

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

MEETING DATE: March 13, 2024

Item: 4

Executive Officer's Report

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Freshwater and Estuarine Harmful Algal Bloom Programmatic Update (Rebecca Nordenholt)

The State Water Board Freshwater and Estuarine Harmful Algal Bloom Program strives to improve coordination and collaboration to address harmful algae blooms across the state. Freshwater and Estuarine Harmful Algal Bloom Program staff have responded to almost 2,000 harmful algae bloom incident reports across the state, developed a dozen new partner monitoring programs, performed three years of pre-holiday¹ assessments, launched an entirely new web-based data system, and encumbered over \$2.25 million in laboratory services and harmful algae bloom research contracts.

The Freshwater and Estuarine Harmful Algal Bloom Program recently released the [Water Code Section 13182\(a\) 2023 Annual Report](#), which outlines 2023 efforts and continued resource needs. More detailed information about the resources and funding needed to wholly implement the program as mandated by Assembly Bill 834 (Quirk, 2019) is available in the 2022 [comprehensive gap assessment](#). Prior legislative reporting can be found on the [SWAMP FHAB Programmatic webpage](#).

The San Francisco Bay Region does not receive funding for a dedicated Freshwater and Estuarine Harmful Algal Bloom Coordinator position, so the regional Freshwater and Estuarine Harmful Algal Bloom program is managed by Surface Water Ambient Monitoring Program (SWAMP) staff in our Planning Division. SWAMP staff respond to reports of suspected or confirmed harmful algae blooms in the region, participate in the statewide pre-holiday assessments, provide outreach and training to community groups, and participate in California Cyanobacteria and Harmful Algal Bloom Network meetings. We have dedicated \$8,000 annually of our SWAMP contract budget to taxonomic identification and algal toxin analysis and use a portion of these funds to support a harmful algae bloom monitoring partnership with the Rotary Nature Center Friends at Lake Merritt. This partnership began in response to the 2022 red tide and resulting wildlife deaths as well as freshwater cyanotoxins detected above the California Cyanobacteria and Harmful Algal Bloom caution advisory level.

In 2022, the San Francisco Bay (Bay) experienced a severe marine harmful algae bloom known as a [red tide](#), which caused serious environmental impacts including widespread fish kills in the Bay and Lake Merritt. Responding to marine harmful algae blooms in the Bay requires extensive collaboration because of overlapping jurisdictions, widespread interest, and the sheer size of the Bay. The [San Francisco Bay Harmful Algal Bloom Incident Response Procedure](#) was developed to outline additional actions and coordination needed for Bay blooms on top of the existing Freshwater and Estuarine Harmful Algal Bloom protocols. Now that these communication channels and procedures have been developed, we are more prepared to respond when a harmful algae bloom develops in the Bay.

Despite the Freshwater and Estuarine Harmful Algal Bloom Program funding limitations, the Bay is fortunate to have a robust monitoring strategy for harmful algae blooms. The Nutrient Management Strategy is a collaboration between scientists, regulators, and dischargers to study potential impacts of nutrients on San Francisco Bay. As required by the San Francisco Bay Second Nutrient Watershed NPDES Permit, municipal

wastewater treatment plants that discharge into San Francisco Bay collectively contribute \$2.2 million dollars per year to fund about 80 percent of the Nutrient Management Strategy budget. This funding helps support the San Francisco Estuary Institute studies on water quality and algal blooms in the Bay.

In October 2023, the National Oceanic and Atmospheric Administration (NOAA) announced that it is awarding a \$3 million grant to support the development of a harmful algae bloom monitoring program for the San Francisco Estuary through its Monitoring and Event Response Research Program. The project will build upon existing research and monitoring efforts in the Bay and the Sacramento-San Joaquin River Delta to develop a robust harmful algae bloom monitoring program for the entire Estuary. This project will be led by scientists at the San Francisco Estuary Institute, US Geological Survey, and California Department of Water Resources. We will join UC Santa Cruz, Bend Genetics, the Central Valley Regional Water Quality Control Board, San Francisco Baykeeper, Cal Maritime Academy, Restore the Delta, and NOAA-NCCOS (National Centers for Coastal Ocean Science) as project collaborators.

Recycled Water in the San Francisco Bay Region (Melissa Gunter)

The San Francisco Bay Water Board Recycled Water Program seeks to promote the safe use of recycled water in a manner that protects public health and the environment through the implementation of the State Water Board's Water Quality Control Policy for Recycled Water ([Recycled Water Policy](#)). Our Strategic Workplan includes priorities that support the advancement of recycled water and water resilience in the San Francisco Bay region. These priorities include permitting recycled water projects and programs in coordination with the State Water Board's Division of Drinking Water, engaging in collaborative efforts to increase water recycling in our region, and standardizing and streamlining permitting of water recycling projects. Although we have made progress in advancing these priorities, our efforts have been limited by the staff resources available to implement the recycled water program. Fortunately, this fiscal year, we were allocated two water resource control engineering positions dedicated to implementing the recycled water program and as a result, will be expanding our regional program.

The first engineer (Luis Anaya Vasquez) will work on overseeing compliance with existing recycled water permits and issuing new water recycling permits for projects, such as the Google Bay View Campus Recycled Water Project and Valley Water's [Purified Water Project](#). The Google Project treats stormwater and wastewater to produce recycled water for toilets and urinals, landscape irrigation, building and hardscape washdown, and cooling tower uses. The Valley Water Project is our Region's first indirect potable water reuse project and will recharge groundwater using recycled water purified through fully advanced treatment methods.

The second engineer (Melissa Gunter) will work on actions to promote water recycling regionally and across the State. Specific actions include collaborating with the [WaterReuse Association](#) and [Bay Area Clean Water Agencies' \(BACWA's\) Recycled Water Committee](#). A great example of these collaborations is the coordination with BACWA to convene stakeholders for a workshop at the Elihu Harris State building focused on enhancing interagency collaboration for Bay Area water reuse, identifying and prioritizing regional regulatory actions, such as potentially adopting a regional general permit or revising Basin Plan policies, and participating in the State and Regional Water Boards' Recycled Water Roundtable meetings, where we have presented on the oversight and permitting of multi-family residential dual plumbing systems. With the additional resources we look forward to more progress on this key issue in the future.

PFAS Investigations in the Site Cleanup Program (Kimberlee West)

Per- and polyfluoroalkyl substances (PFAS) are a group of over 14,000 synthetic chemicals commonly known as "forever chemicals". They are structurally stable, so they do not degrade in the environment. These chemicals were invented in 1938 and are commonly used in consumer products and industrial processes. As a result, PFAS are widely distributed in the environment throughout the world. Toxicity studies show that some PFAS have serious effects on human and ecological health.

Since 2019, the State Water Board has issued PFAS Orders for airports ([Order WQ 2019-0005-DWQ](#)), refineries and bulk fuel terminals ([Order WQ 2021-0006-DWQ](#)), chrome plating facilities ([Order WQ 2019-0045-DWQ](#)), landfills ([Order WQ 2019-0006-DWQ](#)), and wastewater treatment plants ([Order WQ 2020-0015-DWQ](#)). The Orders were sent to facilities throughout the State based on historical or current facility operations and required property owners to conduct PFAS sampling to determine the presence or absence of PFAS at each site. The San Francisco Bay region is managing 76 sites that received State Water Board PFAS Orders. All of the PFAS data and sites are available to the public through the State Water Board's interactive [GeoTracker PFAS map](#) (PFAS Map) (https://geotracker.waterboards.ca.gov/map/pfas_map). Figures 1 and 2 below are taken from the PFAS Map.

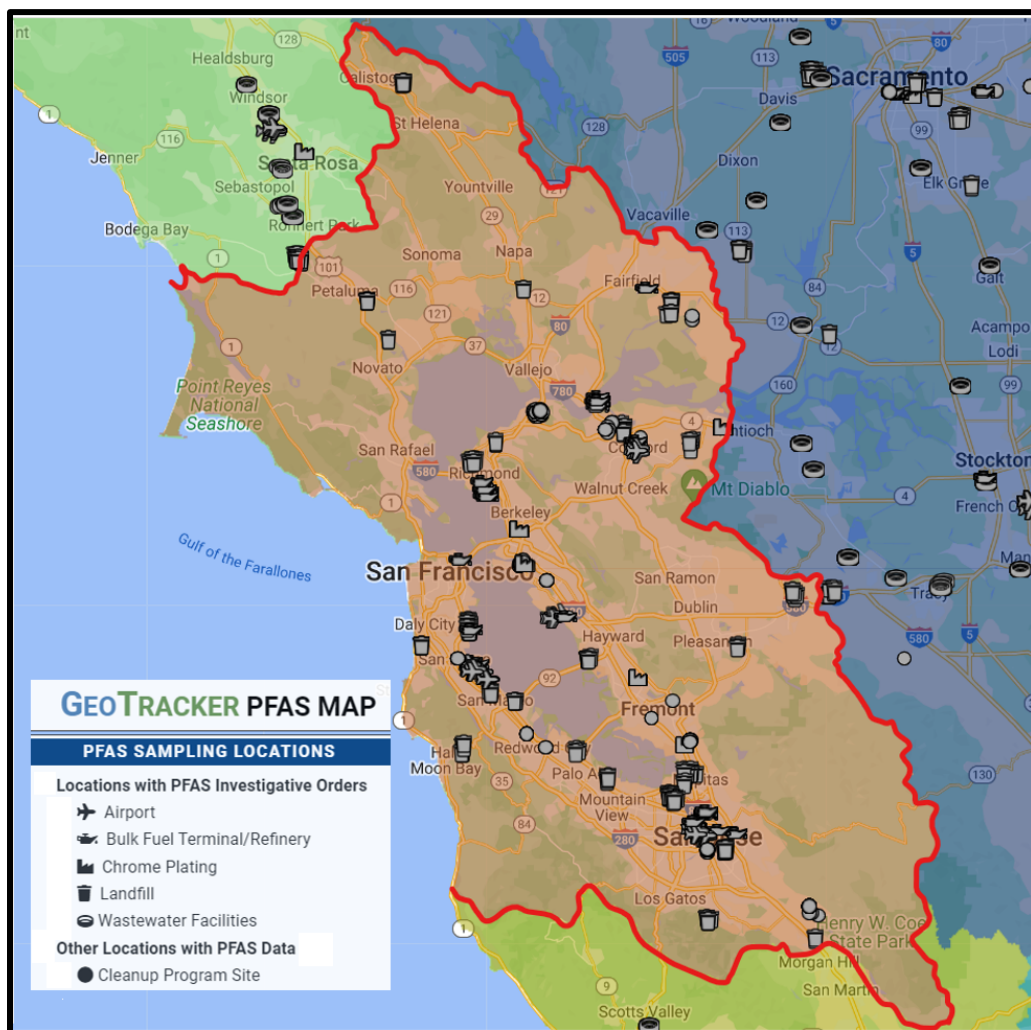


Figure 1: Cleanup sites within our region (orange) where PFAS data has been collected.

Our PFAS investigation strategy has two components. First, we continue expanding efforts for initial PFAS sampling to investigate industrial facilities that may have used, stored, or discharged PFAS. Second, we are requiring further investigation of sites based on PFAS concentrations and proximity to a receptor, such as a supply well or aquatic habitat. We are prioritizing sites where concentrations are more than an order of

magnitude greater than the proposed federal drinking water maximum contaminant levels for PFAS, and where there are nearby receptors within a mile of the site.

We also are looking outward from PFAS-affected supply wells to find potential source sites. In coordination with the division of drinking water and local drinking water agencies, we have identified about 220 public drinking water supply wells in our region that have been sampled for PFAS. (For context, there are about 1200 public supply wells in our region.) Of the 220 public supply wells tested, we have identified about 145 that are affected by PFAS, 55 of which have a PFAS compound that exceeds the proposed federal maximum contaminant level. Most of these are in the highly urbanized Livermore and Santa Clara Valleys. Figure 2 shows the approximate locations of PFAS-affected public supply wells in our region. Water purveyors use well-head treatment and blending to ensure that all drinking water meets water quality standards before it is distributed to the public.

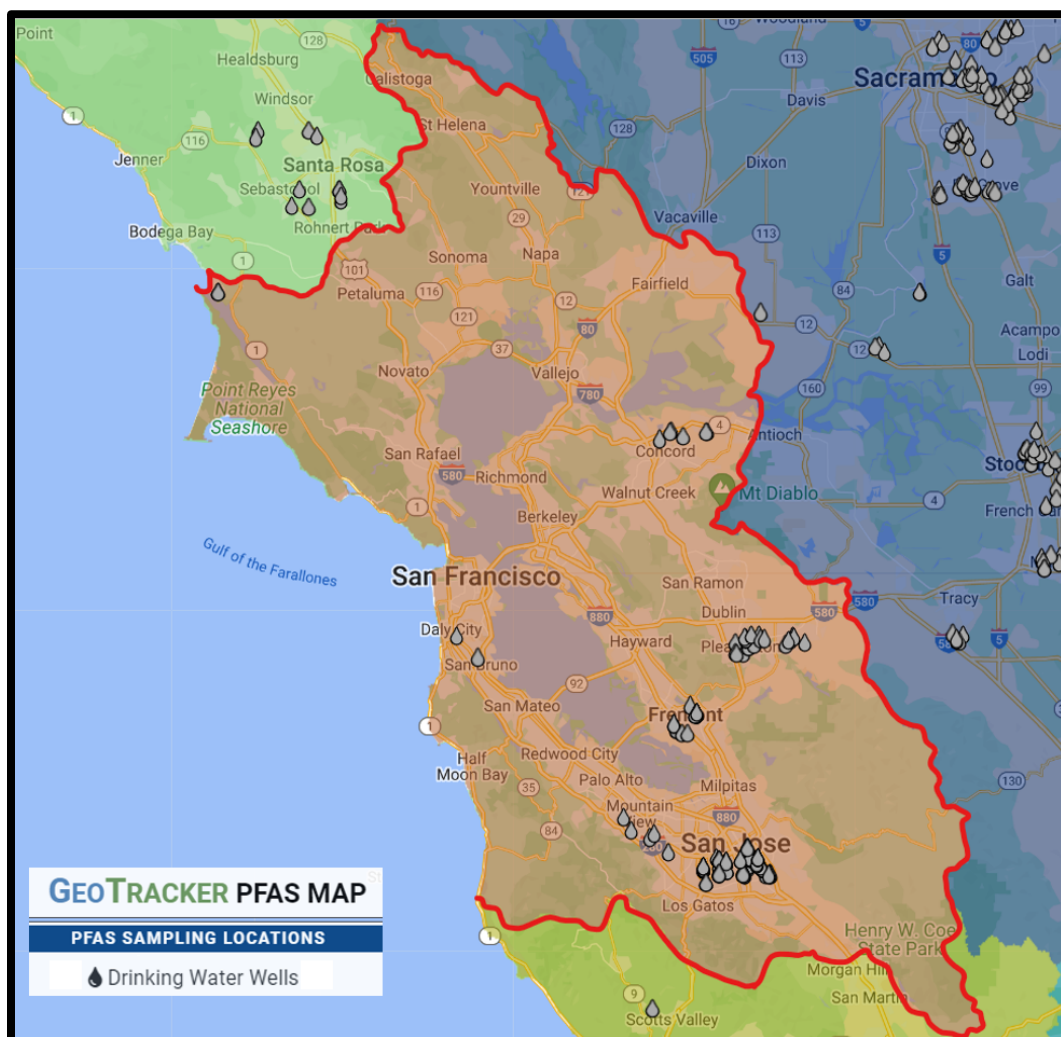


Figure 2: Drinking water supply wells in our region (orange) with PFAS detections.

To date, we have identified about 25 - 30 potential source sites for supply well impacts. These include fire stations, fire training areas, and other industrial facilities in proximity

to affected drinking water wells and groundwater recharge infiltration ponds. We are working with the owners of these sites to develop effective sampling strategies for source evaluation and will use the results to determine next steps, including contaminant plume delineation and cleanup. This brings the total number of PFAS cases to about 100 out of about 630 total cases in our Site Cleanup Program. We expect these numbers to rise as more PFAS data is collected.

Cleanup Order for the Former Echco Sales Company, Oakland, Alameda County (Helen Hild)

Last month, Executive Officer Eileen White issued Site Cleanup Requirements [Order R2-2024-0001](#) (Order) on behalf of the Regional Water Board for the Former Echco Sales facility at 6161 Coliseum Way in Oakland. The Order requires the dischargers, California Pacific Bank, Huey Hoang, Lo Lien, and Destin Wong, to mitigate volatile organic compounds in indoor air, and to clean up contaminated soil, groundwater, and soil vapor. The volatile organic compounds include tetrachloroethene (PCE) and its breakdown products.

From 1965 until 2000, Echco Sales Company stored and shipped industrial soaps and cleaners, including bulk PCE. The PCE was delivered to the property via railcars until 1988 and via trucks until 1995 when the business concluded. PCE was stored in aboveground storage tanks and 55-gallon drums inside the building. Subsurface investigations began in 1999 and PCE and its breakdown products have been identified in the former rail area, the former aboveground storage tank area, and the truck loading area.

Source removal was first performed in 2001. In 2014, additional soil was excavated, and shallow groundwater was treated by injecting cheese whey to promote the biodegradation of PCE. The remedial actions have had limited effectiveness and PCE, and its breakdown products remain in the groundwater, soil vapor, and indoor air at concentrations exceeding our environmental screening levels. While the on-site building is currently unoccupied, there are plans to reoccupy it with a commercial business, yet PCE in indoor air is 10 times greater than our health-protective environmental screening levels.

In 2022, California Pacific Bank conducted a successful soil vapor extraction pilot test that removed 40 pounds of volatile organic compounds over 34-days. However, none of the dischargers have been willing to implement full-scale remediation of soil vapor and groundwater or conduct interim mitigation measures to reduce PCE in indoor air.

The Order requires a vapor intrusion mitigation plan by March 9, 2024, and a full-scale remedial action plan by May 8, 2024. It also includes requirements to implement these plans once approved and submit regular performance monitoring and effectiveness evaluation reports.

Groundwater Resources Association Annual Regulatory Update (Ross Steenson, Alec Naugle, Jessica Watkins, and Nicole Fry)

On January 31, staff from the San Francisco Bay Water Board presented a regulatory update to the Bay Area branch of the Groundwater Resources Association of California. The Groundwater Resources Association is a non-profit organization that promotes the protection and improvement of groundwater supply and quality in California. Our staff has been making this annual presentation for over 20 years. This meeting continues to be the best attended meeting for this Groundwater Resources Association branch and provides a useful forum for staff to inform and interact with the regulated community.

During this meeting we discussed several “news” items and program updates including an overview of our Strategic Workplan as well as news and trends for the Site Cleanup and Underground Storage Tank Programs. We made special note and emphasis on investigation trends regarding per- and polyfluoroalkyl substances (PFAS); and our approach to requiring sea level rise/groundwater rise vulnerability assessments at cleanup sites and land disposal facilities located within areas vulnerable to the effects of climate change.

In addition to the above, we presented topics of interest regarding the Land Disposal and Department of Defense Cleanup Programs and how our approach to requiring consideration of sea level rise and groundwater rise has changed since 2009. The Department of Defense has committed to consider climate change during the Five-Year Review and Feasibility Study phases of the cleanup process, largely due to our persistence in conveying the expectation that federal facilities must evaluate climate change impacts when evaluating the effectiveness of soil and groundwater remedies.

We also shared our regional plan to update Environmental Screening Levels in 2024 with anticipated completion in 2025. The Environmental Screening Levels provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater and are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. Environmental Screening Levels address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts to drinking water, vapor intrusion, and impacts to aquatic habitat.)

Finally, we provided a vapor intrusion update describing our main risk assessment approach to determining whether to require indoor air sampling for vapor forming chemicals (i.e., soil gas concentrations greater than environmental screening levels). This approach may not be appropriate at all sites so we provided examples of lines of evidence that would support the argument to *not* sample indoor air when soil gas concentrations are greater than environmental screening levels.

The Groundwater Resources Association Annual Regulatory Update was an informative and well attended meeting with good exposure for the work of the San Francisco Bay Regional Water Quality Control Board.

North Bay Watershed Association (Eileen White)

I was invited to participate in the North Bay Watershed Association meeting held in Sonoma County on March 1, 2024. The North Bay Watershed Association is a group of 18 regional and local public agencies located throughout Marin, Sonoma, and Napa Counties. The North Bay Watershed Association brings together regulated North Bay public agencies to address issues of common interest that cross political boundaries and to promote stewardship of the North Bay watershed resources. Supervisors from three counties in the North Bay, mayors/council members from many north bay cities, and board representatives from water, wastewater, flood, and stormwater agencies attended the meeting. Below are the highlights from the presentation where I provided an overview of our Strategic Workplan with a focus on the programs and projects impacting the North Bay.

- The Riparian and Climate Change Basin Planning Project
- Implementation of the Petaluma River Pathogen Total Maximum Daily Load
- Reissuance of the Grazing Waiver
- Implementation of the Winery General Order
- Stormwater Management

The goal was to provide transparency on our priorities and objectives while continuing to strengthen our partnerships both in the North Bay and throughout the San Francisco Bay Region.

In the Petaluma Watershed most of the tidal and freshwater wetlands are gone, the groundwater table is lower, and streams in the upper watershed are more intermittent. With EPA funding, we are currently working with the San Francisco Estuary Institute (SFEI) and Sonoma Water to model current and future watershed hydrology and sediment dynamics under multiple climate change scenarios. The San Francisco Bay Water Board is also funding and working with SFEI and Sonoma Water to assess the current and future condition riparian vegetation under multiple climate change scenarios. We plan to work with SFEI and Sonoma Water to identify actions that will improve the resilience of natural and human communities to climate change based on the information from hydrology and sediment modeling and riparian assessment.

Of particular interest and focus were the activities implemented for the Petaluma River Pathogen Pilot and Total Maximum Daily Loads (TMDL) which was adopted by the board in November 2019. Geographically, the project covers the entire Petaluma River Watershed, which is 150 square miles, and drains into San Pablo Bay. The Petaluma River Watershed includes the main stem of the Petaluma River, which is listed as impaired due to excess bacteria, as well as all the tributaries to the river, such as San Antonio Creek. A large segment of the river is tidal, and most of the tributaries in the watershed are seasonal.

The San Francisco Bay Water Board is working to improve water quality by issuing grazing permits for operations in Tomales Bay, Sonoma Creek and the Napa River watersheds, implementing the Winery General Waste Discharge Requirements, and regulating stormwater.

The Winery General Waste Discharge Requirements (WDRs) establish consistent requirements statewide for discharges, including expected pollutant control practices, effluent and loading limits, and a monitoring program for winery process water. The monitoring program focuses on the primary constituents of concern in winery process water: salinity, nitrogen, and biochemical oxygen demand, or BOD. Within the San Francisco Bay Region, we estimate that this Winery Order could apply to over 800 wineries, the majority within Napa and Sonoma counties. Many wineries in Napa County have already been regulated by the County winery program. Those wineries have been granted a 3-year extension for applying to the Winery Order, while Napa County develops its Local Agency Oversight Program to implement the Winery Order.

To protect water quality, municipal stormwater permittees will be required to implement the trash provisions in the Statewide Water Quality Control Plans with the finish line being 100% controlled by 2030. Municipal Stormwater permittees can expect to see updated TMDL language for bacteria controls and language for the control of Mercury and PCBs. Permittees have already been requiring implementation of low impact development as parcels have been redeveloped. The requirement to develop and implement a green infrastructure plan should provide the opportunity to look at the shift from "Gray to Green" in a more deliberate way and recognizes the need for, and benefit of transitioning to more resilient and sustainable systems. The idea is that the Green Infrastructure Plan can serve as a tool, not only for reporting on pollutant load reductions, but also to identify priority projects that can achieve multiple benefits in a community, a watershed, or perhaps even regionally.

The overview of the Strategic Workplan and the information presented about the San Francisco Bay Regional Water Board programs and projects in the North Bay provided the participants with good background information and led to an engaging dialogue. The North Bay Watershed Association is a great partnership with a shared vision to promote stewardship of the North Bay Counties watershed resources.

Enforcement Actions (Brian Thompson and James Parrish)

The following tables show the proposed and settled enforcement actions since last month’s report. As the proposed settlements are pending and could come before the Board, ex parte communications are not allowed. Please refer to the [Pending Enforcement Liabilities and Penalties](#) webpage for more information on the details of the alleged violations and proposed settlements.

Proposed Settlements

The following are noticed for 30-day public comment periods. If no significant comments are received by the deadline, the Executive Officer will sign the orders implementing these settlements.

Discharger	Violation(s)	Proposed Penalty	Comment Deadline
PK II Creekside Center LLP	Discharge limit violations	\$3,000	March 13, 2024
TI LOT 8 LLC	Discharge limit violations	\$3,000	March 15, 2024
Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc	Discharge limit violations	\$3,000 ¹	March 15, 2024
City and County of San Francisco	Discharge limit violations	\$6,000 ²	March 15, 2024
Schlumberger Technology Corporation	Discharge limit violations	\$9,000 ²	March 22, 2024
IQHQ-Spur Ph1 LLC	Discharge limit violations	\$6,000	March 22, 2024
Mission Valley Rock Co., LLC	Discharge limit violations	\$6,000 ²	March 22, 2024
Chevron Environmental Management Company	Discharge limit violations	\$3,000	March 25, 2024
Sewerage Agency of Southern Marin	Discharge limit violations	\$31,500 ³	March 25, 2024

- 1 \$1,500 of this penalty would 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.
- 2 This penalty would supplement Regional Monitoring Program studies.
- 3 \$31,500 of this penalty would supplement Regional Monitoring Program studies.

Settled Actions

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

Discharger	Violation(s)	Imposed Penalty	Supplemental Environmental Project
Millbrae Adrian Science Park LLC	Discharge limit violations	\$6,000	-
Vallejo Flood and Wastewater District	Discharge limit violations	\$3,000	\$3,000 ¹
Texas Instruments, Inc	Discharge limit violations	\$3,000	-
Cedar Fair Entertainment Company	Discharge limit violations	\$33,000	-
Advanced Micro Devices, Inc.	Discharge limit violations	\$3,000	-
Eco Services Operations Corp	Discharge limit violations	\$3,000	\$3,000 ¹
Phillips 66 Company	Discharge limit violations	\$3,000	-
City of San Mateo	Discharge limit violations	\$6,000	\$6,000 ¹
San Francisco Public Utilities Commission	Discharge limit violations	\$9,000	-
Oliver De Silva, Inc.	Discharge limit violations	\$3,000	\$3,000 ¹
City of San Mateo and the City of Foster City Estero Municipal Improvement District	Discharge limit violations	\$9,000	\$9,000 ¹
SUMCO Phoenix Corporation	Discharge limit violations	\$6,000	-
Rodeo Sanitary District	Discharge limit violations	\$3,000	-
City and County of San Francisco, by and through the Airport Commission	Discharge limit violations	\$3,000	-
Livermore-Amador Valley Water Management Agency	Discharge limit violations	\$3,000	\$3,000 ¹
Oro Loma and Castro Valley Sanitary Districts	Discharge limit violations	\$15,000	\$15,000 ¹

1 The penalty supplements Regional Monitoring Program studies.

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 January 18 through February 14, 2024. A check mark in the right-hand column indicates a project with work that may be in the San Francisco Bay Conservation and Development Commission (BCDC) jurisdiction.

Project Name	City/Location	County	May have BCDC Jurisdiction
Strawberry Creek Culvert Maintenance Project	Berkeley	Alameda	
22322 Center St, Castro Valley, Creek Bank Slide and Bank Erosion Repairs	Castro Valley	Alameda	
Hayward Shoreline Bay Trail Emergency Short-Term Erosion Control Project	Hayward	Alameda	✓
Chelsea Drive Slide Repair between 2633 and 2615	Oakland	Alameda	
Port of Oakland Berth/Marina Maintenance Dredging 2024-2033	Oakland	Alameda	✓
J-2 Pump Station Flap Gate, Discharge Piping and Concrete Rehabilitation Zone 5 Project (F05ca6)	Union City	Alameda	✓
Collinsville 500/230 Kilovolt Substation In-water Geotechnical Investigation Project	Suisun Bay	Contra Costa	✓
Las Trampas Creek Bank Stabilization, 15 Calvin Court	Walnut Creek	Contra Costa	
Fierman Residence 57 West Shore Rd	Belvedere	Marin	✓
Larkspur Marina Maintenance Dredging	Larkspur	Marin	✓
980/1000 Ignacio Boulevard Creek Restoration	Novato	Marin	
SMART Non-Motorized Pathway Project, Segment 8	Novato	Marin	
Ignacio-Alto-Sausalito 60 kV Tower 04/37 & 04/38 Project	San Rafael	Marin	✓
PG&E Angel Island Electric Line Replacement Project	Tiburon, Angel Island	Marin	✓
Calistoga Elementary School Napa Riverbank Restoration Project	Calistoga	Napa	

Project Name	City/Location	County	May have BCDC Jurisdiction
1400 Milton Rd. Napa Pilings Repair	Napa	Napa	✓
Chiles Pope Valley Road MPM 3.63 Bank Stabilization Project	Unincorporated	Napa	
Highway 1 North Safety and Operational Improvement Project	Half Moon Bay	San Mateo	
Ravenswood-San Mateo Mudline Work 115 kilovolt (kV) 002/015	Redwood City	San Mateo	✓
2112 Isabelle Creek Bank Stabilization Project	San Mateo	San Mateo	
South San Francisco Bridge Preventive Maintenance Program Bridge Repairs	South San Francisco	San Mateo	✓
R-1334 Erosion Mitigation Emergency Repairs	Unincorporated	San Mateo	
USCG Station Vallejo Maintenance Dredging	Vallejo	Solano	✓