

ITEM: 24

SUBJECT: City of Manteca and Dutra Farms, Inc., Wastewater Quality Control Facility, San Joaquin County

BOARD ACTION: *Consideration of NPDES Permit Renewal (NPDES Permit No. CA0081558)*

BACKGROUND: The City of Manteca is the owner and operator of the City of Manteca, Wastewater Quality Control Facility (Facility), a publicly-owned treatment works located at 2450 West Yosemite Avenue, Manteca, California. The Facility provides sewerage services for the City of Manteca and portions of the City of Lathrop, serving a population of approximately 87,000. The Facility provides tertiary treatment for up to 9.87 million gallons per day (average dry weather flow). The median household income for City of Manteca is approximately \$65,000 and the current sewer user rates are \$43/month. Treated wastewater from the Facility is discharged to the San Joaquin River, a water of the United States, within the Sacramento-San Joaquin Delta. In addition, undisinfected secondary effluent and treated food processing wastewater is reused for feed and fiber crops on 190 acres of City-owned land surrounding the Facility and 70 acres owned by Dutra Farms Inc. Discharges from the Facility are currently regulated by Waste Discharge Requirements Order R5 2009-0095. The United States Environmental Protection Agency and the Central Valley Water Board (Board) have classified this discharge a major discharge.

The proposed NPDES permit renewal allows for an increase in the discharge of average dry weather flow from 9.87 MGD to 17.5 MGD for effluent discharges to the San Joaquin River upon demonstration of compliance with permit conditions. The proposed permit includes new or more stringent effluent limits for bis (2-ethylhexyl) phthalate, diazinon and chlorpyrifos, and methylmercury. The proposed Order also removes effluent limits for total recoverable copper and aluminum, electrical conductivity (EC), methylene Blue Active Substances (MBAS), because the discharge no longer exhibits reasonable potential to cause or contribute to an exceedance of the applicable water quality objectives for these constituents. Additionally, groundwater limitations have been revised for EC, total dissolved solids (TDS), total nitrate nitrogen (as N), and total ammonia nitrogen (as N).

The Tentative Order issued on 28 January 2015, included effluent limitations based on USEPA's 2013 recommended ammonia criteria. Because a separate basin planning effort is underway to evaluate the appropriate methodology to implement USEPA's 2013 criteria, on 3 March 2015, staff issued a supplemental notice to the Discharger and interested parties noting proposed changes to the Tentative Order that would follow USEPA's 1999 recommended ammonia criteria instead of the 2013 Criteria. The Order in the agenda package implements the 1999 Criteria. Included for the Board's consideration is a change sheet that identifies the necessary changes to the Order if the Board instead decides to regulate ammonia using the 2013 Criteria.

ISSUES: A Notice of Public Hearing that was sent to the discharger and interested parties on 28 January 2015 and opened a 30-day public comment period. Timely public comments on the tentative NPDES permit were received by the Discharger, the Central Valley Clean Water Association (CVCWA), and Neighbors United (a local nonprofit focused on growth and environmental issues). 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.

Remove TDS Limits for Recycled Water. The Discharger and CVCWA request removal of the Total Dissolved Solids (TDS) effluent limit for recycled water applied to irrigation areas. The Discharger comments that this effluent limit is not necessary since the proposed order also includes groundwater limitations for TDS.

Board staff respond that the TDS limit was proposed because during the agricultural season (about late April through early October), the Discharger irrigates agricultural fields with food processing wastewater that is blended with undisinfected secondary treated municipal effluent. The Discharger's groundwater monitoring data indicate groundwater is degraded for salinity constituents (e.g. EC and TDS) in some areas within the Facility. The Discharger has made several improvements to reduce impacts to groundwater and the salinity concentrations of the irrigation water are currently lower than the downgradient groundwater and the site-specific water quality objectives.

The Discharger submitted an antidegradation evaluation in October 2012 that demonstrated the operational changes and Facility upgrades comply with the Antidegradation Policy. The performance-based TDS limit for the wastewater applied to the fields was included in the Tentative permit to ensure the salinity of the wastewater will not increase over the current levels and results in the continued implementation of best practicable treatment or control (BPTC) in accordance with the Antidegradation Policy. However, since the TDS levels in the irrigation water are considerably less than the site-specific water quality objectives, as an alternative to an effluent limit, the proposed permit has been modified to include this requirement as a trigger concentration, that if exceeded would trigger the Discharger to conduct additional BPTC evaluations, if needed, to demonstrate the increased concentrations are consistent with the Antidegradation Policy.

Remove Manganese Groundwater Study. The Discharger requests removal of the Manganese Groundwater Study. The Discharger commented that: 1) Manganese concentration levels in the effluent are much lower than those in the groundwater, and 2) high manganese groundwater concentration levels are naturally occurring in the area such as in the City of Lathrop, which is north of Manteca and the Oakwood Lake Water District, which is directly south of Manteca.

Board staff concur. The Manganese Groundwater Study requirement has been removed from the proposed Permit.

Land Discharge Specifications and Recycling Specifications. CVCWA requested modifications to the proposed Permit for the requirements to Land Discharge and Recycled Water. CVCWA's comments are summarized below:

- a) Move Land Discharge Specifications to Recycled Water Specifications
CVCWA requests that the requirements listed under the section titled "Land Discharge Specifications" (Section IV.B) are moved to the section titled "Recycling Specifications" (Section IV.C).

Board staff respond that the requirements contained in the Land Discharge Specifications section are related to water quality concerns and compliance with the Basin Plan. The requirements contained in the Recycling Specifications are related to conditions specified in Title 22 Reclamation Regulations for recycling wastewater. Therefore, staff does not recommend combining the two sections. To clarify the purpose of the two separate sections, the section names have been revised in the proposed Permit. Section IV.B, "Land Discharge Specifications" has been changed to "Land Application Area Specifications," and Section IV.C "Recycling Specifications" has been changed to "Title 22 Recycling

Specifications.”

- b) Land Discharge Requirements Not Consistent with Recycling General Order
CVCWA comments that based on the facts described in the Tentative Order, it appears that the City is applying recycled water at agronomic rates and thus noted that the land discharge specifications are more stringent than necessary with respect to the application of recycled water under the State Water Resources Control Board’s (State Water Board) General Waste Discharge Requirements for Recycled Water Use (General Order).

Board staff respond that the Discharger applies undisinfected secondary recycled municipal wastewater that is mixed with food processing industrial wastewater from Eckert Cold Storage, which is a food processor of frozen vegetables (e.g., cabbage and a variety of peppers). The Recycling General Order is for the regulation of domestic wastewater, not food processing wastewater. Food processing wastewater is of higher strength than secondary treated domestic wastewater (i.e., contains greater concentrations of biochemical oxygen demand, total nitrogen, and total dissolved solids). The proposed Permit requires additional requirements to prevent nuisance and ensure compliance with the Basin Plan.

- c) Designated Waste, Irrigation During Precipitation, Ammonia Groundwater Limits, and EC/TDS Groundwater Limits

CVCWA commented that some provisions are not consistent with recently adopted waste discharger requirements regarding the discharge of designated waste, the specification for irrigation during precipitation, and the groundwater limits for ammonia. CVCWA also questioned the need for groundwater limit for both electrical conductivity (EC) and total dissolved solids (TDS), which are both salinity constituents.

Board staff concur and have modified the proposed Order accordingly.

Upgrade City’s Recycle Water System to Increase Re-use of Tertiary Wastewater
Neighbors United (NU) comments that the City should upgrade their current recycle water system to increase the re-use of tertiary wastewater to be used not only for cattle fodder crops but also to be used for food crops. NU request to require the City to investigate as to whether upgrading their facility is possible through the new recycling program prior adopting the City’s NPDES permit.

Board staff appreciate the comments received from Neighbors United. However, the comments are not related to any specific requirements in the proposed permit and the renewal cannot be delayed while the Discharger evaluates reclamation alternatives. The Central Valley Water Board encourages wastewater recycling and due to the current drought conditions has been making increased efforts to expedite all applications for new recycling projects. The Facility produces a high quality effluent that meets Title 22 reclamation requirements for unrestricted use that is suitable for recycling on parks, playgrounds, golf courses, etc. The Discharger is currently developing a recycled water plan to evaluate the feasibility of expanding the reclamation of its high quality effluent.

RECOMMENDATION: Adopt NPDES Permit Renewal, as proposed.

Mgmt. Review NM
Legal Review PEP
16/17 April 2015 Board Meeting
1685 E Street
Fresno, CA 93706