



January 23, 2019

Mr. Thomas Mumley, Interim 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. Mumley:

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 Support; (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 November 7, 2018, 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 Requirements (AMR)¹, an Order that allows 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 have opted into the AMR are listed in the attached November 7, 2018 letter from SFEI.

In 2018, AMR funds were used as described below:

- AMR fully or partially funded the following projects:
 - 2018 Microplastics in Bivalves
 - 2018 Current Use Pesticides and Wastewater Contaminants in Margin Sediment and Water
 - 2018 Pharmaceuticals in Wastewater Data Analysis & Reporting
 - 2018 Non-targeted Analysis of Sediment and Related Studies
 - 2018 Characterizing Unknown PFASs in Bay Sediment
 - 2018 Nonylphenol Ethoxylates in Margin Sediments
- The RMP published an updated strategy for CECs to guide future studies.²
- The RMP published a synthesis of PFAS sampling and findings in San Francisco Bay, along with a strategy to guide future studies.³
- The RMP published a synthesis of alternative flame retardants found in the San Francisco Bay and strategies for future monitoring.⁴
- The RMP published results from pharmaceuticals in wastewater sampling conducted in 2016 and 2017.⁵

¹ Order No. R2-2016-0008 Alternate Monitoring and Reporting Requirements for Municipal Wastewater Dischargers for the Purpose of Adding Support to the San Francisco Bay Regional Monitoring Program (RMP).

² Sedlak, M.; Sutton, R.; Wong, A.; Lin, D. 2018. Per and Polyfluoroalkyl Substances (PFASs) in San Francisco Bay: Synthesis and Strategy. SFEI Contribution No. 867. San Francisco Estuary Institute: Richmond, CA. Available online at: <http://www.sfei.org/documents/and-polyfluoroalkyl-substances-pfass-san-francisco-bay-synthesis-and-strategy>

³ Sedlak, M.; Sutton, R.; Wong, A.; Lin, D. 2018. Per and Polyfluoroalkyl Substances (PFASs) in San Francisco Bay: Synthesis and Strategy. SFEI Contribution No. 867. San Francisco Estuary Institute: Richmond, CA. Available online at: <http://www.sfei.org/documents/and-polyfluoroalkyl-substances-pfass-san-francisco-bay-synthesis-and-strategy>

⁴ Lin, D.; Sutton, R. 2018. Alternative Flame Retardants in San Francisco Bay: Synthesis and Strategy. SFEI Contribution No. 885. San Francisco Estuary Institute : Richmond, CA. Available online at: <https://www.sfei.org/documents/alternative-flame-retardants-san-francisco-bay-synthesis-and-strategy>

⁵ Lin, D.; Sutton, R.; Sun, J.; Ross, J. 2018. Screening of Pharmaceuticals in San Francisco Bay Wastewater. SFEI Contribution No. 910. San Francisco Estuary Institute: Richmond, CA. Available online at: <https://www.sfei.org/documents/screening-pharmaceuticals-san-francisco-bay-wastewater>

- The RMP published results from the characterization of flame retardant (PBDEs) found in water, sediment, bivalves, and harbor seal blubber in San Francisco Bay.⁶

C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit was reissued in 2017, and became effective on January 1, 2018⁷. The Mercury/PCB Watershed Permit required source control and risk reduction activities by the permittees.

In 2018, 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. In 2018, this campaign reached approximately 160 students and instructors from January 1, 2018 – December 31, 2018 at the following site visits:

- San Jose City College (two classes)
- College of Marin, Novato (one class)
- Foothill College, Los Altos (one class)
- Santa Rosa Junior College (one class)
- Mt Diablo Adult Ed, Concord (one classes)

The instructors have come to rely on these annual visits and have incorporated BAPPG's program into their instructional calendar. Further, this is a very relevant audience for other pollution prevention messages, such as wipes, microbeads, and triclosan.

BAPPG reviewed and edited the Dental web text of Baywise.org and coordinated the reviews and edits with California Dental Association. The text now provides details on the Federal EPA requirements for dental facilities and references resources developed by the California Dental Association, and the American Dental Association.

The Watershed permit requires that permittees conduct or participate in programs to reduce mercury-related risks to humans from the consumption of Bay fish. In 2018 BACWA signed contracts to fund two grants worth \$25,000 each to the California Indian Environmental Alliance, and APA Family Support Services, to conduct activities related to reducing risk from fish consumption in vulnerable populations. Materials generated with support from BACWA's previous grants are available on BACWA's website⁸.

⁶ Sutton R, Chen D, Sun J, Greig DJ, Wu Y. Characterization of brominated, chlorinated, and phosphate flame retardants in San Francisco Bay, an urban estuary. *Science of the Total Environment* [Internet]. 2019; 652:212-223. Available online with a subscription:

<https://www.sciencedirect.com/science/article/pii/S004896971833969X?dgcid=coauthor>

⁷ Waste Discharge Requirements for Municipal and Industrial Wastewater Discharges of Mercury to San Francisco Bay, Order No. R2-2017-0041; NPDES No. CA0038849

⁸ <https://bacwa.org/mercurypcb-risk-reduction-materials/>

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. The RMP published results from the cyanide sampling during the 2017 Water Cruise⁹. Results indicate that ambient cyanide concentrations are below triggers but the rolling average increased in three of five regions.

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 2017 Water Cruise. The method Brooks Analytical Laboratories used changed in 2017 so a report has been delayed while they investigate how the results from the two methods differ. In September 2018, the Technical Review Committee⁹ recommended publishing results from 2017 based on the original method (reductive precipitate). Future samples will be measured and reported using the original method and the new method (triple quad). Preliminary data indicate ambient concentrations of copper remained below trigger levels. Final results will be reported in early 2019.

In 2018, BACWA discontinued its presentations to plumbing classes at local colleges, since it was found that the messaging was being ignored. BAPPG plans to renew discussions regarding whether to update plumbing messages. The committee will also evaluate the need for updating the copper source analysis for wastewater since the one often cited within BAPPG is a 1996 document, incorporating an assumption from a 1994 document, and there are concerns that these findings are out of date.

During the public comment period for the U.S. EPA Copper Registration Review risk assessment in 2016, BACWA recommended that U.S. EPA require users to contact local agencies and follow their instructions for draining copper-treated swimming pools, spas, and fountains to avoid copper pollution and collection system backup. In November 2018, U.S. EPA issued its interim decision, completing the Copper Pesticides Registration Review process. U.S. EPA finalized its requirement that users contact local agencies and follow their instructions for draining copper-treated swimming pools, spas, and fountains to avoid copper pollution and collection system backup. Although BACWA also recommended that EPA examine discharges from

⁹ Shimabuku I. 2017 Update to Cyanide Rolling Average. Richmond, CA: San Francisco Estuary Institute; 2018. Available online at: <https://www.sfei.org/documents/2017-update-cyanide-rolling-average>

washing copper pesticide-treated fabrics, they declined to do so, responding that there are insufficient data to support a detailed assessment, and they do not believe that fabrics are likely to be a large wastewater copper discharge source.

F. Nutrient Watershed Permit Compliance

The Nutrient Watershed Permit¹⁰ was adopted on April 2014, with an effective date of July 1, 2014. 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 fourth Group Annual Report on October 1, 2018. All the permittees under the Nutrient Watershed Permit participated in the Group Annual Report.
- Optimization and facilities upgrade studies – The Final Report on the studies was submitted to the Regional Water Board on June 26, 2018¹¹.
- Support of scientific studies as part of the Nutrient Management Strategy (NMS) – BACWA provided a total of \$1,080,000 to SFEI in Fiscal Year 2019. An update on the science plan reflecting the 2018 calendar year will be submitted by February 1, 2019.

Deliverables produced by the NMS in 2018 were as follows:

- In September 2018, SFEI produced a draft report on dissolved oxygen and fish habitat which was a collaborative effort with UC Davis (FY17 funds). The final report will be available on the SFEI website after the peer-review process is complete.
- In December 2018, SFEI produced a report that summarized the progress on the hydrodynamic and biogeochemical modeling. The report will be available on the SFEI website soon.
- In December 2018, SFEI produced a report that summarized the progress on the moored sensor monitoring efforts in the Lower South Bay. The report will be available on the SFEI website soon.

¹⁰Waste Discharge Requirements for Municipal Wastewater Discharges of Nutrients to San Francisco Bay, Order No. R2-2014-0014; NPDES No. CA0038873

¹¹ Available online at https://bacwa.org/wp-content/uploads/2018/06/BACWA_Final_Nutrient_Reduction_Report.pdf

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 2018, the RMP published a monitoring design framework for selenium in the North Bay¹².

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

Respectfully,



David R. Williams, P.E.
BACWA Executive Director

Encl:

SFEI Letter regarding RMP Participation, December 29, 2017.

CC:

Mr. William Johnson, NPDES Permitting Division Chief, Regional Water Board
Mr. Richard Looker, Water Resources Control Engineer, Regional Water Board
BACWA Executive Board
Mr. Robert Wilson, BACWA Permits Committee Chair

¹² Grieb T, Roy S, Rath J, Stewart R, Sun J, Davis JA. North Bay Selenium Monitoring Design. Richmond, CA: San Francisco Estuary Institute; 2018. Report No. 921. Available online at: <https://www.sfei.org/documents/north-bay-selenium-monitoring-design-0>



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David R. Williams
Executive Director
Bay Area Clean Water Agencies
PO Box 24055, MS 59
Oakland, CA 94623

November 7, 2018

Dear Mr. Williams:

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 and is still going strong, is a successful partnership of scientists, government, municipalities, and industries 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 most updated RMP Update was published in September 2018. The full report as well as past reports can be downloaded from [here](#).

In 2018, 35 wastewater treatment facilities collectively contributed the full amount of the core RMP program costs assigned to publicly owned treatment works (\$1,643,379, 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 2018, 35 wastewater treatment facilities made supplemental contributions to the Program under Order R2-2016-0008 (\$269,575 see Table 1).

This 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 2019.

Sincerely,

A handwritten signature in black ink, appearing to read 'Philip Trowbridge', is written over a faint, large watermark of the SFEI logo.

Philip Trowbridge, PE
RMP Manager

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2018 and AMR for FY18

POTW Dischargers	Core RMP Fees	AMR Order Fees
American Canyon, City of		
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
<i>Union S.D.</i>		YES
<i>Oro Loma</i>		YES
<i>Hayward</i>		YES
<i>San Leandro</i>		YES
<i>Livermore</i>		YES
<i>Dublin San Ramon Services District</i>		YES
East Bay Municipal Utility District WWTP	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	YES
Marin County (Tiburon), Sanitary District No. 5 of		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, 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 Jose/Santa Clara Water Pollution Control Plant and Cities of San Jose and Santa Clara	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 Department of Navy (Treasure Island)	YES	YES
Vallejo Flood and Wastewater District	YES	YES
West County Agency		YES
<i>Richmond Municipal Sewer District</i>		YES
<i>West County Wastewater District</i>	YES	YES
Yountville, Town of	YES	YES

