

ITEM: 23

SUBJECT: City of Grass Valley, Wastewater Treatment Plant, Nevada County

BOARD ACTION: Continued Hearing - Consideration of NPDES Permit Renewal and New Cease and Desist Order (CDO)

BACKGROUND: The City of Grass Valley owns and operates the Grass Valley Wastewater Treatment Plant (hereinafter Facility) that provides sewerage service for the City of Grass Valley, a population of approximately 12,100. Tertiary-treated effluent is discharged to Wolf Creek, a tributary to the Bear River. The proposed NPDES permit renewal continues to authorize the major discharge of up to 2.78 million gallons per day (MGD) to the receiving water, as authorized in the existing permit.

The Regional Water Quality Control Board held a public hearing regarding the tentative NPDES permit renewal and new CDO on 4 December 2008. The Board continued the hearing to allow public comments on a subsequent tentative permit addressing concerns regarding (1) salinity effluent limitations, (2) removal of effluent limitations for aluminum, copper and zinc, and (3) issues related to the protection of the municipal and domestic supply (MUN) beneficial use. A revised tentative NPDES Permit and CDO was issued for public review on 15 December 2008. Public comments regarding the proposed NPDES Permit were required to be submitted to the Regional Water Board office by 11 February 2009 in order to receive full consideration. Additionally, as required by a California Water Code (CWC) Section 13267 letter issued by the Executive Officer, on 9 March 2009 the Discharger provided additional information from the Nevada Irrigation District regarding local ordinances prohibiting domestic water supply use in Wolf Creek downstream of the discharge location. On 9 April 2009, the proposed permit including additional information regarding the standards used to protect the MUN use in Wolf Creek and addressing public comments received on the December 2008 Tentative Permit was reissued for public review.

ISSUES: The Discharger and the California Sportfishing Protection Alliance (CSPA) submitted public comments regarding the tentative NPDES permits issued on 15 December 2008 and 9 April 2009. The major issues discussed in the public comments are summarized below. Further detail on all comments is included in Regional Water Quality Control Board staff Response to Comments:

Effluent Limitations for Copper, Lead, and Zinc: The its request for use of site-specific water effect ratios (WERs) and translators for copper, lead and zinc, which will avoid significant and unwarranted compliance problems for the Discharger and will be protective of beneficial uses in Wolf Creek.

The results of the reasonable potential analysis (RPA) using the site-specific criteria for copper, lead, and zinc continue to indicate that these

parameters do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives.

Effluent Limitation for Electrical Conductivity: The Discharger comments that since there is no reasonable potential for the discharge to cause or contribute to an exceedance of the salinity screening level, the proposed performance-based effluent limitation for electrical conductivity (EC) should be expressed as interim limitations rather than final limitations. Regional Water Board staff, however, does not concur, therefore, the tentative permit includes a final annual average effluent limitation for EC of “municipal water supply EC plus an increment of 500 $\mu\text{mhos/cm}$, not to exceed 700 $\mu\text{mhos/cm}$ ”. This is a performance-based limitation (established on the existing performance of the facility), therefore, a compliance schedule and associated interim limitations are not necessary.

Averaging Period for Electrical Conductivity: CSPA comments that the proposed EC effluent limitation is regulated as an annual average contrary to Federal Regulations. Regional Water Board staff does not concur. The reported salinity in the effluent is less than the 700 $\mu\text{mhos/cm}$ screening level, therefore the discharge does not have reasonable potential to cause or contribute to an instream excursion over the narrative water quality objectives applicable to salinity, even if the most stringent numerically-expressed interpretations are used. The proposed limitation is intended to serve as a cap to maintain the discharge at current levels. The annual average limitation is necessary to address salt contributions to downstream water bodies.

Effluent Limitations for Aluminum: CSPA comments that the proposed permit fails to contain an effluent limitation for aluminum in accordance with Federal Regulations, USEPA’s interpretation of the regulation, and California Water Code, Section 13377. Regional Water Board staff does not concur. The chronic criterion is based on studies conducted on waters with low pH and low hardness. Monitoring data demonstrate that these conditions are not similar to conditions in Wolf Creek. Aluminum toxicity studies performed by other dischargers with comparable water chemistries demonstrated that it is not appropriate to use the recommended chronic criterion for interpretation of the Basin Plan’s narrative toxicity objective. Thus, it is unlikely that application of the chronic criterion of 87 $\mu\text{g/L}$ is necessary to protect aquatic life in Wolf Creek. The lowest applicable criterion, the Department of Public Health Secondary Maximum Contaminant Level (MCL) for aluminum of 200 $\mu\text{g/L}$, was used as the basis for the reasonable potential analysis. Observed effluent concentrations of aluminum do not exceed the 200 $\mu\text{g/L}$ standard, therefore, effluent limitations for aluminum are not required.

Anti-backsliding: CSPA comments that the effluent limitations for aluminum have been removed and the proposed permit is therefore less stringent than the existing permit, contrary to the anti-backsliding requirements of the Clean Water Act and Federal Regulations.

Order No. R5-2003-0089 established effluent limitations for aluminum based on the National Ambient Water Quality Criteria for protection of freshwater aquatic life to interpret the Basin Plan's narrative toxicity objective. Based on site-specific information that was not available at the time that Order No. R5-2003-0089 was issued, the application of the chronic aquatic life criterion for the discharge to Wolf Creek is not an applicable objective when interpreting the Basin Plan's narrative toxicity objective. Therefore, relaxation of effluent limitations is allowed under CWA section 402(o)(2)(B)(i). The discharge does not have the reasonable potential to cause or contribute to an exceedance of water quality standards for aluminum in the receiving water and all beneficial uses will be maintained. Elimination of effluent limitations for aluminum is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant. Therefore, relaxation of effluent limitations is allowed under CWA section 303(d)(4).

Water Effects Ratios and Translators for Copper, Lead and Zinc: CSPA comments that the information regarding the WERs/Translators and removal of effluent limitations for copper and zinc is insufficient in accordance with Federal regulations. Regional Water Board staff has revised the Fact Sheet of the tentative permit to include additional information regarding the WERs and translators used to calculate criteria for copper, lead, and zinc.

CDO Time Schedule for Manganese Effluent Limitation: The Discharger requested that the compliance date in the proposed CDO for the final manganese effluent limitation be modified from 1 March 2010 to a date in the future that reflects the additional time necessary for the removal of the existing connection of Newmont Mine portal natural drainage into the Facility. Regional Water Board staff concurs that an extension of the existing compliance schedule may be necessary. However, the Discharger's 11 May 2009 request does not include a proposed date of compliance or interim milestones dates for the removal the mine drainage. Therefore, the compliance schedule for manganese has not been extended and the proposed CDO continues to require compliance with manganese final effluent limitations by 1 March 2010. As additional information becomes available regarding the projected dates for the removal of Newmont Mine discharge, the Discharger may request an amendment to the CDO for extension of the compliance schedule for manganese.

Municipal and Domestic Supply (MUN) Beneficial Use: CSPA comments that the revised Order includes misleading and incorrect information regarding MUN uses of the receiving waters. At the 4 December 2008 Board Meeting, the Regional Water Board continued the hearing and required the Discharger to provide additional information on the MUN use in Wolf Creek downstream of the discharge location. In response, the Discharger submitted a letter from the Nevada Irrigation District (NID) dated 3 March 2009, which confirmed that local ordinances prohibit

domestic water use for human consumption of water from Wolf Creek. Additionally, the State Water Board, Division of Water Rights has no record of water intakes in the vicinity of the discharge. Therefore, the proposed permit, with the required tertiary-treated Title 22-quality effluent discharge to Wolf Creek, is protective of the MUN use.

Calculation of Hardness-Based Metals' Criteria: CSPA comments that the proposed permit inappropriately removes effluent limitations for copper, lead, and zinc based on a reasonable potential analysis utilizing the hardness of the effluent as opposed to the ambient receiving water hardness as required by the federal California Toxics Rule. The Fact Sheet of the proposed permit discusses how hardness values are selected to determine criteria for hardness-dependent metals. Clarification to the Fact Sheet has been made to indicate that the applicable criteria were determined using the worst-case receiving water condition under zero-dilution, which is calculated using effluent hardness values.

Mgmt. Review _____

Legal Review LTO

11/12 June 2009

11020 Sun Center Dr. #200

Rancho Cordova, CA 95670