

That of course is not what the Clean Water Act says: If Congress had intended to apply the MEP standard only to stormwater discharges from the MS4, as suggested above, it would have been very easy to do. Congress, however, chose to apply the MEP standard to the discharge of *pollutants* from the MS4, regardless of the source. That makes sense in that it is pollutants, not stormwater or non-stormwater, that impacts receiving water quality.⁶

This is consistent with *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999). There, in discussing the two different standards applicable to industrial dischargers and municipal dischargers, the Court consistently tracked the language from the Clean Water Act, referring to “industrial storm-water discharges” and “municipal storm-sewer discharges.” See 191 F.3d at 1164-65 (emphasis added). The Court did not refer to the standard as applying to stormwater discharges or non-stormwater discharges. The Court, of course, held that “Congress did not require municipal storm-sewer discharges to comply strictly with 33 U.S.C. § 1311(b)(1)(C) [e.g., water quality standards].”

2. All Discharges From the MS4 are Subject to the MEP Standard

Staff assert, in their response to comments and in Finding C.14 that non-stormwater discharges from the MS4 are not subject to the MEP standard. An examination of the federal regulations and preamble indicates otherwise.

The focus of the Clean Water Act and the federal regulations is on a management program or programs. Under the federal regulations, the overall goal of the management program is to include a comprehensive planning process to reduce the discharge of pollutants to the MEP. 40 C.F.R. 122.26(d)(2)(iv). One of the elements of the management program is the illicit discharge prevention program. 40 C.F.R. 122.26(d)(iv)(B)(1). Thus, the prevention of illicit discharges into the MS4 is intended to help achieve the overall MEP standard for discharges from the MS4. This is confirmed by the preamble to the federal regulations where U.S. EPA discusses the required elements of the management plans or programs. According to U.S. EPA:

[Permittees are required] to develop management programs for four types of pollutant sources which discharge to large and medium municipal storm sewer systems. Discharges from large and medium municipal storm sewer systems are usually expected to be composed primarily of: (1) Runoff from commercial and residential areas; (2) storm water runoff from industrial areas; (3) runoff from construction sites; and (4) **non-storm water discharges**. Part 2 of the permit application has been designed to allow [permittees] the opportunity to propose **MEP control measures for each of these components of the discharge**.

⁶ Staff assert that because the title of section 402(p) is “Municipal and industrial stormwater discharges,” section 402(p) must regulate only stormwater discharges. While Congress’ focus in enacting section 402(p) clearly was on regulating stormwater, as discussed below it understood that some non-stormwater likely would enter the MS4. To protect water quality, it thus chose to regulate all pollutants discharged from the MS4, not simply discharges of pollutants in stormwater. Additionally, from a statutory construction perspective, because the relevant language is clear in section 402(p)(3)(B), there is no need to look to the title of section 402(p) to determine Congressional intent.

55 Fed. Reg. at 48052 (emphasis added). *See also* 55 Fed. Reg. at 48045 (“Part 2 of the proposed permit application [which includes the illicit discharge prevention requirement] is designed to . . . provide municipalities with the opportunity of proposing a comprehensive program of structural and non-structural control measures that will **control the discharge of pollutants, to the maximum extent practicable, from municipal storm sewers.**”) (Emphasis added.)

Thus, just as the discharge of non-stormwater into the MS4 is subject to the “effective prohibition” standard, the discharge of pollutants in non-stormwater from the MS4 is subject to the MEP standard.

3. *No “Narrative Prohibition” or “Zero Discharge” Requirement*

In their Response to Comments, staff then go on to assert that the effective prohibition standard applicable to discharges of non-stormwater to the MS4 is, in effect a “narrative prohibition” of discharges of non-stormwater from the MS4; i.e., a “zero discharge” requirement. In support, staff assert that non-stormwater discharges are defined as “illicit discharges.” This, again, is inaccurate.

First, as discussed above, “non-stormwater discharges” are not defined in federal law. As made clear in the preamble to the federal regulations, U.S. EPA intended to implement the “effective prohibition” mandate of the Clean Water Act by focusing on two types of non-stormwater discharges -- illicit discharges and improper disposal. While non-exempt categories of illicit discharges must be prevented from entering the MS4, improper disposal needs only be controlled, not prevented. Moreover, it is to be controlled not through direct enforcement or some “stick” approach, but rather through public education. In other words, U.S. EPA acknowledged and accepted that some non-stormwater likely would enter the MS4.⁷ There is not a “narrative prohibition” or “zero discharge” requirement on non-stormwater discharges from the MS4. This doesn’t present significant risk to water quality, however, because all pollutants discharged from the MS4 must be controlled or reduced to the maximum extent practicable.

Second, as noted, U.S. EPA’s approach to regulating non-stormwater arises from trying to implement the Clean Water Act’s “effective prohibition” standard. Congress did not say that non-stormwater discharges into the MS4 had to be “absolutely prohibited” or “completely prohibited” or even just “prohibited.” Congress said that non-stormwater discharges into the MS4 had to be “effectively prohibited.” As indicated by U.S. EPA’s regulations, something may be effectively prohibited even when some of it is allowed. Effectively prohibiting the discharge of non-stormwater into the MS4 suggests that some non-stormwater may still enter the MS4.⁸ Thus, there is no “zero discharge” requirement on discharges of non-stormwater from the MS4.

⁷ This focus on two types (not *the* two types) of non-stormwater also suggests that U.S. EPA acknowledged and accepted that some non-stormwater likely would enter the MS4.

⁸ The Clean Water Act is not the only federal statute with an “effective prohibition” standard. For example, under Telecommunications Act, local zoning agencies’ regulation of cell towers cannot “prohibit or have the effect of prohibiting the provision of personal wireless services.” 47 U.S.C. 332(c)(7)(B)(i)(II). In challenging zoning board actions, plaintiffs must prove that the zoning board’s action constituted an “effective prohibition” of cell phone service. Courts have held that a zoning board can allow some service and still be subject to an “effective

4. *BMPs versus NELs*

Next staff appear to suggest that, because permittees' efforts at addressing non-stormwater discharges into the MS4 have not been successful, under 40 C.F.R. 122.44(k) and 122.44(d)(1), the Board can impose numeric effluent limits on discharges from the MS4. Once again staff is mistaken.

Section 122.44(k) simply provides that NPDES permits shall include BMPs (when applicable) under certain circumstances. The regulation does not govern when NELs must be included in an NPDES permit. Staff characterize permittees' efforts to address non-stormwater discharges into the MS4 as BMPs and then, because staff assert the BMPs are not working, suggest section 122.44(d)(1) allows the Board to impose numeric effluent limits on the discharge of non-stormwater from the MS4. To the extent section 122.44(d)(1) is applicable, it does not require numeric effluent limitations. It simply provides the method for determining when effluent limitations generally -- not necessarily a numeric limit -- are required to achieve water quality standards.

Because nothing in sections 122.44(k) or 122.44(d)(1) require numeric effluent limitations on the discharge of non-stormwater from the MS4, staff's reliance on these two sections is misplaced.

5. *State Board Order WQ 2009-0008*

In the August 12, 2009 Fact Sheet/Technical Report, staff place reliance on the State Board's recent Los Angeles County TMDL decision (WQ 2009-0008 [LA County TMDL Order]) to support the notion that the Clean Water Act requires (or at least authorizes) NELs for discharges of non-stormwater from the MS4. Such reliance is misplaced.

The issue in the LA County TMDL Order was not whether the Regional Board could impose NELs on discharges of non-stormwater from the MS4. The issue addressed in the order was the implementation of dry weather wasteload allocations (WLAs) in the LA County MS4 permit. The relevant TMDL established a bacteria WLA for summer dry weather of zero days of exceedance of the bacteria water quality standards. The TMDL included a WLA for MS4s.

The Los Angeles Regional Board amended the LA County MS4 permit to implement the summer dry weather bacteria WLA. As amended, the permit provided, as a receiving water limitation, that during summer dry weather "there shall be no discharges of bacteria from MS4s into the Santa Monica Bay that cause or contribute to exceedances in the Wave Wash, of the applicable bacteria objectives." The amendment also included corresponding discharge prohibition language. Los Angeles County argued that the receiving water limitation and discharge prohibition were improper numeric effluent limits and that, therefore, the permit amendment should be remanded.

The State Board disagreed. Interpreting summer dry weather as applying only to non-stormwater flows the Board found the authority cited to by LA County as inapposite. The State Board found, generalizing federal law, an overarching principle that "[f]ederal law requires municipal storm water permit limitations to be consistent with applicable wasteload allocations."

prohibition" claim. In other words, an effective prohibition is not an absolute prohibition. *See, e.g. Second Generation Properties, L.P. v. Town of Pelham*, 313 F.3d 620 (1st Cir, 2002) (Court analyzed the common meanings of "effective" and "prohibition.")

Order WQ 2009-0008 at p. 9. Finding the permit amendment to be consistent with the dry weather bacteria WLA and with other federal and state requirements, the Board upheld the amendment.

Significantly for purposes of the Tentative Order, the Board held that the permit amendment *did not* impose NELs as asserted by LA County, but rather receiving water limitations.

The contested provisions are receiving water limitations, not numeric effluent limitations. The contested provisions do not impose a numeric limitation measured at a point source outfall. Instead, compliance with the limitation is measured in the receiving water, and more specifically, at the “wave wash” for the individual beaches.

Order WQ 2009-0008 at p. 10.

By comparison, the NELs at issue here are to be measured at a point source outfall -- “at the end-of-pipe ***prior to discharge into the receiving water.***” Tentative Order, Directive C.4 (emphasis added). Thus, because the LA County order pertains to implementing a TMDL through receiving water limitations, it provides no support for staff’s assertion that NELs are appropriate (or required) for non-stormwater discharges from the MS4.

Because NELs are not required by federal law, the County requests that Directive C be removed from the Tentative Order.

6. *NELs, SALs and MMPs*

The Tentative Order includes both NELs for the discharge of non-stormwater and stormwater action levels (SALs) for the discharge of stormwater. Both require that permittees monitor discharges from the MS4. To the extent exceedances of either the NELs or SALs are detected, permittees have to investigate and address the probable cause of the exceedance. An exceedance of either an NEL or an SAL is not a violation of the permit per se.

With respect to the NELs in Directive C, the Tentative Order explicitly provides that compliance requires that an exceedance of an NEL must result in investigation of the source of the exceedance and a determination that the source is natural in origin, an illicit discharge, or a discharge from an exempt category of non-stormwater discharge.⁹ Depending on the source, appropriate action is required. Similarly an exceedance of a SAL requires that permittees to reevaluate and augment their stormwater control measures.

Notwithstanding that an NEL exceedance is not a permit violation and compliance with the NELs requires investigation and appropriate action, an exceedance of an NEL may still subject permittees to mandatory minimum penalties (MMPs) under section 13385 of the Water Code. The Tentative Order acknowledges this possibility in footnote 12 where it provides that permittees may not be subject to MMPs if they can show that an exceedance was caused by an intentional act of a third party.

⁹ As discussed above, the three possible outcomes upon an NEL exceedance ignore the fact that the source of the exceedance could be from improper disposal, not an illicit discharge.

Because there is little if any substantive difference between the NEL and SAL requirements, there is no reason for the difference in terminology. The County submits that, to the extent the final Order will include provisions similar to those currently provided in Directive C (and as discussed above the County strongly believes it should not), they should be re-characterized as non-stormwater action levels.¹⁰

C. Because NELs Are Not Required By Federal Law, To The Extent The Board Has Authority to Impose Them, The NELs Must Be Authorized by State Law and the Board Must Comply With All State Law Requirements

Neither the Clean Water Act nor the federal regulations require NELs in MS4 permits. Staff's prior "tentative draft update" of the Tentative Order conceded this significant point: "Compliance with numeric limits does not constitute compliance with CWA requirements which require non-storm water discharges into the MS4 to be effectively prohibited. . . " June 18, 2009 Draft Updates (Tentative) at p. 9 of 56.

To the extent the Board has discretion under the Clean Water Act to impose NELs (see *Defenders of Wildlife, supra*), the California Supreme Court has made it clear that the Board must comply with state law requirements. See *City of Burbank v. State Water Resources Control Board*, 35 Cal.4th 613 (2005). These state law requirements include considering the water quality that could reasonably be achieved by the NEL requirement, and economic considerations. See Water Code sections 13263(a) and 13241. Moreover, because the NEL requirement is not mandated by federal law, it would constitute an impermissible unfunded state mandate (unless the State proposes to fund the costs of implementing the program). See, e.g., *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898.¹¹

For all of the above reasons, the County requests that the Board revise the Tentative Order consistent with and pursuant to federal and state law.

II. Compliance With the Wasteload Allocations in The Tentative Order Should be Subject to the Iterative BMP Process

Finding E.11 provides that the Tentative Order incorporates only those MS4 WLAs developed in TMDLs that have been adopted by the Regional Board and approved by the State Board, OAL, and U.S. EPA. However, federal law does not require that MS4 permits incorporate WLAs as numeric limits. Nowhere in the Clean Water Act, or the federal stormwater or TMDL regulations, does it say that MS4 permits shall incorporate TMDLs/WLAs. The federal regulations do say that, when developing water quality-based effluent limits ("WQBELs") under 40 C.F.R. 122.44(d), the permitting authority must ensure that effluent limits developed to protect a

¹⁰ In a similar vein, the County suggests that, as the purpose of Directive C appears simply to provide some type of performance criteria to the effective prohibition requirement in Directive B, Directive B could be revised to include the non-stormwater action levels. For example, Directive B.4 could provide that "follow up investigations must be conducted as necessary *and at a minimum upon an exceedance of a non-stormwater action level identified in Table 4* to identify and control any non-prohibited discharge categories."

¹¹ To the extent the Board can impose the NEL requirement, the County would argue that compliance with an NEL should be considered to be compliance with the effective prohibition requirement in Directive B.1.

narrative water quality criteria, a numeric water quality criteria, or both, “are **consistent with** the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7” 40 C.F.R. 122.44(d)(1)(vii)(B) (emphasis added).

This section itself does not apply to all NPDES permits. Section 122.44(d) applies only when an NPDES permit must include provisions to achieve water quality standards established under section 303 of the Clean Water Act (33 U.S.C. 1311). As discussed above, the Ninth Circuit in *Defenders of Wildlife* has held that MS4 permits do not have to strictly comply with water quality standards under section 303.¹² Thus, section 122.44(d) does not necessarily apply to MS4 permits.

Even if it is applicable, section 122.44(d)(1)(vii)(B) simply says that WQBELs in the permit must be “consistent with the assumptions and requirements” of the WLA.¹³ The permit does not have to incorporate the WLA as a numeric effluent limitation. U.S. EPA has indicated that an iterative BMP approach is appropriate for incorporating WQBELs in MS4 permits; numeric WQBELs are not required. 61 Fed. Reg. 43761 (Aug. 26, 1996) (U.S. EPA’s “Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits”).¹⁴

The County appreciates that Directive I of the Tentative Order provides that permittees are to achieve the interim and final WLAs through implementation of BMPs.¹⁵ To be consistent with U.S. EPA’s guidance, this section should be revised to clarify that any exceedances of the WLAs will be addressed through the iterative BMP approach.¹⁶ As receiving water limitations, this would also be consistent with the required language of State Board Order WQ 99-05.

¹² In its response to comments, staff quotes from an unidentified letter from U.S. EPA to the State Board in support of staffs’ assertion that, notwithstanding the *Defenders of Wildlife* decision, “MS4s must indeed comply with water quality standards.” Response to Comment No. 54. The County notes that the letter in question is apparently dated January 21, 1998, before the *Defenders of Wildlife* decision.

¹³ The State Board’s Office of Chief Counsel has confirmed the appropriate approach: “Under the [federal] regulations, WQBELs must be ‘consistent with the assumptions and requirements of any available wasteload allocation . . .’ (40 C.F.R. § 122.44(d)(1)(vii)(B).) The regulations do not require WQBELs to be ‘equivalent to’ available waste load allocations.” Memorandum from Chief Counsel, Craig M. Wilson, to State Board Chairman, Arthur Baggett, Jr., *Legal Authority for Offsets, Pollutant Trading, and Market Programs to Supplement Water Quality Regulation in California’s Impaired Waters* (October 16, 2001), page 2.

¹⁴ Contrary to staff’s assertion in The Fact Sheet’s discussion of Finding E.11, U.S. EPA’s guidance does not state that, when adequate information exists, MS4 permits are to incorporate numeric WQBELs. Rather, U.S. EPA’s guidance states that “where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits.” 61 Fed. Reg. at 43761.

¹⁵ Directive I.1.a should be revised to clarify that the interim and final WLAs are described in Tables 6 and 7, not just Table 6.

¹⁶ We note that in staff’s response to comments, staff stated that an iterative process would be used to meet the WLAs. See Response to Comment No. 59.

III. Any Water Quality Benefits Achieved From the Retrofitting Requirement Will Be Significantly Outweighed by The Costs

The Tentative Order would require permittees to develop and implement a retrofitting program for existing development. While the County agrees that retrofitting existing development could have beneficial water quality impacts, the program required by the Tentative Order would be very expensive to develop and implement with very little if any water quality improvement to show for the effort. Moreover, the program is not authorized or required by federal law.

Permittees would be required to identify existing development candidates, evaluate and rank the candidate sites to prioritize them for retrofitting, cooperate with landowners of priority sites and encourage them to retrofit their properties, and track and inspect all sites that do complete retrofitting. Where constraints at a candidate site preclude retrofitting, permittees may propose regional mitigation projects. The weak link of this program is that permittees cannot force private landowners to retrofit their properties. So after all the expense of developing this program, there may be nothing gained from it.

Because permittees cannot necessarily force private landowners to retrofit their developments, U.S. EPA recognized that MS4 regulation would largely be limited to undeveloped sites (and sites being developed/redeveloped). “[O]pportunities for implementing [structural control] measures may be limited in previously developed areas.” 55 Fed. Reg. at 48054. “The unavailability of land in highly developed areas often makes the use of structural controls infeasible for modifying many existing systems.” *Id.* at 48055. As a result, none of the five required components to reduce pollutants in runoff from commercial and residential areas include a retrofitting requirement. *Id.* at 48054-55.

Because the retrofitting requirement as proposed in the Tentative Order would exceed the requirements of the Clean Water Act, the Board can impose the requirement, if at all, only after it has considered certain factors, including economic considerations and the water quality condition that could reasonably be achieved by the requirement. See Water Code sections 13263(a) and 13241; *City of Burbank, supra*, 35 Cal.4th 613. In addition, unless funded by the State, the retrofitting requirement could be considered to be an impermissible unfunded state mandate. See, e.g., *County of Los Angeles v. Commission on State Mandates, supra*, 150 Cal.App.4th 898.

The County therefore requests that the retrofitting requirement be significantly revised or deleted from the Tentative Order.

IV. Permittees Should be Provided Flexibility in Implementing Any Low Impact Development And/Or Hydromodification Management Plan Requirements

The County agrees that the concepts of Low Impact Development and reducing hydromodification may be effective tools in controlling the discharge of pollutants from the MS4. However, the County objects to the LID and hydromodification management plan (HMP) requirements in the Tentative Order because they go beyond the requirements of federal law and violate state law requirements.

Because nothing in the Clean Water Act or federal regulations requires that MS4 permits include LID or HMP requirements, as noted above, the Board can impose the requirements, if at all, only after it has considered certain factors, including economic considerations and the water

quality condition that could reasonably be achieved by the requirement. See Water Code sections 13263(a) and 13241; *City of Burbank, supra*, 35 Cal.4th 613. In addition, unless funded by the State, these programs could be considered to be impermissible unfunded state mandates. See, e.g., *County of Los Angeles v. Commission on State Mandates, supra*, 150 Cal.App.4th 898.

In addition, because the Board can require that permittees meet the MEP standard but cannot prescribe the manner in which they do so, the LID/HMP requirements violate Water Code section 13360(a).¹⁷

V. Stormwater Action Levels May Be a Useful Tool But Permittees Should Benefit From Their Use

The County appreciates the revisions that have been made to the Stormwater Action Levels (SALs) section of the Tentative Order. While we do not necessarily agree that the SAL provision, as currently crafted, is appropriate, we do agree that the concept of action levels may be a useful tool in addressing water quality impacts from the discharge of pollutants from the MS4. However, just as an exceedance of a SAL may give rise to a presumption that permittees are not meeting the MEP standard, to the extent permittees are meeting the SALs, there should be a presumption that they are meeting the MEP standard. That presumption would be lost if permittees do not implement other required elements of the permit.

The County suggests that Directive D.3. be revised accordingly.

Additional Legal Comments

I. Findings

Finding D.3.c. -- Urban Streams

The County has previously objected to the Board's characterization of urban streams as part of MS4. We point out now that, in addition to all of the other reasons why urban streams should not necessarily be considered to be part of the MS4, U.S. EPA has explicitly rejected this characterization. In the preamble to its proposed stormwater rule U.S. EPA states: "The Agency also wants to clarify that streams, wetlands and other water bodies that are waters of the United States are not storm sewers for the purpose of this rule." 55 Fed. Reg. 49415, 49442 (December 7, 1988).

II. Directives

Directive A.3.b -- Prohibitions and Receiving Water Limitations

As noted in the County's May 15, 2009 comments, Finding A.3 says the permit is consistent with the State Board's precedential Order 99-05. However, the language in Directive A.3.b (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

¹⁷ Finding D.2.c. asserts, without support, that LID BMPs are an acceptable means of meeting the MEP standard.

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.

In their Response to Comments and June 18, 2009 errata, staff addressed this issue (albeit inadequately). The current draft of the Tentative Order does not address the concern at all.

Directive E.1 -- Legal Authority

This provision includes a statement that nothing in the permit “shall authorize a Co-Permittee or other discharger regulated under the terms of the order to divert, store or otherwise impound water if such action is reasonably anticipated to harm downstream water right holders in the exercise of their water rights.” As noted in our technical comments (Attachment B), this statement points out the conflict that the permit’s LID provisions have with common water rights law. Directive F.1.d(4)(d)(i) would require permittees to retain onsite all stormwater runoff. However, as apparently acknowledged by Directive E.1, this could harm the rights of downstream water rights holders.

To resolve this conflict, the County suggests simply changing “authorize” to “require” in the above quoted language in Directive E.1.

Directive F -- JRMP

Throughout this section of the Tentative Order, permittees are required to develop and implement programs meeting designated elements “and” to reduce discharges to the MEP standard, prevent discharges from causing or contributing to impairments, prevent illicit discharges, etc. See, e.g., Directive F.1, Directive F.1.d, Directive F.3.a, Directive F.3.b, Directive F.3.c. The County previously pointed out, in the context of the retrofitting requirement (Directive F.3.d), that the requirement should be for permittees to develop and implement a program that meets the required elements. The goal of the program should be to meet the MEP standard, prevent illicit discharges, etc. Otherwise, permittees could meet the required elements of a program, but still face charges that they have not met MEP, etc.

Staff revised the retrofitting provision to clarify that permittees must meet the elements of the retrofitting program and that the goal of the program is to meet the MEP standard, etc. The County requests that the rest of Directive F be similarly clarified.

Directive F.1.d(6) -- Treatment Control BMP Requirements

This Directive appears to be a vestige from the current permit, when the consensus was that treatment control BMPs (not LID BMPs) were the best practicable means of meeting the MEP standard. The Tentative Order now requires that LID BMPs be implemented at all priority development projects (PDPs). However, it still also requires that treatment control BMPs be implemented at all PDPs. It attempts to reconcile these to inconsistent requirements by providing, in footnote 16, that certain LID BMPs are considered treatment control BMPs. However, it is not clear that LID BMPs can meet all of the elements required for treatment control BMPs. The County would ask that these two requirements be carefully reconciled before adoption.

Directives F.2.d(c) and F.2.e(c) -- BMP Implementation and Inspection of Construction Sites

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The County would ask that “exceptional threat to water quality” in Directive F.2.d(c) and “significant threat to water quality” in Directive F.2.e(c) be reconciled.

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

Attachment B contains the principal technical comments of the County of Orange (the "County") on Tentative Order No. R9-2009-0002 dated August 12, 2009 ("Tentative Order"). Although the supporting Fact Sheet/Technical Report dated August 12, 2009 (the "Fact Sheet") is referenced 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 principal 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.

GENERAL COMMENTS

Although we have a series of specific concerns with the August 12, 2009 version of the Tentative Order (R9-2009-0002), as discussed in later sections, the principal issues of concern are highlighted below:

- Non-Stormwater Numeric Effluent Limits (NELs) – The County's concerns with the imposition of non-stormwater NELs have been presented to your staff. However, the Tentative Order continues to make the case that the non-stormwater discharges are not subject to the maximum extent practicable standard and, therefore, subject to water quality based effluent limits. The application of the MEP standard to discharges from municipal storm drain systems is a fundamental tenet of the stormwater mandate and County strongly disagrees with the inclusion of NELs for a number of technical and legal reasons.
- Development Planning Component – Low Impact Development (LID), has become the defining issue of permit renewal for municipal stormwater programs in California. Reflective of the significance of this issue was the creation by the Santa Ana Regional Board of a stakeholder group to assist specifically with creating land development requirements for its municipal permit. As a result of the many stakeholder meetings and discussion at the adoption hearing, a framework was created for land development that is technically robust and is broadly supported. It is absolutely vital for Orange County that the land development standards for water quality protection be uniform on a countywide basis. Consequently, the County is providing revised language that would effect a cogent alignment of the land development requirements in the two permits.
- The Total Maximum Daily Loads – As more and more TMDLs are adopted and the resulting language and allocations incorporated into permits, it is critical that the

assumptions and requirements of the allocations are incorporated into the stormwater permits as they were intended. It is of concern to the County that the Tentative Order indicates that the Regional Board staff are interpreting the TMDL instead of incorporating the TMDL into the permit. In this regard the County is providing alternate language which is consistent with EPA guidance and has been successfully adopted into other municipal stormwater permits.

The County shares with the Board an interest in seeing a San Diego Region Municipal Stormwater Permit reasonably consistent with the Santa Ana Region Municipal Stormwater Permit (Order No. R8-2009-0030). This consistency is necessary to ensure that the Permittees who are regulated by both jurisdictions do not have conflicting and/or wholly different requirements to implement. Consistency between the permits will allow the Permittees to leverage their limited resources and increase the ability to convey consistent messages within the public education and outreach materials for the various program elements. Since, in spite of previous assurances and concerns, the August 12, 2009 Tentative Order is fundamentally different from the Santa Ana Region Municipal Stormwater Permit in many key programmatic areas, this is a critical issue identified within the technical comments presented below.

FINDINGS

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

The Tentative Order continues to persist in the inappropriate reference to data that exceed Water Quality Objectives (WQOs) as violations. In particular, 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).

Although there are other instances of this within the Findings¹, the most notable section of the permit where this language change occurred is Page 19, Permit Section A.3. In this section of the permit the term “violation” is not only inconsistent with Order R8-2009-0030, it is also inconsistent with language within SWRCB Order WQ 99-05. The iterative language in the receiving water limitations speaks to exceedances of water quality standards, not violations. Further, it is unclear why both the terms “violations” and “exceedances” would be used within Permit Section A.3. The use of both terms would implicitly indicate that there is a difference between the interpretation and follow up actions resulting from a “violation” versus and “exceedance”.

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 geographic areas and pollutants, it is inappropriate to make this same comparison and determine that there is a “violation”. The term “violation” connotes that the point of compliance is the actual comparison of the urban runoff data to the receiving water quality objective rather than the process and follow up actions as described within the receiving water limitations. Urban runoff data should not be used, in itself, to indicate a violation of water quality standard since the standard consists of the beneficial use(s) and the water quality objective established

¹ Page 4, Finding C.9.; Page 6, Finding D.1.b.; Page 10, Finding D.3.d.; and Page 13, Finding E.1.

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 requests that the term "violation" in the noted sections be modified to the term "exceedance" to more accurately reflect point of compliance as well and the assessment and follow up action(s) that are required.

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 pollutants 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 deposition) and, in fact, are not responsible for discharges outside of the jurisdiction/control of the Permittees as well as those non-stormwater discharges that are identified in Section B.2. unless they are found to be a source of pollutants.

In fact, Order No. R8-2009-0030 recognizes this limitation within Findings C.8. and C.10. on pages 3 and 4, respectively.

C.8. This order is intended to regulate the discharge of pollutants in urban storm water runoff from anthropogenic (generated from human activities) sources and/or activities within the jurisdiction and control of the permittees and is not intended to address background or naturally occurring pollutants or flows.

C.10. The permittees may lack legal jurisdiction over urban runoff into their systems from some state and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in urban runoff may be beyond the ability of the permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear and leaching of naturally occurring minerals from local geography.

The County requests that this Finding be modified to recognize that the permittees lack legal jurisdiction over runoff into their systems from some facilities, utilities, special districts, agencies and other point and non-point source discharges otherwise permitted by the Regional Board and that some pollutants in urban runoff may be beyond the ability of the permittees to eliminate.

- **Water Quality Monitoring Data** (Finding C.9, Page 4)

Finding C.9. states, in part, that the water quality monitoring data collected to date indicates that there are persistent violations² of Basin Plan objectives for a number of pollutants and that the data indicates that runoff discharges are a leading cause of such impairments. 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.

The County requests that the last sentence of Finding C.9. 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 6)

Finding D.1.c. states that the Tentative Order "contains new or modified requirements that are necessary to improve the Copermitees' 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 within the accompanying Fact Sheet.

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 can 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

² For the reasons discussed above and to be consistent with the Fact Sheet (page 8), the term "violation" should be changed to "exceedances."

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 adequately addressed in the Regional Board’s Response to Comments document dated July 1, 2009, and are therefore resubmitted. The Response to Comments document dated July 1, 2009 identifies that “The Finding simply points out the difference between on-site source control / site design BMPs and end-of-pipe BMPs.”, however the finding goes further to identify that “end of pipe BMPs are often incapable of capturing and treating a wide-range of pollutants”, and that end-of pipe BMPs are more effective when used as polishing BMPs”. These statements are incorrect and should be deleted from the finding as many treatment control BMPs are very effective at removing pollutants and should not just be considered as a polishing BMP.

Given the insufficient technical basis for these statements the County requests that Finding D.2.b be deleted from the Tentative Order.

- **Hydromodification** (Finding D.2.g, Page 9)
Finding D.2.g. identifies that hydromodification measures for discharges to hardened channels are needed for future restoration of the hardened channels to their natural state, thereby restoring the chemical, physical, and biological integrity and Beneficial Uses of local receiving waters. The Response to Comments document dated July 1, 2009 identifies that “The goal of hydromodification requirements are to prevent or further prevent hydromodification impacts on downstream watercourses and eventually restore natural flow regimes.”, however if the downstream watercourses are designed (i.e hardened channels) to accept flows from upstream development then no hydromodification impacts would occur. The goal of eventually restoring natural flow regimes is not feasible in most parts of urbanized Orange County as the hardened channels in most cases are designed as a flood control features to prevent flooding and damage to the surrounding urbanized area. Removal of hardened channels in these areas would result in an unacceptable significant danger to life and property due to flooding and/or erosion and so removal and restoration of natural flow regimes is simply not feasible.

The concept of ‘restoring’ channels to a ‘natural’ state has been examined by the researchers at SCCWRP, they note that restoration is not feasible in watersheds with a total impervious area greater than about 10% (SCCWRP, 2005)³. This is due to the fact that the channel cross section, grade, and sediment supply have also been changed in the watershed. Simply restoring pre-development flows will not allow restoration of the channel to pre-development conditions and this reality should be acknowledged in the Finding.

Furthermore, the Santa Ana Regional Water Quality Control Board has identified in Order NO. R8-2009-0030 (MS4 Permit for Orange County) that a Hydrologic Condition of Concern does not exist if “All downstream conveyance channels that will receive runoff from the project are engineered, hardened and regularly maintained to ensure design flow capacity, and no sensitive stream habitat areas will be affected.” Finding

³ "Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams", Technical Report 450, April 2005, Southern California Coastal Water Research Project

D.2.g should be revised to be consistent with the Santa Ana Regional Board Order NO. R8-2009-0030.

The County requests that Finding D.2.g 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, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads in stormwater runoff and the 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. ~~Hydromodification measures for discharges to hardened channels are needed for the future restoration of the hardened channels to their natural state, thereby restoring the chemical, physical, and biological integrity and Beneficial Uses of local receiving waters.~~

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. The Fact Sheet refers to USEPA Guidance from 1992, which refers to locating structural controls in a natural wetland and not waters of the U.S. Furthermore in the Regional Board Response to Comments dated December 12, 2007 the Regional Board states “The Regional Board agrees that there is not a federal prohibition on placing pollution control practices within waters of the U.S.” We wish to comment here on the implications it has for watershed restoration activities.

This concern has been discussed in detail in comments on previous versions of the Tentative Order (see, e.g., **Attachment A** (Pages 1-7) to the County’s April 4, 2007 comment letter). 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 County requests that Finding E.7 be deleted from the Tentative Order.

- **TMDLs** (Finding E.11, Page 16-17)
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 memorandum⁴ 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 methods 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 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.

In addition, it is of concern to the County that the Finding indicates that the Regional Board staff are interpreting the TMDL instead of incorporating the TMDL into the permit. The County submits that it is inappropriate for the Board staff to be interpreting the TMDL and, instead, that they should only be establishing in the permit effluent limitations consistent with the WLAs from any adopted TMDL

⁴ 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.

In order to provide the greatest amount of flexibility and to be consistent with the adopted TMDL, the County requests that the Board replace the existing language with the following language from the recently adopted Ventura County MS4 Stormwater Permit (R4-09-0057 Pages 12 and 14):

This order incorporates applicable WLAs that have been adopted by the Regional Water Board and have been approved by the Office of Administrative Law and the U.S. EPA. The TMDL WLAs in the Order are expressed as water quality-based effluent limits in a manner consistent with the assumptions and requirements of the TMDL from which they are derived.

Collectively, the restrictions contained in the TMDL Provisions for Storm Water and Non-Storm water Discharges of this Order on individual pollutants are no more stringent than required to implement the provisions of the TMDL, which have been adopted and approved in a manner that is consistent with the CWA. Where a TMDL has been approved, NPDES permits must contain effluent limits and conditions consistent with the assumptions and requirements of the available WLAs in TMDLs (40 C.F.R. 122.44(d)(1)(vii)(B)).

PERMIT PROVISIONS

PROHIBITIONS AND RECEIVING WATER LIMITATIONS

- **Prohibitions and Receiving Water Limitations (Section A, Page 19)**

Despite the fact that this issue was raised during the last comment period, the Regional Board have further modified the permit to inherently make it inconsistent and counter to State Water Board WQ Order 99-05. The Response to Comments IV (comment #57 and #74) state “The Tentative Order has been modified to clarify that through the adoption of this Tentative Order, the Executive Officer issues a standing order that the Copermittees must repeat the process until directed otherwise.” In addition, this modification also sets up an inconsistency between the Tentative Order and the Fact Sheet for Finding A.3. which states “This Order is consistent with the following precedential Orders adopted by the State Board addressing municipal storm water NPDES Permits:.....Order 99-05”. In fact, this language is inconsistent with Order 99-05 as well as Order No. R8-2009-0030.

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. 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.

The County requests 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 20-21)
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. 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 collaborative public education and water conservation in conjunction with the water agencies.

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, the 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 may limit the types of grants the Permittees might otherwise be eligible for to help address this discharge since it will be a permit requirement.

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.

The County requests that Section B. Non-Storm Water Discharges be modified to include landscape irrigation, irrigation water, and lawn watering in Section B.2.

NON-STORM WATER DRY WEATHER NUMERIC EFFLUENT LIMITATIONS (Section C, pages 22-24)

The August 12, 2009 Tentative Order continues to make the case that non-stormwater discharges are not subject to the maximum extent practicable standard and therefore subject to water quality based effluent limits. 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 technology based effluent limitation of “effectively prohibit” should continued to be the compliance standard for non-stormwater.

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 corresponding regulations associated with the CWA section is 40 CFR 122.26.(d)(2)(iv)(B)(1) which clarified “effectively prohibit” by acknowledging that discharge exemptions are allowed if determined not to be sources of pollutants. Thus the CWA section and corresponding regulations may be read that a permit shall “effectively prohibit non-stormwater discharges” but may exempt certain discharges that are not sources of pollutants (i.e. de minimis discharges) from the prohibition. The CWA section does not require a full prohibition but rather an effective prohibition. The more correct finding for the Orange County permit is that non-stormwater discharges are effectively prohibited (per 402 (p) (3) (B) (ii)). However discharges that are not sources of pollutants are exempted from the prohibition.

The County would submit that the technology based standard for non-stormwater discharges into the MS4 is “effectively prohibit” just as “maximum extent practicable” is the technology based standard for all pollutants from the MS4. 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.10 and E.11 provide the appropriate regulatory vehicle to address discharges from the MS4 (both stormwater and non-stormwater discharges) that are causing and contributing to an exceedance of a water quality standard in impaired waters.

Moreover, not only are the proposed numeric WQBELs not technically or legally appropriate, they may put the permittees in constant non-compliance and subject to more draconian enforcement action (i.e. mandatory minimum penalties –see discussion below).

The San Diego draft permit for Orange County is inconsistent with the Santa Ana adopted permit for Orange County

The Santa Ana issued permit for Orange County mirrors the approach noted above, that being non-stormwater discharges are subject to the “effectively prohibit” standard. The findings and

provisions relevant to non-stormwater discharges in the Santa Ana issued permit are provided below:

Findings:

C.10. The permittees may lack legal jurisdiction over urban runoff into their systems from some state and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in urban runoff may be beyond the ability of the permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear and leaching of naturally occurring minerals from local geography.

C. 11. This order regulates storm water runoff and certain types of de-minimus discharges specifically authorized under Section III of this order (collectively referred to as urban runoff) from areas under the jurisdiction of the permittees. For purposes of this order, urban runoff includes storm water and authorized non-storm water (see Section III) discharges from residential, commercial, industrial and construction areas within the permitted area and excludes discharges from feedlots, dairies, and farms. Urban runoff consists of surface runoff generated from various land uses in all the hydrologic drainage areas that discharge into waters of the US. The quality of these discharges varies considerably and is affected by land use activities, basin hydrology and geology, season, the frequency and duration of storm events, and the presence of illicit discharge practices and illicit connections.

M. 68. The MS4s generally contain non-storm water flows such as irrigation runoff, runoff from non-commercial car washes, runoff from miscellaneous washing and cleaning operations, and other nuisance flows generally referred to as de-minimus discharges. Federal regulations, 40 CFR Part 122.26(d)(2)(i)(B), prohibit the discharge of non-storm water containing pollutants into the MS4s and to waters of the U.S. unless they are regulated under a separate NPDES permit, or are exempt, as indicated in Discharge Prohibitions, Section III.3 of this order. The Regional Board adopted a number of NPDES permits to address de-minimus type of pollutant discharges.

Provision

III. 3. The permittees shall effectively prohibit the discharge of non-storm water into the MS4s, unless such discharges are authorized by a separate NPDES permit or as otherwise specified in this provision.

The County's approach is consistent with Federal and State law and regulations. The significantly different approach being proposed by San Diego Board will lead to considerable costs not commensurate with the water quality benefits and unhelpfully redirect Program resources from baseline program implementation to special studies.

Numeric effluent limits were developed primarily based on Basin Plan water quality objectives and not all the constituents with NELs are relevant to water quality issues in southern Orange County.

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. Furthermore, if numeric effluent limits are developed then they must be consistent with 40 CFR 122.45. However upon closer review there appears to be some inconsistencies between Table 4 and Finding E. 10. In Table 4 the Board has established numeric effluent limits for a list of some 17 constituent. This table would imply that the Board has determined reasonable potential for each of these constituents. However, in Finding E.10 the Board acknowledges that only four pollutants have been shown to have reasonable potential, indicator bacteria, phosphorus, toxicity, and turbidity. Furthermore Finding E.10 does not differentiate between non-stormwater and stormwater thus it’s difficult to determine which pollutant is associated with the different types of discharges.

Preliminary compliance assessment of outfall data showed frequent and ongoing exceedances of numeric limits which equates to ongoing investigation

Of primary importance to the County is that the Regional Water Board adopt a permit that protects water quality in a reasonable and feasible manner. As currently drafted, the Permittees are exposed to significant risk to comply with the NELs for dry weather discharges. We have completed a comparison of existing dry weather discharges with the selected NELs noted in Table 4. The results of that comparison are shown below:

Constituent	Percentage of time > NELs
Turbidity	4.9
Surfactants	5.7
Dissolved Oxygen	5.4 below 5 ppm
Total Phosphorus [®]	93.6 Orthophosphate Fraction
Nitrate + Nitrite	>93.8 – NEL changed to Total N
Fecal coliform	90.0
Enterococcus	97.3
Nickel (dissolved)	>5.0
Copper (dissolved)	>3.0
Cadmium (dissolved)	>16.0

Clear from this analysis is that for certain constituents, notably nutrients and bacteria, the entire drainage system will very rarely be found to be meeting the NELs. An analysis of data from Orange County stream reference sites, i.e. sites removed from urban influence, shows the same patterns of NEL exceedance.

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Current language still exposes Municipalities to Mandatory Minimum Penalties for not complying with the numeric limits.

As demonstrated above, the County/Permittees will face enforcement action for not complying with all the NELs. Where there is exceedance, the Permittees will be faced with financial 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 potential mandatory minimum penalties (MMPs). (See Water Code §§ 13385(h) 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 is structured 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 appears in conflict with the options available under §13385 to avoid MMPs. Once a numeric limits is established then there are limited options⁵ available to avoid

⁵ The CWC does provide exemptions to the MMPs but these exemptions are primarily limited to violations caused by an act of war, an unanticipated natural disaster, an intentional act of a third party, or start up for a new wastewater plant (Section 13385(j)(1) or when the discharger is in compliance with either a cease and desist order or a time schedule order (Section 13385(j)(2)).

MMPs. As a case in point during the 09/02/09 State Water Board hearing regarding the subject of MMPs resulting from non-compliance with proposed numeric effluent limits in the Construction General Permit, the State Board chair was seeking flexibility in implementing the numeric effluent limits without subjecting the discharger to MMPs. He suggested a phase in period. When this question was posed to Board legal counsel she said that such an approach was not legally valid and that MMPs would apply immediately. Thus it would appear that even though the San Diego Board staff may have intentions to provide flexibility to the Permittees to conduct the iterative process and follow up investigation efforts to avoid MMPs, the California Water Code does not provide such flexibility and the Permittees would be subject to MMP should they violate the NELs.

Derivation of numeric effluent limits are based on numerous assumptions and puts the Permittees in a position of endless monitoring and investigation.

Notwithstanding our comments above regarding the inappropriateness of WQBELs the County reviewed the derivation of the NELs and found a number of assumptions that will need to be verified to support modification of the NELs⁶. We have highlighted some of the major assumptions below:

- No dilution was available for inland surface water bodies and bays and harbors. Such an approach assumes a worst case situation and essentially results in the dischargers having to meet water quality objectives at the point of discharge.
- Reasonable potential was not conducted on individual outfalls but rather on the overall drainage system, resulting in a single set of effluent limits for all outfalls to a specified water body. If, however, reasonable potential is done on an outfall by outfall basis the number of constituents and magnitude of the effluent limitations will be different.
- With the exception of chromium VI, freshwater water quality criteria were not used in determining effluent limitations. The Water Board calculated all effluent limitations using saltwater water quality criteria, which are not hardness-dependent. This approach essentially assumes that the receiving waters are all saltwater which is inappropriate for discharges to inland surface waters. The Tentative Order does allow adjustment in site-specific hardness for determining the applicable water quality criteria when calculating effluent limitations. However, the use of the hardness-based water quality criteria equations needs to be clarified as to whether they apply to the receiving water and used in effluent limitation calculations or if they are the actual effluent limitations. In addition, all hardness-based water quality criteria equations should include an appropriate compliance period.
- Default conversion factors were used to convert dissolved metal water quality criteria to total metal water quality criteria. Again this assumption has typically been shown to be a worst case assumption and more appropriate conversion factors are available.

The overall effect of these assumptions is that reasonable potential was determined for a number of constituents for all outfalls. Given the exposure and liability of NELs the Permittees would be well served to conduct numerous special studies (e.g. dilution studies, translator studies) to validate the assumptions and develop site specific objectives for individual outfalls. Such an effort, although prudent from the Permittees perspective, seems misplaced and not the best use of our limited resources.

⁶ The County's review also included a review of the calculations used to determine the NELs. This review will be provided to the Board once it has been validated.

Closing

In closing, the County would submit that the use of NELs for non-stormwater discharges is inappropriate and 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. 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 investigative resources without a reciprocal water quality benefit. This requirement will prove to be poor public policy and use of public funds.

The establishment of NELs for non-stormwater discharges is fundamentally flawed from a technical and legal perspective. The current TBEL of “effectively prohibit” for non-stormwater discharges from the MS4 when implemented fully, coupled with the MEP standard for discharges of all pollutants from the MS4, will lead to compliance with water quality standards, negating the need for WQBELs. If, on the other hand, they are proposed as water quality based numeric limits then their derivation must also follow Federal and state regulations (primarily the State Implementation Plan). The County has suggested and continues to suggest that the values be used as “Non Stormwater Action Levels”, similar to the approach taken with stormwater (see discussion that follows). 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.

STORM WATER ACTION LEVELS (Section D, Pages 25-26)

The County appreciates the Regional Board staff efforts to address our many concerns with the earlier draft Orders regarding municipal action levels. The County believes that the current structure for storm water action levels (SWALs) is 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 also 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” (see BRP Report at p. 8.). The BRP Report further clarified that 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.) In general, the August 12, 2009 Tentative Order accomplishes this goal.

However, the SWAL would be even more relevant and constructive to our Program by considering the following:

- Not all constituents for which action levels were developed are identified as pollutants of concern by the Program;
- Considerable resources are required to address this requirement without relief from other monitoring efforts; and
- No ‘safe harbor’ provision - thus municipalities may be in a never ending iterative process.

The County submits that Table 5 should be modified to reflect the Program constituents of concern (COCs). As such, SWALs should only include turbidity, nitrogen forms, total phosphorus, copper, lead and zinc. By focusing our limited resources on our COCs we will be better able to address water quality issues relevant to our discharges. In addition, some of our constituents of concern may serve as surrogates for a generic class of pollutants. Thus, by addressing one constituent, the program will receive the benefit of addressing the entire generic class (e.g. by addressing copper we will likely address lead, nickel and zinc).

More importantly, the Tentative Order represents a quantum leap in program costs associated with monitoring and follow-up investigations. Given our limited to non-existent ability to raise revenues to support our program and the general state of the economy, we respectfully request that the constituents subject to SWAL be limited to the constituents of concern noted above. Furthermore, we request that the Board develop a "program cost neutral" permit, meaning that the new Order will reflect the costs currently encumbered. SWAL monitoring for 2 outfalls in each hydrologic sub-area would require an immediate investment of an additional \$217,000 - \$224,000 in monitoring equipment and a significant subsequent commitment of staff and analytical resources.

The County requests that the SWALs only include turbidity, nitrogen forms, total phosphorus, copper, lead and zinc and that an opportunity to validate the utility of wet weather outfall monitoring using a no more than 7 outfalls be provided prior to possible system-wide application of this approach to benchmarking.

LEGAL AUTHORITY

- **Effectiveness of BMPs** (Section E.1.j, Page 27)

The Tentative Order continues to include a new provision that requires the Permittees to demonstrate that they have the legal authority to require documentation on the effectiveness of BMPs. In fact, the County is unaware of any other MS4 permit within the State of California with this requirement. The County has concerns about this provision for the following reasons:

- As it is currently written, this provision broadly applies to any aspect of the stormwater program where BMPs have been implemented – the result is that this provision sets up a process for the establishment of multiple third party monitoring programs and expenditure of a significant amount of funds to monitor the effectiveness of BMPs. If the desire is to document the effectiveness of certain types of BMPs, it would be much more effective and scientifically sound to establish special studies by entities qualified to conduct such sampling instead of requiring potentially hundreds of third parties to conduct a monitoring program for every BMP that is implemented.
- 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. By going through a thorough process, the Permittees have determined what BMPs would be effective for a

particular project – thus eliminating the need to establish a monitoring program for every BMP implemented.

- This provision 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.
- In the Response to Comments IV, Regional Board staff state, as a part of their justification for this requirement, that USEPA identified that the MS4s need to have the authority to enter, sample, review, inspect, and require regular reports (in addition to some other aspects). However, while USEPA identified that they want the MS4s to establish basic legal authority – the legal authority did not, in fact, specifically extend to the monitoring of all BMPs implemented by third parties. In addition, this section of the guidance speaks to the municipalities legal authority to control the discharge of pollutants, which the County has pursuant to the codes and ordinances that have been adopted and the guidance documents that have been developed.

The County requests that this provision be deleted from the Order.

- **Water Rights Issue** (Section E.1. Page 26 and Section F.1.d.(4)(d) Page 35-36)
The Tentative Order appears to have conflicting objectives regarding water rights. The conflict arises in the following permit sections (the conflicting language is underlined below).

E.1. Each Copermitee must establish, maintain, and enforce adequate legal authority to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. Nothing herein shall authorize a Co-Permittee or other discharger regulated under the terms of this order to divert, store or otherwise impound water if such action is reasonably anticipated to harm downstream water right holders in the exercise of their water rights. [emphasis added]

F.1.d.(4)(d) LID BMPs sizing criteria

(i) LID BMPs shall be sized and designed to ensure onsite retention without runoff, of the volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the County of Orange's 85th Percentile Precipitation Map15 ("design capture volume"); [emphasis added]

The LID BMP criterion clearly changes the natural water balance⁷ and may be construed to harm the downstream water rights holders. The effort to determine whether downstream water rights users are harmed from upstream development that changes the water balance will be a challenge and may ultimately lead to legal action. Given the uncertainty of downstream water rights, the Tentative Order should provide flexibility with the LID standard to allow runoff when conditions limit on-site retention. Whether these conditions are technical or legal in nature it is important to have flexibility in the permit to accommodate either or both conditions.

⁷ To accommodate the natural water balance, the runoff volume from a developed site would be equal to the runoff from a predevelopment site.

Since the framework for addressing new development and significant redevelopment must be as flexible in order to address the variety of issues that will arise during the course of the permit implementation, the County strongly recommends that the Development Planning Component be modified as necessary for greater consistency with Order R8-2009-0030 (Water Quality Management Plan for Urban Runoff) which provides for flexibility.

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

Development Planning Component

- **LID BMPs** (Section F.1.c.(2), Page 29)
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.

NOTE: The previous comments on this issue made by the Permittees were not adequately addressed in the Regional Board’s Response to Comments document dated July 1, 2009, and are therefore resubmitted. The Response to Comments document dated July 1, 2009 identifies that the LID requirements have been substantially modified and that more robust criteria is expected in the Copermittee’s updated SUSMP document. The updated SUSMP document is the responsibility of the co-permittees which will include a definition of applicable and feasible for LID BMPs so ultimately it will be the determination by the permittee of where LID BMPs are applicable and feasible.

The County requests 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 permittees.

- **Infiltration and Groundwater Protection** (Section F.1.c.(6), Page 29-30)
The Regional Board Response to Comments dated July 1, 2009 identifies that the criteria set forth in this section are the minimum requirements for infiltration and that there is flexibility in the Tentative Order for the Copermittees to develop criteria for infiltration treatment devices. We have a number of concerns with this provision. First is the apparent free pass onsite infiltration BMPs receive even in areas with high groundwater and/or brown fields with legacy contamination issues. Such environmental conditions should be acknowledged and addressed. Second the “minimum requirements” identified in the Tentative Order are not minimum but are very prescriptive and no current technical basis is provided for these provisions in the Fact Sheet or in the Response to Comments dated July 1, 2009.

The document *U.S. Environmental Protection Agency. 1994. Potential Groundwater Contamination from Intentional and Nonintentional Stormwater Infiltration. EPA 600 SR-94 051* that is referenced as guidance for infiltration of stormwater in the Order No. R9-2002-0001 Fact Sheet and in the Response to Comments dated July 1, 2009 is more than 15 years old and does not provide an adequate technical basis for the requirements related to infiltration of stormwater, except for provision F.1.c.(6) g.. And even for

provision F.1.c.(6)g, 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 (both on site and centralized BMPs) that consider land use, runoff quality, groundwater depth, site soil conditions and other information relevant to groundwater protection.

Since the Fact Sheet, and the Regional Board Response to Comments dated July 1, 2009 does not provide adequate technical basis for the requirements, the County requests that Section F.1.c.(6) should be deleted and replaced with the following language:

The Copermittees shall, within 2 years of the adoption of this order, develop criteria for the use of infiltration BMPs that consider land use, runoff quality, groundwater depth and quality, site soil conditions and other information relevant to groundwater protection.

Notwithstanding our comment and recommendation above we have specific concerns regarding the restrictions being specified in the draft Order.

- First, the requirement in Section F.1.c.(6)(a) to implement pretreatment prior to infiltration is excessive. It may be appropriate to require pretreatment for sites with certain pollutant generating activities but to have a broad brush requirement for pretreatment for all land uses make little sense and is not technically supported.
- In Section F.1.c.(6)(b) the requirement that infiltration BMPs cannot be used for dry weather flows containing significant pollutant loads is impractical and does not reflect the performance of the soil. The soil mantle is an effective treatment media and the blanket prohibition of the use of infiltration BMPs for dry weather flows eliminate an effective BMP from the permittees tool box.
- 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. The Regional Board Response to Comments dated July 1, 2009 identifies that "The restriction on areas with high vehicular traffic is included on the recommendation of the USEPA guidance that the commenter (County of Orange) cited." The USEPA guidance that was cited is the *U.S. Environmental Protection Agency. 1994. Potential Groundwater Contamination from Intentional and Nonintentional Stormwater Infiltration. EPA 600 SR-94 051*, which contains no recommendation regarding vehicular traffic and infiltration devices and therefore does not provide a specific technical basis for this restriction. As such, prescriptive requirements should not be included in the Tentative Order unless there is a strong technical basis. Moreover, we are not aware of any demonstrated relationship between traffic counts and frequency of materials deposited on the street, nor are such restrictions placed on the California

Department of Transportation, which operates facilities that routinely exceed the ADT level indicated.

Since the Fact Sheet, and the Regional Board Response to Comments dated July 1, 2009 does not provide adequate technical basis for the requirement, the County requests that Section F.1.c.(6)(g) should be deleted from the permit.

- **Native/Low Water Landscaping** (Section F.1.c.(7), Page 31)
This 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 The Regional Board Response to Comments dated July 1, 2009 identifies that this provision is not an Order requirement, and is simply a suggestion to use native species where feasible. However, the language in provision F.1.c seems to counter this position as it states clearly that the project must include management measures that include native landscaping. Furthermore the provision, as written, requires the whole project areas to be subject to the native plant requirement

The County requests that provision F.1.c.(7) be deleted from the Tentative Order.

- **Alternative Standards** (Section F.1.c.(8), Page 31)
The principles provided in this section are very similar with the approach specified in the Santa Ana permit for the North County. In fact we had suggested similar modifications to Section F.1.d.(4)(d) (page 35-36).

The County requests that the language from this alternative standard section be incorporated into section F.1.d.(4)(d).

- **Standard Stormwater Mitigation Plans (SSMPs)** (Section F.1.d, Page 31-32)
Section F.1.d. requires each Permittee to implement an updated local SSMP within twelve months of adoption of the Order. This is a change from the language in the June 18th Errata Sheet, where two years was provided to update the local SSMP. The Regional Board Response to Comments dated July 1, 2009 identifies that "The Tentative Order has been revised to allow up to two years to develop the updated SSMP in conjunction with the hydromodification management plan." The Tentative Order, however has not been revised to allow two years to develop and updated SSMP. This provision includes 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 an HMP 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 HMP in provision F.1.h.

The County requests that provision F.1.d be modified as follows:

~~Within 12 months of adoption of this Order, the~~ The Copermittees must submit an updated model SSMP, to the Regional Board's Executive Officer for a 30 day public review and comment period upon completion of the HMP as identified in section F.1.h. The Regional Board's Executive Officer has the discretion to determine the necessity of a public hearing. Within 180 days of determination that the Model SSMP is in compliance with this Permit's provisions, each Copermittee must update their own local SSMP, and

amended ordinances consistent with the model SSMP, and shall submit both (local SSMP and amended ordinances) to the Regional Board. The Model SSMP must meet the requirements of section F. 1. d. of this Order and (1) reduce Priority Development Project discharges of storm water pollutants from MS4 to the MEP, (2) prevent Priority Development Project runoff discharges from the MS4 from causing or contributing to a violation of water quality standards, (3) manage 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) implement the hydromodification requirements in section F.1.h.

- **Priority Development Project Categories** (Section F.1.d.(2), Page 33)
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.

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 125) 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.”

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 County requests the introductory paragraph of Section F.1.d.(2) subjecting the entire project footprint to SUSMP requirements should be deleted from the permit.

- **Streets, Roads, Highways, and Freeways** (Section F.1.d.(2)(g), Page 34)
County comments regarding this provision were not addressed in the Regional Board Response to Comments dated July 1, 2009 and there is no mention of this provision in the Fact Sheet and so previous comments are resubmitted. Section F.1.d.(2)(g) 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.

The County requests 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.

- **LID Site Design BMP Requirements** (Section F.1.d.(4), Page 34-36)
In this provision the Order contains a combination of planning procedures, design principles, and design criteria. However, all these ideas are labeled as LID BMPs which makes for a confusing provision. The provision would greatly benefit by reorganizing it around planning procedures, design principles, and design criteria. Our redline mark-up was prepared with this reorganization in mind.

Section F.1.d.(4)(a)

This provision requires each PDP to perform an assessment of the potential for collection of storm water for on-site or off-site reuse opportunities. The Tentative Order is silent regarding how extensive the analysis should be and there is no supporting language in the Fact Sheet as to why this analysis should be done. This analysis should only be required when the project cannot meet the LID performance standard. The important effort in this section is to have the permittees require all PDP that cannot meet the LID standard perform an assessment of their efforts to comply with the LID performance standard. This effort would ultimately complement a request for a waiver should that option becomes necessary.

Section F.1.d.(4)(b) and Section F.1.d.(4)(d).

Similar to the discussion above, this provision characterizes LID planning principles as LID BMPs. These principles are consistent with the definition of LID and should be acknowledged and supported. However, the County would like to note that Section F.1.d.(4)(b)(ii) is inconsistent with the LID sizing criteria in Section F.1.d.(4)(d). In section F.1.d.(4)(b)(ii) the permit correctly notes that site conditions will limit the amount of runoff that can be infiltrated. However, in Section F.1.d.(4)(d) no such acknowledgement is noted and full retention, with no runoff, is required for the water quality capture storm. The permit attempts to mitigate this requirement with granting off ramps for sites not able to meet the retention requirement. However, the two sections should be consistent and section F.1.d.(4)(d) should be modified to reflect the definition of LID and the language found in F.1.d.(4)(b).

The County requests that Section F.1.d.(4) be modified as follows:

(4) Low Impact Development BMP Requirements

Each Copermitttee must require each Priority Development Project to implement LID BMPs which will collectively minimize directly connected impervious areas, limit loss of existing infiltration capacity, and protect areas that provide important water quality benefits necessary to maintain

riparian and aquatic biota, and/or are particularly susceptible to erosion and sediment loss.

(a) In selecting LID BMPs the Co-permittees shall develop plan review procedures that The following LID BMPs must be implemented:

- (i) ~~Each Copermitee must R~~require LID BMPs or make a finding of infeasibility for each Priority Development Project in accordance with the LID waiver program in Section F.1.d.(8);
- (ii) ~~Each Copermitee must l~~incorporate formalized consideration, such as thorough checklists, ordinances, and/or other means, of LID BMPs into the plan review process for Priority Development Projects;
- (iii) Ensure that tThe review of each Priority Development Project ~~must~~ include an assessment of potential collection of storm water for on-site or off-site reuse opportunities;
- (iv) Ensure that tThe review of each Priority Development Project ~~must~~ include an assessment of techniques to infiltrate, filter, store, evaporate, or detain runoff close to the source of runoff; and
- (v) Within 2 years after adoption of this Order, each Copermitee ~~must shall~~ review its local codes, policies, and ordinances and identify barriers therein to implementation of LID BMPs. Following the identification of these barriers to LID implementation, where feasible, the Copermitee ~~must take~~ by the end of the permit cycle, appropriate actions to remove such barriers.
- (vi) Within 12 months of the adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria to determine the feasibility of implementing LID BMPs including infiltration, harvest and reuse, evapotranspiration, and biofiltration. The criteria shall include a prioritized selection process for BMP implementation

(b) The following LID BMPs design principles where technically and economically feasible shall be must be implemented at all Priority Development Projects where technically feasible as required below:

- (i) Post development hydrograph shall mimic pre-development hydrographs.

- (ii) *Maintain or restore natural storage reservoirs and drainage corridors (including depressions, areas of permeable soils, swales, and ephemeral and intermittent streams.*
- (iii) *Projects with landscaped or other pervious areas must, where feasible, drain runoff from 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 not exceed the total capacity of the project's pervious areas to infiltrate or treat runoff, taking into consideration the pervious areas' geologic and soil conditions, slope, and other pertinent factors.*
- (iv) *Projects with landscaped or other pervious areas must, 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.*
- (v) *Projects with low traffic areas and appropriate soil conditions must construct walkways, trails, overflow parking lots, alleys, or other low-traffic areas with permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.*
- (c) To protect ground water resources any infiltration LID BMPs must comply with Section F.1.(c)(6).
- (d) *LID BMPs sizing criteria:*
 - (i) *LID BMPs shall be sized and designed to ensure onsite retention without runoff, of the volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the County of Orange's 85th Percentile Precipitation Map¹⁵ ("design capture volume");*
 - (ii) *If onsite retention LID BMPs are technically infeasible, LID biofiltration BMPs may treat any volume that is not retained onsite by the LID BMPs. The LID biofiltration BMPs must be designed for an appropriate surface loading rate to prevent erosion, scour and channeling within the BMP. Due to the flow through design of biofiltration BMPs, the*

¹⁵ The isopluvial map is available from the County of Orange. The map can also be found as Figure A-1 Exhibit 7.11 in the Model WQMP (September 2003), page 5 of 57 at http://www.ocwatersheds.com/documents/2003_DAMP_Exhibit_7_11_Model_WQMP_Attachments.pdf

total volume of the BMP, including pore spaces and prefilter detention volume is allowed to be no less than 0.75 times the design storm volume;

(iii) *If it is shown to be technically infeasible to treat the remaining volume up to and including the design capture volume using LID BMPs (retention or biofiltration), the project may implement conventional treatment control BMPs in accordance with Section F.1.d.(6) below or must participate in the LID waiver program in Section F.1.d.(8).*

(e) *All LID BMPs shall be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies.*

- **Treatment Control BMP Requirements** (Section F.1.d.(6)(f) and (g), Page 38)
The Fact Sheet does not provide any technical basis for these provisions and the Regional Board Response to Comments dated July 1, 2009 refers to the Regional Board Response to Comments dated July 6, 2007. The Regional Board Response to Comments dated July 6, 2007 regarding this section does not provide any technical basis for these provisions. Furthermore in the Regional Board Response to Comments dated December 12, 2007 the Regional Board states “The Regional Board agrees that there is not a federal prohibition on placing pollution control practices within waters of the U.S.” Since the previous comments on this issue were not adequately addressed in the Regional Board’s Response to Comments, the comments are being resubmitted.

Section F.1.d.(6)(f) require treatment control BMPs be implemented prior to discharging into waters of the U.S. and provision F.1.d.(6)(g) prohibits the construction of treatment controls within waters of the U.S. or waters of the State. These provisions taken together limit the use of regional BMP and watershed-based approaches such as the Irvine Ranch Water District Natural Wetland System Project or Aliso Creek Water Quality SUPER project. Such projects should be encouraged and not prohibited by the Order.

The Tentative Order encourages a renewed focus on the ‘watershed approach’ but the proposed restriction on regional BMPs is antithetical to a watershed approach. The USEPA in its *National Management Measures Guidance to Control Nonpoint Source Pollution from Urban Areas, Management Measure 5: New Development Runoff Treatment* dated November 2005 (page 5-38) states that “regional ponds are an important component of a runoff management program.” and that the costs and benefits of regional, or off-site, practices compared to on-site practices should be considered as part of a comprehensive management program. The EPA guidance acknowledges that a regional approach can effectively be used for BMPs.

The County requests that provisions F.1.d.(6)(f) and (g) be combined and modified to enable regional approaches to move forward. Our suggested language reflects this concept.

(f) *Be implemented close to pollutant sources, and prior to discharging into waters of the U.S. and not be constructed within a waters of the U.S. or waters of the State unless the BMP obtains coverage under a Section 404 permit.*

- **LID BMP Waiver Program** (Section F.1.d.(7), Page 38-40)
On July 15, 2009 the Permittees met with the staff of the Regional Water Board to discuss, among many issues, the LID Waiver Program. One of the critical elements of that discussion was how to establish a pollutant credit system that is consistent with the water quality program. The fundamental principle that was agreed upon in that discussion was that regardless of which BMPs (LID based or treatment control based) is chosen for a site that the net impact from pollutant loadings be equal. Thus for a site that implements LID BMP for full retention of the water quality capture storm or implements a conventional BMP that captures the same pollutant loading the two BMPs are viewed equal in reducing pollutants. As an example and for the sake of comparison, an LID BMP designed to retain the 85% storm (i.e. the water quality capture storm) removes 85% of the pollutant load on an annual basis is equivalent to a conventional BMP if the conventional BMP can be designed to remove 85% of the annual pollutant load (in this case the conventional BMP would have to design to treat a larger storm than the water quality capture storm). In this situation the conventional BMP would be judged to be equivalent to the LID BMP and the PDP would not be subject to additional mitigation measures. It is our understanding that the current draft Order allows this type of pollutant credit system to be established.

If this is not the case then the County requests that the Tentative Order be modified to support the principle.

- **Treatment Control BMP Maintenance Tracking** (Section F.1.f.(3), Page 42-43)
This provision identifies that each Copermitee must verify that post-construction BMPs are operating effectively. In provision F.1.f(3)(c)(i) there appears to be conflicting statements The first statement of this provision seems to imply annual verification of SSMPs while the second statement implies verification of BMPs once every four years. The provision is confusing and should be re-written or deleted. The Fact Sheet and the Regional Board Response to Comments dated July 1, 2009 does not effectively identify why 90 percent of approved and inventoried final public and private SSMPs must be verified annually.. The finding in the Fact Sheet that "90 percent is a reasonable annual target" obviously does not take into account the significant amount of resources needed to complete these inspections. The North Orange County MS4 Permit provides an adequate provision related to inspection of structural treatment controls and inclusion of similar language would provided consistency between the two permits.

The County requests that Section F.1.f.(3) be deleted and replaced with the following language:

Within 12 months of adoption of this order and annually thereafter, all public agency structural treatment control BMPs, and at least 25% of priority development project structural treatment control BMPs, shall be inspected prior to the rainy season. All structural treatment control BMPs shall be inspected within every four year period. The permittees shall ensure that the BMPs are operating and are maintained properly and all control measures are working effectively to remove pollutants in runoff from the site. All inspections shall be documented and kept as permittee record. The permittees may accept inspections conducted and certified by state licensed professional engineers in lieu of permittee inspections.

- **Requirements for Hydromodification and Downstream Erosion (Section F.1.h, Pages 44-48)**
Section F.1.h.(1)(b) discusses requirements for the HMP, and identifies the range of runoff flow rates and durations that must compensate for the loss of sediment supply due to the development. Areas of a development, outside of natural stream courses, produce fine grain sediments in a naturally occurring state. This material is known as wash load because it often moves through the river system in suspension without being present in the river bed in significant quantities (Colby, 1957)⁸. Wash load consists of particles so small that they are essentially absent on the stream bed (Ritter, 1995)⁹. Decreased wash load does not cause erosion, because it is transported well below capacity (ASCE, 2008)¹⁰. Natural stream courses within a development do contribute to bed load of a downstream receiving water as the stream course bed material is composed of larger particle sizes. The provision should be changed to reflect that compensation for sediment loss is due to the affected natural stream courses within a development.

The waiver for PDPs that discharge to concrete-lined or significantly hardened channels should be included as hydromodification requirements are not appropriate for channels that are designed to accept increased flows from upstream development as the potential for erosion is minimal or not present.

The County requests that provision F.1.h.(1)(b) be modified as follows:

(b) Utilize continuous simulation of the entire rainfall record (or other analytical method proposed by the Copermitees and deemed acceptable by the Regional Board) to identify a range of runoff flows for which priority Development Project post-project runoff flow rates and durations shall not exceed pre-development ~~(naturally occurring)~~ runoff flow rates and durations by more than 10 percent, where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses. In addition, the identified range of runoff flow rates and durations must compensate for the loss of sediment supply due to affected natural stream courses within the development. ~~The lower boundary of the range of runoff flows identified shall correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks. The identified range of runoff flows may be different for specific watersheds, channels, or channel reaches. In the case of an artificially hardened (concrete lined, rip rap, etc.) channel, the lower boundary of the range of runoff flows identified shall correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks of a comparable soft bottomed channel.~~

Section F.1.h.(2) identifies that the HMP must include a suite of management measures to be used on PDPs to protect and restore downstream beneficial uses. As noted in our

⁸ Colby, B.R. (1957). "Relationship of unmeasured sediment discharge to mean velocity." *Transactions American Geophysical Union*, 38(5), 708-717

⁹ Ritter, D.F. (1995). "Sediment Transportation" *Process Geomorphology*, 6, 197

¹⁰ ASCE. (2008). "Sediment Transport Modes: Bed-Material Load and Wash Load" *Sedimentation Engineering* 2.5.1, 60

comments for Finding D.2.g. downstream restoration to its natural state is not always possible in highly urbanized areas and could lead to catastrophic impacts from flooding.

The County requests that provision F.1.h.(2) be modified as follows:

(2) In addition to the hydrologic control measures that must be implemented per section F.1.h.(1)(c), the HMP must include a suite of management measures to be used on Priority Development Projects to protect ~~and restore~~ downstream beneficial uses and prevent or further prevent adverse physical changes to downstream channels. The measures must be based on a prioritized consideration of the following elements in this order:

Section F.1.h.(3) identifies where hydromodification requirements are not required at the Copermittees discretion. The waiver for PDPs that discharge to concrete-lined or significantly hardened channels should be included as hydromodification requirements are not appropriate for channels that are designed to accept increased flows from upstream development as the potential for erosion is minimal or not present. The comments for Finding D.2.g. are reemphasized for this provision as restoration is not always feasible. Furthermore the Fact Sheet and the Regional Board Response to Comments dated July 1, 2009 do not provide adequate technical basis for removing the waiver. The burden should not be on a PDP to identify if a downstream receiving water can be restored, rather that is the responsibility of the Regional Board. Further more it is very important that the exemptions to HMPs be consistent between north and south Orange County otherwise we have consistency and equitable issue that exposes the permittees to undue legal exposure.

The County requests that provision F.1.h.(3) be modified as follows:

(3) ~~Each individual Copermittee has the discretion to not require Section F.1.h. at Priority Development Projects where the project:~~ Section F.1.h. does not apply to Priority Development Projects where the project:

(a) ~~Discharges storm water runoff into underground storm drains discharging directly to bays or the ocean; or~~

(b) ~~Discharges storm water runoff into conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries, or water storage reservoirs and lakes.~~

(b) Discharges storm water runoff into conveyance channels that are engineered, concrete lined, or are significantly hardened, and are regularly maintained to ensure flow capacity.

(c) Site infiltrates at least the runoff from a two-year storm event. The permittees may request for a variance from these criteria, based on studies conducted by the Storm Water Monitoring Coalition, Southern California Coastal Water Research Project, or other regional studies. Requests for consideration of any variances should be submitted to the Executive Officer.

(d) The volume and the time of concentration of storm water runoff for the post development condition do not significantly exceed those of the predevelopment condition for a two year frequency storm event (a difference of 5% or less is considered insignificant). This may be achieved through site design and source control BMPs.

Section F.1.h.(4)(a) requires within 2 years of adoption of the Order the Copermitees develop a draft HMP. The timeframe for development of HMPs for each watershed is too short to ensure an optimized program. Interim criteria assures that there will not be unregulated development in the interim. A minimum of three years, which was the length of time to develop criteria identified in the previous Tentative Order, should be allowed for their development.

The County requests that provision F.1.h.(4)(a) be modified as follows:

(a) Within ~~2~~ 3 years of adoption of the Order, the Copermitees shall submit to the Regional Board a draft HMP that has been reviewed by the public, including the analysis that identifies the appropriate limiting range of flow rates per section F.1.h(1)(b).

Some watersheds within south Orange County already have comprehensive watershed plans that address hydromodification impacts. Theses watershed plans where appropriate can substitute for HMPs.

The County requests that the following provision be added to Section F.1.h. as follows:

(6) HMP Substitution. In watersheds where a comprehensive watershed plan has been developed and addresses hydromodification impacts consistent with this Order, the Copermitees may petition the Executive Officer to substitute the watershed plan for the HMP for that specific watershed.

Section F.1.h.(5) identifies interim hydromodification criteria and identifies those PDPs where the interim hydromodification criteria does not apply. A waiver of the interim hydromodification requirements should also be provided for PDPs per the proposed language for Section F.1.h.(3) identified above.

The County requests that Section F.1.h.(5) be modified as follows:

Within one year of adoption of this Order, each Copermitee must ensure that all Priority Development Projects are implementing the following criteria by comparing the pre-development (~~naturally-occurring~~) and post-project flow rates and durations using a continuous simulation hydrologic model such as USEPA's Hydrograph Simulation Program—Fortran (HSPF):

(a) For flow rates from 10 percent of the 2-year storm event to the 5 year storm event, the post-project peak flows shall not exceed pre-development (~~naturally-occurring~~) peak flows.

(b) For flow rates from the 5 year storm event to the 10 year storm event, the post-project peak flows may exceed pre-development (~~naturally-occurring~~) flows by up to 10 percent for a 1-year frequency interval.

~~The interim hydromodification criteria do not apply to Priority Development Projects that meet the conditions identified in Section F.1.h.(3). where the project discharges (1) storm water runoff into underground storm drains discharging directly to bays or the ocean, or (2) storm water runoff into conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries, or water storage reservoirs and lakes.~~

Within one year of adoption of this Order, each Copermitttee must submit a signed, certification statement to the Regional Board verifying implementation of the interim hydromodification criteria.

Construction Component

- **Permit Fees**

Although not directly addressed within the Tentative Order, the Permittees take issue with the requirement that they must pay a significant fee for the municipal stormwater permit, which covers their construction responsibilities and are also required to pay an additional fee when they submit an NOI to obtain coverage under the Statewide Construction General Permit.

In the Response to Comments IV, Regional Board staff indicate that “the Regional Board does not have the discretion to combine, reduce, or waive fees for waste discharge requirements”. However, the County understands that there is some discretion and that this discretion could be consistent with the process that is established within Order No. R8-2009-0030.

Section XV of Order R8-2009-0030 (page 65 and 66) states:

1. This order authorizes the discharge of storm water runoff from construction projects that may result in land disturbance of one (1) acre or more (or less than one acre, if it is part of a larger common plan of development or sale which is one acre or more) that are under ownership and/or direct responsibility of any of the permittees. All permittee construction activities shall be in accordance with DAMP Sections 7 and 8.
2. All construction activities shall be in compliance with the latest version of State’s General Permit for Storm Water Discharges Associated with Construction Activities except that an NOI need not be filed with the State Board.
3. Prior to commencement of construction activities, the permittees shall notify the Executive Officer of the Regional Board concerning the proposed construction project. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project.
4. The permittees shall develop and implement a storm water pollution prevention plan (SWPPP) and a monitoring program that is specific for the construction project greater than one acre, prior to the commencement of any of the construction activities, except for routine maintenance activities. The SWPPP shall be kept at the construction site and released to the public and/or Regional Board staff upon request.