

ITEM: 14

SUBJECT: San Andreas Sanitary District, Wastewater Treatment Plant
Calaveras County

BOARD ACTION: *Consideration of NPDES Permit Renewal and Time Schedule Order*

BACKGROUND: The San Andreas Sanitary District (hereinafter Discharger) is the owner and operator of the Wastewater Treatment Plant (hereinafter Facility), a publicly owned treatment works (POTW). Secondary treated effluent is discharged to the North Fork Calaveras River, a tributary to the New Hogan River from 1 November through 30 April each year. Secondary treated wastewater is discharged to the Discharger's Designated Land Disposal Area (DLDA) from 1 May through 31 October. The proposed NPDES permit authorizes a major discharge of up to 1.5 million gallons per day (mgd) to the receiving water and up to 1.8 mgd to the DLDA.

The Discharger provides sewerage service for the community of San Andreas in Calaveras County and serves a population of approximately 2,200 residents with approximately 1,840 service connections. The design average dry weather flow capacity is 0.4 MGD and the peak wet weather flow capacity is 0.9 MGD. The current residential sewer charge is \$54.00 per month

The previous Order No. R5-2003-0151 authorized the discharge of wastewater to San Andreas Creek and the North Fork Calaveras River. Order No. R5-2003-0151 required that discharges to San Andreas Creek that do not receive 20:1 dilution as a daily average after 1 April 2006 receive tertiary treatment. Order No. R5-2003-0151 also prohibited the discharge of secondary treated wastewater to the North Fork Calaveras River in quantities which do not receive a minimum of 20:1 dilution as a daily average. During the term of Order No. R5-2003-0151, the Discharger completed construction of an outfall pipeline to the North Fork Calaveras River and discontinued the discharge of secondary treated wastewater to San Andreas Creek as of 30 April 2008.

The proposed NPDES permit contains new and/or more stringent effluent limitations for copper, chlordane, cyanide, diazinon, and zinc. The proposed NPDES also include interim limits for ammonia and diazinon. A Time Schedule Order, including a time schedule and corresponding interim effluent limitation, is proposed for the new and more stringent effluent limitations in which the Discharger is unable to immediately comply, including chlordane, copper, cyanide, and zinc.

ISSUES: The San Andreas Sanitary District (Discharger) and the California Sportfishing Protection Alliance (CSPA) submitted public comments regarding the tentative NPDES Permit. The major issues discussed in the public comments are summarized below. Some minor changes have been made to the proposed Order in response to the comments. Further detail on all comments is included in Regional Water Quality Control Board staff Responses to Comments.

Discharger Comments

Flow Ratio Prohibition: The District's previous Order contained a prohibition of discharges of secondary treated effluent to the North Fork Calaveras River in quantities that would exceed a minimum of 20:1 dilution as a daily average. The District requested that upon completion of upgrades to the Facility to provide

tertiary level treatment the discharge prohibition be changed from 20:1 for secondary treated effluent to 10:1 for tertiary treated effluent, and that allowance of 10:1 tertiary treated effluent discharge limits be included in the Tentative Order.

Regional Water Board staff disagree with changing the flow ratio discharge prohibition from 20:1 to 10:1 and placing effluent limitations reflecting the lower flow ratio in the Order effective when the upgrade to tertiary treatment is complete. It is necessary for the Discharger to perform an antidegradation analysis to evaluate whether the discharge at a 10:1 flow ratio would be in compliance with the State Water Board's Antidegradation Policy (Resolution 68-16).

Revision to Bis(2-ethylhexyl)phthalate Effluent Limits: The Discharger requested recalculation of bis (2-ethylhexyl) phthalate effluent limits based on receiving water data that reflects use of a more sensitive method detection limit (0.1 µg/L).

Regional Water Board staff agrees with the Discharger on the use of analytical results with a more sensitive analytical method detection level. Use of the lowest reported method detection level is consistent with Section 1.4.3.1 of the SIP. Therefore, the proposed Order has been modified to include an average monthly effluent limitation of 34 µg/L and maximum daily effluent limitation of 95 µg/L.

DLDA Operating Requirements: The Discharger requested that the maximum daily discharge to the DLDA, currently limited to 0.9 MGD and based on the hydraulic design capacity of the trickling filter, be revised to reflect the redundancy features, which were not in place at the time of adoption of the previous Order. Under its current configuration, the facility has the capability to discharge up to 1.8 MGD to the DLDA: 1.5 MGD through the new treatment process and up to 0.3 MGD through the High Flow Treatment System (HFTS).

The Regional Water Board staff agree with revising the provision limiting the maximum daily flow discharged to the DLDA, and the Order will be revised to allow a maximum daily discharge of 1.8 MGD to more accurately reflect the hydraulic capacity of the current treatment plant configuration. The provision limiting the average dry weather flow rate to the DLDA remains unchanged from the previous Order; it is not expected that the increase in the maximum flow will result, on average, to increases in the amount of flow directed to the DLDA.

CSPA Comments

Inappropriate Mixing Zone: The proposed Permit contains an allowance for a mixing zone that does not comply with the requirements of the SIP or the Basin Plan, is unaddressed in an antidegradation analysis, and does not comply with the requirements of the Clean Water Act, Federal Regulations, and the California Water Code.

The Discharger conducted a Dilution/Mixing Zone Study in April 2004. On 29 July 2008, the Regional Water Board requested the Discharger to further evaluate the mixing in the North Fork Calaveras River. The Discharger submitted an evaluation of the Dilution/Mixing Zone Study on 25 August 2008. Based on the Discharger's Dilution/Mixing Zone Study, dilution credits for compliance with human health criteria were allowed in the proposed Order. For constituents where water quality criteria are based on human health objectives,

critical environmental impacts are expected to occur far downstream from the source such that complete mixing is a valid assumption. However, the Dilution/Mixing Zone Study is inadequate for allowance of dilution credits for compliance with aquatic toxicity criteria. The study does not address all of the conditions required in the SIP, which requires, in part, that a mixing zone shall not cause acutely toxic conditions to aquatic life passing through the mixing zone or restrict the passage of aquatic life. In addition, the boundaries of the acute and chronic mixing zones were not identified. Therefore, it is not appropriate to grant dilution credits for compliance with aquatic life criteria at this time.

Lack of Protection of the Municipal and Domestic Beneficial Uses: The municipal and domestic beneficial uses of North Fork Calaveras River are not protected contrary to Federal Regulations and the California Water Code.

There are no numeric water quality objectives for pathogens for the protection of MUN. Therefore, the Regional Water Board, when developing NPDES permits, implements recommendations by DPH for the appropriate disinfection requirements for the protection of MUN, as well as REC-1 and AGR. The disinfection requirements in the proposed Order implement the DPH recommendations and are fully protective of the beneficial uses of the receiving water. In addition, there are no known users of raw water (i.e., existing uses of untreated domestic water) in the vicinity of the discharge, and there is no direct evidence of beneficial use impacts.

Title 27 Requirements: The proposed Permit inappropriately exempts the land disposal discharge from CCR) Title 27.

Regional Water Board staff disagrees. First, the discharges of domestic sewage or treated effluent are exempt from Title 27 under section 20090(a). The DLDA is part of the wastewater treatment facility and are explicitly exempt from Title 27 under section 20090(a). Second, the Basin Plan on page II-9-00 states "These objectives [Bacteria, Chemical Constituents, Radioactivity, Tastes and Odors, and Toxicity] do not require improvement over naturally occurring background concentrations." The proposed Order contains several mechanisms to determine whether the treated wastewater is threatening to cause or has caused groundwater to contain waste constituents in concentrations greater than background water quality, and thus ensure that Best Practicable Treatment or Control are in place to protect the Beneficial Uses of the groundwater.

Mgmt. Review _____

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