




MEMORANDUM

July 12, 2024

TO: MEMBERS, PORT COMMISSION
Hon. Kimberly Brandon, President
Hon. Gail Gilman, Vice President
Hon. Willie Adams
Hon. Steven Lee

FROM: Elaine Forbes
Executive Director 

SUBJECT: Informational presentation on PG&E Beach Street Offshore Sediment Remediation Project.

DIRECTOR'S RECOMMENDATION: Information Only – No Action Required

EXECUTIVE SUMMARY

On August 9, 2022¹, Port of San Francisco (“Port”) staff provided the Port Commission with an informational presentation on the Pacific Gas & Electric Company (“PG&E”) project to design and plan for remediation of contaminated sediments in the Bay in the area between Pier 43½ and the Pier 39 East Basin near Fisherman’s Wharf. This staff report provides an update to the Port Commission and the public on the pre-remediation outreach, permitting, and remedial design plans that PG&E is performing in compliance with the requirements of the San Francisco Bay Regional Water Quality Control Board (“Regional Water Board”) with Port cooperation and oversight.

PG&E and its predecessor entities formerly operated the Beach Street Manufactured Gas Plant (“MGP”) in the 1900s in the block bounded by Beach, Jefferson, Mason, and Powell Streets at what was the historical waterfront. In 2011 and 2013, elevated polycyclic aromatic hydrocarbon (“PAH”) concentrations were measured in sediment samples collected from the Pier 39 West Basin. As a result, in 2014 and 2017, the Regional Water Board issued orders requiring PG&E and the Port to investigate PAH contamination

¹ [08092022_pge_pier_39-43.5_sediment_remediation_final.pdf \(sfport.com\)](https://www.sfport.com/08092022_pge_pier_39-43.5_sediment_remediation_final.pdf)

in areas within the Port's jurisdiction adjacent to the former Beach Street MGP where PAH contaminants are known to be present. From 2016 to 2020, PG&E completed shoreline and offshore investigations including sediment sampling of the offshore area extending from Pier 39 East Basin to Pier 43½ to determine impacts from the historic operations of the Beach Street MGP operations.

In January 2020, PG&E submitted the *Final Remedial Investigation Report Piers 39 to Pier 45 Investigation* ("RI Report") to the Regional Water Board. The investigations found PAH-contaminated sediment from Pier 39 East Basin to Pier 43½, extending from the shoreline to approximately 1,000 feet offshore (see *Exhibit A – Project Site Plan*). The Regional Water Board then issued an order in June 2020 and, in compliance with that order, PG&E developed and submitted the *Final Feasibility Study/Remedial Action Plan Piers 39 to Pier 45 Sediment Investigation Area* ("FS/RAP") in October 2021.

As the lead California Environmental Quality Act ("CEQA") agency, the Regional Water Board published the CEQA Initial Study/ Mitigated Negative Declaration ("IS/MND") for the Pier 39 to Pier 45 Site in October 2021. In February 2022, following public review and comment on the FS/RAP and draft CEQA IS/MND, the Regional Water Board adopted the CEQA MND and Mitigation Monitoring and Reporting Program (MMRP") for the Site. The Regional Water Board then issued Order R2-2022-0008 ("Order") approving the FS/RAP and establishing Site Cleanup Requirements.

The Port has been reimbursed by PG&E for staff and consultant costs to manage and provide technical review of PG&E's site investigations, studies, and remedial plans, as well as the ongoing agency communications and stakeholder outreach under a cost recovery agreement.

Since staff last reported to the Port Commission on August 9, 2022, PG&E, with Port cooperation and oversight, has continued to respond to the Regional Water Board Order requirements. This staff report provides an update on pre-remediation outreach, permitting, and remedial design plans in advance of construction currently scheduled to occur over a five-year period from June through November of each year beginning in 2025 through 2029.

Critical path milestones for the remainder of 2024 include PG&E obtaining final Federal, State, and local project permits; submitting a Port Building Permit application and engineering plans (100%) for remediation of Area A (Pier 43½) and Area B (Pier 43); securing a material handling facility (MHF) to process the sediment prior to appropriate disposal; and finalizing environmental protection and monitoring plans, including those protecting community health.

STRATEGIC OBJECTIVE

PG&E's proposed Beach Street Offshore Sediment Remediation Project ("Project"), with coordination and oversight by the Port, will contribute to the objectives of the Port's Strategic Plan as follows:

- Sustainability – Advance environmental stewardship to limit climate change and protect the Bay. PG&E’s remedial design plans will enhance bay water quality and habitat.
- Engagement – Engage internal and external stakeholders on Port functions and activities. The Port and PG&E have actively engaged Port tenants impacted by the remediation and stakeholders in the Northern and Southern Waterfront.

BACKGROUND

As detailed in the August 9, 2022 Staff Report, PG&E and its predecessor entities operated the Beach Street MGP formerly located in the block bounded by Beach, Jefferson, Mason, and Powell Streets, at what was historically the waterfront. In 1900, the San Francisco Coke and Gas Company acquired the property and began coke and coal gas production. In 1904 or 1905, the plant was purchased by the Standard Oil Company and converted to carbureted water and oil gas works. PG&E purchased the Beach Street MGP in November 1911 and operated it until 1931, although gas holders and oil tanks were reportedly used until the mid-1950s when the property was sold.

The gas holders and oil tanks were subsequently dismantled, and in 1963-1964 the former MGP site at 250 Beach Street was developed into a motel and restaurant facility. In 1997-1999, construction of a four-story hotel addition at 250 Beach Street prompted remediation including removal of contaminated soil, and installation of a vapor barrier under the new hotel to mitigate potential impacts from underlying residual contamination.

In 2010, PG&E began its voluntary MGP cleanup program, under the oversight of the California Environmental Protection Agency – Department of Toxic Substances Control (“DTSC”), to test for residuals from former MGP plants located in San Francisco’s Marina and Fisherman’s Wharf Districts, including the former Beach Street MGP. Since 2011, PG&E has investigated soil, gas, and groundwater contamination at these former MGP sites under a Voluntary Cleanup Agreement with the DTSC.

In 2011 and 2013, elevated PAH concentrations were reported in sediment samples collected to support maintenance dredge permits for the Pier 39 East and West Basins. As a result, the Regional Water Board issued July 2014 and August 2017 Water Code section 13267 orders to PG&E (as the former operator of the former Beach Street MGP site suspected to be the source of elevated PAHs) and the Port (as the property owner) to investigate the nature and extent of PAH contamination in the East and West Basin sediments.

Since 2015, PG&E has been working in collaboration with the Port to perform all DTSC and Regional Water Board-required site investigations, studies, and remedial plans as detailed below. The Port has been reimbursed by PG&E for staff and consultant costs to manage and provide technical review of PG&E’s site investigations, studies, remedial plans, ongoing agency communications, and stakeholder outreach under a cost recovery agreement.

Remedial Investigation, Feasibility Study, and Remedial Action Plan

From 2017 through 2020, PG&E completed site investigations and submitted the *Final Remedial Investigation Report Piers 39 to Pier 45 Investigation* (“RI Report”) to the Regional Water Board in January 2020 describing activities completed and data collected in the offshore area. During the investigation, the “Investigation Area” (see *Exhibit A*) was expanded to encompass the intertidal and subtidal areas between Pier 39 East Basin and Pier 43½, extending from the shoreline to approximately 1,000 feet offshore. The RI evaluated sediment, sediment pore water, and surface water and did not identify evidence indicating that the former Beach Street MGP or other historical industrial facilities are ongoing sources of contamination to Site sediment. The spatial pattern of contamination in Site sediment and historical shoreline operations suggests that historical releases of MGP byproducts were primarily through spillage or placement into the Bay in the late 1800s and early 1900s.

The RI Report presented a comprehensive data set, documented the extent of PAH-impacted sediment in the investigation area, and conclusions about the impact on San Francisco Bay. The RI assessed the risk from direct exposure to PAHs to human and ecological receptors, including recreational swimmers, commercial/dock workers, sediment invertebrates (i.e., organisms in the sediment such as clams and worms), fish, and mammals. The RI concluded there is a low probability of adverse effects to human and ecological receptors from direct exposure. In addition to direct exposure, the risk to human and ecological receptors from potential bioaccumulation of PAHs was assessed. The RI concluded there is a potential risk to organisms that feed directly on sediment invertebrates that may bioaccumulate high concentrations of PAHs, or through the food web. A PAH concentration to protect against bioaccumulation was developed to preliminarily identify areas of sediment to be considered for remediation for planning purposes.

In June 2020, the Regional Water Board conditionally approved the RI Report and ordered PG&E to prepare a Feasibility Study of potential remedies to address areas of sediment contamination and develop a Remedial Action Plan.

The *Final Feasibility Study and Remedial Action Plan Piers 39 to Pier 45 Sediment Investigation Area* (“Final FS/RAP or Cleanup Plan”) was developed by PG&E in cooperation with the Port and submitted to the Regional Water Board in September 2021 (Haley & Aldrich, 2021). Studies performed as part of the FS concluded while the PAH levels detected in sediments are not directly impactful to human health under current conditions, remediation of PAHs in sediment is required to be protective of wildlife and certain aquatic species (e.g., birds, fish, sediment-dwellers) and the environment.

Based on the findings presented in the RI Report, areas warranting remediation were divided into the following five remedial response areas between Piers 39 and 43½ (“Site”) for further evaluation in the FS/RAP (see *Exhibit B –Offshore Remediation*):

- Area A refers to the Pier 43½ offshore area;
- Area B refers to the Pier 43 offshore area;

- Area C, refers to the Pier 41½ offshore area (Area C2) and the area under Pier 41½ (Area C1);
- Area D refers to the Pier 39 West Basin; and
- Area E refers to the Pier 39 East Basin.

The FS/RAP evaluated the following three remedial alternatives against remedial screening criteria based on United States Environmental Protection Agency guidance for conducting feasibility studies (USEPA, 1988):

- 1) Alternative 1 – No Action to remove, treat, contain, or monitor sediment impacts;
- 2) Alternative 2 – Focused Dredging, Capping, Armoring, Monitoring, and Institutional Controls; and
- 3) Alternative 3 – Maximum Dredging, Residuals Management, and Limited Capping, Monitoring, and Institutional Controls.

Although both Alternative 2 and Alternative 3 provide the opportunity to achieve the remedial action objective (“RAO”), the short-term effectiveness is more favorable for Alternative 2 because this alternative would generate a smaller removal volume and have fewer and lesser construction impacts in addition to fewer short-term impacts on the workers, community, and environment. Therefore, Alternative 2 is the recommended sitewide remedial alternative.

In 2021, PG&E’s total estimated cost to implement Alternative 2 was \$211,853,000. This estimate was based on 2020 equipment, material, and labor unit pricing, and does not include legal fees, continued negotiations, or agency oversight.

California Environmental Quality Act - Initial Study, Mitigated Negative Declaration Sediment Remediation Project

The Regional Water Board, as the lead agency for the Project, prepared an *Initial Study and Mitigated Negative Declaration Sediment Remediation Project, Piers 39 to 43½* (“IS or “MND”) in October 2021. The IS/MND evaluated potential environmental impacts that could result from the recommended alternative for remediation as described in the FS/RAP and specifies a Mitigation Monitoring and Reporting Program (“MMRP”) that must be implemented to mitigate those potential impacts. The IS/MND concluded that the planned remediation, as described in the FS/RAP, with proposed mitigation measures, will not have a significant impact on the environment.

The IS/MND was distributed for public review and comment between October 20, 2021, and November 19, 2021. The FS/RAP underwent concurrent public review. Following a 30-day public comment period, Regional Water Board staff reviewed and responded to the public comments and found the FS/RAP acceptable. On February 9, 2022, the Regional Water Board adopted the MND and MMRP as Resolution No. R2-2022-0007, finding that they reflect the independent judgment and analysis of the Regional Water Board and that there is no substantial evidence that the project will have significant impacts if mitigated in compliance with the MMRP (Cal. Code Regs., tit. 14 § 15074(b)-(d)). The IS/MND, MMRP, and all supporting documentation are available at the Regional Water Board’s office and

on the Water Board's publicly accessible GeoTracker site, <https://geotracker.waterboards.ca.gov>.

The Regional Water Board prepared an Administrative Draft Addendum to the Initial Study/Mitigated Negative Declaration Sediment Remediation Project, Piers 39 to 43½ on May 20, 2024. Included in this Addendum is the proposed addition of Port Pier 94 (adjacent to Pier 96, originally analyzed in the IS/MND), and the Montezuma Wetlands LLC site (Montezuma) in Solano County as Material Handling Facility (MHF) options. The Regional Water Board anticipates certifying the CEQA Addendum in July 2024. Although Pier 94 was analyzed for a Material Handling Facility, it is anticipated that initially the Montezuma location will be used for material handling.

Regional Water Board Order R2-2022-0008 Site Cleanup Requirements for the Offshore Property Located Between Pier 39 and Pier 43½

On February 9, 2022, the Regional Water Board issued *Order R2-2022-0008 ("Order"), Site Cleanup Requirements for the Offshore Property Located Between Pier 39 and Pier 43½, San Francisco*. The Order names PG&E a "Discharger" because of substantial evidence that it discharged pollutants to sediment, and names the Port as a Discharger because it owns property, has knowledge of the discharge or the activities that caused the discharge, and has the legal ability to control the discharge.

By the Board's adoption of the Order, the FS/RAP Alternative 2 was accepted as the preferred alternative. The remedial action design is to maintain a layer of clean natural sediments or cap material, either of which serves as a protective barrier between the bay and the surface sediments that support aquatic organisms and the contaminated sediment that will remain at deeper depths. The remedial action is also designed to accommodate current and future vessel operations and enable future maintenance dredging to meet the needs of the Port and its tenants. Once completed, remediation will have cleaned up the remedial areas between Piers 39 and 43½ ("Site") and will not interfere with maritime operations.

The Regional Water Board will enforce PG&E's implementation of the MMRP required under the Order. Other mitigation measures may also be required as conditions under each regulatory agency project permit.

As required under the Order, PG&E and the Port developed and submitted the *Post Construction Risk Management and Monitoring Plan ("RMMP") Pier 39 to Pier 43½ Sediment Remediation Project, San Francisco*, in January 2024. PG&E and the Port will resubmit the RMMP addressing Water Board comments for Water Board approval in July 2024. The RMMP specifies post-construction cap monitoring to verify cap effectiveness and stability. The RMMP includes institutional controls to reduce disturbance to remediated areas and contamination remaining in place. Institutional controls would be used in areas that have been capped, or areas where existing sediment provides stable isolation from contaminated sediment, and operational measures to prevent future exposure to sediment that might pose risk. Post-construction operational measures include restrictions on the

use of anchors in select areas, the creation of no-wake zones, and limits to future maintenance dredging beyond the currently anticipated remedial area dredge limits.

STAKEHOLDER ENGAGEMENT AND OUTREACH

Port staff continue to work in collaboration with PG&E and the Regional Water Board to finalize engineering plans and specifications and develop environmental protection and monitoring plans, including those protecting community health. Port staff are also focused on ensuring that construction minimizes impacts on Port and tenant operations and community uses in the project areas. To that end, Port staff have worked with PG&E on over 22 project progress and working group meetings with Port tenants who will be directly impacted by the Project within both the Northern and Southern Waterfront areas. This includes meetings with SF Maritime National Park Association- USS Pampanito, Red & White Fleet, Blue & Gold Fleet, and Pier 39 LC to review and discuss PG&E's engineering plans, construction methods and equipment, remediation schedule, and to work through how to plan for and minimize temporary interference with tenant and Port operations during remediation. PG&E is also working directly with the SF Maritime National Park Association, Red & White Fleet, Blue & Gold, and Pier 39 LC, under cost agreements, including PG&E's reimbursement of incremental costs associated with impacts from the remediation.

As noted above, the Regional Water Board public review process included circulating and inviting the public to comment on the FS/RAP from October 20 to November 19, 2021, and on the environmental findings contained in the IS and MND in compliance with CEQA and applicable regulations.

Port staff previously provided public notice and coordinated informational presentations by PG&E, the Regional Water Board, and Port staff to the Northern Advisory Committee ("NAC") in a September 2021 meeting, and to the Southern Advisory Committee ("SAC") in October and December 2021 meetings.

In March 2024, Port, PG&E, and Regional Water Board staff provided a project briefing to the Bay Area Air Quality Management District ("BAAQMD") staff. As requested by BAAQMD, PG&E prepared and submitted a complete project application with supporting documents to BAAQMD on June 28, 2024. BAAQMD staff are currently working to review the Project and will confirm any air permit requirements PG&E will need to obtain prior to initiating remediation and MHF operations.

In June 2024, Port staff and PG&E staff provided a project informational presentation and discussion at the Fisherman's Wharf Advisory Committee ("FWAC") meeting.

Port staff will continue to work with PG&E, tenants, the community, and regulatory agencies to minimize impacts from the Project and finalize plans protecting community health.

AGENCY ENGAGEMENT AND PERMITTING

PG&E’s project work has undergone extensive review by the Regional Water Board, and other state and federal regulatory agencies (San Francisco Bay Conservation and Development Commission, US Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife), as well as Port staff and technical consultants to the Port. PG&E is actively engaged with these regulatory agencies to complete resource agency consultations and finalize permit conditions and environmental protection measures required to avoid or minimize environmental impacts and compensate for fill in the bay and disturbance to the bay habitat. Prior to implementing the remediation work, PG&E is required to obtain the following project permits:

- Federal Clean Water Act Section 404 and Rivers and Harbors Act Section 10 permit from the U.S. Army Corps of Engineers
- Clean Water Act Section 401 Water Quality Certification from the Regional Water Board
- California Department of Fish and Wildlife Incidental Take permit
- SF Bay Conservation and Development Commission permit pursuant to the McAteer-Petris Act

PG&E is also required to obtain a Port Building Permit prior to implementing the first phase of remediation of Area A (Pier 43½) and Area B (Pier 43) scheduled to begin in 2025.

REMEDIAL ACTION PLAN IMPLEMENTATION AND CONSTRUCTION SCHEDULE

Since Port staff last presented to the Port Commission in August 2022, PG&E, in coordination with the Port, has continued to respond to the requirements of the Order including submittal of the 2023 and 2024 *Annual Status Reports and Implementation Schedules*. The Order requires a remediation work plan for each of the five remedial areas governing each stage of remediation. The Order also requires a work plan for the operation of the MHF proposed for Pier 94. Each work plan must be acceptable to the Regional Water Board’s Executive Officer and approved in writing by the Water Board.

Due to the complexity of the Project, including consultations required to finalize agency permits, pre-construction planning for contractor site access, the need to temporarily relocate tenant vessel operations, and securing an MHF, PG&E’s construction timeline was delayed from 2023, to now begin in 2025, as shown below:

DRAFT REMEDIATION CONSTRUCTION SCHEDULE FOR THE PG&E OFFSHORE SEDIMENT REMEDIATION PROJECT		
Year	Remedial Area	Tenant Leaseholds Temporarily Impacted During Remediation
2025	Area A: Pier 43½ offshore area	Red & White Fleet

DRAFT REMEDIATION CONSTRUCTION SCHEDULE FOR THE PG&E OFFSHORE SEDIMENT REMEDIATION PROJECT		
Year	Remedial Area	Tenant Leaseholds Temporarily Impacted During Remediation
2025	Area B: Pier 43 offshore area which includes two subareas (B1 and B2)	Red & White Fleet, Blue & Gold Fleet, Port
2026	Area C: Pier 41½ offshore area (C2) and the area under Pier 41½ (C1)	Blue & Gold Fleet, SF Bay Ferry
2027	Area D: West Basin of Pier 39	Blue & Gold Fleet, Pier 39 LC
2028-29	Area E: East Basin of Pier 39	Pier 39 LC, East Basin

Per the Remediation Project Design & Construction Schedule (*see Exhibit C*), remediation will occur over a 5- to 6-year period, implemented in phases. It is anticipated that remedial construction activities will commence in late 2024 (site preparation activities at one or more of the MHF locations only) with some in-water work (e.g., pile removal and installation using vibratory methods) commencing as early as March 2025 and remedial and sediment handling activities beginning in June 2025.

While PG&E plans to complete remediation in one-year cycles for each area, ultimately, the quantities of dredging and capping and the logistical constraints for each remedial response area will dictate the construction duration for each phase.

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Attachments: Exhibit A: Project Site Plan
Exhibit B: Offshore Remediation Areas
Exhibit C: Updated Remediation Design & Construction Schedule

EXHIBIT A Project Site Plan



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Figure 2.
Updated Project Area and Remedial Area Boundaries
Pier 39 to 43 1/2, San Francisco
California

EXHIBIT B
Offshore Remediation Areas



Beach Street Remediation Project: Offshore Remedial Areas

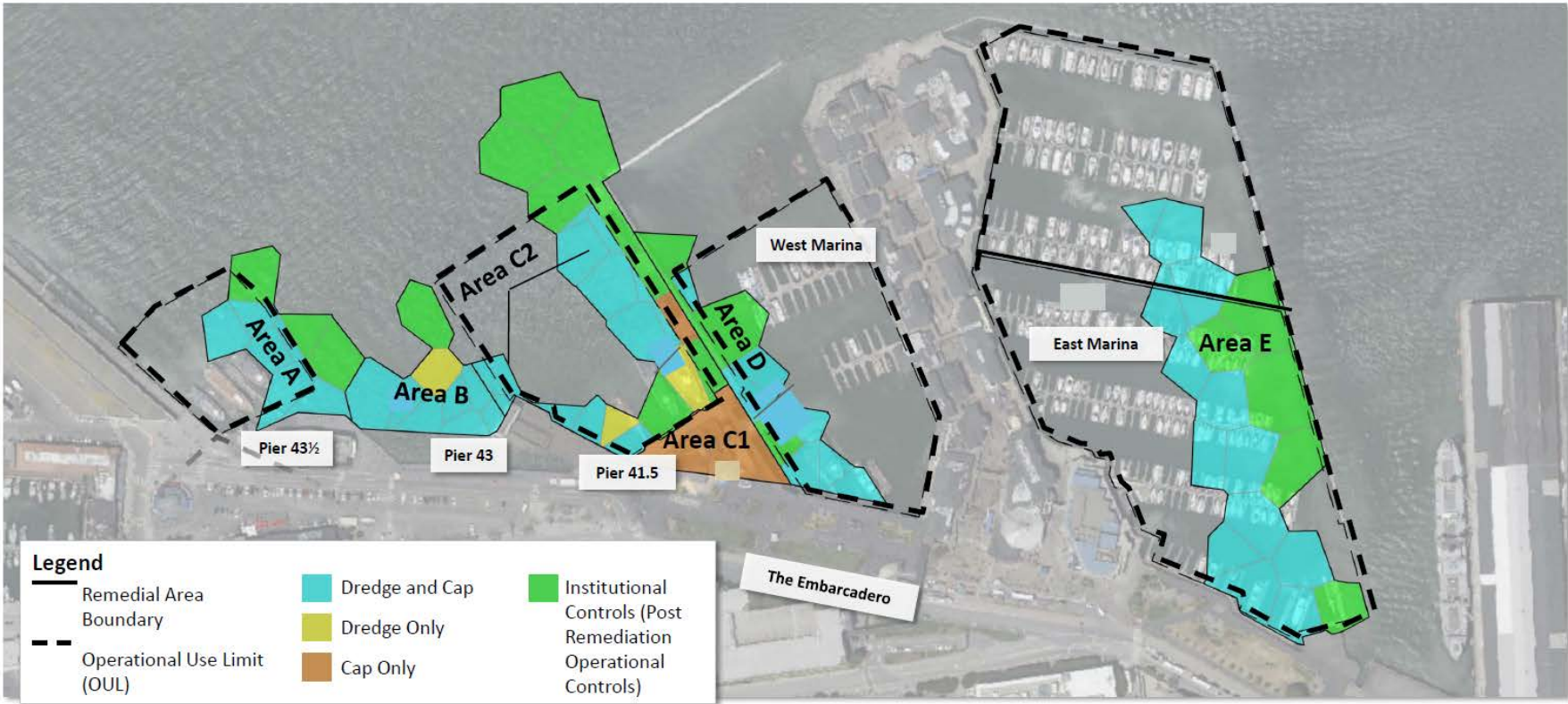


EXHIBIT C
Updated Remediation Project Construction Schedule

2025				2026				2027				2028				2029				2030			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Pier 43 1/2 and Pier 43 Work				Pier 41 1/2 Work				West Marina Work				East Marina Work				East Marina Work							