

ITEM: 7

SUBJECT: Town of Discovery Bay Community Services District, Discovery Bay Wastewater Treatment Plant, Contra Costa County

BOARD ACTION: Consideration of Order Amending Waste Discharge Requirements Order R5-2008-0179 (NPDES Permit No. CA0078590)

BACKGROUND: The Town of Discovery Bay Community Services District (Discharger) owns and operates the Discovery Bay Wastewater Treatment Plant (Facility), a publicly owned treatment works that serves a population of approximately 16,000 people in Contra Costa County. On 4 December 2008, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopted Order R5-2008-0179, prescribing waste discharge requirements for the Facility, which permits an average dry weather flow of 2.1 million gallons per day of secondary treated municipal wastewater to be discharged to Old River, within the Sacramento-San Joaquin Delta.

On 30 September 2010, a Tentative Order amending Order R5-2008-0179 was issued for public review and comment in accordance with a precedential water quality order adopted by the State Water Resources Control Board on 19 May 2009, for the City of Tracy Wastewater Treatment Plant (WQO 2009-0003, Tracy Order). However, due to pending litigation regarding the Tracy Order, the proposed amendment did not proceed for adoption at the noticed board meeting. The litigation was settled on 1 June 2011, when the Superior Court for Sacramento County issued a peremptory writ of mandate regarding the Tracy Order.

A second Tentative Order is proposed amending Order R5-2008-0179 to: (1) re-evaluate the final effluent limitations for electrical conductivity, in accordance with the Tracy Order and the subsequent Superior Court Order, (2) update the receiving water limitations for pH and turbidity, and (3) correct errors or provide clarity regarding compliance determination and the disinfection system operating specifications.

ISSUES: The Central Valley Water Board received public comments regarding the March 2012 tentative order by the due date from the California Sportfishing Protection Alliance (CSPA) and the Central Valley Clean Water Association (CVCWA). CSPA indicated that its comments on the September 2010 tentative order were still valid and requested they be considered for the currently noticed item. CVCWA did not request that its comments on the September 2010 tentative order be considered for the currently noticed item. 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 this agenda item.

Ultra Violet Light (UV) Disinfection System Operation Specifications Too Prescriptive. CVCWA comments that the UV operating requirements impermissibly specify the manner of compliance with the permit's effluent limitations for total coliform and violates section 13360 of the California Water Code.

The permit includes effluent limits for total coliform organisms based on a general recommendation by the Department of Public Health for the protection of public health. UV specifications are needed to ensure the disinfection system adequately disinfects the municipal wastewater. The Discharger conducted a site-specific study to determine UV dose response as a function of turbidity to establish site-specific UV specifications that ensure adequate disinfection. Staff concurs with the findings of the study. Based on

the study results, the proposed Order modifies the UV Disinfection System Operating Specifications to include minimum UV dose and maximum turbidity specifications in accordance with the site-specific study. The proposed changes were requested by the Discharger. Removal of the minimum UV disinfection operating parameters does not provide the assurance of pathogen deactivation needed to protect human health.

Effluent Limitation for Electrical Conductivity (EC) is not adequate. CSPA comments that the proposed changes to the EC effluent limits is not adequately protective of the aquatic life, agriculture, and industrial beneficial uses of the receiving water.

The existing EC effluent limitation is a performance-based limit intended to cap the discharge of salinity from this Facility. The proposed amendment does not change the existing numeric effluent limit for EC in the existing Order. The performance-based EC effluent limitation remains effective as a measure to ensure the discharge of salinity does not increase. In the proposed amendment it is demonstrated that water quality-based effluent limits for EC are not necessary to protect the beneficial uses of the receiving water, because the discharge does not have reasonable potential to cause or contribute to an exceedance of applicable water quality objectives in the receiving water. The applicable water quality objectives evaluated in the reasonable potential analysis are protective of the aquatic life, agriculture, and industrial beneficial uses of the receiving water.

The Central Valley Water Board did not conduct mixing zone analysis for EC. CSPA comments that a mixing zone analysis was not conducted for EC when conducting the reasonable potential analysis (RPA).

USEPA recommended RPA procedures were used by Central Valley Water Board staff in the proposed amendment. These RPA procedures are appropriate for the salinity parameters in this discharge, because rapid mixing occurs in the receiving water and the salinity parameters are not priority pollutants. Although mixing of the effluent with the receiving water is considered using USEPA's RPA procedures, an approved mixing zone is not necessary. Mixing zones are only used to establish water quality-based effluent limits. As discussed above, the discharge does not have reasonable potential for EC, therefore, water quality-based effluent limits were not calculated. The proposed amendment does not change the performance-based effluent limit for EC.

The proposed permit allows for segments of the receiving stream to exceed water quality objectives for temperature and turbidity contrary to the Basin Plan. CSPA comments that the proposed amendment allows the discharge to violate the Basin Plan water quality objectives for temperature and turbidity, because compliance determination language is proposed stating that compliance with the temperature and turbidity receiving water limits is to be determined based on receiving water monitoring upstream and downstream of the discharge.

The proposed change to the permit simply clarifies the method of compliance determination for the temperature and turbidity receiving water limits, which must be determined considering upstream and downstream receiving water quality. The proposed clarifications do not change the receiving water limits, do not violate the Basin Plan, or allow mixing zones for temperature and turbidity.

The proposed permit contains an inadequate Antidegradation analysis. CSPA comments that the proposed amendment does not comply with the State Water Resources Control Board's Antidegradation Policy.

The proposed amendment does not allow an increase in the discharge of pollutants to the receiving water. The effluent limit for EC does not change and the proposed clarifying language for determining compliance with the temperature and turbidity receiving water limits does not authorize an increase in the discharge for temperature or turbidity. Consequently, the discharge is in compliance with the Antidegradation Policy.

Mgmt. Review _____
Legal Review _____

7/8 June 2012

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