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May 29, 2008

Ms. Tracy Egoscue
Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

**Re: Third Draft Ventura County Municipal Separate Storm Sewer System Permit,
dated April 29, 2008 (NPDES Permit No. CAS004002)**

Dear Ms. Egoscue:

On behalf of Heal the Bay, we submit the following comments on the April 29, 2008, Third Draft Ventura County Municipal Separate Storm Sewer System Permit (“Third Draft” or “Permit”), NPDES Permit No. CAS004002. We submit these comments to address important areas in which the Permit must be strengthened to best resolve Ventura County’s water quality problems. We also incorporate by reference the October 15, 2007 letter submitted to the Regional Board by Heal the Bay and NRDC.

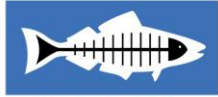
Our comments concern five areas within the Permit: (1) performance criteria for best management practices (“BMPs”); (2) municipal action levels; (3) TMDL waste load allocations (4) low impact development; and (5) monitoring requirements. We believe that the Permit can be – and needs to be – revised as we have described in order to meet the Clean Water Act’s NPDES standards. These concerns are described in detail below.

I. Performance Criteria

The Draft Permit’s performance-based criteria should be revised to reflect effluent performance that will benefit water quality.

One of the most significant shortcomings in previous stormwater permits and municipal stormwater management programs is the lack of performance-based criteria for BMPs. As a result, BMPs are added as part of SUSMP requirements or pollution abatement efforts without any focus on the quality of the water exiting the BMPs. One of the most effective ways to ensure the success of stormwater programs and the attainment of water quality standards is to require performance-based criteria. Appropriately, the Third Draft Permit includes a provision that requires treatment control BMPs be designed to meet specified performance criteria. While we applaud the Regional Board for introducing performance-based criteria into the Draft Permit, we are extremely concerned by the performance ranges established in the permit.

After conversations with Regional Board staff, it is our understanding that the Regional Board selected the median performance as the lower bound of the range and chose the upper boundary of the 95% confidence interval around the mean as the upper bound. This approach does not



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achieve the desired effect of moving the County towards improving water quality by designing BMPs to meet at least the upper half of performance based on the EPA/ASCE database. There is no basis for allowing BMPs to be installed that perform worse than the median value for a specific BMP. In fact, this would be a major step backwards in water quality. Instead, the Regional Board should look at the distribution of BMP effluent quality performance values that we provided in our previous comments.

As submitted previously, the recent Geosyntec analysis of the ASCE/EPA stormwater BMP database (summary tables are included as Exhibit 1) paves the way for the development of scientifically sound water quality performance criteria. This analysis contains effluent concentration percentiles for certain pollutant parameters and BMPs. The Board should require that BMPs installed at new development and redevelopment projects covered under the SUSMP provision to perform as well or better than 75% of the BMPs within a BMP and pollutant category as listed in the ASCE/EPA database table provided. The Board should require that BMPs in sub-watersheds that have no demonstrated water quality impairments (i.e., not on the 303(d) list as impaired) or that are not on the list of SUSMP development categories meet *at least* the 50th percentile performance (median) for the term of this permit. No discharger can reasonably refute that it should have to meet median BMP performance criteria. Thus, we urge the Regional Board to make these necessary changes in the Draft Permit.

Obviously, this proposal concentrates on BMP performance and should be accompanied by a design storm component as well in order to provide certainty to the regulated community on how to apply the design criteria. Since this is a new concept, we believe that the SUSMP standards that have been used for a decade in local stormwater permits should apply. The 85th percentile storm standard in SUSMP should be used (the 85th percentile runoff event with 0.2 inches per hour intensity). However, in order to move toward attaining water quality standards, a larger design storm, such as the two or five-year storm, may be necessary.¹

¹ Our recommendations are as follows. Volume-Based Post-Construction Structural or Treatment Control BMPs shall be designed to mitigate (infiltrate or treat) stormwater runoff from: (1) the volume of annual runoff based on unit basin storage water quality volume, to achieve 80% or more volume treatment by the method recommended in the California Stormwater Best Management Practices Handbook – Industrial/ Commercial (1993), the Ventura Countywide Stormwater Quality Management Program Land Development Guidelines; (2) the 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87 (1998); (3) the volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system; or (4) the volume of runoff produced from a historical record-based reference 24-hour rainfall criterion for “treatment” that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event. Flow-Based Post-Construction Structural or Treatment Control BMPs shall be sized to handle the flow generated from either: (1) a rain event equal to at least 0.2 inches per hour intensity; or (2) a rain event equal to at least two times the 85th percentile hourly rainfall intensity for Ventura County.



II. Municipal Action Levels (“MALs”)

The MALs provided in the Permit are seriously flawed and should be either completely revised or removed.

The Third Draft includes municipal action levels (“MALs”) that were calculated using nationwide Phase I MS4 monitoring data. The Clean Water Act requires municipal dischargers to reduce stormwater pollution to the Maximum Extent Practicable (“MEP”), a standard that continually evolves and improves as better technologies become available and are demonstrated to be effective. In the Third Draft, the Board is using the MALs to represent MEP numerically. While we agree that MALs can be useful as interpretations of the MEP standard, the values presented in the Third Draft are completely inappropriate and in no shape or form represent MEP.

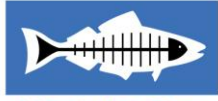
Although MALs are not intended to reflect water quality standards, the comparison to California Toxics Rule (“CTR”) criteria brings to light flaws with the proposed values. As shown in the following table, the proposed copper, lead, and zinc MALs are significantly less stringent than CTR criteria. For instance, the lead MAL is *fourteen times* less stringent than the CTR chronic criterion. Discrepancies of this magnitude are not substantiated.

Parameter	Proposed MAL (ug/L)	CTR Acute Criterion(ug/L)	CTR Chronic Criterion(ug/L)
Total Cu	70.7	13.5	9.38
Total Pb	62.2	82.17-110	3.16-4.24
Total Ni	19.2	470.9	52.16
Total Zn	756	122.7	121.7

Table 1: Comparison of proposed MAL values and CTR criteria

More important, a comparison of the MALs to actual BMP performance data shows that the MALs are flawed and that they do not represent the MEP standard. The attached tables (Exhibit 1) were taken from an analysis by Geosyntec Consultants of the ASCE/EPA BMP database.² The comparison of the proposed MALs to demonstrated BMP effluent water quality clearly indicates that the MALs are set to reflect relatively poor BMP performance, not average or “best” practicable performance, as specifically required by the Clean Water Act’s MEP standard. For instance, the proposed MAL for total copper is 70.7 ug/L, while over 95% of the hydrodynamic devices in the database achieve at least 38.55 ug/L total copper. The median

² The Geosyntec study was an internally funded document on BMP performance. Heal the Bay’s use of this information does not imply any agreement or disagreement by Geosyntec with the conclusions advanced by Heal the Bay.



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performance is 15.41 ug/L. As another example, the MAL for zinc is 756 ug/L, while even the worst 5% of biofilter BMPs achieve 181.28 ug/L. The median performance is 30.26 ug/L.

In other words, almost all of the BMPs that were monitored achieved better effluent water quality than the proposed MAL in these cases, and the median performance is vastly superior to the MAL value. This discrepancy between the proposed MALs and demonstrated BMP performance cannot be justified given that MALs are defined to reflect and interpret MEP. The data set forth above show that, presently, MALs actually represent a Lowest Extent Practicable (“LEP”) standard in many instances. Dischargers can “practicably” achieve significantly higher effluent quality than the MAL values suggest. Moreover, the inadequate MALs are weakened even further by the Permit’s allowance for exceedances of the MAL values up to 20% of the time.

The MAL concept has great potential as an expression of MEP. Staff should be supported and encouraged in their efforts to better define MEP. MALs should furthermore be retained in the final Permit, but they must be strengthened to reflect good science and existing technical achievement in this region and the rest of the country. The Board could use as its reference point the water quality achieved by the top 10% of MS4 programs in the U.S. Alternatively, the Board could utilize the Geosyntec analysis of BMP performance to develop appropriate MALs.

III. TMDLs

The Permit must include numeric effluent limits based on waste load allocations (“WLAs”) and required implementation actions for all TMDLs in effect in Ventura County.

In general the Total Maximum Daily Load Provisions in the Third Draft are much improved from the last draft. Appropriately, the Regional Board includes Waste Load Allocations and required implementation schedule actions for most TMDLs that are in effect in Ventura County. Federal law clearly commands that the Board integrate already adopted TMDLs into the effluent limitations of appropriate NPDES permits. Specifically, federal regulations require that:

Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.³

Further, implementation schedules actions must be included in the Permit, as they are vital steps in ensuring that dischargers are on-track for ultimate compliance with the waste load allocations.

However, the Permit fails to include WLAs for three TMDLs in effect in Ventura County: Calleguas Creek Nitrogen TMDL (in effect July 13, 2003), Santa Clara River Chloride TMDL (in effect May 4, 2005), and Malibu Creek Nutrients TMDL (in effect March 22, 2003). In conversations with Regional Board staff, it appears that chlorides in Santa Clara and nutrients in Calleguas Creek are primarily attributed to POTWs and thus were excluded from the Draft

³ 40 CFR § 122.44(d)(1)(vii)(B).



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Permit. However, the Santa Clara River Chloride TMDL includes a WLA for “other NPDES” permittees. This should be considered for inclusion in the Draft Permit. The absence of the Malibu Creek TMDL WLAs in the permit is particularly troublesome, as stormwater is a large source of nutrients to the Creek. High nutrient concentrations and eutrophication problems continue to plague the Malibu Creek watershed, yet the Regional Board has not included nutrient WLAs, LAs or effluent limits in any permits to date despite the fact that the TMDL was approved over five years ago. Thus, the Board must modify the Permit to include these numeric WLAs in the Ventura MS4 permit.

In addition, there are two TMDLs that have been adopted by the Board but are not in effect as of the date of this letter: the Calleguas Creek Watershed Salts TMDL and the Harbor Beaches of Ventura County Bacteria TMDL. The WLAs and implementation actions in these TMDLs should be included in the Permit, if they come into effect before the Board hearing to consider this item. As these and other future TMDLs come into effect, the Board should incorporate the appropriate WLAs into the MS4 Permit.

The Permit must clearly state that numeric effluent limits based on waste load allocations are enforceable.

The Draft Permit appears to state that an exceedance of a WLA may not be enforced upon:

“If any WLA is exceeded at a compliance monitoring site, permittees shall implement BMPs in accordance with the MS4 Effluent Quality and Source Identification Workplans. Following these actions, the Regional Water Board staff will evaluate the need for further enforcement action.”⁴

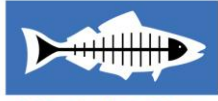
The implementation of a workplan does not constitute an enforcement action. A WLA must be met for purposes of water quality standards attainment and is an enforceable limit. Thus, the Permit must clarify that any exceedance of a WLA is a violation and will be enforced.

Miscellaneous

- The zero trash WLA for Revolon Slough and Beardsley Wash and Ventura River Estuary is appropriately included in the Permit. However the Draft Permit should also include the trash reduction milestones. For instance, a 20 percent trash reduction from baseline is required at year four.
- There appears to be a typographical error for the Arroyo Simi 4,4-DDD Interim WLA in Table 11. The Basin Plan Amendment assigns a limit of 14 ng/g, not 140 ng/g.
- WLAs for nitrogen compounds in Reach 7 of the Santa Clara River are not included in the Draft Permit. Is Reach 7 within Ventura County? If so, this WLA should be included in the Draft Permit.

IV. Low Impact Development

⁴ Third Draft Permit at 83-90.



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As discussed in our previous comment submissions, research has shown low impact development (“LID”) to be the most effective and cost-efficient means of managing stormwater and abating water pollution. Further, LID has multiple benefits and is entirely feasible in Ventura County. In order for the LID provisions in the Third Draft to lead to water quality standards attainment, a numeric sizing criterion must be applied to the EIA standard and RPAMPs and other alternate programs must be held to the same standards as individual projects. These concerns are discussed in further detail below. We also strongly support the May 29, 2008 comments on the Third Draft submitted by NRDC and incorporate them, herein, by reference.

As written, the Draft Permit includes an Effective Impervious Area (“EIA”) standard and no numeric sizing criterion. Without a numeric sizing criterion, developers could fulfill the permit’s EIA standard by installing an inadequately sized LID feature that would overflow to the storm sewer system with minimal infiltration or capture. Thus, it is essential that the Permit include a sizing criterion. We urge the Board to use the 85th percentile storm standard from SUSMP (the 85th percentile runoff event with 0.2 inches per hour intensity).

Provisions 5.E.IV.4(a)-(b) allow for approval of a “regional or sub-regional storm water mitigation program to substitute in part or wholly for on-site post-construction requirements.” Provisions 5.E.IV.4(c)-(f) establish the option of submitting a Redevelopment Project Area Master Plan (“RPAMP”) to the Regional Board. The result of implementing alternative programs should be to achieve the same pollution reduction, hydromodification, and other goals as individual regulated projects, and the specific, numeric targets imposed on individual regulated projects should be imposed on alternative programs. However, the Draft Permit does not include these necessary requirements. Thus, the Regional Board should modify the Draft Permit to specify that projects covered by alternative programs must meet the Permit’s EIA and hydromodification standards. This would address developers’ concerns that particular sites may be unable to achieve these standards, and it would allow developers and municipalities flexibility in crafting stormwater mitigation programs that encompass multiple sites. At the same time, this would ensure that the alternative compliance options do not enable areas covered by an alternative stormwater mitigation program to discharge greater quantities of pollution and higher volumes/peak flows than other regulated projects. Also it is critical that the Regional Board specify that the RPAMP should be contained in the same subdrainage area of the project in order to reduce overall stormwater volume and loading to a tributary of a watershed.

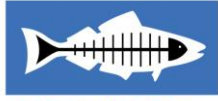
In order to ensure that an adequate RPAMP is approved in a timely manner, the RPAMP should be available for a 30-day public review and it should be approved or disapproved by the Executive Officer within 90 days.

V. Monitoring

The Permit’s monitoring program must be adequate to determine compliance with the Permit’s requirements.

The Clean Water Act requires that a Permittee undertake a self-monitoring program sufficient to determine compliance with its NPDES permit.⁵ This general requirement is reflected in the

⁵ See 40 C.F.R. § 122.44(i)(1).



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Third Draft, which lists one of its monitoring goals as assessing “... compliance with effluent limitations and water quality objectives.”⁶ As written, the Permit is adequate to determine compliance with water quality standards, but clarifications of the program must be provided.

The Draft Permit requires monitoring at “the end-of-pipe of major outfalls” four times per year. According to the Draft Permit, a major outfall is defined as “a major municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent....” Does the Regional Board expect that every outfall that is 36 inches or greater in diameter be monitored? This is how the current Draft Permit reads. If not, the Regional Board must specify in the Permit those outfalls that will be monitored. This is extremely important to ensure that appropriate land-use categories are monitored and to be able to determine which MS4 is causing or contributing to a water quality objective exceedance. Furthermore, it is extremely difficult to make relevant comments on this core monitoring program without knowing the specific locations of the monitoring sites and other monitoring programs currently in place. At a minimum, the Board should provide requirements for the discharger to use in selecting the specific discharges that are monitored. For instance, drainages carrying stormwater from commercial, industrial, and high-use transportation should be prioritized. Of note, the first draft of the Permit included a tributary monitoring program to identify sub-watersheds where stormwater dischargers are causing or contributing to exceedances of water quality objectives; the major outfall monitoring program must now serve this purpose as the tributary monitoring is no longer included as an element in the core monitoring program.

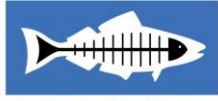
The Total Maximum Daily Load Monitoring section of the Draft Permit simply refers back to the monitoring plans that have been “agreed upon” by stakeholders. Again, this ambiguity makes review of the overall scope of the Draft Permit’s monitoring program in conjunction with the TMDL monitoring plans extremely difficult as the monitoring provisions are not described in the permit itself. It is impossible to discern if the TMDL monitoring programs are adequate for determining if water quality objectives are achieved in the receiving water. Also, are monitoring programs in place for all of the TMDLs that are in effect in Ventura County and have all of these monitoring plans been approved by the Regional Board Executive Officer? The Regional Board should provide specificity and clarity in the Draft Permit’s TMDL monitoring program.

The mass emissions monitoring element of the Draft Permit’s core monitoring program requires that three mass emission stations be monitored every other year.⁷ This is a very small number of monitoring locations given that Ventura County covers an area of 1,873 square miles and multiple Permittees preside over each of the three main watershed management areas (“WMAs”). A stated goal of the mass emissions monitoring program is to determine if the MS4 is causing or contributing to exceedances of water quality standards.⁸ By monitoring on such an infrequent basis and at only three locations, there is no way that variability will be captured and that MS4 compliance can truly be assessed. Also, an assessment of how the MS4 programs are reducing overall loads of pollutants to the coast or other receiving waters from year to year

⁶ Third Draft Permit at F-1

⁷ Third Draft Permit at F-2.

⁸ Third Draft Permit at F-1.



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cannot be accurately determined without an adequate number of mass emission sites. Thus, the Regional Board should increase the number of monitoring locations and frequency of mass emission monitoring. At a minimum, the Regional Board should remove the biennial monitoring system because the frequency is not adequate to determine loadings status and trends.

In sum, the monitoring program in the Draft Permit is difficult to evaluate, as it is unclear what monitoring is already underway and the additional monitoring locations required in the Draft Permit. First, the Board Staff should compile a list or table of all stormwater monitoring requirements in order for the public to evaluate whether the Permit's requirements, when combined with current monitoring efforts, will be sufficient. In general, though, the Permit must contain minimum monitoring requirements, which are necessary to assess compliance and impacts from the MS4. If another program covers some of these requirements, the discharger can work with this other monitoring program to coordinate logistical issues like cost-sharing.

The Regional Board incorporated the Los Angeles County beach bacteria monitoring program in the 1996 MS4. The Ventura County MS4, despite the presence of the Harbor Beaches bacteria TMDL and the impact of stormwater on recreational use and public health, does not contain beach monitoring requirements. The permit should incorporate the beach monitoring program and require monitoring at the wave-wash directly in front of stormdrain and stream sources (point zero). The monitoring modification would provide consistency throughout the region and greater protection of public health.

The Board should revise toxicity requirements to meet the working group's recommendations.

Over a year ago, the Board convened a multi-stakeholder toxicity working group that developed the *SMBRC Technical Memorandum on Toxicity Testing of Wet and Dry Weather Runoff* ("Memorandum"). This working group was chaired by the Southern California Coastal Water Research Project ("SCCWRP") and included representatives from wastewater treatment and stormwater agencies. The objective of the SCCWRP- and stakeholder-authored Memorandum is to provide guidance to the Board for use in developing MS4 permit toxicity monitoring and reporting requirements. However, several of the current toxicity requirements in the Second Draft appear to be inconsistent with the Memorandum. For instance, the Memorandum recommends sampling both dry and wet weather events, but the Third Draft includes only wet weather sampling. The Board should revise the Permit to be consistent with the Board's working group recommendations.

Several of the toxicity monitoring program requirements included in the Third Draft are arbitrary and will not provide a proper determination of whether stormwater discharges are impacting aquatic life. Toxic Identification Evaluations ("TIEs"), for instance, are required only if 90% or more toxicity is found in the first year. Also, a Toxic Reduction Evaluation ("TRE") is only triggered if the same pollutant or class of pollutants is identified through the TIE process.⁹ These triggers are arbitrary and unsubstantiated and will not provide adequate information to assess impacts to aquatic species or to protect aquatic life in waters receiving polluted storm runoff. Thus, the monitoring requirements should be modified to contain a more protective toxicity

⁹ Third Draft Permit at Attachment F-9 to F-10.



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threshold and to require TIEs and TREs when there are significant toxicity problems in receiving waters. Additionally, each TRE action should include an implementation plan with milestones for constructing specific BMPs that meet the 75th percentile performance criteria and target the pollutant of concern.

The Board should include bioassessment monitoring in the Permit.

There are no bioassessment monitoring requirements in the Third Draft Permit. Bioassessment monitoring is critical to assess the full impacts of the discharge and should be performed on a regular basis. Ventura County has some of the best remaining aquatic biological resources in Southern California, and the impacts of stormwater on these resources must be assessed. In addition, bioassessment requirements have for years been a part of NPDES monitoring programs for dischargers – including POTWs, refineries, and power plants – so requiring bioassessment as part of the Permit’s core monitoring requirements would not be precedent-setting. In order to determine the impacts of stormwater on biological resources in receiving waters, the Board must include a defined semi-annual or annual bioassessment monitoring program in the Permit as part of the “Core Monitoring” requirements.

We thank the Board Members and Board Staff for this opportunity to comment on the Third Draft. More than fifteen years after urban stormwater runoff permitting took effect under the Clean Water Act, the region still struggles with the impacts of this source of pollution. This draft Permit contains the seeds of approaches that can make a significant difference in better controlling runoff. The focus on low impact development is particularly important, and it promises – with some improvements set forth above – to be highly effective. In other respects, however, such as the interpretation of MEP through MALs and actual compliance monitoring requirements, the conceptual strengths of the Permit are largely counteracted by weak implementation of these concepts in the draft Permit. These weaknesses must be corrected before the Permit is adopted.

If you have any questions, please contact us at 310-451-1500.

Sincerely,

Kirsten James, MESM
Water Quality Director

Mark Gold, D. Env.
President