Main Office
10060 Goethe Road
Sacramento, CA 95827-3553
Tele: [916] 876-6000
Fax: [916] 876-6160

Sacramento Regional Wastewater Treatment Plant
8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tele: [916] 875-9000
Fax: [916] 875-9068

Technology in balance with nature

August 29, 2011

California Regional Water Quality Control Board
Central Valley Region
Attention: Ms. Betty Yee
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Via email to byee@waterboards.ca.gov

Subject: **Issue List and Work Plan for the 2011 Triennial Review of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins**

Dear Ms. Yee:

The Sacramento Regional County Sanitation District (SRCSD) appreciates the opportunity to comment on the issue list and workplan for the 2011 triennial review for the Sacramento River and San Joaquin River basins (Triennial Review). The basin planning process is a key component in the strategy to achieve water quality objectives. We believe that wastewater agencies, industry, agriculture, state and regional water boards, and other stakeholders must all work together to find creative solutions for updating the basin plans. The issue list and work plan provided by the Central Valley Regional Water Quality Control Board (CVRWQCB) provides a good foundation for the Triennial Review process. Our comments detailed below focus on beneficial use impacts and a regional monitoring program as described in Issue 5, Delta Issues, and Issue 9, Policies for Maintaining Water Quality for Drinking Water.

In addition to our comments, we support comments submitted by the Central Valley Clean Water Association.

Comment #1: Issue 5: Delta Issues

The second paragraph on page 22 states that "ammonia levels appear to be a factor in causing beneficial use impacts." It also says that "the USEPA Ambient Water Quality Criteria for Ammonia – 1999 and the draft USEPA criteria released in 2009 do not appear to adequately protect the beneficial uses of the Delta." These statements are misleading and should be changed to reflect the fact that more research is necessary to determine if ammonia is causing beneficial use impacts in the Delta. Additionally, Issue 5 of the Triennial Review should reflect the current regulatory efforts of the San Francisco Bay Regional Water Quality Control Board's San Francisco Bay Numeric Nutrient Endpoint (SF Bay NNE) process—a process currently showing no proof that USEPA water quality criteria for ammonia is insufficient to protect beneficial uses.

Ammonia's role in the Delta has been, and is being, debated in multiple venues, including the March 2009 CalFED Ammonia Workshop, the August 2009 CVRWQB Ammonia Summit, and the March 2010 State Water Resources Control Board Informational Proceeding for Flow Criteria. The conclusions from these workshops all stated that more research was necessary to determine whether beneficial uses were impacted by ambient ammonia concentrations. In June 2011, the SF Bay NNE published "Southern California Water Research Project Technical Report 644," a

literature review and data gap analysis for the development of NNEs. The review recognizes the uncertainty of ammonia's role in SF Bay and recommends forming a workgroup that will synthesis existing data and recommend future data collection.

An April 20, 2010, University of California Davis contaminant synthesis report contracted by the Water Boards concluded the following:

> *"... while contaminants are unlikely to be a major cause of the POD, they cannot be eliminated as a possible contributor to the decline."*

In addition to the above referenced reports, the National Research Council has been asked to review other stressors, with a report due in the fall of 2011. The USEPA is also analyzing ammonia's role in the Delta under an Advanced Notice of Proposed Rulemaking, which will publish a draft report in the fall of 2011. The Delta Stewardship Council (Council) requested the Independent Science Board (ISB) to "...conduct an assessment of stressors on populations of native fish species in the Delta, the Sacramento and San Joaquin rivers, and the tributaries of those rivers below the rim dams of the central valley." In a January 26, 2011, memo from the ISB to the Council, there is only one note on nutrients that lists nutrients as a current stressor. They list it as a stressor because of the following:

> *"We list 'current stressors' last because The Delta Plan needs to take the long temporal view. To the extent that current stressors are expected to carry on into the future, including how water is managed, the DSC should address them."*

Even the Fifth draft of the Delta Plan states the following regarding food web effects of ammonia on the Delta:

> *"Food web effects of ammonium in the Delta remain an open question with much active research and a healthy scientific debate."*

Clearly there is no scientific consensus that ammonia is a key driver of ecological problems in the Delta and San Francisco estuary, including the pelagic organism decline. There is, and has been, the agreement that more research is needed to understand ammonia's role and importance in the Delta. We request the Delta Issue discussion in the Triennial Review reflect this fact. Therefore, we recommend deleting the second paragraph on page 22 and replacing it with the following:

> **There are conflicting reports on the role that ammonia plays and its importance in the Delta ecosystem. However, most stakeholders and scientists agree that more research is needed to better understand ammonia's role in the Delta ecosystem and to determine if there is an impact to beneficial uses. Staff will work with stakeholders and other interested entities to conduct studies and assessments aimed at evaluating existing water quality criteria as they relate to ammonia.**

The Delta Science Program has funded millions of dollars in research regarding nutrients over the last several years. The results of this research will be available in the next year, and this research should be considered before determining if ammonia is impacting beneficial uses. These studies, and other studies that will be recommended by the SF Bay NNE, should go through a rigorous scientific process that can lead to appropriate water quality objectives for nutrients. The water quality objectives would then be used to determine if beneficial uses are impacted by ammonia.

Comment #2: Issue 5: Delta Issues

We believe that the importance of the Delta Regional Monitoring Program (Delta RMP) is understated in this section and that it deserves a more thorough explanation of its importance. Development and completion of the Delta RMP along with completion of Delta water quality modeling could provide critical information related to current and future Delta water conditions. This information is used by many programs that address other issues that are mentioned in the Triennial Review. As such, this item would be better served to receive its own issue number in this document. We recommend adding the Delta Regional Water Quality Monitoring and Modeling as an individual issue with the following description:

Issue X: **Regional Water Quality Monitoring and Modeling**

Discussion: Many of the other issues presented in this triennial review would benefit from the development of a comprehensive Delta RMP and Delta water quality modeling program. The Delta Stewardship Council also recognizes the importance of a Delta RMP and recommends in the Fifth draft of the Delta Plan that regulatory agencies and stakeholders work together to create a Delta RMP.

The following is taken from the CVRWQCB comprehensive monitoring program website.

> "Many agencies and groups monitor water quality, water flows, and ecological conditions in the Bay-Delta, but there is no comprehensive contaminant monitoring and assessment program. The Interagency Ecological Program (IEP), CALFED, and other organizations, including the Water Boards, conduct some of these analyses, but due to their specific mandates, information gaps may exist. Emerging concerns with contaminants related to the decline of pelagic organisms in the Delta, wastewater treatment plant discharges, agricultural discharges, pesticides, blue-green algae toxicity, and unknown toxicity events all highlight the need for well-coordinated contaminants monitoring. A system is needed for coordinating among monitoring programs and integrating contaminants monitoring into existing monitoring efforts whereby all data are synthesized and assessed on a regular basis. The Strategic Workplan for Activities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which was adopted by the State Water Board, Central Valley Regional Water Board, and San Francisco Bay Regional Water Board, identifies the development of a comprehensive monitoring program for the Delta as a priority action."

The Watershed Analysis Risk Management Framework (WARMF) model and the Delta DSM2 model have been successfully linked through the efforts of the Drinking Water Policy Workgroup. Efforts of this group also included gathering a significant amount of historical water quality data for the Sacramento River and San Joaquin River and tributaries. This linked model could be used to evaluate gaps in water quality data to make future efforts of the Delta RMP program more effective.

Current Action: The Delta RMP has created straw man proposals for governance, funding, water quality monitoring priorities, and data integration. The Delta RMP has also published the first edition of the Pulse of the Delta – the public outreach portion of the Delta RMP.

For modeling efforts, the Central Valley Drinking Water Policy Workgroup has completed watershed models for the Sacramento-San Joaquin Watershed and

Delta, using WARMF and DSM2 models, respectively. Currently, the Workgroup is determining what additional data is necessary to further refine the models.

Current Resources: Various dischargers and entities contribute to sampling efforts and gathering water quality data that could be used to contribute to a future coordinated Delta Regional Monitoring Program.

Additional Action: For the Delta RMP, staff needs to continue working with stakeholders to finalize the straw man proposals. The modeling efforts could be used to help identify and prioritize water quality and water monitoring data gaps. For modeling efforts, the WARMF and DSM2 efforts that were initiated by the Central Valley Drinking Water Policy Workgroup need to be completed. Complete the source evaluation and model input for the agriculture source component for the Sacramento and San Joaquin Rivers and tributaries. The DICU and other Delta agriculture inputs and natural source inputs would need to be completed for a more accurate DSM2 model. Additional activities include expanding stakeholder outreach, gathering additional data and further developing the model to add constituents to build a more comprehensive Delta model to better understand and predict Delta water quality. Current model parameters include flow, pathogens, salts & nutrients (ammonia, nitrates, nitrites, phosphorus, etc), temperature, algae, and organic carbon.

Comment #3: Issue 9: Policies for Maintaining Water Quality for Drinking Water

The first paragraph in the discussion for this issue lists nutrients as pollutants. We agree that nutrients, in certain concentrations, can be considered a pollutant, but we don't believe that nutrients in general should be considered a pollutant. We recommend changing this paragraph to more accurately describe how a nutrient becomes a pollutant (such as nutrients in excessive concentrations). Also, organic carbon and some trace elements occur in natural runoff in areas that have not been disturbed by human activity. In some locations, these natural sources contribute a significant load to waters. The text on page 32 should be changed to note the contribution of the natural sources in the Delta and the importance of these constituents to the Delta ecosystem.

The "Current Resources" section on page 35 states that "CUWA received a grant on behalf of the Workgroup for almost a million dollars to fund technical studies that will help with development of the policy." The grant funding has been expended and significant work remains for completion of the Drinking Water Policy. SRCSD and the California Urban Water Agencies (CUWA) have provided significant funding for various activities including reimbursements for CVRWQCB staff time associated with completion of this workgroup's activities. We would appreciate the recognition of SRCSD in providing these resources.

Item 2 on page 35 states that "additional studies are estimated to require $1,000,000." Funding is required to support additional modeling, studies, water quality monitoring, and staffing. Models developed from this workgroup could be used in other groups such as the Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS). Costs could exceed $2,000,000 to complete the water quality modeling effort. The cost for completing the CV-SALTS effort is estimated to be between $20 million and $40 million.

Thank you again for the opportunity to comment on the 2011 Triennial Review. If you have any questions or need clarification on any of our comments, please contact me at (916) 876-6008 or loftonj@sacsewer.com.

Sincerely,

Jason Lofton
Associate Civil Engineer

cc: Meghan Sullivan, CVRWQCB (msullivan@waterboards.ca.gov)