

ITEM: 20

SUBJECT: City of Galt Wastewater Treatment Plant and Reclamation Facility,
Sacramento County

BOARD ACTION: *Consideration of NPDES Permit Renewal and Time Schedule Order (NPDES No. CA0081434).*

BACKGROUND: The City of Galt Wastewater Treatment Plant and Reclamation Facility (Facility) serves a population of approximately 24,000. Currently, the Facility's main treatment systems consist of coarse bar screening, activated sludge, secondary clarifiers, chlorine contact chambers, and lined-sludge lagoons. The Facility has the capacity to discharge up to 3.0 million gallons per day (mgd) of secondary-level treated effluent to the terminus of Skunk Creek at Laguna Creek, a water of the United States and tributary to Cosumnes River. The Discharger also reuses its treated effluent for irrigation of approximately 346 acres of agricultural fields during the months of April through October. The Discharger has planned a number of Facility upgrades including tertiary filtration, ultraviolet disinfection, biosolids dewatering system, enhanced nitrification and denitrification, and a treatment capacity expansion project. To accommodate planned growth, the Discharger requests an increase in the permitted discharge flow to Laguna Creek from 3.0 mgd to 4.5 mgd of tertiary treated effluent; and during the irrigation months, an additional discharge to Laguna Creek after the irrigation demands have been met, which in total will not exceed an average daily flow of 4.5 mgd.

The proposed NPDES Permit approves a capacity expansion to 4.5 mgd, and includes new effluent limitations for aluminum, ammonia, arsenic, bis 2-ethylhexyl phthalate, carbon tetrachloride, chlorodibromomethane, copper, cyanide, dichlorobromomethane, iron, lead, manganese, nitrate plus nitrite, and whole effluent toxicity. The Discharger is unable to immediately comply with the new limits for arsenic, bis 2-ethylhexyl phthalate, carbon tetrachloride, chlorodibromomethane, copper, cyanide, dichlorobromomethane, and nitrate plus nitrite; therefore, a Time Schedule Order is also proposed to provide a time schedule for compliance.

ISSUES: Public comments on the proposed Orders were received from the Discharger, California Urban Water Agencies, California Sportfishing Protection Alliance (CSPA), and Central Valley Clean Water Association (CVCWA). The following is a summary of the comments on the major permitting issues and Central Valley Water Board staff responses:

Aluminum Effluent Limits. CSPA argues that the chronic criterion (87µg/L) recommended in US EPA's Ambient Water Quality Criteria for Aluminum guidance should be applied for this discharge. Central Valley Water Board staff does not concur. The chronic criterion is based on studies conducted on waters with low pH (6.5 to 6.8 pH units) and hardness (<10 mg/L as CaCO₃). In the case of Laguna Creek, where the pH ranges from 6.4 to 9.5 standard units with the median at 7.5 standard units, and the downstream hardness ranges from 39 to 132 mg/L with the median at 58.4

mg/L as CaCO₃, the application of the chronic criteria (87µg/L) is overly protective. Therefore, using best professional judgment, only the acute criterion (750 µg/L) was applied in the tentative NPDES Permit.

Annual Average Effluent Limits for Aluminum, Arsenic, Iron, and Manganese. CSPA comments that the tentative NPDES Permit improperly regulates effluent limitations for aluminum, arsenic, iron, and manganese as annual averages contrary to federal regulations. With regards to aluminum, iron, and manganese, Central Valley Water Board staff does not concur, because the effluent limitations are based on the Secondary MCLs, which are drinking water standards contained in Title 22 of the California Code of Regulations, and compliance with these standards is on an annual average basis. Central Valley Water Board staff has determined that an averaging period similar to what is used by California Department of Public Health for those parameters is appropriate, and that using shorter averaging periods is impracticable because it sets more stringent limits than necessary to protect the MUN beneficial use. However, arsenic is a CTR constituent. Central Valley Water Board staff must apply the CTR and SIP when establishing effluent limitations for CTR constituents in NPDES Permits. Therefore, the arsenic effluent limitation was recalculated in accordance with section 1.4 of the SIP as a monthly average effluent limitation.

Bis 2-ethylhexyl phthalate (Bis-2) Effluent Limits. The Discharger and CVCWA comment that the discharge does not demonstrate reasonable potential for Bis-2. They argue that the detection of Bis-2 in the effluent sample was a false-positive, based on a duplicate sample collected that resulted in non-detection of Bis-2. Central Valley Water Board staff does not concur. It would not be unusual to have different results from two grab samples collected at different times, and therefore, the duplicate sample does not discount the first sample. Moreover, laboratory QA/QC results indicated that contamination did not occur. Thus, without additional information to support that the first-sample's analytical result is a false-positive, an effluent limitation is necessary in accordance with the SIP.

Copper Effluent Limits. The Discharger, CSPA, and CVCWA commented on copper.

The Discharger comments that the 11 March 2002 receiving water monitoring result should be excluded from the dataset analysis because it's older than 4½ years and not representative of current conditions. Central Valley Water Board staff does not concur. Based on the available data, the March 2002 sample is consistent with other data for the receiving water. Without additional information it is not appropriate to discount the March 2002 data.

CSPA comments that the tentative NPDES permit utilizes an outdated water quality standard and water effects ratio (WER) in developing the copper effluent limitations. Central Valley Water Board staff does not concur. The CTR and SIP must be utilized when establishing effluent limitations in NPDES Permits for CTR constituents, such as copper. Although US EPA has recently promulgated an objective for copper based

on the BLM, it cannot be used in developing effluent limitations in NPDES permits unless a Basin Plan amendment is completed, or US EPA changes the CTR.

CVCWA comments that the copper effluent limitations, based upon the lowest upstream hardness value, are overly stringent; and that, instead, the copper criteria should be based upon the reasonable worst-case estimated ambient hardness. Central Valley Water Board staff does not concur. Hardness values used to calculate metal criterion must be protective under all flow conditions. In this case, due to concerns with elevated copper in the receiving water exceeding the CTR criteria, Central Valley Water Board staff used a more conservative approach for establishing the CTR criteria for copper, by using the lowest upstream receiving water hardness to calculate the criteria. Based on the site-specific conditions for this discharge, this approach is reasonable and necessary to protect the beneficial uses of the receiving water.

Title 27 Requirements. CSPA comments that the tentative NPDES Permit fails to recognize that any increase in applied biosolids will result in continued groundwater degradation, and therefore, is not exempt from Title 27 of the California Code of Regulations. CSPA also comments that the land application of treated wastewater is also not exempt from Title 27. Central Valley Water Board staff does not concur. First, the tentative NPDES Permit retains the biosolids loading rates to land from the previous permit Order No. R5-2004-0001 to ensure that degradation does not occur. Second, the wastewater applied to land is fully treated, and therefore, is exempt from Title 27 under the reuse exemption of section 20090(h).

Mgmt. Review _____

Legal Review _____

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