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September 8, 2011

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
P.O. Box 100, Sacramento, CA 95812-2000



RE: DRAFT GENERAL NATIONAL POLLUTANT DISCHARGE  
ELIMINATION SYSTEM (NPDES) PERMIT FOR STORM WATER  
DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM  
SEWER SYSTEMS (MS4s)



Dear Ms. Townsend:

The Central Coast Long-term Environmental Assessment Network (CCLEAN) is a regional receiving water monitoring collaborative in the Monterey Bay area. CCLEAN has been collecting data on sources, loads and effects of pollutants from streams, rivers and wastewater discharges into the ocean for over 10 years. CCLEAN exemplifies the benefits to all stakeholders that are provided when resources are pooled so that regional questions can be answered. Because contributions of anthropogenic pollutants to marine waters from urban sources in our area remain poorly characterized, CCLEAN strongly supports efforts to encourage the participation of stormwater dischargers in science-based regional monitoring efforts.



Attached are comments on the referenced draft NPDES permit. We hope they are helpful for creating a clearer, more robust permit.



Regards,

Dane Hardin  
Director



attachment

# Central Coast Long-term Environmental Assessment Network

## Comments of Draft MS4 Permit

### D. RECEIVING WATER LIMITATIONS

Discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule (CTR), or in the applicable Regional Water Board Basin Plan.

18.1

**Comment:** We suggest that these limitations ignore ocean discharges. It is imperative that discharges not be allowed to cause or contribute to exceedances of the Ocean Plan.

### E.13. RECEIVING WATER MONITORING

#### Compliance Tiers

b) **All Permittees** that discharge to an ASBS or AB 411 Beaches must comply with the monitoring provisions in the latest Ocean Plan.

18.2

**Comment:** This phrase should be revised to say “the Ocean Plan or Functional Equivalent Document in force at the time of permit issuance.”

### E.13. RECEIVING WATER MONITORING

- (i) **Task Description** – The Permittee shall develop and implement a Water Quality Monitoring plan.

The Permittees may choose to comply with any requirement of this Provision through a collaborative effort to conduct or cause to be conducted the required monitoring in their jurisdictions. Where all or a majority of the Permittees collaborate to conduct water quality monitoring, this shall be considered a regional monitoring collaborative.

18.3

**Comment:** We feel that insufficient incentives have been provided to encourage participation in collaborative monitoring efforts. A one-year delay in submittal of the first report is not sufficient. Collaborative monitoring efforts provide the opportunity for permittees to produce data that will not only satisfy NPDES regulatory requirements, but that will also address broader management questions of importance to regulatory agencies and regional stakeholders. For example, a more complete knowledge on the major sources of contaminants to receiving waters and the effectiveness of various management practices is more readily facilitated through large cohesive, combined data sets than through disparate individual data sets.

18.4

**Comment:** Please clarify what is meant by “all or a majority of the Permittees.”

**Over what geographic range does all or a majority of the permittees apply? Does this mean that two adjacent jurisdictions cannot conduct a joint monitoring effort and have it qualify as a collaborative? Regardless of how monitoring collaboratives are defined, we strongly suggest that that non-collaborating permittees should not be allowed to have use of regulatory data generated by a collaborative.**

### **E.13. RECEIVING WATER MONITORING**

- (i) **Task Description** – The Permittee shall develop and implement a Water Quality Monitoring plan.

Where an existing collaborative body has initiated plans, before the adoption of this Order, to conduct monitoring that would fulfill a requirement(s) of this Provision, but the monitoring would not meet this Provision’s due date(s) by a year or less, the Permittees may request the Executive Officer adjust the due date(s) to synchronize with such efforts.

The types, quantities, and quality of data required within E.13 establish the minimum level-of-effort that a regional monitoring collaborative must achieve. Provided these data types, quantities, and quality are obtained, a regional monitoring collaborative may develop its own sampling design. In addition, a monitoring plan designed to assist in the recovery of an endangered species (e.g. coho salmon) may be permitted with the approval of the Executive Officer.

18.5

**Comment:** We appreciate the flexibility being allowed for collaborative monitoring efforts to design programs that fit their regional data needs. Nevertheless, requiring that the data types, quantities and quality specified in this section are the minimum allowable creates a disincentive to participate in a collaborative effort. It could be the case that a regional collaborative monitoring effort addresses the questions to be answered by MS4 monitoring by applying a statistical sampling approach that reduces the amount of data required.

### **E.13. RECEIVING WATER MONITORING**

- (ii) **Implementation Level** – The Water Quality Monitoring plan shall include the following:

- (a) **Receiving Water Monitoring** –

Receiving water sampling locations should be selected to represent the contribution of urban storm water discharges to the receiving water. Generally, the Permittee should locate sampling stations at the farthest downstream extent of the urbanized portion of the watershed.

18.6

**Comment:** Please explain what is meant by “the farthest downstream extent of the urbanized portion of the watershed.” Does a single discharge correspond to a single watershed? If there are single or multiple discharges in upper elevations of the urbanized portion of the watershed, the receiving water monitoring should be performed immediately downstream of those discharges, rather than at the lowest urbanized portion of the watershed. Our suggest approach would do a better job of producing information that would allow determination of pollutant sources.

### E.13. RECEIVING WATER MONITORING

(b) **Follow-up Analysis and Actions** – When results from the receiving water monitoring indicate the need for follow-up analysis and actions, the Permittee shall take the following actions. If the trigger stressor or source is already known, proceed directly to step 2. The first follow-up action shall be initiated as soon as possible, and no later than the second fiscal year after the sampling event that triggered the follow-up analysis and action. Conduct a site-specific study (or non-site specific if the problem is wide-spread) in a stepwise process to identify and isolate the cause(s) of the trigger stressor/source. This study should follow guidance for Toxicity Reduction Evaluations (TRE)<sup>43</sup> or Toxicity Identification Evaluations (TIE)<sup>44</sup>. A TRE, as adapted for urban storm water data, allows the Permittee to use other sources of information (such as industrial facility storm water monitoring reports) in attempting to determine the trigger cause, potentially eliminating the need for a TIE. If a TRE does not result in identification of the stressor/source, the Permittee shall conduct a TIE.

18.7

**Comment:** Requirement to follow guidance for TREs or TIEs illustrates the singular reliance on toxicity tests as primary indicators of water quality problems. Of potentially greater concern are exceedances of the CTR or Ocean Plan for compounds that bioaccumulate, which might not reach toxic concentrations. For example, many rivers and nearshore marine waters exceed either the CTR or Ocean Plan without manifesting toxicity.

### E.13. RECEIVING WATER MONITORING

(iii) **Reporting** – By September 15, 2013 online Annual Report and annually thereafter, the Permittee shall report on the status of receiving water monitoring. The Permittee shall furnish details on Regional Monitoring collaboration, if applicable. **Permittees participating in a collaborative effort** shall submit Water Quality Monitoring plan by September 15, 2014 online Annual Report.

**Permittees not participating in a regional collaborative effort shall submit by September 15, 2013 online Annual Report**

18.8

Comment: Please clarify that “online Annual Report” should read “using the online Annual Report.”

**Table B Receiving Water Monitoring Parameters, Methods, Frequency, and Triggers for Response**

**Table C. Sediment Triad Approach to Determining Follow-Up Actions**

18.9

Comment: The sampling and evaluation requirements in these two tables are inadequate. In particular, we note the following:

**Nutrients:** Urea must be included in the nutrients measured because of its documented link to toxic algal blooms in the ocean. Work by Dr. Raphe Kudela at University of California Santa Cruz has shown that urea is a preferred nitrogen source for various harmful algae and some become more toxic when urea is available. Moreover, his student, Dr. Jenny Lane, has shown that during periods associated with harmful algal blooms, rivers discharging to Monterey Bay can provide a significant source of nutrients to the ocean.

**Pollutants:** Focusing monitoring requirements exclusively on sediment pollutants is not protective of beneficial uses where either depositional areas are not present in receiving waters or where receiving waters are impaired due to exceedances of the CTR for fresh water or the Ocean Plan for marine waters. Measurement of pollutants in water should be included. For example, the Monterey Bay area has reported exceedances of polychlorinated biphenyls and dieldrin; concentrations of dieldrin in California mussels and polychlorinated biphenyls in ocean waters in the Monterey Bay area exceed human health alert levels and the Ocean Plan Table B, respectively.

**Chemistry Results:** Again, focusing exclusively on sediment results in not protective of receiving water beneficial uses. Objectives for water pollutants must also be met.

#### **E.14.c. Municipal Watershed Pollutant Load Quantification**

- (i) **Task Description** – The Permittee shall quantify annual subwatershed pollutant loads. At a minimum, annual loads for the following constituents shall be quantified:
  - (a) sediment (measured as total suspended solids or suspended sediment concentration)
  - (b) fecal coliform bacteria
  - (c) total phosphorus
  - (d) total nitrogen
  - (e) cadmium
  - (f) chromium
  - (g) copper

- (h) lead
- (i) nickel
- (j) zinc
- (k) trash

18.10

**Comment:** Please explain why the pollutants listed here differ from those required in Section E.13. (Receiving Water Monitoring), Table B (MacDonald, et al, 2000).

#### **E.14.c. Municipal Watershed Pollutant Load Quantification**

- (ii) **Implementation Level** – The Permittee shall use the Center for Watershed Protection’s Watershed Treatment Model or other equivalent simplified spreadsheet method to calculate annual runoff, pollutant loads, and BMP removal efficiency. The Permittee shall use pollution concentration data from the National Stormwater Quality Database, local monitoring data for pollutant loads and BMP removal efficiency, or other centralized databases (e.g., International Storm Water BMP Database<sup>63</sup>). The Permittee shall justify all assumptions used to model BMP pollutant reductions on the basis of appropriate data, and shall recalibrate the model at appropriate intervals by modifying the assumptions on the basis of data collected per Section E.14. In addition, the Permittee shall not count pollutant reductions from treatment BMPs rated less than “acceptable,” or equivalent, using the methodology developed according to Section E.12.a.

18.11

**Comment:** We urge consideration of actual load measurements to document the effectiveness of BMPs. Load reductions of problem pollutants must be linked to improvements in receiving water quality. Reliance on modeled estimates of load reductions in pollutants should not be the basis for presumptions about improved water quality.