

ITEM: 21

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

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

BACKGROUND: Sacramento Regional County Sanitation District (Discharger) owns and operates the Sacramento Regional Wastewater Treatment Plant (Facility). The Discharger provides wastewater treatment service to the Cities of Sacramento, Folsom, West Sacramento, and the Sacramento Area Sewer District. The Sacramento Area Sewer District service area includes the Cities of Elk Grove, Rancho Cordova, Citrus Heights, and portions of the unincorporated areas of Sacramento County. The population served is approximately 1.3 million people. The Facility is permitted to discharge 181 million gallons per day of treated wastewater to the Sacramento River within the Sacramento-San Joaquin Delta.

On 29 October 2014, the Superior Court for Sacramento County entered a judgment and peremptory writ of mandate in the matter of California Sportfishing Protection Alliance v. California Regional Water Quality Control Board, Central Valley Region (Case No. 34-2013-80001358-CU-QM-GDS) (Regional San Decision), and ordered the Central Valley Water Board to modify Order R5-2010-0114-03 (NPDES Permit No. CA0077682) to 1) vacate the Thermal Plan exceptions in the Permit and to reconsider the issue of whether Thermal Plan exceptions may be granted in this case under the standards set forth in the Code of Federal Regulations (CFR) at 40 CFR § 125.73(a); 2) vacate the portions of the Permit establishing effluent limitations for hardness-dependent metals, and to recalculate such effluent limitations using the equations set forth in 40 CFR § 131.38(b)(2), and without using the hardness value of the effluent in those equations; and 3) establish in the Permit a weekly effluent limitation for aluminum as required by 40 CFR § 122.45(d)(2). The proposed order amends Order R5-2010-0114-03 in accordance with the Regional San Decision.

ISSUES: The tentative Order was issued for a 30-day public comment period on 20 May 2015 with comments due by 19 June 2015. The Central Valley Water Board received public comments regarding the tentative Order by the due date from the Discharger, the United States Environmental Protection Agency, Region IX (USEPA), 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.

Compliance with Copper Limitations. The Discharger requests that the Central Valley Water Board grant mixing zones to meet water quality criteria for copper. The Discharger expresses the concern of compliance with the copper effluent limits as there has been a slight upward trend in copper effluent concentrations due to the drought and increased water conservation. USEPA comments that the facility's performance-based average monthly value for copper (8.1 µg/L) is above the proposed average monthly effluent limit (7.4 µg/L). Thus, a compliance schedule for copper may be necessary.

Response: Based on current data it appears the Facility is able to comply with the proposed final copper limits; therefore, there is no need for a mixing zone or compliance schedule. The Facility Performance value for copper in Table F-10 (8.1 µg/L) is the projected 99.9th percentile of daily effluent concentrations and should

be compared to the maximum daily effluent limitation of 10 µg/L rather than the average monthly limit. Based on current data, the maximum average monthly value for copper is 6.5 µg/L, which is less than the proposed average monthly limit of 7.4 µg/L. Central Valley Water Board staff agrees, however, that the effluent copper concentrations appear to be increasing. Water conservation could be causing the increases, but more information is needed to evaluate the reason for the recent increases. During the upcoming permit renewal in early 2016 staff will re-evaluate the need for a mixing zone and dilution credits for copper.

CTR Hardness Dependent Metals. USEPA supports that the tentative Order establishes water quality criteria and effluent limits based on the hardness of the receiving water consistent with state and federal regulations. USEPA is concerned, however, that the downstream hardness should be used rather than an upstream hardness value. CSPA comments that the proposed Permit fails to identify and use the lowest sampled hardness data contrary to state and federal regulations.

Response: The regulations do not define whether the term “ambient,” as applied in the regulations, necessarily requires the consideration of upstream or downstream hardness conditions. In this situation, the Sacramento River in the vicinity of the discharge is tidal, resulting in flow reversals during low flow periods. During flow reversals the upstream monitoring location is downstream of the discharge. Consequently, hardness data collected upstream and downstream of the discharge were considered in the evaluation of the appropriate hardness for calculation of the CTR criteria. Although the hardness selected to calculate the CTR criteria for copper is outside the range of hardness measured at actual locations downstream of the discharge, the proposed permit amendment demonstrates that the criteria are not exceeded downstream of the discharge and the effluent limits are protective of beneficial uses of the receiving water in all conditions.

The California Water Code requires the Regional Board to be fair and reasonable when setting regulations. Using the lowest measured ambient hardness value will result in conservative effluent limits that are not needed to protect beneficial uses, or comply with federal regulations and state policies, yet will result in substantial additional costs to the Discharger and rate payers. In the proposed Order the lowest observed hardness was not used. Rather, in compliance with state policies and federal regulations, an ambient hardness value was selected that ensures the limits are protective of beneficial uses under all flow conditions.

Antibacksliding and Antidegradation. The Discharger does not agree with the assumption of antibacksliding requirements and antidegradation policies are applicable to the effluent limitations for copper. The copper effluent limitations in Order R5-2010-0114 were the subject of administrative challenge and court litigation and they were in that sense never “final.” Therefore, the limitations from the 2010 permit are not the correct “baseline” for antibacksliding or antidegradation purposes. CSPA comments that the proposed Permit does not contain an adequate antidegradation analysis and does not comply with federal antibacksliding regulations.

Response: The copper effluent limits established in the 2010 permit were in effect upon the effective date of the permit in early 2011. The Court ordered the Board to vacate and recalculate effluent limits in its October 2014 Order. The limits established in the 2010 permit are in effect until vacated and recalculated. A backsliding and antidegradation analysis evaluation must be conducted because in this Order we are relaxing effluent limits and allowing additional degradation from the prior “final” permit.

The Clean Water Act allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The revised effluent limitations are based on updated receiving water hardness data since adoption of Order R5-2010-0114. The new receiving water hardness data submitted by the Discharger is considered new information and satisfies the antibacksliding exception.

Furthermore, the Clean Water Act provides an exception if the relaxation is in compliance with antidegradation requirements. The proposed effluent limits for copper are essentially equivalent to the effluent limits adopted in the 2010 permit. The average monthly limit is increased by only 0.1 µg/L. Consequently, based on a review of the Discharger's antidegradation analysis prepared in support of the 2010 permit, staff finds that the antidegradation analysis that was relied upon for the antidegradation findings for the 2010 permit renewal is applicable for the proposed permit amendment. Thus, relaxation of the effluent limitations for copper from the 2010 permit meets state and federal antidegradation requirements and a federal antibacksliding exception.

Thermal Plan Exceptions. CSPA comments that the Regional Board cannot approve Thermal Plan exceptions and possibly assure the protection and propagation of a balanced indigenous community of shellfish, fish and wildlife in the Sacramento River as required by federal regulations.

Response: Based on temperature studies provided by the Discharger and consultations with the National Marine Fisheries Service, United States Fish and Wildlife Service and the California Department of Fish and Wildlife, the Central Valley Water Board has made the appropriate findings for allowance of the Thermal Plan exceptions. In compliance with 40 CFR 125.73 (a), the Discharger has demonstrated that 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. This demonstration has shown the effluent and receiving water limitations for temperature in the proposed permit amendment are sufficient, considering the cumulative impact of the thermal discharge together with all other significant impacts on the species affected, 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.

RECOMMENDATION: Adopt NPDES Permit Amendment, as proposed.

Mgmt. Review __NM__
Legal Review __NJ__
30/31 July 2015 Board Meeting
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670