



State of California - The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
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ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMAN, Director



October 7, 2010

Kenneth D. Landau
Assistant Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Subject: Response to the proposed NPDES permit renewal for the Sacramento Regional County Sanitation District Sacramento Regional Wastewater Treatment Plant

Dear Mr. Landau:

The Department of Fish and Game (DFG) appreciates the opportunity to review the September 3, 2010 Central Valley Regional Water Quality Control Board (Regional Board) proposed Sacramento Regional Waste Water Treatment Plant (SRWTP) NPDES permit renewal (NPDES No. CA0077682) (the Order).

The Order addresses many of the concerns and comments that the Regional Board received from DFG and other agencies on the Aquatic Life and Wildlife Preservation issue paper and the Thermal Plan Exemption Request regarding increased pollutant discharge impacts to sensitive species and studies to date showing impacts from the discharge. The Order requires the Discharger to conduct additional studies on waste discharge impacts, rigorous monitoring, and to provide a corrective action plan, an implementation schedule, and a pollution prevention plan.

DFG appreciates the ambitious requirements in the tentative Order for monitoring pollutants and conducting studies to evaluate the impacts of the waste discharge on the environment. We recognize that while the Order, if adopted as is, would include effluent limitations for many water quality parameters, it would also include less stringent interim water-quality based effluent limitations for six water quality parameters (Ammonia, BOD, TSS, Total Coliform, Total Chlorine, and Chlorpyrifos) through November 2020. DFG offers the following comments and recommendations to further protect public trust resources:

Ammonia

Available science suggests that current SRWTP ammonia and nitrate effluent concentrations do not result in acute or chronic toxicity outside the mixing zone, but that ammonia loading in the Delta ecosystem may be inhibiting phytoplankton

nitrogen uptake and that existing EPA criteria may not be protective of ammonia sensitive species in the Delta. DFG recommends that ammonia and nitrate be removed from the SRWTP effluent to ensure protection of aquatic life and supports the additional studies on nitrogen and ammonia included in the Order. Additionally, DFG recommends that the Regional Board and permittee investigate the fate and transport of ammonia and nitrogen to help determine what effluent concentrations or loads can be discharged without inhibiting nitrogen uptake by Delta phytoplankton.

Mixing Zones

The Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Order states, "The Discharger shall not adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws".

Under Section iv. Evaluation of Available Dilution for Chronic Aquatic Life Criteria, the Order states that the chronic aquatic life mixing zone is sized to protect the water body as a whole and is generally larger than the acute mixing zone, and the chronic mixing zone: (1) *Shall not compromise the integrity of the entire waterbody - The Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001) states that, "If the total area affected by elevated concentrations within all mixing zones combined is small compared to the total area of a waterbody (such as a river segment), then mixing zones are likely to have little effect on the integrity of the waterbody as a whole, provided that the mixing zone does not impinge on unique or critical habitats."*

Because the Sacramento River and Delta is a unique and critical habitat upon which the mixing zone would impinge, the Order must be protective of beneficial uses. Therefore, DFG supports the exclusion of mixing zones and dilution as per the Effluent Limitations Table and fact sheet justifications.

Toxicity Testing

DFG appreciates and supports the inclusion of *Hyalella azteca* and rainbow trout to the Order for toxicity testing purposes. DFG does not support the allowance of modifications to eliminate ammonia-related toxicity in the toxicity testing. Toxicity monitoring should be required of raw effluent in order to test possible synergistic effects with other chemicals and allow for the evaluation of whole effluent on aquatic biota.

Temperature

DFG supports the inclusion of a temperature study to evaluate the protection of delta smelt and the Sacramento River biota.

Dissolved Oxygen

DFG supports the biological oxygen demand limits in the effluent limitations table and strongly supports the basin plan objective of 7 mg/L year round. We recommend additional efforts be made prior to the 2020 compliance deadline to address effluent oxygen demand such as those suggested in SRCSD's "Low Dissolved Oxygen Prevention Assessment".

Monitoring Locations

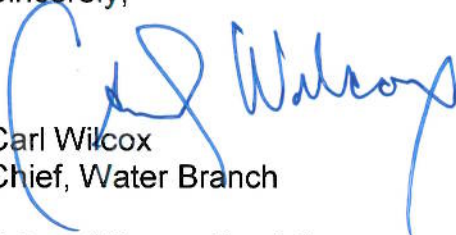
After reviewing the monitoring requirements and locations identified in the Order, DFG recommends that additional continuous monitoring requirements be added to RSWD-003 and RSWD-004 or -005 during the interim effluent limitations period for dissolved oxygen, temperature, and ammonia. Continuous monitoring capabilities are available for these parameters and DFG believes the addition will provide for a more complete and better understanding of the effluent discharge to the river. Any increased monitoring requirements at these sites would require, at a minimum, the same additional increased monitoring at the upstream site RSWU-001 in order to establish baseline conditions to evaluate the data against.

Future Studies

Recognizing the many required future studies identified in this permit, DFG recommends that the Regional Board be diligent in the acceptance and enforcement of the "to be determined" time schedules and study completion dates. The Delta is a highly impacted waterbody with many stressors causing or contributing to adverse impacts. Any increase in or continued discharge of effluent with unknown impacts could negatively impact unique or critical habitats, especially for listed species that inhabit the Sacramento River and Delta.

Again, DFG appreciates the opportunity to review and comment on the Order and would be supportive of adoption should our comments be addressed. Should you have any questions regarding these recommendations or require additional information, please feel free to contact Chad Dibble, at 445-1202.

Sincerely,



Carl Wilcox
Chief, Water Branch

CC: *[Via email only]*
Kent Smith, Region 2 Manager, DFG
Chuck Armor, Region 3 Manager, DFG
Dan Castleberry, Field Supervisor, USFWS
Jeffery Stuart, NOAA
Robert Seyfried, SRCSD