



January 15, 2024

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](mailto: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 January 5, 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 No. 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 January 5, 2024 letter from SFEI.

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 2023, 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 2023 (dollar amounts were budgeted for 2023):

- Ethoxylated Surfactants in Bay Water, Margin Sediment, and Wastewater, Part 2 (Year 2 of 2; \$30k)
- Tire and roadway contaminants in wet season Bay Water (Year 1 of 2; \$40k)
- Groundwork for monitoring of CECs in stormwater (\$250k)
- PFAS in archived sport fish (\$9.6k)

Reports on emerging and legacy contaminants published in 2023:

- San Francisco Estuary Institute (SFEI). *2023 RMP Update*. San Francisco Estuary Institute: Richmond, California, 2023. SFEI Contribution No. 1148. <https://www.sfei.org/documents/2023-rmp-update>
- Lindborg, A.R., et al. Assessment of Long-Chain Polyethoxylate Surfactants in Wastewater Effluent, Stormwater Runoff, and Ambient Water of San Francisco Bay, CA. SFEI Contribution No. 1126. *ACS EST Water*, 2023, 3, 4, 1233–1242. <https://doi.org/10.1021/acsestwater.3c00024>
- Méndez, M., et al. *Concentrations of Select Commonly Used Organic UV Filters in San Francisco Bay Wastewater Effluent*. San Francisco Estuary Institute: Richmond, California, 2023. SFEI Contribution No. 1111. <https://www.sfei.org/documents/concentrations-select-commonly-used-organic-uv-filters-san-francisco-bay-wastewater>
- Vuckovic D., et al. Pharmaceuticals, pesticides, and ultraviolet filters in wastewater discharges to San Francisco Bay as drivers of ecotoxicity. SFEI Contribution No. 1153. *Environmental Pollution*, Volume 336, November 2023, 122432. <https://doi.org/10.1016/j.envpol.2023.122432>
- Arnold, W.A., et al. Quaternary Ammonium Compounds: A Chemical Class of Emerging Concern. *Environmental Science & Technology*, 57, 20, 7645-7665. <https://doi.org/10.1021/acs.est.2c08244>
- Moran, K., et al. *Tire Wear: Emissions Estimates and Market Insights to Inform Monitoring Design*. San Francisco Estuary Institute: Richmond, California, 2023. SFEI Contribution No. 1109. <https://www.sfei.org/documents/tire-wear-emissions-estimates-and-market-insights-inform-monitoring-design>
- Lin, D, et al. Triclosan and Methyl Triclosan in Prey Fish in a Wastewater-influenced Estuary. SFEI Contribution No. 1112. *Environmental Toxicology and Chemistry*, March 2023, 42, 3, 620-627. <https://doi.org/10.1002/etc.5557>

### C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit (NPDES No. CA 0038849) was reissued as Order No. R2-2017-0041 effective January 1, 2018, then subsequently reissued as Order No. R2-2022-0038 with an effective date of February 1, 2023. Both the 2018 and 2023 versions of the Mercury/PCB Watershed Permit require source control and risk reduction activities by permittees. Risk reduction activities for both permit terms are covered in this section.

In 2023, 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 170 students and instructors through six 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, microplastics, and flea control.

The Mercury and PCB Watershed permit requires that permittees conduct or participate in programs to reduce mercury-related risks to humans from the consumption of Bay fish. For the 2018 permit, BACWA provided two \$25,000 grants for risk reduction activities related to fish consumption in vulnerable populations. APA Family Support Services completed work related to the grant in 2019 and California Indian Environmental Alliance completed their work in 2023. In August 2023, both APA Family Support Services and the California Indian Environmental Alliance provided presentations to Regional Water Board staff summarizing these efforts. Materials generated with support from BACWA's grants are available on BACWA's website at <https://bacwa.org/mercurypcb-risk-reduction-materials/>.

Throughout 2023, BACWA conducted planning activities for risk reduction work to be conducted for the 2023 Mercury and PCB Watershed permit. BACWA is exploring opportunities to fund public outreach or data collection activities related to the development of subsistence fishing water quality objectives for San Francisco Bay. BACWA is also exploring opportunities related to the Water Board's Bioaccumulation Monitoring Program Realignment in the San Francisco Bay region, which is scheduled for 2024-2026. Either of these efforts would involve coordination with Regional Water Board staff and community-based organizations with a focus risk reduction related to fish consumption.

In 2023, the RMP status & trends workgroup also conducted fish tissue sampling for PCBs in San Leandro Bay. Meanwhile, the RMP sediment workgroup continued efforts to develop an in-Bay fate model for PCBs and other contaminants. The project is the latest extension of a phased, multi-year effort to develop a Watershed Dynamic Model (WDM), including both hydrology and sediment transport modules. In 2023, the modeling effort focused on PCBs in San Leandro Bay. A report on results for San Leandro Bay will be available in 2024.

- McKee, L.; Peterson, D.; Braud, A.; Foley, M.; Dusterhoff, S.; Lowe, J.; King, A.; and Davis, J. *San Francisco Bay Sediment Modeling and Monitoring Workplan*. SFEI Contribution No. 1100. San Francisco Estuary Institute: Richmond, California, 2023. <https://www.sfei.org/documents/san-francisco-bay-sediment-modeling-and-monitoring-workplan>

#### **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 2023, RMP scientists tabulated results from the cyanide sampling completed during the 2021 water cruise. The results were published in early 2024:

- Trinh, M. *2021 Update to Cyanide Rolling Averages*. San Francisco Estuary Institute: Richmond, California, 2024. <https://www.sfei.org/documents/2021-update-cyanide-rolling-averages>

The 2021 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 most recent round of sampling occurred in summer 2023, and results will be tabulated in 2024.

### **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 2023, RMP scientists tabulated results from the copper sampling completed during the 2021 water cruise. The results were published in early 2024:

- Trinh, M. *2021 Update to Copper Rolling Average*. San Francisco Estuary Institute: Richmond, California, 2024. <https://www.sfei.org/documents/2021-copper-rolling-averages>

Results indicate that ambient copper concentrations are below the respective trigger levels for all five segments of the Bay. The most recent round of sampling occurred in summer 2023, and results will be tabulated in 2024.

The BAPPG-hosted website 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/plumbing-resources>.

### **F. Nutrient Watershed Permit Compliance**

The 2<sup>nd</sup> Nutrient Watershed Permit (NPDES No. CA0038873) was adopted on May 8, 2019 as Order No. R2-2019-0017, with an effective date of July 1, 2019. Through the nutrient surcharge levied on permittees, BACWA is funding compliance with the following provisions of the Nutrient Watershed Permit on behalf of its members:

- Group Annual Reporting – BACWA submitted the eighth Group Annual Report on February 1, 2023 on behalf of all the permittees under the Nutrient Watershed Permit. The next Group Annual Report will be submitted by the February 1, 2024 deadline. The 2023 Group Annual Report is available at <https://bacwa.org/document/bacwa-group-nutrient-annual-report-02-01-23/>.
- Nutrient Reduction by Recycled Water and Nature Based Systems Special Studies – Final reports for each of these special studies were submitted by the July 1, 2023 due date and are listed below:
  - *Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling*. June 2023. Prepared for BACWA by HDR and Woodard & Curran. Available at [https://bacwa.org/wp-content/uploads/2023/06/BACWA\\_RW\\_Final\\_Report\\_20230628A\\_withAppendices.pdf](https://bacwa.org/wp-content/uploads/2023/06/BACWA_RW_Final_Report_20230628A_withAppendices.pdf)
  - *Nature-Based Solutions for Nutrient Removal – Opportunities and Constraints Analysis*, June 2023. Phase 1 Study prepared for BACWA by SFEI. Available at <https://bacwa.org/document/phase-1-nbs-opportunities-and-constraints-analysis/>
  - *Nature-Based Solutions for Nutrient Removal – Phase II Site Evaluations*, June 2023. Prepared for BACWA by SFEI. Available at <https://bacwa.org/document/phase-2-nbs-site-evaluations/>

- Support of scientific studies as part of the Nutrient Management Strategy (NMS) – BACWA is providing a total of \$1,800,000 to SFEI in Fiscal Year 2024, as required by the Permit.
- An update on the science plan reflecting the 2023 calendar year will be submitted by the February 1, 2024 deadline.

The current Watershed Permit will expire on June 30, 2024, and it is anticipated that BACWA will continue to fund compliance with the reissued permit.

### **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. In 2023, the RMP conducted the following activities implementing the Strategy:

- Continued implementation of the Selenium Strategy to track the implementation of the North Bay Selenium TMDL.
- Continued the monitoring program for selenium in clams and water to support the North Bay selenium TMDL. Sampling typically occurs every 2 years and last occurred in 2022. Sampling for selenium will be paused in 2024 for a review of the data collected through 2022. Sampling is expected to resume in 2025.

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, January 5, 2024

cc: Thomas Mumley, Assistant Executive Officer, Regional Water Board  
Bill Johnson, Chief, NPDES Wastewater and Enforcement Division, Regional Water Board  
Xavier Fernandez, Chief, Planning and TMDL Division, Regional Water Board  
BACWA Executive Board  
Amanda Roa, BACWA Permits Committee Chair

January 5, 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 RMP Update was published in October 2023. Current and past Pulses can be downloaded [here](#); RMP Updates can be found [here](#).

In 2023, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works (\$1,848,292; 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. In 2023, 35 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2021-0028 and similar requirements found in reissued individual NPDES permits (\$330,094 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 2024.

Sincerely,



Amy Kleckner  
RMP Manager

**Table 1**

**Wastewater Treatment Facilities Contributing to the RMP in 2023 and AMR in FY23**

<b>POTW Dischargers</b>	<b>Core RMP Fees</b>	<b>AMR Order Fees</b>
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
Crockett Community Services District, Port Costa Sanitary Department	NO	(1)
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 (Paradise Cove), Sanitary District No. 5 of	NO	(1)
Marin County (Tiburon), Sanitary District No. 5 of	YES	YES
Millbrae, City of	YES	YES
Mountain 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
US Navy (Treasure Island)	YES	YES
Vallejo Flood and Wastewater District	YES	YES
West County Wastewater District	YES	YES
Yountville, Town of	YES	YES

(1) This facility is listed in the 2021 Order requiring supplemental funding of CEC monitoring, but its requested contribution was \$0 due to the agency's small size.