significant water quality problems associated with stormwater runoff. NURP Report at p. 2-1.

The focus on urban runoff also is reflected in U.S. EPA's website where, on its NPDES Stormwater FAQ page, U.S. EPA states that the "NPDES stormwater permit regulations, promulgated by EPA, cover the following classes of stormwater discharges on a nationwide basis:

- Operators of MS4s located in "**urbanized areas**" as delineated by the Bureau of the Census,
- Industrial facilities in any of the 11 categories that discharge to an MS4 or to waters of the United States; all categories of industrial activity (except construction) may certify to a condition of "no exposure" if their industrial materials and operations are not exposed to stormwater, thus eliminating the need to obtain stormwater permit coverage,
- Operators of construction activity that disturbs 1 or more acres of land; construction sites less than 1 acre are covered if part of a larger plan of development.

See U.S. EPA's web page at http://cfpub.epa.gov/npdes/faqs.cfm?program_id=6#302 (emphasis added).

Finally, the urban runoff focus also is reflected in the San Diego Board's own Basin Plan which discusses the problem of stormwater runoff in terms of urbanization and cites to the NURP report. See Basin Plan at pp. 4-78 & 79.

Because the focus of stormwater regulation is urban runoff and because the Tentative Order provides no compelling reason to remove the term "urban" from the permit (e.g., improved water quality), the County requests that the term be restored in the next draft of the Tentative Order.

IV. To The Extent “FETDs” Discharge Non-Stormwater To MS4s, It Would Be Appropriate To Regulate Such Discharges In An MS4 Permit; To The Extent The Discharge From A FETD Is Not A [Significant] Source Of Pollutants To Waters Of The U.S., Permittees Would Not Be Required To Effectively Prohibit The Discharge.

The previous drafts of the Tentative Order proposed to regulate so-called FETDs – Facilities that Extract, Treat and Discharge to waters of the U.S. The current draft of the Tentative Order mentions these so-called FETDs but does not regulate them.² To the extent such facilities discharge non-stormwater to the MS4, the County believes it is appropriate to regulate them as a category of non-stormwater discharges in Section B. of the Order. Under Section B, to the extent the discharge from a FETD is not a significant source of pollutants to waters of the U.S., Permittees would not be required to effectively prohibit the discharge.

The following language, from the Santa Ana Regional Board’s current draft North County MS4 permit, could be added as Section B.5 of the Tentative Order:

5. Permittees shall effectively prohibit discharges from FETDs to the MS4 unless the following conditions are met:
 - a. The discharge must not contain pollutants added by the treatment process or in greater concentration than in the influent;
 - b. The discharge must not cause or contribute to downstream erosion;
 - c. The discharge must be in compliance with Section 404 of the Clean Water Act; and
 - d. Permittees conduct monitoring of the FETD discharge in accordance with the Monitoring and Reporting Program in Attachment E.

The County requests the above language be included in the next draft of the Tentative Order.

V. The Tentative Order’s Proposed Elimination Of Three Exempt Non-Storm Water Discharge Categories Is Inconsistent With Federal Law; Individual Discharges May Be Regulated On A Case-By-Case Basis.

Finding C.14 of the Tentative Order says that the Permittees have identified landscape irrigation, irrigation water, and lawn water as sources of pollutants to waters of the U.S. These three categories are exempt non-stormwater discharges under the current permit. Section B.2 of the Tentative Order removes these three categories from the list of exempt non-stormwater discharge categories. Removing the three categories would be inconsistent with the federal stormwater regulations.

The federal stormwater regulations include a list of categories of “exempt” non-stormwater discharges or flows. 40 C.F.R. § 122.26(d)(2)(iv)(B)(1). Permittees’ illicit discharge and illegal disposal program must address these discharges or flows when they have been identified by Permittees as sources of pollutants to waters of the U.S. *Id.* The preamble to the federal regulations make clear that the illicit discharge program is meant to implement the Clean Water

² It is odd that the Tentative Order explicitly states that it does not regulate the discharge from FETDs. If FETDs are not to be regulated under the Order, the County suggests deleting finding E.9.

Act's mandate that stormwater permits include a requirement to effectively prohibit non-stormwater discharges to the MS4. 55 Fed. Reg. at pp. 48037 and 48055.

The preamble also makes clear that Permittees' illicit discharge program need not prevent discharges of the "exempt" categories into the MS4 "unless such discharges are specifically identified on a case-by-case basis as needing to be addressed." 55 Fed. Reg. at 47995. In other words, individual discharges within exempt categories must be addressed when the particular discharge is a source of pollutants to waters of the U.S. The federal regulations do not allow for removing entire categories of exempt non-stormwater discharges. U.S. EPA confirmed this case-by-case approach in its *Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems* (November 1992) ("Part 2 Guidance Manual") where it states:

If an applicant knows . . . that landscape ***irrigation water from a particular site*** flows through and picks up pesticides or excess nutrients from fertilizer applications, there may be a reasonable potential for a storm water discharge to result in a water quality impact. In such an event, the applicant should contact the NPDES permitting authority to request that the authority order ***the discharger*** to the MS4 to obtain a separate NPDES permit (or in this case, the discharge could be controlled through the storm water management program of the MS4.)

Part 2 Guidance Manual at p. 6-33 (emphasis added).

Accordingly, the County requests that the landscape irrigation, irrigation water, and lawn water non-stormwater categories be restored in the next draft of the Tentative Order.

ADDITIONAL LEGAL COMMENTS

I. Findings

Finding C.1

"Runoff from an MS4" is inaccurate and likely confusing. It would be more accurate to describe runoff into an MS4 and a discharge from the MS4. The permit should track the language of the Clean Water Act, which requires that MS4 permits include requirements to effectively prohibit non-stormwater discharges into the MS4 and to control the discharge of pollutants from the MS4 to the maximum extent practicable.

Finding C.2

This finding implies that discharges from the MS4 must strictly comply with water quality standards. That is not correct. The Clean Water Act requires that discharges meet the MEP standard. See, e.g., *Defenders of Wildlife v. Browner, supra*, 191 F.3d at pp. 1166-67.

Finding D.1.f

The inaccurate language of this finding, imposing different standards on wet weather and dry weather discharges, continues throughout the permit. The Clean Water Act does not require Permittees to reduce the discharge of pollutants *from stormwater* to the MEP. Rather, the

requirement is to reduce the discharge of pollutants from the MS4 to the MEP (regardless of whether the discharge is of wet weather or dry weather flows). Similarly, the federal requirement is to eliminate illicit discharges *into* the MS4 (which if accomplished would largely eliminate dry weather flows from the MS4), not to eliminate pollutants in dry weather flows.

Finding E.13

Under the Clean Water Act, discharges from the MS4 are required to meet the MEP standard. To the extent the permit, when read with the Basin Plan, requires discharges to meet receiving water limitations, it must be a state law requirement. This finding should be clarified accordingly.

II. Order

Section A.3.b

Finding A.3 says the permit is consistent with the State Board's precedential Order 99-05. However, the language in section A.3.b of the Order (which requires Permittees to continue the iterative process unless directed otherwise by the Executive Officer) is not consistent with Order 99-05 (which says Permittees do not have to repeat the process unless directed otherwise by the E.O.). Accordingly, Section A.3.b should be revised consistent with State Board Order 99-05.

Sections A.5 & B.5

The Ocean Plan prohibition of discharges to ASBS is controversial. Moreover, it is a state law, not federal, requirement. Unless the Board can justify it in a MS4 permit, it should be deleted.

Section I

The Clean Water Act does not require that an MS4 permit include numeric limits derived from waste load allocations (WLAs) in adopted TMDLs. To the extent the Tentative Order will implement such WLAs, compliance should be through the accepted iterative process for complying with water quality standards.

ATTACHMENT B

ORANGE COUNTY TECHNICAL COMMENTS ON CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION TENTATIVE ORDER No. R9-2009-0002 NPDES NO. CAS0108740

INTRODUCTION

This Attachment B contains the principal technical comments of the County of Orange (the "County") on Tentative Order No. R9-2009-0002 dated March 13, 2009 ("Tentative Order") and subsequent Tentative Updates, dated April 29, 2009. Although the supporting Fact Sheet/Technical Report dated December 12, 2007 and the Supplemental Fact Sheet/Technical Report dated April 29, 2009 (collectively the "Fact Sheet")¹ are referenced occasionally in this attachment, the County has not attempted to provide detailed comments on the Fact Sheet.

These comments are divided into three sections: (1) General Comments, (2) Findings, and (3) Permit Provisions. The first section discusses the County's global concerns with the Tentative Order, whereas the latter two sections address issues relating to specific parts of the Tentative Order. At times, the issues and concerns raised will pertain to more than one section of the Tentative Order.

The County has endeavored to provide a complete set of comments on the Tentative Order. However, the County reserves the right to submit additional comments relating to Tentative Order No. R9-2009-0002 and the supporting Fact Sheet/Technical Report to the Regional Board up to the close of the public comment period.

GENERAL COMMENTS

TENTATIVE ORDER DISMISSES THE IMPORTANCE OF THE DRAINAGE AREA MANAGEMENT PLAN AND IS OVERLY PRESCRIPTIVE

The Response to Comments issued by the Regional Board dated July 6, 2007, contends that the Drainage Area Management Plan (DAMP) is an unnecessary document and "serves as a collection of model program components from which the Permittees have chosen to base their own program components." The County takes exception to this view of the DAMP. The DAMP and Local Implementation Plans (LIPs) are fundamental and necessary elements of the MS4 program since they serve as the primary policy and guidance documents for the program and describe the methods and procedures that will be implemented to reduce the discharge of pollutants to the maximum extent practicable and achieve compliance with the MS4 permit performance standards. Indeed, the CWA regulations speak directly to the necessity and importance of the stormwater management plan in the permitting process. The management program "shall include a comprehensive planning process....to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques

¹ The Tentative Order is supported by two Fact Sheet/Technical Reports including the Fact Sheet/Technical Report that was released pursuant to Tentative Order R9-2008-0001 on December 12, 2007 and the Supplemental Fact Sheet/Technical Report that was released pursuant to Tentative Order R9-2009-0002 on April 15, 2009.

and system, design and engineering methods, and such other provisions which are appropriate..... Proposed management program shall describe priorities for implementing controls.” 40 CFR 122.16(d)(2)(iv). The necessary detail and prioritization of management efforts must remain at the local level and be described within the DAMP and not in the permit. The significance of the DAMP should therefore be recognized rather than dismissed.

It is noted that the current draft of the Tentative Order comprises 91 pages compared to the 54 pages of the 2008 Tentative Order. The expanding document connotes an increasingly top down approach that potentially reduces the ability of the Permittees to adaptively manage their programs to meet the MEP standard. This approach seems contrary to the discussion of MEP in the Fact Sheet, which stresses the dynamic aspect of the MEP standard and concludes with the statement that *The Order provides a minimum framework to guide the Permittees in meeting the MEP standard.*²

The increasingly prescriptive and detailed permits provisions erode the flexibility and local responsibility of Permittees for continued development and improvement of the MS4 program based upon their extensive and collective experience in managing the program. This shift runs counter to the purpose and intent of the federal stormwater management program as set forth in the federal CWA regulations and USEPA guidance. Notwithstanding these statements, the County supports the need to establish performance standards or metrics within the DAMP that will be used to support our program and direct limited resources effectively.

TENTATIVE ORDER INAPPROPRIATELY USES THE TERM “VIOLATION” INSTEAD OF “EXCEEDANCE”

The Tentative Order persists in the inappropriate reference to data that exceed Water Quality Objectives (WQOs) as violations. In several instances the language in the Tentative Order has been changed from the prior Order (R9-2002-0001) to replace the term “exceedance” with the term “violation”. For example, “exceedances of water quality objectives” has been replaced with “violations of water quality objectives” (emphasis added). In some cases, the change is inappropriate.

The Tentative Order should use the term “exceedance” where it refers to a comparison of data with criteria such as water quality objectives that are relevant to evaluation of the data. The Tentative Order should use the term “violation” when it is referring to a failure to comply with a prohibition or other requirement of the Tentative Order. Careful use of these terms is important, because an “exceedance” does not equate with a “violation.” For example, while it may be useful to compare water quality monitoring data to receiving water quality objectives and use identified “exceedances” to target potential problems areas and pollutants, it is inappropriate to make this same comparison and determine that there is a “violation”. Indeed, the use of the term “violation” to refer to any exceedance detected would, in effect, be using the water quality objectives or other relevant reference criteria as de-facto numeric effluent limitations.

The County again requests modification of the Tentative Order language to use the word “exceedance” instead of “violation” when referring to the comparison of water quality monitoring data to reference criteria. The locations in the permit where these changes should be made are:

- Page 5, Finding C.9.

² Fact Sheet/Technical Report for Tentative Order No. R9-2007-0002, Page 35

- Page 6, Finding D.1.b.
- Page 10, Finding D.3.d.
- Page 12, Finding E.1.
- Page 17, A.3.

The term "violation" in this section is inconsistent with SWRCB Order WQ 99-05 and needs to be modified to "exceedance". The iterative language in the receiving water limitations speaks to exceedances of water quality standards, not violations.

Urban runoff data cannot in itself indicate a violation of water quality standard. A water quality standard consists of two elements: the beneficial use that we're trying to protect and the water quality objective established to protect that use. The exceedance of a water quality objective does not necessarily result in a violation of a water quality standard. Runoff data can be described as exceeding water quality objectives, but the assessment of whether or not water quality standards are violated is based upon samples and data from the receiving water and impacts or lack of impacts on beneficial uses.

The County further notes that similar MS4 permits draw distinctions between assessing urban runoff monitoring results and describing the receiving water. These permits include the area-wide permits issued by: the San Diego Regional Board to the MS4s draining the watersheds of San Diego County (Order No. R9-2007-0001, NPDES No. CAS0108758, January 24, 2007); and Riverside County (Order No. R9-2004-0001, NPDES No. CAS0108766, July 14, 2004); and those issued by the Santa Ana Regional Board to the MS4s draining the watersheds of San Bernardino County (Order No. R8-2002-0012, NPDES No. CAS618036, April 26, 2002); Riverside (Order No. R8-2002-0011 NPDES NO. CAS 618033, October 25, 2002); and Orange County (Order No. R8-2002-0010 NPDES No. CAS618030, January 18, 2002), and the May 1, 2009 Draft Tentative Order R8-2009-0030 NPDES No. CAS618030).

In these permits the monitoring data is described as, or actions are predicated upon, exceedances of water quality standards while prohibitions regarding receiving water tend to use the terminology 'shall not cause or contribute to a violation of water quality standards'. Although the latter is not universal and many permits use the language 'shall not cause or contribute to an exceedance of water quality standards'.

FINDINGS

DISCHARGE CHARACTERISTICS

- **Compliance with Water Quality Standards** (Finding C.2, Page 2)
Finding C.2 seems to be establishing the fact that MS4s are responsible for all sources of pollutant and manner of discharges (see last sentence). The County would submit that municipalities are limited in their ability to control all sources of pollutants (e.g. air pollutants being transported to the receiving waters from the MS4). We recommend that the last sentence be deleted.
- **Water Quality Monitoring Data** (Finding C.9, Page 5)
Finding C.9. states, in part, that the water quality monitoring data collected to date indicates that there are violations³ of Basin Plan objectives for a number of pollutants

³ For the reasons discussed above and to be consistent with the Fact Sheet (page 8), the term "violation" should be changed to "exceedances."

and that the data indicates that runoff discharges are the leading cause of impairment. While the receiving water quality may exceed Basin Plan objectives for constituents identified by the municipalities as pollutants of concern, there is inadequate data to make such a definitive statement that the runoff discharges are the leading cause of impairment in Orange County. This statement does not take into account the other sources within the watershed or the uncertainty within many of the studies that have been conducted. Accordingly, the last sentence of that paragraph should be modified to read,

"In sum, the above findings indicate that urban runoff discharges are may be causing or contributing to water quality impairments, and are a warrant leading cause of such impairments in Orange County special attention."

URBAN RUNOFF MANAGEMENT PROGRAMS

- **New or Modified Requirements** (Finding D.1.c, Page 7)
Finding D.1.c. states that the Tentative Order "contains new or modified requirements that are necessary to improve the Permittees' efforts to reduce the discharge of pollutants to the MEP and achieve water quality standards". The Finding further states some of these new or modified requirements "address program deficiencies that have been noted in audits, report reviews, and other Regional Board compliance assessment activities." In fact, in many cases the new or modified requirements do not have adequate findings of fact and technical justification.

In many instances the Fact Sheet not only provides little or no justification of the need for the new requirement, it also does not identify the "program deficiency" that warrants the modification. In many cases the Fact Sheet also does not consider the thorough program analysis that the Permittees conducted as a part of their preparation of the ROWD and the deficiencies and program modifications that Permittees themselves identified as necessary for the program. The Permit Provisions comments in the next section of these comments identify many of the areas where new or modified provisions of the Tentative Order lack factual or technical support in the Fact Sheet.

- **Development Planning - Treatment Control BMPs** (Finding D.2.b, Page 8)
Finding D.2.b. seems to be making the case that treatment control BMPs are ineffective and should not be used. This Finding overstates or incorrectly states the constraints of treatment control BMPs. It is fair to say that without a performance standard for treatment control BMPs then treatment control BMPs suffer from the constraints noted. However, treatment control BMPs can be effective in removing pollutants for a wide range of storms and, when combined with source control BMPs, provide a comprehensive pollutant reduction strategy. This finding should be significantly modified to support the statement that "using a combination of onsite source control and site design BMPs augmented with treatment control BMPs... is important."

NOTE: The previous comments on this issue made by the Permittees were not addressed in the Regional Board's two Response to Comments documents, and are therefore resubmitted.

- **Heavy Industrial Sites** (Finding D.2.e, Page 9)
Finding D.2.e. states that the one-acre threshold for heavy industrial sites is appropriate “since it is consistent with the requirements in the Phase II NPDES stormwater regulations that apply to small municipalities”. The Phase II stormwater regulations do not apply to the Phase I communities. 40 CFR 122.32. The reference to Phase II NPDES regulations and, as discussed below, the corresponding change in the permit provisions should be deleted.

NOTE: The previous comments on this issue made by the Permittees were not addressed in the Regional Board’s two Response to Comments documents, and are therefore resubmitted.

- **Hydromodification** (Finding D.2.g, Page 9)
Finding D.2.g. identifies that increased volume, frequency, and discharge duration of storm runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. However, it does not acknowledge that hardened or stabilized channels will likely not be susceptible to hydromodification impacts.

It is recommended that the Finding be modified as follows:

The increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to accelerate downstream erosion in natural drainages and unimproved channels, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads in stormwater and volume of stormwater runoff. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by naturally vegetated soil. Some channels that are either engineered and maintained, or hardened may not be susceptible to the impacts of hydromodification.

STATUTE AND REGULATORY CONSIDERATIONS

- **Treatment and Waters of the U.S.** (Finding E.7, Page 14)
Finding E.7. states that, “[u]rban runoff treatment and/or mitigation must occur prior to the discharge of urban runoff into a receiving water.” We believe that Finding E.7. is based on a misinterpretation of CWA regulations and misconstrues USEPA guidance on stormwater treatment BMPs. This concern is discussed in detail in Attachment A (Pages 1-7). We wish to comment here on the implications it has for watershed restoration activities.

Prohibiting treatment and mitigation in receiving waters severely limits the potential locations for installation of treatment control BMPs and will adversely affect many watershed restoration projects. For example, this Finding may have unintended adverse effects for the Aliso Creek Water Quality SUPER Project.

The Aliso Creek Water Quality SUPER Project proposes a multi-objective approach to Aliso Creek watershed development and enhancement, accommodating channel stabilization, flood hazard reduction, economic uses, aesthetic and recreational opportunities, water quality improvements, and habitat concerns. The project is aimed at water supply efficiency and system reliability through reclamation, along with benefits for

flood control and overall watershed management and protection. The ecosystem restoration and stabilization component of the project will include:

- Construction of a series of low grade control structures and reestablishment of aquatic habitat connectivity;
- Shaving of slide slopes to reduce vertical banks; and
- Invasive species removal and riparian revegetation and restoration of floodplain moisture.

The Permittees are concerned that some of these activities may be deemed “urban runoff treatment and/or mitigation” in a receiving water and, thus, may not be allowed, compromising the project objectives. In addition, this Finding seems to conflict with Existing Development Component Section 3.a.(4) Page 51 of the Tentative Order, which requires the Permittees to evaluate their flood control devices and identify the feasibility of retrofitting the devices to provide for more water quality benefits.

Given the lack of any proper legal or factual basis for these limitations as well as the adverse impacts on watershed restoration efforts, the Finding should be deleted from the Tentative Order.

- **FETDs** (Finding E.9, Page 14)

This finding identifies that the Order does not regulate the discharge of Facilities that Extract, Treat and Discharge (FETDs) to waters of the U.S. It also indicates the intention of the Regional Board to require individual NPDES Permits for each of these types of facilities. Such an approach to the regulation of these facilities is deemed highly problematic to the Permittees for the same reasons that were presented in early 2008, principally that separate permits would likely preclude the use of facilities currently necessary for protecting public health at Orange County’s beaches. The Permittees were working on potential FETD language with previous Permit staff during the first draft Permit adoption process prior to postponement by the Board. That language is significantly similar to the draft language found in the Region 8 draft. It is provided below and commended to you for incorporation into the Order.

“Discharges from facilities that extract, treat and discharge water diverted from waters of the U.S: These discharges shall meet the following conditions: (1) The discharges to waters of the US must not contain pollutants added by the treatment process or pollutants in greater concentration or load than the influent; (2) the discharge must not cause or contribute to a condition of erosion; (3) The extraction and treatment must be in compliance with Section 404 of the Clean Water Act; and (4) Conduct Monitoring in accordance with Monitoring and Reporting Program attached to this Order.”

NOTE: Please note we suggest one minor modification to this language in the Region 8 draft, which is underlined.

- **TMDLs** (Finding E.12, Page 15)

This new finding identifies that MS4 WLAs from adopted TMDLs are incorporated into the Tentative Order, and additionally early TMDL requirements may be included in the Tentative Order.

The County has significant concerns about the use of either Clean Up and Abatement Orders (CAOs) (as indicated in the Tentative Order) or Cease and Desist Orders (CDOs)

(as indicated in the supplemental Tentative Fact Sheet) as the means by which to incorporate forthcoming TMDL WLAs into the MS4 permit. CAOs and CDOs are types of enforcement actions used to compel compliance, typically of an uncooperative discharger. These tools were neither envisioned by the State Water Board in its TMDL and impaired water policy documents or by USEPA in its recent draft handbook *TMDLs to Stormwater Permits*⁴.

Further, this finding indicates that it is the intention of the Regional Board to incorporate MS4 WLAs as end-of-the-pipe numeric Water Quality Based Effluent Limitations for adopted TMDLs. US EPA's 2002 guidance memorandum⁵ on establishing stormwater permit requirements to implement WLAs stated that EPA expected that most WQBELs for NPDES-regulated municipal ... will be in the form of BMPs and that numeric limits will be used only in rare instances [emphasis added]. This reference was specifically cited in the Beaches and Creeks TMDL Technical Report and reflects the intent of the Regional Board staff and the understanding of the Stakeholder Advisory Group as to how the TMDL would be incorporated into the NPDES permit. This approach to incorporating WLAs into stormwater permits is maintained in the draft handbook *TMDLs to Stormwater Permit*, in which Chapter 6 identifies method of coordinating TMDLs and stormwater permits. Six options are put forward as methods for permit writers to incorporate TMDLs in a stormwater permit, the last of which is to consider numeric effluent limitations. Furthermore the County would also note that as required by 40 C.F.R. § 122.44(d)(1)(vii)(B), the Permit must be "consistent with the assumptions and requirements of available WLAs". The Regional Board should seriously consider and not foreclose the palette of options available to implement water quality controls for impaired waters in stormwater permits.

The Regional Board should follow the guidance in the 2002 Memorandum and the Draft Handbook and the intent of the Regional Board TMDL staff and express the WLAs in the Tentative Order as being implemented through the BMPs. This is especially true in California where an implementation plan is required for TMDLs and which in turn may be incorporated into the Permit consistent with EPA guidance.

- **Receiving Water Limitations:** (Finding E. 13, Page 16)

The intention of this new Finding is not clear and appears to be redundant with the receiving water limitations language in Section A, *Prohibitions and Receiving Water Limitations*. Finding E.13 states that the Permittees discharge from the MS4 is required to meet receiving water limitations [emphasis added]. This requirement is already stated more effectively and within the context of the Receiving Water Limitations language - the Permittees evaluate the discharges and the receiving waters to determine if the discharges cause or contribute to an exceedance of water quality standards and follow

⁴ USEPA. 2008. *TMDLs to Stormwater Permits Handbook (Draft)*. U.S. Environmental Protection Agency, Assessment and Watershed Protection Division, Water Permits Division, Water Division, Washington, DC.

⁵ Wayland, R.H., and J.A. Hanlon. 2002. *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*. Memorandum from Robert H. Wayland, III, Director, Office of Wetlands, Oceans and Watersheds, and James A. Hanlon, Director, Office of Wastewater Management, U.S. Environmental Protection Agency, Washington, DC.

the outlined process in cases where the discharge is determined to be causing or contributing to a WQS exceedance in the receiving water.

It is recommended that this Finding be deleted.

PERMIT PROVISIONS

PROHIBITIONS AND RECEIVING WATER LIMITATIONS

- **Prohibitions and Receiving Water Limitations (Section A, Page 17)**

In section A.3.b., the Regional Board has modified the standard state-wide receiving water limitations language to require the Permittees to repeat the assessment process for exceedances of the same water quality standard. This modification is inconsistent with State Water Board WQ Order 99-05. In the previous permit, and in permits throughout the state, including the permit recently issued by the Regional Board to MS4 dischargers to the watersheds draining San Diego County, this provision of the RWL language is set up such that the process is only repeated once unless otherwise directed. The original language recognizes the length of time it can take for new BMP programs to be developed, deployed, and fully implemented before a change in water quality may be observed and avoids pointless reassessments of the same pollutant. Even in cases where there has been a significant reduction of the source of a pollutant, it typically takes several years for monitoring programs to see the change in the receiving water. In cases where the pollutant is persistent in the environment, it can take decades to detect changes in water quality or indicator monitoring.

It is recommended that the Regional Board reinstate the original language from WQ Order 99-05 (see below) regarding iterations of the assessment process for exceedances of the same water quality standard.

So long as the Copermittee has complied with the procedures set forth above and is implementing the revised Jurisdictional Urban Runoff Management Program, the Copermittee does not have to repeat the same procedure or continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Board to do so.

NON-STORMWATER DISCHARGES

- **Conditionally Exempt Non-Stormwater Discharges (Section B, Page 18-19)**

The Regional Board has modified the list of conditionally exempt non-stormwater discharges so that it no longer includes landscape irrigation, irrigation water, and lawn watering. The Findings explain that these discharges have been identified by the Permittees as a source of pollutants (Finding C.14, Page 6). We would contend that a prohibition on these discharges is potentially problematic from the perspective of fostering and sustaining public support for the Program and that the approach should be focused more on public education and water conservation.

The Orange County DAMP contains a variety of BMPs and efforts to reduce pollutants in discharges associated landscape irrigation. These practices include public outreach on the use of landscape chemicals (fertilizers and pesticides) and overwatering, implementation of integrated pest management (IPM) practices within municipal

programs, and water conservation measures that mandate the use of efficient irrigation systems, as well as other programs that general control pollutant sources which reduce the pollutants that might be conveyed into the MS4s by excess irrigation flows. The use of BMPs to reduce pollutants associated with runoff is a preferable and more practical approach.

Additionally, as noted in the Supplemental Fact Sheet, Permittees have sought grant funding to assist with the implementation of programs to reduce irrigation-related urban runoff. Grant programs frequently prohibit the award of grants to meet requirements of NPDES permits requirements. The inclusion of the prohibition could limit the types of grants the Permittees might otherwise be eligible for to help address this discharge.

Finally, a prohibition of irrigation-related runoff may be in conflict with other permits that allow such discharges including the industrial general permit and the construction general permit. In particular, the construction permit authorizes such discharges if they are necessary for the completion of construction (and are identified in the SWPPP with appropriate BMPs). The final phase of construction includes the installation and establishment of landscaping (also known as vegetative stabilization). The establishment of new plantings to ensure long-term survival typically requires higher than normal levels of irrigation to ensure good root growth and vegetative cover prior to the onset of the rainy season to reduce erosion and sediment transport from the project site. The complete prohibition of irrigation related runoff may impede the ability of the Permittees to establish erosion resistant vegetative covering.

NON-STORMWATER DRY WEATHER NUMERIC EFFLUENT LIMITS

The Tentative Order makes the case (see Finding C.14) that non-stormwater discharges are not subject to the maximum extent practicable standard and therefore subject to water quality based effluent limits (see Table 3). The County disagrees with this assessment for a number of technical and legal reasons which are discussed in the following paragraphs and in Attachment A respectively.

The Regional Board in Finding C.14 incorrectly interpreted CWA section 402(p)(3)(B)(ii). In Finding C.14 the Board staff concludes that non-stormwater discharges are to be effectively prohibited unless specifically exempted. Furthermore the finding goes on to include a contradictory statement that “exempted discharges as a source of pollutants are required to be addressed through prohibition”. On the one hand non-stormwater discharges are prohibited unless exempted but exempted discharges with pollutants are prohibited. The question that begs to be asked is why exempt a non-stormwater discharge that is a source of pollutants from the prohibition is the first place.

CWA section 402(p) (3) (B) (ii) reads as follows:

(B) Municipal Discharge – Permits for discharges from municipal storm sewers –
(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewer;

The provision does not provide any reference to exemptions. Rather the section may be read that a permit shall “effectively prohibit non-stormwater discharges” but may exempt certain discharges that are not significant sources of pollutants from the prohibition. The section does

not require a full prohibition but rather an effective prohibition. The operative word is “effective”. The more precise and correct finding should note that non-stormwater discharges are effectively prohibited (per 402 (p) (3) (B) (ii)). However discharges that are not significant sources of pollutants are exempted from the prohibition.

The County would submit that the technology based standard for non-stormwater discharges is “effectively prohibit” just as “maximum extent practicable” is the technology based standard for stormwater discharges. Furthermore, the County would submit that this technology based limit is in fact protective of water quality and compliance with water quality standards. The County has an extensive dry weather monitoring program to identify problematic discharges, including illegal discharges, which support the protection of water quality standards. It is unclear to the County how the Board has determined that these efforts are in fact inadequate to necessitate the development of water quality based effluent limits. Furthermore the TMDL program as noted in Finding E.11 and E.12 provide the appropriate regulatory vehicle to address stormwater and non-stormwater discharges that are causing and contributing to an exceedance of a water quality standard.

Should the Regional Board choose a numeric metric to define the technology based narrative limit of “effectively prohibit” then the development of technology based numeric effluent limits must be consistent with Federal and State regulations and policy. The County would submit that the proposed NELs in Table 3 are not. USEPA has provided significant guidance⁶ for the development of technology based effluent limits (TBELs) for industrial dischargers in order to comply with best practicable control technology currently available (BPT) and best available technology economically achievable (BAT) standards. Consistent with this guidance TBELs are based on demonstrated performance of a reasonable level of treatment that is within the economic means of the discharger. (Page 49-50, NPDES Permit Writers’ Manual). This guidance provides insight into how one may develop TBELs for municipal dischargers. For industrial dischargers, the development of TBELs should consider the following parameters:

- Data collection – Sufficient technical and economic data must be available and should be obtained from various sources with respect to trends, environmental impacts, BMPs, and economics.
- Discharger and site profile – Discharger specific information should be obtained through surveys, site visits, etc. to develop a profile. The profile should include:
 - General description/definition and NAICS and/or SIC codes
 - Industry practices and trends
 - Manufacturing processes used
 - General facility information (age of equipment and facilities involved)
 - Discharge characteristics
 - Based on the data gaps identified as a part of the existing data collection efforts, additional field sampling and statistical analyses may be necessary
 - Local climatological data.
- Technology Assessment – The technology assessment should determine the depth and breadth of effectiveness data for various industry related source and treatment BMPs and identify the quantity and quality of data available to describe the performance of all currently used and innovative practices, the ability of each to effectively control impacts

⁶ USEPA NPDES Permit Writers’ Manual

due to runoff and the design criteria or standards currently used to size each practice to ensure effective control of runoff.

For each source and treatment BMP, the assessment should include:

- General Description of the BMP
 - Applicability
 - Design and installation criteria
 - Design and/or site considerations and/or variations
 - Effectiveness
 - Limitations
 - Maintenance
 - Cost
- Regulatory Options – Once the Data Collection, Industry Profile and Technology Assessment has been completed, the State should identify the regulatory options that are available. This effort should identify industry impacts, which pollutants to address as well as other non-water quality related impacts (such as energy requirements).
 - Economic analysis⁷ - Once the regulatory options are identified (see above), the State should evaluate the costs and environmental benefits and determine the appropriate option based on factors such as:
 - Total Costs
 - Monetized and non-monetized environmental benefits
 - Ease of implementation
 - Industry financial impacts
 - Industry acceptance

As demonstrated above, the development of TBELs for industrial dischargers must be comprehensive and consider many factors. A similar approach for municipal dischargers is appropriate. The County was unable to confirm whether the State completed such an analysis as it appears the State defaulted to Basin Plan water quality objectives to establish a technology based standard. In essence the Tentative Order has stipulated water quality based limits as equivalent to the technology based limits.

Notwithstanding the argument that water quality based effluent limits are inappropriate and not justified, the Board, if it determines that technology based limits are insufficient to meet water quality standards, is obligated to stipulate additional requirements consistent with 40 CFR 122.44. In this context the Regional Board must determine whether the discharge has a "reasonable potential" to cause or contribute to an excursion of the applicable water quality standard. (40 CFR 122.44 (d)(1)(i-iii)). If determined to cause or contribute then effluent limits (either narrative or numeric) must be developed for the discharge. The County was unable to determine whether such an analysis was completed and the subsequent basis for Table 3 of the Revised Tentative Order. Furthermore, if numeric effluent limits are developed then they must be consistent with 40 CFR 122.45. Again we were unable to verify this consistency as Table 3 is not consistent with 40 CFR 122.45 (c). In fact there is conflicting information in Table 3 and Finding E. 11. In Table 3 the Board has established numeric effluent limits for a list of some 28 constituent/hydrologic area combinations. This table would imply that the Board has determined

⁷ Similar guidance is identified in USEPA's *Economic Analysis of Proposed Effluent Guidelines and Standards for the Construction and Development Category* (May 2002)

reasonable potential for each of these constituents. However, in Finding E.11 the Board acknowledges that only four pollutants have been shown to have reasonable potential.

Of primary importance to the County is that the Regional Water Board adopt a permit that is reasonable, feasible and protects water quality. At this time, the Permittees are exposed to significant risk to comply with the numeric effluent limits for dry weather discharges. We have completed a comparison of existing dry weather discharges with the selected NELs noted in Table 3. The results of that comparison are shown below:

Constituent	Hydrologic Unit	Percentage of time > NELs
Total Dissolved Solids*	Group 1	74.5
Total Dissolved Solids*	Group 2	97.1
Total Phosphorus [@]	Group 1 and 2	93.0
Nitrate + Nitrite	Group 1 and 2	93.8
Fecal coliform	Group 1 and 2	90.0
Nickel (dissolved)	Group 1 and 2	0.3
Copper (dissolved)	Group 1 and 2	9.5
Cadmium (dissolved)	Group 1 and 2	18.1

*A factor of 0.6 was multiplied by the specific conductance measurements to estimate TDS
[@]Proposed NEL was compared to measurements of reactive orthophosphate as P

As a result, the County/Permittees will face enforcement action for not complying with all the NELs. Where there is exceedance, the Permittees will be faced with liability under several different enforcement regimes. First, the NELs, as proposed in the Revised Tentative Order, would clearly constitute numeric effluent limitations. Violation of effluent limitations in an NPDES permit subjects the Permittees to mandatory minimum penalties (MMPs). (See Water Code §§ 13385 and 13385.1). In addition, non-compliance with the NELs may subject the Permittees to additional enforcement actions imposed by the Regional Water Board and through third party actions under the citizen suit provisions of the CWA. Although the Tentative Order (see 4/29/09 Tentative Updates) attempts to clarify that compliance with Non-Stormwater Dry Weather Numeric Effluent Limits Section C is met by one of three follow-up actions, the structure of the Tentative Order negates such a compliance option and stipulates a hard and fast numeric effluent limit and the resulting exposure to MMPs.

As a final point the County would submit that the use of numeric limits for non-stormwater discharges is premature at best. The TMDL program provides the safety net for ensuring that our water bodies are protected in the most reasonable and effective manner. The direct translation of water quality objectives into numeric effluent limits bypasses the TMDL process. It is likely that some of our non-stormwater discharges will exceed the NEL but have no effect on the receiving water quality or beneficial uses. But under the proposed Order the Permittees would be obligated to expend considerable resources without a reciprocal water quality benefit. This is poor public policy and use of public funds.

In summary, the establishment of NELs for non-stormwater discharges is fundamentally flawed from a technical and legal perspective. If the NELs are proposed are technology based effluent limits then they must be developed pursuant to USEPA guidance (USEPA NPDES Permit Writers' Manual). If, on the other hand, they are proposed as water quality based numeric limits then their derivation must also follow Federal and state regulations (40 CFR 122.44). The County was unable to determine whether either of these efforts took place. Furthermore, the

technical feasibility of complying with these numeric limits is questionable especially since our drinking water supply would not be able to comply with the limits.

MUNICIPAL ACTION LEVELS (Section D, Page 21-22)

The County has considerable concerns regarding the development and application of MALs. Overall, we contend that the MALs are not technically sound, and more importantly, are not legal in the manner proposed in the Draft Tentative Order. Our legal discussion is provided in Attachment A, County of Orange Legal Comments.

The Tentative Order (with updates) attempts to walk a fine line of using MALs to identify the adequacy/inadequacy of the program (see Finding D.h.1, page 8) without calling them numeric effluent limits. However, we would submit that the current configuration of MALs in the Tentative Order may be considered effluent limitations under state law (See Water Code §13385.1 where effluent limitation means “a numerically expressed narrative restriction.”) and exceedances of the MALs after Year 3 may subject the Permittees to mandatory minimum penalties. Our comments here highlight and summarize the relevant points to MALs.

A) Establishment of TBELs must reflect EPA Guidance

The Tentative Order (see 4/29/09 Tentative Updates at page 4) contains a combination of purported technology based MALs and water quality based MALs. To the extent that municipal action levels are used to define the technology based standard of maximum extent practicable (MEP) they should be consistent with EPA guidance⁸, and federal law and regulations. As noted previously in the discussion regarding non-stormwater, USEPA has provided significant guidance for the development of technology based effluent limits (TBELs) for industrial dischargers in order to comply with best practicable control technology currently available (BPT) and best available technology economically achievable (BAT) standards. Consistent with this guidance, TBELs are based on demonstrated performance of a reasonable level of treatment that is within the economic means of the discharger (Page 49-50, NPDES Permit Writers' Manual). This guidance provides insight into how one may develop TBELs for municipal dischargers. For industrial dischargers, the development of TBELs should consider the following parameters:

- Data collection – Sufficient technical and economic data must be available and should be obtained from various sources with respect to trends, environmental impacts, BMPs, and economics.
- Discharger and site profile – Discharger specific information should be obtained through surveys, site visits, etc. to develop a profile. The profile should include:
 - General description/definition and NAICS and/or SIC codes
 - Industry practices and trends
 - Manufacturing processes used
 - General facility information (age of equipment and facilities involved)
 - Discharge characteristics

⁸ USEPA NPDES Permit Writers' Manual

- Based on the data gaps identified as a part of the existing data collection efforts, additional field sampling and statistical analyses may be necessary
- Local climatological data.
- Technology Assessment - The technology assessment should determine the depth and breadth of effectiveness data for various industry related source and treatment BMPs and identify the quantity and quality of data available to describe the performance of all currently used and innovative practices, the ability of each to effectively control impacts due to runoff and the design criteria or standards currently used to size each practice to ensure effective control of runoff.

For each source and treatment BMP, the assessment should include:

- General Description of the BMP
- Applicability
- Design and installation criteria
- Design and/or site considerations and/or variations
- Effectiveness
- Limitations
- Maintenance
- Cost
- Regulatory Options - Once the Data Collection, Industry Profile and Technology Assessment has been completed, the State should identify the regulatory options that are available. This effort should identify industry impacts, which pollutants to address as well as other non-water quality related impacts (such as energy requirements).
- Economic analysis⁹ - Once the regulatory options are identified (see above), the State should evaluate the costs and environmental benefits and determine the appropriate option based on factors such as:
 - Total Costs
 - Monetized and non-monetized environmental benefits
 - Ease of implementation
 - Industry financial impacts
 - Industry acceptance

As demonstrated above, the development of TBELs for industrial dischargers must be comprehensive and consider many factors. A similar approach for municipal stormwater dischargers is appropriate. The County was unable to confirm whether the State completed such an analysis as it appears the State defaulted to a regional dataset to arbitrarily establish a technology based standard.

Furthermore, to the extent that the Tentative Order establishes water quality based numeric effluent limits (WQBELs), the WQBELs must be established consistent with Federal and State regulations and policy. The Board, if it determines that technology

⁹ Similar guidance is identified in USEPA's *Economic Analysis of Proposed Effluent Guidelines and Standards for the Construction and Development Category* (May 2002)

based limits are insufficient to meet water quality standards, is obligated to stipulate additional requirements consistent with 40 CFR 122.44. In this context the Regional Board must determine whether the discharge has a “reasonable potential” to cause or contribute to an excursion of the applicable water quality standard. (40 CFR 122.44 (d)(1)(i-iii)). If determined to cause or contribute, then effluent limits (either narrative or numeric) must be developed for the discharge. The County was unable to determine whether such an analysis was completed and the subsequent basis for Table 4 of the Revised Tentative Order. Furthermore, if numeric effluent limits are developed then they must be consistent with 40 CFR 122.45. The Board basically stipulated that end of pipe discharges must comply with water quality objectives for pH, TDS and mercury regardless of whether the MS4 discharges were causing or contributing to a water quality standard exceedance.

B) The MALs Contained in the Tentative Order Are Not Supported by SWRCB Blue Ribbon Panel Findings and Recommendations

The County submits that the specific MALs contained in the Tentative Order are not technically supportable or valid. The technical validity of establishing numeric limits for outfalls was posed to a State Water Resources Board Control Board (State Water Board) convened group of experts referred to as the Blue Ribbon Panel (BRP). The results and conclusions of the BRP are highlighted in a June 2006 Blue Ribbon Panel Report¹⁰. The BRP Report unequivocally states the position that numeric limits for municipal stormwater discharges are not possible at this time. However, the Panel did agree that “action levels” may be used to identify “bad actor” catchments. Specifically, the BRP Report states:

It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges ...

*For catchments not treated by a structural or treatment BMP, setting a numeric effluent limit is basically not possible. However, the approach of setting an ‘upset’ value, which is clearly above the normal observed variability, may be an interim approach which would allow “bad actor” catchments to receive additional attention. For the purposes of this document, we are calling this “upset” value an **Action Level** because the water quality discharge from such locations are enough of a concern that most all could agree that some action should be taken ... (BRP Report at p. 8, emphasis added.)*

The Tentative Order attempts to disguise these numeric effluent limits by defining them as Action Levels. However, the intent and application of these numeric limits are consistent with numeric effluent limits (See Water Code §13385.1 where effluent limitation means “a numerically expressed narrative restriction.”) and not action levels.

Action levels come into play when the stormwater is clearly above the normal observed variability. To develop an appropriate action level, the State’s Blue Ribbon Panel suggested various options, which included: (1) consensus based approach; (2) ranked percentile distribution; and, (3) statistically based population parameters.

¹⁰ The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial, and Construction Activities (June 19, 2006).

The Tentative Order claims to use a statistical approach that used the central tendency of the dataset and accounting for data variability (Tentative Order, at p. 8). In its actual calculation, it appears that the Tentative Order took the median value of a regional data set and multiplied it by the coefficient of variation. There is no basis for this approach in establishing action levels. This calculation actually reflects the variability of the data (measured as the standard deviation) and does not account for central tendency of the dataset.¹¹ The Tentative Order's approach is not consistent with the State's Blue Ribbon Panel suggestion for a statistically relevant calculation.

In addition, the Tentative Order's use of USEPA Rainfall zone 6 database (4/29/09 Fact Sheet Changes at p. 11) is not appropriate to generate the MALs if a sufficient local data base is available. The State's Blue Ribbon Panel noted that there is greater opportunity to use various data sets for establishing the MALs. Three options proposed in the Report, in order of preference, are:

- Local urban stormwater monitoring data (the Panel even notes the existence of such data sets from Los Angeles County, Orange County and other California MS4 programs)
- Combine municipal permit monitoring datasets if there is a lack of data for specific constituents in any one location
- National database

In this case, the Tentative Order selects the second preferred option to generate the MALs even though there are local stormwater data sets available. In fact, in California and specifically in Orange County, the MS4s have comprehensive data sets. While the Climate zone 6 database is much preferred over the use of the national dataset, the County would submit that our monitoring dataset is sufficiently robust to generate MALs.

Furthermore, the derivation and use of action levels as envisioned by the State's Blue Ribbon Panel reflects an approach to identify the "bad actors." (Report at page 8) The use of MALs in the Tentative Order establishes a numeric end point for assessing MEP. The Tentative Order does introduce the iterative process to address exceedances of MALs and subject to the action or lack of action by the MS4s to address these exceedances, the discharger may be viewed to be out of compliance with the MEP standard. Such a permit strategy is unique but it does not diminish the fact that a numeric value is being used to define MEP. Notwithstanding this statement, the Tentative Order notes the absence of MAL exceedances does not give rise to a presumption that the discharger is in compliance with the MEP criteria. Thus it's fair to say regardless of the outcome of the MAL comparison the Board will ultimately decide whether the dischargers are complying with MEP. This somewhat convoluted logic poses difficulties for all parties and makes the interpretation of the Tentative Order even more difficult. With that in mind, the County submits that consistent with the Blue Ribbon Panel recommendations, MALs should be used as assessment tools to identify "bad actors" and not as compliance metrics.

¹¹ See CASQA March 7, 2007 letter regarding the Ventura Draft permit at page 4.

C) MALs Are More Restrictive than the Basin Plan and Establish New Water Quality Objectives for a Water Body

Instead of identifying “bad actors,” the MALs as calculated in the Tentative Order may actually establish new water quality objectives for a waterbody or, at the very least, may establish action levels that are more restrictive than applicable water quality objectives for the waterbodies in question. For example, the Tentative Order proposes a MAL for total nickel of 26.34 ug/L that must be complied with 80% of the time based on a running average. A comparison of the nickel MAL with the Basin Plan water quality objective is shown below in Table 3.

Table 3 - Comparison of MALs v. Basin Plan Water Quality Objective for Nickel¹

Constituent	Units	Municipal Action Levels ²	Basin Plan ³
Nickel	ug/L	26.34	469

1. Measured as total
2. Table 4, as modified in 4/29/09 Tentative Updates.
3. From California Toxic Rule and assuming acute criterion and 100 mg/L as CaCO₃ hardness and default conversion factors.

A review of the table demonstrates that the MAL is considerably more restrictive than the water quality objectives (in the case of nickel, the MAL is nearly 18 times more restrictive than the water quality objective). Thus it is very possible that the County would be held responsible for significantly reducing its lead and nickel concentrations even though the water body receiving the discharge is in compliance with the water quality standard. To demonstrate this point water, quality data were compiled for mass emission stations located on various creeks in Orange County. This compilation is shown in Table 4. A review of the table shows that the creeks are out of compliance with the MAL even though they are in general in compliance with the Basin Plan objective for these same waters.

Table 4. Comparison of Orange County Waterbodies with Nickel MAL and Water Quality Objectives

Waterbody	Percentage of time ¹ > MAL of 26.34 ug/L	Percentage of samples ¹ > CTR water quality objective of 469 ug/L
Aliso Creek	58.5	0
Prima Deshecha	100.0	2.1
Segunda Deshecha	93.4	0

Although Orange County does not have land use-specific outfall monitoring data to directly compare with the MALs, the County of Ventura has an extensive outfall monitoring program which has characterized runoff from residential and industrial land uses. The summary statistics of this monitoring effort are shown in Table 5.

Table 5. Characteristics of Ventura County Land Use -Specific Outfalls for Nickel

	Industrial Outfall	Residential Outfall
Number of samples	26	26
Mean, ug/L	28.9	17.6
Range	<5 - 120	<1 - 53
% of time above MAL	42	22

Assuming runoff in Orange County is similar to runoff in Ventura County we would submit that the application of MALs to Orange County will create a situation where our receiving waters will be in compliance with the Basin Plan but that discharges from our outfalls will not be in compliance with the MALs. Furthermore, because the water body (see Table 4) is significantly in compliance with the applicable water quality objective, discharges from residential storm drain outfalls are clearly not causing or contributing to an exceedance of a water quality standard. Thus, the MS4 discharges and the waterbody do not exceed or impact the Basin Plan water quality standards, but due to the application of the MAL, the Permittees without corrective action to lower the discharge level would be out of compliance with the Tentative Order and would potentially be subject to mandatory minimum penalties for failing to comply with an effluent limits. Unnecessary and significant costs will therefore accrue to the Permittees from the obligation to address discharges that present regulatory rather than environmental concerns.

D. Compliance with MALs will prove to be problematic

The Tentative Order (as modified in the 4/29/09 Tentative Updates) provides clarification regarding the follow-up action required should the outfalls exceed the MALs. The Tentative Order requires each Permittee to affirmatively augment and implement all necessary stormwater controls and measures to reduce the discharge of the associated class of pollutant(s) in the affected watershed to the MEP. The definition of MEP (at Attachment C, page C-7) provides a broad definition that primarily focusing on source control BMPs and treatment control BMPs only if source control BMPs prove ineffective¹². Given the current lack of knowledge regarding the effectiveness of source control BMPs and the liability of non compliance with numeric effluent limits (and resulting mandatory minimum fines) the Permittees would be well served to implement treatment control BMPs.

As a result, the Tentative Order is structured to effectively require Permittees to retrofit all outfalls with treatment control BMPs. However, the language in the Tentative Order creates an illusion that the Permittees can comply with the MALs through a traditional stormwater management program. If it is the Regional Water Board's intent to structure compliance through the implementation of treatment control BMPs (see Provision 3.d Retrofitting Existing Development at pg. 65), then the Tentative Order must clearly state that all outfalls are to be retrofitted with treatment control BMPs. Obviously, the costs and ramifications on Permittees for such a requirement are huge and in some cases may not be possible without displacing existing development.

¹² "MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense)." Page C-7

Furthermore, it is unclear to the County that even after retrofitting all of our outfalls that we would comply with the MAL numeric effluent limits. As a case in point, the County reviewed options for lowering the nickel concentrations to the MAL level and were unable to verify that the BMPs purported to be practicable in the national ASCE database could in fact reduce nickel to levels required for compliance. Basically, the ASCE BMP database has no supporting documentation demonstrating the effectiveness of treatment control BMPs to reduce nickel. Similarly, the database did not contain performance data for mercury removal; thus, it's unclear what options are available to the MS4 should the discharge exceed the MAL for mercury.

E. County's Alternative Approach for Use of MALs

The Tentative Order's use of MALs to define MEP is ill conceived as it is inconsistent with state and federal policies, is technically flawed, results in requirements more stringent than federal law, and creates limits that are more restrictive than adopted water quality objectives contained in the Basin Plan.

While the County disagrees with the use of MALs to define MEP as a numeric value to determine compliance, we understand the Regional Water Board is looking for a new mechanism to ensure Orange County's stormwater program is effective and protective of water quality. Thus, instead of using MALs as proposed in the Tentative Order, we propose an alternative method consistent with the approach proposed by the State Water Resources Control Board's "Blue Ribbon Panel of Experts," as expressed in the June 2006 Blue Ribbon Panel Report ("BRP Report"). This approach would meet the Regional Water Board's desire to include performance measures in a municipal stormwater program for Orange County.

To achieve these goals, we support an approach that "would set "an 'upset' value, which is clearly above the normal observed variability, which would allow bad actor catchments to receive additional attention" through creation of an upset value (see BRP Report at p. 8.). The BRP Report termed upset value as "...an Action Level because the water quality discharge from such locations are enough of a concern that most all could agree that some action should be taken..." (Id.) The strikeout/underline language in Attachment B presents the Permittee's proposal for how MALs should be developed and used to achieve the purpose set forth in the BRP Report. The Permittees' proposal is to use locally relevant data to create MALs as a tool which, together with additional investigation and attention, will ensure that water quality is improved in the subject sub-watershed. Such a proposal would also include the deletion of any references of MALs to support the determination of MEP.

To develop MALs for this purpose, the Permittees propose to use the 90th percentile of local, countywide data to develop MALs. Any sub-watershed that exceeds the 90th percentile would be above the normal observed variability and in need of additional attention. In addition, we propose to develop MALs only for those pollutants where there is water quality impairment (based on the section 303(d) list), or have been identified as pollutants of concern and that are present in significant quantities in MS4 discharges. The Permittees' approach would avoid using public resources unwisely and inefficiently and focus on pollutants that are causing water quality concerns.

Where a sub-watershed exceeds a MAL due to the MS4 discharge, the Permittees propose that the responsible Permittee be required to submit an “MAL Action Plan” to the Regional Water Board’s Executive Officer. The plan would need to include an assessment of the sources responsible for the abnormal pollutant levels, the existing BMPs that address those sources, an assessment of additional BMPs and actions that could be implemented, and, based on such analyses, the additional BMPs and/or actions the responsible Permittee proposes to implement to achieve the MAL to the MEP. The Executive Officer, in approving the plan, would have the opportunity to identify additional BMPs or actions the Regional Water Board believes necessary to address the constituent of concern.

In summary, Permittees propose that MALs be used to identify poor performing catchments or sub-watersheds for pollutants of concern to implement further practical controls. Where MALs are exceeded, the Permittees, in conjunction and with approval by the Regional Water Board’s Executive Officer would be required to implement additional actions deemed necessary to address the high concentration. Thus, MALs are used to elevate municipal responsibility in a manner that is reasonable and practical while improving water quality.

LEGAL AUTHORITY

- **Effectiveness of BMPs** (Section E.1.j, Page 24)

The Tentative Order includes a new provision that requires the Permittees to demonstrate that they have the legal authority to require documentation on the effectiveness of BMPs. This provision is redundant with other requirements in the permit in that it ignores the fact that the New Development/Significant Redevelopment section of the DAMP (Section 7.0) establishes a process for the selection, design, and long-term maintenance of permanent BMPs for new development and significant redevelopment projects and requires developers to select BMPs that have been demonstrated as effective for their project category. In addition, it ignores the fact that the Permittees have already established legal authority for their development standards so that project proponents have to incorporate and implement the required BMPs.

This provision should be deleted from the Order.

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

Development Planning Component

- **LID BMPs** (Section F.1.c.(2), Page 26)

Provision F.1.c.2 identifies that the LID BMPs listed in the provision shall be implemented at all Development Projects where applicable and feasible, however no definition of “applicable and feasible” is identified in the provision or within the fact sheet. The determination of feasibility of implementing the LID BMPs identified in the provision should be the responsibility of the Permittees.

It is recommended that the Provision be modified as follows:

The following LID BMPs listed below shall be implemented at all Development Projects where applicable and feasible as determined by the permittee.

- **Infiltration and Groundwater Protection** (Section F.1.c.(6), Page 26)
The Regional Board Response to Comments dated July 6, 2007 regarding this section makes reference to the Order No. R9-2002-0001 Fact Sheet and recommendations provided by the U.S. EPA Risk Reduction Engineering Laboratory related to restrictions on infiltration of stormwater. The Order No. R9-2002-0001 Fact Sheet references the document *U.S. Environmental Protection Agency. 1994. Potential Groundwater Contamination from Intentional and Nonintentional Stormwater Infiltration. EPA 600 SR-94 051*. This document that is referenced as guidance for infiltration of stormwater is more than 15 years old and does not provide an adequate technical basis for many of the requirements related to infiltration of stormwater. A closer review of this document will show that the study evaluated the impact of industrial stormwater discharges into local groundwater. However, the site soil conditions had a poorly defined soil structure and included gravel. Thus stormwater from the industrial site was discharged in an almost direct conduit to the groundwater. The County would submit that the Tentative Order should require the Permittees to develop criteria for the use of infiltration BMPs that consider land use, runoff quality, groundwater depth, site soil conditions and other information relevant to groundwater protection. The Regional Board Response to Comments dated July 6, 2007 also identifies that language contained in the Tentative Order also allows the Permittees to develop alternative criteria to replace the suggested restrictions. As current drafted the restrictions are more than “suggestions” and are actually more restrictive than requirements for onsite septic systems currently being considered by the State Water Board. If the restrictions are “suggested” then they should not be required as provision but should be identified as suggested or removed from the permit. If the intent is to allow the Permittees to develop criteria for infiltration of stormwater than the provision should be that the Permittees should develop the criteria and the “suggested” criteria should be deleted from the permit.

Since the Fact Sheet, and the Regional Board Response to Comments dated July 6, 2007 does not provide adequate technical basis for the requirements and the Regional Board Response to Comments dated July 6, 2007 identifies the requirements as “suggested”, Section F.1.c.(6) should be deleted from the Tentative Order.

Jurisdictional Runoff Management Program (JRMP) Section F.1.c.(6)(g) restricts the use of infiltration treatment control BMPs in areas of industrial or light industrial activity and areas subject to high vehicular traffic. High vehicular traffic is defined as 25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway. There is no specific technical basis for this restriction or the definition of “high vehicular traffic” included within the Fact Sheet and the reference to the EPA Guidance in the Regional Board Response to Comments dated July 6, 2007 does not provide an adequate technical basis. As such, prescriptive requirements should not be included in the Tentative Order unless there is a strong technical basis. Although SWRCB Order WQ 2000-11 provides guidance on some of the restrictions on the use of infiltration treatment control BMPs contained in the Tentative Order, there is no mention of restrictions related to areas subject to high vehicular traffic. Moreover, we are not aware of any demonstrated relationship between traffic counts and frequency of materials deposited on the street.

- **Native/Low Water Landscaping** (Section F.1.c.(7), Page 27)
This new provision identifies that landscaping with native or low water species where feasible shall be preferred in areas that drain to the MS4 or waters of the U.S. It is unclear to the County as to the nexus between the use of native plants and runoff water quality. For what purpose does this provision have to protect water quality and beneficial uses? This provision would appear to be outside the jurisdiction of the Regional Board.
- **Standard Stormwater Mitigation Plans (SSMPs)** (Section F.1.d, Page 27-28)
Section F.1.d. requires each Permittee to implement an updated local SSMP within twelve months of adoption of the Order. The schedule for the update of the SSMP is overly aggressive and does not allow the time necessary for the Permittees to incorporate changes and implement an updated SSMP. This provision adds language that requires the inclusion of the hydromodification requirements in provision F.1.h in an updated local SSMP within one year of the adoption of the Order. The requirements in provision F.1.h include the development of watershed specific HMPs within two years of adoption of the Order. The timeframe to update the local SSMPs in Provision F.1.d should be consistent with the time frame identified to develop the watershed specific HMPs in provision F.1.h.

It is recommended that the Provision be modified as follows:

Each Copermitee must implement an updated local SSMP, upon completion of the watershed specific HMP(s) in their jurisdiction, which meets the requirements of section F. 1. d. of this Order and (1) reduces Priority Development Project discharges of storm water pollutants from MS4 to the MEP, (2) prevents Priority Development Project runoff discharges from the MS4 from causing or contributing to a violation of water quality standards, (3) manages increases in runoff discharge rates and durations from Priority Development Projects that are likely to cause increased erosion of stream beds and banks, silt pollution generation, or other impacts to beneficial uses and stream habitat due to increased erosive force and (4) implements the hydromodification requirements in section F.1.h.

- **Priority Development Project Categories** (Section F.1.d.(2), Page 29)
The Regional Board Response to Comments dated July 6, 2007 regarding this section does not provide any technical basis for requiring that a new Development project feature requires the entire project footprint being subject to SSMP requirements. The Response to Comments only mentions that the provision is “a particularly important requirement since municipalities have greater latitude during development to require pollution prevention than they have with existing development”, however pollution prevention is not required from land uses that are not Priority Development Project Categories and so the Response to Comments fails to address this potential situation and does not provide any technical basis for the provision. Furthermore, this requirement, Provision F.1.d.(2), appears in direct conflict with Provision F.1.d.(1)(b) which defines the area subject to SUSMP requirements. Given that provision F.1.d.(1)(b) is consistent with Board Order WQ 2000-11, provision F.1.d.(2) should be deleted. Since the previous comments on this issue were not addressed in the Regional Board’s Response to Comments, the comments are being resubmitted.

Section F.1.d.(2) defines Priority Development Project Categories. In an introduction to the listed categories, this section states that, where a new development project feature, such as a parking lot, falls into a Priority Development Project Category, the entire project footprint is subject to SUSMP requirements. As currently written this provision would require a new development that has a 5,000 square foot parking lot feature and 100,000 square feet of other land uses that are not Priority Development Project Categories, to provide treatment for the entire project (105,000 square feet). This requirement would unduly burden the landowner in this case with the cost of treating runoff from 105,000 square feet when only 5,000 square feet should be subject to SUSMP requirements and treatment controls.

The need to treat runoff from a greatly increased land area will require an increase in the size of treatment controls, which will increase the volume of water treated without a likely commensurate increase in pollutant removal. This requirement will unnecessarily increase the cost of treatment control BMPs without commensurate pollutant removal benefits and likely discourage re-development.

The Fact Sheet fails to provide any information showing that development land uses that are not in the Priority Development Project Category contribute pollutants to the MS4 and are a threat to water quality. The Fact Sheet (page 78) states that this provision "is included in the Order because existing development inspections by Orange County municipalities show that facilities included in the Priority Development Project Categories routinely pose threats to water quality. This permit requirement will improve water quality and program efficiency by preventing future problems associated with partially treated runoff from redevelopment sites. This explanation does not demonstrate any connection between development land uses that are not in the Priority Development Project Category and the observed "threats to water quality." In addition, although the explanation focuses on the water quality benefits for redevelopment projects, the Section is for "new development" projects".

Since the Fact Sheet does not provide any technical information showing that land uses that are not Priority Development Project Categories are a significant source of pollutants and a threat to water quality, the introductory paragraph of Section F.1.d.(2) subjecting the entire project footprint to SUSMP requirements should be removed from the permit.

- **Commercial Developments** (Section F.1.d.(2)(b), Page 29)
Section F.1.d.(2)(b) lowers the threshold criterion for commercial developments required to comply with SUSMP requirements from 100,000 square feet (2.3 acres) to one acre. The Fact Sheet states that this provision has been modified to be consistent with US EPA Phase II Guidance. However, EPA Phase II guidance is not relevant to a Phase I permit.

The Fact Sheet also states that this Provision is based on Permittee findings that smaller commercial facilities pose high threats to water quality. This is not the case. The Permittees indicated that commercial facilities of 100,000 square feet or less receive a score of 3 out of 5 (a medium threat) in Table 9-8 in the 2007 DAMP. Since the Fact Sheet does not provide any technical basis for lowering the threshold criterion for commercial developments required to comply with SUSMP requirements from 100,000 (2.3 acres)

square feet to one acre, the category should be described as, "Commercial developments greater than 100,000 square feet."

- **Industrial Developments** (Section F.1.d.(2)(c), Page 29)
Section D.1.d.(2)(c) requires industrial developments of greater than one acre to comply with SUSMP requirements. The Fact Sheet states that this provision has been modified to be consistent with US EPA Phase II Guidance. Again, EPA Phase II guidance is not relevant to a Phase I permit. In addition, the Fact Sheet does not provide a technical basis for adding industrial sites to the Priority Development Project Categories and consequently Section D.1.d.(2)(c) should be deleted from the permit.
- **Streets, Roads, Highways, and Freeways** (Section F.1.d.(2)(i), Page 30)
Section F.1.d.(2)(i) includes as a Priority Development Project Category streets, roads, highways, and freeways including any paved surface of 5,000 square feet or greater that is used for transportation. Highways and freeways are not the jurisdiction of Permittees and fall under the jurisdiction of the California Department of Transportation, which is regulated by its own statewide stormwater permit.

It is recommended that the Provision be modified as follows:

(i) Streets and roads, highways, and freeways. This category includes streets and roads any paved surface that is are 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.

- **Retail Gasoline Outlets** (Section F.1.d.(2)(j), Page 30)
Section F.1.d.(2)(j) includes as a Priority Development Project Category Retail Gasoline Outlets (RGOs) that meet the criteria of 5,000 square feet or more or have a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. SWRCB Order WQ 2000-11 provides guidance on whether RGOs are subject to SUSMP requirements. The State Board states in this Order that "In considering this issue, we conclude that construction of RGOs is already heavily regulated and that owners may be limited in their ability to construct infiltration facilities. Moreover, in light of the small size of many RGOs and the proximity to underground tanks, treatment may not always be feasible, or safe." Although the State Board does not prohibit subjecting RGOs to SUSMP requirements, the State Board provides a number of reasons for not doing so, including that fact that RGOs are already heavily regulated. It should also be noted that the DAMP already prescribe a suite of BMPs specific to RGOs. Subjecting RGOs to SUSMP requirements imposes duplicity where it is not needed. Section F.1.d.(2)(j) should be removed from the permit.
- **LID Site Design BMP Requirements** (Section F.1.d.(4), Page 30-33)
This provision identifies that each Permittee must require LID stormwater practices or make a finding of infeasibility for each Priority Development Project (PDP) for inclusion of LID. This provision effectively requires each PDP to perform an analysis of the applicability of LID BMPs for a given project and either incorporate LID BMPs into the project or provide documentation that supports a finding that LID BMPs cannot be incorporated, which presents a significant change in the way development projects are planned and designed and presents an additional burden on developers and municipal plan checkers.

The Tentative Updates and Errata document released on May 5th changes this language by specifying that each Permittee must require a project to include LID stormwater practices or, alternatively, participate in the LID substitution program described in Section F.1.d.(8). The analysis of the feasibility of LID BMPs is most appropriate to be included under this provision as the LID Site Design Substitution Program, as discussed later, is confusing and an unnecessary provision.

It is recommended that Section F.1.d.(4)(a)(i) not be changed per the Tentative Updates and Errata document release on May 5th and remain as worded in the March 13th Tentative Order as follows:

Each Copermittee must require LID storm water practices or make a finding of infeasibility for each Priority Development Project.

Section F.1.d.(4)(a)(iii) requires each PDP to perform an assessment of the potential for collection of stormwater for beneficial use on-site or off-site prior to discharging from the MS4. The language “discharging from the MS4” is confusing and the meaning should be defined or the language should be changed to “discharging to the MS4”. There is no language in the Tentative Order that identifies how extensive the analysis should be and there is no supporting language in the Fact Sheet as to why this analysis should be done. The requirement to perform this assessment for off-site use, which is not defined, puts an undue burden on developers to identify potential uses beyond the area and control of the PDP. This provision likely goes beyond the authority of the Regional Boards per Water Code § 13360, which prohibits the Regional Board from specifying the manner of compliance with its regulations.

It is recommended that Section (a)(iii) of this provision be modified as follows:

The review of each Priority Development Project shall consider potential collection of storm water for beneficial use on-site prior to discharging to the MS4.

Section F.1.d.(4)(a)(vi) requires that within 365 days of adoption of the Order that each Permittee review its local codes and ordinances and identify barriers therein to implementation of LID stormwater practices. One year, however is not adequate time for each Permittee to identify barriers to LID in its local codes and ordinances as similar projects to identify barriers to LID have taken multiple years. A minimum of two (2) years should be provided for the Permittees to identify these barriers which would allow a thorough understanding of the types of barriers present in local codes and ordinances, and the time to create ordinances that are compatible and support the other stormwater program elements.

It is recommended that Section F.1.d.(4)(a)(vi) be modified as follows:

Within ~~365 days~~ two (2) years after adoption of this Order, each Copermittee must review its local codes and ordinances and identify barriers therein to implementation of LID storm water practices. Following the identification of these barriers to LID implementation, where feasible the Copermittee must take appropriate actions to remove barriers directly under Copermittee control by the end of the permit cycle.

Section F.1.d.(4)(b)(i) requires PDPs to maintain or restore natural storage reservoirs and drainage corridors in drainage networks in preference to pipes, culverts, and engineered ditches. The intent of the provision appears to be to assist in maintaining the pre-development hydrology, however this provision specifies how a PDP is to maintain the pre-development hydrology which may go beyond the limitations in Water Code § 13360.

It is recommended that Section F.1.d.(4)(b)(i) be modified as follows:

Consider maintaining or restoring natural storage reservoirs and drainage corridors (including depressions, areas of permeable soils, swales, and ephemeral and intermittent streams) in drainage networks in preference to pipes, culverts, and engineered ditches.

Section F.1.d.(4)(b)(ii) of this provision requires draining a portion of the impervious area to pervious areas before discharge to the MS4, specifying that the amount of runoff shall correspond to the total capacity of the pervious areas. Section (b)(iii) of this provision identifies that pervious or landscaped areas should be properly designed and constructed to effectively receive and infiltrate or treat runoff. The effect of these provisions requires that all landscaped and pervious areas are sized and designed as stormwater treatment devices, such as bioretention or vegetated swales. Using landscaped and pervious areas as stormwater treatment devices is not always feasible and is dependant on site specific constraints.

It is recommended that Section F.1.d.(4)(b)(ii) and Section F.1.d.(4)(b)(iii) of this provision be modified as follows:

Section F.1.d.(4)(b)(ii) - Projects with landscaped or other pervious areas shall, where feasible, drain a portion of impervious areas (rooftops, parking lots, sidewalks, walkways, patios, etc) into pervious areas prior to discharge to the MS4. The amount of runoff from impervious areas that is to drain to pervious areas shall correspond with the total capacity of the project's pervious areas to infiltrate or treat runoff, taking into consideration the pervious areas' soil conditions, slope, and other pertinent factors.

Section F.1.d.(4)(b)(iii) - Projects with landscaped or other pervious areas shall, where feasible, properly design and construct the pervious areas to effectively receive and infiltrate or treat runoff from impervious areas, prior to discharge to the MS4. Soil compaction for these areas shall be minimized. The amount of the impervious areas that are to drain to pervious areas must be based upon the total size, soil conditions, slope, and other pertinent factors.

- **LID Site Design BMPs Sizing and Design** (Section F.1.d.(4)(c), Page 33)
The Tentative Updates and Errata document released on May 5th (page 7) contains a new section which requires that LID structural site design BMPs to be sized and designed to ensure capture of the 85th percentile storm event for all flows from the development in accordance with Section F.1.d.(6)(a)(i) and Section F.1.h. The objective of Low Impact Development is for a development site to maintain pre-development site hydrology by implementing site-design techniques that function similar to natural processes. LID BMPs should therefore not be designed to capture the 85th percentile storm event but rather to capture the difference in volume between the 85th percentile