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

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Executive Officer's Report

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Milestone in Cleanup of Former Hunters Point Naval Shipyard, San Francisco (Mary Snow)

Background

On September 26, 2024, the Regional Water Board joined the Navy, United States Environmental Protection Agency (USEPA), Department of Toxic Substances Control (DTSC), and other interested parties at Hillpoint Park in San Francisco to celebrate the selection of the cleanup plan for Parcel F at the former Hunters Point Naval Shipyard. The cleanup plan was memorialized in the Record of Decision document finalized on September 28, 2024. This is not only an important milestone in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process (see Figure 1), but also significant for cleanup at the former Hunters Point Naval Shipyard because Parcel F was the last parcel that needed a remedy to be selected.

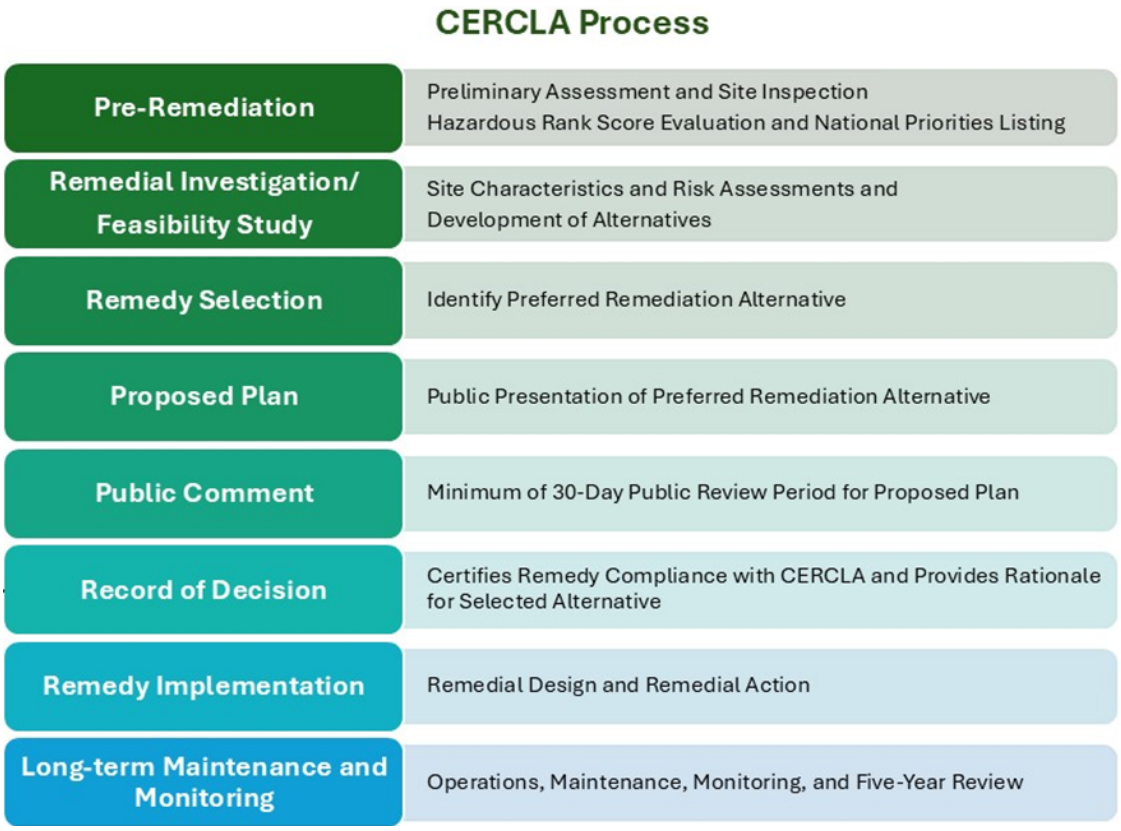

Figure 1: Steps in the CERCLA Process

Cleanup Plan

Parcel F comprises a 443-acre area of underwater sediments in San Francisco Bay that surround the former base (see Figure 2). Remedial investigations determined that the following three areas (shown on Figure 2) require cleanup of sediments contaminated with polychlorinated biphenyls (PCBs), copper, lead, and mercury to be protective of human health and the environment:

- Area III (Point Avisadero)
- Area IX (Oil Reclamation Area)
- Area X (South Basin)

In these areas, sediment contains concentrations of PCBs that pose unacceptable risk to human health through the consumption of shellfish and sport fish; and concentrations of PCBs, copper, lead, and mercury that pose a potential risk to birds feeding on benthic invertebrates and fish.

The Record of Decision selects the remedies for Parcel F sediments, explains the rationale for choosing the remedial actions, and certifies that the actions are compliant with CERCLA. The remedial actions selected for Parcel F are a combination of remedies: removal of sediments with the highest concentrations of contaminants, backfilling, off-site disposal, in situ treatment with monitored natural recovery (Areas IX and X only), capping (Area III only), and site-wide institutional controls.

The Regional Water Board worked closely with the Navy, U.S. EPA, and DTSC since at least 2019 to ensure the selected remedies are protective of human health and the environment. The Regional Water Board was successful in advocating for the PCB sediment cleanup level of 148 µg/kg (revised from 200 µg/kg), which represents the ambient sediment total PCB concentrations in San Francisco Bay (based on a statistical analysis of the San Francisco Estuary Institute Regional Monitoring Program's 2015 ambient concentration dataset).

Next Steps

The Navy plans to develop and execute the Pre-Design Sampling Work Plan in 2025 and the Remedial Design and Remedial Action Work Plan in 2026 and early 2027, with field implementation targeted to begin in September 2027. The Navy and USEPA will coordinate the field component of cleanup efforts at Parcel F Areas IX and X with the adjacent Yosemite Slough cleanup sites so that remediation occurs at the same time to mitigate cross-contamination. These cleanup actions will contribute to the overall health of San Francisco Bay.

Figure 2: Hunters Point Naval Shipyard Parcel Map

Teledyne and Spectra-Physics, Mountain View – Sixth Five-Year Review (Roger Papler)

In September, we signed a five-year review report for the Teledyne and Spectra-Physics site in Mountain View and concluded that the ongoing cleanup is protective of human health and the environment. We are the lead agency for this federal Superfund site and oversee it in coordination with U.S. EPA. This site is one of nine federal non-military Superfund sites that Toxics Cleanup Division staff currently oversee.

From the early 1960s to the early 1980s, Teledyne operated a semiconductor manufacturing facility and Spectra-Physics operated a laser manufacturing facility. Teledyne and Spectra-Physics used underground sumps to manage industrial wastewater. The sumps eventually leaked and caused a discharge of trichloroethene (TCE) into soil, groundwater, and soil vapor.

Soil vapor extraction and treatment operated from 1989 to 1998 and was restarted again in 2015 and continues to this day. Groundwater extraction and treatment operated from 1986 to 2017. Groundwater treatment using enhanced bioremediation began in 2005 and continues to this day. The cleanup actions have significantly reduced concentrations at the site. For example, TCE concentrations in the source area decreased from 49,000 micrograms per liter (µg/L) before enhanced bioremediation to 6 µg/L in 2023. As the enhanced bioremediation process proceeds, it forms breakdown products including cis-1,2-dichloroethene and vinyl chloride. In some areas, these breakdown products have increased. The breakdown products are expected to decrease over time as the enhanced bioremediation process continues.

While the active cleanup is still operating, vapor intrusion mitigation is sometimes needed to prevent vapors from intruding into indoor air. Vapor intrusion mitigation systems were installed beneath the Spectra-Physics property and some off-property commercial and residential locations. Subsequent indoor air monitoring in these properties showed that TCE is below screening levels.

The five-year review concluded that the cleanup actions are functioning as intended and that human health and the environment are protected. The five-year review recommended that the following items are needed: additional sampling of indoor air; more detailed tracking of building permits in the area of the groundwater plume; assessment of sewer lines to determine if they may pose a vapor intrusion pathway; sampling of PFAS in groundwater; and operation, maintenance, and monitoring plans for vapor intrusion mitigation systems. We are in the process of following up on the recommendations in the five-year review. We require ongoing performance monitoring to document the progress of the cleanup actions.

Fairchild, San Jose – Seventh Five-Year Review (Emma Hoffman-Davies)

The Seventh Five-Year Review for the former Fairchild Semiconductor Corporation facility in San Jose was issued in September, concluding that the ongoing cleanup is protective of human health and the environment. The Regional Water Board is the lead agency for this federal Superfund site in coordination with U.S. EPA.

Fairchild operated as an electronics and semiconductor manufacturing facility from 1977 through 1983. The manufacturing process involved etching, cleaning, coating, and inspection of silicon wafers using solvents. In 1981, volatile organic chemicals (VOCs) were detected in soil and groundwater samples collected near a leaking underground storage tank (UST) that was used to store waste solvents. A public water supply well located approximately 1,800 feet downgradient (northwest) from the former Fairchild facility was impacted by the release. Initial actions following the discovery of the release included removing the impacted drinking water well from service, decommissioning private wells located downgradient of the facility, removing the tank(s) and soil within the tank area, constructing and operating a groundwater extraction and treatment system, and installing a slurry cutoff wall to contain contaminants within the property boundaries.

In 1989, U.S. EPA selected continued groundwater extraction and treatment, soil vapor extraction, and soil flushing in the source area as the final remedy in its Record of Decision. Active remedial action ceased in 1998 after contaminant recovery reached asymptotic levels. In 1998, the site was redeveloped into a retail shopping center, which remains the current use today.

Post remediation monitoring conducted from 1998 to 2017 confirmed that the remedies successfully reduced contaminant concentrations in soil, soil vapor, and groundwater. A deed restriction was recorded in 2014 to restrict residential and other sensitive land uses and prohibits the use of groundwater.

Recently however, contaminant concentrations have increased slightly in groundwater samples collected from within the slurry wall containment area. In response, the Five-Year Review proposes conducting a focused feasibility study to evaluate additional active remediation and amending the Record of Decision as needed to revise the remedy. Additional monitoring of groundwater elevations is also recommended due to increasing rainfall trends in the area, which may be impacting water quality. The schedule for conducting the focused feasibility study and amending the Record of Decision could take 2-3 years to complete.

The Fairchild site is one of nine federal non-military superfund sites that are overseen by staff in the Toxics Cleanup Division. While working with U.S. EPA, we operate under an agreement that pre-dates our approach to low-threat closure, which results in more stringent standards for site cleanup. We have successfully worked cooperatively with U.S. EPA to ensure that these sites are remediated to accommodate the differing approaches of our two agencies, and to protect the health and safety of the occupants on-site.

Hyde Street Harbor Site Cleanup Order (Demir Worthington)

In October 2024, the Executive Officer signed a cleanup order for a fuel spill from a leaking pipeline at the Hyde Street Harbor boat fuel dock in San Francisco. The cleanup order requires the Port of San Francisco and Pilot Thomas Logistics, LLC to implement a remedial action plan to excavate approximately 2,000 cubic yards of soil impacted by R-99 diesel fuel (renewable diesel) and conduct post remediation groundwater monitoring and reporting.

Sheens of R-99 diesel fuel from the pipeline leak were first observed in San Francisco Bay in April 2020. In response to the sheens, booms and absorbent pads were deployed to contain and capture oily water. Wells were also installed to recover R-99 diesel fuel product that was floating on the groundwater. To date, these measures removed approximately 240 gallons of R-99 diesel fuel and over 6,000 gallons of oily water. Booming and product recovery will continue during and following the excavation activities. A vapor intrusion assessment, including indoor air monitoring, was conducted at several buildings near the fuel leak and no significant impacts were observed.

In addition to requiring implementation of the remedial action plan, the cleanup order sets cleanup levels, requires a risk management plan for any residual contamination that might remain after the excavation, and requires further investigation and remedial action, if needed. The Site Cleanup Requirements sets a compliance date of August 30, 2025, for submittal of the remedial action completion report.

Figure 1: Map of Excavation Area and Surroundings

August 2021

December 2023

Figures 2 and 3: R-99 Diesel Containment at Hyde Street Harbor

Oro Loma Horizontal Levee – Advancing New Designs for Resilience and Water Quality Improvement (Bill Johnson)

The San Francisco Estuary Partnership, in partnership with the Oro Loma Sanitary District, recently completed the Oro Loma Horizontal Levee – Advancing New Designs for Resilience and Water Quality Improvement project. This 2.5-year effort reconfigured a portion of an existing horizontal levee to support new water quality and materials research. The project received $1,000,000 from the Clean Water State Revolving Fund and will provide valuable information on the potential to construct horizontal levees around the region.

A horizontal levee is a gentle, vegetated slope. Like a traditional levee, it protects from storm surge and rising sea levels, but it can also use treated wastewater for upland plant irrigation. Horizontal levees can provide many additional benefits, like creating transitional habitat between tidal and upland areas, and space for wetland migration as sea levels rise.

The Oro Loma horizontal levee was constructed in 2016 to study the potential to remove nutrients and contaminants from wastewater. Subsequent studies evaluated the potential to treat reverse osmosis concentrate. These studies found that nutrients and many contaminants, like pharmaceuticals and pesticides, are removed within about the first 20 percent of the levee slope. The success of Oro Loma horizontal levee has spurred regional interest in these types of projects.

The more recent construction began in February 2022 and continued into 2023. It reconfigured 2 of the original 12 horizontal levee cells into 8 smaller cells to test steeper slopes, different materials, and thicker treatment layers. Smaller cells may prove useful where space is limited. Such modifications may also accommodate higher wastewater flows. U.C. Berkeley researchers have initiated water quality studies.

Two important take-aways from the project so far include the following:

1. When selecting materials, leaching tests of the gravel to be placed in treatment layers may be useful to determine the extent to which metals might leach from sediments, at least in areas where ambient metals concentrations are close to aquatic toxicity levels.

2. Proactive maintenance is essential for controlling weeds, particularly before weeds become established. Local organizations with expertise in native plants may be able to help determine the best times of year and other strategies for planting to give native plants a competitive edge over invasive species.

Figure 1: Oro Loma Horizontal Levee – Advancing New Designs for Resilience and Water Quality Improvement, Final Project Report (CWSRF Project No. C-06-8600-110, Agreement No. D2101051), August 2024.

Caltrans Statewide Hazardous Substances Workshop (Ross Steenson)

On September 24, Ross Steenson, Assistant Executive Officer, gave three presentations on groundwater-related topics at the Caltrans Statewide Hazardous Substances Workshop at Caltrans District 7 office in Los Angeles. These presentations were requested by Caltrans Office of Hazardous Waste, Air Quality, Noise, and Paleontology to support the restart of an annual workshop for Caltrans environmental staff to learn and share knowledge about hazardous substance issues that Caltrans must manage. Ross' presentations topics were: (1) petroleum underground storage tank site investigation, remediation, and closure; (2) introduction to per- and polyfluoroalkyl substances; and (3) considerations for construction groundwater and soil management. The presentations were well received, and Ross addressed numerous questions on these topics. On the subsequent day, the Department of Toxic Substances Control staff presented regarding aerially deposited lead, a continuing issue for soil near roadways due to past use of leaded gasolines. Approximately 100 Caltrans staff attended, most in person.

Staff Updates (Eileen M. White)

On October 4, 2024, Jeff White retired from the Water Board. Jeff worked as a Water Resource Control Engineer in the Groundwater Protection Division managing cleanup of contaminated sites in the Site Cleanup and Department of Defense programs for the past seven years.

Jeff brought industry and educational experience to the Water Board that few else have. He has Bachelor of Science degrees in both geology and civil engineering from Texas A&M University and The University of Texas, respectively. He also has a Master of Science degree in International Relations from St. Mary's University in San Antonio. Prior to joining the Water Board, Jeff worked for Amtrak for nine years as an environmental compliance officer in the Pacific Division and worked both as a regulatory project manager for and environmental consultant to the Texas Commission on Environmental Quality.

At the Water Board, Jeff was the lead project manager for the former Naval Shipyard Hunters Point and former Naval Station Treasure Island, two of the most complex sites in our Region. Jeff had a great understanding of these sites and always provided excellent support and recommendations on technical issues. Jeff collaborated closely with his regulatory counterparts and was instrumental in making water quality concerns a top priority. In addition to his accomplishments at these Department of Defense sites, Jeff also contributed to our understanding of how to regulate and implement vapor intrusion mitigation systems for Site Cleanup Program sites.

Jeff's calm temperament and thoughtful responses were assets to our regulatory programs. He was a great mentor to new and seasoned staff. We are grateful for his service and wish him the best in his well-deserved retirement.

401 Water Quality Certification Applications Received (Tahsa Sturgis)

The table below lists those applications received for Clean Water Act section 401 water quality certification from September 11 through October 16, 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
Zone 7 Water Agency - 2023 Emergency Repairs Project	Pleasanton	Alameda	
Town of Sunol Pipeline Project	Sunol	Alameda	
Cottonwood Creek Water Line and Bank Restoration Project	Livermore	Alameda	
EA 0J550 ALA 84-Arroyo de la Laguna Bridge Project	Unincorporated	Alameda	
Cathodic Protection Installation at Eastshore-Dumbarton 115kV, Tower 003/023	Union City	Alameda	✓
Portobello Marina Pile Maintenance Project	Oakland	Alameda	✓
Green Valley Creek Woody Debris Structures Phase 2	Alamo	Contra Costa	
Peyton Slough Remediation Project Operations and Maintenance	Martinez	Contra Costa	✓
Cathodic Protection Installation at Pittsburg-San Ramon 230 kV Line, Tower 000/004	Pittsburg	Contra Costa	✓
12 West Shore Boat Lift Installation Project	Belvedere	Marin	✓
Sausalito Yacht Club New Gangway Project	Sausalito	Marin	✓
Inverness Yacht Club Pier Repairs Project	Inverness	Marin	
Marin State Route 37 Petaluma Bridge Project (EA 04-2Q500)	Unincorporated	Marin	✓

Project Name	City/Location	County	May have BCDC Jurisdiction
Black Point Bridge Emergency Repairs Project	Unincorporated	Marin	✓
San Francisco Bay Federal Maintenance Dredging	Multiple	Multiple	✓
Clover Flat Resource Recovery Park Project	Unincorporated	Napa	
Routine Maintenance Activities At Spring Creek Duck Ponds For Sediment Removal	St. Helena	Napa	
Twin Pines Park Belmont Creek Restoration Project	Belmont	San Mateo	
1548 Maple Street Development Project	Redwood City	San Mateo	
Gateway Park Pedestrian Bridge Replacement Project	San Mateo	San Mateo	
505 East Bayshore Road Project	Redwood City	San Mateo	✓
Calero Dam Emergency Road Repair Project	Unincorporated	Santa Clara	
2019/20 City Bridges and Culverts Structural Inspection and Repairs, Project 20-60	Mountain View	Santa Clara	
California State University Maritime Academy Phase 1 Waterfront Master Plan	Vallejo	Solano	✓