January 5, 2022

Mr. Michael Montgomery, Executive Officer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, 14th Floor
Oakland, CA 94612

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 Mr. Montgomery:

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 through the Alternate Monitoring Requirements (AMR); (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 28, 2021, confirming BACWA member agencies' contributions to the RMP, is attached for reference.

B. Participation in the Alternate Monitoring Plan

In March 2016, the Regional Water Board adopted the *Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay Regional Monitoring Program* ("AMR," Order No. R2-2016-0008), allowing POTWs to reduce monitoring frequencies for specific pollutants in exchange for increased funding to the RMP. The Order calculates the additional fee for each agency to opt into the AMR

based on its estimated cost savings associated with reduced monitoring requirements. The agencies who opted into the AMR are listed in the attached December 28, 2021 letter from SFEI.

In 2021, AMR funds were used as described below:

- AMR funds fully or partially funded the following projects in 2021:
  - 2021 Contaminants of Emerging Concern in Stormwater (Water Year 2021 was year 3 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 ($23.8k)

- Multiple microplastics reports were published based on the work funded by the RMP, Gordon and Betty Moore Foundation, and Ocean Protection Council:
  - Moran, K., et al. 2021. *A Synthesis of Microplastic Sources and Pathways to Urban Runoff*. San Francisco Estuary Institute: Richmond, CA. SFEI Contribution No. 1049. https://www.sfei.org/documents/synthesis-microplastic-sources-and-pathways-urban-runoff
  - Rochman, C. M., et al. 2021. "Think Global, Act Local: Local Knowledge Is Critical to Inform Positive Change When It Comes to Microplastics." *Environmental Science & Technology*, 55(1), 4-6. https://pubs.acs.org/doi/full/10.1021/acs.est.0c05746
  - Werbowski, L. M., et al. 2021. "Urban Stormwater Runoff: A Major Pathway for Anthropogenic Particles, Black Rubbery Fragments, and Other Types of Microplastics to Urban Receiving Waters." *Environmental Science and Technology Water*, 1(6), 1420-1428. https://pubs.acs.org/doi/abs/10.1021/acsestwater.1c00017
  - Zhu, X., et al. 2021. Holistic Assessment of Microplastics and Other Anthropogenic Microdebris in an Urban Bay Sheds Light on Their Sources and Fate. *Environmental Science and Technology Water*, 1(6), 1401-1410. https://pubs.acs.org/doi/abs/10.1021/acsestwater.0c00292

- Several other reports on emerging contaminants were published in 2021:
  - Buzby, N., et al. 2021. *Contaminant Concentrations in Sport Fish from San Francisco Bay: 2019.* SFEI Contribution No. 1036. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/contaminant-concentrations-sport-fish-san-francisco-bay-2019
  - Chang, D., et al. 2021. "Framework for nontargeted investigation of contaminants released by wildfires into stormwater runoff: Case study in the northern San Francisco Bay area." *Integrated Environmental Assessment and Management*, 17(6), 1179-1193. https://setac.onlinelibrary.wiley.com/doi/10.1002/ieam.4461

- Mendez, M.; Lin, D.; and Sutton, R. 2021. *Study of Per- and Polyfluoroalkyl Substances in Bay Area POTWs: Phase 1, Sampling and Analysis Plan.* SFEI Contribution No. 1020. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/study-and-polyfluoroalkyl-substances-bay-area-potws-phase-1-sampling-and-analysis-plan
- Miller, E., et al. 2021. *Summary for Managers: Non-targeted Analysis of Stormwater Runoff following the 2017 Northern San Francisco Bay Area Wildfires.* SFEI Contribution No. 1045. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/summary-managers-non-targeted-analysis-stormwater-runoff-following-2017-northern-san

On December 15, 2021, the Regional Water Board adopted Order No. R2-2021-0028, *Amendment of Monitoring and Reporting Requirements for Municipal Wastewater Dischargers and Amendment of Alternate Monitoring and Reporting Program for Municipal Wastewater Dischargers for the Purpose of Supporting the San Francisco Bay Regional Monitoring Program*, which has an effective date of January 1, 2022. For most dischargers, this new order has replaced the 2016 AMR.

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 Mercury/PCB Watershed Permit requires source control and risk reduction activities by the permittees.

In 2021, 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. Due to the pandemic, all of the classroom visits occurred via virtual platforms. This campaign reached approximately 70 students and instructors at the following institutions:

- San Jose City College (two visits)
- 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. In June 2021, BACWA extended the term of the existing $25,000 contract with the California Indian Environmental Alliance to continue similar work that had been paused due to the COVID-19 public health emergency. 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 water years 2015 to 2020. Additional samples were collected in water year 2021, and an updated report is expected in 2022.

- Gilbreath, A.; McKee, L.; and Hunt, J.. 2021. *Pollutants of Concern Reconnaissance Monitoring Progress Report, Water Years 2015-2020*. SFEI Contribution No. 1061. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/pollutants-concern-reconnaissance-monitoring-progress-report-water-years-2015-2020

SFEI also published a conceptual model for PCB management and monitoring for the Steinberger Slough/Redwood Creek Priority Margin Area:

- Yee D., et al. 2020. *Conceptual Model to Support PCB Management and Monitoring in the Steinberger Slough/Redwood Creek Priority Margin Unit.* SFEI Contribution No. 1009. San Francisco Estuary Institute: Richmond, CA. https://www.sfei.org/documents/conceptual-model-support-pcb-management-and-monitoring-steinberger-sloughredwood-creek

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. Results from the 2021 water cruise will be published in 2022.

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. Results from the 2021 water cruise will be published in 2022.

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 sixth Group Annual Report on February 1, 2021, on behalf of all the permittees under the Nutrient Watershed Permit. The next Group Annual Report will be submitted by the February 1, 2022 deadline. The 2021 Group Annual Report is available at https://bacwa.org/wp-content/uploads/2021/02/FINAL-2020-BACWA-GAR_20210201_wAppendices.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 1, 2021 status updates for these two special studies are available at https://bacwa.org/document-category/2nd-watershed-permit-studies/. An updated status report for each study will be provided by the July 1, 2022 due date.
- Support of scientific studies as part of the Nutrient Management Strategy (NMS) – BACWA is providing a total of $2,2000,000 to SFEI in Fiscal Year 2022, as required by the Permit.
- An update on the science plan reflecting the 2021 calendar year will be submitted by the February 1, 2022 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 2021, the RMP conducted the following activities implementing the Strategy:

- Continued implementation of the Selenium Strategy to track implementation of the North Bay Selenium TMDL.

- Continued the monitoring program for selenium in clams and water to support the North Bay selenium TMDL.

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 28, 2021

CC: Thomas Mumley, Assistant Executive Officer, Regional Water Board
William Johnson, NPDES Permitting Division Chief, Regional Water Board
Xavier Fernandez, Planning and TMDL Division Chief, Regional Water Board
BACWA Executive Board
Chris Dembiczak, BACWA Permits Committee Chair

SFEI AQUATIC SCIENCE CENTER
4911 Central Ave, Richmond, CA 94804, p: (510) 746-7334, f: (510) 746-7300 www.sfei.org

December 28, 2021

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 2021. Current and past RMP Updates can be found here; past Pulses can be downloaded here.

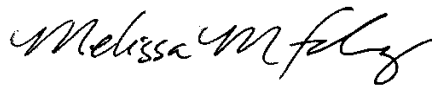
In 2021, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works ($1,794,459; see Table 1 for a complete list of agencies). The process used to determine the core fees for each participant group are outlined in the Program Charter: http://www.sfei.org/documents/charter-regional-monitoring-program-water-quality-san-francisco-bay.

In March 2016, the Water Board adopted Order R2-2016-0008, establishing an alternative monitoring requirement (AMR) 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. Participating wastewater treatment facilities who opt-in to this alternative are 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 make supplemental payments to the RMP for regional studies to inform management decisions about water quality in the Bay. In 2021, the final year of the program, 36 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2016-0008 ($279,301 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 2022.

Sincerely,



Melissa Foley, PhD
RMP Manager

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2021 and AMR for FY21

POTW Dischargers	Core RMP Fees	AMR Order Fees
American Canyon, City of		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		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 (Paradise Cove), Sanitary District No. 5 of		YES
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	
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
Union Sanitary District	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