

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. R2-2016-00XX

**RESCISSION OF SITE CLEANUP REQUIREMENTS ORDER NO. R2-2006-0020 for:
EXXONMOBIL AND THE PORT OF SAN FRANCISCO, FORMER MOBIL BULK
TERMINAL 04-394**

for the property located at:

440 JEFFERSON STREET
CITY AND COUNTY OF SAN FRANCISCO

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

1. **Site Location:** The former Mobil Bulk Terminal 04-394 is located at 440 Jefferson Street in San Francisco (Site). The Site encompasses an approximately 70-by-120 foot rectangular lot between Leavenworth and Hyde Streets in the Fisherman's Wharf area. The Site is zoned for industrial and commercial use. Restaurants and retail shops are located to the south and west of the Site, and fish processing plants and storage facilities are located to the north and east. The shoreline of San Francisco Bay is less than 100 feet north of the Site (Figures 1 and 2).
2. **Site History:** The shoreline area of Fisherman's Wharf, including the Site, was owned by the State of California until it was transferred to the City of San Francisco (City) in 1969. The Port of San Francisco (Port), an enterprise department of the City, has legal jurisdiction and operational control of the property. General Petroleum (GP) and Mobil Oil, both predecessor companies to ExxonMobil, leased and operated the Site as a bulk fuel storage and dispensing facility from 1913 to 1990. In 1992 the Site was subsequently leased to GP Resources/Maxum for operation as a marine diesel fuel bulk storage and dispensing facility; this ownership and use continues to date.
3. **Named Dischargers:** ExxonMobil is named as a Primary Discharger because ExxonMobil is, through its predecessor companies, responsible for petroleum hydrocarbon releases to soil and groundwater. The Port is named as a Secondary Discharger because the Port currently holds title to the Site, and both held title to and managed the Site property during the time of the releases.
4. **Purpose of This Order:** In March 2006, the Water Board adopted Site Cleanup Requirements Order No. R2-2006-0020, which required cleanup of petroleum hydrocarbon contamination in Site soil and groundwater. This Order rescinds Order No. R2-2006-0020 because all tasks in that Order have been completed, and risks associated with residual contaminants at the site will be managed under a Risk Management Plan approved by Water Board staff on April 22, 2016, as described in Finding 10.

5. **Site Contamination:** In 1986, during the removal of a gasoline underground storage tank (UST), soil samples collected from the tank pit confirmed the presence of both gasoline and diesel hydrocarbons, indicating that petroleum hydrocarbons had been released. In February 1990, diesel fuel was released at the Site when an aboveground storage tank (AST) was over-filled, resulting in soil contamination within the bermed area of the Site. Soil and groundwater data from subsequent investigations and groundwater monitoring indicated that petroleum hydrocarbon contamination persisted at the Site and a hydrocarbon plume had migrated 35 feet eastward to the Bay. In 2007, after the Port demolished a wharf structure and removed the supporting piles north of the Site, intermittent oil seeps along the shoreline and sheens on the Bay were observed. Site-related petroleum hydrocarbon constituents are restricted to a layer of unconsolidated silt and clay, up to 10 feet thick, which lies above the Bay Mud at a depth of approximately 17 feet below grade. Since 1986, groundwater monitoring, soil and groundwater remediation, and corrective action for seep and sheen have been conducted at the Site, as described below.

6. **Interim Remedial Measures:** Approximately 295 gallons of petroleum product were recovered from the tank containment area following the February 1990 diesel release. In 1995, approximately 980 cubic yards of soil were removed from the Site. Of this total, approximately 200 cubic yards were removed to allow installation of a concrete slurry wall around the perimeter of the Site to reinforce adjacent building foundations prior to excavation. Approximately 780 cubic yards were excavated to a depth of seven feet below ground surface to remove hydrocarbon-impacted soil.

In 1996, a vapor extraction system/automatic recovery system (VES/ARS), consisting of a recovery trench and nine recovery wells, was put into operation. From 1992 to 2000, quarterly groundwater pump-outs from monitoring wells were conducted to remove liquid phase petroleum hydrocarbons. From 2000 to 2008, absorbent socks were used in groundwater wells to passively remove remaining liquid phase petroleum hydrocarbons.

7. **Groundwater Monitoring:** Following the reported presence of petroleum hydrocarbon constituents in soil during the 1986 gasoline UST removal, the Primary Discharger initiated the process of site assessment and cleanup. One groundwater monitoring well was installed downgradient from the UST in 1986 and twelve additional groundwater monitoring wells were installed in the Site vicinity in 1991. In 1994 and 1995, nine recovery wells were installed for the VES/ARS and were incorporated into the groundwater monitoring program. In 2007, in response to identification of sheen on the Bay surface water, eight additional groundwater monitoring wells were installed north of the Site. In 2009, two additional groundwater monitoring wells were installed north of the Site to assess groundwater conditions in an area of excavated pipelines. During quarterly groundwater monitoring, fluid levels were measured and samples were collected and analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), benzene, toluene, ethylbenzene, xylenes (BTEX), and naphthalene, among others. In 2013, the quarterly monitoring frequency was changed to quarterly, semiannual, or annual monitoring for different wells depending on the level and temporal trend of chemical concentrations.

The last quarterly groundwater monitoring was conducted in the fourth quarter of 2013, and the request to discontinue groundwater monitoring was approved by the Water Board on March 13, 2014.

8. **Remediation Required by Order No. R2-2006-0020:** Interim remedial measures conducted prior to 2006 reduced the amount of impacted soil, product thicknesses in monitoring wells, and dissolved contaminant concentrations in the Site area. However, subsequent groundwater monitoring and soil sampling indicated that significant groundwater and soil contamination remained, warranting further remediation. Additionally, an initial environmental risk assessment conducted in 2004 indicated the potential risks associated with impacted soil and groundwater. To address these conditions, the Board adopted Order No. R2-2006-0020, requiring the Dischargers to conduct additional site characterization, update the environmental risk assessment, and implement remedial actions to mitigate environmental risks. Order No. R2-2006-0020 listed TPH-G, TPH-D, BTEX, and naphthalene as soil vapor and groundwater chemicals of potential concern (COPCs).

Additional site characterization and investigation activities were conducted from 2006 to 2009 to further delineate the extent of contamination in soil and groundwater and to determine the source of seeps and sheen in Bay surface water. A soil vapor survey was also conducted in 2006 for evaluating indoor vapor intrusion. An updated environmental risk assessment conducted in 2006 with a 2007 supplement identified two potentially significant risks: 1) exposure of benthic organisms to impacted Bay water and 2) exposure of construction/trench workers to impacted soil during construction/trench work. All other potential exposure pathways were determined to be either incomplete or complete but insignificant.

Remedial actions conducted since 2006 in the upland area and Bay-front include:

- multiple rounds of in-situ chemical oxidation (2006 to 2008);
- excavation and removal of abandoned pipelines (2008)
- grouting of storm sewer outfalls (2008);
- corrective actions for seeps and sheen, including:
 - excavation of an approximate 0.12-acre section of riprap embankment, and
 - installation of a permeable reactive barrier (PRB) (2010 to 2011); and
- high intensity vacuum extraction at several groundwater monitoring wells with elevated COPC concentrations (2012 to 2013).

These remedial actions have significantly improved Site environmental conditions, and successfully stopped oil seepage to the Bay and the formation of sheen on Bay surface water. These actions also stopped the accumulation of measureable free product and sheen that had been previously observed in groundwater monitoring wells. In addition, the majority of dissolved COPC concentrations in groundwater have been reduced to below the reporting limits.

9. **Final Environmental Risk Assessment:** A Final Environmental Risk Assessment (ERA) was performed in 2014 by updating and supplementing previous evaluations and served to satisfy the risk assessment requirement in Order No. R2-2006-0020. The ERA concludes that the potential risks for all complete exposure pathways are insignificant except for the potentially significant risk to construction/trench workers from exposure to soil TPH-D and benzene vapor

from impacted groundwater during construction/trench work. The potentially significant risk to construction/trench workers will be managed through controls established in the Risk Management Plan (RMP) described below, which is part of the property use restrictions required by Order No. R2-2006-0020. The Water Board provided concurrence with the ERA on September 11, 2014.

- 10. Risk Management Plan:** The RMP, submitted March 1, 2016, presented a protocol for managing remaining contaminants in soil and groundwater in the RMP Area (Figure 2), consistent with current and future land uses, in order to protect human health and the environment and to prevent nuisance conditions. Current and future owners, occupants and managers, or contractors designated or authorized to perform construction/trench work or redevelopment projects that involve the disturbance of soil or contact with groundwater in the RMP Area are required to comply with the risk management measures identified in the RMP when engaging in such activities. Such activities include the handling, stockpiling, and disposal of soils and protocols for managing water produced through any dewatering at the Site. The RMP also provides long-term risk management measures as well as regulatory oversight and enforcement mechanisms to ensure that the risk management measures remain in place and continue to be effective. For example, the Port is required to ensure that subsurface activities don't impact the integrity of the subsurface PRB.

Water Board staff concurred with the RMP on March 10, 2016; however, minor modifications were made to the document on April 11, 2016 and were approved by Board staff on April 22, 2016. The approved RMP fulfills the requirements of Provision 9 of Order No. R2-2006-0020.

- 11. Closure:** Based on the above results, Water Board staff has concluded that the Dischargers have successfully met the cleanup objectives contained in Order No. R2-2006-0020, and the Water Board considers Site remediation complete. As such, Order No. R2-2006-0020 is no longer necessary and should be rescinded.

The Dischargers are responsible for properly closing and abandoning all existing groundwater monitoring wells related to the Site in accordance with State and county requirements. All wells must be closed within twelve months from the adoption date of this Order. All waste piles, drums, debris, and other investigation or remediation derived materials shall also be removed from the Site area and properly managed.

CEQA, NOTIFICATION, AND PUBLIC HEARING

- 12.** This action rescinds an order to enforce the laws and regulations administered by the Water Board. Rescission of the order is not a project as defined in the California Environmental Quality Act (CEQA). There is no possibility that the activity in question may have a significant effect on the environment (Cal. Code Regs., tit. 14 §§15061, subd. (b)(3), 15378.
- 13.** The Water Board has notified the Dischargers and interested agencies and persons of its intent to rescind the site cleanup requirements contained in Order No. R2-2006-0020 and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

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Former Mobil Bulk Terminal 04-394

14. The Water Board, in a public meeting, heard and considered all comments pertaining to the rescission of waste discharge requirements for the site.

IT IS HEREBY ORDERED that Order No. R2-2006-0020 is rescinded.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Region on XXX-XX, 2016.

Bruce H. Wolfe
Executive Officer

Attachment:

Figure 1, Site Location

Figure 2, Risk Management Plan Area

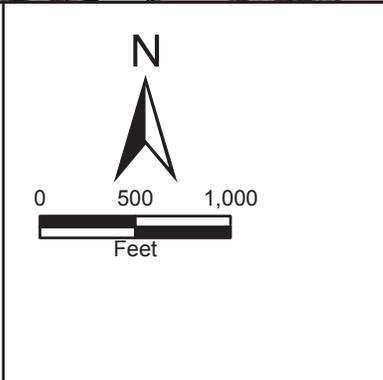
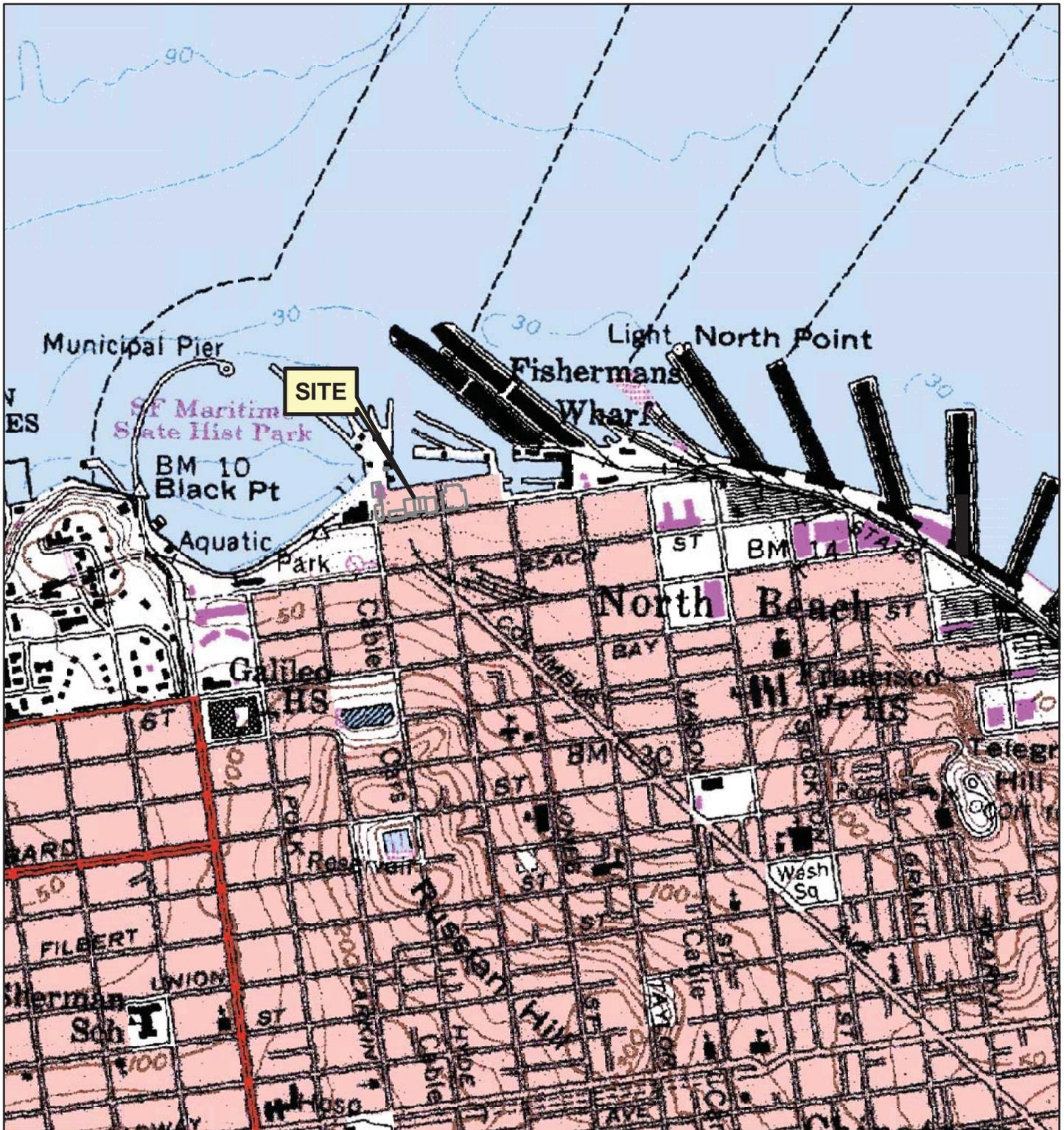
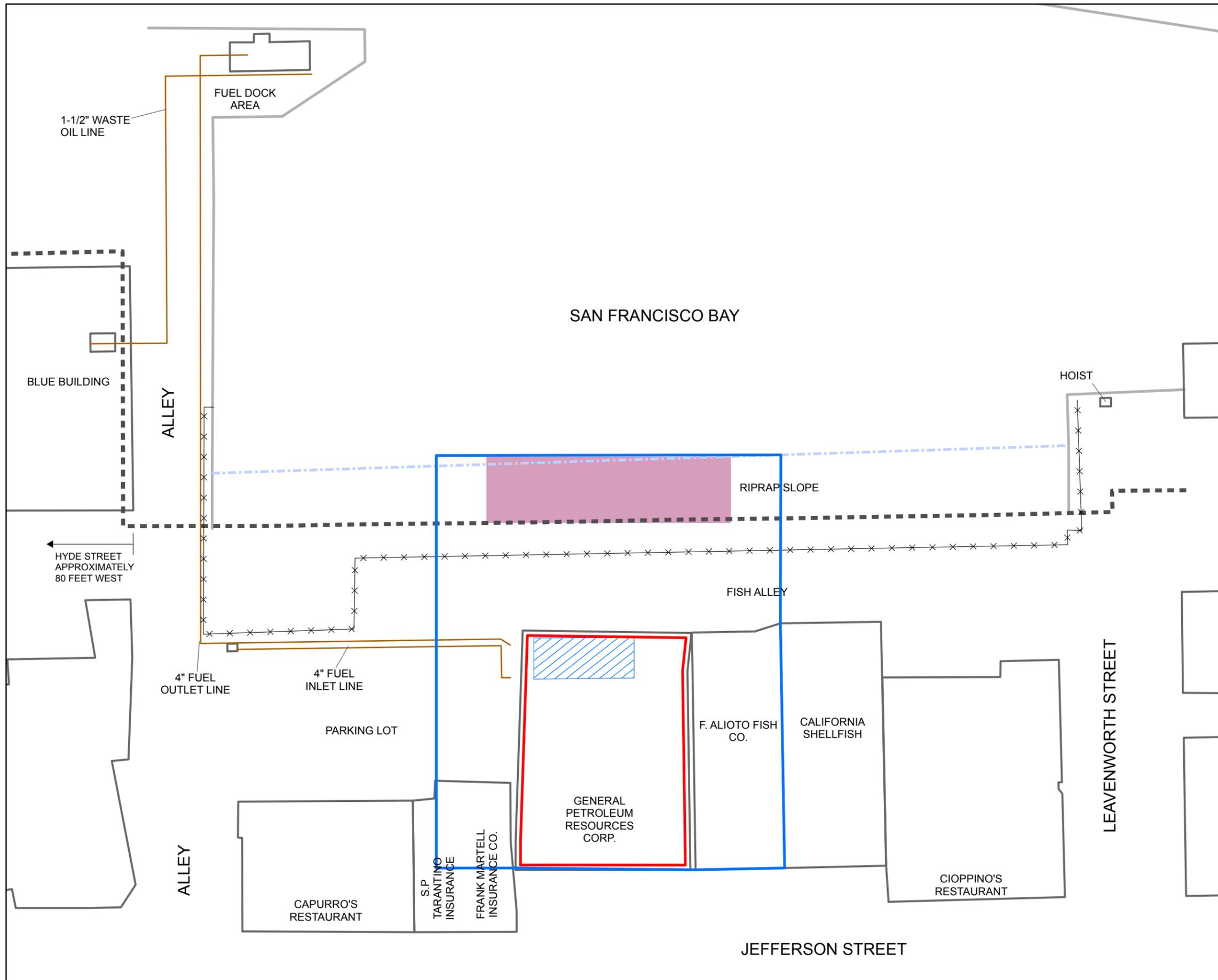


FIGURE 1
 SITE LOCATION
 GP Resources Marine Diesel Bulk Storage Facility
 Former Mobil Bulk Terminal #04-394
 440 Jefferson Street, San Francisco, California

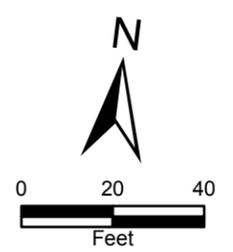
1107 Investment Blvd., #290, El Dorado Hills, California 95762 (916) 939-7550



LEGEND

- APPROXIMATE WATERLINE AT TIDAL ELEVATION 0.0 FOOT MEAN SEA LEVEL
- FENCE
- REDWOOD RETAINING WALL (APPROXIMATE)
- ABOVEGROUND STORAGE TANKS
- BUILDING
- SITE
- RISK MANAGEMENT PLAN AREA
- AREA OF PERMEABLE REACTIVE BARRIER

Notes:
 1. All locations and dimensions are approximate.
 2. Monitoring wells were surveyed on June 16, 2009.



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FIGURE 2
RISK MANAGEMENT PLAN AREA
 GP Resources Marine Diesel Bulk Storage Facility
 Former Mobil Bulk Terminal #04-394
 440 Jefferson Street, San Francisco, California

AME
 Engineers and Earth Scientists
 1107 Investment Blvd., #290, El Dorado Hills, California 95762 (916) 939-7550