

**STATE WATER RESOURCES CONTROL BOARD  
BOARD MEETING SESSION – SAN FRANCISCO BAY REGIONAL WATER BOARD  
MAY 18, 2021**

**ITEM** *(to be assigned)*

**SUBJECT**

CONSIDERATION OF A PROPOSED RESOLUTION APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY BASIN (BASIN PLAN) TO ESTABLISH CHLORINE WATER QUALITY OBJECTIVES AND REPLACE TOTAL RESIDUAL CHLORINE TECHNOLOGY-BASED EFFLUENT LIMITATION WITH WATER QUALITY-BASED EFFLUENT LIMITATIONS

**DISCUSSION**

The San Francisco Bay Regional Water Board adopted a Basin Plan amendment on November 18, 2020, with [Resolution No. R2-2020-0031](#). The amendment would establish chlorine water quality objectives for aquatic life protection, replace the total residual chlorine technology-based effluent limitation with water quality-based effluent limitations for wastewater discharges, and make a few minor editorial clarifications and changes.

Most municipal wastewater treatment plants in the San Francisco Bay Region use chlorine-based chemicals to disinfect their effluent. This can result in the discharge of total residual chlorine, which can be toxic to aquatic life at low concentrations. To avoid discharging toxic amounts of total residual chlorine, wastewater treatment plants must dechlorinate disinfected wastewater, typically using chemicals like sodium bisulfite.

Currently, the Basin Plan contains a total residual chlorine technology-based effluent limitation of 0.0 milligrams/liter (mg/L), expressed as an instantaneous maximum. To ensure consistent compliance with this technology-based effluent limitation, the region's wastewater treatment plant operators routinely add sodium bisulfite in amounts higher than is needed to neutralize the total residual chlorine. This over-application of dechlorination chemicals results in extra operational cost and minor environmental impacts, such as minor localized depression of dissolved oxygen and pH, without any environmental benefits.

The Bay Area Clean Water Agencies (BACWA), a joint powers agency of publicly-owned treatment works (POTWs), estimates that the ten largest POTWs in the region could save approximately 1.2 million dollars per year by discontinuing dechlorination overdosing if water quality-based effluent limitations were established to replace the technology-based effluent limitation for total residual chlorine.

Currently, the Basin Plan does not contain chlorine water quality objectives, which would provide the basis for developing numeric water quality-based effluent limitations. This Basin Plan amendment would adopt the U.S. Environmental Protection Agency's ambient water quality criteria for chlorine and would establish water quality-based effluent limitations. This action would allow most wastewater treatment plants to reduce their sodium bisulfite usage, thus saving costs and reducing the discharge of excess chemicals into the receiving water while still protecting water quality.

## **Summary of Proposed Changes**

The Basin Plan amendment includes the following three regulatory changes:

- Adopt chlorine water quality objectives to protect aquatic life beneficial uses in inland surface waters (marine, estuarine, and freshwaters) in the region.
- Replace the total residual chlorine technology-based effluent limitation with water quality-based effluent limitations.
- Specify how the total residual chlorine water quality-based effluent limitations are implemented in National Pollutant Discharge Elimination System wastewater permits, including minimum levels and elements of compliance determination.

The proposed amendment also includes minor, non-regulatory updates to the Basin Plan.

The Regional 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 Regional Water Board members 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 Board publicly noticed the Basin Plan amendment; the comment period ended on February 17, 2021. The State Board staff received a single comment; this letter is from BACWA and strongly supports the adoption of this Basin Plan amendment.

## **POLICY ISSUE**

Should the State Water Board approve an amendment to the San Francisco Bay Basin Plan to adopt water quality objectives for chlorine and to replace total residual chlorine technology-based effluent limitation with water quality-based effluent limitations?

## **FISCAL IMPACT**

San Francisco Bay Regional 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 this amendment to the San Francisco Bay Basin Plan.

## **STAFF RECOMMENDATION**

That the State Water Board:

1. Approve the amendment to the San Francisco Bay Basin Plan adopted by the San Francisco Bay Regional Water Board Resolution No. R2-2020-0031.
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.

Policy Review \_\_\_\_\_

Fiscal Review \_\_\_\_\_  
Legal Review **MA 3/11/2021**  
Exec Review **TEM 3/12/2021**