

APPENDIX B

Comments

Dylan Garner
San Francisco Regional Water Quality Control Board
via electronic mail to: dylan.garner@waterboards.ca.gov

February 4, 2013

Re: Tentative Order for San Mateo WWTP NPDES Permit No. CA 0037541

Dear Mr. Garner:

On behalf of San Francisco Baykeeper and its 2,300 members dedicated to protecting and promoting the water quality of San Francisco Bay, we offer the following comments on the above-referenced Tentative Order (“TO”).

A. The Tentative Order Does Not Consider EPA’s Recreational Water Quality Criteria

We are concerned that the TO does not reference or consider the recreational water quality criteria (“RWQC”) published by the U.S. EPA in December of 2012.¹ Updating its 25-year old RWQC, EPA stated that its “recommendations are intended as guidance to states . . . in developing water quality standards to protect swimmers from exposure to water that contains organisms that indicate the presence of fecal contamination.” However, it is unclear that this policy was considered in the TO. The TO proposes effluent limits equivalent to the least stringent considered in EPA’s criteria, resulting in an estimated increase in illness of every 4/1000. Baykeeper urges the Regional Board to adopt the more stringent of these standards proposed by EPA for enterococci: a geometric mean of 30 cfu/100 mL and a statistical threshold value of 110 cfu/100 mL.

In addition, both the RWQC and the San Francisco Bay Basin Plan propose water quality standards for *E. coli* not discussed in the TO. We again ask the Regional Board to adopt the more stringent recommendation of U.S. EPA and establish an *E. coli* effluent limitation equivalent to a geometric mean of 100 cfu/100 mL and a statistical threshold value of 320 cfu/100 mL.

Lastly, we note that the Fact Sheet bases the TO’s fecal coliform limits on a 1998 study submitted by the discharger. However, we were unable to obtain or review this dated study prior to the close of public comments. We therefore reserve our rights to consider the 1998 study and present relevant comments at any future Board hearing considering this TO.

¹ Available at <http://water.epa.gov/scitech/swguidance/standards/criteria/health/recreation/index.cfm>

B. The Tentative Order Contains Inconsistent and Relatively High Effluent Limitations for Total Ammonia

Recent analysis of water quality data collected by USGS from 1978 to 2009 has shown a significant increase in water column chlorophyll-a per decade (30-50% per decade from Suisun to South Bay respectively) and a significant decline in dissolved oxygen concentrations (1.6 to 2.5% in South Bay and Suisun Bay respectively).² In addition, several peer reviewed studies from recent years have indicated that the historic resilience of the San Francisco Bay to the harmful effects of nutrient enrichment is weakening and that management actions are likely necessary. In light of degrading conditions in the South Bay, with regards to nutrient concentrations and ecological responses, it is inappropriate to include high effluent limits for ammonia, at 66 and 120 mg/L for average monthly and maximum daily discharges, respectively.

For some time, the Regional Board has recognized the South Bay experiences nutrient enrichment and that poor circulation patterns, in comparison with the Central Bay, require ammonia removal efforts.^{3,4,5} These requirements have been applied in a seemingly arbitrary manner, especially since the Board requires only POTWs in the Lower South Bay to reduce ammonia loads, even though the entire South Bay has experienced elevated chlorophyll concentrations and depressed dissolved oxygen. See Figure 1, below, as well as the interactive map of Region 2 ammonia discharges, available at <http://baykeeper.org/content/ammonia-discharges-san-francisco-bay-municipal-wastewater-treatment-plants>.

The three POTWs south of the Dumbarton Bridge at Sunnyvale, Palo Alto, and San Jose are required to reduce ammonia levels below 18 mg/L, 2.7 mg/L, and 3 mg/L, respectively. Despite being located in the vicinity of these plants, in an area known to be exhibiting signs of over-enrichment, the Draft Permit includes high effluent limits for ammonia. Consistent with permit requirements of other POTWs in the area, the Regional Board should take this opportunity to lower effluent limits to levels approaching those required of facilities to the south.

Thank you for your careful consideration of these comments.



Jason Flanders
Program Director, San Francisco Baykeeper

² L. McKee, L. A. Gilbreath, J. Beagle, D. Gluchowski, J. Hunt and M. Sutula. 2012. *Draft Numeric Nutrient Endpoint Development for San Francisco Bay Estuary: Literature Review and Data Gaps Analysis*. Available at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/estuaryenne.shtml.

³ Cloern, J.E., A.D. Jassby, J.K. Thompson and K.A. Hieb. 2007. *A cold phase of the East Pacific triggers new phytoplankton blooms in San Francisco Bay*. *Proceedings of the National Academy of Sciences* 104 (47):18561-18565.

⁴ Dugdale, R.C., F.P. Wilkerson, V.E. Hogue and A. Marchi. 2007. *The role of ammonium and nitrate in spring bloom development in San Francisco Bay*. *Estuarine, Coastal and Shelf Science* 73:17-29.

⁵ McKee, L.J., Sutula, Gilbreath, A.N., Beagle, J., Gluchowski, D., and Hunt, J. 2011. *Numeric nutrient endpoint development for San Francisco Bay- Literature review and Data Gaps Analysis*. Southern California Coastal Water Research Project Technical Report No. 644. Available at www.sccwrp.org.