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

MEETING DATE: March 10, 2021

Item: 4

Executive Officer's Report

Executive Officer's Report March 3, 2020

Items in this Report (Author[s])

Table of Contents

Sustained Achievement Award for PFAS Data Analysis and Visualization Team (Sarabeth George)

The PFAS Data Analysis and Visualization Team (PFAS Team) was awarded a sustained superior achievement award at the March 2 State Water Board meeting. The PFAS Team consists of staff representing various Water Board programs including Sarabeth George from the San Francisco Bay Regional Water Board. With no dedicated resources, the Water Boards began statewide PFAS investigation actions in March 2019 to identify the impacts of PFAS to public water supplies and the environment by requiring monitoring for PFAS in likely source areas, in areas receiving PFAS containing materials, and in public water systems.

As of January 2020, the PFAS Team had analyzed over 3,000 water samples from airports, landfills and nearby drinking water source wells. The team analyzed the data and created visualizations, such as dot-plots, frequency charts, mobility plots, radial diagrams, and heat maps. As part of the team, Sarabeth initiated a parallel effort to analyze the data through co-contaminant cluster maps and fingerprinting. Her parallel effort has the potential to lead to the development of a machine learning tool that will protect public health by allowing proactive management of drinking water resources.

On October 7, 2020, Sarabeth along with other members of the PFAS Team presented their initial data analysis observations to the State Water Board as an informational item. Staff explained the impacts of PFAS to human health and the environment; the importance of understanding the breadth and depth of PFAS contamination in California; the trends in the presence of PFAS groups at source locations and drinking water wells; and techniques explored to analyze the data in different ways. The Water Board Members commended the PFAS Team for their expedited and thorough review of the PFAS data; and expressed support for staff to continue with their innovative data analyses. We congratulate Sarabeth and the entire the PFAS Team on their achievement and support the ongoing effort to aggressive investigate to PFAS contamination in California.

Caltrans Trash Control Workplan Submitted (Qi Yan)

The California Department of Transportation (Caltrans) has more than 24,000 acres of right-of-way (ROW) in the Bay Area, and a significant portion of that ROW discharges trash to storm drains, creeks, and the Bay. Consistent with the requirements of the Caltrans Statewide NPDES Municipal Stormwater Permit (Order No. 2012-0011-DWQ, as amended) and the Statewide Trash Amendments to the Water Quality Control Plans for Ocean Waters and for Inland Surface Waters, Enclosed Bays, and Estuaries, Caltrans must control discharges of trash from significant trash generating areas of its ROW by not later than 2030. Trash control is typically accomplished via the implementation of full trash capture devices or via a combination of alternative measures, such as source controls to prevent the discharge of trash in the first place, and trash removal from streets and highways before it can discharge to the storm drain, such as by street sweeping or maintenance crews.

Caltrans' efforts to control trash are guided by the Cease and Desist Order (CDO) the Board issued in February 2019 (Order No. R2-2019-0007), The CDO requires Caltrans to implement trash control measures to meet full trash capture equivalency in significant trash generating areas of its right-of-way (ROW) in the San Francisco Bay Region. The Order provides enforceable acreage benchmarks and a schedule for their achievement, as well as planning and reporting requirements sufficient to demonstrate that Caltrans will substantially control trash discharges from its ROW by 2026, and fully control those discharges by 2030. Caltrans achieved the CDO's 2020 benchmark of 2,000 acres of ROW controlled for trash through a combination of on-ROW retrofit projects, cooperative implementation projects with local municipalities, and ROW treated by existing municipal structural trash controls. The next benchmark is control of trash discharges from 4,000 acres of ROW by June 30, 2022.

Workplan Submittal

The CDO requires Caltrans to submit a Trash Control Implementation Workplan (Workplan) every two years that describes how it will plan, fund, and implement trash control measures sufficient to meet CDO benchmarks. Caltrans submitted its first Workplan in December 2019, which we accepted with the condition that Caltrans submit a revised Workplan by December 31, 2020, to address shortcomings such as insufficient funding commitments to meet CDO benchmarks.

On December 31, 2020, Caltrans submitted the revised Workplan. Caltrans and Water Board staff met regularly throughout 2020, which resulted in progress toward identifying additional trash control project opportunities both on-ROW and with local municipalities, solidifying funding commitments, and further developing trash control implementation feasibility criteria. The Workplan reflects these collaborative efforts and Caltrans' significant funding commitment to implement trash controls, estimated at about $350 million in capital investment and $250 million in operation and maintenance expenditures through 2026. However, it also raises concern about Caltrans' ability to fully control trash from all significant trash generating areas of ROW by 2030. We sent Caltrans a comment letter in February that outlines Workplan elements of significant concern that could lead to non-compliance with CDO benchmarks and that should be addressed in the next Workplan submittal, required by December 31, 2021.

While the revised Workplan describes Caltrans' planning, funding, and implementation efforts to meet the Order's trash reduction benchmarks, we have concerns with some Workplan elements. These include: a proposed dependence on alternative compliance credits; lack of use by Caltrans of types of full trash capture devices that are already in broad use by Bay Area municipalities; the pace of work to evaluate the effectiveness of non-structural trash control measures; and the sufficiency of long-term funding and staffing commitments to implement trash control work after 2022.

We are particularly concerned with Caltrans' proposed dependence on alternative compliance credits to meet CDO benchmarks. Because Caltrans' ROW is constrained, the most feasible and cost effective options to control trash are often via projects located downstream of Caltrans ROW in a neighboring municipality. These projects are implemented via cooperative implementation agreements, under which Caltrans provides funding for the off-ROW trash control project and the municipality agrees to construct, operate, and maintain it. Typically, those cooperative implementation projects control trash from both Caltrans ROW and a portion of the municipality. The CDO allows Caltrans to request partial credit, referred to as "alternative compliance credit," subject to approval by the Board for the off-ROW area treated by a cooperative implementation project. Alternative compliance credits may be used for ROW areas on which we and Caltrans agree it is infeasible to control trash on the ROW area or on off-ROW areas to which the ROW area drains.

Caltrans has proposed to claim over 800 acres of alternative compliance credits to meet the June 30, 2022, benchmark. The June 30, 2022, benchmark requires Caltrans to control trash from 4,000 acres of ROW, meaning that alternative compliance would account for over 20 percent of compliance credits. In order for the Water Board to allow alternative compliance credits to be used toward the CDO benchmarks, Caltrans must demonstrate that it is infeasible to implement effective trash controls within specific ROW areas or through projects in off-ROW areas, such as downstream municipal storm drain systems. This demonstration will require additional documentation and analysis beyond what is proposed in the Workplan. We will continue working with Caltrans staff to come to agreement on the conditions that make trash control implementation infeasible on Caltrans ROW or off-ROW areas.

We will also work with Caltrans staff on shortcomings in other Workplan elements and resolve them in advance of or through development of the next Workplan, which must be submitted by December 31, 2021. This will include demonstrating the effectiveness of non-structural control measures such as enhanced maintenance and vegetation controls, hastening development, study, and approval of trash control devices not currently approved for use within Caltrans ROW, and long-term planning and funding commitments for trash reduction controls to meet benchmarks after 2022. The latter includes ensuring adequate funding and staffing resources are available for long-term enhanced maintenance efforts and project delivery tasks for trash control implementation and feasibility determination.

Former Oakland Army Base, BRAC Parcel 1, Area of Concern M-1, Marine Sediments – Status Update (Maggie Teicher)

The former Oakland Army Base (OARB) is located in the Oakland outer harbor adjacent to the eastern span of the Bay Bridge in the City of Oakland (Figure 1). The OARB served as a major Army cargo port and warehousing facility from 1941 until the installation was officially closed for military purposes. Due to historic Army activities at OARB, PCBs, pesticides, metals, and PAHs were discharged to San Francisco Bay via historic storm drain lines and overland flow. The former base is being cleaned up under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

.

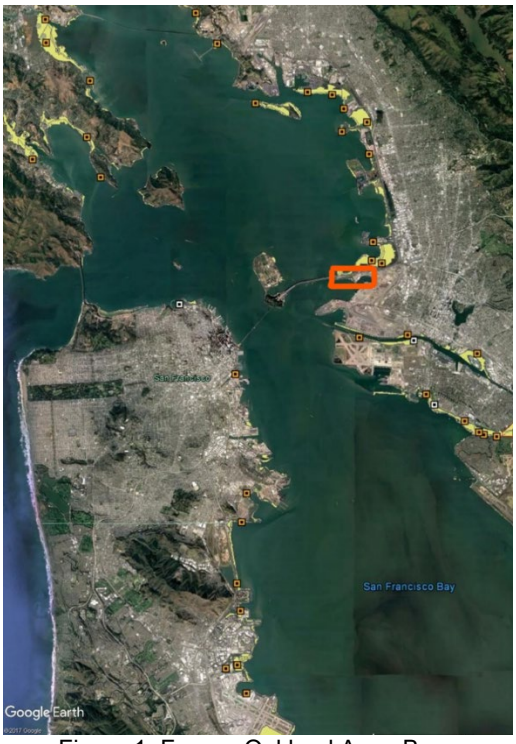


Figure 1. Former Oakland Army Base

Parcel 1 is located east of the Bay Bridge (Figure 2) and includes five upland areas with contamination and a large area of contaminated marine sediments referred to as AOC M-1. AOC M-1 marine sediments is the nearshore portion of Parcel 1.

Figure 2: Parcel 1, which includes five Areas of concern

AOC M-1 (Figure 3) is located adjacent to the upland portion of Parcel 1 and includes the Oakland Outer Harbor and the adjacent shoreline. AOC M-1- marine sediments are of particular concern due to the discharge of PCBs that have bound themselves to the sediments at levels that adversely affect beneficial uses including commercial and sport fishing, estuarine habitats, wildlife habitat, and water contact recreation. Specifically, PCBs in Bay sediments pose a risk to human health and the environment due to: (1) ingestion of fish and other aquatic organisms in which PCBs can bioaccumulate and/or biomagnify up the food chain; (2) toxicity to the benthic community and other aquatic organisms and wildlife that feed on the benthic and aquatic organisms; (3) incidental ingestion of contaminated sediments by humans; and (4) dermal contact of contaminated sediments by humans.

.

Figure 3: AOC M-1 Marine Sediments

The Regional Water Board and Department of Toxic Substances (DTSC) provide CERCLA regulatory oversight under the U.S. Department of Defense/State of California Memorandum of Agreement. Unfortunately, the Army has continued to move forward with the CERLCA process without addressing the State's concerns or comments. We are elevating our concerns in order to resolve the long outstanding issues at the Base. The Army has not conducted any cleanup of PCBs in Bay sediments or the upland areas of concern included in Parcel 1.

Specifically, the State is disputing the Army's Remedial Investigation/Feasibility Study that: (1) fails to adequately characterize the risks posed by the contamination at AOC M-1-marine sediments to human health and the environment; and (2) fails to evaluate remedial alternatives and propose a remedial action for the sediments that is protective of human health and the environment.

Parcel 1 is presently leased to the East Bay Regional Park District (EBRPD) as an interim step that is part of an anticipated future transfer of the property under a public benefit conveyance following completion of remedial actions. Parcel 1, including AOC M-1, will be incorporated into the EBRPD's Judge John Sutter Regional Shoreline Park (Figure 4) that will invite water recreation and fishing activities.

Figure 4: East Bay Regional Park District's Judge John Sutter Regional Shoreline

The State of California's goals for AOC M-1 marine sediments and the San Francisco Bay sediments in general include the following:

- Reduce PCBs and other chemicals in Bay sediments to a level that protects the beneficial uses of the Bay including fish consumption.
- Ultimately achieve the fish tissue target of 10.0 ppb in the Bay PCB TMDL.
- Clean up the site suitable for transfer to East Bay Regional Park's Judge John Sutter Regional Shoreline Park as recreational land use.
- Ensure consistent cleanup requirements as Regional Water Board staff are currently overseeing the cleanup of PCBs at nine other sites of which four have PCBs in Bay sediments.

Appeals Court Upholds Point Buckler Enforcement Orders (Marnie Ajello)

The Water Board's yearslong efforts to protect and restore the tidal marsh habitat on Point Buckler Island have prevailed in the latest round of litigation. On February 18, the First District Court of Appeal sided with the Water Board in *Sweeney v. California Regional Water Quality Control Board*, *San Francisco Bay Region, et al.*, upholding our 2016 enforcement orders against John D. Sweeney and Point Buckler Club (Dischargers) for building an unpermitted levee in waters of the state and cutting off tidal access to almost forty acres of tidal marsh.[1] These enforcement orders, a cleanup and abatement order (CAO) requiring the Dischargers to restore the island and an administrative civil liability (ACL) order imposing $2.8 million in liability, had been set aside by the trial court in rulings that the Court of Appeal determined were riddled with legal and factual errors. In its February 18 opinion, the Court of Appeal reversed the trial court's judgments and concluded that the Dischargers' levee-building activities violated state law, affirming longstanding interpretations of the meaning of "waste" in the Water Code and agreeing that the Dischargers' actions adversely affected beneficial uses. The Court also upheld the Water Board's administrative process, finding it fair, and rejected the Dischargers' arguments that reporting requirements under Water Code section 13267 require a formal written cost-benefit analysis, that the Water Board's enforcement actions violated the Suisun Marsh Preservation Act, that the ACL penalty was unconstitutionally high, and that the Water Board's issuance of the ACL order was vindictive.

Importantly, the Court of Appeal allowed the Water Board's May 2017 cross-complaint to enforce the CAO to go forward. This means that the Water Board will be able to pursue additional penalties and injunctive relief for violations of the CAO,[2] with which the Dischargers remain out of compliance. The trial court stayed the accumulation of penalties for CAO violations in July 2017, and the Court of Appeal's decision has the effect of lifting that stay.

The Court of Appeal's opinion is consistent with a September federal district court decision, which found that the Dischargers' unpermitted levee-building violated the Clean Water Act, and brings the Water Board a step closer to restoring the tidal marsh habitat at Point Buckler Island. We are working with U.S. EPA to develop a restoration plan that will reopen the Island's channels to tidal action and allow native plants and animals to recover.

---

[1] The Court of Appeal's decision can be found at the following link: https://www.courts.ca.gov/opinions/documents/A153583.PDF

[2] The Water Board referred violations of the CAO to the Attorney General's Office in March 2017: https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2017/R2-2017-0004.pdf.

Risk Management Requirements Order for Vapor Intrusion Abatement, SummerHill Redevelopment, Santa Clara (Ron Goloubow)

In April, I plan to issue a cleanup and abatement order issued under Water Code section 13304 for the SummerHill Lawrence Station residential redevelopment in Santa Clara. The order would require SummerHill, which is the developer and prior property owner, and the homeowners association (HOA), which is a current property owner to operate, maintain, and monitor vapor intrusion mitigation systems beneath the residential buildings. Internally, we are referring to this type of order as *Risk Management Requirements* due to the focus on operation and monitoring of engineered systems to control (i.e., mitigate) contaminant exposure.

Prior tenants at the property manufactured computer components and used trichloroethene (TCE) in their process from the 1970's until 1991. The manufacturing process caused TCE to be discharged into the soil, soil vapor, and groundwater. Summerhill purchased the property in 2016 and cleaned up groundwater with two technologies: (1) enhanced bioremediation using emulsified vegetable oil that was injected at 36 locations and placed in two 60-foot-long trenches, and (2) chemical reduction using zero-valent iron that was injected at 96 locations. SummerHill cleaned up soil and soil vapor by excavating more than 18,000 cubic yards of soil to a depth of approximately 10 feet from an area of approximately 51,000 square feet. The excavated soil was aerated and placed back into the excavated area.

Summerhill constructed 96 high-density townhomes clustered within 15 buildings at the property and has sold the townhomes to individual parties who are members of an HOA. Low levels of TCE are still present in soil vapor and groundwater beneath the property. To mitigate the potential risk to human health, SummerHill constructed vapor intrusion mitigation systems beneath the townhomes. SummerHill and the HOA will need to operate, maintain, and monitor the mitigation systems until the residual TCE concentrations attenuate to levels that are not considered a potential risk. SummerHill and the HOA recognize that the mitigation system may need to operate for many years. To address this, we required a funding plan to demonstrate that the HOA has sufficient ability to conduct the required operations, maintenance, and monitoring, and address additional contingencies.

We often regulate these mitigation systems using directive letters issued under Water Code section 13267. Because of the size of this redevelopment, including multiple buildings, we plan to regulate the mitigation systems with a Water Code section 13304 order. We will continue to provide active regulatory oversight, including reviewing monitoring and inspection reports, to ensure that issues are identified and addressed in a timely manner.

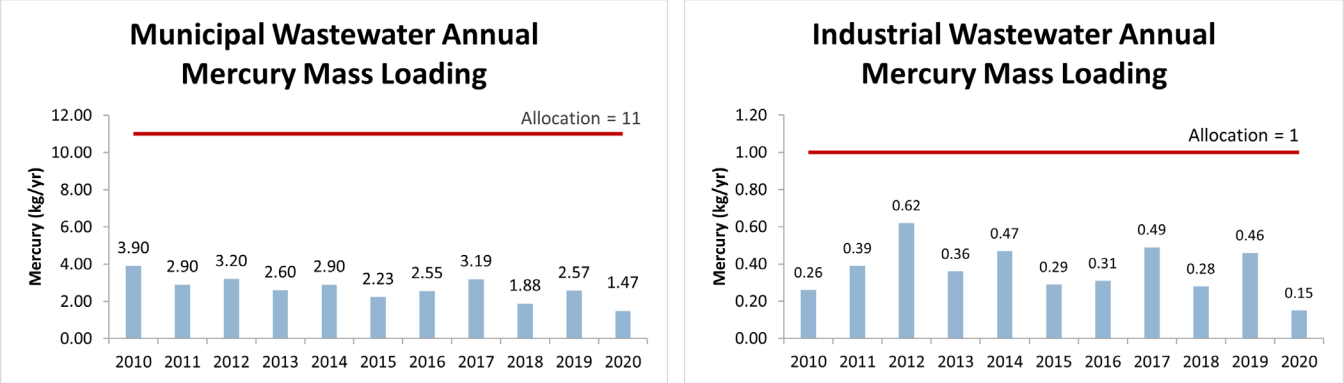
Wastewater Mercury and Polychlorinated Biphenyls Loads Update (James Parrish and Matias Tejero-Leon)

San Francisco Bay is impaired by mercury and polychlorinated biphenyls (PCBs), which led to the Board adopting total maximum daily loads (TMDLs) for mercury and PCBs in 2006 and 2008. These TMDLs define load and wasteload allocations that determine how much mercury and PCBs can be discharged by wastewater facilities to San Francisco Bay while still meeting water quality standards. In 2020, mercury and PCBs loads in wastewater discharges continued to be 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, 2020 mercury loads from municipal and industrial wastewater discharges decreased compared to 2019 loads. The municipal and industrial discharges were 87 and 85 percent below the TMDL allocations and consistent with discharges over the last decade.

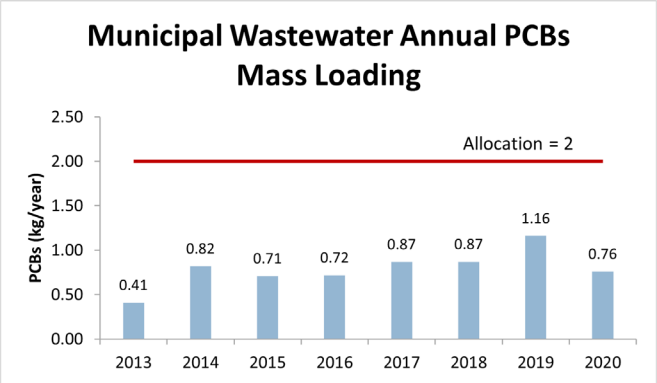
Figure 1. Municipal and Industrial Mercury Mass Loads from 2010 to 2020

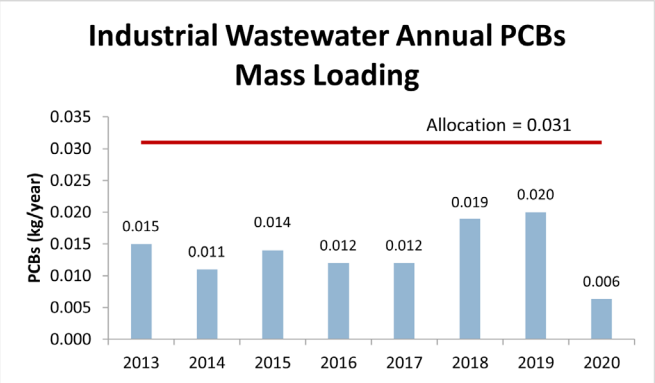


PCBs Loads

As shown in Figure 2, 2020 PCBs loads from municipal and industrial wastewater discharges decreased compared to 2019 loads. The municipal and industrial discharges were 62 and 80 percent below the TMDL allocations and consistent with discharges over the last decade.

Figure 2. Municipal and Industrial PCBs Mass Loads from 2013 to 2020





Findings

Year-to-year variations in mercury and PCBs loads could be due to variations in 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. In 2020, our Region received about 70 percent less rain than it did in 2019, which likely decreased mercury and PCBs loads significantly.

March 2020 Enforcement Actions (Brian Thompson and Jessica Watkins)

The following table shows the proposed enforcement actions since February's report. In addition, enforcement actions are available on our website at http://www.waterboards.ca.gov/sanfranciscobay/public_notices/pending_enforcement.shtml

Proposed Settlement

The following is noticed for a 30-day public comment period. If no significant comment is received by the deadline, the Executive Officer will sign an order implementing the settlement.

Discharger	Violation(s)	Proposed Penalty[1]	Comment Deadline
City of Sunnyvale	Unauthorized discharge of partially-treated wastewater.	$187,000	March 29, 2021

[1] Includes $93,500 towards a Supplemental Environmental Project (SEP) for the City of Sunnyvale to integrate green stormwater infrastructure into a planned traffic improvement project.

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 13, 2021 through February 9, 2021. 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
Estuary Dock Repair – 2841 Marina Drive	Alameda	Alameda	✓