January 6, 2023

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 16, 2022, confirming BACWA member agencies' contributions to the RMP, is attached for reference.

B. Support for Monitoring of Constituents of Emerging Concern

Two orders adopted by the Regional Water Board in 2016 (Order No. R2-2016-0008) and 2021 (Order No. R2-2021-0028) provided a mechanism for POTWs to reduce monitoring frequencies for specific pollutants in exchange for increased funding to the RMP. POTWs that made

supplemental contributions to the RMP under these two orders are listed in the attached December 16, 2022 letter from SFEI.

In addition to the special studies supported by these supplemental funds (listed below), the priorities of the RMP are 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 2022, the following CECs have been added to the S&T Program: PFAS (water, sediment, prey fish, sport fish, marine mammals), bisphenols (water, sediment, prey fish), and organophosphate esters (water).

Supplemental fees fully or partially funded the following projects in 2022:

- CECs in Stormwater (Year 4 of a 4-year study; analytes include bisphenols, organophosphate esters, ethoxylated surfactants, PFAS, and a suite of urban road runoff chemicals; $100k)
- Stormwater Monitoring Strategy for CECs ($50k)
- Tire-related Contaminants in Bay Water (wet season; $50k)
- Ethoxylated Surfactants in Bay Water, Margin Sediment, and Wastewater (Part 2; $30k)
- Tires Strategy ($25.5k)
- CEC Stormwater Load Modeling Exploration ($25k)

Reports on emerging and legacy contaminants published in 2022:

- Davis, J., et al. 2022. *2022 Pulse of the Bay*. San Francisco Estuary Institute: Richmond, California. SFEI Contribution No. 1095. https://www.sfei.org/documents/2022-pulse-bay
- Jones, C.; Davis, J.; and Yee, D. 2022. *Strategy for In-Bay Fate Modeling to Support Contaminant and Sediment Management in San Francisco Bay*. San Francisco Estuary Institute: Richmond, California. SFEI Contribution No. 1090. https://www.sfei.org/documents/strategy-bay-fate-modeling-support-contaminant-and-sediment-management-san-francisco-bay
- Mendez, M., et al. 2022. *Bisphenols in San Francisco Bay: Wastewater, Stormwater, and Margin Sediment Monitoring*. San Francisco Estuary Institute: Richmond, CA. SFEI Contribution No. 1093. https://www.sfei.org/documents/bisphenols-san-francisco-bay-wastewater-stormwater-and-margin-sediment-monitoring
- Mendez, M. et al. 2022. PFAS in San Francisco Bay Water. San Francisco Estuary Institute: Richmond, CA. SFEI Contribution No. 1094. https://www.sfei.org/documents/pfas-san-francisco-bay-water
- Moran, K. and Askevold, R. 2022. *Microplastics from Tire Particles in San Francisco Bay Factsheet*. San Francisco Estuary Institute: Richmond, CA. SFEI Contribution No. 1074. https://www.sfei.org/documents/microplastics-tire-particles-san-francisco-bay-factsheet-0
- Shimabuku, I., et al. 2022. Occurrence and risk assessment of organophosphate esters and bisphenols in San Francisco Bay, California, USA. *Science of the Total Environment*, 813, 152287. https://doi.org/10.1016/j.scitotenv.2021.152287

- Wang, M., et al. 2022. Suspect Screening and Chemical Profile Analysis of Storm-Water Runoff Following 2017 Wildfires in Northern California. *Environmental Toxicology and Chemistry*, 41(8), 1824-1837. https://doi.org/10.1002/etc.5357

C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit (NPDES No. CA 0038849) was reissued in 2017 as Order No. R2-2017-0041, with an effective date of January 1, 2018. The permit was reissued in late 2022 as Order No. R2-2022-0038 with an effective date of February 1, 2023, so all activities in 2022 were conducted under the 2017 permit. The Mercury/PCB Watershed Permit requires source control and risk reduction activities by the permittees.

In 2022, 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. Classroom visits resumed this year, following two years of outreach solely via virtual platform. This campaign reached approximately 110 students and instructors at the following institutions:

- San José City College
- Santa Rosa Junior College
- City College of San Francisco
- College of Marin, Novato

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. In 2019, the APA Family Support Services completed a $25,000 contract to conduct risk reduction activities related to fish consumption in vulnerable populations, in compliance with the permit. A contract for $25,000 with the California Indian Environmental Alliance for similar activities was ongoing as of December 2022. In early 2023, BACWA will reach out to the Water Board to schedule a presentation wrapping up these efforts. Materials generated with support from BACWA's previous grants are available on BACWA's website at https://bacwa.org/mercurypcb-risk-reduction-materials/.

As part of the RMP, SFEI published an updated report on PCBs and mercury in stormwater samples collected from sites around the Bay (water years 2015 to 2020) and in priority margin units (2019 to 2020).

- Gilbreath, A. and Davis, J. 2022. *Priority margin unit stormwater monitoring to support load estimates of PCBs into San Leandro Bay and the Emeryville Crescent*. SFEI Contribution No. 1088. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/priority-margin-unit-stormwater-monitoring-support-load-estimates-pcbs-san-leandro-bay-and

- McKee, L; Gilbreath, A.; and Sabin, L. 2022. *Small Tributaries Pollutants of Concern Reconnaissance Monitoring: Application of Storm-event Loads and Yields-Based and Congener-Based PCB Site Prioritization Methodologies.* SFEI Contribution No. 1067. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/small-tributaries-pollutants-concern-reconnaissance-monitoring-application-storm-event

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 2021, the RMP published results from the cyanide sampling completed during the 2019 water cruise:

- Yin, J. 2021. *2019 Update to Cyanide Rolling Average.* San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/2017-update-cyanide-rolling-average-0

Results indicate that ambient cyanide concentrations are below the trigger level of 1.0 µg/L in all five segments of the Bay. Due to delays in reporting, results from the 2021 water cruise will be published in 2023 rather than 2022. The next round of sampling will occur in summer 2023.

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 2021, the RMP published results from the copper sampling completed during the 2019 water cruise:

- Yin, J. 2021. *2019 Update to Copper Rolling Average.* San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/2017-update-copper-rolling-average

Results indicate that ambient copper concentrations are below the respective trigger levels for all five segments of the Bay. Due to delays in reporting, results from the 2021 water cruise will be published in 2023 rather than 2022. The next round of sampling will occur in summer 2023.

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 2nd 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 seventh Group Annual Report in February 2022 on behalf of all the permittees under the Nutrient Watershed Permit. The next Group Annual Report will be submitted by the February 1, 2023 deadline. The 2022 Group Annual Report is available at https://bacwa.org/wp-content/uploads/2022/02/2021_BACWA_GAR_20220228_wAppendix.pdf
- Nutrient Reduction by Recycled Water and Nature Based Systems Special Studies – Both studies are underway and final reports are expected to be completed by the July 1, 2023 due date. The 2019 Scoping and Evaluation Plans and July 2022 status updates for these two special studies are available at https://bacwa.org/document-category/2nd-watershed-permit-studies/.
- 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 2023, as required by the Permit.
- An update on the science plan reflecting the 2022 calendar year will be submitted by the February 1, 2023 deadline.

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 2022, 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 in 2022 to support the North Bay selenium TMDL (sampling in Jun-Aug and Dec-Jan).

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 16, 2022

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
Jennie Pang, BACWA Permits Committee Chair

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December 16, 2022
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 2022. Current and past Pulses can be downloaded here; RMP Updates can be found here.

In 2022, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works ($1,794,459; 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, amending the 2016 order that originally established an alternative monitoring requirement for municipal wastewater discharges to San Francisco Bay and its tributaries, in exchange for a set schedule of increased payments to the RMP for five years. Under the 2016 order, participating wastewater treatment facilities opted-in to this alternative were able to reduce their effluent monitoring costs for most organic priority pollutants and chronic toxicity sensitive species rescreening. In exchange for the reduced monitoring requirements, facilities made supplemental payments to the RMP for regional studies to inform management decisions about water quality in the Bay. Under the 2021 Order, monitoring reductions were implemented as amendments to individual NPDES permits, and the program no longer operates on an opt-in basis. For calendar year 2022, Order R2-2021-0028 established a collective contribution of $320,000 from dischargers to support monitoring of Constituents of Emerging Concern (CECs). In 2022, 35 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2021-0028 ($320,480 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 2023.

Sincerely,

Melissa Foley, PhD
RMP Manager

Table 1

Wastewater Treatment Dischargers Contributing to the RMP in 2022

POTW Dischargers	Core RMP Fees	Supplemental Fees for CECs
American Canyon, City of	NO	YES
Benicia, City of	YES	YES
Burlingame, City of	YES	YES
Calistoga, City of (1)	YES	YES
Central Contra Costa Sanitary District	YES	YES
Central Marin Sanitation Agency	YES	YES
Crockett Community Services District, Port Costa Sanitary Department	NO	(2)
Delta Diablo	YES	YES
East Bay Dischargers Authority	YES	YES
East Bay Municipal Utility District	YES	YES
Fairfield-Suisun Sewer District	YES	YES
Las Gallinas Valley Sanitary District	YES	YES
Marin County (Paradise Cove), Sanitary District No. 5	NO	(2)
Marin County (Tiburon), Sanitary District No. 5	YES	YES
Millbrae, City of	YES	YES
Mt. View Sanitary District	YES	YES
Napa Sanitation District (1)	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 Sanitation District	YES	YES
South San Francisco and San Bruno, Cities of	YES	YES
St. Helena, City of	YES	YES
Sunnyvale, City of	YES	YES
Union Sanitary District	YES	
Treasure Island	YES	YES
Vallejo Flood and Wastewater District	YES	YES
West County Agency	YES	YES
Yountville, Town of	YES	YES

(1) Calistoga and Napa contributed supplemental monitoring fees based on the 2016 order (2022 was their 5th year). They will transition to the new order in 2023.

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