

ITEM: 12

SUBJECT: City of Auburn, Wastewater Treatment Plant, Placer County

BOARD ACTION: *Consideration of Order Amending Waste Discharge Requirements Order R5-2010-0090, NPDES Permit No. CA0077712, and Cease and Desist Order R5-2010-0091*

BACKGROUND: The City of Auburn (Discharger) is the owner and operator of the City of Auburn Wastewater Treatment Plant (Facility). The Facility is designed to provide tertiary treatment for an average dry weather flow of 1.67 million gallons per day (MGD) of wastewater. The tertiary treated wastewater is discharged to Auburn Ravine, a tributary to East Side Canal, Natomas Cross Canal, and Sacramento River.

On 22 September 2010, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopted Waste Discharge Requirements Order R5-2010-0090, prescribing final aluminum water quality-based effluent limitations based on USEPA's recommended National Ambient Water Quality Criteria (NAWQC), using the chronic criterion of 87 ug/L. USEPA advises, however, that it may be appropriate to use a site-specific water-effect ratio (WER) for aluminum in the receiving water to better reflect the actual toxicity of aluminum to aquatic organisms.

Due to uncertainties with the chronic aluminum criterion, on 16 November 2010, the Discharger submitted a study titled, "City of Auburn Aluminum Toxicity Study" identifying a site-specific WER for aluminum. A site-specific aluminum WER for Auburn Ravine was calculated to be >12.4, which results in a site-specific chronic criterion of > 1079 ug/L. Therefore, the appropriate criterion to implement the Basin Plan's narrative toxicity objective for the protection of the aquatic beneficial use is the NAWQC acute criterion of 750 ug/L. Based on this information there is no reasonable potential for the discharge to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective for aluminum. The next more stringent criterion for aluminum is the USEPA secondary maximum contaminant level of 200 ug/L, which is implemented as an annual average to interpret the Basin Plan's narrative chemical constituents objective. Therefore, the aluminum effluent limits should be modified accordingly.

The proposed Order amends Order R5-2010-0090 and Cease and Desist Order R5-2010-0091 to remove the aluminum effluent limitations of 70 ug/L as a monthly average and 146 ug/L as a daily maximum, and add an annual average effluent limitation of 200 ug/L.

ISSUES: The Central Valley Water Board office received public comments from the California Sportfishing Protection Alliance (CSPA) on the tentative Order. The major issues discussed in the public comments are summarized below. Further detail on all comments is included in Central Valley Water Board staff Responses to Comments document that is included in the agenda package.

USEPA Approval of Site-Specific WERs and Objectives. CSPA comments that aluminum is not a priority pollutant and is not subject to the terms or requirements of the State Water Board's State Implementation Policy (SIP). According to USEPA, under the Clean Water Act, the derivation of WERs establishes a site-specific water quality criterion subject to EPA review and approval.

Central Valley Water Board staff does not concur. In the proposed Order, USEPA's Recommended NAWQC for aluminum is used to interpret the Basin Plan's narrative toxicity objective. The use of a WER for aluminum is not used to establish a site-specific water quality standard. Based on an Aluminum Toxicity Study provided by the Discharger, it was demonstrated that for Auburn Ravine the Basin Plan's narrative toxicity objective should be interpreted for aluminum using the acute criterion recommended by USEPA, not the chronic criterion. Based on this new information the discharge does not have reasonable potential to cause or contribute to an exceedance of the narrative toxicity objective. Thus, effluent limits based on the Secondary MCL are appropriate.

Procedures for Developing WER not Adequately Explained in the Fact Sheet.

CSPA comments that the proposed permit amendment did not specify the procedures used to develop the WER and the Fact Sheet does not contain the basis for the limitation as required by 40 CFR 124.8. In response, Central Valley Water Board staff has modified the proposed amendment to include additional information regarding the Discharger's Aluminum Toxicity Study and the procedures used to develop water quality-based effluent limitations for aluminum.

Annual Average Effluent Limit for Aluminum not Protective of Aquatic Life. CSPA comments that the proposed aluminum limitation is established at 200 ug/l as an annual average. According to US EPA's ambient criteria for the protection of aquatic life, acute toxicity can occur based on a one hour average concentration of 750 ug/l. Since the maximum effluent concentration (MEC) from the wastewater treatment plant for aluminum was 720 ug/L, there is reasonable potential for the discharge to exceed the 1-hour criterion. Central Valley Water Board staff does not concur. Based on 77 effluent samples for aluminum, collected from 2005 through 2009, the MEC was 720 µg/L, with a minimum of non-detect (<27 µg/L). The 99.9th percentile of the dataset is only 640 µg/L. Considering the statistical evaluation of the data, there is no reasonable potential for the discharge to exceed 750 ug/L.

Enforcement Order Required for Aluminum. CSPA comments that since the discharge has exceeded the annual average effluent limit of 200 ug/L, a compliance schedule in a separate enforcement order is required. However, analysis of the effluent data shows that the effluent calendar annual average aluminum concentration only exceeded 200 µg/L once in the past six years (2005-2010). The Discharger asserts that the Facility is able to immediately comply with the final aluminum effluent limitation and has not requested a compliance schedule. As proposed, the Discharger is required to immediately comply with the annual average effluent limitation for aluminum and would be subject to enforcement, including the assessment of mandatory minimum penalties in accordance with Water Code section 13385, should a violation occur.

Mgmt. Review _____

Legal Review PEP

February 3, 2011

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