

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

MEETING DATE: April 13, 2022

Item: 4

Executive Officer's Report

Executive Officer's Report April 6, 2022

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Benicia Industrial Park Status Update, Benicia (Bill Cook)

This is an update on cleanup progress at the Benicia Industrial Park (Source Property) located east of Benicia in Solano County. Contamination released from the Source Property migrated beneath downgradient commercial properties and into bay margin wetlands known as the Caltrans Mitigation Area (CMA). In November 2019, the Regional Water Board adopted cleanup order [R2-2019-0031](#) requiring additional investigations, remediation, and monitoring to abate risks and threats to water quality and building occupants from the discharge of chlorinated solvents, including trichloroethene (TCE).

Background

Since our last update to you in the [April 2021 Executive Officer's Report](#), significant progress has been made toward implementing tasks in the Order. This includes submittal of a [Revised Feasibility Study/Remedial Action Plan](#) (FS/RAP) in January 2021, which proposed additional remediation in the CMA to reduce contamination to ground and surface water. Prior remedial activities included soil vapor extraction and the installation of a sub-slab depressurization system in 2004 on a building at the Source Property to protect occupants from vapor intrusion. In 2014, chemical oxidants were injected into the groundwater in the Source Area to reduce TCE concentrations in groundwater, reducing the underlying source for vapor intrusion to the building. Monitoring the groundwater response to the injections is ongoing to verify the effectiveness of the remedial activities. To date, the monitoring indicates that the chemical oxidation injections have reduced TCE concentrations in groundwater by ninety percent. The last four semi-annual groundwater, soil vapor, and indoor air monitoring reports indicate that conditions are stable or decreasing, although TCE concentrations in groundwater and soil vapor remain above applicable cleanup levels. In late 2021, TCE was detected up to 6,700 µg/l in groundwater off-Source Property above the drinking water criteria of 5 µg/l. In soil vapor, TCE was detected off-Source Property at concentrations ranging from 190 to 520 µg/m³, which were all above the 2019 TCE Environmental Screening Level of 100 µg/m³.

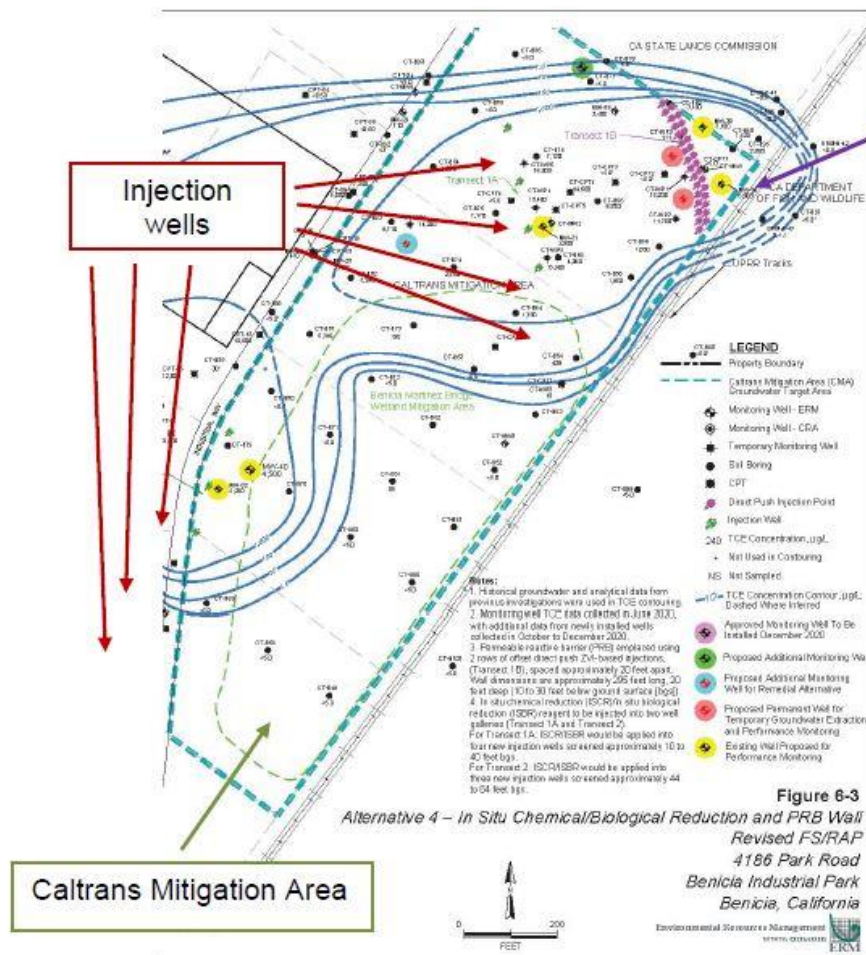
Remediation Status in the CMA

The January 2021 FS/RAP proposed remediation in the CMA. It included two aspects. The first is injection of bacteria into the groundwater that degrades TCE and its breakdown products. The second is placement of a permeable reactive barrier, containing powdered inert metallic iron, to facilitate the breakdown of chlorinated volatile organic compounds into carbon dioxide and chloride ions. The placement (see figure below) of this permeable reactive barrier should reduce the exposure threat to the wetland ecosystem by reducing TCE concentrations in groundwater the flows through the reactive barrier on its way to the wetland.

The FS/RAP was [approved](#) on September 1, 2021. The permeable reactive barrier and groundwater monitoring wells were completed in February 2022. The monitoring of the downgradient wells indicates that the injectant placed in the permeable reactive barrier generated low dissolved oxygen and a strong negative oxidation-reduction potential that improves the breakdown of the chlorinated volatile organic compounds. Additional injections were completed in early March upgradient of the permeable reactive barrier.

Next Steps

The FS/RAP implementation report is expected to be submitted in April 2022. This will document the baseline on remediation progress and effectiveness. The Dischargers will continue to implement monitoring in accordance with the Order. A five-year review status report is scheduled for submittal in October 2025 and will evaluate the effectiveness of the approved FS/RAP.



First Winery Enrolled in Statewide General Waste Discharge Requirements for Winery Process Water (Melissa Gunter)

On March 21, 2022, we enrolled the first winery in the state in the Statewide General Waste Discharge Requirements for Winery Process Water (Winery Order). Carneros Warehousing, located in Sonoma County, was enrolled as a Tier 4 winery. The Winery Order classifies wineries into four risk-based regulatory tiers based on the permitted annual facility process water design flow, which is the total volume of process water that may be discharged from the winery to land. Winery Order requirements, including effluent limitations, loading limits, siting and operational requirements, monitoring and reporting requirements, and schedules to comply, vary depending on the regulatory tier. The most stringent requirements applied to Tier 4, the highest risk tier, which is for wineries discharging process water flows from 1 million to 15 million gallons per year.

Multiple small wineries utilize the Carneros Warehousing facility to produce wine. The facility has a centralized winery process wastewater treatment system. The facility will reuse the treated winery process wastewater (up to 1,250,000 gallons/year) to irrigate ornamental landscaping around the facility, which will offset the use of potable water.

To facilitate this and future enrollments, we prepared standard conditional Notice of Applicability enrollment letters and Monitoring and Reporting Program templates for each of the Winery Order's four tiers. At the September 2021 Board meeting, we provided an overview of the Winery Order and noted that the Order is intended to streamline and improve permitting consistency for winery process water discharges to land for reuse or disposal. We anticipate the majority of wineries in our region will be covered by the Winery Order, and that about 800 wineries in our region will enroll.

We are progressing our regional Winery Order Implementation Plan to support enrollment and program implementation. With the Notice of Applicability and Monitoring and Reporting Program templates now in place, along with enrollment process protocols to support staff and an online monitoring reporting portal, we are processing winery applications currently in queue. We will then proceed to targeted outreach to existing wineries and counties to support collaboration between our permitting processes.

We continue to work with Napa County to facilitate their application for the Local Agency Oversight Program to support the County's oversight of wineries located in their jurisdiction and covered by the Winery Order. Wineries in Napa County (estimated around 450) will still be required to enroll in the Winery Order, and the County will oversee implementation through the Local Agency Oversight Program. In the interim, we are updating our existing Memorandum of Understanding between the County and the Water Board that recognizes the County's longstanding winery regulatory program and outlines how we are coordinating to implement the Winery Order.

Finally, State Water Board staff, in collaboration with the regional Water Boards and stakeholders, have made great progress over the last six months in the development of a statewide enrollment plan, preparation for statewide outreach to wineries, compliance calendars, monitoring templates, an electronic enrollment process, and improved webpage accessibility.

Supporting Documents

1. [September 2021 Staff Summary Report](#) – Winery Order Update and Next Steps
2. [June 2021 RB2 Executive Officer's Report](#) – Winery Order Summary
3. [Winery Order](#)
4. [Media Release for Adoption](#)
5. [Winery Order Introduction Video](#)
6. [Winery Order Requirement Summary Table](#)
7. [Fee Schedule](#)

Approval of San Mateo County Local Agency Management Program for Onsite Wastewater Treatment Systems (Rashid Kaveh and Maggie Monahan)

On March 28, 2022, we approved San Mateo County's Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (OWTS). The San Mateo County Environmental Health Services Division (County) submitted its LAMP to us in 2016, in accordance with the State Water Resources Control Board's *Water Quality Control Policy for the Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy). An addendum in response to Water Board comments was submitted in April 2021, and supplements the submitted LAMP.

The LAMP describes the County's program for regulating OWTS, including technical standards for their siting, design, operation, and maintenance, and protocols for permitting and oversight of new, repair, and replacement OWTS. It consists of the County's LAMP overview document, LAMP addendum, Onsite Wastewater Ordinance (OWTS Ordinance), and Onsite Systems Manual (OWTS Manual). The County developed its LAMP by conducting a comprehensive review and revision of the County's existing OWTS code and regulations to assure compliance with the OWTS Policy and address other necessary updates. In 2014, the County established a Technical Advisory Committee (TAC) to review and update the San Mateo County OWTS Ordinance. Approximately 30 technical and policy experts participated on the TAC, providing feedback and recommendations on proposed revisions. The TAC included representatives from County and town planning and building departments, the Local Agency Formation Commission, the Water Board, environmental groups, and local septic industry professionals. The County also reached out to various community and professional groups that may be affected by the ordinance, as well as presented the proposed changes to the Pescadero Municipal Advisory Council, Portola Valley Town Council, Town of Woodside Planning and Building Department, County Planning and Building Department, County Agricultural Advisory Committee, and the County Planning Commission. Water Board staff from both the San Francisco Bay and Central Coast Regional Water Boards participated on the TAC. The County held public meetings on the proposed updates in December 2015 and February 2016.

The LAMP addendum (2021) provides the County's response to Water Board comments provided in 2019 and 2020. The Water Board approval letter outlines how the LAMP addresses OWTS contributions to nitrogen- and pathogen-impaired waterbodies in lieu of or prior to development of a Total Maximum Daily Load (TMDL) as an efficient way to improve water quality. With these additions, Water Board staff recommended approval of the San Mateo LAMP, and held a public comment period for

the LAMP from February 10 to March 18, 2022. Staff responded to clarifying questions about the LAMP's purpose. No other comments were received.

The San Mateo LAMP is available at: www.smchealth.org/landuse (see OWTS Ordinance, Onsite Systems Manual, and Local Agency Management Program).

The OWTS Policy provides protocols for Water Board review and approval of a LAMP. For cases where local government jurisdictions lie within more than one Regional Water Board, the OWTS Policy designates one Regional Water Board as the lead agency for review and approval, with cooperative review by the other Regional Water Boards. The San Francisco Bay Regional Water Board is the lead agency for review and approval of LAMPs from Alameda, Contra Costa, Marin, Napa, San Mateo, and Santa Clara counties. The Santa Clara County LAMP was approved in December 2015, and the Alameda County LAMP was approved in May 2018. The remaining three LAMPs are still under review. Contra Costa County submitted a draft LAMP in 2016, and has subsequently updated County OWTS code and plans to submit a revised LAMP. Staff have been in ongoing discussions with Marin County for several years, and Marin County submitted a revised LAMP in January 2022 in response to Water Board comments provided in April 2019. Napa County's proposed LAMP, submitted in 2016, requires updates to reflect the new Winery Order. Staff met with Napa County in November 2021 to discuss comments on the 2016 LAMP, and staff continue to coordinate with the County on both LAMP revisions and a new winery Local Agency Oversight Program to implement the Winery Order.

In-house Training (Carrie Austin)

In February, our In-house Training topic was climate change. Back in 2018, we addressed, "Predicted impacts of climate change on sediment delivery and flooding in the San Francisco Bay Area." This year, we addressed "Climate Change Science, Communication, Action." Katie Hart and Melissa Gunter of the Watershed Division and Christina Toms of the Planning Division organized this training. [Board member Andy Gunther](#) was our first speaker and addressed questions such as, "Must we change? (Climate science) Can we change? (Solutions)." He provided a history of climate science and broad framing of potential future changes.

[Rob Mayeda](#) NBC Meteorologist and Cal State East Bay guest lecturer spoke on the impacts of climate change on hydrology, focusing on storm events now and in the future. His tips on communication with the public such as simple graphics like bar charts to illustrate findings were helpful. [UC Berkeley professor, Kristina Hill](#) studies urban ecology and hydrology in relationship to physical design and social justice issues. Her primary area of work is in adapting urban districts and shorezones to the new challenges associated with climate change. She spoke on, "Rising Tides & Groundwater." She shared maps of the San Francisco Bay shoreline, showing information managed and provided by our staff (Alyx Karpowicz, Toxics Cleanup Division), including references to GeoTracker. Dr. Hill is focusing on the likelihood of and filling data gaps about potential impacts of groundwater rise- increasing flooding in shoreline areas, mobilizing subsurface contamination in soil and groundwater and corroding pipes.

Our next training in April will cover the Basin Plan.

Wastewater Surveillance for COVID-19 (Robert Schlipf)

Since the beginning of the COVID-19 pandemic, the Centers for Disease Control, California Department of Public Health, and State Water Resources Control Board have been coordinating with municipal wastewater treatment plants to sample influent wastewater for SARS-CoV-2, the virus that causes COVID-19.

Because infected people shed SARS-CoV-2 in their feces, wastewater surveillance allows communities to observe pandemic trends before cases show up in epidemiological data. The laboratory methods used to detect SARS-CoV-2 in wastewater are sensitive enough to show the presence of the virus when there are about two infections per 100,000 people. Once community transmission becomes established, wastewater data can be used to track whether infections are increasing or decreasing, and the presence of variants that can change the trajectory of the pandemic. In general, wastewater samples show the presence of variants of concern about one to two weeks prior to detection in clinical samples. For example, wastewater surveillance detected the Omicron variant in California before any confirmed cases were reported. By December 17, 2021, wastewater surveillance had detected the Omicron variant in all 14 California sewersheds monitored, while clinical samples had detected Omicron in only five of these sewersheds.

UC-Berkeley recently setup a portal ([SARs-CoV2 Monitoring in Wastewater \(covid-web.org\)](https://sars-cov2-monitoring.ucsf.edu/)) to make these data accessible to the public. It's possible to graph SARs-CoV-2 trends in wastewater from different Bay Area communities. The graph below shows SARs-CoV-2 levels in influent wastewater sampled at the East Bay Municipal Utility District's wastewater treatment plant from November 2021 through March 2022 (note the log scale).

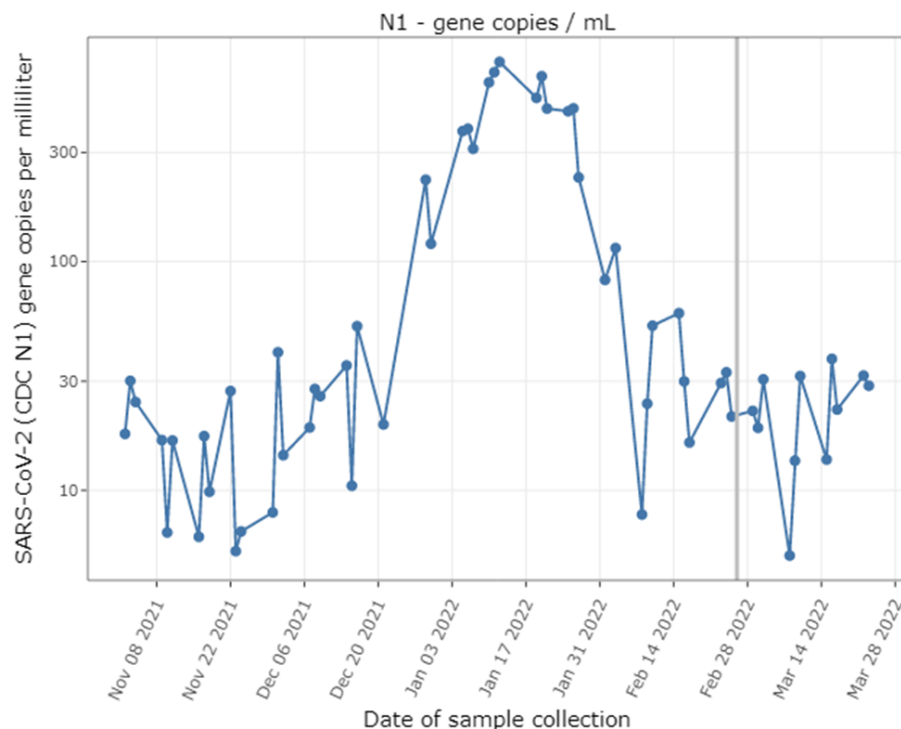


Figure 1: SARS-COV-2 Trends at East Bay Municipal Utility District

Enforcement Actions (Brian Thompson and Jessica Watkins)

There were no proposed or settled enforcement actions since March's report.

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 February 11 through March 9, 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
Corona Del Mar Dock Dredging	Alameda	Alameda	✓
Berkeley Pier Bird Enhancement	Berkeley	Alameda	✓
5th and E Street Stormwater Outfall	Hayward	Alameda	
Pore Water Investigation Schnitzer Steel Oakland	Oakland	Alameda	✓
PGE Pittsburg San Mateo Tower Maintenance	San Francisco Bay	Alameda	✓
Turner Dam Vegetation Removal	Sunol	Alameda	
Two Dog Culvert Replacement	Unincorporated	Alameda	
Long Wharf Geotechnical Investigation	Richmond	Contra Costa	✓
Phillips 66 RMT Maintenance Dredging	Richmond	Contra Costa	✓
Emergency Bank Erosion Protection at 6601 SFD Blvd in Forest Knolls	Forest Knolls	Marin	
Emergency Slope Protection San Rafael Creek at 8 Willow St	San Rafael	Marin	
Cote D'Azur Building A3 Structural Maintenance Repairs	Sausalito	Marin	✓
State Route 29 Bridge Rail Replacement	Yountville	Napa	
Yosemite Slough G5 Technical Design Study	San Francisco	San Francisco	✓
Millbrae Nearshore Outfall Restoration	Millbrae	San Mateo	✓
Dredging of Sediment from the Coyote Point Marina	San Mateo	San Mateo	✓
Searsville Reservoir Representative Sediment Core and Geotechnical Core Sampling	Woodside	San Mateo	
Knapp Creek Bank Repair	Kentfield	Sonoma	