

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 Copermitee has complied with the procedures set forth above and is implementing the revised Jurisdictional Urban Runoff Management Program, the Copermitee 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 Copermitttee 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-Permitttee 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 85thpercentile 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.

- o 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.
- o 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 mantel 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.
- o 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 doe 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 Copermitees 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 Copermitee 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 Copermitee 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 Copermitttee must Rrequire 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 Copermitttee must lincorporate 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 Copermitttee 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 Copermitttee 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 nNot 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 Copermittee 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 Copermittees 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 Copermittes 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 Copermittes 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.

5. The SWPPP (and any other plans and programs required under the General Permit) and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Permit.

6. The permittees shall give advance notice to the Executive Officer of the Regional Board concerning any planned changes in the construction activity, which may result in non-compliance with the latest version of the State's General Construction Permit.

Based on the above language the municipalities convey the information that is necessary to the Santa Ana Region, but they do not have to file a formal NOI under the State Construction General permit or pay the permit fee since they have already paid the municipal stormwater program permit fee.

The County requests that language similar to Order R8-2009-0030 be included within the permit so that the municipal stormwater permit fees cover all municipal activities including construction and that they not be held liable for additional fees when submitting NOI-based information.

- **BMP Implementation** (Section F.2.d, Page 50)

The Response to Comments IV misunderstood the request in the previous comment letter, therefore the comment is resubmitted.

Section F.2.d.(1)(a)(ii) requires the development and implementation of a site-specific stormwater management plan, however this is inconsistent with Section F.2.c.2.

The County requests the following change to F.2.d.(1)(a)(ii)

(ii) Development and implementation of a site-specific stormwater management plan runoff management plan (or equivalent construction BMP plan such as an erosion and sediment control plan);

- **BMP Implementation** (Section F.2.d, Page 51-52)

Since the County's comments on this issue, the State Water Board has reissued the Statewide Construction General Permit. Section F.2.d.(1)(c)(i) (Page 51-52) states that the Permittees must require implementation of advanced treatment for sediment at construction sites that are determined to be an exceptional threat to water quality.

The Statewide Construction General permit adopted by the State Water Board on September 2, 2009, identifies Active Treatment Systems (ATS) as advanced sediment treatment technology. ATS prevents or reduces the release of fine particles of sediment (silts and clays) by employ chemical coagulation, chemical flocculation or electrocoagulation to aid the reduction of turbidity caused by fine suspended sediments.

The recently adopted Construction General Permit also lays out a risk-based approach to permit requirements whereby the minimum requirements of the permit (e.g., BMPs, monitoring, and reporting) progressively increase as the risk level increases. Higher risk sites are also subject to numeric action levels and numeric effluent limitations for turbidity and pH.

The Construction General Permit identifies ATS as an available technology that may be employed on construction sites, but does not mandate the use of ATS. The Construction General Permit acknowledges that ATS is an emerging technology in California, and establishes conditions (e.g. operation and monitoring requirements) for its use.

Given that the Construction General Permit has established a risk approach whereby the highest risk construction projects will be subject to more stringent BMPs, rigorous monitoring, and compliance with numeric action levels and numeric effluent limitations, the County requests that the provisions requiring the use of ATS be deleted from this permit and that the selection of BMPs for construction operations, especially ATS be done under the aegis of the Statewide Construction General Permit.

- **Construction Reporting of Non-compliant Sites** (Section F.2.g.(2), Page 54)

The County appreciates that the Regional Board staff clarified the intent of this provision regarding the need and use of the data being requested by the Permittees (see Response to Comments IV comment #128).

However, the provision also states that the data be submitted from the Permittees to the Regional Board "prior to the commencement of the wet season" which is typically September and then further states "Information may be provided as part of the JRMP annual report" (which is November). Thus, the timeframe for submittal of the information needs to be clarified.

Since F.2.g.(1) already requires that the Permittees notify the Board when the Permittee "issues a stop work order or other high level enforcement to a construction site" and the Permittees must follow the notification requirements in Attachment B, the County requests that the JRMP annual report be the mechanism for conveying the information so that the information is not submitted twice.

The County requests the following modifications:

(2) Each Copermittee shall annually notify the Regional Board, ~~prior to the commencement of the wet season,~~ of all construction sites with alleged violations. Information may be provided as part of the JRMP annual report.

Information provided shall include, but not be limited to, the following:

(a) WDID number if enrolled under the General Construction Permit

(b) Site Location, including address

(c) Current violations or suspected violations

Municipal

- **Flood Control Structures** (Section F.3.a.(4)(c), Page 56)

Section F.3.a.(4)(c) requires the Permittees to evaluate existing flood control devices to identify those that are causing or contributing to a condition of pollution, identify measures to reduce or eliminate the structure's effect on pollution, and evaluate the feasibility of retrofitting the structure. While some minor changes were made, the intent of the previously submitted comments has not been addressed.

The federal regulations [40 CFR, Part 122.26(d)(2)(vi)(A)(4)] focus on evaluating flood control devices and determining if retrofitting the device is feasible. The regulations

state:

(4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from stormwater is feasible.

The County requests that the language be modified so that it is aligned with the current stormwater permit, recognizes the work that has been completed to date, is consistent with the intent of the federal regulations, is consistent with the justification within the Fact Sheet, and is more consistent with Provision XIV.10. in Order No. R8-2009-0030. The proposed language modification is as follows:

(4). *BMP Implementation for Flood Control Structures*

(c) Each Copermitee who owns or operates flood control devices/facilities must continue to evaluate its existing flood control devices/facilities, identify devices causing or contributing to a condition of pollution, identify and identify opportunities and the feasibility of configuring and/or reconfiguring channel segments/structural devices to function as pollution control devices to protect beneficial uses. measures to reduce or eliminate the structure's effect on pollution, and evaluate the feasibility of retrofitting the structural flood control device. The inventory and evaluation must be completed by and submitted to the Regional Board in the 2nd year JRMP Annual Report.

- **Infiltration from Sanitary Sewer to MS4** (Section F.3.a.(7), Page 57-58)

There continue to be several concerns with this section of the Tentative Order as outlined below:

First - Although (7)(a) is consistent with the current permit (Order No. R9-2002-0001), the Permittees submit that the provisions regarding sanitary sewer maintenance are more applicable to sanitary sewer agencies, not stormwater agencies. It is fundamentally inappropriate to include sanitary sewer maintenance requirements in a stormwater permit even where the two systems may be operated by the Permittee. Where similar maintenance requirements are included in the wastewater treatment plant or collection system permit¹¹, these provisions are an unnecessary duplication of other regulatory programs.

In addition, it is an inappropriate and ineffective use of public money to try to "prevent and eliminate infiltration of seepage from sewers to MS4s". How are the permittees supposed to know where the infiltration is occurring throughout the hundreds of miles of storm drains so that the efforts can be focused to those areas? How are the permittees supposed to prevent infiltration in the storm drain system without sliplining the entire system? Although it may seem like this is something that the permittees can simply do through "routine preventative maintenance" this simply isn't the case. Instead, the owner/operator of sewer system must have the primary responsibility to prevent

¹¹ The State Water Resources Control Board has adopted the Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (Sanitary Sewer Order) on May 2, 2006 and the Regional Water Board adopted Order No. R9-2007-0005 on February 14, 2007 (which is more stringent and prescriptive than the Statewide General WDRs).

exfiltration/leaks from occurring in the first place rather than relying on the recipient of the leaks to manage the problem.

Second - On a similar issue, the State Board stayed a provision in the existing permit finding that “the regulation of sanitary sewer overflows by municipal storm water entities, while other public entities are already charged with that responsibility in separate NPDES permits, may result in significant confusion and unnecessary control activities.” [emphasis added] (WQ 2002-0014 at p.8).

It is unclear why the Board staff are not conforming with this Stay from the previous permit. In addition, this portion of the comment was not addressed within the Response to Comments IV.

The County requests that part (a) of the provision (7) should be deleted from the Tentative Order.

While the Permittees agree that stormwater agencies must also address aspects of sanitary sewer incursions into the MS4s, the provisions in (7)(b) are aspects of other portions of the stormwater program and should be moved to those sections of the Tentative Order.

The County requests the following proposed changes:

- i. Adequate plan checking for construction and new development – incorporate in the Construction and New Development programs*
- ii. Incident response training for municipal employees that identify sanitary sewer spills – incorporate in the Illegal Discharges/Illicit Connections (ID/IC) program.*
- iii. Code enforcement inspections – delete, this is covered by other programs*
- iv. MS4 maintenance and inspections – incorporate in the Municipal program, provision D.3.a(6).*
- v. Interagency coordination with sewer agencies – incorporate in the ID/IC program*
- vi. Proper education of municipal staff and contractors conducting field operations on the MS4 or municipal sanitary sewer (if applicable) – incorporate in the Municipal program*

Commercial/Industrial

- **Mobile Businesses** (Section F.3.b(3)(a), Page 62)

Although the Response to Comments IV addresses the County’s previously submitted comments, we respectfully disagree with Board staff that the new permit section “is not a significant change from the existing Order” and that our proposed recommendation of a pilot program focused on one or two categories of mobile business would be “a lessening of the requirement and considered backsliding”. In fact, the latter statement is not supported by the structure and description of the new section of the permit which states that the Permittees must develop the following (i.e. this is a new program that is not currently in existence pursuant to the previous Order):

- “a program to reduce the discharge of storm water pollutants from mobile businesses to the MEP”

- “minimum standards and BMPs”
- “an enforcement strategy”
- “an outreach and education strategy”

In our previous comment letter we noted the difficulties associated with developing this program, concerns which were mirrored in the Fact Sheet. For the reasons previously noted and acknowledged by the Regional Board, we request that the requirement for this program be changed to the development of a pilot program for the mobile business category. The pilot program would allow the Permittees to work together on a regional basis to develop an appropriate framework for addressing mobile business and determine whether the program is effective prior to expending a significant amount of resources on multiple categories of mobile businesses.

In addition, this would be consistent with the approach taken in the Santa Ana Region pursuant to Order No. R8-2009-0030 – Section X.8. (page 45) which states:

“Within 12 months of adoption of this order, the permittees shall develop a mobile business pilot program. The pilot program shall address one category of mobile business from the following list: mobile auto washing/detailing; equipment washing/cleaning; carpet, drape and furniture cleaning; mobile high pressure or steam cleaning. The pilot program shall include at least two notifications of the individual businesses operating within the County regarding the minimum source control and pollution prevention measures that the business must implement. The pilot program shall include outreach materials for the business and an enforcement strategy to address mobile businesses. The permittees shall also develop and distribute the BMP Fact Sheets for the selected mobile businesses. At a minimum, the mobile business Fact Sheets should include: laws and regulations dealing with urban runoff and discharges to storm drains; appropriate BMPs and proper procedure for disposing of wastes generated.”

The County requests that the Board modify this section of the permit to identify that a program will be developed as a pilot program focusing on one category of mobile businesses.

- **Inspection of Industrial and Commercial Sites/Sources** (Section F.3.b(4)(b), Page 63)

The County appreciates that the Regional Board staff clarified the intent of this provision regarding the need and use of the data being requested by the Permittees. However, the provision also states that the data be submitted from the Permittees to the Regional Board “prior to the commencement of the wet season” which is typically September and then further states “Information may be provided as part of the JRMP annual report” (which is November). Thus, the timeframe for submittal of the information needs to be clarified.

Since the Permittees already notify the Board when there are compliance issues at an industrial site/facility subject to the General Industrial Permit and the Permittees must follow the notification requirements in Attachment B, the County recommends that the JRMP annual report be the mechanism for conveying the information so that the information is not submitted twice.

The County requests the following modifications:

(2) Each Copermittie shall annually notify the Regional Board, ~~prior to the commencement of the wet season,~~ of all Industrial sites and Industrial Facilities subject to the General Industrial Permit or other individual NPDES permit with alleged violations. Information may be provided as part of the JRMP annual report.

- **Retrofit Existing Development** (Section F.3.d, Pages 68-70)

This provision requires that each Permittee must implement a retrofitting program for existing developments (i.e. municipal, industrial, commercial, residential). These requirements present a significant change and present a substantial burden to the municipal stormwater program by requiring a host of engineering studies, capital improvements, land acquisition, etc.) This requirement is also inconsistent with Order R8-2009-0030.

Currently, new development requirements are imposed as conditions of approval for new projects and projects that are voluntarily undergoing redevelopment. A thorough legal review is required to determine whether municipalities have the authority to compel land development requirements absent a voluntary land development application and if such authorities can be developed given other legal constraints.

The Permittees do not concur with the statement of the Regional Board staff in the fact sheet that "Retrofitting existing development is practicable for a municipality..." A systematic evaluation of the technical and legal opportunities and constraints of a requirement to require retrofitting, especially of private landowners, is necessary to determine whether or not such a requirement is practicable. The evaluation must precede the permit provision to mandate MS4s require retrofitting of existing development.

These provisions of the permit represents an entire new approach to existing development that places an unknown significant burden on the Permittees and ultimately to property owners in the south Orange County area. It is concerning to the County that this provision sets up a process that goes well beyond the Federal regulations, especially regarding potential efforts on private property.

In addition, the provision sets up a requirement that will likely require the Permittees to address most, if not all, of the areas within the geographic area regulated under this permit, which simply is not feasible. The Permittees are required to inventory a multitude of candidate areas, prioritize them and then proceed with projects in those areas where retrofitting is feasible. In addition, provision d.6. further states that, "where constraints on retrofitting preclude effective BMP deployment... the Copermittie may propose a regional mitigation project", which then means that additional projects will have to be undertaken – not just those that are prioritized as "highly feasible".

The County requests that this unprecedented requirement be eliminated from the permit.

Watershed Urban Runoff Management Program (Section G, Page 74)

The County appreciates the modification to the WURMP section to provide for the flexibility that is necessary within a watershed management program.

The County requests that the WURMP Workplan be expanded to include the following so that the watershed work plans are comprehensive and address water quality in a more holistic manner:

- *Municipal retrofit provision;*
- *Hydromodification;*
- *Water supply; and*
- *Habitat*

Since it is not always necessary to “model” to demonstrate water quality improvements in the receiving waters, the County requests that provision G.2.e. be modified to allow for modeling and/or monitoring as necessary.

TMDLs (Section I, Page 79)

This provision is supported by Finding E.11 which identifies that adopted TMDL WLAs will be incorporated as numeric effluent limits for specific pollutants and watersheds.

As noted previously, the Permittees are concerned that it appears that Regional Board staff plan to incorporate WLAs as numeric effluent limits in the MS4 permit without consideration of other options or as to how the TMDL may be written, which might include:

- Requiring implementation of specific BMPs in the permit;
- Providing a recommended menu of potential BMPs in the TMDL, implementation plan, or the permit for sources to evaluate and select;
- Referencing BMP performance standards in the TMDL, implementation plan, or the permit;
- Recommending the selection of BMPs and developing benchmark values or performance measures; and
- Requiring the review of existing BMPs and selecting additional BMPs to achieve progress.

The USEPA draft handbook *TMDLs to Stormwater Permit* lists the above options and notes that:

“There are no guidelines for determining which approach is most appropriate to use. It is likely that a variety of factors, including type of source, type of permit, and availability of resources, will influence which approach makes the most sense.”

However, it does not appear that the Regional Board has considered the variety of factors in determining that numeric effluent limitations are most appropriate method of incorporating the WLAs for all pollutants in all watersheds into the MS4 stormwater permit.

The County requests that the following language, which is from the adopted Ventura County MS4 Stormwater Permit (R4-09-0057 Page 95) be incorporated into this section within the introduction to clarify how the WLAs will be attained:

The Permittees shall attain the Waste Load Allocations by implementing BMPs in accordance with the TMDL Technical Report, Implementation Plan, or as identified as a result of TMDL special studies specified in the Basin Plan Amendment.

The Permittees shall comply with the Waste Load Allocations, consistent with the assumptions and requirements of the Waste Load Allocations documented in the Implementation Plans, including compliance schedules, associated with the State adoption and approval of the TMDL at compliance monitoring points established in the TMDL Monitoring Program (40 CFR 122.44(d)(1)(vii)(B)).

Program Effectiveness Assessment (Section J, Page 80)

Section J. of the Tentative Order requires the Permittees to assess the effectiveness of their JURMP, identify necessary program modifications, and report that information to the Regional Water Board on annual basis. Section J.1.a. identifies specific water quality-based objectives for 303(d) listed water bodies, environmentally sensitive areas (ESAs), and the major program components.

Although the concept and intent of the provision is understood and supported by the Permittees, the specificity and inclusion of the required water quality-based objectives and focus on the 303(d) listed water bodies and ESAs is misplaced and has not been developed within the context of the California Stormwater Quality Association (CASQA) Guidance or through the State's Storm Water Quality Task Force which was established pursuant to AB 739 to develop a comprehensive guidance document for evaluating and measuring the effectiveness of Municipal Storm Water Management Program (Guidance Document). Although the Guidance Document has not been finalized, it builds off of the CASQA Guidance Document concepts. In addition, this section is not consistent with Order R8-2009-0030.

As written, this section of the Tentative Order is not consistent with the CASQA Guidance Document and does not provide flexibility for the Permittees to develop objectives and an overall strategy for the effectiveness assessment and will result in resources being expended without achieving the intended goal.

Since the Permittees have already developed and implemented a program effectiveness assessment framework and programmatic and environmental performance metrics and have committed to developing metric definitions and guidance to improve the efficacy of the assessments in the ROWD, the provision should be modified to allow the Permittees to continue to use the approach that they have been using for several years.

The County requests that this provision be replaced with the following text:

The annual report shall include an overall program assessment. The permittees may use the "Municipal Stormwater Program Effectiveness Assessment Guidance" developed by the California Stormwater Quality Association in May 2007 as guidance for assessing program activities at the various outcome levels. The assessment should include each program element required under this order, the expected outcome and the measures used to assess the outcome. The permittees may propose any other methodology for program assessment using measurable targeted outcomes.

Reporting (Section G, Page74)

Section G.7. requires that the Permittees submit the Aliso Creek WURMP annual report by March 1 of each year. Since the Watershed Action Plan Annual Report for the Aliso Creek Watershed has historically been submitted in November of each year and has been based on the fiscal year like the other WURMP reports, it is unclear why Board staff are requiring this change. As such, the Aliso Creek WURMP submittal is now inconsistent with the other

WURMP submittals both in the date for submittal and the time period for which the report covers. The County would prefer that the Aliso Creek WURMP annual report submittal date be aligned with the other WURMP submittals.

The County requests that the new language incorporated as a part of Section K. on page 84 also be included in the introduction to Section G.7. so that the reporting schedules are consistent.

The Copermittees may propose alternate reporting criteria and schedules, as part of their updated JRMP, for the Executive Officer's acceptance.

ATTACHMENT C

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

INTRODUCTION

Attachment C contains the principal technical comments of the County of Orange (the "County") regarding the monitoring and reporting requirements in Attachment E of Tentative Order No. R9-2009-0002 dated March 13, 2009 ("Tentative Order").

GENERAL COMMENTS

To enable staff, monitoring, and analytical resources for new monitoring program requirements to be acquired and integrated into current efforts, it is requested that implementation of new requirements should be specified in Attachment E to begin 12 months from the date of permit adoption.

SPECIFIC COMMENTS

E.II.A.1. Analytical Testing Requirements for Mass Loading, Urban Stream Bioassessment, and Ambient Coastal Receiving Water Stations (Table 1)

The 6-hour holding time for samples of indicator bacteria limits the length of time that sampling teams can spend in the field and consequently does not allow sampling of some episodic events. For example, a typical day of bioassessment monitoring at three locations requires 8 hours in the field for PHAB assessment and collection of benthic macroinvertebrate, water quality, and toxicity testing samples. Also, mass emissions monitoring of stormwater runoff can occur on weekends and holidays when contract laboratory services are not available. Additionally, monitoring bacteriological quality of stormwater at mass emissions site will not useful information considering access to flood control channels is prohibited during periods of stormwater runoff and the mass emissions monitoring sites are generally great distances upstream of the coastal receiving waters.

The County requests that the requirement to conduct monitoring of bacteriological quality at bioassessment sites and during stormwater events at mass emissions sites be removed.

Monitoring for oil and grease concentration will not detect lighter petroleum fractions such as gasoline and diesel. Oil and grease has been detected in 13 of 900 samples in the Dry Weather Reconnaissance Program since 2003.

The County requests that the requirement to collect a grab sample for oil and grease during stormwater runoff monitoring be limited to Mass Emissions and Ambient Coastal Receiving Water sites.

E.II.B.1 Wet Weather Runoff Monitoring – MS4 Outfall Monitoring [page 15 and May 5 updates]

Section E.II.B.1.b requires measurement of hardness in the receiving waters during composite stormwater sampling of the MS4 major outfalls. Since the hardness of the receiving waters can fluctuate considerably during a storm, a composite sampling of the receiving water would be the most appropriate method of determining the water hardness. This sampling of the receiving water however would require an extra automatic sampler.

The County requests that if the total metal concentration of the composite sample from the major outfall exceeds the SAL, comparison will be made to the CTR CMC adjusted to a hardness value calculated from the Mass Emissions Database. The representative hardness value from each watershed area will be calculated as the median of the time-weighted hardness values of all storms monitored (2000-2008 reporting years) in the mass emissions program within the respective watershed area. The current mass emission monitoring protocol includes collection of 3-5 composite samples during a 4-day period after the onset of a storm. In order to more accurately characterize receiving water hardness during the first 24 hours (MS4 Major Outfall monitoring protocol) only the first two composite samples (1-hour first flush + second composite) of each storm would be used to calculate the time-weighted average concentration.

E.II.C Dry Weather Non-stormwater Effluent Limits [page 20 and May 5 updates]

Section E.II.C.b.(3) states that effluent samples must also include analysis for chloride, sulfate, and total dissolved solids. Although these constituents are listed in the Basin Plan they were removed from the lists of NELs that were in prior iterations of the permit.

The County requests the removal of these three constituents from the Non-stormwater monitoring suite.

Section F.4.e.(2)(c) of the Program Provisions states that: "Within two business days of receiving analytical laboratory results that exceed action levels, the Co-Permittees must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation." The two-day response is an unrealistic expectation considering the weekly volume of data received from the laboratories, the time required to enter the data into the Co-Permittee database, and the data review process.

The County requests the establishment of a protocol that specifies that within five business days of receiving analytical laboratory results that exceed action levels the Co-Permittee responsible for the watershed from which the discharge emanated will be notified. Within 2 business days after notification Co-Permittee will either initiate the an investigation to identify the source of the discharge or document the rationale for why the

discharge does not pose a threat to water quality and does not need further investigation.

E.III.A.1 Reporting Program – Planned Monitoring Program [page 30]

The requirement that the Planned Monitoring Program be submitted September 1st of every year, beginning on September 1, 2009, does not allow adequate time for analysis of the monitoring data from the prior year as it is affected by management actions undertaken throughout the MS4, subject of the annual Performance Effectiveness Assessment.

The County requests that consideration be given to an annual meeting after submittal of the Annual Report to discuss the content of the report and any changes to the monitoring program or suggestions for special studies. This approach will promote a more collaborative relationship between the Permittees and Board staff and may help streamline the renewal of future permits.

E.III.A.2 Reporting Program – Monitoring Annual Report [page 30]

The requirement that the Receiving Waters and Urban Runoff Monitoring Annual Report be submitted October 1st of every year, beginning on October 1, 2010, does not provide adequate time for relevant analysis of the monitoring data collected in the 12-month period immediately prior to the proposed reporting date. Previous annual reports were submitted on November 15th of each year and assessed the results of monitoring activities conducted in the 12-month period ending 4 ½ months prior to the reporting date.

The County requests that the Receiving Waters and Urban Runoff Monitoring Programs Annual Report continue to be submitted in conjunction with the Unified Annual Report and Performance Effectiveness Assessments.

Ben Neill - RE: Orange County comment letter

From: "Boon, Richard" <Richard.Boon@ocpw.ocgov.com>
To: "Ben Neill" <BNeill@waterboards.ca.gov>, "Skorpanich, MaryAnne" <MaryAnne.Skorpanich@ocpw.ocgov.com>
Date: 10/6/09 9:37 AM
Subject: RE: Orange County comment letter
CC: "Crompton, Chris" <Chris.Crompton@ocpw.ocgov.com>, "Chad Loflen" <cloflen@waterboards.ca.gov>, "James Smith" <JSmith@waterboards.ca.gov>

Ben

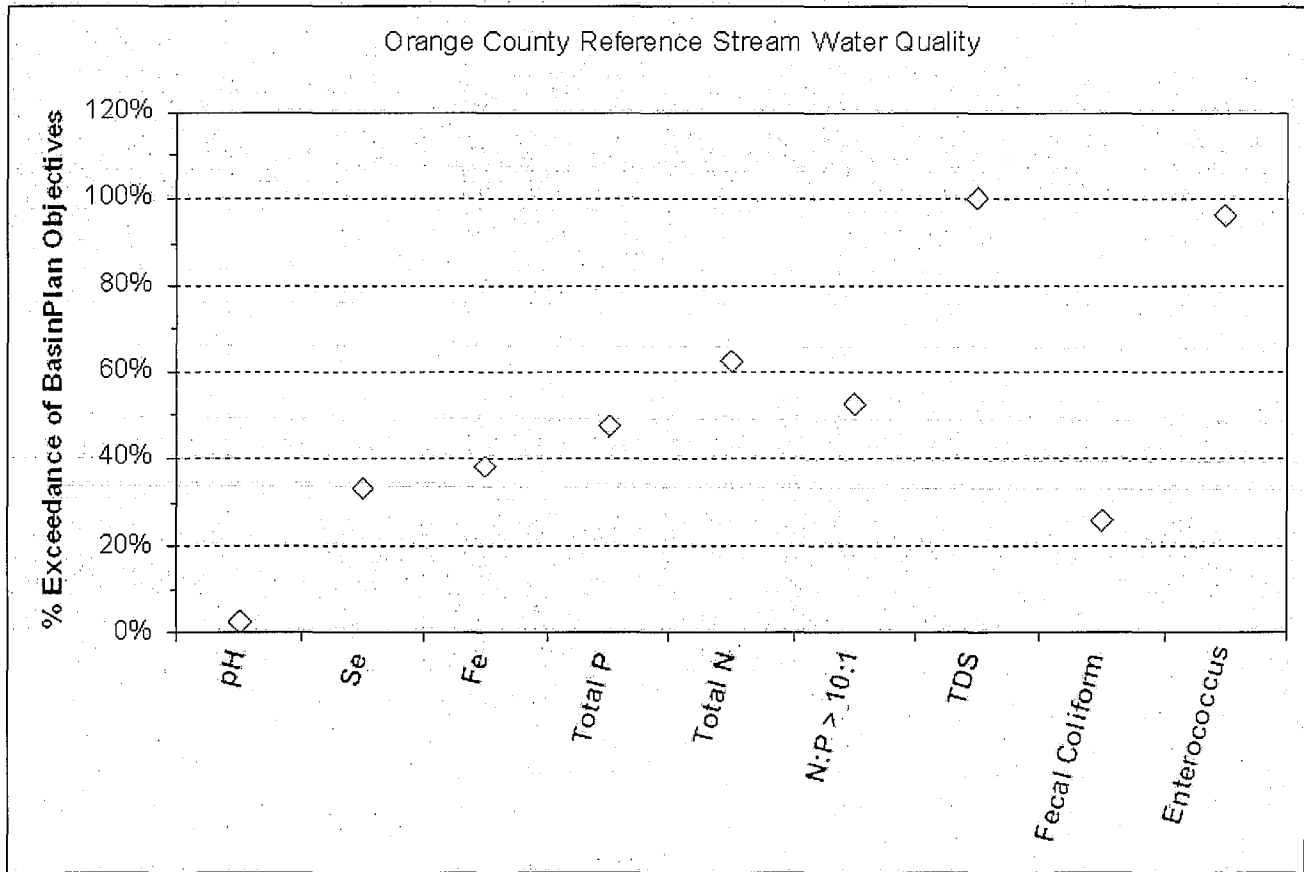
Per request

Thank you for your accommodation in this matter

Richard Boon, Chief

Orange County Stormwater Program

(714)955-0670



From: Ben Neill [mailto:BNeill@waterboards.ca.gov]
Sent: Tuesday, October 06, 2009 9:32 AM
To: Skorpanich, MaryAnne
Cc: Crompton, Chris; Boon, Richard; Chad Loflen; James Smith
Subject: Orange County comment letter

Hello Ms. Skorpanich,

On page 13 of Attachment B of Orange County's technical comments dated September 28, 2009, it appears that a graphic or picture is missing from the text. The copy that I have reads "QuickTime and a TIFF (Uncompressed) decompressor are needed to see this picture." If this picture is important to your comments could you please email it to me, or if it is not necessary please let me know.

Thank-you,

Ben Neill

Water Resource Control Engineer

Northern Watershed Protection Unit

San Diego Regional Water Quality Control Board

9174 Sky Park Ct., Suite 100

San Diego, CA 92123

Tel: (858) 467-2983

Fax: (858) 571-6972

December 8, 2009

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

Re: Tentative Order No. R9-2009-0002, NPDES CAS0108740
Comments on Draft Updates & Errata to August 12, 2009 Public Release Draft

Dear Mr. Gibson:

The Updates & Errata document represents a considerable improvement over the approach to regulation of non-stormwater dry weather discharges proposed at the November 18 Board hearing. The expedited production of these new and extensive provisions in just a few days did not allow any time for consultation with the Permittees as we had discussed during our recent meeting. As a result, the revised document has a number of problematic issues that should be corrected. The comments below and the attached edits to the proposed text were prepared in consultation with the County's Permittees including Aliso Viejo, Dana Point, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, Mission Viejo, Rancho Santa Margarita, San Clemente and San Juan Capistrano. It is our earnest hope to meet with you before the hearing to discuss these recommended changes in more detail.

Our comments primarily focus on three issues:

- The non-stormwater dry weather action levels (NALs) themselves and how they were derived.
- The need to clarify the considerations for prioritizing Copermittee's responses to exceedances of the NALs.
- What actions the Permittees must take if the source of an exceedance is determined to be (i) natural in origin and conveyance, (ii) an illicit discharge, or (iii) an exempt category of non-stormwater discharge.

We believe the changes we propose will result in non-stormwater regulation that is more cost effective, less susceptible to legal challenge, and as protective of water quality as the approach proposed in the Updates & Errata document.

Notwithstanding our general support for the approach you have taken regarding NALs, as expressed previously we continue to have some significant concerns with the draft permit as a whole. These concerns include the fact that the Board has not adequately considered economic and other factors (e.g., the cost to implement the NALs and other new program elements; whether the proposed conditions are reasonably achievable; etc.).

1. Expert-Developed Action Levels

While staff has responded to the Board's direction to change the non-stormwater dry weather numeric effluent limitations to action levels, the action levels themselves, and the manner in which they were derived, has not been modified. This is problematic for several reasons.

First, notwithstanding that the Updates & Errata document expressly provides that the proposed NALs are not numeric effluent limitations (NELs), the manner in which the NALs have been derived and the levels themselves are the same as the previous NELs. By using the same methodology that the SIP¹ mandates for deriving water-quality based effluent limitations, staff may have inadvertently opened the door to an argument (contrary to the Board's directive) that the NALs are in fact NELs by virtue of the process of derivation. The County suggests that this argument could be avoided by deleting the discussion of the SIP in the Updates & Errata document (e.g., pages 23-28). Because the NALs are not intended to be NELs, as acknowledged by the Updates & Errata document, there is no need to calculate the NALs in the same manner as NELs.

Second, the use of water quality objectives (WQOs) as the basis for the NALs is inappropriate. WQOs ensure that beneficial uses in receiving waters are protected. The NALs on the other hand, are proposed to assist in determining if the Permittees are effectively prohibiting non-stormwater discharges into the MS4. Just as the Stormwater Action Levels (SALs) proposed in the Tentative Order are based on a statistical analysis of concentrations of constituents discharged from the MS4, the NALs should be based on an analysis of the constituents in dry weather non-stormwater discharges and be protective of the WQOs.

The County suggests that rather than using receiving water WQOs for end of pipe action levels, Permittees engage an expert panel or other third-party such as the Southern California Coastal Water Research Project (SCCWRP) to develop scientifically-based numeric action levels and an implementation strategy. The Permittees would submit to the Executive Officer the expert-developed NALs and implementation strategy within 18 months of permit adoption. If the Permittees failed to meet the 18-month deadline, action levels based on the WQOs² as well as the implementation approach provided in the Updates & Errata document would become effective by default.

The attached redline of the Updates & Errata document reflects the County's proposed changes.

2. Prioritization

The Updates & Errata document proposes to allow the Permittees flexibility in prioritizing how they respond to exceedances of the NALs. Proposed Directive C.2.f provides:

¹ The State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

² Rather than use the levels proposed in the Updates & Errata document, which were derived in the same manner as water quality-based effluent limitations, the County proposes that the default NALs be set equal to WQOs as set forth in the Basin Plan.

If any Permittee identifies a significant number of exceedances of NALs that prevent them from adequately conducting source investigations in a timely manner, then the Permittees may submit a prioritization plan and timeline that identifies the timeframe and planned actions to investigate and report their findings on all of the exceedances.

The County appreciates the flexibility that this provision would allow. However, we believe the provision should be clarified. As currently proposed, while Permittees would have flexibility to prioritize their response when there are a significant number of exceedances of an NAL, this provision does not currently take the frequency or magnitude of exceedances into account when prioritizing the responses. In other words, the Permittees would have to spend scarce resources investigating even a single and minor exceedance of an NAL.

The County suggests that a better use of resources would be to allow the Permittees the flexibility to prioritize when the **frequency** of exceedances and the **magnitude** of an exceedance is significant. This approach would be consistent with the approach that is established for the Tentative Order's section on SALs. There, Permittees are to take the "magnitude, frequency, and number of constituents exceeding the SAL(s)" when determining how to respond to the exceedance(s).³

This same approach should be incorporated into the NAL Provision by revising Provision C as provided in the attached redline of the Updates & Errata document. This prioritization approach would be reflected in the expert-developed implementation strategy discussed above. For clarity, to the extent the default implementation measures provided in Provision C.2 become effective, the County proposes that Provision C.2.f be revised consistent with the SAL approach. This would allow Permittees to prioritize efforts so that we can spend our limited resources on significant water quality problems.

3. Natural Sources, Illicit Discharges and Exempt Non-Stormwater Categories

The proposed revisions to Directive C of the Tentative Order carry over several problematic provisions from the previous version. First, proposed Directive C.2.a applies only to sources of NAL exceedances that are natural in origin **and conveyance**. Second, in proposed Directive C.2.b, if a Permittee determines that the source of an NAL exceedance is an illicit discharge, the Permittee must eliminate the discharge to the MS4. Finally, in proposed Directive C.2.c, if a Permittee determines that an NAL exceedance is due to a discharge from an exempt category of non-stormwater discharge, the entire category of non-stormwater discharge apparently loses its exempt status. The County suggests that these provisions must be revised.

A. Natural Sources

Proposed Directive C.2.a applies when a Permittee determines that the source of an exceedance is natural in origin and conveyance. However, because the MS4s themselves generally are not natural conveyances, a constituent that is natural in origin may not be considered to be natural in conveyance once discharged from the MS4. Accordingly, as written, proposed Directive C.2.a might never apply; Permittees will never be able to establish that the source of an exceedance is natural in both origin and conveyance.

³ Tentative Order, Directive D.1.

To give this provision meaning, the word "conveyance" simply needs to be deleted. Alternatively, the phrase "natural in origin and conveyance" could be revised to read "natural in origin or conveyance." The phrase "natural in origin and conveyance" is a carryover from former section C.3 which stated: "This Permit does not regulate natural sources and conveyances of constituents..."⁴ In other words, neither natural sources nor natural conveyances of constituents are regulated. In order to show that a discharge is **not** regulated, Permittees must show that the source of constituents in the discharge are natural in origin **or** conveyance. Permittees do not have to show that the source is natural in origin **and** conveyance.

B. Illicit Discharges

Proposed Directive C.2.b would have Permittees eliminate illicit discharges when they determined that the discharge was a source of an NAL exceedance. Because there may be illicit discharges that are impossible to eliminate all of the time, and some illicit discharges may be less serious than others, the County suggests that the language in Directive C.2.b be tied to Directive F.4.f (the Illicit Discharge Detection and Elimination section) which provides:

Each Copermittee must take immediate action to initiate steps necessary to eliminate all detected illicit discharges, illicit discharge sources, and illicit connections after detection. Elimination measures may include an escalating series of enforcement actions for those illicit discharges that are not a serious threat to public health or the environment. Illicit discharges that pose a serious threat to the public's health or the environment must be eliminated immediately.

This would clarify Permittees' obligations when they determined the source of an NAL exceedance was an illicit discharge.

C. Exempt Non-Stormwater Categories

The County previously has commented on removing entire categories of exempt non-stormwater discharges from the Tentative Order simply because a single discharge in that category is determined to be a source of pollutants in receiving waters. The regulations and guidance are clear that only the specific discharge that is the source of the pollutants must be addressed; the entire category of discharge does not lose its exempt status.⁵ Accordingly, proposed Directive C.2.c should be revised as indicated in the attached redline of the Updates & Errata document.

This simple change will reflect federal requirements and will allow Permittees to address only actual sources of pollutants rather than entire categories of discharges that may pose no risk to water quality.

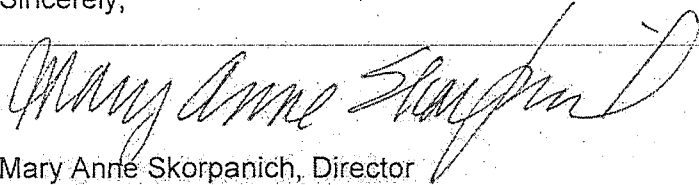
⁴ This important statement regarding the regulation (or non-regulation) of natural sources and conveyances apparently was inadvertently omitted in the Errata and Updates document. As reflected in the attached redline, it should be included in the Tentative Order.

⁵ See County of Orange Comment Letter dated September 28, 2009, Attachment A, Section I.B.

Mr. David Gibson
December 8, 2009
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If you have any questions regarding our comments, please do not hesitate to contact Chris Crompton at (714) 955-0630 or Richard Boon at (714) 955-0670.

Sincerely,



Mary Anne Skorpanich, Director
OC Watersheds

Attachment

cc: James Smith, California Regional Water Quality Control Board - San Diego Region
Ben Neill, California Regional Water Quality Control Board - San Diego Region
South Orange County Permittees