



January 22, 2016

Mr. Bruce Wolfe, 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. Wolfe:

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) Total Maximum Daily Load and Site Specific-Objective Support, (C) Mercury and PCBs Watershed Permit Support, (D) Copper Action Plan Support; and (E) Nutrient Watershed Permit Support.

A. Receiving Water Quality Monitoring

Various NPDES permits require that the permittees participate in 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 12, 2016, confirming BACWA member agencies' contributions to the RMP, is attached for reference.

B. Total Maximum Daily Load and Site-Specific Objective Support

Some POTW permits previously included a requirement that permittees report to the Regional Water Board any actions taken in support of the development of Site-Specific Objectives (SSOs) and Total Maximum Daily Loads (TMDLs) for 303(d) listed pollutants. Support for these efforts has been provided largely through support of the RMP. Cyanide samples were collected in ambient Bay waters in 2015 and the result will be compared to the cyanide SSOs in 2016.

In 2015, BACWA worked with the Regional Water Board to support the development of the North Bay and South Bay Selenium TMDLs. BACWA provided comments pertaining to our member agencies' waste load allocations designated by the North Bay Selenium TMDL, which was adopted by the Regional Water Board in November 2015.

In 2014, the RMP convened a Selenium Strategy Team and developed a Selenium Strategy in the Multi-Year Plan, and coordination within the Strategy Team continued in 2015. The new strategy includes measuring selenium in small tissue samples from sturgeon collected using non-lethal methods. In 2015, tissue samples were collected from sturgeon during non-lethal fish trawls in North Bay and during the Sturgeon Derby in Martinez. The tissue samples were analyzed for selenium to track implementation of the North Bay Selenium TMDL.

C. Mercury and PCBs Watershed Permit Support

The Mercury and PCBs Watershed Permit was reissued in 2012, and became effective on January 1, 2013¹. The reissued permit has no requirements for Mercury Special Studies. BACWA will continue to work with the RMP to develop and implement an updated mercury science strategy.

In 2015, the RMP analyzed sediment samples for mercury, methylmercury, and PCBs to provide data relative to the implementation of the TMDLs for PCBs and mercury.

In 2015 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 2015, this campaign reached approximated 297 people at 13 speaking engagements. In 2016, BAPPG will continue to provide the guest speaker to local colleges. The instructors have come to rely on these annual visits and have interwoven the BAPPG program into their instructional calendar.

The permit requires that permittees conduct or participate in programs to reduce mercury-related risks to humans from the consumption of Bay fish. In 2015 BACWA issued a request for proposals for a grant to implement a risk reduction program. BACWA convened a selection committee that awarded two grants worth \$25,000 each to the California Indian Environmental Alliance, and APA Family Support Services. Activities related to both grants began in 2015 and will be completed by 2017. BACWA will work with the grantees to provide a progress update on their risk reduction activities to the Regional Water Board in 2016.

D. 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

¹ Waste Discharge Requirements for Municipal and Industrial Wastewater Discharges of Mercury to San Francisco Bay, Order No. R2-2012-0096; NPDES No. CA0038849

uncertainties, and implement additional measures should the three-year rolling mean in various parts of the Bay exceed site-specific concentration triggers.

In 2015, the RMP analyzed water and sediment samples for copper to provide data relative to the implementation of the Copper Action Plan. Regarding studies to reduce uncertainties in terms of the impact of copper on beneficial uses, in 2013, the RMP contracted with the National Oceanic and Atmospheric Administration Northwest Fisheries Science Center in Seattle to study the olfactory toxicity of copper on salmonids. The studies indicate that even at very high concentrations of copper in seawater ($> 100 \mu\text{g/L}$), Chinook salmon's sense of smell is not impaired. For juvenile salmon, copper concentrations up to $50 \mu\text{g/L}$ did not have impacts on the olfactory system at salinities >10 ppt. These results were published in 2015².

In addition to the measures being taken by individual agencies to reduce copper in discharges in 2015, BAPPG funded three plumbing presentations reaching approximately 300 plumbers and apprentices. At these presentations, there were significant discussions about copper pipe corrosion, flux choices, and PEX. There were also significant questions from the audience about "flushable" wipes, pharmaceuticals, and drinking water supply. In August 2015, BAPPG conducted a presentation and had a discussion with the International Association of Plumbing and Mechanical Officials (IAPMO), a professional society for building inspectors, to discuss copper versus PEX life cycle analyses and flux issues. This was the first time BAPPG presented findings regarding life cycle and worker safety issues of the two plumbing materials. The audience included building inspectors, contractors, and PVC (not PEX) distributors.

E. Nutrient Watershed Permit Compliance

The Nutrient Watershed Permit³ 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 first Group Annual Report on November 12, 2015, after being granted an extension of the original October 1 deadline by the Regional Water Board. All the permittees under the Nutrient Watershed Permit participated in the Group Annual Report.
- Optimization and facilities upgrade studies – Studies are ongoing, but an update was provided to the Regional Water Board at BACWA's Annual Pardee Technical Seminar in October 2015. A Final Report on the studies is expected in late 2016.
- Support of scientific studies as part of the Nutrient Management Strategy – BACWA has provided \$880K to SFEI in 2015. BACWA and SFEI submitted a science implementation plan and schedule update to the Regional Water Board on February 2, 2015. An update for the 2015 calendar year will be submitted by February 1, 2016.

² Report at http://www.sfei.org/sites/default/files/biblio_files/754%20Baldwin%20Cu%20Olfactory%20Toxicity.pdf

³Waste Discharge Requirements for Municipal Wastewater Discharges of Nutrients to San Francisco Bay, Order No. R2-2014-0014; NPDES No. CA0038873

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

Respectfully,

David R. Williams

David R. Williams
BACWA Executive Director

Encl:
SFEI Letter regarding RMP Participation, January 12, 2016.

CC:
Ms. Lila Tang, NPDES Permitting Division Chief, Regional Water Board
Mr. Richard Looker, Water Resources Control Engineer, Regional Water Board
Ms. Laura Pagano, BACWA Executive Board Chair
Ms. Amanda Roa, BACWA Permits Committee Chair



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January 12, 2016

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

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. To that end, the RMP:

- Monitors water, sediment, and biota for toxic contaminants. In 2015, samples were collected for ambient Bay water, sediment from the Bay margins, and sturgeon fish tissue. The water samples were analyzed for a variety of chemicals, including copper and cyanide in order to determine attainment of site-specific objectives for these contaminants. Data on the full suite of California Toxic Rule pollutants were also collected to provide updated information for Reasonable Potential Analyses. Sediment samples were analyzed for mercury, methylmercury, PCBs, and copper to provide data relative to the implementation of the TMDLs for PCBs and mercury and the Copper Action Plan. Finally, tissue samples were collected from sturgeon during non-lethal fish trawls in North Bay and during the 2015 Sturgeon Derby in Martinez. The tissue samples were analyzed for selenium to track implementation of the North Bay Selenium TMDL.
- Funds special studies to answer management questions. In 2015, \$1.19 million was allocated to special studies. A large portion of these funds (\$470,000) supported research for the Nutrient Management Strategy per the Nutrient Watershed Permit. In particular, the RMP funded continuous water quality monitoring with moored sensors, high-frequency mapping of water quality in Lower South Bay, and modeling program development. Emerging contaminants continued to be a focus in 2015 with studies on fipronil, perfluorinated compounds, and microplastics in wastewater effluent. Finally, a multi-year study of the effects of copper on juvenile salmon indicated that the site-specific objectives for copper in the Bay are protective for this important species.
- Communicates findings through reports, meetings, and web tools. In 2015, the RMP released the Pulse of the Bay report (<http://www.sfei.org/rmp/pulse>), held the Annual

Meeting as part of the State of the Estuary Conference (<http://www.sfei.org/projects/rmp-annual-meeting>), and updated the CD3 online tool for downloading RMP data (cd3.sfei.org).

In 2015, 35 wastewater treatment facilities (see attached table for a complete list) collectively contributed the share of the base RMP program costs assigned to publicly owned treatment works (44%) as outlined in the Program Charter¹. 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 2016.

Sincerely,



Philip Trowbridge, PE
RMP Manager



¹ http://www.sfei.org/sites/default/files/biblio_files/SF%20Bay%20RMP%20Charter.pdf

Table 1

Wastewater Treatment Facilities Contributing to the RMP in 2015

Central Contra Costa Sanitary District*

Central Marin Sanitation Agency

City of Benicia

City of Burlingame

City of Calistoga

City of Millbrae

City of Palo Alto

City of Petaluma

City of Pinole/Hercules

City of St. Helena

City and County of San Francisco, PUC*

City of San Jose*

City of San Mateo

City of South San Francisco/San Bruno

City of Sunnyvale

Delta Diablo Sanitation District

East Bay Dischargers Authority*

East Bay Municipal Utility District*

Fairfield-Suisun Sewer District

Las Gallinas Valley Sanitation District

Marin County Sanitary District #5, Tiburon

Mountain View Sanitary District

Napa Sanitation District

Novato Sanitation District

Rodeo Sanitary District

San Francisco International Airport

Sausalito/Marin City Sanitation District

Sewerage Agency of Southern Marin

Silicon Valley Clean Water

Sonoma County Water Agency

Town of Yountville

Union Sanitary District

U.S. Navy, Treasure Island

Vallejo Sanitation & Flood Control District

West County Wastewater Dist., Richmond



*Asterisk indicates BACWA Principals