

ITEM: 11

SUBJECT: Sacramento Regional County Sanitation District, Sacramento Regional Wastewater Treatment Plant, Sacramento County

BOARD ACTION: *Consideration of NPDES Permit Renewal (NPDES Permit No. CA0077682)*

BACKGROUND: The Sacramento Regional County Sanitation District is the owner and operator of the Sacramento Regional Wastewater Treatment Plant (Facility), a publicly owned treatment works located at 8521 Laguna Station Road, Elk Grove, CA. The Facility provides sewerage services for the Cities of Sacramento, Folsom, and West Sacramento; the communities of Courtland and Walnut Grove; and the Sacramento Area Sewer District. The Sacramento Area Sewer District service area includes the Cities of Elk Grove, Rancho Cordova, Citrus Heights, as well as portions of the unincorporated areas of Sacramento County. The Facility serves a population of approximately 1.4 million people. The Facility provides secondary treatment for up to 181 million gallons per day (MGD). Secondary treated wastewater from the Facility is discharged to the Sacramento River within the Sacramento-San Joaquin Delta, a water of the United States.

Discharges from the Facility are currently regulated by Waste Discharge Requirements Order R5-2010-0114-04, issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 9 December 2010 and amended on 1 December 2011, 4 October 2013, 8 August 2014, 9 October 2014, and 31 July 2015. An Order is proposed to renew the NPDES permit. The proposed permit includes a new effluent limitation for methylmercury. The permit removes effluent limitations for aluminum, dibenzo(a,h)anthracene, manganese, methyl tertiary butyl ether, pentachlorophenol, and tetrachloroethylene because the discharge does not demonstrate reasonable potential to cause or contribute to instream exceedances of the applicable water quality objectives for these constituents.

ISSUES: The tentative Order was issued for a 30-day public comment period on 4 February 2016 with comments due by 7 March 2016. The Central Valley Water Board received public comments regarding the tentative Order by the due date from the Discharger and the California Sportfishing Protection Alliance (CSPA). The following is a summary of the comments on the major permitting issues and Central Valley Water Board staff responses. Detailed comments and responses are included in the Staff Response to Comments document included in the agenda package.

Denial of Acute Mixing Zones for Copper and Cyanide. The Discharger agrees to move forward with the limitations for copper and cyanide without an acute mixing zone but recommend that the basis for denial be the Central Valley Water Board's anticipation of compliance based on performance rather than the existence of unknown toxicity in the Delta and the pelagic organism decline. The Discharger is concerned with any potential implications of those statements for future permitting actions.

Response: The Delta is impaired for unknown toxicity and has experienced a significant pelagic organism decline. The allowance of mixing zones is discretionary and must be considered on a discharge-by-discharge basis. Considering the conditions of the Delta and the secondary treatment level provided by the Facility, Central Valley Water staff have determined that the allowance of an acute mixing zone is not acceptable for this discharge at this time. The Discharger is currently constructing upgrades to the Facility that will result in a higher level of treatment and improved effluent quality. Several factors are considered in granting or denying

mixing zones, including the conditions of the receiving water and the overall treatment level provided by the Facility. The denial of the acute mixing zone in this Order does not mean an acute mixing zone cannot be reconsidered in the future.

Mixing Zone. CSPA comments that the proposed Permit contains an allowance for chronic and human health mixing zones that do not comply with Federal Regulation and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) or the Basin Plan.

Response: The mixing zones and dilution credits allowed in the proposed Order are in compliance with federal regulations, the SIP, and the Basin Plan; and are adequately protective of the beneficial uses of the receiving water. In summary, the mixing zones are as small as practicable, will not compromise the integrity of the entire water body, restrict the passage of aquatic life, dominate the water body or overlap existing mixing zones from different outfalls. The nearest drinking water intake is about 40 miles downstream of the discharge, which is 37 miles from the end of the human health mixing zone. The mixing zones and dilution credits are discussed in detail in the Fact Sheet in Section IV.C.2.c.

Thermal Plan Exceptions. CSPA comments that the proposed Permit allows for Thermal Plan Exceptions that do not comply with the applicable federal regulations and an Order from the Sacramento Superior Court.

Response: Central Valley Water Board staff does not concur. Based on all evidence in the record Central Valley Water Board staff, using its professional judgment have determined that the Discharger has adequately demonstrated through comprehensive thermal effect studies that the effluent and receiving water limitations based on the Thermal Plan are more stringent than necessary to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made. Staff also determined that the alternative limitations, considering the cumulative impact of its thermal discharge together with all other significant impacts on the species affected, will assure the protection and propagation of a balanced indigenous community of shellfish, fish and wildlife in and on the Sacramento River and Delta. The evidence relied upon includes several thermal effects studies and recommendations from State and federal fishery agencies. Attachment I of the proposed Order provides a detailed summary of the evidence supporting the determinations.

Effluent Limitation for pH. CSPA comments that the proposed Permit contains an instantaneous minimum effluent limitation for pH that does not comply with the pH instantaneous minimum Basin Plan objective of 6.5.

Response: Based on modeling the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the Basin Plan objectives for pH. Therefore, water quality-based effluent limitations are not required. The proposed instantaneous minimum effluent limitation of 6.0 is based on federal secondary treatment standards, and has also been demonstrated through modeling that the limit ensures compliance with the Basin Plan's minimum pH objective in the receiving water. The Fact Sheet (Attachment F, Section IV.C.3.c.xiii) has been modified to provide additional clarification of the rationale for the pH effluent limitations.

Reasonable Potential Analysis. CSPA comments that the proposed Permit contains an inadequate reasonable potential by using incorrect statistical multipliers as required by Federal regulations. CSPA comments further that the proposed Permit fails to utilize valid, reliable, and representative effluent data in conducting a reasonable potential and limits derivation calculations contrary to US EPA's interpretation of Federal Regulations.

Response: The reasonable potential analysis (RPA) was conducted appropriately. For priority pollutants the SIP governs the methodology for conducting the RPA. However, for non- priority pollutants the Central Valley Water Board is not restricted to one particular RPA method. Currently there is no State Water Board or Central Valley Water Board policy that establishes a recommended or required approach to conduct the RPA for non- priority pollutants. For non-priority pollutants, Central Valley Water Board staff may use its judgment in determining the appropriate method for conducting the RPA, considering the site-specific conditions of a discharge.

The RPA and derivation of effluent limitations were conducted utilizing valid, reliable, and representative effluent and receiving water data. The data were based on the most recent three years of monitoring data for the effluent and receiving water at the time of submittal of the report of waste discharge. This is an extensive dataset with over 20,000 data points and comprised of more than 200 constituents. Using the most recent three years of monitoring data is representative of the discharge and ambient conditions, which can change over time.

RECOMMENDATION: Adopt NPDES Permit Renewal.

Mgmt. Review __NM__
Legal Review ____NJ_
21 April 2016 Board Meeting
1685 "E" Street
Fresno, CA 93706