

Commenter: Central Contra Costa Sanitary District,
5019 Imhoff Place, Martinez, CA 94553
James M. Kelly, General Manager 925/229-7386 jkelly@centralsan.org
October 8, 2010

Comment No.	Topic (i.e., ammonia, Title 22 tertiary, dilution, etc.)	Summarized Comment
1	Compliance with Title 22 Standards for Total Coliform	The requirement for full Title 22 treatment for contact recreation to meet a 2.2 total coliform standard far exceeds the fecal coliform water quality objective specifically adopted by the Basin Plan to protect this beneficial use. While the RWQCB may choose, on a case-by-case basis, to develop a more stringent water quality objective, it must consider the economic impacts of doing so, in accordance with Water Code Sections 13241. Given the significant cost of providing the additional level of treatment required above the water quality objective, it does not appear that there was a consideration of cost versus benefit in applying this requirement.
2	Ammonia Limits – Requirement for Nitrification	The body of work on this topic is growing, as evidenced by many of the citations in the permit renewal package. There is ongoing work and analysis that will continue to inform the ammonia/nitrate/nitrite permitting process. As such, the studies cited do not provide a complete understanding of the impact of ammonia/nitrate and nitrite discharges on the aquatic system. We support the ongoing efforts to develop a more comprehensive understanding of these impacts, taken in context with all of the other stressors in the Delta and the Suisun Bay. These other stressors include, but are not limited to, variations in salinity caused by seasonal flow fluctuations and water exports, and seasonal changes in turbidity and clarity. We request the Water Board to look at this issue holistically and be convinced that the significant resources required for nitrification to the level proposed are justified in light of the expected water quality improvements.
3	Nitrate Limits – Requirement for Denitrification	SRCSO effluent currently has a low concentration of nitrates which will increase substantially if the plant is required to fully nitrify in order to comply with the proposed ammonia limits. As a result of this increase, the draft permit concludes that reasonable potential exists for the discharge to cause or contribute to an exceedance of applicable water quality standards, and a numeric effluent limit is required. The basis for the

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		nitrate effluent limits, however, are questionable, consisting solely of preserving the current effluent ratio of nitrogen to phosphorous. We remind the Water Board to recognize that achieving these very low nitrate concentrations reliably is beyond the limits of current technology and will require the addition of substantial amounts of carbon, such as methanol, and significantly increase the greenhouse gas footprint of the SRCSD plant with no demonstrated water quality benefits.
4	Denial of Mixing Zone/Dilution Credit for Ammonia and Toxic Constituents	The basis for denying a dilution credit based on mixing zone studies for ammonia is not well documented. While regional water boards have discretion in determining the amount of dilution credit to be allowed, a permit can only limit or deny dilution credit if there is a defensible technical basis for the limitation. The State Water Board has affirmed that regional boards “must explain the denial of a mixing zone based on the facts of the discharge” (in the Matter of Yuba City, Order WQ 2005-013 at p 10). It does not appear that this standard has been met.
5	Development of WET testing using <i>Hyaella azteca</i> as Test Species	The tentative permit requires multiple special studies, including one intended to “develop procedures for conducting whole effluent toxicity (WET) testing using <i>Hyaella azteca</i> as the test species” (Tentative Permit at p. 28). The development of test procedures requires significant resources and expertise and is a role appropriately undertaken by large governmental agencies, e.g. USEPA. We are concerned that the Regional Water Board is requiring a permittee to single-handedly develop a test procedure that could have consequences for the entire POTW community. Requiring SRCSD to develop test procedures as described in the tentative permit is not practical nor is it justified. We are concerned that this sets a precedent and we request that this requirement be removed from the Tentative Permit.