

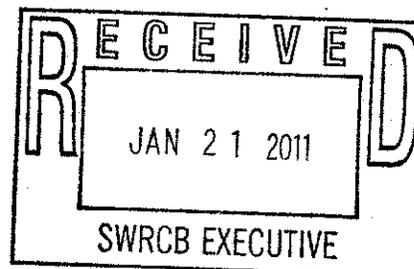


City of Malibu

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January 21, 2011

Ms. Jeanine Townsend
Clerk to the Board
California State Water Resources Control Board
1001 I Street, 15th Floor
Sacramento, CA 95814
Email: commentletters@waterboards.ca.gov



RE: City of Malibu Comment Letter – Policy for Toxicity Assessment and Control

Dear Ms. Townsend:

Thank you for the notification and opportunity to comment on the State Water Resources Control Board's (SWRCB) Policy for Toxicity Assessment and Control (Policy). Malibu is located along approximately 22 miles of coastline in the North Santa Monica Bay. Many coastal areas have unique natural geologic characteristics which could lead to perceived impairments and listings for possibly unattainable water quality standards. as The City spends more per capita than any other city in the State on water quality improvement activities and has devoted considerable resources to studying water quality issues in the Bay and surrounding coastal streams. We have acquired detailed and area-specific information that informs our comments here. The City's clean water program implements Basin Plan objectives and strives to maintain all waters free of toxic substances in concentrations that are toxic to or that produce detrimental physiological responses in human, plant, animal, and aquatic life.¹

The City supports the effective and appropriate implementation of the Whole Effluent Toxicity (WET) program and strongly supports the use of WET testing as a tool supplementing current protocols to address uncertainties associated with water chemistry monitoring and biological assessments. As a current permittee under Order No. 01-182 Waste Discharge Requirements for Storm Water and Urban Runoff Discharges within the County of Los Angeles and the Unincorporated Cities Therein except the City of Long Beach (LA County MS4 Permit), extensive toxicity monitoring is already completed by the Principal Permittee on the City's behalf. The City has concerns with Board staff's proposed policy. These comments are submitted for consideration with the intent to improve the implementation of toxicity test provisions designed to assess the water quality of surface waters, enclosed bays, and estuaries within the State of California.

¹ Los Angeles Region Basin Plan, page 3-16

The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) was not intended for storm water.

This proposed stand alone policy is meant to replace the toxicity control provisions established in Section 4 of the SIP. The SIP was originally written to regulate wastewater discharges from publically owned treatment works (POTW) and other similar discrete point source discharges of waste and was not intended for regulating discharges of storm water. Due to the intermittent, and mostly uncontrollable nature of storm water discharges from an MS4 as well as limitations on treatment technologies, and sheer number of discharge points (among other costly challenges), many regulations that are common for wastewater discharges are found to be infeasible for regulating an MS4. The historical use of implementation plans meant for wastewater discharges being applied to storm water has blurred the regulatory lines and caused confusing interpretations of regulations. There is also a strong contention that many original Basin Plans and the Ocean Plan were never meant to be applied to storm water.

Last year, public notice was provided that this policy was being developed and that staff would be soliciting input for the California Environmental Quality Act (CEQA) requirements. However, because it was clarified that the policy was to implement toxicity provisions of the SIP, many MS4 permittees were initially unaware that this policy would ultimately include their MS4 discharge requirements and did not get involved in the process until late in the development of this policy. The City appreciates that the Water Board extended this comment period and delayed the hearing. Even still, due to the highly technical nature of this policy, many MS4 permittees do not fully understand this policy, as implementing toxicity testing is new to them. To avoid future contentions and properly inform all of the necessary stakeholder groups and allow them the fair ability to participate in the process, it would be prudent to consider a separate toxicity control policy for storm water discharges. This would allow Water Board staff, permittees, and other interested parties to work together on a program to implement toxicity testing that is both appropriately protective of beneficial uses and feasible.

TST is under protective of aquatic life beneficial uses

Staff noted that the recommended alternative using TST is potentially underprotective of aquatic life beneficial uses as it fails to establish standardized methods of remediation and dischargers may have difficulty determining the source of toxicity in storm water runoff if clear and concise Toxicity Reduction Evaluations (TRE) and Toxicity Identification Evaluation (TIE) requirements are omitted from permits.² The City continues to support the use of narrative limits with prescriptive and numeric accelerated monitoring through TIE and TRE triggers as in the current Los Angeles County NPDES permit monitoring and reporting program requirements.³ This has been the State's practice for over 10 years, and it has demonstrated to be effective at controlling and eliminating toxicity. Although it is not possible for a municipality to predict when runoff to or from its MS4 may be

² Staff Report: Policy for Toxicity Assessment and Control, State Water Resources Control Board, Division of Water Quality, October 2010.

³ State of California Regional Water Quality Control Board Los Angeles Region, Monitoring and Reporting Program-CI 6948 for Order No. 01-182 NPDES No. CAS004001, Municipal Storm Water and urban Runoff Discharges within the County of Los Angeles and the Incorporated Cities, Except the City of Long Beach. Adopted December 31, 2001.

toxic (in the absence of an installed treatment BMP), it is appropriate and reasonable to require permittees to seek the source(s) of the toxicity in receiving waters and, once identified, if caused by an MS4/anthropogenic discharge, take immediate action to reduce the source(s). Failure on the part of a permittee to implement adequately this process in response to toxicity would constitute a violation of the narrative toxicity limitation and open the discharger to the imposition of administrative liability other enforcement actions.

The proposed Policy would in effect eliminate the current tiered approach to compliance based on triggers and follow-up testing. Currently, stormwater dischargers comply by engaging in an approved TIE. The new Policy makes no provision for such an approach and further would subject them to violations when one may not exist and a source may be natural. Furthermore, WET has not been validated for use on stormwater samples. The City finds the implications of implementing TST alone for regulatory purposes to be extremely problematic.

Staff also noted that Permits without BMP design requirements may result in unsatisfactory or inappropriate implementation measures, and the omission of BMP performance standards could lead to poor maintenance and neglect. The 2006 State's Stormwater Panel of Experts report⁴ does recognize the difficulty in establishing standards for BMP performance.

"Even for conventional pollutants, there presently is no protocol that enables an engineer to design with certainty a BMP that will produce a desired outflow concentration for a constituent of concern."

As suggested above, a separate toxicity policy with scientifically defensible recommendations for storm water remediation BMPs should be developed in concert with a variety of stakeholders. This could allow the group to address these concerns that TST is under protective, and develop BMP selection models. Such tools are currently being developed in the Los Angeles area, and information sharing amongst this proposed group could be a worthwhile.

⁴ The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities, June 19, 2006
http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf

In developing a policy for toxicity assessment and control in storm water, the City supports the use of narrative limits with accelerated monitoring and toxicity reduction evaluation TRE triggers as currently exist in municipal stormwater monitoring and reporting requirements, and using tested modeling to help determine the best course of corrective action. This step-wise approach is consistent with guidance from the EPA, both at national⁵ and regional⁶ levels, a diverse national expert advisory panel⁷ formed by SETAC and funded by the EPA to provide guidance on WET issues, and the State Water Board Toxicity Task Force⁸ specifically assembled to provide guidance on the regulatory use of toxicity test within the State. Once sources are identified, appropriate BMPs may be implemented if necessary.

The Policy as currently written is confusing as to how it relates to regulation and compliance for storm water permittees.

In lieu of developing a separate toxicity policy for MS4 permittees, the City supports and references the suggestion in the Downey Brand letter to form a coalition to develop a workable solution to this policy. The initial draft policy proposed by Downey Brand seems to be a big step in the right direction to developing a policy protective of beneficial uses that is an appropriate tool for assessing toxicity consistently and is feasible to implement. Additionally, without waiving its right to contest including MS4/stormwater permittees in this policy, the City requests the following points to please be revised.

The use of Waste Discharge Requirements (WDR) in relation to wastewater permits and in context with POTW requirements is confusing. The LA County MS4 Permit is referred to as WDR as well. Therefore it is confusing whether those sections placing requirements for point source discharges with WDRs applies to storm water permittees as well as the section specifically for storm water permittees. The policy should be written to avoid confusion over what is applicable to MS4s.

Page 48 of the staff report states that implementing chronic toxicity monitoring in this manner "avoids the imposition of Maximum Minimum Penalties (MMPs) if MS4 dischargers exceed the proposed objectives despite meeting MEP requirements. This "protection" is not clear and does not strongly come across in the policy. This City requests that this language be clarified.

Additionally, MS4 dischargers would be required to follow the methods outlined in the alternative recommended for Issue 2A in order to determine the most sensitive test species for toxicity monitoring, and the TST method would be required for all toxicity data analyses. Issue 2A refers back to other sections of the policy that do not always refer to storm water permittee requirements. This tends to lead the reader on a wild

⁵ Technical Support Document for Water Quality-Based Toxics Control, EPA Office of Water, March 1991, EPA/505/2-90-001, p. 62, Section 3.3.7.

⁶ EPA Regions 9 and 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs, EPA, May 31, 1996, pp. 2-1, 4-1, and 5-2.

⁷ SETAC Wet Expert Advisory Panels, <http://www.setac.org/wettre.html>, Sections 1 and 4.

⁸ Memo to Members of the State Water Resources Control Board from the Toxicity Task Force, September 27, 1995. Recommendations 2, 5, 9, and 10.

goose chase for requirements. Clearer language and keeping all MS4 requirements in one location specific to storm water is a necessary improvement to this policy.

It is not clear where or how storm water WET testing should be completed. It is not clear if this requirement is for end of pipe effluent or for sampling in the receiving water. Additionally, the policy is recommending four sample events per year (two in wet weather and two in dry weather). If end of pipe sampling is required, there will most likely not be a flow to sample. With no major flood control channels under its control, multiple small outfall pipes discharging to steep canyons, and often a disconnected system of simple roadway drains, the City of Malibu would be extremely pressed to find an effective location for sampling according to this policy. Further clarification and direction as to what is considered an appropriate sample location should be included for guidance to the regional Boards. Finally, the City supports option for Regional Boards to grant exceptions, which is necessary to address individual circumstances.

The City's additional concerns and comments are similar to those of other agencies and organizations. Many were commented on in the City's previous letter and we note that staff did consider some of the comments received on the preliminary draft proposed policy and incorporated some revisions as necessary. The most common concerns are summarized below:

Use of the Test of Significant Toxicity (TST) will lead to numerous "false positive" results.

Excessive false positive test results will lead to non-toxic discharges and receiving waters being incorrectly identified as toxic and would cause undue impairment listings. This will result in the wasting of significant resources for the Water Board and municipal stormwater permittees to respond to non-toxic, false positive indications of toxicity. Ultimately, the Policy could also lead to inappropriate use of public funds to provide unnecessary and excessive regulatory and corrective actions based on non-existent biological community impacts. As stated above, the City requests that the TRE/TIE methodology be implemented for storm water dischargers.

The false positive error rates associated with the proposed chronic toxicity objective are also likely to result in nearly every waterbody being eventually included on the 303(d) list due to toxicity related impairments. This would potentially give a grossly inaccurate portrayal of the condition of California's water bodies and result in hundreds of unnecessary Total Maximum Daily Loads (TMDLs) being required in waters that are in reality meeting all aquatic life beneficial uses. Table 3.1 of California's 303(d) listing policy⁹ specifies that if two or more of 24 measurements in a waterbody exceed the water quality objective, the waterbody will be listed as impaired. At a 15% false positive error rate, the probability of listing a non-toxic water body (i.e., of observing at least two TST exceedances in 24 samples) is 89%. Even at a 12.5% error rate, the probability of listing a non-toxic waterbody is an unacceptably high 82%.

⁹ Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. State Water Resources Control Board. Adopted September 2004.

Numeric Limits for Chronic Toxicity are Inappropriate and Problematic

The City supports State Water Board efforts to reduce and eliminate toxic discharges in all waters of the state. However, numeric limits for chronic toxicity are inappropriate and unnecessary to protect water quality within the State. Board staff has noted the findings of the 2006 State's Stormwater Panel of Experts report¹⁰, specifically cited below.

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

The report also stated that,

"Monitoring for enforcement of numeric effluent limits would also be challenging. While spot checks could be made at some of the many outfalls in an area, there is wide variation in stormwater quality from place to place, facility to facility, and storm to storm. Coefficients of variation approaching 1 or higher are not uncommon and there are few factors that can be used to significantly reduce this variation."

Because of the variability of stormwater discharges, the uncertainty and inability to completely control non-point sources of pollution, and the extreme costs associated with installing BMPs that ultimately may not meet an effluent concentration limit, the City was pleased to see that staff took these recommendations into consideration in the Policy revision.

Biological Systems are Inherently Variable

WET tests are not chemical measurements; they are instead measures of how certain organisms respond to a particular water sample. As such, the measurements are influenced by a number of factors including ionic changes in water chemistry, presence/absence of trace elements in the water, seasonality, light levels, and temperature. While WET test procedures attempt to minimize variability, they cannot eliminate it altogether. EPA guidance warns,

*"The interpretation of the results of the analysis of data from any of the toxicity tests described in this manual can become problematic because of the inherent variability and sometimes unavoidable anomalies in biological data."*¹¹

*"The allowable frequency for criteria excursions should refer to true excursions of the criteria, not to spurious excursions caused by analytical variability or error."*¹²

¹⁰ The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities, June 19, 2006
http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf

¹¹ EPA. Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Ed., EPA-821-R-02-013. October 2002. Section 9.4.1.1, p. 39.

¹² Technical Support Document for Water Quality-Based Toxics Control, EPA Office of Water, March 1991, EPA/505/2-90-001. See Appendix entitled "Technical Support Document for Water Quality Based Toxics Control – Responsiveness Summary," p. 11.

The Policy as written does not include allowance is made for ionic interference caused by the natural water chemistry of surface waters in California. Such waters are often much higher in salinity, alkalinity and hardness than the synthetic freshwaters used to culture the test organisms. Locally, Malibu Creek is unusually saline. Total Dissolved Solids (TDS) levels in Malibu Creek are substantially higher than all other coastal streams in the Santa Monica Mountains due to remarkably high levels of sulfate from the Monterey Formation, a well-known and well-documented geological source rock for sulfate, along with phosphorus, nitrogen, selenium and heavy metals. Extensive deposits of the Monterey Formation are also well-documented in Malibu Creek, particularly in its largest headwater tributaries exclusive of Cold Creek.

In the laboratory, reproduction and growth can be temporarily slowed in lab cultured organisms while they re-acclimate to the new matrix. This interference usually reduces reproduction and/growth by 10-15% among effluent-exposed organisms. Previously, this small effect rarely made a difference in whether the test passed or failed. Under the new method, such differences will be deemed evidence of toxicity.

Compliance schedules have a "sunset".

While the City appreciates the inclusion of compliance schedule provisions in the policy, the allowable schedules expire two years after permit issuance. Additionally, current MS4 Phase I and II permittees are not afforded any compliance schedule. The City is not opposed to a basic schedule guideline, but feels that the policy should allow some flexibility for the local Regional Boards to make this determination on a case-by-case basis

The City hopes that the Water Board will consider these concerns and looks forward to implementing a protective yet feasible toxicity control policy. The City is apprehensive that the proposal as written will result in the imposition of requirements that are more stringent than necessary to comply with the Clean Water Act. In some cases, this may constitute an unfunded mandate in an especially difficult economic time for the State and local agencies. The City respectfully requests the SWRCB to consider these issues and work with the regulated community to find an effective use toxicity assessment tools to best protect beneficial uses. In particular, the City requests that the SWRCB clarify how violations will be interpreted and reconsider the expiration of Water Boards granting compliance schedules.

The City looks forward to working with the State to develop the most appropriate means to attain water quality standards. Please do not hesitate to contact Jennifer Voccola, Senior Environmental Programs Coordinator, at (310) 456-2489, extension 275, or jvoccola@ci.malibu.ca.us, if you have any questions regarding this letter.

Sincerely,



Jim Thorsen
City Manager

cc: Christi Hogin, City Attorney
Robert L. Brager, Public Works Director/City Engineer
Jennifer Voccola, Senior Environmental Programs Coordinator