

ITEM: 7

SUBJECT: City of Merced, Merced Wastewater Treatment Facility, Merced County

BOARD ACTION: *Consideration of Renewal of NPDES Permit and Rescission of Cease and Desist Order*

BACKGROUND: WDRs Order No. 5-00-246 (NPDES No. CA0079219) authorizes the City to discharge 10 mgd of secondary disinfected 23 MPN effluent to Hartley Slough, a 580-acre land application area (LAA), and the Merced Wildlife Management Area. Hartley Slough is an effluent dominated water of the U.S. and an indirect tributary to the San Joaquin River. WDRs Order No. 97-034 authorizes the City to land apply its biosolids and 3.9 mgd of tomato processing water to the LAA.

The TWDRs reflect the City's proposal to expand discharge to 20 mgd and upgrade its WWTF in phases to provide tertiary treatment, UV disinfection to 2.2 MPN/100 mL, effluent denitrification, effluent reaeration, and lined sludge handling units. The TWDRs also rescind WDRs Order No. 97-034 and incorporate biosolids application specifications for the LAA. The TWDRs proscribe tomato processing wastewater discharges to the LAA.

The TWDRs contain new tertiary effluent limits and effluent limits for certain CTR constituents, aluminum, iron, nitrate, and electrical conductivity. Interim limits and compliance schedules are incorporated where appropriate. The TWDRs require studies regarding appropriate receiving water temperature limits, nutrient and salt loading to the LAA, compliance with the Basin Plan Salt and Boron TMDL, and determination of a site-specific chronic criteria for aluminum. The TWDRs allow the City to conduct a study to provide information regarding the whether the designated beneficial uses of municipal and domestic supply and cold water spawning exist in Hartley Slough.

Cease and Desist Order No. 5-00-247 requires the City to ensure long-term treatment capacity, to cease discharge of sludge supernatant to land, and to address receiving water pH compliance issues. As described in the proposed rescission Order, the City has complied with the terms of the CDO and, thus staff is proposing its rescission.

ISSUES California Sportfishing Protection Alliance (CSPA) believes the TWDRs allow surface water and groundwater to be degraded in violation of antidegradation policies.

The City provided an antidegradation analysis, the conclusions of which are described in the TWDRs. As Hartley Slough is an effluent dominated water body, the analysis concludes that the baseline water quality is determined by the existing discharge of secondary

effluent. Generally, implementation of proposed treatment units will result in a net reduction of pollutants discharged to surface waters and groundwater and allow a higher level of reuse. The TWDRs include compliance schedules for constituents where this may not be the case to ensure that all discharges will comply with all water quality objectives. The TWDRs also require the City to install lined sludge handling units and proscribe discharges of tomato process wastewater to the LAA. The TWDRs require the City to complete studies to characterize the uses of groundwater that could be impacted by WWTF discharges and provide technical information to derive final groundwater limitations. The proposed TWDRs are consistent with State and federal antidegradation policies.

CSPA believes the TWDRs improperly relax the effluent limits for ammonia and oil and grease. New information in the form of three years of monitoring data for these constituents indicate they have no reasonable potential to cause an exceedance of a water quality objective in Hartley Slough. Removal of the limits is authorized by an exception in the federal regulations.

CSPA believes the TWDRs should include a chronic effluent limit for aluminum based on USEPA's chronic criteria of 87 ug/L. Aluminum limits in NPDES permits implement the Basin Plan's narrative water quality objective for toxicity. The conditions (low pH and hardness) under which the USEPA chronic criteria was developed do not exist in the receiving water. Thus, it unclear whether its use to set aluminum effluent limits is appropriate. The TWDRs include an acute effluent limit based on USEPA's acute criteria and an annual average limit based on the State drinking water MCL. It also requires the City to conduct a study to determine an appropriate site-specific chronic criteria for aluminum.

The Central Valley Clean Water Association does not believe that the effluent electrical conductivity (EC) limit of 500 umhos/cm over the source water is appropriate or practicable.

The proposed EC limit will apply in the interim until effluent limits based on the Salt and Boron TMDL for the Lower San Joaquin River are implemented. The proposed limit allows a reasonable increase in effluent EC. The limit is practicable, as the discharge currently complies.

RECOMMENDATION: Adopt the proposed Orders.

Mgmt. Review _____
Legal Review _____

13/14 March 2008
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670