

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

MEETING DATE: May 11, 2022

Item: 4

Executive Officer's Report

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Lower College of Marin Corte Madera Creek Restoration Project (Nicole Fairley)

On April 13, 2022, we issued a 401 water quality certification for the Corte Madera Creek Restoration Project adjacent to the College of Marin. The Project purpose is to restore natural functioning aquatic, tidal, and transitional riparian upland habitat in a manner that is adaptive to future sea level rise and improves floodwater conveyance through the existing concrete channel transition to natural channel. Proposed work involves removing 406 cubic yards of the existing concrete Army Corps flood control channel and restoring a more naturalized tidal channel bed and banks with upland riparian transition zones. The Project will expand waters of the State by 0.72 acres total, of which: 0.15 acres will be new open water habitat; 0.12 acres will be new low tidal marsh habitat; 0.13 acres will be new high marsh habitat; and 0.32 acres will be new riparian transition zone habitat. The Project includes various bio-engineering techniques, including a boulder-anchored large wood blanket on the west bank outside bend to minimize erosion potential. This involves buried boulders in the cohesive soil slope that will anchor a total of 51 large wood pieces, 9 of which have rootwads, in a naturalized design to mimic tidal wood rack up on the bank. Construction is expected to start in August 2022.

**EXISTING CONDITIONS**

DATE OF FLIGHT: 5 FEB 2020 AT LOW TIDE (±0.4' NAVD88)
(SEDIMENTATION IN THE EARTHEN CHANNEL DOWNSTREAM FROM THE CONCRETE CHANNEL PREVENTS TIDE LEVEL IN THE CONCRETE CHANNEL FROM REDUCING BELOW RIFFLE ELEVATION (APPROX. 1.7' NAVD88, SURVEYED FEB 2020).



PROPOSED CONDITIONS
DESIGN PLAN CONCEPT
(WATER LEVEL SHOWN AT 3.5' NAVD88)

Staff Participation in Climate Change Webinar Hosted by National Academy of Science (Christina Toms)

On Thursday, April 21, Christina Toms participated in a webinar hosted by the National Academy of Science. The latest in a series called "Climate Conversations: Pathways to Action", this [episode](#) focused on sea level rise adaptation. Rutgers professor Bob Kopp (one of the lead authors of the 2021 IPCC report and the 2017 4th US Climate Assessment) moderated a discussion between Christina and Tancred Miller, the coastal management policy and planning chief for the North Carolina Department of Environmental Quality. A link to a recording of the webinar is [here](#). During the discussion, Christina highlighted the importance of multi-benefit, nature-based adaptation strategies, and the Water Board's support of planning frameworks such as the Adaptation Atlas. Since the webinar, representatives from the American Association for the Advancement of Science, the Aspen Global Change Institute, and the Governor's Office of Planning and Research have contacted Christina, seeking further input on nature-based adaptation strategies.

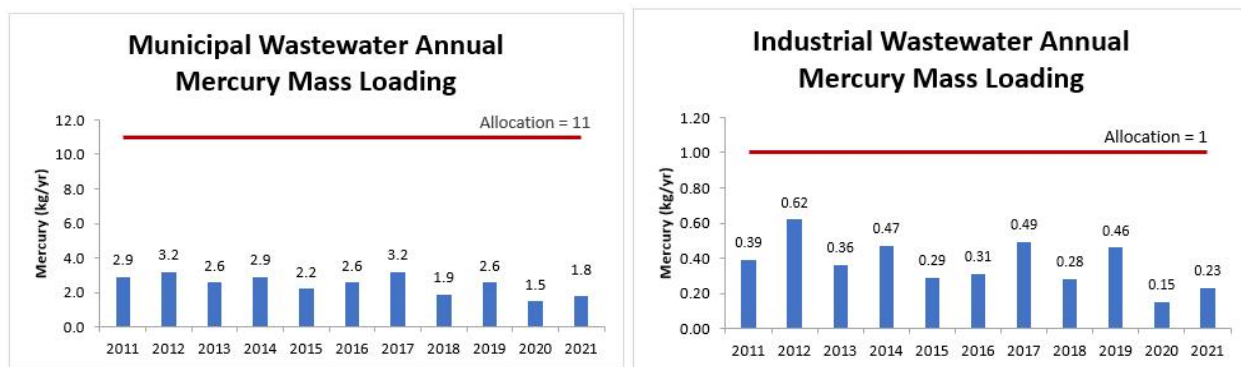
Wastewater Mercury and Polychlorinated Biphenyls Loads Update (James Parrish)

San Francisco Bay is impaired by mercury and polychlorinated biphenyls (PCBs). In 2006 and 2008, the Board adopted total maximum daily loads (TMDLs) for mercury and PCBs, which define wasteload allocations for how much mercury and PCBs wastewater facilities can discharge to San Francisco Bay while still meeting water quality standards. In 2021, mercury and PCBs loads in wastewater discharges continued to be well below the TMDL wasteload allocations, which are implemented through a regionwide watershed permit the Board reissued most recently in 2017.

Mercury Loads

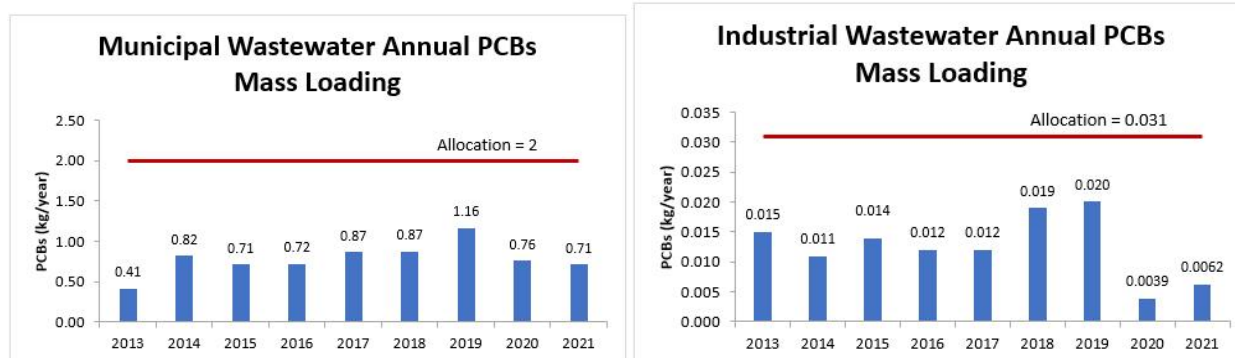
As shown in Figure 1, 2021 mercury loads from municipal and industrial wastewater discharges slightly increased from 2020 loads but were consistent with discharges over the last decade. The municipal and industrial discharges were just 16 and 23 percent of the TMDL allocations.

Figure 1. Municipal and Industrial Mercury Mass Loads from 2011 to 2021



PCBs Loads

As shown in Figure 2, the 2021 PCBs load from municipal wastewater discharges remained consistent with the 2020 load, and the 2021 load from industrial wastewater discharges slightly increased. The municipal and industrial discharges were 36 and 20 percent of the TMDL allocations and consistent with discharges over the last decade.

Figure 2. Municipal and Industrial PCBs Mass Loads from 2013 to 2021

Conclusions

We generally expect some mercury and PCBs load variation between years because load calculations are based on samples collected at random times throughout the year. Thus, load fluctuations could be due to sample timing, analytical variability, or weather. For example, wet weather can increase loads by mobilizing solids in municipal collection systems or discharging contaminated runoff into industrial treatment ponds. Our Region received over 250 percent more rain in 2021 than it did in 2020, which could explain the slight increase in mercury loads noted above. Despite external factors that can affect load estimates, municipal and industrial wastewater facilities consistently discharge mercury and PCBs loads well below TMDL wasteload allocations. These facilities also continue to engage in treatment, pretreatment, and pollution prevention efforts to control mercury and PCBs loads.

In-house Training (Carrie Austin)

In April, our In-house Training focused on the Water Quality Control Plan (Basin Plan), our guiding document, and the authority in the Implementation Plans in Chapter 4. The Planning and TMDL Division led this training (principally Environmental Scientist Morgan Williams, Senior Engineering Specialist Richard Looker, and Division Chief Xavier Fernandez).

Morgan dove into the history of the Basin Plan – how it has grown and evolved into the Bay Area's mightiest assembly of superheroes. Xavier provided an overview of the Basin Plan. Our Watershed Stewards Program interns, Jacqueline Hewitt and Jamal Jaffer, walked us through how to access and use the [HTML and PDF versions of the Basin Plan](#). After covering these essentials, staff launched into an overview and case studies of several Implementation Plans.

Will Burrell explained how the NPDES Division implements the discharge prohibitions and allowed exceptions in Basin Plan Section 4.2 to protect water quality and beneficial uses. Will focused on the challenges for municipal wastewater treatment plants in discharging to a shallow waterbody. This stimulated discussion and questions such as how more recycled water production (environmental good) is generating more reverse osmosis brine discharges (challenging for NPDES permit).

Bill Cook explained How the Groundwater and Toxics Cleanup Division uses Basin Plan Section 4.25, groundwater protection and management, to protect groundwater. Bill took us (virtually) to the Benicia Industrial Park, a portion of the historical Benicia Arsenal used by the U.S. Army until 1964. He explained how the dischargers treated trichloroethylene (TCE) pollution in groundwater with bacteria injected into an underground permeable reactive barrier to protect commercial human occupants exposed to TCE via soil vapor intrusion into the industrial park and plants and animals in the nearby, downstream wetlands, including a Caltrans mitigation wetlands site. Caltrans was understandably disturbed by TCE pollution, which led to a search for the source area and responsible parties, including assistance from a detective agency.

Our next training will be a field trip in May. We are going to [Alameda Point](#) located on the western tip of the island of Alameda, formerly known as the [Naval Air Station Alameda](#). We chose this location because we can tour and learn about former and current sites in various stages ranging from planned remediation to completed remediation and redevelopment.

Enforcement Actions (Brian Thompson and Jessica Watkins)

The following table shows the settled enforcement action since April's report. Please refer to the [Pending Enforcement Liabilities and Penalties](#) webpage for more information on the details of the alleged violations.

Settled Action

On behalf of the Board, the Executive Officer approved the following:

Discharger	Violation(s)	Imposed Penalty	Supplemental Environmental Project
Lennar Homes of California, LLC	Unauthorized discharge of 148,000 gallons of domestic sewage to waters of the United States.	\$212,300	\$106,150 ¹

- ¹ The penalty includes \$106,150 to supplement Regional Monitoring Program studies. The Regional Monitoring Program is managed by the San Francisco Estuary Institute to collect water quality information in support of management decisions to restore and protect beneficial uses of the Region's waters.

401 Water Quality Certification Applications Received (Abigail Smith)

The table below lists those applications received for Clean Water Act section 401 water quality certification from March 10 through April 19, 2022. A check mark in the right-hand column indicates a project with work that may be in BCDC jurisdiction.

Project Name	City/Location	County	May have BCDC Jurisdiction
Lower Alameda Creek Restoration Phase 1 And 2	Fremont	Alameda	
Channel Wall Repair Along Estudillo Canal Zone 2 Line A	San Leandro	Alameda	
Phillips 66 RMT Maintenance Dredging	Richmond	Contra Costa	✓
Emergency Top of Bank Retaining Wall at 76 Alder Ave	San Anselmo	Marin	
Bothin Marsh Evolving Shorelines Geotechnical Investigation	Tamalpais-Homestead Valley	Marin	✓
Flow Equalization And Resource Recovery Facility	Menlo Park	San Mateo	✓
Harbor Court Rip Rap Replacement	Redwood City	San Mateo	✓
Colma Creek Channel Maintenance	San Francisco	San Mateo	