BACWA
BAY AREA
CLEAN WATER
AGENCIES

June 15, 2012

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor [95814]
P.O. Box 100
Sacramento, CA 95812-0100

Via E-mail**:** *commentletters@waterboards.ca.gov*

SUBJECT: Comments to A-2144(a)(b) – July 18 Board Workshop

Dear Ms. Townsend:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the State Water Resource Control Board's Draft Order WQ 2012- on the matter of Own Motion Review of Waste Discharge Requirements Order No. R5-2010-0114 [NPDES No. CA0077682] for Sacramento Regional Wastewater Treatment Plant (SRWTP). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 6.5 million people in the nine county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals charged with protecting the environment and public health.

BACWA is concerned that the SRWTP's permit contains provisions that are not legally justifiable. These provisions, if upheld as a precedential order, could eventually be applied statewide with no opportunity for those affected to participate in the process of their development and adoption. Specifically, BACWA is concerned about: 1) the manner of setting the REC-1 designated use requirements; 2) the manner of use of the TSD and far field toxicity to deny a mixing zone for ammonia, and 3) the manner of interpreting scientific studies to develop these requirements. These provisions lead to effluent standards which are more stringent than necessary to protect the receiving waters, resulting in a waste of limited public resources.

The Draft Order Establishes a New Water Quality Objective for Recreational Waters without Opportunity for Notice and Hearing

The Draft Order proposes to uphold the requirement that the SRWTP implement filtration based on a contact recreation (REC-1) designated use without regulatory justification. The numeric water quality objective for coliform bacteria applicable to the SRWTP discharge in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) states:

> In waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day

> period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml. (*Water Quality Control Plan for the Sacramento River and San Joaquin River Basins,* 4th ed. (Rev. Sept. 2009) (Basin Plan), p. III-3.00.)

In contrast, the Draft Order states that the Regional Water Board acted properly in interpreting an unnamed narrative objective to impose an effluent limitation equivalent to a 1 in 10,000 risk level to protect swimmers from of giardia. The Draft Order does not cite a specific narrative water quality objective, and BACWA has been unable to identify any applicable objective in its review of the Basin Plan. Thus, the Draft Order concurs with the Regional Water Board's adoption of a permit-specific water quality objective without full compliance with Water Code sections 13263(a) and 13241.

The Draft Order also provides no technical basis for the new objective based on the 1 in 10,000 risk level. The draft order essentially sets a "pathogen free" standard, which could be applied wherever there is a REC-1 use and will require filtration to meet. The Draft Order correctly states that the U.S. EPA identified acceptable levels of risk for ambient waters in its Ambient Water Quality Criteria. As noted in the Draft Order, the Regional Water Board's ordinary practice, based on California Department of Public Health (CDPH) recommendations, is to require 23 MPN total Coliform where there is substantial dilution. Filtration is not required to meet this standard. In the SRWTP case the Regional Board, based on additional recommendation from CDPH, determined that the SRWTP effluent should not cause an incremental increase in risk of infection to REC-1 users of more than 1 in 10,000. It will cost hundreds of millions of dollars to add filtration and thus, due to the very high costs, we believe that either the 23 MPN requirement should be imposed, or the normal rule making process followed, to insure that the more costly higher level of treatment is necessary. BACWA therefore recommends that the Draft Order be revised to remand the Permit to the Regional Water Board with direction to:

(1) Impose a discharge limitation based on 23 MPN total coliform; or

(2) If recommendation (1) is not adopted, follow the established process for deriving a permit specific water quality objective based on U.S. EPA advisory criteria and information in the record, including full consideration of Water Code section 13263(a) and the Water Code section 13241 factors.

The of Use Far Field Toxicity and TSD to Deny a Mixing Zone Was Contrary to Established Regulatory Processes

The Draft Order appears to diverge from established methodologies for NPDES permitting under the Clean Water Act and California Water Code in two ways. First, the Draft Order cites the science described in the sections entitled "Draft 2009 Ammonia Criteria", "Ammonia Toxicity to Copepods Compromises the Integrity of the Entire Water Body", and "Ammonia Toxicity is Adversely Impacting Biologically Sensitive or Critical Habitats", as reasons to deny dilution. Regardless if one agrees with the science cited or not, the established regulatory process would have used the water quality "objective" developed from the science, and then set the allowable quantity and concentration of the discharge. Instead, a mixing zone was simply denied. The approach taken by both the Regional Board and State Board has the net effect of denying an otherwise approvable mixing zone, which leads to a lower effluent limit than if the established regulatory process was used.

Second, the Draft Order cites language in the SIP and in the TSD as the basis for denying an otherwise approvable mixing zone. Language is taken from a section of the TSD (page 34, Section 2.2.2) that deals specifically with bioaccumulative pollutants. Since ammonia is not a bioaccumulative pollutant, this provision of the TSD is not applicable for approval of a mixing zone for ammonia. Moreover this provision is applicable only when there is uncertainty about the protectiveness of the criterion. In this case, the narrative toxicity criterion would be protective. As noted in Draft Order footnote 51, the other TSD language cited from the SIP is appropriately used to limit the size of the mixing zone, not to deny an otherwise approvable mixing zone. Again, denial of the mixing zone leads to a lower effluent limit, and increased costs. Thus BACWA recommends that the Draft Order be revised to remand the Permit to the Regional Water Board with direction to:

Use an approvable mixing zone to establish effluent limits.

The Manner of Interpretation of the Scientific Studies Used to Develop these Requirements is not a Legal or Justified Approach for Setting Limits.

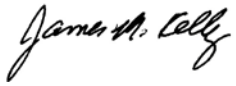
A key portion of the scientific evidence relied upon in the draft order is the preliminary copepod toxicity study prepared by Dr. Swee Teh. The Draft Order acknowledges the work was not peer reviewed, and states it is acceptable to use the study in the permitting process. The Draft Order does not note that (a) the technical report summarizing the study was not available for review at the time the permit was adopted; (b) non-standard organisms and methods were used in the study; (c) non-validated test conditions existed when the testing was performed; (d) there was no use of reference toxicants in the test procedure; (e) there was a lack of documentation or validation of the methodology for data analysis; and (f) there was a lack of validation of the results and conclusions of the study. Preliminary work of this nature is generally not suitable for use as a basis for determining permit limits and setting water quality objectives. In the period since issuance of the SRWTP permit, the Teh work has been documented and reviewed. Potentially significant procedural issues have been raised. While not part of the record, this example points out the need to maintain data quality for information that is used in the NPDES permitting process.

Another study used by the Regional Board is the work performed by Dr. Dugdale and others that suggests that ammonia levels in Suisun Bay, attributed in part to the SRWTP discharge, inhibit phytoplankton blooms in that area. The Draft Order concludes that the evidence relied upon by the Regional Board, although not in the category of “absolute scientific certainty”, was adequate to support its permitting decisions. In the period since issuance of the SRWTP permit, reputable scientists at SFEI and SCCWRP, under contract to the SWRCB, have produced a technical report which concludes that the “inhibition effect” cited by Dugdale and others warrants additional study to be fully validated. The San Francisco Bay Regional Board has agreed with this finding through its actions in NPDES permits and through ongoing studies. Thus BACWA recommends that the Draft Order be revised to remand the Permit to the Regional Water Board with direction to:

Re-evaluate the scientific information used in development of the permit, plus evaluate recent studies.

BACWA appreciates the State Water Resources Control Board’s close attention to the comments made herein. Representatives of BACWA would be more than happy to discuss our comments and concerns with you in more detail if necessary.

Respectfully Submitted,



James M. Kelly
Executive Director
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cc: BACWA Executive Board