CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SITE CLEANUP REQUIREMENTS
ORDER NO. R2-2024-0026 for:

PILOT THOMAS LOGISTICS, LLC.
PORT OF SAN FRANCISCO

For the property located at:

482 JEFFERSON STREET
SAN FRANCISCO, CA 94109
SAN FRANCISCO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds that:

1. **Site Location:** The Site consists of the Hyde Street Harbor property at 482 Jefferson Street and its adjoining shoreline that is approximately 250 feet northeast from the intersection of Hyde and Jefferson Streets in the Fisherman's Wharf area of San Francisco. The Site is the location of a renewable R-99 diesel fuel leak discovered in 2020 from a pipeline associated with a boat fueling dock facility. It is currently a parking lot in an area zoned for commercial and industrial land use located adjacent to San Francisco Bay (Attachment 1). The Assessor Parcel Number is Block 9900 - Volume 44 - Block 0007. The Site is bound by San Francisco Bay to the north, a commercial fish market and a marine diesel fuel storage facility that includes two 20,000 aboveground fuel storage tanks (ASTs) to the east, Capurro's restaurant, retail shops, and a hotel to the south, and a pier that is supporting a road/driveway, a retail shop, the Port of San Francisco Harbor office, and the San Francisco Maritime National Historical Park to the west.

2. **Site History:**
   a. Shoreline Development: The Site and adjacent land were historically part of San Francisco Bay with tidal mudflats extending from the historical natural shoreline (Attachment 1). The Site and adjacent land were filled in by the early 1900s and became a commercial and industrial area primarily used for the fishing industry. Fuel storage and distribution has taken place at and near the Site since the mid-1930s.

   b. Site Owners and Lessees/Operators: The Site and adjacent land were owned by the California Board of State Harbor Commissioners beginning in 1935. In 1969, land ownership was transferred to the Port of San Francisco (SF Port) which has maintained ownership to the present.

      Mobil Oil, a predecessor company to ExxonMobil, leased the Site from 1913 to 1990. The Site has been used as a diesel and gasoline bulk storage and

dispensing facility since 1935. In 1992, the Site was leased to GP Resources, Inc. (which later changed its name to General Petroleum Corporation then General Petroleum LLC). At a point between 2004 and 2020, Pilot Thomas Logistics, LLC (Pilot Thomas) assumed the operation of the site as a marine diesel fuel storage and dispensing facility (boat fueling dock).

c. Discharge of R-99 Diesel Fuel: In April 2020, the SF Port began notifying the United States (U.S.) Coast Guard of recurring hydrocarbon sheens on the surface of San Francisco Bay at the Hyde Street Harbor from an undetermined source. The United States Environmental Protection Agency (U.S. EPA) directed to the SF Port to identify and remove the source and threat of the discharge of oil to San Francisco Bay. The source of the hydrocarbon sheens was determined to be shoreline seepage of renewable R-99 diesel fuel from a leaking pipeline associated with the boat fueling dock facility operated by Maxum Petroleum Inc. (a parent company of Pilot Thomas) and later by Pilot Thomas. Most of the pipeline is located below grade and runs from the two 20,000-gallon capacity ASTs to the west beneath the parking lot behind the Capurro's restaurant and is approximately 70 feet south of San Francisco Bay. The pipeline then bends to the north and is attached beneath the pier that is supporting a road that serves the Hyde Street pier and terminates at the fuel dispensers at the boat fueling dock (Attachment 1). The pipeline was drained of the remaining fuel and the operation of the boat fueling dock has been stopped since the discovery of the source of the leak.

d. R-99 Diesel Fuel: R-99 diesel fuel is a renewable diesel fuel derived from biological sources, including vegetable oils and animal fats that is chemically distinct from biodiesel. The term "renewable diesel" means fuel derived from biomass using approved fuel pathways to create a fuel meeting chemical specifications for diesel. R-99 stands for 99 percent renewable diesel and 1 percent petroleum diesel, and is sometimes referred to as hydrotreated vegetable oil or green diesel.

3. **Named Dischargers:** Pilot Thomas is named as a discharger because it operated the pipeline at the time of the initial discharge of the R-99 diesel fuel, had knowledge of the discharge, and had the legal ability to control or prevent the discharge.

The SF Port is named as a discharger because it owns the Site, has knowledge of the discharge and the activities that caused the discharge, and has the legal ability to control or prevent the discharge.

Pilot Thomas and SF Port are collectively referred to as the Dischargers.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged at the Site where it entered or could have entered waters of the State, the Regional Water Board will consider adding those parties to this Order.

4. **Regulatory Status:** The Site has been subject to the following U.S. EPA orders related to R-99 diesel fuel discharge:

   On September 14, 2020, U.S. EPA issued an Order for the Removal, Mitigation or Prevention of a Substantial Threat of Oil Discharge to the SF Port. Then on March 1, 2021, U.S. EPA issued an Order for the Removal, Mitigation or Prevention of a Substantial Threat of Oil Discharge to Maxum Petroleum, Inc., and later amended the order to add Pilot Thomas as a respondent. U.S. EPA terminated the orders on July 27, 2022, and transferred regulatory oversight of the R-99 diesel fuel release to the Regional Water Board.

5. **Site Hydrogeology:** The depth to groundwater is approximately 4 to 10 feet below ground surface (bgs) and is influenced by the changing tides of San Francisco Bay. The groundwater flow direction is predominantly to the north toward Hyde Street Harbor and is also affected by the tidal fluctuations of San Francisco Bay. During periods of low tide groundwater discharges to San Francisco Bay.

   Electrical conductivity measurements of groundwater collected during monitoring activities and provided in Appendix D of the February 8, 2022, Site Investigation Report range from 1,500 to 45,000 microsiemens per centimeter (µS/cm). Specific conductivity greater than 50,000 µS/cm is consistent with seawater.

6. **Remedial Investigation:** The Port and Pilot Thomas have conducted investigations at the Site since the discovery of the R-99 diesel fuel discharge and the extent of R-99 diesel fuel in soil and groundwater has been delineated. A vapor intrusion investigation conducted at and near the Site determined that vapor intrusion from the R-99 diesel fuel release is not occurring at the buildings near the Site. Light nonaqueous phase liquid (LNAPL) was measured in wells located along the western portion of the pipeline and observed under the pier that supports the road that serves the Hyde Street Pier. During low tide R-99 diesel fuel has been observed discharging to San Francisco Bay in the vicinity of the leaking pipeline discussed in Finding 2c. R-99 diesel fuel is present in soil and groundwater at concentrations that threaten human health and water quality and beneficial uses of San Francisco Bay, including aquatic habitat. The LNAPL thicknesses measured in monitoring wells and observed discharging to San Franciso Bay appears greatest during low tides relative to measurements and observations made during periods of high tides. Based on the results of the investigations, Pilot Thomas prepared a Feasibility Study-Remedial Action Plan for the Site.

7. **Risk Assessment:**

a. **Screening Levels:** The Dischargers have not performed a site-specific risk assessment. Therefore, the Regional Water Board performed a screening level evaluation to evaluate potential environmental concerns related to identified soil and groundwater impacts. The chemical evaluated in the risk assessment include R-99 diesel fuel, the chemical of concern identified at the Site.

The screening level evaluation included identifying reasonable potential environmental exposure pathways and comparing site-specific contaminant concentrations to the Regional Water Board's 2019 Environmental Screening Levels[1] (ESLs) for each potential exposure pathway. The ESLs are conservative screening levels for contaminants commonly found in soil and groundwater and are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The presence of a contaminant at concentrations above the ESL generally indicates that additional evaluation of potential threats to human health and the environment is warranted. The screening level evaluation uses the ESL for total petroleum hydrocarbons as diesel (TPH-d) because R-99 diesel fuel does not have an ESL. Although R-99 diesel is chemically distinct from petroleum diesel, it has similar environmental impacts and can be detected by the same analytical method as TPH-d, so using the ESL for TPH-d is appropriate.

The potential exposure pathways considered for soil include:
1. direct human contact under the construction worker scenario,
2. leaching to groundwater for the protection of drinking water[2], and aquatic habitats and ecotoxicity, and

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[1] Regional Water Board. 2019. Environmental Screening Levels (ESLs) Workbook, Revision 2. California Environmental Protection Agency, San Francisco Bay Regional Water Quality Control Board. July 25.

[2] The potential exposure pathway for direct human contact through drinking water was considered because municipal and domestic supply is a designated beneficial use for the Marina Groundwater Basin. However, the underlying groundwater electrical conductivity ranges from 1,500 to 45,000 µS/cm, at times exceeding the electrical conductivity threshold (5,000 microsiemens per centimeter (µS/cm)) for the TDS exception in State Water Resources Control Board (State Water Board) Resolution No. 88-63. Given the high electrical conductivity of the groundwater underlying the Site, the groundwater would likely need to be desalinated to be used for municipal or domestic water supply.

3. gross contamination and nuisance concerns (e.g., odor and aesthetic concerns).

The potential exposure pathways considered for groundwater include:
1. direct human contact though drinking water (toxicity, taste, and odor),
2. aquatic habitats this includes ecotoxicity, and
3. gross contamination and nuisance concerns.

b. **Assessment Results:** As shown in Tables 1 and 2 below, the maximum concentrations of R-99 diesel fuel detected in soil and groundwater exceed some ESLs for TPH-d. Therefore, there are threats to human health and the environment and that cleanup of the soil and groundwater contamination at the Site is necessary. The Dischargers will address these threats using a combination of remediation and risk management as described in Finding 10.

Table 1
Maximum Concentrations of R-99 Diesel Fuel and TPH-D ESLs in Soil
milligrams per kilogram (mg/kg)

Year	Range of Maximum Concentrations	Direct Contact Construction Worker	Leaching to Drinking Water and Aquatic Habitats	Gross Contamination
2021	11,100 to 28,800	1,100	1,100	2,300

Table 2
Maximum Concentrations of R-99 Diesel Fuel and TPH-D ESLs in Groundwater
micrograms per liter (µg/L)

Year	Range of Maximum Concentrations	Direct Exposure (Taste and Odor)	Aquatic Habitats	Gross Contamination
2021	920 to 4,420	100	640	2,500

8. **Adjacent Sites:** There are two closed fuel underground storage tank (UST) cases, one closed, and one open site cleanup program case listed on GeoTracker that are located within approximately 300-foot radius of the Site.

a. SF Port, 286 - 498 Jefferson Street, Wharfs J9 and J10 is an open case. The December 8, 2023, Regional Water Board letter required a site-history report and a work plan to investigate soil, sediment, groundwater, and surface water quality

at historic fuel storage and distribution operations at Wharfs J9 and J10 and the investigation is ongoing. Contamination from historic fuel operations at wharfs J9 and J10 may be comingled with contamination from the R-99 diesel fuel release.

b. Exxon Mobil Bulk Terminal, 440 Jefferson Street. There was a release of approximately 336 to 692 gallons of diesel prior to 1990 due to overfilling the onsite 20,000-gallon diesel AST. The case was closed in 2016.

c. SF Port, 490 Jefferson Street. Removal of one 2,000-gallon diesel fuel UST and approximately 44 tons of soil in 2000. The case was closed in 2008.

9. **Interim Remedial Measures:** Since the discovery of the release in 2020, the SF Port and Pilot Thomas have implemented interim remedial actions that included the removal of LNAPL, and the deployment of containment booms and oil-absorbent pads in San Francisco Bay. LNAPL recovery efforts have included a combination of pneumatic pumps, passive oleophilic absorbents placed into wells, and hand bailing.

   The containment booms and oil-absorbent pads are deployed in San Francisco Bay from the fueling dock to approximately Leavenworth Street. Absorbent pads and absorbent booms are placed near the pier, where the R-99 diesel fuel has been observed seeping into San Francisco Bay (west of the ASTs). The containment booms and oil-absorbent pads have been monitored three days a week to evaluate the boom configuration and replace spent absorbent pads and booms, as necessary. Reports regarding the remedial efforts have been submitted to the Regional Water Board on a quarterly basis. As of December 2023, approximately 5,784 gallons of oily water have been recovered since initiation of recovery in September 2020. The distribution of LNAPL measured at the groundwater monitoring wells at the Site in April 2022 and March 2024 is presented in Attachments 2 and 3, respectively. As illustrated, the thickness of LNAPL has decreased since the release was discovered as a result of the interim remedial measures.

10. **Feasibility Study/Remedial Action Plan:** The September 15, 2023, Revised Feasibility Study/Remedial Action Plan (FS-RAP) was submitted in response to the Regional Water Board July 13, 2022, Water Code Section 13267 Requirement. The FS-RAP evaluated alternatives to remediate soil and groundwater affected by the release of R-99 diesel fuel. The FS-RAP underwent a 30-day public comment period from September 26, 2023, to October 26, 2023. Four parties submitted comments. Regional Water Board staff reviewed the response to comments prepared by Pilot Thomas and determined that no changes to the FS-RAP were necessary. Regional Water Board staff approved the FS-RAP in a letter dated December 18, 2023.

    The FS-RAP includes the following elements:

a. Remedial Action Objectives and Remedial Cleanup Goals: The Revised FS-RAP sets forth the following remedial action objectives and cleanup goals which are summarized below:
    1. Soil: Reduction of the accessible mass of R-99 diesel fuel from soil.
    2. LNAPL: Reduction of accessible mass of R-99 diesel fuel from wells to reduce risk to human receptors, migration to San Francisco Bay.
    3. Surface Water: Prevention of R-99 diesel fuel migration to San Francisco Bay.
    4. Groundwater: Reduction of R-99 diesel fuel in groundwater and removal of LNAPL to the extent practicable.

b. Recommended Remedial Alternative: To meet the remedial action objectives for R-99 diesel fuel impacted soil, groundwater, and surface water the FS-RAP presented and evaluated six remedial alternatives. The alternatives were evaluated based on effectiveness, feasibility of implementation, and cost-effectiveness. The recommended remedial alternative is soil excavation where the greatest LNAPL thickness was observed (see Attachment 4), and post excavation groundwater monitoring to assess the effectiveness of the remedial action. Due to access and shoreline stability constraints, some residual contamination will remain in place and to be excavated as the affected soil becomes accessible through projects associated with the replacement of the pier and road structure. This includes affected soil located directly under the pier. At the same time, biodegradation is expected to reduce concentrations of residual R-99 diesel fuel that remain in soil after excavation of the source mass. The remedial alternative also includes a Site Management Plan to safely implement the excavation.

c. Proposed Monitoring Wells: The FS-RAP proposes to install 13 groundwater monitoring wells. The monitoring wells will be used to evaluate the effectiveness of the excavation and facilitate recovery of the R-99 diesel fuel.

d. Implementation Schedule: An implementation schedule was submitted outlining the time frame to complete major tasks in 2024-2025. These include permitting, excavation, boom and LNAPL recovery, and quarterly groundwater monitoring. The schedule proposes excavation to occur November and December 2024. Installation of groundwater monitoring wells is proposed for January 2025. Post excavation groundwater monitoring is proposed to begin in the first quarter of 2025.

11. **Basis for Cleanup**

a. **General:** State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge. It requires maintenance of high-water quality unless a lesser water quality is consistent with maximum benefit to the people of the State, will not

unreasonably affect present and anticipated beneficial uses, and will not result in exceedance of applicable water quality objectives. This Order and its requirements are consistent with Resolution No. 68-16.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. It directs the Regional Water Boards to set cleanup levels equal to background water quality or the best water quality, which is reasonable, if background levels cannot be restored. The cleanup required by this Order is consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of such water, and will not result in exceedance of applicable water quality objectives. This Order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

b. **Beneficial Uses:** The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Board's master water quality control planning document. It designates beneficial uses and water quality objectives for the waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board, Office of Administrative Law and the U.S. EPA, where required.

   Regional Water Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high total dissolved solvents (TDS), low yield, or naturally high contaminant levels.

   The Basin Plan designates the following existing and potential beneficial uses for the Marina Groundwater Basin:

   - Agricultural water supply (AGR)
   - Municipal and domestic water supply (MUN)
   - Industrial process water supply (PROC)
   - Industrial service water supply (IND)

   The existing and potential beneficial uses of San Francisco Bay include:

   - Ocean, commercial, and sport fishing (COMM)
   - Estuarine habitat (EST)
   - Industrial service supply (IND)
   - Fish migration (MIGR)
   - Navigation (NAV)
   - Industrial process supply (PROC)
   - Preservation of rare and endangered species (RARE)

- Water contact recreate (REC-1)
- Noncontact water recreation (REC-2)
- Shellfish harvesting (SHELL)
- Fish spawning (SPWN) and
- Wildlife habits (WILD)

c. **Soil Remedial Action Level:** The soil remedial action level (SRAL) for R-99 diesel fuel is 1,100 mg/kg, which is the ESL for direct contact with soil by construction workers for TPH-d. The SRAL is also intended to prevent leaching of R-99 diesel fuel to groundwater and surface water in amounts that could adversely affect beneficial uses. Therefore, clean up of R-99 diesel fuel to the SRAL of 1,100 mg/kg is protective of human health via direct contact and ecological receptors via leaching to drinking water and aquatic habitat.

d. **Groundwater Remedial Action Level:** The groundwater remedial action level (GRAL) for the Site is based on applicable water quality objectives to protect the beneficial uses of groundwater and surface water identified in Finding 11b. The GRAL for R-99 diesel fuel is 640 µg/L, which is the saltwater ecotoxicity ESL for TPH-d. As stated in Finding 5, groundwater and surface water are tidally connected and thus pollutant levels in groundwater also serve as an indicator for potential pollutant impacts to surface water. Furthermore, the groundwater underlying and adjacent to the Site is in the Marina Groundwater Basin. The Marina Groundwater Basin is designated for MUN, but the groundwater underlying the Site is not currently used for drinking water supply. There are no water supply wells located within one mile (or more) of the Site. Based on the electrical conductivity measurements of the groundwater and the tidal mixing of the surface water and groundwater, it is unlikely that groundwater would be used as a source of drinking water in the future absent desalination. Therefore, cleanup to the GRAL will protect beneficial uses and human and ecological receptors.

12. **Future Changes to Remedial Action Levels:** If new technical information indicates that the established remedial action levels are not feasible or that more stringent levels are feasible, the Regional Water Board will consider revising those levels.

13. **Risk Management:** The Regional Water Board considers the following human health risks to be acceptable at remediation sites: a cumulative hazard index of 1.0 or less for non-carcinogens and a cumulative excess cancer risk of 10^{-6} or less for carcinogens. The screening level evaluation for this Site found contamination-related risks greater than these acceptable levels based on risk inputs for petroleum diesel. While active remediation is expected to reduce these risks to acceptable levels over time, additional risk management measures may be needed at this Site during (and after) active remediation to assure protection

of human health from direct contact with contaminated soil. The following post-remediation risk management measures may be needed at this Site:

a. A deed restriction that notifies future owners of sub-surface contamination and prohibits sensitive uses of the Site such as residences and daycare centers, the use of shallow groundwater beneath the Site, and/or prohibits actions that disturb mitigation or remediation measures.

b. A risk management plan that notifies current and future owners of sub-surface residual contamination that may require special handling and remediation as it becomes accessible.

14. **Reuse or Disposal of Extracted Groundwater:** Regional Water Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

15. **Basis for 13304 Order:** Water Code section 13304 authorizes the Regional Water Board to issue orders requiring a discharger to cleanup and abate waste where the discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance. The discharge of R-99 diesel fuel to waters of the state creates a condition of pollution and/or nuisance. This Order requires the Dischargers to undertake corrective actions to clean up the discharge and abate its effects.

16. **Cost Recovery:** Pursuant to Water Code section 13304, the discharger is hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

17. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

18. **California Environmental Quality Act:** This action is an order to enforce the laws and regulations administered by the Regional Water Board and requires minor actions to cleanup and abate the discharge of hazardous substances. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, title 14, sections 15321 and 15330.

19. **Notification:** The Regional Water Board has notified the Dischargers and all interested agencies and persons of its intent under Water Code section 13304 to prescribe site cleanup requirements for the discharge and has provided them with an opportunity to submit their written comments.

IT IS HEREBY ORDERED, pursuant to section 13304 of the Water Code, that the Dischargers (or their agents, successors, or assigns) shall clean up and abate the effects of the waste described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of waste or hazardous substances in a manner that will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to the waters of the State is prohibited.

3. Activities associated with subsurface investigation and cleanup that will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. REMEDIAL ACTION LEVELS[3]

1. **Groundwater Remedial Action Levels (GRALs)**: The following GRALs shall be met in all compliance monitoring wells identified in the Self-Monitoring Program required in this Order:

Constituent	Concentration (µg/L)	Basis
R-99 diesel fuel	640	Protect Aquatic Habitat, recreational uses, and taste and odor in San Francisco Bay

[3] Remedial Action Levels listed in this Order are based on ESLs developed for petroleum diesel, TPH-d. Should toxicity data be developed or become available for R-99 diesel fuel, these remedial action levels may be revised to specific risk-based levels directly analogous to R-99 diesel.

2. **Soil Remedial Action Levels (SRALs):** The following SRALs shall be met in all soil confirmation samples required by the Self-Monitoring Program required in this Order:

Constituent	Concentration (mg/kg)	Basis
R-99 diesel fuel	1,100	Direct Contact Construction Worker, Protect Leaching to Groundwater and Aquatic Habitat

C. TASKS

1. IMPLEMENT FS-RAP AND SUBMIT COMPLETION REPORT

COMPLIANCE DATE: August 30, 2025

Implement the selected remedy in the approved September 14, 2023, FS-RAP as described in Finding 10 in accordance with the approved January 31, 2024, implementation schedule and submit a completion report, acceptable to the Executive Officer, that documents implementation of the FS-RAP.

The completion report should include the following elements:

- Description of activities conducted, including the location and depth(s) of the excavation
- Figures and summary tables presenting the analytical results for soil and groundwater samples collected as part of the excavation activities
- Field sampling sheets, waste disposal manifests, and field notes
- Laboratory analytical reports
- Conclusions and recommendations

2. SUBMIT A WORK PLAN FOR THE INSTALLATION OF GROUNDWATER MONITORING (IF NEEDED)

COMPLIANCE DATE: 60 days after required by the Executive Officer

Submit a work plan for the installation of groundwater wells acceptable to the Executive Officer, that proposes a network of groundwater monitoring wells to assess the effectiveness of the remedial action (excavation) if there are changes from the proposed well locations as stated in the FS-RAP. The groundwater monitoring wells will also be used to recover R-99 diesel fuel product from the groundwater.

The work plan must include the following:

- Installation locations and construction details for all monitoring wells proposed to be installed in accordance with Appendix A of the FS-RAP (See Attachment 4) for the purpose of post-remediation effectiveness monitoring
- Soil boring and well installation methods
- Groundwater monitoring well installation schedule

3. RISK MANAGEMENT PLAN

COMPLIANCE DATE: October 30, 2025

Submit an RMP acceptable to the Executive Officer to manage the risk of exposure to residual contaminated soil and groundwater that will remain at the Site that includes the following elements:

- Procedures to protect the health and safety of on-site construction workers, other workers, and/or pedestrians from potential exposure to residual hazardous substances that may be associated with previous releases of chemicals, during intrusive activities at the Site
- Procedures for notifications, approvals, documentation, and reporting of subsurface soil intrusive and development activities such as grading and installation of utilities at the Site

4. ADDITIONAL PHASE INVESTIGATION WORKPLAN (IF NEEDED)

COMPLIANCE DATE: 60 days after required by Executive Officer

The Executive Officer will require an additional investigation workplan if monitoring results show that the contamination is not defined in all media, vertically and laterally, exceeding the cleanup goals. If required, the Dischargers shall submit a work plan acceptable to the Executive Officer to complete the definition of contamination in all media, vertically and laterally, exceeding the cleanup goals. The workplan shall include all relevant contaminants, exposure pathways, and receptors. The workplan shall specify a proposed schedule for implementation.

5. COMPLETION OF ADDITIONAL INVESTIGATION (IF NEEDED)

COMPLIANCE DATE: 90 days after required by Executive Officer

Complete additional investigation to fully delineate impacts to soil and groundwater. Submit a technical report acceptable to the Executive Officer

documenting its completion. The report shall include the results of an additional investigation.

6. SEA LEVEL RISE VULNERABILITY ASSESSMENT (IF NEEDED)

COMPLIANCE DATE: 60 days after required by Executive Officer

Submit an assessment that identifies and evaluates the potential impacts of sea level rise (SLR) and groundwater rise (GWR) on residual contamination present at the Site and evaluate the threat to water quality of the nearby shoreline. The assessment should include the following components and be adapted to site-specific conditions:

- Be prepared by qualified experts and consider and reference the most current State of California Sea Level Rise Guidance prepared by the Ocean Protection Council and other relevant climate change guidance documents

- Identify baseline conditions for the Site

- Consider how rising shallow groundwater and associated flooding may cause residual contaminant mobilization

7. ADDITIONAL REMEDIAL ACTION PLAN (AS NEEDED)

COMPLIANCE DATE: 90 days after required by Executive Officer

The Executive Officer will require the preparation and implementation of an additional Remedial Action Plan if monitoring results show that the R-99 diesel fuel is migrating to San Francisco Bay. The workplan shall describe all significant implementation steps and shall include an implementation schedule. The workplan may also include plans to protect against contaminant mobilization due to SLR and GWR.

8. COMPLETION OF ADDITIONAL REMEDIAL ACTION PLAN (AS NEEDED)

COMPLIANCE DATE: 90 days after required by Executive Officer

Submit a technical report acceptable to the Executive Officer documenting its completion of the remediation in accordance with the additional remedial action workplan. The contents of this report will be based on the additional remedial action.

9. PROPOSED DEED RESTRICTION (IF NEEDED)

COMPLIANCE DATE: 60 days prior to the Dischargers requesting case closure

Submit a proposed deed restriction acceptable to the Executive Officer to limit occupants at the Site to the exposure to any residual contaminants to acceptable levels. The proposed deed restriction shall notify future owners of any remaining subsurface contamination at the Site, prevent or minimize human exposure to soil, and groundwater release until cleanup levels are met and require that all uses, and development of the Site shall be consistent with any applicable Regional Water Board order or the RMP. The proposed deed restriction shall incorporate by reference the RMP. The proposed deed restriction shall name the Regional Water Board as a beneficiary and shall anticipate that the Regional Water Board will be a signatory.

10. RECORDATION OF DEED RESTRICTION (IF NEEDED)

COMPLIANCE DATE*:* 60 days after Executive Officer approval of the proposed deed restriction

Record the approved deed restriction and submit a technical report acceptable to the Executive Officer documenting that the deed restriction has been duly signed by all parties and has been recorded with the appropriate County Recorder. Provide a copy of the recorded deed restriction that documents the deed restriction has been recorded with the appropriate County Recorder. As the owner of the property, the SF Port will be responsible for this task.

11. FIVE-YEAR STATUS REPORT

COMPLIANCE DATE: January 31, 2029, and every five years thereafter until a no further action determination is issued by the Regional Water Board

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved FS-RAP. The report shall include:

- Summary of effectiveness in controlling contaminant migration and protecting human health and the environment.
- Comparison of contaminant concentration trends with cleanup levels.
- Comparison of anticipated versus actual costs of cleanup activities.
- Summary of additional investigations (including results) and significant modifications to remediation systems.
- Additional remedial actions proposed to meet cleanup levels (if applicable) including a time schedule.

If residual contamination is still at the Site, the report shall assess the technical practicability of meeting cleanup levels, and may propose an alternative cleanup strategy.

12. EVALUATION OF NEW HEALTH CRITERIA

COMPLIANCE DATE: As required by Executive Officer

Submit a report acceptable to the Executive Officer evaluating the effect on the approved remedial action plan of revising one or more cleanup levels in response to revision of drinking water standards, maximum contaminant levels, or other new health-based criteria.

13. EVALUATION OF NEW TECHNICAL INFORMATION

COMPLIANCE DATE: As required by Executive Officer

Submit a report acceptable to the Executive Officer evaluating new technical information that bears on the approved remedial action plan and cleanup levels for the Site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such reports shall not be required unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved remedial action plan or cleanup levels.

Delayed Compliance: If the Dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the Dischargers shall promptly notify the Executive Officer, and the Executive Officer may consider a revision to this Order.

D. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Water Code section 13050(m).

2. **Good Operation and Maintenance:** The Dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery:** The Dischargers shall be liable, pursuant to Water Code section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the Site addressed by this Order is enrolled in a State Water Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Dischargers over reimbursement amounts or

methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records:** In accordance with Water Code section 13267(c), the Dischargers shall permit the Regional Water Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

   c. Inspection of any monitoring or remediation facilities installed in response to this Order.

   d. Sampling of any groundwater or soil that is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Dischargers.

5. **Self-Monitoring Program:** The Dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor/Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California professional geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Regional Water Board using approved U.S. EPA methods for the type of analysis to be performed. Quality assurance/quality control (QA/QC) records shall be maintained for Regional Water Board review. This provision does not apply to analyses that can only reasonably be performed onsite (e.g., temperature).

8. **GeoTracker Uploads:** The Dischargers are required to submit all documents in electronic format to the State Water Board's GeoTracker database, pursuant to California Code of Regulations, title 23, sections 3890–3895. See Electronic Submittal of Information for guidance on submitting documents to GeoTracker. Please note that this requirement includes all analytical data, monitoring well information (latitudes, longitudes, elevations, and water depth), site maps, and boring logs. The Dischargers are requested to also upload vapor intrusion sample location information. See Uploading Vapor Intrusion Information into GeoTracker for guidance on submitting sample location information.

9. **Reporting of Changed Owner or Operator:** The Dischargers shall file a technical report on any changes in contact information, Site occupancy or ownership associated with the property described in this Order.

10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Dischargers shall report such discharge to the Regional Water Board within 24 hours by calling (510) 622-2369.

    A written report shall be filed with the Regional Water Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

    This reporting is in addition to reporting to the California Emergency Management Agency required pursuant to the Health and Safety Code.

11. **Periodic SCR Review:** The Regional Water Board will review this Order periodically and may revise it when necessary. The Dischargers may request revisions and upon review the Regional Water Board may revise these requirements.

12. **Compliance Notice**: Failure to comply with the requirements of this Order may subject you to enforcement action, including but not limited to imposition of administrative civil liability under Water Code sections 13268 or 13350, or referral to the Attorney General for injunctive relief or civil or criminal liability.

So ordered.

Eileen White

Digitally signed by Eileen White
Date: 2024.10.25 15:49:06 -07'00'

Water Boards

_____

Eileen M. White
Executive Officer

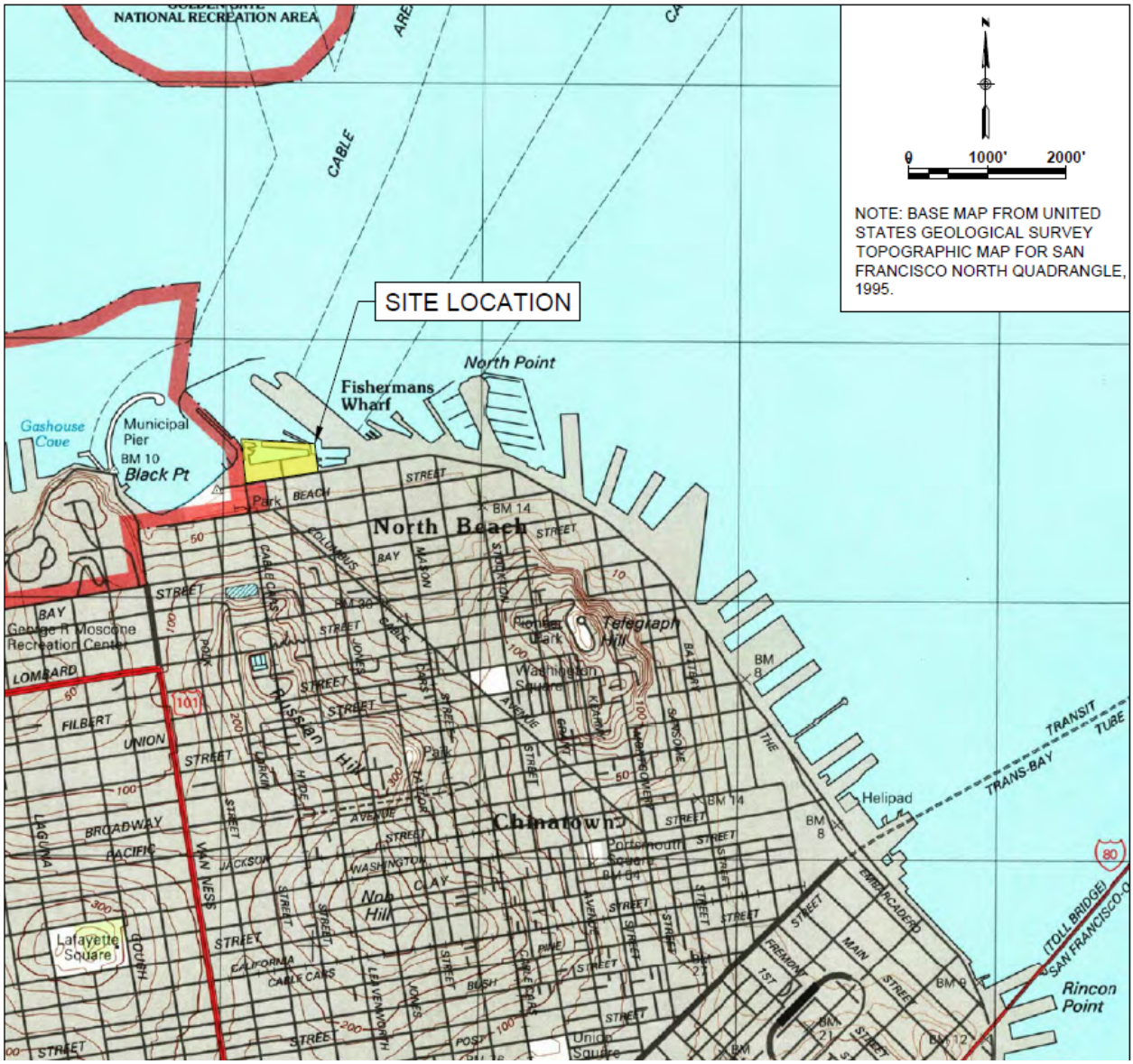
Attachments:

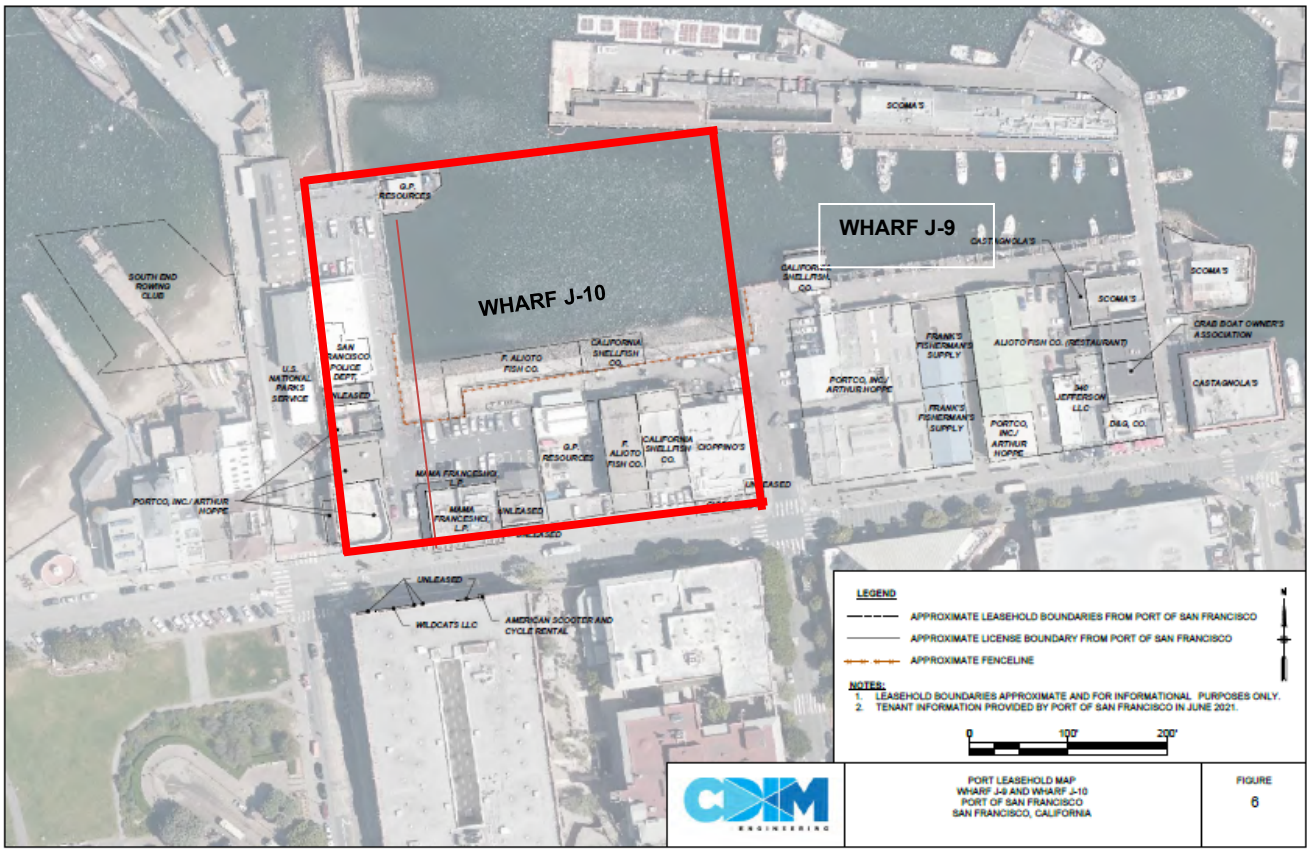
1. Site Location Map
2. July 26, 2021, LNAPL Map
3. July 2, 2023, LNAPL Map
4. Area of Excavation and Post Excavation Monitoring Wells
5. Self-Monitoring Program

6. List of Acronyms

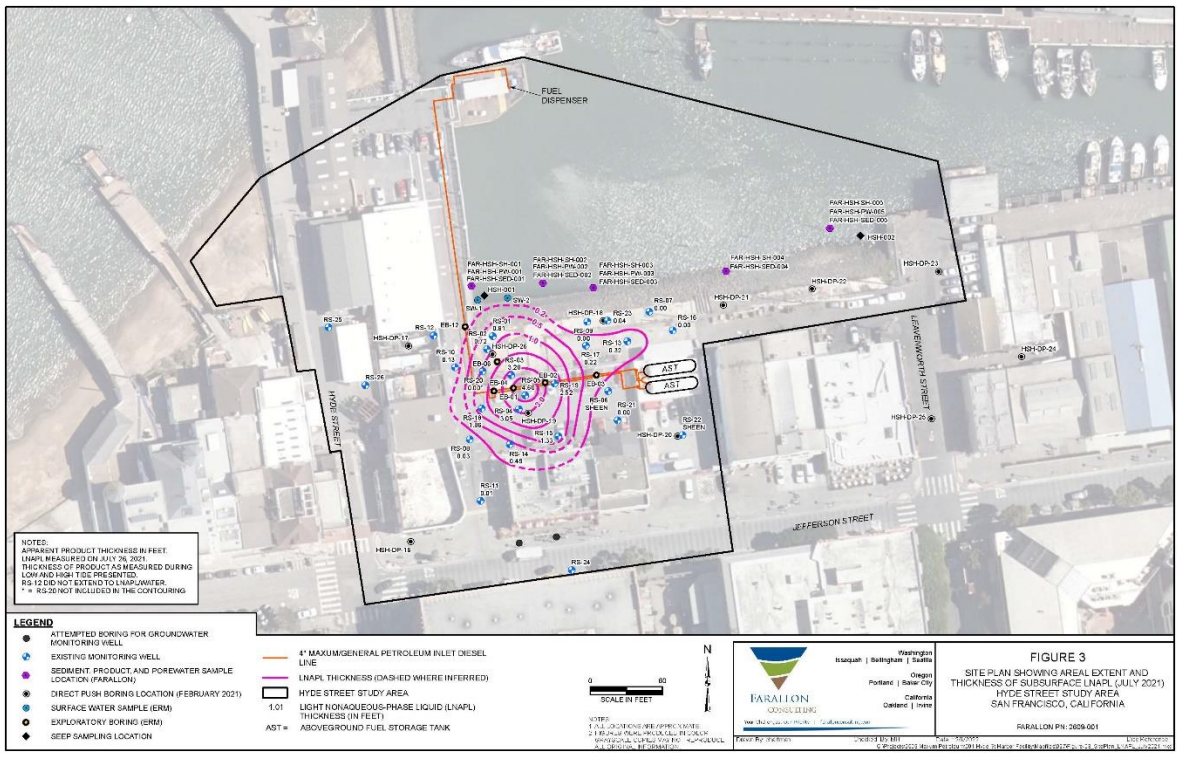
ATTACHMENTS

ATTACHMENT 1 - SITE LOCATION

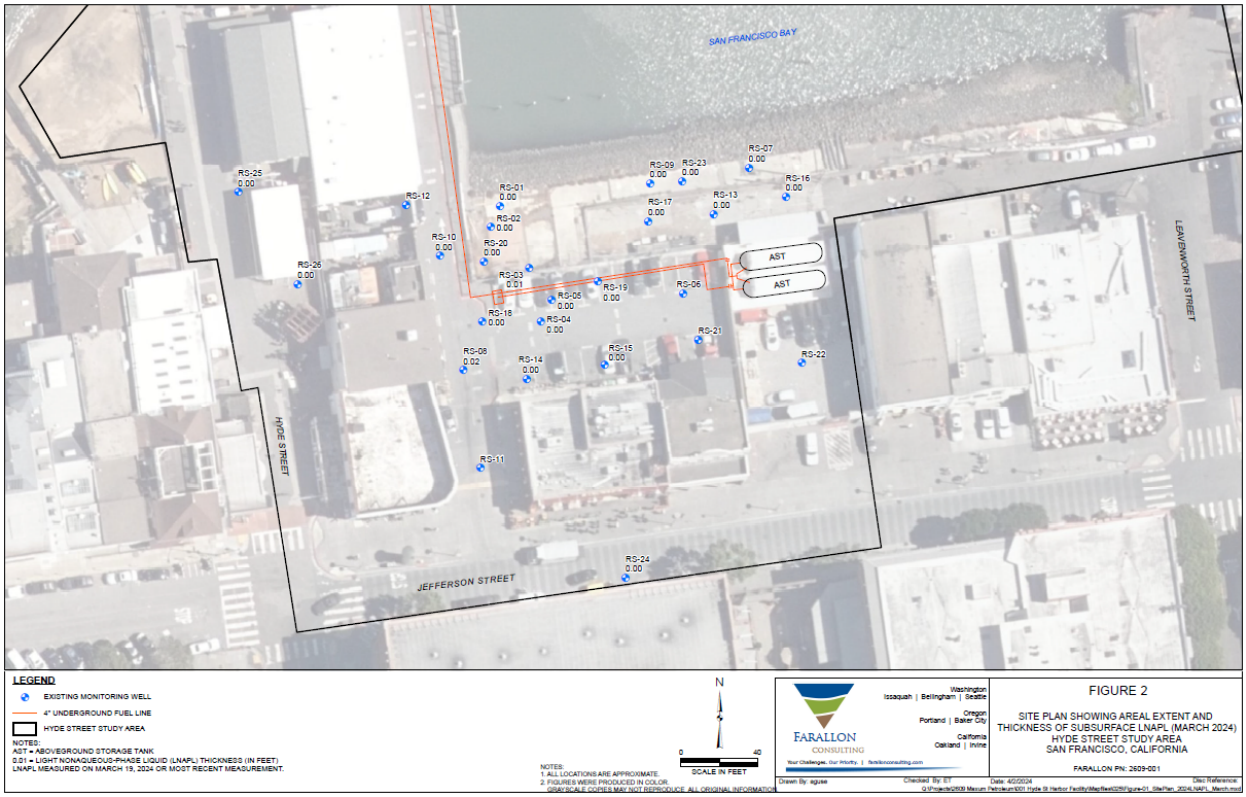



WHARF J-10
WHARF J-9
SCOMA'S
G.P. RESOURCES
SOUTH END ROWING CLUB
U.S. NATIONAL PARKS SERVICE
SAN FRANCISCO POLICE DEPT.
UNLEASED
F. ALIOTO FISH CO.
CALIFORNIA SHELLFISH CO.
MAMA FRANCESCHI, L.P.
PORTCO, INC./ ARTHUR HOPPE
WILDCATS LLC
AMERICAN SCOOTER AND CYCLE RENTAL
CASTAGNOLA'S
FRANK'S FISHERMAN'S SUPPLY
ALIOTO FISH CO. (RESTAURANT)
CRAB BOAT OWNER'S ASSOCIATION
340 JEFFERSON LLC
D&G, CO.
LEGEND
APPROXIMATE LEASEHOLD BOUNDARIES FROM PORT OF SAN FRANCISCO
APPROXIMATE LICENSE BOUNDARY FROM PORT OF SAN FRANCISCO
APPROXIMATE FENCELINE
NOTES:
1. LEASEHOLD BOUNDARIES APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY.
2. TENANT INFORMATION PROVIDED BY PORT OF SAN FRANCISCO IN JUNE 2021.
0
100'
200'
N
CDM ENGINEERING
PORT LEASEHOLD MAP
WHARF J-9 AND WHARF J-10
PORT OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA
FIGURE
6

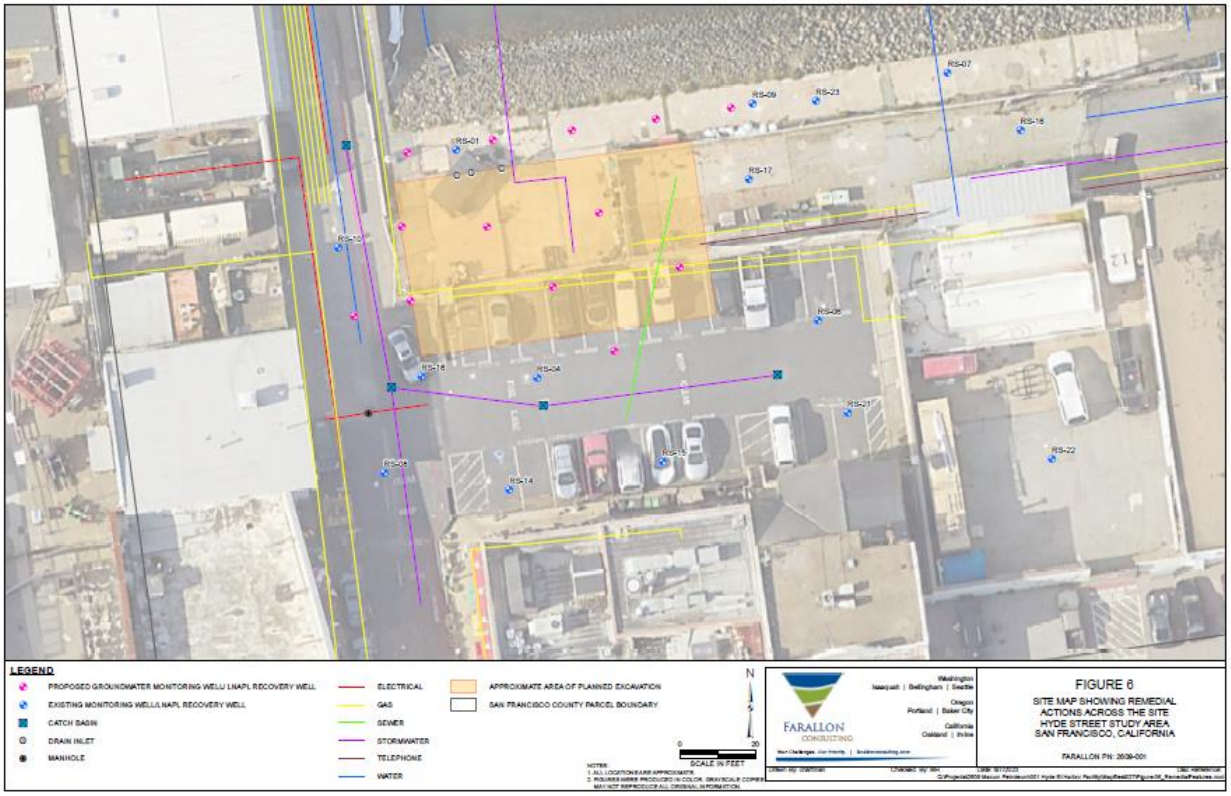
ATTACHMENT 2 - SITE PLAN SHOWING THE AREAL EXTENT AND THICKNESS OF LNAPL, JULY 2021



ATTACHMENT 3 - SITE PLAN SHOWING THE AREAL EXTENT AND THICKNESS OF LNAPL MARCH 2024



ATTACHMENT 4 - AREA OF EXCAVATION AND POST EXCAVATION GROUNDWATER MONITORING WELLS



ATTACHMENT 5 - SELF-MONITORING PROGRAM

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM for:

PILOT THOMAS LOGISTICS L.L.C.
PORT OF SAN FRANCISCO

For the property located at:

482 JEFFERSON STREET
SAN FRANCISCO, CA 94109
SAN FRANCISCO COUNTY

1. **Authority and Purpose:** The Regional Water Board requires Pilot Thomas Logistics L.L.C. and the Port of San Francisco (collectively referred to as the Dischargers) to submit the technical reports identified in this Self-Monitoring Program pursuant to Water Code sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Regional Water Board Order No. R2-2024-0026 (Order). The burden, including costs, of the technical and monitoring reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The cost of preparing these reports, including the costs of hiring a consultant and completing the reports, is estimated to be $100,000 to $200,000 annually. These costs bear a reasonable relationship to the need for the reports and the benefits of the reports.

   The Regional Water Board needs the reports to define the extent of pollution, including the extent R-99 diesel fuel in groundwater and soil; to identify the threats the pollution poses to human health or water quality; and to provide field data to support the Dischargers' design of mitigation and remediation systems. The benefits of the reports include restoration of beneficial uses and the protection of public health and the environment.

2. **Monitoring:** The Dischargers shall measure groundwater elevations in all monitoring wells (proposed and existing) and shall collect and analyze representative samples of groundwater. Monitoring Frequency: All groundwater monitoring wells will be sampled on a quarterly basis for at least the first three years following completion of remedial activities. The Dischargers may propose a revision to the monitoring frequency after the first two years.

3. **Quarterly Monitoring Reports:** Appendix A in the FS-RAP presents the groundwater monitoring frequency and activity which will be used to monitor the efficacy of the remedial action. The first monitoring report is due April 30, 2025.

4. The FS-RAP proposes to install thirteen groundwater monitoring wells. The monitoring wells will be used to monitor groundwater quality and facilitate recovery of the R-99 diesel fuel. Following the completion of the remedial action activities, periodic surface water (seep and sheen) monitoring and groundwater monitoring will be conducted. Data trends will be established to confirm remedial progress. The Dischargers shall submit quarterly groundwater monitoring reports to the Regional Water Board no later than 30 days following the end of the quarter (e.g., report for first quarter of the year due April 30). At a minimum, the monitoring reports shall include

    a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the Discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

    b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map shall be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

    c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an iso-concentration map shall be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical methods used, detection limits obtained for each reported constituent, and a summary of QA/QC data. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases and include historical groundwater sampling results. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

    d. Surface Water Quality: Surface water (seep and sheen) data shall be presented.

    e. LNAPL Extraction: If applicable, the report shall include LNAPL extraction results in tabular form, for each extraction well and for the Site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g., soil vapor extraction), expressed in units of chemical mass per day and mass for the

quarter. Historical mass removal results shall be included in the fourth quarterly report each year.

f. Status Report: The quarterly report shall describe relevant work completed during the reporting period (e.g., site investigation, interim remedial measures) and work planned for the following quarter.

g. Remediation Effectiveness: The report shall include performance results for the remedial actions and shall demonstrate the effectiveness of the remedial action using multiple lines of evidence, such as decreasing concentrations of R-99 diesel fuel in groundwater, decreasing thickness of LNAPL, and decreasing sheen discharging into San Francisco Bay. The report shall also include recommended contingency actions to abate the discharge of R99 (sheen) to San Francisco Bay, as needed.

4. **Violation Reports:** If the Dischargers violates requirements in the Site Cleanup Requirements, then the Dischargers shall notify the Regional Water Board office by telephone as soon as practicable once the Dischargers have knowledge of the violation. Regional Water Board staff may, depending on violation severity, require the Dischargers to submit a separate technical report on the violation within five working days of telephone notification.

5. **Other Reports:** The Dischargers shall notify the Regional Water Board in writing prior to any Site activities, such as construction or excavation, which have the potential to cause further migration of contaminants, or which would provide new opportunities for site investigation or remedial action.

6. **Record Keeping:** The Dischargers or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Regional Water Board upon request.

7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the Dischargers. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

ATTACHMENT 5 - LIST OF ACRONYMS

ACRONYM	*DEFINITION*
AST	Above Ground Storage Tanks
bgs	below the ground surface
COMM	Commercial
USEPA	United States Environmental Protection Agency
ESL	Environmental Screening Level
EST	Estuarine habitat
FS-RAP	Feasibility Study/Remedial Action Plan
GRAL	groundwater remedial action level
SRAL	soil remedial action level
IND	Industry
LNAPL	Light non-aqueous phase liquid
MIGR	Migration
µg/l	Microgram Per Liter
mg/kg	Milligrams Per Kilogram
µS/cm	Microsiemens per centimeter
NAV	Navigation
QA/QC	Quality Assurance/Quality Control
R-99	R-99 Diesel Fuel
RARE	Rare and Endangered Species
REC-1	Recreation-1
REC-2	Recreation-2
SF Port	Port of San Francisco
SHELL	Shellfish
SITE	482 Jefferson Street, San Francisco
SPWN	Spawning
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
UST	Underground Storage Tank
WILD	Wildlife