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

MEETING DATE: March 8, 2023

Item: 4

Executive Officer's Report

Executive Officer's Report March 2, 2023

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Fairfield Cleaners Joint Cleanup Update, Fairfield (Bill Cook)

This is a progress update since we last reported on three dry cleaner cases in downtown Fairfield in the November 2017 Executive Oficer's Report. The dry cleaner cases include: Former One Hour Cleaner, Fairfield Cleaner, and Gillespie Cleaner. The overall site includes these three Source Properties and other affected contaminated properties. Tetrachloroethene (PCE), was discharged to groundwater from these Source Properties and has comingled and migrated approximately two blocks southeast, beneath downgradient commercial properties.

Background

In 2017, the responsible parties entered into a Global Settlement Agreement that included a joint trust to pay for remediation and regulatory oversight. In support of their Agreement, we concurred that the Source Properties are maintained as separate cases but managed as one for efficiency purposes. The Board is not a party to their Agreement and it does not limit our enforcement capabilities.

In September 2017, we approved the joint Remedial Action Plan to abate risks and threats to water quality and building occupants from PCE in groundwater. Since our last update significant progress has been made toward implementing the Remedial Action Plan.

Groundwater Remediation Progress

Remedial actions proposed in the approved Remedial Action Plan are conducted both at the source properties and in the affected downgradient plume areas. These actions include in-situ chemical oxidation injections (ISCO) using potassium permangenate and high vacuum dual-phase extraction. The ISCO injections are intended to destroy PCE in groundwater through oxidation and it's the PCE in groundwater that is the source of the soil vapor contamination that poses a vapor intrusion threat to building occupants.

The results indicate that the size of the PCE plume in groundwater has decreased by over 90 percent as illustrated in Table 1 and the figures below. However, the maximum PCE concentration within the plume remains about the same and PCE still exceeds the drinking water standard of 5 micrograms per liter (µg/L) as shown in the dashed area in the figure below. To ensure that progress continues, the responsible parties have proposed additional ISCO injections which we are reviewing. Groundwater monitoring will continue to evaluate ongoing remediation effectiveness.

Table 1: Progress since 2018

	Area exceeding Water Quality Objectives (approximate square ft)	Max concentration of PCE in groundwater (micrograms per liter)	PCE Cleanup level in groundwater (micrograms per liter)
2018	650,000	2,200	5
2022	60,000	2,400	5

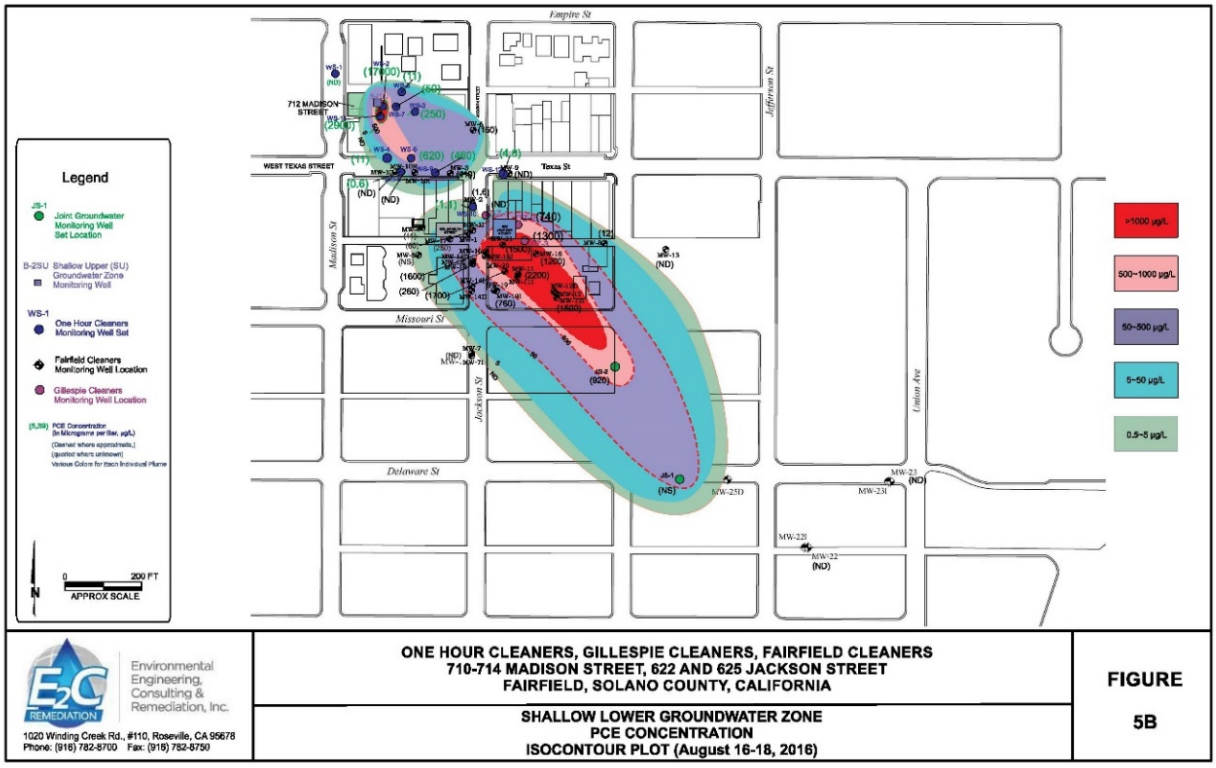

Figure 1: 2018 map showing that the extent of PCE exceeding water quality goals is 1,300 feet long and 500 feet wide

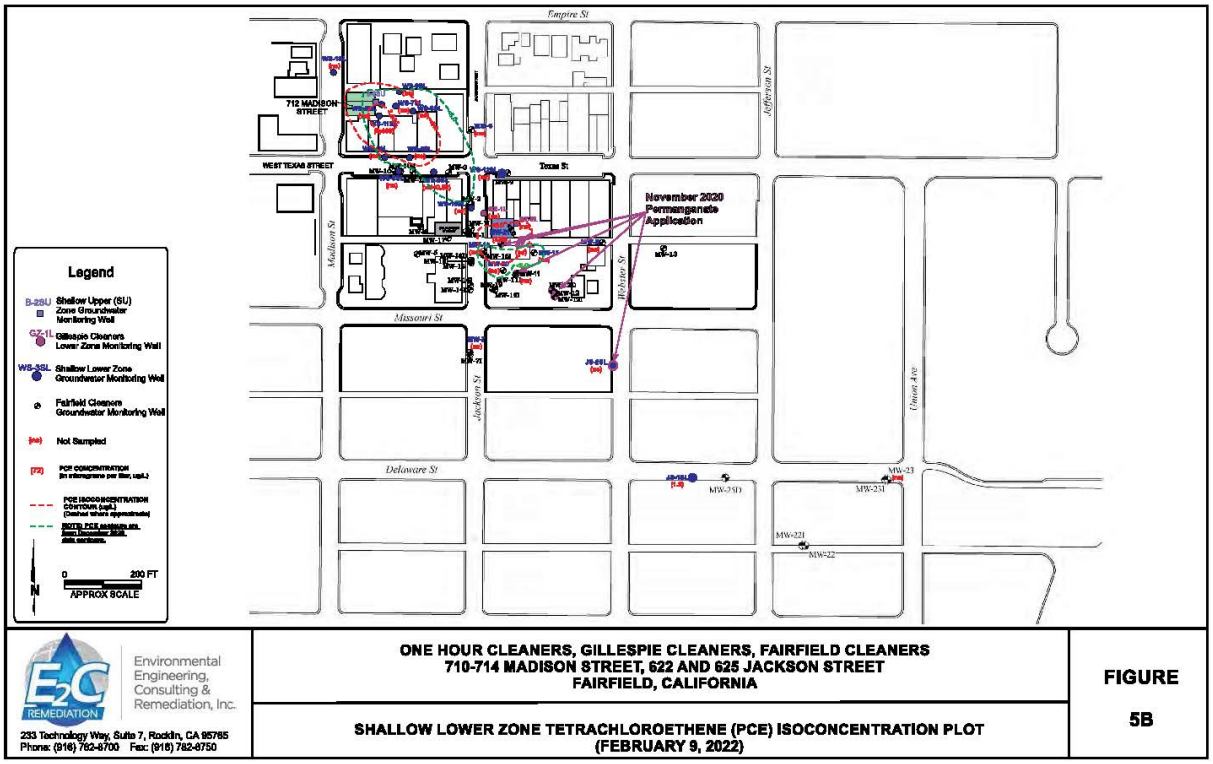

Figure 2: 2022 map showing that the extent of PCE water quality goals is 300 feet long and 200 feet wide

Vapor Intrusion Mitigation

Three commercial offices located at the former Fairfield Cleaner required mitigation to protect buidling occupants from vapor intrusion. The mitigation actions, implemented in 2017, included modifications to the ventilation system, which will be maintained until soil vapor concentrations around the buildings are below applicable screening levels. We are requiring indoor air sampling to ensure protectiveness, and additional remedial actions will be required if we determine that the current remediation is not protective.

We will continue to work cooperatively with Former One Hour Cleaner, Fairfield Cleaner, and Gillespie Cleaner to ensure that groundwater is cleaned up to meet drinking water standards and abate the source of the vapor intrusion threat. The Remedial Action Plan included a schedule for implementation that specifies completion of the project by 2025. The cleanup effort is funded with an insurance settlement and is expected to cost 4.5 million dollars when completed.

New Year's Storm Impacts Update (Mike Chee)

In the February 2023 Executive Officer's Report, we provided an overview of the wastewater and stormwater-related spills and other incidents reported during the almost three-week onslaught of storms that began on New Year's Eve. That report included preliminary information, and this month we are updating that information to reflect more detailed reporting.

From December 31 through January 19, we received 170 California Office of Emergency Services (Cal-OES) incident reports totaling over 74 million gallons of unauthorized discharges of wastewater and stormwater to surface waters (over 186 million gallons were released from wastewater collection and treatment systems and about 112 million gallons were recovered resulting in the 74 million gallons discharged). As a reminder from our last report, roughly 10 billion gallons of authorized wastewater discharges took place during that period, so the spills represented a relatively small percent of all wastewater discharges.

Sanitary sewer collection systems and wastewater agencies in all nine Bay Area counties notified Cal-OES about these discharges, which can be categorized as combined sewer overflows (CSOs), i.e., overflows from San Francisco's combined sewer systems; sanitary sewer overflows (SSOs); and treatment plant spills reflecting various levels of treatment. These discharges were caused by the influx of stormwater into sewage systems, overwhelming collection system and treatment capacities. Due to the high volumes of stormwater infiltrating the sanitary sewer collection systems, the nature of the combined sewer overflows and sanitary sewer overflows were comparable. They were mostly stormwater mixed with routine sanitary flows.

As noted last month, untreated or partially treated sewage spills contain solids, pathogens, biochemical oxygen demand, and nutrients. These pollutants affect water quality; however, the rain and related runoff from the recent storms greatly diluted these pollutants. We received no reports of dead fish.

Below is a summary of the top ten spills by volume. They illustrate the range and nature of the various incidents that took place.

- **West County Wastewater District** reported an unauthorized discharge of 41.4 million gallons of stormwater and wastewater from its treatment plant to Wildcat Creek Marsh. The discharge occurred on January 11, when the plant's equalization and storage basins overtopped due to a surge in influent entering the plant.
- **The Martinez Marathon Refining Company** reported an unauthorized discharge of 11.2 million gallons of stormwater and wastewater from its treatment plant to a marsh leading to the Carquinez Strait. The discharge occurred on January 4, when heavy rainfall overwhelmed a stormwater retention pond.
- **East Bay Municipal Utility District (EBMUD)** reported three large sanitary sewer overflows totaling about 4.8 million gallons. The sanitary sewer overflows occurred on New Year's Eve at EBMUD's Alice Street and San Leandro Creek overflow structures (both in Oakland) and its Webster Street overflow structure (in Alameda).

These sanitary sewer overflows occurred when wastewater and stormwater in the collection system overwhelmed EBMUD's south interceptor.

- **Sewer Authority Mid-Coastside (SAM)** reported that two large sanitary sewer overflows, totaling over 4.1 million gallons, occurred on New Year's Eve and New Year's Day. The largest, at 3.8 million gallons, occurred in Half Moon Bay due to the failure of the Montara Force Main that conveys wastewater to SAM's wastewater treatment plant. The failure was caused by a deteriorated section of the force main that was exacerbated by a surge in combined wastewater and stormwater volume. Due to the force main failure, SAM shut down the Montara Pump Station to make temporary repairs, which caused a sanitary sewer overflow at the Montara Pump Station manhole for over 3.5 days as temporary emergency repairs were undertaken. Simultaneously, Pilarcitos Creek overtopped its banks and flooded the adjacent SAM treatment plant, threatening critical electrical infrastructure. The permanent force main repair was completed in February. The second sanitary sewer overflow occurred on Highway 1 behind 140 and 150 Wienke Way due to another force main rupture. Both sanitary sewer overflows discharged to the Pacific Ocean.
- **The City and County of San Francisco** reported an estimated 2.3 million gallons of combined wastewater and stormwater discharged from its bayside combined sewer system to San Francisco Bay through storm drains in the Marina Green parking lot. San Francisco used a computer model to simulate the storm and showed that approximately 18.6 million gallons of combined sewage and stormwater overflowed its collection system and flooded an area along Marina Boulevard. San Francisco assumed that all modeled flows on the Marina Green parking lot discharged to San Francisco Bay and about 16.3 million gallons of combined sewage and stormwater was returned to the collection system for discharge through authorized outfalls. Meanwhile, San Francisco estimated that over 74 million gallons of combined wastewater also flooded the area along Folsom Street and Harrison Street, over 20 million gallons flooded the Lower Alemany area, and about 1.5 million gallons flooded the area near Marin Street and Indiana Street near Islais Creek. These sewer overflows from the combined sewer system occurred when San Francisco's transport/storage boxes exceeded their capacity and the outfalls carrying authorized combined sewer discharges could not keep up with all the combined wastewater. Most of the combined sewage and stormwater was eventually returned to the collection system for discharge through authorized outfalls.
- **The City of Burlingame** reported a 2.3-million-gallon sanitary sewer overflow on New Year's Eve that occurred at four manholes and discharged to Lower San Francisco Bay.
- **The City of Oakland** reported three large sanitary sewer overflows on New Year's Eve and January 10 that totaled over 1.2 million gallons. The sanitary sewer overflows occurred at three manholes. One discharged to Lion Creek and the others discharged into Lake Temescal.
- **The City of Millbrae** reported an unauthorized discharge of over 930,000 gallons from its treatment plant to an unpermitted outfall leading to Lower San Francisco Bay. The discharge occurred on New Year's Eve when influent to the plant

exceeded the plant's biological treatment capacity, forcing the City to discharge primary-treated wastewater and stormwater from its equalization and storage basin.

- **The City of Richmond** reported an approximately 910,000-gallons sanitary sewer overflow on New Year's Eve that occurred from a manhole that discharged to Meeker Slough.
- **The City of San Mateo** reported two large sanitary sewer overflows on New Year's Eve and January 4 that totaled approximately 770,000 gallons. Both sanitary sewer overflows occurred from manholes that discharged into Borel Creek and then to Marina Lagoon.

We were able to compile this data because we have strong wastewater reporting requirements. However, we should not lose sight of the other substantial impacts of these storms. They caused significant property damage by inundating homes and businesses and damaging critical infrastructure. The weather caused tidal surges, high winds, downed trees, power outages, saturated soils, sink holes, and mud slides. Significant flooding blocked roadways and trapped people in their cars for hours. More than a dozen people died.

Flooding occurred in San Francisco, San Mateo, Alameda, Pleasanton, and coastal areas, to name just some examples. The City of San Mateo's Marina Lagoon, which captures stormwater runoff within San Mateo, overflowed into adjacent neighborhoods during the storms, transporting the sanitary sewer overflows noted above with the floodwaters. The Belmont Mobile Home Community was flooded up to 4 feet deep after the New Year's Eve storm, displacing the community for almost a week before residents could return. The Arroyo Mocho overtopped its banks and flooded a Vulcan Materials gravel mining operation in Pleasanton. The flood waters eroded the banks of a treatment pond and breached the levee between the creek and the pond (see photo of pond in the foreground with creek beyond).

We received reports of flooding at wastewater treatment plants, as well. The Oro Loma and Castro Valley Sanitary Districts treatment plant in San Lorenzo, and the City of San

Leandro treatment plant in San Leandro, flooded on New Year's Eve from surges in influent wastewater. While these floods did not result in unauthorized discharges, floodwaters did reach up to 3 feet deep, threatening critical infrastructure. The Delta Diablo treatment plant reported an overflow at its plant headworks totaling approximately 84,000 gallons. Delta Diablo captured and routed about 80,000 gallons of the overflow back to its headworks for treatmentbut discharged about 4,000 gallons to a drainage channel.

These storms highlight infrastructure vulnerabilities and provide an opportunity to better prepare for and mitigate the impacts of intense storms. We continue to implement actions to prepare for such storms. For example, new Statewide Waste Discharge Requirements for Sanitary Sewer Systems that become effective in June will strengthen asset management requirements for wastewater collection systems. The Board issued Cleanup and Abatement Order R2-2021-0021 to the City and County of San Francisco requiring actions to reduce flooding risks at three low-lying areas by 2028. Other enforcement orders, including an East Bay Communities consent decree and several cease and desist orders, aim to better manage wet weather flows. The San Francisco Bay Beaches TMDL requires the City of San Mateo to improve its collection system to reduce infiltration and inflow. We also continue to engage stakeholders to promote infrastructure improvements, including nature-based solutions, that provide resilience in the face of climate change.

Update on the State Water Resources Control Board's Consideration of the Municipal Regional Stormwater Permit (Thomas Mumley and Yuri Won)

Last May, the Board reissued the Municipal Regional Stormwater NPDES Permit ("MRP"). Thereafter, the State Water Resources Control Board ("State Water Board") received two petitions for review of the MRP. The first petition was jointly filed by the cities of Mountain View and Sunnyvale, which put the petition in abeyance, meaning that the petition is not active. The other petition was filed by Baykeeper, but it was submitted after the legal deadline, and accordingly, the State Water Board issued a letter saying that it will not be reviewing the petition. However, the State Water Board offered to convert Baykeeper's petition into a request for the State Water Board to consider reviewing the MRP under its own motion authority under Water Code section 13320, subdivision (a). Baykeeper accepted the offer.

In November, the State Water Board notified us and stakeholders that it was considering whether to initiate its own motion authority review of the MRP's alternative compliance provisions and invited responses. The alternative compliance provisions in the MRP pertain to the requirements for permittees to come into compliance with receiving water limitations associated with attaining water quality objectives for specific pollutants in specific water bodies, e.g., mercury and PCBs in San Francisco Bay, pesticides in urban creeks, bacteria in some streams or beach areas. Most of these provisions also implement applicable total maximum daily load and associated wasteload allocation and implementation requirements from the Basin Plan. Permittees that are in compliance with the alternative compliance provision requirements are not subject to enforcement for exceeding receiving water limitations during the term of the permit (some have referred to this as a deemed in compliance "safe harbor"). Responses to the State Water Board's invitation were due on February 21, 2023.

We submitted a response demonstrating that the State Water Board review of the MRP's alternative compliance provisions is unnecessary because the requirements are based on the best available science and information on pollutant sources and controls and comply with State Water Board precedential orders pertaining to alternative compliance provisions. Permittees also submitted responses stating the MRP provisions comply with the State Water Orders. Baykeeper submitted a response stating the State Water Board should conduct a review. It is unknown when the State Water Board will make its decision whether to initiate a review.

Staff Presentations at the Groundwater Resources Association's Annual Regulatory Update (Ross Steenson)

On January 18, staff from the Toxics Cleanup Division (Alec Naugle, Nicole Fry), Groundwater Protection Division (Alyx Karpowicz, Ross Steenson), and State Water Board (Roshani Dantas) presented a regulatory update to the Bay Area branch of the Groundwater Resources Association (GRA). The Groundwater Resources Association is a non-profit organization that promotes the protection and improvement of groundwater supply and quality.

Alec discussed several "news" items: recent staff and Board member changes; news and trends for some of our programs (Site Cleanup, Underground Storage Tanks, Cleanup, Land Disposal); and additional investigation trends regarding per- and polyfluoroalkyl substances.

Alyx presented recent sea level rise/groundwater level rise requirements for Bayfront landfills and described available tools to assist with conducting these evaluations. Nicole provided an overview of our June 2022, Vapor Intrusion Mitigation Guidance. She described our approach to vapor intrusion mitigation, explained the difference between remediation and mitigation, and stressed the importance of monitoring to demonstrate mitigation method effectiveness.

Roshani gave an update on the status of the Vapor Intrusion Amendment to State Water Board Resolution 92-49. She recounted the reasons for the update, related key changes to the draft language based on stakeholder feedback, summarized the review of vapor intrusion databases, and provided the current estimated schedule. Roshani also indicated that climate change language would be included as it relates to vapor intrusion.

Ross presented an overview of our case intake process, which is centered around the Department of Toxic Substances Control-Water Boards Brownfields Memorandum of Agreement. He shared some lessons learned and shed light on our broader case intake process (e.g., referrals from local agencies, spills). The audience of about 100 included environmental cleanup consultants, environmental attorneys, vendors, and dischargers.

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 interact with the regulated community.

Enforcement Actions (Brian Thompson and James Parrish)

The following tables show the proposed and settled enforcement actions since February's report. Because 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 have been noticed for 30-day public comment periods. If no significant comments are received by the deadlines, the Executive Officer will sign orders implementing these settlements.

Discharger	Violations	Proposed Penalty	Comment Deadline
City of St. Helena	Effluent Limitation Violations	$147,300	March 6, 2023
City and County of San Francisco	Effluent Limitation Violations	$238,300[1]	February 17, 2023[2]

[1] Includes $118,250 for a Supplemental Environmental Project for the Regional Monitoring Program to study temporal variability in sediment delivery to a North and Central San Francisco Bay salt marsh.

[2] The San Francisco Public Utilities Commission has not yet executed this settlement. It may do so ten days after the San Francisco Board of Supervisor approves it. The Board of Supervisors considered the settlement on February 28, 2023. We received no comments.

Settled Actions

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

Discharger	Violations	Imposed Penalty	Supplemental Environmental Project
Alameda Housing Associates, LP	Effluent Limitation Violations	$9,000	none

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 25 through February 8, 2023. 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
Palomares Road Mile Marker 0.77	Castro Valley	Alameda	
Eliot Facility Emergency Bank Stabilization	Pleasanton	Alameda	
Emergency A Street Slide Repair	Unincorporated	Alameda	
Mill Valley Sausalito Path Bridges 1 & 2 Repair	Mill Valley	Marin	✓
China Camp State Park Water Crossings Improvement Project (Four Crossings)	San Rafael	Marin	✓
Residences at Napa Junction	American Canyon	Napa	
Caltrans Napa SR128 PM 16 Slipout Emergency Repair	St. Helena	Napa	
Ralston Ave Creek Bank Recovery	Hillsborough	San Mateo	
1319 Westridge Drive Emergency Creek Bank Stabilization	Portola Valley	San Mateo	
Portland Elbow Extension	Fairfield	Solano	