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

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

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

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

- **FETDs** (Finding E.9, Page 14)
  This finding identifies that the Order does not regulate the discharge of Facilities that Extract, Treat and Discharge (FETDs) to waters of the U.S. It also indicates the intention of the Regional Board to require individual NPDES Permits for each of these types of facilities. Such an approach to the regulation of these facilities is deemed highly problematic to the Permittees for the same reasons that were presented in early 2008, principally that separate permits would likely preclude the use of facilities currently necessary for protecting public health at Orange County's beaches. The Permittees were working on potential FETD language with previous Permit staff during the first draft Permit adoption process prior to postponement by the Board. That language is significantly similar to the draft language found in the Region 8 draft. It is provided below and commended to you for incorporation into the Order.

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

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

- **TMDLs** (Finding E.12, Page 15)
  This new finding identifies that MS4 WLAs from adopted TMDLs are incorporated into the Tentative Order, and additionally early TMDL requirements may be included in the Tentative Order.

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

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

Further, this finding indicates that it is the intention of the Regional Board to incorporate MS4 WLAs as end-of-the-pipe numeric Water Quality Based Effluent Limitations for adopted TMDLs. US EPA's 2002 guidance memorandum[5] on establishing stormwater permit requirements to implement WLAs stated that EPA expected that most WQBELs for NPDES-regulated municipal ... will be in the form of BMPs and that numeric limits will be used only in rare instances [emphasis added]. This reference was specifically cited in the Beaches and Creeks TMDL Technical Report and reflects the intent of the Regional Board staff and the understanding of the Stakeholder Advisory Group as to how the TMDL would be incorporated into the NPDES permit. This approach to incorporating WLAs into stormwater permits is maintained in the draft handbook *TMDLs to Stormwater Permit*, in which Chapter 6 identifies method of coordinating TMDLs and stormwater permits. Six options are put forward as methods for permit writers to incorporate TMDLs in a stormwater permit, the last of which is to consider numeric effluent limitations. Furthermore the County would also note that as required by 40 C.F.R. § 122.44(d)(1)(vii)(B), the Permit must be "consistent with the assumptions and requirements of available WLAs". The Regional Board should seriously consider and not foreclose the palette of options available to implement water quality controls for impaired waters in stormwater permits.

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

- **Receiving Water Limitations:** (Finding E. 13, Page 16)
  The intention of this new Finding is not clear and appears to be redundant with the receiving water limitations language in Section A, *Prohibitions and Receiving Water Limitations*. Finding E.13 states that the Permittees discharge from the MS4 is required to meet receiving water limitations [emphasis added]. This requirement is already stated more effectively and within the context of the Receiving Water Limitations language - the Permittees evaluate the discharges and the receiving waters to determine if the discharges cause or contribute to an exceedance of water quality standards and follow

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

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

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

It is recommended that this Finding be deleted.

PERMIT PROVISIONS

PROHIBITIONS AND RECEIVING WATER LIMITATIONS

- **Prohibitions and Receiving Water Limitations** (Section A, Page 17)
  In section A.3.b., the Regional Board has modified the standard state-wide receiving water limitations language to require the Permittees to repeat the assessment process for exceedances of the same water quality standard. This modification is inconsistent with State Water Board WQ Order 99-05. In the previous permit, and in permits throughout the state, including the permit recently issued by the Regional Board to MS4 dischargers to the watersheds draining San Diego County, this provision of the RWL language is set up such that the process is only repeated once unless otherwise directed. The original language recognizes the length of time it can take for new BMP programs to be developed, deployed, and fully implemented before a change in water quality may be observed and avoids pointless reassessments of the same pollutant. Even in cases where there has been a significant reduction of the source of a pollutant, it typically takes several years for monitoring programs to see the change in the receiving water. In cases where the pollutant is persistent in the environment, it can take decades to detect changes in water quality or indicator monitoring.

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

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

NON-STORMWATER DISCHARGES

- **Conditionally Exempt Non-Stormwater Discharges** (Section B, Page 18-19)
  The Regional Board has modified the list of conditionally exempt non-stormwater discharges so that it no longer includes landscape irrigation, irrigation water, and lawn watering. The Findings explain that these discharges have been identified by the Permittees as a source of pollutants (Finding C.14, Page 6). We would contend that a prohibition on these discharges is potentially problematic from the perspective of fostering and sustaining public support for the Program and that the approach should be focused more on public education and water conservation.

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

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

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

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

NON-STORMWATER DRY WEATHER NUMERIC EFFLUENT LIMITS

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

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

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

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

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

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

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

Should the Regional Board choose a numeric metric to define the technology based narrative limit of "effectively prohibit" then the development of technology based numeric effluent limits must be consistent with Federal and State regulations and policy. The County would submit that the proposed NELs in Table 3 are not. USEPA has provided significant guidance[6] for the development of technology based effluent limits (TBELs) for industrial dischargers in order to comply with best practicable control technology currently available (BPT) and best available technology economically achievable (BAT) standards. Consistent with this guidance TBELs are based on demonstrated performance of a reasonable level of treatment that is within the economic means of the discharger. (Page 49-50, NPDES Permit Writers' Manual). This guidance provides insight into how one may develop TBELs for municipal dischargers. For industrial dischargers, the development of TBELs should consider the following parameters:

- Data collection – Sufficient technical and economic data must be available and should be obtained from various sources with respect to trends, environmental impacts, BMPs, and economics.

- Discharger and site profile – Discharger specific information should be obtained through surveys, site visits, etc. to develop a profile. The profile should include:
    - General description/definition and NAICS and/or SIC codes
    - Industry practices and trends
    - Manufacturing processes used
    - General facility information (age of equipment and facilities involved)
    - Discharge characteristics
    - Based on the data gaps identified as a part of the existing data collection efforts, additional field sampling and statistical analyses may be necessary
    - Local climatological data.

- Technology Assessment – The technology assessment should determine the depth and breadth of effectiveness data for various industry related source and treatment BMPs and identify the quantity and quality of data available to describe the performance of all currently used and innovative practices, the ability of each to effectively control impacts

[6] USEPA NPDES Permit Writers' Manual

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

For each source and treatment BMP, the assessment should include:
- General Description of the BMP
- Applicability
- Design and installation criteria
- Design and/or site considerations and/or variations
- Effectiveness
- Limitations
- Maintenance
- Cost

- Regulatory Options – Once the Data Collection, Industry Profile and Technology Assessment has been completed, the State should identify the regulatory options that are available. This effort should identify industry impacts, which pollutants to address as well as other non-water quality related impacts (such as energy requirements).

- Economic analysis[7] - Once the regulatory options are identified (see above), the State should evaluate the costs and environmental benefits and determine the appropriate option based on factors such as:
  - Total Costs
  - Monetized and non-monetized environmental benefits
  - Ease of implementation
  - Industry financial impacts
  - Industry acceptance

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

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

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

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

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

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

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

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

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

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

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

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

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

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

A) Establishment of TBELs must reflect EPA Guidance

The Tentative Order (see 4/29/09 Tentative Updates at page 4) contains a combination of purported technology based MALs and water quality based MALs. To the extent that municipal action levels are used to define the technology based standard of maximum extent practicable (MEP) they should be consistent with EPA guidance[8], and federal law and regulations. As noted previously in the discussion regarding non-stormwater, USEPA has provided significant guidance for the development of technology based effluent limits (TBELs) for industrial dischargers in order to comply with best practicable control technology currently available (BPT) and best available technology economically achievable (BAT) standards. Consistent with this guidance, TBELs are based on demonstrated performance of a reasonable level of treatment that is within the economic means of the discharger (Page 49-50, NPDES Permit Writers' Manual). This guidance provides insight into how one may develop TBELs for municipal dischargers. For industrial dischargers, the development of TBELs should consider the following parameters:

- Data collection – Sufficient technical and economic data must be available and should be obtained from various sources with respect to trends, environmental impacts, BMPs, and economics.

- Discharger and site profile – Discharger specific information should be obtained through surveys, site visits, etc. to develop a profile. The profile should include:
  - General description/definition and NAICS and/or SIC codes
  - Industry practices and trends
  - Manufacturing processes used
  - General facility information (age of equipment and facilities involved)
  - Discharge characteristics

[8] USEPA NPDES Permit Writers' Manual

- Based on the data gaps identified as a part of the existing data collection efforts, additional field sampling and statistical analyses may be necessary
- Local climatological data.

- Technology Assessment - The technology assessment should determine the depth and breadth of effectiveness data for various industry related source and treatment BMPs and identify the quantity and quality of data available to describe the performance of all currently used and innovative practices, the ability of each to effectively control impacts due to runoff and the design criteria or standards currently used to size each practice to ensure effective control of runoff.

  For each source and treatment BMP, the assessment should include:
  - General Description of the BMP
  - Applicability
  - Design and installation criteria
  - Design and/or site considerations and/or variations
  - Effectiveness
  - Limitations
  - Maintenance
  - Cost

- Regulatory Options - Once the Data Collection, Industry Profile and Technology Assessment has been completed, the State should identify the regulatory options that are available. This effort should identify industry impacts, which pollutants to address as well as other non-water quality related impacts (such as energy requirements).

- Economic analysis[9] - Once the regulatory options are identified (see above), the State should evaluate the costs and environmental benefits and determine the appropriate option based on factors such as:
  - Total Costs
  - Monetized and non-monetized environmental benefits
  - Ease of implementation
  - Industry financial impacts
  - Industry acceptance

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

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

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

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

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

The County submits that the specific MALs contained in the Tentative Order are not technically supportable or valid. The technical validity of establishing numeric limits for outfalls was posed to a State Water Resources Board Control Board (State Water Board) convened group of experts referred to as the Blue Ribbon Panel (BRP). The results and conclusions of the BRP are highlighted in a June 2006 Blue Ribbon Panel Report[10]. The BRP Report unequivocally states the position that numeric limits for municipal stormwater discharges are not possible at this time. However, the Panel did agree that "action levels" may be used to identify "bad actor" catchments. Specifically, the BRP Report states:

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 3 - Comparison of MALs v. Basin Plan Water Quality Objective for Nickel[1]

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

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

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

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

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

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

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

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

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

D. Compliance with MALs will prove to be problematic

The Tentative Order (as modified in the 4/29/09 Tentative Updates) provides clarification regarding the follow-up action required should the outfalls exceed the MALs. The Tentative Order requires each Permittee to affirmatively augment and implement all necessary stormwater controls and measures to reduce the discharge of the associated class of pollutants(s) in the affected watershed to the MEP. The definition of MEP (at Attachment C, page C-7) provides a broad definition that primarily focusing on source control BMPs and treatment control BMPs only if source control BMPs prove ineffective[12]. Given the current lack of knowledge regarding the effectiveness of source control BMPs and the liability of non compliance with numeric effluent limits (and resulting mandatory minimum fines) the Permittees would be well served to implement treatment control BMPs.

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

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

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

E. County's Alternative Approach for Use of MALs

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

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

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

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

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

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

LEGAL AUTHORITY

- **Effectiveness of BMPs** (Section E.1.j, Page 24)
  The Tentative Order includes a new provision that requires the Permittees to demonstrate that they have the legal authority to require documentation on the effectiveness of BMPs. This provision is redundant with other requirements in the permit in that it ignores the fact that the New Development/Significant Redevelopment section of the DAMP (Section 7.0) establishes a process for the selection, design, and long-term maintenance of permanent BMPs for new development and significant redevelopment projects and requires developers to select BMPs that have been demonstrated as effective for their project category. In addition, it ignores the fact that the Permittees have already established legal authority for their development standards so that project proponents have to incorporate and implement the required BMPs.

  This provision should be deleted from the Order.

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

Development Planning Component

- **LID BMPs** (Section F.1.c.(2), Page 26)
  Provision F.1.c.2 identifies that the LID BMPs listed in the provision shall be implemented at all Development Projects where applicable and feasible, however no definition of "applicable and feasible" is identified in the provision or within the fact sheet. The determination of feasibility of implementing the LID BMPs identified in the provision should be the responsibility of the Permittees.

  It is recommended that the Provision be modified as follows:

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

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

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

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

- **Native/Low Water Landscaping** (Section F.1.c.(7), Page 27)
  This new provision identifies that landscaping with native or low water species where feasible shall be preferred in areas that drain to the MS4 or waters of the U.S. It is unclear to the County as to the nexus between the use of native plants and runoff water quality. For what purpose does this provision have to protect water quality and beneficial uses? This provision would appear to be outside the jurisdiction of the Regional Board.

- **Standard Stormwater Mitigation Plans (SSMPs)** (Section F.1.d, Page 27-28)
  Section F.1.d. requires each Permittee to implement an updated local SSMP within twelve months of adoption of the Order. The schedule for the update of the SSMP is overly aggressive and does not allow the time necessary for the Permittees to incorporate changes and implement an updated SSMP. This provision adds language that requires the inclusion of the hydromodification requirements in provision F.1.h in an updated local SSMP within one year of the adoption of the Order. The requirements in provision F.1.h include the development of watershed specific HMPs within two years of adoption of the Order. The timeframe to update the local SSMPs in Provision F.1.d should be consistent with the time frame identified to develop the watershed specific HMPs in provision F.1.h.

  It is recommended that the Provision be modified as follows:

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

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

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

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

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

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

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

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

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

- **Industrial Developments** (Section F.1.d.(2)(c), Page 29)
  Section D.1.d.(2)(c) requires industrial developments of greater than one acre to comply with SUSMP requirements. The Fact Sheet states that this provision has been modified to be consistent with US EPA Phase II Guidance. Again, EPA Phase II guidance is not relevant to a Phase I permit. In addition, the Fact Sheet does not provide a technical basis for adding industrial sites to the Priority Development Project Categories and consequently Section D.1.d.(2)(c) should be deleted from the permit.

- **Streets, Roads, Highways, and Freeways** (Section F.1.d.(2)(i), Page 30)
  Section F.1.d.(2)(i) includes as a Priority Development Project Category streets, roads, highways, and freeways including any paved surface of 5,000 square feet or greater that is used for transportation. Highways and freeways are not the jurisdiction of Permittees and fall under the jurisdiction of the California Department of Transportation, which is regulated by its own statewide stormwater permit.

  It is recommended that the Provision be modified as follows:

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

- **Retail Gasoline Outlets** (Section F.1.d.(2)(j), Page 30)
  Section F.1.d.(2)(j) includes as a Priority Development Project Category Retail Gasoline Outlets (RGOs) that meet the criteria of 5,000 square feet or more or have a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. SWRCB Order WQ 2000-11 provides guidance on whether RGOs are subject to SUSMP requirements. The State Board states in this Order that "In considering this issue, we conclude that construction of RGOs is already heavily regulated and that owners may be limited in their ability to construct infiltration facilities. Moreover, in light of the small size of many RGOs and the proximity to underground tanks, treatment may not always be feasible, or safe." Although the State Board does not prohibit subjecting RGOs to SUSMP requirements, the State Board provides a number of reasons for not doing so, including that fact that RGOs are already heavily regulated. It should also be noted that the DAMP already prescribe a suite of BMPs specific to RGOs. Subjecting RGOs to SUSMP requirements imposes duplicity where it is not needed. Section F.1.d.(2)(j) should be removed from the permit.

- **LID Site Design BMP Requirements** (Section F.1.d.(4), Page 30-33)
  This provision identifies that each Permittee must require LID stormwater practices or make a finding of infeasibility for each Priority Development Project (PDP) for inclusion of LID. This provision effectively requires each PDP to perform an analysis of the applicability of LID BMPs for a given project and either incorporate LID BMPs into the project or provide documentation that supports a finding that LID BMPs cannot be incorporated, which presents a significant change in the way development projects are planned and designed and presents an additional burden on developers and municipal plan checkers.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

storm event for the pre-development condition and the 85th percentile storm event for the post-development condition (delta volume). By sizing and designing LID BMPs to the delta volume this will help to ensure that the pre-development hydrology is maintained which is the objective of the Low Impact Development stormwater approach. This new section also requires that any volume over and above the design capture volume, that is not captured by the LID BMPs shall be treated using conventional treatment control BMPs in accordance with Section F.1.d.(6). This language appears to require treatment beyond the 85th percentile storm event which unnecessary as most pollutants are removed through treatment or capture of the 85th percentile storm event, it is likely infeasible in many locations, and it would but an unnecessary burden on PDPs without much added pollutant removal benefit.

It is recommended that the Provision be modified as follows:

LID structural site design BMPs shall be sized and designed to ensure capture of the difference between 85th percentile storm event ("design capture volume")for the pre-development condition and the 85th percentile storm event ("design capture volume")for the post-development condition for all flows from the development or redevelopment project in accordance with Section F.1.d.(6)(a)i. and Section F.1.h below. ~~Any volume, over and above the design capture volume, that is not captured by the LID BMPs shall be treated using conventional treatment control BMPs in accordance with Section F.1.d.(6) below.~~

Alternatively the term "capture" as used in the Tentative Updates and Errata document released on May 5th should be defined as capturing water for treatment using LID BMPs and should not be defined as retention of the 85th percentile storm event. Retention of the 85th percentile storm event is an artificial metric that does not meet the objective of Low Impact Development which is to maintain pre-development site hydrology. If retention is used as the definition of capture there will be many development site locations where this will be infeasible due to site constraints. Capture should be defined as treatment of the 85th percentile storm event which is likely feasible at almost all development site locations. The benefits of LID are realized with the definition of capture as treatment, as retention will still occur on sites where it is feasible through infiltration and evapotranspiration, and on sites where retention is not feasible, vegetated LID BMPs will still provide treatment and volume reduction will occur through some infiltration and evapotranspiration.

Alternatively it is recommended that the Provision be modified as follows:

LID structural site design BMPs shall be sized and designed to ensure ~~capture~~ treatment of the 85th percentile storm event ("design capture volume") for all flows from the development or redevelopment project in accordance with Section F.1.d.(6)(a)i. and Section F.1.h below.

- **Treatment Control BMP Requirements** (Section F.1.d.(6)(f) and (g), Page 34)
The Regional Board Response to Comments dated July 6, 2007 regarding this section does not provide any technical basis for these provisions and it does not adequately address the comments provided stating that "the concerns are addressed within the Tentative Order". 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) requires that treatment controls not be constructed within waters of the U.S. or waters of the State. These provisions of the Tentative Order greatly limit the use of regional BMP and watershed-based approaches. The provisions demand a lot-by-lot approach in implementing BMPs that is analogous to the site-by-site septic tank approach that has been discredited as an effective strategy for sewage treatment in urban areas. Similarly, the Permittees submit that such an approach is also ineffective for stormwater and will lead to a diversion of limited resources to managing thousands of site-by-site treatment controls, which are managed by parties that have limited or no experience, instead of hundreds of regional controls, that are managed by parties and governmental agencies that have expertise in BMP management.

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.

In addition, the Fact Sheet does not provide any technical justification for these provisions. Since neither the Findings nor the Fact Sheet provide any technical basis for precluding regional BMPs and EPA guidance recommends the use of regional BMPS, these provisions should be deleted from the permit.

- **LID Site Design BMP Substitution Program** (Section F.1.d.(8)(d), Page 36)
  In the March 13th Tentative Order the provision has been modified to require that for PDPs participating in the Substitution Program that all LID site design BMPs meet the requirements in Section F.1.d.(4). As LID BMPs are now required in every PDP the Substitution Program essentially becomes a moot provision since if it is feasible to incorporate LID BMPs a PDP would most likely not need to include treatment control BMPs. The May 5th Tentative Updates and Errata document modifies this provision to include a feasibility analysis for PDPs where LID BMPs are not feasible. This new language effectively changes the meaning of Provision F.1.d.(8) from a LID Site Design BMP Substitution Program to a Treatment Control BMP Substitution Program as the Tentative Order requires LID site design BMPs unless they are demonstrated to be infeasible, which then Treatment BMPs appear to be able to be substituted.

  It is recommended that the Provision be deleted and that the LID feasibility provisions under Section F.1.d.(8)(d) from the May 5th Tentative Updates and Errata document be moved under Section F.1.d.4.(a)(i).

- **Treatment Control BMP Maintenance Tracking** (Section F.1.f, Page 38)
  The Regional Board Response to Comments dated July 6, 2007 regarding this section identifies that the provision has been modified to "allow the Permittees more latitude with verifying treatment control BMP operations through self-certification, third party inspection and/or verification by the Copermittee," however the self-certification program is required to comply with the same very prescriptive provisions. The Provision should be amended to properly allow the Permittees to develop a self-certification inspection program that will meet the intent of the provision without having pre-determined requirements which undermine the benefits of a self-certification inspection program.

  It is recommended that the Provision be modified as follows:

  (c) Verify implementation, operation, and maintenance of treatment BMPs by inspection, through the development of a self-certification BMP inspection program within 12 months of the adoption of this Order.

- **Requirements for Hydromodification and Downstream Erosion** (Section F.1.h, Page 39)
  Section F.1.h. discusses the hydromodification requirements for Priority Development Projects. The hydromodification provisions are of concern to the Permittees for several reasons.

  As a general matter, the hydromodification provisions may actually discourage smart growth and sustainable development and encourage urban sprawl. High density urban development generally does not have the space to allocate to onsite hydromodification controls. However, urban development has other water quality benefits such as incorporating subterranean parking garages, retail and office workspace, and residential space into a single impervious footprint. As a result, these types of developments have a much smaller impervious footprint than suburban developments that accommodate the same features. This Provision should be amended to include an exception for urban development based on impervious footprint.

  Section F.1.h.(3) (Page 40) requires each Permittee to implement, or require implementation of, a suite of management measures within each Priority Development Project to protect downstream beneficial uses and prevent adverse physical changes to downstream stream channels. This section should not apply to watersheds or watershed plans that already include sufficient hydromodification measures. For example, the County of Orange and major landowners, such as Rancho Mission Viejo have put in place a comprehensive watershed land use/open space strategy for the San Juan Creek Watershed/Western San Mateo Watershed which includes water quality/quantity management as an integral component. The Tentative Order should be amended to provide an exception to this section for those watersheds where a watershed plan that contains sufficient hydromodification measures has been developed.

  This section should also recognize that the common hydromodification management measures for complying with the hydromodification requirements don't necessarily apply directly to flood control projects.

Section F.1.h.3.(b) (Page 40) requires that management measures must be based on a sequenced consideration of site design measures, on-site management controls, and then in-stream controls. The provision does not include an option to address hydromodification on a regional or watershed basis. This provision should be amended to include an option to address hydromodification on a regional or watershed basis.

Section F.1.h.(3)(b)(i) (Page 40) requires that site design measures for hydromodification must be implemented on all Priority Development Projects. It is neither necessary nor prudent to require hydromodification controls on all priority projects. Some priority projects may be too small to have hydromodification effects and some may discharge into engineered channels, which makes these measures unnecessary. The receiving channel must always be part of the assessment of whether hydromodification controls will be required. This Provision should be amended to include language that the controls are required unless a waiver per paragraph (c) of this section is granted.

- **Hydromodification & Engineered Channels** (Section F.1.h.3.(c)(ii), Page 41) Provision F.1.h.3.(c)(ii) has been deleted, which removes the waiver of hydromodification requirements for those PDPs that discharges to concrete-lined or significantly hardened channels downstream to their outfall in bays or the ocean. 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 fact sheet does not provide any discussion under this provision of why the waiver was removed and the discussion under Finding D.2.g does not adequately address hydromodification requirements related to concrete-lined or significantly hardened channels.

  It is recommended that the Provision providing conditional waivers for hydromodification requirements for concrete-lined or significantly hardened channels be added back into the Tentative Order.

- **Hydromodification Management Plans** (Section F.1.h.(4) & (5), Page 41-43) Provisions F.1.h.(4) & (5) have been modified to require the development of watershed-specific Hydromodification Management Plans that include specific criteria for minimizing and mitigating hydrologic modification at all development and redevelopment projects within two years of adoption of the Order. 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 construction 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.

  It is recommended that the Provisions be modified as follows:

  Section F.1.h.(4) - *Each Copermittee must revise its SSMP/WQMP to implement a watershed specific Hydromodification Management Plan (HMP) to include specific criteria for minimizing and mitigating hydrologic modification at all development and redevelopment projects, unless hydromodification requirements have already been developed for a watershed which can be integrated into the SSMP/WQMP.*

Section F.1.h.(5) (a) - *Within ~~2~~ 3 years of adoption of the Order, the Permittees 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.*

- **Interim Hydromodification & Effective Impervious Area** (Section F.1.h.(6)(i), Page 43)
  Section F.1.h.(6)(i) has been modified to require, as an interim measure that each PDP, not just projects disturbing 20 acres or more, disconnect impervious areas by reducing the percentage of Effective Impervious Area to less than five percent of total project area. EIA is not an adequate metric for hydromodification as there is a lack of a technical consensus on a performance standard relating the disconnection of impervious area and either water quality or hydromodification. This performance standard will ultimately be a very land intensive requirement which may promote sprawl and not conserve natural areas. The 5% EIA number was originally identified in the context of watershed imperviousness and not for a specific development site. The fact sheet identifies that the 5% EIA number was added in direct response to comments from the USEPA on Tentative Order R9-2008-001, however USEPA, in several statements made by Dr. Cindy Lin at the November 14, 2008 CASQA General Meeting, suggested that the 5% EIA metric should only be considered as an example and that USEPA is open to consideration of other metrics for LID. It is unclear whether the language in the Tentative Updates and Errata document released on May 5th replaces and removes the 5% EIA metric from the Tentative Order or if the language is in addition to the 5% EIA metric. In addition the new language from the Tentative Updates and Errata document released on May 5th should be based on the 85th percentile storm event runoff volume.

  It is recommended that the current language of the Draft North Orange County permit be substituted.

Construction Component

- **Permit Fees**
  Since the previous comments on this issue were not addressed in the Regional Board's two Response to Comments documents, the comments are being resubmitted.

  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.

  Since there is some discretion in how the Regional Water Board addresses these fees, the Permittees request that their municipal stormwater fees cover all municipal activities including construction and that they not be held liable for additional fees when submitting NOIs.

- **BMP Implementation** (Section F.2.d, Page 46-47)
  The previous comments on this issue made by the Permittees were not addressed in the Regional Board's two Response to Comments documents, and are therefore resubmitted.

Section F.2.d.(1)(a)(ii) requires the development and implementation of a site-specific stormwater management plan. To make the language consistent with the changes made to Section F.2.c.2 (Page 46), the County suggests the following change:

(ii) Development and implementation of a site-specific ~~stormwater management plan~~ erosion and sediment control plan (or equivalent BMP plan);

Section F.2.d.(1)(c)(i) (Page 48) 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 Fact Sheet provides no justification for this requirement. The newly released draft Statewide Construction General Stormwater Permit identifies the Active Treatment System (ATS) as an advanced sediment treatment technology. The ATS prevents or reduces the release of fine particles from construction sites by employing chemical coagulation, chemical flocculation, or electrocoagulation to aid in the reduction of turbidity caused by fine suspended sediment. The recently released (April 2009) Draft Construction General Stormwater Permit does not require use of ATS but identifies it as an available BMP. However, that permit acknowledges that the ATS is a newly emerging technology in California.

The provisions requiring the use of ATS should be deleted from this permit, and the selection of BMPs for construction operations, especially an ATS, should be done under the aegis of the Statewide Construction General Stormwater Permit.

- **Construction Reporting of Non-compliant Sites** (Section F.2.g.(2), Page 50)
  This new provision requires that each Permittee must annually notify the Regional Board of all construction sites with potential violations prior to the commencement of the wet season. This reporting requirement should be limited to the sites meeting the criteria specified in F.2.e.1 that are required to be inspected in August and September of each year.

  The County recommends the following modifications.

  Each Copermittee shall annual notify the Regional Board, prior to the commencement of the wet season, of all construction sites inspected in accordance with F.2.e.4 that meet the criteria specified in F.2.e.1, with potential violations. ..."

Municipal

- **Flood Control Structures** (Section F.3.a.(4)(c), Page 53)
  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. This provision is problematic for several reasons as described below.

  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 language should be modified so that it is aligned with the current stormwater permit, recognizes the work that has been completed, is consistent with the intent of the federal regulations, and is consistent with the justification within the Fact Sheet. The proposed language modification is as follows:

> (4). BMP Implementation for Flood Control Structures
> (c) Each Permittee 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 measures to reduce or eliminate the structure's effect on pollution,~~ as needed 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. The ~~inventory and~~ updated evaluation must be completed by July 1, 200~~8~~10 and submitted to the Regional Board with the Fall 200~~8~~10 annual report.

- **Infiltration from Sanitary Sewer to MS4** (Section F.3.a.(7), Page 54)
  Although the first portion of the Tentative Order provision (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 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 permit[13], these provisions are an unnecessary duplication of other regulatory programs. 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). Therefore we submit 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.

[13] 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).

The proposed changes include:

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

- **Commercial Sites/Sources** (Section F.3.b.(1)(a)(i), Page 57)
  The Tentative Order added four new categories of commercial sites/sources: food markets, building material retailers and storage, animal facilities, and power washing services. The Fact Sheet notes that these facilities were added because these activities were identified as potentially significant sources of pollutants in annual reports.
  While we agree that sites/sources that are identified by the Permittees as contributing a significant pollutant load to the MS4 should be incorporated into the inventory, we disagree with adding them to the list in the Tentative Order unless universally identified, by all the Permittees as a significant source.

  The determinations of significance need to be made at a local level and incorporated into the local JURMP. As noted in the Regional Board's first response to comments document in discussing the balance of flexibility and enforceable criteria:

  "... the Tentative Order sets numeric criteria regarding commercial inspections, but relies on each Copermittee to select inspection targets based on its local knowledge."

  It is important that these determinations be made at a local level and if identified as a common problem, then apply the requirement applied countywide, otherwise the Board staff may inadvertently be diverting resources from high priority issues to lower priority issues in some areas.

  The new categories should be deleted from the Tentative Order and, instead, recognize that those sites/sources have been locally determined to contribute a significant pollutant load to the MS4 be should be incorporated into the local JURMP(s).

- **Mobile Businesses** (Section F.3.b(3)(a), Page 59)
  The Tentative Order adds a new requirement to develop and implement a program to address discharges from mobile businesses. The program must include the identification of BMPs for the mobile business, development of an enforcement strategy, a notification effort, the development of an outreach and education program, and inspection as needed.

In our previous comment letter we noted the difficulties associated with initiating 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.

- **Inspection of Industrial and Commercial Sites/Sources** (Section F.3.b(4)(b), Page 60)

  This new provision requires that each Permittee must annually notify the Regional Board of all commercial and industrial sites/sources with potential violations prior to the commencement of the wet season. Similar to the new requirement for inspecting and reporting non-compliant construction sites, this requirement is ambiguous and subject to potential misinterpretation because Permittees do not inspect all commercial and industrial sites/sources each year.

  This reporting requirement should be revised so that it does not imply an expansion of the inspection frequency or change in inspection timing than that identified in the subsequent findings and JURMPs.

  Each Permittee shall annual notify the Regional Board, prior to the commencement of the wet season, of ~~all~~ the Industrial Sites and Industrial Facilities subject to the General Industrial Permit or other individual NPDES permit with potential violations that were inspected within the preceding 6 months."

- **Food Facility Inspections** (Section F.3.b.(4)(d), Page 61)

  The Permittees appreciate the elimination of the proposed expanded requirement to address maintenance of greasy roof vents. As noted in our April 2007 comments, the existing Food Facility Inspection program, which focuses on the major water-quality related issues associated with restaurants including disposal methods for food wastes, fats, oils and greases, wash water, dumpster management and floor mat cleaning has be shown to be effective. The Permittees submit that the additional expanded requirement, (c)(iv) identification of outdoor sewer and MS4 connections, either be deleted from the Tentative Order or the subject of further technical justification of its need for this successful program element.

- **Third Party Inspections** (Section F.3.b(4)(e), Page 61)

  The previous comment on this issue was not addressed in the Regional Board's two Response to Comments documents, and is therefore resubmitted. The Tentative Order includes new, prescriptive requirements for third party inspections that provide a significant amount of detail as to how the inspection program must be managed. However, the Findings and the Fact Sheet do not address the need for these expanded requirements or provide any rationale as to how these new requirements would make the third-party inspection program more effective.

In fact, this level of detail should be determined locally and should be included as a part of the program within the model DAMP and local JURMPs. After the inclusion of the industrial and commercial inspection programs in the third term permit, the Permittees determined that they could leverage their resources by utilizing and expanding upon existing inspection programs to assist them in complying with the permit instead of creating duplicative inspection programs. The ability to utilize third-party inspections as an effective part of the program, has allowed the Permittees to maximize their resources. An example of a third party inspection program that has been developed and implemented is the use of the Orange County Health Care Agency (OCHCA) inspectors to assist the Permittees in inspecting 10,000 restaurants countywide on an annual basis. The Permittees have developed this program in conjunction with OCHCA so that it is only an incremental burden on their limited resources, effective, and allows for clear communication between the inspectors and the Permittees.

Since the Permittees have already developed an effective framework for a third-party inspection program, provisions (i)(a) through (i)(d) are unnecessary and should be deleted from the Tentative Order.

- **Retrofit Existing Development** (Section F.3.d, Pages 65-66)
  This new provision requires that each Permittee must implement a retrofitting program for existing developments (i.e. municipal, industrial, commercial, residential). These new requirements present a significant change and present a substantial burden to the municipal stormwater program.

  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 in the supplemental fact sheet that "Retrofitting existing development is practicable for a municipality..." The Permittees request that the Regional Board provide a technical justification for this statement. 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. The Permittees therefore request that this unprecedented requirement be eliminated from the permit.

ID/IC Program

- **Investigation/Inspection and Follow Up** (Section D.4.e(2)(b) and (c), Page 68-69)

  The County appreciates the acknowledgement of the concern in the Regional Board's first Response to Comments document regarding the intent of the permit language.

However the language of the Tentative Order was not altered to match the Regional Board's stated intent that the investigation must be initiated within the specified timeframe. The requirements in the Tentative Order are that the Permittees must conduct the investigation within the specified time frame.

The following language changes are requested within the Tentative Order to better meet the intent of this requirement as stated by the Regional Board.

(b) Field screen data: Within two business days of receiving dry weather field screening results that exceed action levels, the Permittees must either ~~conduct~~ 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.

(c) Analytical data: Within two business days of receiving analytical laboratory results the exceed action levels, the Permittees must either ~~conduct~~ 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.

Watershed Urban Runoff Management Program (Section G, Page 70)
The Tentative Order includes increasingly prescriptive requirements for the Watershed Urban Runoff Management Program (WURMP). The Fact Sheet states that the increased prescriptiveness for the WURMP provision was necessary because enforceability of the permit has been a critical aspect. The Fact Sheet further states that:

> "For example, the watershed requirements of Order No. R9-2002-01 were some of the Order's most flexible requirements. This lack of specificity in the watershed requirements resulted in inefficient watershed compliance efforts. This situation reflects a common outcome of flexible permit language. Such language can be unclear and unenforceable, and it can lead to implementation of inadequate programs[14]."

Not only do the Permittees take strong exception to this statement, but the Fact Sheet is inconsistent with the Findings, which simply state that the WURMPs need to focus on the high priority water quality issues. In addition, the Fact Sheet does not acknowledge any of the notable Permittee successes including 1) the development of a South Orange County Integrated Regional Watershed Management Plan (IRWMP), which resulted in a $25 million IRWMP competitive grant award, (2) the 303(d) de-listing efforts that are ongoing and have been submitted for consideration; and 3) the efforts of the County of Orange and major landowners, such as Rancho Mission Viejo to put in place a comprehensive watershed land use/open space strategy for the San Juan Creek Watershed/Western San Mateo Watershed through the approved Southern Subregion Habitat Conservation Plan (HCP) and Special Area Management Plan (SAMP) both of which include water quality/quantity management as an integral component.

[14] Fact Sheet/Technical report for Tentative Order No. R9-2007-0002, page 10

The Permittees submit that the increased prescriptiveness of the Tentative Order is unwarranted and antithetical to a watershed management approach, which should be founded on a stakeholder driven process. Successful watershed-based programs follow a stakeholder driven process and are developed from the "bottom-up" not from the "top-down". The Permittees must be given latitude in how the watershed-based programs are developed and implemented, especially since many of the pollutants of concern (Cu, Zn, pesticides, pathogen indicators, etc.) and issues are the same within and among watersheds.

The language must be modified to provide the flexibility that is necessary within a watershed management program (similar to the language in Order No. R9-2002-0001) and, instead, focus on the major objectives for the program. Some language changes that would assist the Board in making these changes are provided below.

- **Lead Watershed Permittee** (Section G.1.a, Page 71)
  The Tentative Order has designated which entity within the watershed should be the default lead Permittee and what those responsibilities entail. The Permittees contend that this level of detail is inappropriate for a permit provision and should, instead, be a collaborative decision that is made among the various watershed stakeholders based on locally determined criteria and needs.

  The Permittees propose that the language be modified as follows:

  a. Lead Watershed Permittee Identification
     Watershed Permittees ~~may~~ must identify the Lead Watershed Permittee for their WMA. ~~In the event that a Lead Watershed Permittee is not selected and identified by the Watershed Permittees, by default the Permittee identified in Table 3 as the Lead Watershed Permittee for that WMA must be responsible for implementing the requirements of the Lead Watershed Permittee in that WMA.~~ The Lead Watershed Permittees ~~must~~ will serve as liaisons between the Permittees and Regional Board, where appropriate.

- **BMP Implementation and Assessment** (Section G.1.e, Page 74)
  The Tentative Order requires an arbitrary minimum number of watershed activities to occur in each year. The Fact Sheet states that the Permittees have completed the assessments, prioritization, and collaboration and now need to implement the activities identified.

  While the Permittees agree that there are activities that will be undertaken in conformance with the WURMP, the Tentative Order should not presuppose that the Permittees will not follow through with implementation of the WUMRPs now they have been developed. Since this requirement is unfounded, onerous, arbitrary, and dictates a top-down approach for managing the watersheds, the language should be modified to incorporate the flexibility necessary for the stakeholders to identify the BMPs to be implemented and the details of that implementation.

  The Tentative Order language should be modified to remove the prescriptive detail and incorporate more flexible language that will ensure that the WURMPs contain performance standards, timeframes for implementation, responsible parties and methods for measuring the effectiveness of their programs.

Fiscal Analysis (Section H, Page 78)
Section F of the Tentative Order requires the Permittees to secure the resources necessary to implement the permit, conduct a fiscal analysis of the stormwater program, and develop a long-term funding strategy and business plan. While the Permittees agree with Board staff that there is an identified need to prepare a fiscal reporting strategy to better define the expenditure and budget line items and to reduce the variability in the reported program costs and have committed to do such in the ROWD, the Permittees take exception to the requirement to develop a long-term funding strategy and business plan. The concerns for these new requirements are discussed in further detail below.

- Long Term Funding Strategy and Business Plan (Section H.3, Page 78)

The Tentative Order requires that each Permittee submit a funding business plan that identifies the long-term strategy for program funding decisions. The Fact Sheet states that this requirement is based on the need to improve the long-term viability of the program and is based on the 2006 *Guidance for Municipal Stormwater Funding* from the National Association of Flood and Stormwater Management Agencies (NAFSMA). The Fact Sheet further indicates that, without a clear plan, that the Board has uncertainty regarding the implementation of the program.

The Permittees have a demonstrated history of compliance and leadership in developing, implementing and adequately funding the stormwater program. Regardless of the source of funds, a historical review of the expenditures to date provide undisputable evidence that the Permittees are dedicated to the program, plan their budgets accordingly, and have adequately funded the program for the past 16 years. In our previous comments we provided a historical review of the shared and individual costs of program implementation that demonstrates the commitment of the Permittees to funding the program. It is an unnecessary diversion of the Permittees resources to invest in the development of a new tool for a program component that has been successfully met for 16 years.

The Regional Board staff relies on the 2006 NAFSMA *Guidance for Municipal Stormwater Funding* to justify this new requirement. We note that this national guidance document was developed to provide a resource to local governments as they address stormwater program financing challenges and primarily focuses on the considerations and requirements for developing a service/user/utility fee. While the guidance document states that the most "successful" programs have developed a business plan, such guidance is not a one size fits all approach, and in light of the history of the Orange County Program it is not warranted and should be removed from the permit.

- **TMDLs** (Section I, Page 79)
This new provision supports Finding E.12 and identifies that adopted TMDL WLAs will be incorporated as numeric effluent limits for specific pollutants and watersheds.

As noted previously in these comments (see comments on Finding E12), the County has significant reservations about the use of either Clean Up and Abatement Orders (as indicated in the TO) or Cease and Desist Orders (as indicated in the supplemental Tentative Fact Sheet) as the means by which to incorporate forthcoming TMDL WLAs into the MS4 permit. The Permittees request an explanation as to why the Regional Water Board plans to use these two types of enforcement tools to specify TMDL requirements.

Also as noted previously, the Permittees are concerned that it appears the Regional Board plans to incorporate WLAs as numeric effluent limits in the stormwater 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."

It does not appear that the Regional Board has consider 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.

Program Effectiveness Assessment (Section J, Page 79)

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

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, the existing Orange County program effectiveness assessment framework and metrics, or the recommendations within the ROWD (Section 1.2.2). In addition, the Tentative Order also requires that each Permittee conduct their own assessments including integrated assessments, which are more effective on a regional scale and over a longer timeframe. As written, this section of the Tentative Order 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 functionally update their long-term effectiveness assessment approach. The updated approach would build on the existing framework that has been utilized within the County for the past four years as well as the CASQA Municipal Stormwater Program Effectiveness Assessment Guidance Document, May 2007, and would assess the jurisdictional, countywide, and watershed-based elements of the stormwater program. The long-term strategy would include the purpose, objectives, and methods for the assessments and achieve the Regional Water Board staff objectives.

The proposed language, which is provided below, would replace J.1. and J.2. of the Tentative Order and is based on the current permit requirements.

The proposed language is:

a. As part of its individual JURMP, each Permittee shall update their long-term strategy for assessing the effectiveness of its individual Jurisdictional URMP based on lessons learned from the existing program framework and available guidance. The long-term assessment strategy shall identify the purpose, objectives, methods and specific direct and indirect measurements that each Permittee will use to track the long-term progress of its individual Jurisdictional URMP towards achieving improvements in receiving water quality. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.

b. As part of its individual Jurisdictional URMP Annual Report, each Permittee shall include an assessment of the effectiveness of its Jurisdictional URMP using the direct and indirect assessment measurements and methods developed in its long-term assessment strategy. The updated long-term strategy shall be submitted within 365 days after adoption of the permit.

c. Long-term strategy for assessing the effectiveness of the Watershed URMP. As part of the WURMPs, the watershed Permittees shall update their long-term strategy for assessing the effectiveness of the WURMPs based on lessons learned from the existing program framework and available guidance. The long-term assessment strategy shall identify the purpose, objectives, methods and specific direct and indirect performance measurements that will track the long-term progress of Watershed URMP towards achieving improvements in receiving water quality impacted by urban runoff discharges. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment. The updated long-term strategy shall be submitted within 365 days after adoption of the permit.

Reporting (Section K, Pages 83-85, and Section G, Page76)

The previous comments on this issue made by the Permittees were not addressed in the Regional Board's two Response to Comments documents, and are therefore resubmitted. Section H of the Tentative Order requires the Permittees to submit the following reports:

- Individual and Unified JURMP annual reports - September 30 of each year (July 1 – June 30)
- Individual and Unified WURMP annual reports - January 31 of each year (July 1 – June 30)

Although the Permittees understand that the Tentative Order included these changes to allow for a longer time period between the two sets of submittals, the Permittees would receive more benefit from keeping the two timelines for the submittals aligned. As such, the language should be revised so that the JURMPs and WURMPs are submitted January 31 of each year. This will allow the Permittees to assess their stormwater program and water quality monitoring program and conduct an integrated assessment to identify water quality improvements.

Section G.4. requires that the Permittees submit the Aliso Creek WURMP annual report by March 1 of each year for the period January – December of the previous 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 submittal date for the Aliso Creek WURMP annual report should be modified to be aligned with the other WURMP submittals. The proposed language modification is as follows:

4. Aliso Creek Watershed RMP Provisions
   b. Each Copermittee must provide annual reports by ~~March 1~~ January 31 of each year beginning in 200~~8~~9 for the preceding annual period of ~~January~~ July 1 through ~~December~~ June 30…

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").

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

GENERAL COMMENT

"monitoring is most useful when it results in more effective management decisions, specifically management decisions that protect or rehabilitate the environment." (NAS, 1991)

In 2002 and 2003, the Permittees completed development of the San Diego Region Receiving Waters Monitoring and Reporting Program and the San Diego Region Dry-Weather Monitoring Program for wet and dry weather, respectively. Compared to prior monitoring efforts (pre NPDES, First and Second Permit Term Programs), the Third Permit Term monitoring program comprised a wider array of methods and a broader range of locations intended to effectively support the development and implementation of the Drainage Area Management Plan (DAMP). The specific comments provided below are intended to ensure that any changes to environmental monitoring requirements are based on careful strategic assessments of the current effort to ensure that revisions ultimately continue to most effectively support DAMP implementation. Also, at a time of unprecedented fiscal challenge there can be no required commitment of additional resources to environmental monitoring. Any new monitoring requirements will require offsetting and compensatory reductions in existing monitoring obligations.

SPECIFIC COMMENTS

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 limit the length of time that sampling teams can spend in the field and do not allow sampling of some episodic events. 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. Mass Emissions monitoring of stormwater runoff can occur on weekends and holidays when contract laboratory services are not available. Most importantly, monitoring bacteriological quality of stormwater at Mass Emissions site will not produce useful information since 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.

Proposed Modification:

Exempt monitoring of bacteriological quality at Bioassessment sites and during stormwater events at Mass Emissions sites.

Monitoring for oil and grease concentration will not detect lighter petroleum fractions such as gasoline and diesel. Oil and grease has rarely been detected in 5 years of monitoring in the Dry Weather Reconnaissance Monitoring Program.

Proposed modification:

Collect a grab sample for oil and grease during stormwater runoff monitoring at Mass Emissions and Ambient Coastal Receiving Water sites. Collect a grab sample for total petroleum hydrocarbons whenever a sheen is observed.

II.A.2.b. Urban Stream Bioassessment Monitoring Frequency [page 7]

A Stormwater Monitoring Coalition (SMC) review of Bioassessment data collected in Southern California has shown that at sites where flow is year-round there is no statistical difference in IBI scores between the spring and fall seasons.

Proposed Modification:

Modify the sampling frequency for Bioassessment to once a year.

II.A.2.b(1) Urban Stream Bioassessment Monitoring - Alternative Frequency Plan/Special Studies [page 8]

The waiver of a single, annual Bioassessment monitoring event to alternatively conduct a study on the effects of PHAB modification on WARM, WILD, and/or COLD beneficial uses of inland receiving waters would not constitute a quid quo pro exchange of resources. The special study would be much more costly

Proposed modification:

The Regional Board should offer a more equitable option for alternative monitoring. One option could be reallocation of saved resources from a once-per-year sampling frequency (proposed above) to a collaborative SMC study on the effects of PHAB modification.

II.A.5.c(2) Coastal Stormdrain Monitoring – Special Investigation Stations [page 13]

It is unclear why the Pearl Street drain is included in the list of priority drains for special investigations. In the latest PEA submittal, Figures C-11.16b and C-11.16c show that none of the 51 samples collected from the surfzone near the drain outlet contained concentrations of indicator bacteria above the AB-411 single sample standards.

Proposed Modification:

Remove special study requirement for the PEARL street drain.

The requirement that all special investigations be concluded by June 30, 2011 does not provide adequate time for determining if conditions in receiving waters are protective, or likely to be protective, of beneficial uses (I.B, Question 1). In order to answer Question 1 sufficiently, an epidemiological study must be conducted. The Doheny State Beach epidemiology study has shown that these methods are quite expensive and require a significant commitment of resources. Question 4 will be best answered when the methods of Microbial Source Tracking are more refined. Extending the reporting period for the special investigations will provide a better basis to address the Regional Board's concern about sources of bacteria and impacts on beneficial uses.

Proposed modification:

Modify the reporting requirements to allow for a phased reporting schedule such as:

- Annual Reports
  - Assess quality of receiving waters relative to AB-411 criteria (Q1)
  - Evaluate spatial extent of runoff influence on surfzone (Q2)
  - Trend Analysis (Q5)
  - Evaluate runoff contribution to bacterial concentrations in the surfzone (Q3)
- Report of Waste Discharge
  - Results of MST studies if methods have been adopted by the SMC (Q4)
  - Results of epidemiological studies if significant impacts have persisted beyond year 3 and natural uncontrollable sources have not been identified.

II.A.6.b High Priority Inland Aquatic Habitats [page 14]

The requirement that the new Inland Aquatic Habitat monitoring program be implemented by the beginning of the rainy season 2010 does not provide adequate time to develop this new monitoring program nor reallocate staff resources from the existing monitoring program. Furthermore, Regional Board staff must recognize that any increase in any specific element of the monitoring effort will need to be offset by strategically considered compensatory reductions in other elements.