

ITEM: 11

SUBJECT: Amendment to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins to Establish Site-Specific Water Quality Objectives for Chloroform, Chlorodibromomethane, and Dichlorobromomethane for New Alamo and Ulatis Creeks, Solano County, and Permit Implementation Provisions

BOARD ACTION: *Consideration of Approval of Environmental Document and Adoption of Proposed Amendments*

BACKGROUND: New Alamo and Ulatis Creeks are historically low-flow streams that flow when it rains and decrease to a trickle in the summer. Lower Ulatis Creek is located within the legal boundary of the Sacramento-San Joaquin Delta, which has beneficial uses specified in the Basin Plan and the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). Municipal and domestic supply (MUN) is a designated use of Ulatis Creek under both the Basin Plan and the Bay-Delta Plan. New Alamo Creek is tributary to Ulatis Creek and via the tributary statement is assigned the same beneficial uses as Ulatis Creek. Old Alamo Creek is tributary to New Alamo Creek and via the tributary statement is assigned the same beneficial uses as Ulatis Creek except that the Central Valley Water Board adopted a basin plan amendment to de-designate the MUN, COLD, MIGR and SPWN beneficial uses of Old Alamo Creek.

The USEPA promulgated criteria for priority toxic pollutants for surface waters of California in the California Toxics Rule (40 CFR §131.38) (CTR). The CTR criteria for carcinogens were derived using a 10^{-6} incremental cancer risk level for individuals that consume 2 liters of water and 17 grams of fish/shellfish per day for a 70-year lifetime. The CTR includes criteria for chlorodibromomethane (DBCM) and dichlorobromomethane (DCBM) that are applicable to New Alamo and Ulatis creeks to protect human health. Because Old Alamo Creek is not designated for MUN, it is protected by criteria that protect individuals that consume fish/shellfish but do not consume the water.

Municipal wastewater that is chlorinated to remove bacteria generally forms trihalomethanes as disinfection by-products. Treatment technologies to reduce the levels of trihalomethanes in municipal wastewater are an additional cost borne by these dischargers. The Easterly Wastewater Treatment Plant (WWTP) is located in Solano County, and serves the City of Vacaville and the unincorporated area of Elmira. Treated municipal wastewater is discharged directly into Old Alamo Creek. The WWTP discharge causes concentrations of DBCM and DCBM in the New Alamo and Ulatis creek segments to exceed current CTR criteria

as well as USEPA recommended human health criteria for chloroform (there currently is no adopted numeric criteria for chloroform).

Staff determined that there is a need to refine the water quality criteria associated with chloroform, DBCM and DCBM applicable to the lower segments of New Alamo Creek and Ulatis Creek because the current criteria are based on the assumption that people are using these waters as their primary drinking water supply for their lifetime – a level of use that has never occurred in the past, is not currently occurring, and is not expected to occur in the future. However, staff believe that it is important to maintain water quality in the lower New Alamo Creek and Ulatis Creek segments at a level sufficient to protect transient and incidental use of water in the creeks for drinking water should such a use ever occur. Existing water quality supports this use. The proposed amendment includes site-specific water quality objectives that maintain the current water quality while providing an acceptable level of protection for individuals that consume the water and the fish/shellfish from these water bodies, and to protect the MUN use in Cache Slough, the next downstream water body.

The State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Waters, Enclosed Bays, and Estuaries of California* (i.e. State Implementation Plan or SIP) to provide the implementation procedures for the CTR criteria. However the SIP does not include specific implementation procedures to address a situation where water bodies downstream of the first receiving water have applicable water quality objectives that are more stringent than the water quality objectives of the first receiving water. This is the situation for dischargers to Old Alamo Creek. Old Alamo Creek is the first receiving water and it does not have a MUN designated use. New Alamo Creek, the downstream receiving water, has a MUN designated use which must be protected. Therefore, it is necessary to adopt implementation procedures that address this unique situation. The proposed amendment includes procedures for how the Central Valley Water Board will determine if a discharger to Old Alamo Creek has the “reasonable potential” to cause, or contribute to an excursion above the water quality objectives applicable to New Alamo Creek. The proposed amendment also includes procedures for how the Central Valley Water Board will calculate the effluent limitations for the discharger to Old Alamo Creek if reasonable potential is found.

A CEQA scoping meeting was held during the development of this Basin Plan Amendment to identify and address issues regarding the amendment. State Water Board basin planning staff, and U.S.EPA Region IX permitting and planning staff, participated in the development of the Basin Plan amendment. The Basin Plan amendment and staff report were submitted for an independent, external scientific peer review in accordance with Health and

Safety Code section 57004. The proposed Basin Plan amendment and staff report have been revised in response to scientific peer review and public comments. The proposed Basin Plan Amendment and staff report, as well as other supporting documentation, are available on our website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/alamocreek.shtml

Written comments that will be responded to in a written response to comments are due on 12 May 2010. Comments and written responses to the comments will be provided to the Regional Water Board by the hearing.

ISSUES:

The issues to be considered are the following:

- Appropriateness of the proposed site-specific water quality objectives for chloroform (46 ug/L), DBCM (4.9 ug/L) and DBCM (16 ug/L) which maintain the current water quality.
- Appropriateness of the proposed implementation provisions for dischargers to Old Alamo Creek, which is not designated MUN, to protect the beneficial uses of New Alamo and Ulatis Creeks, which are designated MUN.

RECOMMENDATION: Adopt the Basin Plan Amendment

Mgmt. Review _____

Legal Review LSO

27 May 2010

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