# STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Tong Yin) MEETING DATE: November 18, 2020

ITEM 6

SUBJECT: Proposed Amendment to the Water Quality Control Plan (Basin Plan) to

Establish Chlorine Water Quality Objectives and Replace Technology-Based Total Residual Chlorine Effluent Limitation with Water Quality-Based Effluent Limitations — Hearing to Consider Adoption of Proposed

Basin Plan Amendment

DISCUSSION: T

This hearing will consider adopting a Resolution (Appendix A) that would amend the Basin Plan to add chlorine water quality objectives and to replace technology-based total residual chlorine effluent limitations with water quality-based effluent limitations for wastewater discharges. Appendix B contains the Basin Plan amendment and Appendix C contains the supporting Staff Report, both of which have been revised based on public comments; Appendix D contains our Response to Comments received; Appendix E contains the Comment Letters.

## Background

Wastewater treatment plants that use chlorine-based products to disinfect discharges are subject to total residual chlorine (TRC) effluent limitations to protect aquatic life in the receiving water. The Basin Plan currently contains a TRC technology-based effluent limitation of 0.0 milligrams/liter (mg/L). To ensure all TRC is removed from the discharges in compliance with the TRC effluent limitation, wastewater treatment plant operators routinely add a dechlorinating chemical, typically sodium bisulfite, in amounts beyond what would theoretically be needed to neutralize TRC. This over-application of sodium bisulfite results in extra operational cost and minor water quality impacts without providing environmental benefits.

The chlorine water quality objectives and resulting water quality-based effluent limitations would allow most wastewater treatment plants to reduce their sodium bisulfite usage. The cost savings could help fund wastewater treatment plant improvements needed to address other issues that have substantial environmental effects.

## **Summary of Proposed Changes**

The proposed Basin Plan amendment includes the following three regulatory changes to chlorine water quality objectives and TRC effluent limitations:

- Establish new chlorine water quality objectives to protect aquatic life beneficial uses in marine, estuarine, and fresh waters in the Region.
- Replace the TRC technology-based effluent limitation with water quality-based effluent limitations to be implemented in National Pollutant Discharge Elimination System (NPDES) wastewater permits.
- Specify how TRC water quality-based effluent limitations are implemented in NPDES permits, including minimum levels (ML) and elements of compliance determination.

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

#### **Comments from Stakeholders and Staff Responses**

We received two comment letters, one from the U.S. Environmental Protection Agency (U.S. EPA) on a minor editorial change with regards to mercury, the other from the Bay Area Clean Water Agency (BACWA). BACWA's comments primarily pertain to the ML in the Basin Plan amendment, 0.05 mg/L, for TRC monitoring and compliance determination. BACWA asserts that not all its members can achieve the proposed ML and requests that the ML be raised to 0.1 mg/L. We respond that the proposed ML is achievable and conforms to U.S. EPA's sufficiently sensitive methods rule.

The proposed Basin Plan amendment represents our best effort to address stakeholder concerns, protect water quality, and meet all federal and state requirements.

#### Appendices:

- A. Tentative Resolution with Exhibit A, Proposed Basin Plan amendment
- B. Revised Basin Plan amendment
- C. Final Staff Report
- D. Response to Comments
- E. Comment Letters