



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 23, 2012

David Woelfel
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 93501-3339

Dear Mr. Woelfel:

We appreciate the opportunity to comment on the *Basin Plan Amendments to Revise Recreation Standards for Inland Fresh Surface Waters in the Santa Ana Region* submitted by the Santa Ana Regional Water Quality Control Board (Regional Board) for public review on January 12, 2012. The Regional Board's submission arrives at an inopportune time. As you know, the United States Environmental Protection Agency (USEPA), as required by the Clean Water Act (CWA), developed and published draft Recreational Water Quality Criteria (Office of Water 820-D-11-002) in 2011. This document provides USEPA's recommended CWA Section 304(a) Recreational Water Quality Criteria. Additionally, the State Water Resources Control Board (State Board) has been developing Recreational Water Quality Objectives, and EPA Region 9 has been working with them on this effort. EPA Region 9 has concerns with some of the Regional Board's proposed amendments. Our primary concern is that human health may not be adequately protected under the proposed revisions. Our specific comments to some of the Regional Board revisions to the Basin Plan are outlined below.

1) Proposed Changes to Beneficial Uses

Proposed change to the name and definition of "Water Contact Recreation (REC1)". We recommend that the Regional Board not change the Beneficial Use name from "Water Contact Recreation" to "Primary Contact Recreation." Retaining the current name and definition would be consistent with the State Water Resources Control Board (SWRCB) name and definition for REC1. The current REC1 definition was developed through an extensive collaborative effort between the State Board and USEPA in order to have a consistent statewide definition of REC1.

Re-designation of specific waters to remove the REC1 or REC1 and REC2 uses, based on Use Attainability Analyses. EPA is not opposed to reclassification of recreational water bodies. However, we find that the rationale in most instances was not clear or substantiated.

Exception of some water bodies from the MUN beneficial use, per the exception criteria specified in the State Board's Sources of Drinking Water Policy. While the Regional Board cited rationale from the State Board's Sources of Drinking Water Policy (such as "total dissolved solids exceeding

3,000 mg/L” and “not providing sufficient water to provide a single well capable of producing an average, sustained yield of 200 gallons per day”) for excepting water bodies from the MUN designation, no documentation was given for how this was shown or measured. These exception rules were adopted by the State of California pursuant to State Board Resolution 88-63 as applicable to designations of potential MUN. Federal regulations prohibit removal of designated uses which are existing uses, as defined in 40 CFR Sect. 130.3, unless a use requiring more stringent criteria is added, or another provision of 40 CFR Sect. 131.11(h) is shown to be applicable. Documentation is lacking showing the newly excepted waterbodies do not have existing MUN use designations.

2) Proposed Changes to Water Quality Criteria.

Deletion of the current Basin Plan fecal coliform objectives for REC1 and REC2 (non-contact water recreation) and replacement with *E. coli* objectives. EPA’s 1986 guidance recommends that states and tribes replace existing fecal coliform bacteria standards with *E. coli* criteria. We support the criteria submitted for the *E. coli* geometric mean. We support the use of UAAs to classify waters as REC2. However, we do not support the elimination of the REC2 numeric objectives.

Establishment of tiers of REC1-designated inland surface waters as Tier A, B, C or D for the purposes of assigning expected maximum single sample *E. coli* values. EPA’s current guidance allows for the adjustment of single sample maxima for waters where use is not frequent. However, in the 2011 Recreational Water Quality Criteria Guidance we are no longer recommending multiple “use intensity” values, in an effort to increase national consistency across bodies of water and ensure equivalent public health protection in all waters. EPA’s proposed criteria remove the tiering component partly because of confusion by the states on its application.

Establishment of criteria for the temporary suspension of bacteria objectives and recreation beneficial uses for inland surface streams under certain flow conditions. We support lifting the REC uses for a specified amount of time after storms, but only at certain intensities and durations of rainfall and only in concrete-lined channels. The language the Regional Board uses to define where the lifting of REC uses will occur is too broad. The definition of “modified channels” can lead to use suspension in any water body where any vegetation has been removed or had any small modifications. This is evident in the language, “The very large number of engineered and modified flood control facilities in the Santa Ana Region makes it difficult to identify all such channels individually by name.” The maps provided by the Regional Board in Appendix VIII are riddled with red delineations, and lack sufficient justification for selecting these water bodies.

Proposed Enterococcus Criteria. The proposed amendment indicates that the Regional Board would implement the 2004 EPA enterococci criteria for coastal recreation waters (40 CFR 131.41) promulgation “on a best professional judgment basis.” The enterococci criteria from 40 CFR 131.41 were promulgated as numeric objectives and are applicable for all designated marine recreational waters. The 2011 EPA proposed guidance for marine waters suggests that the applicable criteria protective of

recreation are: culturable enterococci at a geometric mean of 35 cfu per 100 mL and a Statistical Threshold Value (STV) of 104 cfu per 100 mL.

3) Antidegradation Issues

The Regional Board proposes to identify bacteria quality targets, in conformance with the state antidegradation policy, for waters designated REC2, pursuant to an approved Use Attainability Analysis. The targets are intended to provide the basis for assuring that bacteria quality conditions do not degrade. The procedures for the use of antidegradation to maintain water quality in REC2 waters is not clearly specified. Given the variability in bacterial counts, it is unclear how these waterbodies would be monitored to assess compliance with the narrative objective, or how the Regional Board could assure that this would be protective.

The Regional Board proposes that the baseline condition (antidegradation target) for each REC2 only water will be established through a comprehensive statistical analysis of ambient bacteria quality data conducted as part of the UAA used to justify the REC2 only designation. The procedures outlined do not provide assurance that water quality will be attained. Exceedance of the antidegradation-based objectives is when at least 5% of the samples exceed the 95% upper confidence interval of the data used in the original UAA. As water quality data are highly variable this can lead to extremely high upper confidence limits (UCLs). For instance, for the Santa Ana River - New Dehli Channel tidal prism the UCL is greater than 6,000 cfu per 100 mL. To establish exceedances of this number, 5% of samples must exceed this value and the exceedance is only established after removal of outliers and establishment of a true trend. It is unclear how such a standard could be evaluated when only periodic monitoring of REC2 waters is recommended.

4) Additional comments

EPA notes that in Table 4-pio, the footnotes refer to information regarding the single sample maximums (SSM). While the current EPA guidance supports the use of a SSM, the most recent EPA draft proposed guidance has replaced the SSM with a new term: "Statistical Threshold Value" (STV). EPA recommends the STV in the 2011 proposed criteria, rather than the term "single sample maximum," to resolve previous inconsistencies in implementation. Identical to the derivation of the SSM in the 1986 criteria document, the STV corresponds to an upper percentile (e.g., 75th percentile) of a water-quality distribution around the geometric mean. In order to be consistent with EPA's recommended criteria, the State standards should include both the geometric mean and STV.

Table 5-REC1-ssv shows maximum expected Single Sample values for *E. coli* for Tier A, B, C and D freshwaters. The values shown are based on a default log standard deviation, derived from the epidemiological studies USEPA used to formulate the 1986 national criteria, and on alternative log standard deviations. The formulation of the SSM the Regional Board uses is a misapplication of the USEPA criteria. The SSM in this formulation is dependent on the variability of the sample which can be very large, which is partially why USEPA has abandoned the tiered approach in favor of a statistical

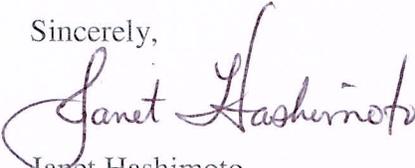
approach consistent with the original epidemiology study. EPA Region 9 is also concerned that the SSM values are in the implementation section of the Basin Plan. Any derivation of the SSM from the default values are a standards change and should be included in the water quality objectives section and would be subject to EPA approval.

In the amendments to Chapter 4 introduction, EPA observes that the Regional Board has struck some language regarding site specific objectives (SSO) for copper, cadmium and lead in the middle Santa Ana River. Additionally, in the language in Chapter 4 under "Water Quality Objectives, Inland Surface Waters, Metals", there is language regarding these SSOs. EPA Region 9 would like to make clear that EPA did not approve those SSOs (letter to the Regional Board dated May 30, 2000).

We have been working with the Regional Board over the last several years on the recreational use amendment. In 2007, we provided the Regional Board with comments on the "Strawman Document," *Recommended Revision to Santa Ana Region's Basin Plan for Recreational Use Classifications and Related Water Quality Objectives*. Many of our comments and recommendations have not yet been addressed.

To provide consistency across Regional Boards, we have been working with the State Water Resources Control Board (State Board) in their efforts to adopt a statewide policy for recreational water quality standards. EPA supports the State Board's effort to adopt statewide standards for recreational beneficial uses that are consistent statewide. We strongly recommend that the Regional Board work with the State Board on this statewide effort to avoid different definitions, interpretation and implementation of standards to protect human health. If you have any questions, please call me at (415) 972-3452, Suesan Saucerman at (415) 972-3522, or Terry Fleming at (415) 972-3462.

Sincerely,

A handwritten signature in cursive script that reads "Janet Hashimoto". The signature is written in black ink and is positioned above the printed name.

Janet Hashimoto

Manager, Standards and TMDL Office

cc: Rik Rasmussen, SWRCB