



January 14, 2021

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 18, 2020, 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 18, 2020 letter from SFEI.

In 2020, AMR funds were used as described below:

- AMR funds fully or partially funded the following projects in 2020:
 - 2020 Contaminants of Emerging Concern in Stormwater (Year 2 of three-year study; analytes include bisphenols, organophosphate esters, ethoxylated surfactants, PFAS, and a suite of urban road runoff chemicals).
 - 2020 Bisphenols in wastewater effluent and Bay sediment.
- The RMP published an updated strategy for Emerging Contaminants to guide future studies.
 - Miller, E., et al. *Contaminants of Emerging Concern in San Francisco Bay: A Strategy for Future Investigations. 2020 Update*. Richmond, CA: San Francisco Estuary Institute; 2020. Report No. 1007.
<https://www.sfei.org/documents/contaminants-emerging-concern-san-francisco-bay-strategy-future-investigations-2020-update>
- Multiple microplastics reports were published based on the work funded in large part by the Gordon and Betty Moore Foundation:
 - Brander, S. M., et al. 2020. “Sampling and Quality Assurance and Quality Control: A Guide for Scientists Investigating the Occurrence of Microplastics Across Matrices.” *Applied Spectroscopy* 74 (9). SFEI Contribution No. 1012.
https://www.sfei.org/sites/default/files/biblio_files/brander_etal2020_microplastic%20sampling_AppliedSpectroscopy.pdf
 - Hung, C., et al. “Methods Matter: Methods for Sampling Microplastic and Other Anthropogenic Particles and Their Implications for Monitoring and Ecological Risk Assessment.” *Integrated Environmental Assessment and Management*. 2020; 16(6).
<https://setac.onlinelibrary.wiley.com/doi/epdf/10.1002/ieam.4325>
 - Miller, E., et al. *Microparticles, Microplastics, and PAHs in Bivalves in San Francisco Bay*. Richmond, CA: San Francisco Estuary Institute; 2020. Report No. 976. https://www.sfei.org/sites/default/files/biblio_files/Microplastic%20in%20Bivalves%20Report%20-%20FINAL.pdf
 - Miller, E., et al. “Recommended best practices for collecting, analyzing, and reporting microplastics in environmental media: Lessons learned from comprehensive monitoring of San Francisco Bay.” *Journal of Hazardous Materials*. 2020, 124770, <https://doi.org/10.1016/j.jhazmat.2020.124770>.
- Several other reports on emerging contaminants were published in 2020:
 - Buzby, N.; Lin, D.; Sutton, R. *Neonicotinoids and Their Degradates in San Francisco Bay Water*. Richmond, CA: San Francisco Estuary Institute; 2020. Report No. 1002.
https://www.sfei.org/sites/default/files/biblio_files/Neonic%20Report%20-%20FINAL.pdf
 - Heberger, M., et al. *Current-use pesticides, fragrance ingredients, and other emerging contaminants in San Francisco Bay margin sediment and water*. Richmond, CA: San Francisco Estuary Institute; 2020. Report No. 934.
https://www.sfei.org/sites/default/files/biblio_files/Final_MarginsCECReport%202020-02-28.pdf

- Shimabuku, I., et al. *Flame retardants and plastic additives in San Francisco Bay: Targeted monitoring of organophosphate esters and bisphenols*. Richmond, CA: San Francisco Estuary Institute; 2020. Report No. 925.
https://www.sfei.org/sites/default/files/biblio_files/Flame%20Retardants%20and%20Plastic%20Additives%20in%20SFB_FINAL_022120%20%282%29.pdf
- Sanchez-Soberón, F., et al. “Multi-box mass balance model of PFOA and PFOS in different regions of San Francisco Bay.” *Chemosphere*. 2020; 252.
<https://www.ncbi.nlm.nih.gov/pubmed/32197174>
- Tian, Z., et al. “A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon.” *Science*, 2020; DOI: 10.1126/science.abd6951

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 2020, 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, only one in-person presentation was held in January; after that, the format switched from in-person to an online Zoom format.

This campaign reached a total of 135 students and instructors at the following institutions:

- Mt Diablo Adult Ed, Concord (in-person)
- San Jose City College (virtual)
- College of Marin, Novato (virtual)
- City College of San Francisco (virtual)
- Santa Rosa Junior College (virtual)

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 2020, BACWA continued to fund a contract worth \$12,500 to the California Indian Environmental Alliance to conduct risk reduction activities related to fish consumption in vulnerable populations. The contract for APA Family Support Services was completed, and the contract closed out. 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 2015 to 2019. Additional samples were collected in 2020 and an updated report is expected in early 2021.

- Gilbreath, A.; Hunt, J.; McKee, L. 2020. *Pollutants of Concern Reconnaissance*

Monitoring Progress Report, Water Years 2015-2019. SFEI Contribution No. 987. San Francisco Estuary Institute: Richmond, CA. <https://www.sfei.org/documents/pollutants-concern-reconnaissance-monitoring-progressreport-water-years-2015-2019>

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 2019, the RMP completed sampling for cyanide during the 2019 Water Cruise. Preliminary results from 2019 indicate that rolling average ambient cyanide concentrations remain below triggers in all five regions of the Bay. Final results will be published in early 2021.

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.

The RMP collected samples for copper during the 2019 Water Cruise. Preliminary results from 2019 indicate rolling average ambient copper concentrations remain below triggers in all five regions of the Bay. Final results will be published in early 2021.

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 fifth Group Annual Report on February 1, 2020, which was the first Group Annual Report required under the 2nd Nutrient Watershed Permit. All the permittees under the Nutrient Watershed Permit participated in the Group Annual Report. The next Group Annual Report will be submitted by the February 1, 2021 deadline.
- Nutrient Reduction by Recycled Water and Nature Based Systems Special Studies – The Evaluation Plans for the two special studies required under the 2nd Watershed Permit were submitted in combination with the scoping plans in December 2019, well ahead of the July 1, 2020 deadline for the two evaluation plans. Both studies are underway, and a

status report on each will be submitted by the July 1, 2021 deadline. The plans 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 \$2,600,000 to SFEI in Fiscal Year 2021, in excess of the \$2,200,000 required by the Permit. The intention is to “frontload” the required funding to accelerate the pace of the science to more quickly yield data that will be used for management decisions in the 3rd Watershed Permit. The additional \$400,000 will count against payments in future permit years.
- An update on the science plan reflecting the 2020 calendar year will be submitted by the February 1, 2021 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 2020, 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 18, 2020.

CC: Mr. Thomas Mumley, Assistant Executive Officer, Regional Water Board
Mr. William Johnson, NPDES Permitting Division Chief, Regional Water Board
Mr. Xavier Fernandez, Planning and TMDL Division Chief, Regional Water Board
BACWA Executive Board
Ms. Mary Lou Esparza, BACWA Permits Committee Chair

December 18, 2020

Lorien Fono
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 59
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 2020. Current and past RMP Updates can be found [here](#); past Pulses can be downloaded [here](#).

In 2020, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works (\$1,742,193; 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. 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 2020, 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 Program. 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. We thank you and your members for the support and look forward to serving you in 2021.

Sincerely,



Melissa Foley, PhD
RMP Manager

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2020 and AMR for FY20

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
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	
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