

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION – SAN FRANCISCO BAY REGIONAL WATER BOARD
APRIL 17, 2024**

ITEM 3

SUBJECT

CONSIDERATION OF A PROPOSED RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY BASIN TO CORRECT ERRORS IN FRESHWATER METAL WATER QUALITY OBJECTIVES, TO CLARIFY THE BASIS TO ESTABLISH DILUTION CREDITS FOR NON-PRIORITY POLLUTANTS, AND TO ALLOW ESTABLISHMENT OF ALTERNATIVE CYANIDE DILUTION CREDITS AND MERCURY CONCENTRATION TRIGGERS FOR WASTEWATER TREATMENT OPERATIONS.

DISCUSSION

The San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Water Board) adopted an amendment to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 13, 2023, via [Resolution No. R2-2023-0026](#). The amendment does the following: 1) corrects errors in freshwater objective calculation formulas for selected metals to be consistent with the California Toxics Rule (CTR) and National Toxics Rule (NTR); 2) clarifies that other applicable policies, regulations, and guidance aside from the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy) may be used when developing dilution credits for non-priority pollutants; 3) allows establishment of alternative cyanide dilution credits and mercury concentration triggers to accommodate water recycling projects or to reflect material and substantial changes in wastewater treatment operations and conditions; and 4) makes minor editorial changes to Table 3-4 to add clarifications, update obsolete information, and improve formatting.

1. Basin Plan Table 3-4 contains freshwater water quality objectives for selected toxic pollutants to protect surface water bodies. The water quality objectives for chromium (III), copper, lead, nickel, silver, and zinc are based on U.S. EPA criteria established for California waters, such as the CTR and NTR criteria. These criteria are expressed in the dissolved form of the metals. There are calculation formulas in the footnotes to calculate the objectives for these metals as a function of the hardness. However, the formulas in the footnotes calculate the objectives in the total recoverable form. The Basin Plan amendment corrects these errors by including the conversion factors in these calculation formulas to convert the objectives into the dissolved form, thus making them consistent with the CTR and NTR.

2. The State Implementation Policy was developed and adopted specifically to implement the water quality criteria for the 126 priority pollutants in the CTR. For pollutants not listed in the CTR (“non-priority pollutants”), other policies, regulations, and guidance may be more appropriate. The Basin Plan is worded to only allow the use of the State Implementation Policy as the basis to develop dilution credits for all toxic pollutants. The Basin Plan amendment allows the San Francisco Bay Water Board to use other applicable policies, regulations, and guidance aside from the State Implementation Policy for developing dilution credits for non-priority pollutants.
3. Basin Plan Table 4-6 contains cyanide dilution credits for the region’s thirteen shallow water dischargers, which were developed along with the cyanide site -specific objectives in 2006 and incorporated into the Basin Plan in 2008. The San Francisco Bay Water Board also developed the San Francisco Bay Mercury Total Maximum Daily Load in 2006 and incorporated it into the Basin Plan in 2008. In addition to the mass-based wasteload allocations in the Mercury Total Maximum Daily Load, there are concentration triggers that were based on the wastewater treatment facilities’ performance back then. When the cyanide dilution credits and mercury triggers were established, the effects of producing recycled water, conserving water, or using new raw materials in the production process on pollutant concentrations in wastewater were not anticipated.
 - For the water recycling example, Santa Clara Valley Water District (Valley Water) has built an advanced water purification plant, which takes treated wastewater from the City of Palo Alto’s (City) wastewater treatment plant to produce high quality recycled water using reverse osmosis. This process also results in highly concentrated waste streams, namely the reverse osmosis reject, which would be returned to the City’s wastewater treatment plant, blended with treated wastewater, and discharged. The reverse osmosis reject does not increase the mass of the pollutants in the final discharge from the City’s plant; however, it may cause slightly higher pollutant concentrations in the effluent. The City is concerned there would be exceedances of the cyanide water quality-based effluent limits developed using the current Basin Plan dilution credit for the City; therefore, exposing the City to monetary penalties.

Some industrial facilities are making changes to their production processes. An example is the Tesoro Martinez Refinery, which no longer processes crude oil, and is in the transition to produce biofuel using renewable materials, such as rendered fat. This is a significant process change that would affect the wastewater characteristics.

- The Basin Plan amendment allows the San Francisco Bay Water Board to develop alternative cyanide dilution credits and alternative mercury concentration triggers that accommodate water conservation and water recycling projects while still protecting water quality. This aligns with the State's efforts to combat the water shortage crisis in California exacerbated by climate change.

- The Basin Plan amendment also allows the San Francisco Bay Water Board to develop alternative mercury concentration triggers for industrial dischargers to address material and substantial alterations or additions to the facility (e.g., use of new raw materials in the production process), which affects pollutant compositions or concentrations in the wastewater. It would not change the wasteload allocations in the mercury TMDL.

The San Francisco Bay Water Board publicly noticed and distributed the proposed Basin Plan amendment and supporting draft Staff Report in accordance with applicable state and federal laws and regulations. The San Francisco Bay Water Board considered these documents, as well as public comments and staff's responses to comments, concluded that the Basin Plan amendment would not have a significant impact on the environment, and approved the amendment.

The State Water Resources Control Board publicly noticed the proposed approval of the Basin Plan amendment; the comment period ended on February 12, 2024. No comments were received.

POLICY ISSUE

None of the changes with this Basin Plan amendment are expected to result in any policy issues.

FISCAL IMPACT

San Francisco Bay Water Board staff work associated with or resulting from this action will be addressed with existing and future budgeted resources.

REGIONAL BOARD IMPACT

Adoption of this resolution will approve the amendment to the Basin Plan for the San Francisco Bay Basin.

STAFF RECOMMENDATION

Staff recommends that the Board:

1. Approve the amendment to the Water Quality Control Plan for the San Francisco Bay Basin adopted by San Francisco Bay Water Board Resolution No. R2-2023-0026.
2. Authorize the Executive Director or designee to submit the amendment as approved and the administrative record for this action to the Office of Administrative Law for approval and the amendment to the U.S. Environmental Protection Agency for approval.