



April 3, 2017

James Parrish
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VIA EMAIL: jparrish@waterboards.ca.gov

Subject: Comments on the Tentative Order R2-2017-00XX, NPDES No. CA0037869, for the East Bay Dischargers Authority

Dear Mr. Parrish:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on Tentative Order R2-2017-00XX, NPDES No. CA0037869, for the East Bay Dischargers Authority (EBDA). 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 7.1 million people in the nine-county San Francisco Bay (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

Most of BACWA's member agencies disinfect their effluent using chlorine. In Basin Plan Table 4-2, chlorine is given an instantaneous limit of 0.0 mg/L in effluent, which is an interpretation of the Basin Plan's narrative toxicity objective. Region 2 is the only Region in California where the Basin Plan assigns a limit of 0.0 mg/L. Other Basin Plans in California either include effluent limits up to 0.1 mg/L for chlorine, or include only the narrative toxicity objective. Because chlorine is monitored continuously, chlorine residuals are the most likely constituent to lead to an effluent quality violation in our Region. POTWs that use chlorine for disinfection dechlorinate using sodium bisulfite (SBS). To avoid violations, operators routinely overdose the effluent with SBS, costing agencies millions of dollars per year in aggregate, and exerting oxygen demand in the receiving water, with no water quality benefit.

EBDA is interested in exploring alternatives to the 0.0 mg/L instantaneous chlorine residual effluent limit that leads to wasteful dosing of SBS. BACWA commented during the 2015 Triennial Review process that we would be willing to contribute resources to address this issue either through the Basin Planning process, or through alternative implementation of the existing limit. Since the Regional Water Board did not identify review of the chlorine residual limit as a Basin Planning priority in 2015, the Regional Water Board may still consider alternative implementation of the existing limit by changing how the point of compliance is determined.

Chlorine quickly decays during discharge through an outfall, and NPDES permits in other regions account for such decay. In Massachusetts, for example, in addition to using a non-zero water quality objective for receiving waters and giving dilution credit, they calculate the rate of chlorine decay in the outfall pipeline and set effluent limits accordingly¹. Because EBDA discharges through a 7-mile long outfall, it is expected that chlorine in their effluent would experience considerable decay prior to discharge. EBDA and other agencies that discharge through long outfalls could provide evidence, through benchtop studies, literature review, or in some cases, measured chlorine concentrations in their systems, of chlorine decay prior to discharge. If the Regional Water Board used these studies to assign a higher concentration of allowable chlorine measured in the effluent, this would significantly reduce dosing of SBS throughout the San Francisco Bay Area. EBDA, is particularly well suited to generate this evidence, since they can provide measured rates of chlorine decay from different parts of their system receiving chlorinated effluent flows from their different member agency facilities.

Besides consideration of chlorine die-off in the outfall, EBDA has also identified other potential alternatives for implementing a non-zero effluent limit for chlorine residual, which are 1) granting dilution credit for chlorine residual; or 2) establishing a continuous monitoring reporting limit for chlorine residual in the effluent. BACWA would also support any of the three approaches identified by EBDA.

BACWA appreciates the opportunity to comment on EBDA's Tentative Order and thanks you for considering our input.

Respectfully Submitted,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board

¹ See Massachusetts Water Resource Authority's NPDES Permit No. MA0103284, Attachment H:
<http://www.epa.gov/region1/eco/mwra/pdf/h.pdf>