



January 13, 2025

Eileen White, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, 14th Floor
Oakland, CA 94612

VIA EMAIL: Eileen.White@Waterboards.ca.gov

Subject: NPDES Permit Requirements for Receiving Water Quality Monitoring, TMDL/SSO Support, Mercury and PCBs Watershed Permit Support, and Implementation of Copper Action Plans

Dear Eileen White:

I am writing on behalf of the Bay Area Clean Water Agencies (BACWA) and its members that own and operate publicly-owned treatment works (POTWs) and that have National Pollutant Discharge Elimination System (NPDES) permits to discharge to San Francisco Bay Area waters. The NPDES permits issued to these agencies impose some requirements that are most efficiently fulfilled as a group. The purpose of this letter is to report on behalf of BACWA members that those requirements are being met, including permit provisions related to: (A) Receiving Water Quality Monitoring; (B) Support for the RMP for supplemental monitoring of constituents of emerging concern; (C) Mercury and PCBs Watershed Permit Support; (D) Cyanide Action Plan; (E) Copper Action Plan; (F) Nutrient Watershed Permit Support; and (G) Total Maximum Daily Load Support.

A. Receiving Water Quality Monitoring

Various NPDES permits require that the permittees support the Regional Monitoring Program for Water Quality in the San Francisco Estuary (RMP), administered by the San Francisco Estuary Institute (SFEI), and established by San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Resolution 92-043, adopted April 15, 1992. BACWA members have and continue to fulfill this requirement by participating in and providing funding to the RMP. A letter from SFEI, dated December 30, 2024, confirming BACWA member agencies' contributions to the RMP, is attached for reference.

B. Support for Monitoring of Constituents of Emerging Concern

Individual NPDES permits as issued or as amended by Order R2-2021-0028 require POTWs to provide supplemental funding to the RMP to support additional studies for constituents of emerging concern. POTWs that made supplemental contributions to the RMP per this requirement are listed in the attached letter from SFEI dated December 30, 2024.

In addition to the special studies supported by these supplemental funds (listed below), the priorities of the RMP have been migrating away from legacy contaminants in favor of CECs. The RMP will continue to evaluate the status of legacy contaminants in all matrices, and CECs are being added based on the results of an extensive review of the RMP's Status and Trends (S&T) Program. As of 2024, the following CECs have been added to the S&T Program: PFAS (water, sediment, prey fish, sport fish, bird eggs, marine mammals), bisphenols (water, sediment), and organophosphate esters (water).

Supplemental fees fully or partially funded the following projects in 2024 (dollar amounts were budgeted for 2024):

- Tire and roadway contaminants in wet season Bay water (Year 3; \$50k)
- Organophosphate esters, Bisphenols, and other plastic additives in Wastewater (\$95.4k)
- PFAS Synthesis and Strategy (\$107k)
- PFAS in Bay Water using the TOP Assay (\$67.2k)
- Nontargeted analysis of SF Bay Fish (Year 1, \$23k)

Several other RMP studies conducted in 2024 were related to CECs but were not specifically supported by supplemental funding from wastewater agencies: Stormwater CECs Monitoring and Modeling (\$300k), Land Feature Datasets for Modeling CECs (\$20k), and Microplastics in Stormwater Monitoring Pilot Year 1 (\$78.1k). Reports on emerging and legacy contaminants published in 2024 included the following:

- Dougherty, J., et al. *Ethoxylated Surfactants in San Francisco Bay Water, Urban Stormwater Runoff, and Wastewater: Summary Report for Water Quality Managers*. SFEI Contribution No. 1202. San Francisco Estuary Institute, Richmond, CA, 2024. <https://www.sfei.org/documents/ethoxylated-surfactants-san-francisco-bay-water-urban-stormwater-runoff-and-municipal>
- Lin, D., et al. “Residential Wastewater as a Major Source of Per- and Polyfluoroalkyl Substances to Municipal Wastewater.” *ACS EST Water*, October 12, 2024. <https://doi.org/10.1021/acsestwater.4c00507>
- Mahony, A., et al. *Investigation of quaternary ammonium compounds (QACs) in wastewater effluent, influent, biosolids, and environmental matrices in San Francisco Bay*. SFEI Contribution No. 1196. San Francisco Estuary Institute, Richmond, CA, 2024. <https://www.sfei.org/documents/investigation-quaternary-ammonium-compounds-qacs-wastewater-effluent-influent-biosolids>
- San Francisco Estuary Institute (SFEI). *The Pulse of the Bay*. San Francisco Estuary Institute: Richmond, California, 2024. SFEI Contribution No. 1219. <https://www.sfei.org/documents/pulse-bay-contaminants-emerging-concern>

C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit (NPDES Permit CA0038849) was most recently reissued as [Order R2-2022-0038](#) with an effective date of February 1, 2023. The Mercury and PCBs Watershed Permit requires source control and risk reduction activities by permittees.

In 2024, BACWA’s Bay Area Pollution Prevention Group (BAPPG) continued to reach out to dental assistant and dental hygienist students to educate them about proper amalgam management and disposal. This campaign reached approximately 150 students and instructors through in-person visits to the following institutions:

- San José City College (two visits)
- Foothill College, Los Altos
- Santa Rosa Junior College
- College of Marin, Novato
- City College of San Francisco

The instructors have come to rely on these annual visits and have incorporated BAPPG’s program into their instructional calendar. Further, this is a relevant audience for other messages, such as wipes and pharmaceutical disposal.

The BAPPG-hosted website [Baywise.org](https://baywise.org) was updated in 2024 and contains pollution prevention guidance for dental offices at <https://baywise.org/business-resources/pollution-prevention-guidance-for-dental-offices>.

The Mercury and PCBs Watershed Permit requires that permittees implement or participate in programs to reduce mercury and PCBs-related risks to humans from the consumption of San Francisco Bay and Sacramento-San Joaquin River Delta fish. In 2024, BACWA conducted planning activities for risk reduction work to be conducted during the remainder of the permit term (2025-2028). BACWA is currently exploring opportunities to fund data collection activities related to the development of subsistence fishing water quality objectives for San Francisco Bay. A draft fish consumption survey questionnaire was completed in 2024 and is available at <https://www.sfei.org/projects/consumption-survey-questionnaire-san-francisco-bay-subsistence-fishers>. In 2025, BACWA will coordinate with the Water Board and SFEI to provide funding for pilot testing of this survey questionnaire by community-based organizations.

RMP mercury and PCBs sampling in 2024 included ongoing monitoring in three watersheds around the region to further develop calibration data for the Watershed Dynamic Model. Six storms were monitored in this effort. Additionally, the RMP funded PCB sampling both upstream and downstream of the former General Electric Plant in two watershed tributaries to the San Leandro Bay. The two sub-watersheds have been identified as highly polluted in previous RMP sampling efforts. The RMP's Status and Trends Monitoring Program monitors mercury, PCBs, and other contaminants in sport fish on a five-year cycle. Sport fish collection was successfully completed in 2024, and the samples will be processed and analyzed in spring 2025. Data are provided in the following reports:

- Gilbreath, A.; McKee, L.; Heberger, M; and Moran, K. *Sources, Pathways, and Loadings Strategy: 2024 Update*. Regional Monitoring Program for Water Quality in San Francisco Bay, Contribution No. 1189. San Francisco Estuary Institute, Richmond, California, 2024. <https://www.sfei.org/documents/rmp-sources-pathways-and-loadings-strategy-2024-update>
- Cho, Y.M., et al. *Study of Historic Loading and Spatial Distribution of Polychlorinated Biphenyls (PCBs) using Passive Sampling Devices (PSDs) in the Steinberger Slough and Redwood Creek Complex in San Francisco Bay, California, USA*. SFEI Contribution No. 1223. San Francisco Estuary Institute: Richmond, CA, 2024. <https://www.sfei.org/documents/study-historic-loading-and-spatial-distribution-polychlorinated-biphenyls-pcbs-using>

D. Cyanide Action Plan

As part of the site-specific objective (SSO) for cyanide, NPDES dischargers are required to calculate the 3-event rolling average of total cyanide concentrations in each segment of the Bay, based on RMP data. In 2024, RMP scientists tabulated results from the cyanide sampling completed during the 2023 water cruise. The results are available in the report listed below below:

- Trinh, M. *2023 Update to Cyanide Rolling Average*. San Francisco Estuary Institute: Richmond, California, 2025. <https://www.sfei.org/documents/2023-update-cyanide-rolling-average>

The 2023 sample results indicate that ambient cyanide concentrations continue to be below the trigger level of 1.0 µg/L in all five segments of the Bay. The next round of sampling is scheduled for summer 2025.

E. Copper Action Plan

The copper action plan contained in many Bay Area POTW permits requires permittees to implement a plan to reduce copper discharges, conduct studies to reduce copper pollutant impact uncertainties, and implement additional measures should the three-year rolling mean in various parts of the Bay exceed site-specific concentration triggers. In 2024, RMP scientists tabulated results from the copper sampling completed during the 2023 water cruise. The results are available in the report listed below:

- Trinh, M. *2023 Update to Copper Rolling Average*. San Francisco Estuary Institute: Richmond, California, 2025. <https://www.sfei.org/documents/2023-update-copper-rolling-average>

Results indicate that ambient copper concentrations are below the respective trigger levels for all five segments of the Bay. The next round of sampling is scheduled for summer 2025.

The BAPPG-hosted website [Baywise.org](https://www.baywise.org) contains resources for plumbers that focus on the key messages pertaining to copper control: use of ASTM B813 flux, and other best management practices to reduce pipe corrosion. Outreach materials are available at <https://baywise.org/business-resources/pollution-prevention-guidance-for-plumbers/>

F. Nutrient Watershed Permit Compliance

The Regional Water Board reissued the Nutrient Watershed Permit (NPDES Permit CA0038873) in July 2024 with an effective date of October 1, 2024. On this date, the 2024 Nutrient Watershed Permit ([Order R2-2024-0013](#)) replaced the 2019 Watershed Permit ([Order R2-2019-0017](#)). Through a nutrient surcharge levied on permittees, BACWA is funding compliance with the following provisions of the 2019 and 2024 Nutrient Watershed Permits on behalf of its members:

- **Group Annual Reporting** (2019 and 2024 Nutrient Watershed Permits) – On February 1, 2024, BACWA submitted the 2023 Group Annual Report on behalf of permittees. The 2023 Group Annual Report covered the period October 2022 - September 2023 and is available online at <https://bacwa.org/document/group-annual-report-2024-02-01/>. The next Group Annual Report is being prepared per updated requirements in the reissued 2024 Nutrient Watershed Permit, which requires progress reports towards meeting the permit's final effluent limitations for total inorganic nitrogen. The next Group Annual Report will be submitted to the Regional Water Board by the due date of April 1, 2025.
- **Nature-Based Solutions for Nutrient Removal** (2019 Nutrient Watershed Permit only) – Final reports for Phase 1 and Phase 2 of this special study were finalized in June 2023, as required by the 2019 Permit. In 2024, Phase 3 concept designs and cost estimates were completed by SFEI and HDR for Delta Diablo, Fairfield-Suisun Sewer District, and the City of San José. This work utilized remaining funds from the two previous phases and was submitted to the Regional Water Board on September 30, 2024. Facility acceptance letters were submitted to the Water Board and are available upon request. A report featuring case studies of constructed treatment wetlands used by five BACWA member agencies was also provided to the Water Board. All phases of the work, including case studies and the Phase 3 concept designs and cost estimates completed in 2024, are available online at <https://bacwa.org/document-category/2nd-watershed-permit-studies/>.
- **Monitoring, Modeling, and Subembayment Studies** (2019 and 2024 Nutrient Watershed Permits) – In 2024, BACWA continued to provide financial support for monitoring, modeling and subembayment studies conducted per the San Francisco Bay Nutrient Management Strategy, which is managed by SFEI. BACWA is providing a total of \$2,200,000 to SFEI in Fiscal Year 2025, as

required by the 2019 and 2024 Nutrient Watershed Permits. BACWA also submits an annual science plan on behalf of dischargers, and the science plan for Fiscal Year 2024 was submitted to the Regional Water Board in advance of the due date of February 1, 2024. Per the reissued 2024 Nutrient Watershed Permit, the next update of the science plan will be submitted to the Regional Water Board by the due date of June 1, 2025.

- **Regional Planning to Reduce Total Inorganic Nitrogen Loads** (2024 Nutrient Watershed Permit only) – The reissued 2024 Nutrient Watershed Permit requires completion of a report describing regionwide planning efforts to meet the permit’s final effluent limitations. BACWA intends to complete this task on behalf of applicable member agencies (i.e., those listed in Table 4 of R2-2024-0013), beginning with completion of a scoping plan due to the Regional Water Board by July 1, 2025. BACWA has retained consulting firm HDR, Inc., to assist with preparation of the scoping plan.

G. Total Maximum Daily Load Support

Some POTW permits previously included a requirement that permittees report to the Regional Water Board any actions taken in support of Total Maximum Daily Loads (TMDLs) for 303(d) listed pollutants. Support for these efforts has been provided largely through support of the RMP.

In 2014, the RMP convened a Selenium Strategy Team and developed a Selenium Strategy in the Multi-Year Plan. The multi-year plan involves monitoring for selenium in water, clams, and sturgeon to support the North Bay selenium TMDL. Sampling for selenium was paused in 2024 for a review of the data collected through 2023. In addition, RMP funds were budgeted to find analytical partners able to analyze small tissue sample masses associated with non-lethal sampling techniques used for sampling sturgeon muscle tissue. Sampling is expected to resume in 2026.

Please contact me if you have any questions about the information contained in this letter.

Respectfully Submitted,



Lorien Fono, Ph.D., P.E.
Executive Director
Bay Area Clean Water Agencies

Encl: SFEI Letter regarding RMP Participation, December 30, 2024

cc: Bill Johnson, Chief, Wastewater Control and Enforcement Division, Regional Water Board
Xavier Fernandez, Chief, Planning and TMDL Division, Regional Water Board
BACWA Executive Board
Meg Herston, BACWA Permits Committee Chair

December 30, 2024

Lorien Fono
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 702
Oakland, CA 94623

Dear Dr. Fono,

The Regional Monitoring Program for Water Quality in San Francisco Bay (RMP) is the only comprehensive environmental monitoring program to measure pollutants and trends in the Bay. The RMP, which began in 1993, is a successful partnership of scientists, government, municipalities, and industry to understand and improve the health of the Bay.

The goal of the RMP is to collect data and communicate information about water quality in the San Francisco Estuary in support of management decisions. The accomplishments of the RMP are summarized in the RMP Update and the Pulse. The Pulse was published in October 2024. Current and past Pulses can be downloaded [here](#); RMP Updates can be found [here](#).

In 2024, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works (\$1,903,741; see Table 1 for a complete list of agencies). The process used to determine the core fees for each participant group are outlined in the Program Charter: <http://www.sfei.org/documents/charter-regional-monitoring-program-water-quality-san-francisco-bay>.

In December 2021, the Water Board adopted Order R2-2021-0028, which requires publicly owned treatment works to provide supplemental funding to the RMP to support additional studies for constituents of emerging concern (CECs). In 2024, 35 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2021-0028 and similar requirements found in reissued individual NPDES permits (\$339,994 see Table 1).

Your support is essential to the RMP. Through these financial contributions, the RMP is able to conduct regional monitoring to assess the cumulative impact of multiple sources of pollutants to the Bay, including the growing number of emerging contaminants that are a concern. We thank you and your members for the support and look forward to serving you in 2025.

Sincerely,



Amy Kleckner
RMP Manager

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2024 in FY24

POTW Dischargers	Core RMP Fees	Supplemental Fees for CECs Studies⁽¹⁾
American Canyon, City of	YES	YES
Benicia, City of	YES	YES
Burlingame, City of	YES	YES
Calistoga, City of	YES	YES
Central Contra Costa Sanitary District	YES	YES
Central Marin Sanitation Agency	YES	YES
Delta Diablo	YES	YES
East Bay Dischargers Authority	YES	YES
East Bay Municipal Utilities District	YES	YES
Fairfield-Suisun Sewer District	YES	YES
Las Gallinas Valley Sanitary District	YES	YES
Marin County (Tiburon), Sanitary District No. 5 of	YES	YES
Millbrae, City of	YES	YES
Mt. View Sanitary District	YES	YES
Napa Sanitation District	YES	YES
Novato Sanitary District	YES	YES
Palo Alto, City of	YES	YES
Petaluma, City of	YES	YES
Pinole/Hercules, City of	YES	YES
Rodeo Sanitary District	YES	YES
San Francisco, City and County of, San Francisco International Airport	YES	YES
San Francisco (Southeast Plant), City and County of	YES	YES
San José-Santa Clara Regional Wastewater Facility	YES	YES
San Mateo, City of	YES	YES
Sausalito - Marin City Sanitary District	YES	YES
Sewerage Agency of Southern Marin	YES	YES
Silicon Valley Clean Water	YES	YES
Sonoma Valley County Sanitary District	YES	YES
South San Francisco and San Bruno, Cities of	YES	YES
St. Helena, City of	YES	YES
Sunnyvale, City of	YES	YES
Treasure Island Development Authority	YES	YES
Vallejo Flood and Wastewater District	YES	YES
West County Agency	YES	YES
Yountville, Town of	YES	YES

(1) NPDES Permit CA0037885 (Port Costa Wastewater Treatment Plant) and NPDES CA0037427 (Paradise Cove Treatment Plant) also require supplemental funding of CECs studies, but the requested contribution in 2024 was \$0 due to these agencies' small size.