



**FINAL**

**Finding of Suitability to Transfer for  
Former Naval Air Station Alameda**

**Alameda Point  
Alameda, California**

**April 19, 2013**

Prepared for:

**Base Realignment and Closure  
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## ACRONYMS AND ABBREVIATIONS

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§	Section
ACM	Asbestos-containing material
AOC	Area of concern
ARRA	Alameda Reuse and Redevelopment Authority
AST	Aboveground storage tank
b(a)p	benzo(a)pyrene
BBL	Blasland, Bouck & Lee
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CAA	Corrective action area
CANS	Shipping storage container area
CCR	California Code of Regulations
CDPH	California Department of Public Health
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Chemical of concern
CRUP	Covenants(s) to Restrict Use of Property
DCA	1,2-Dichloroethane
DCE	1,2-Dichloroethene
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DTSC	Department of Toxic Substances Control
DVE	Dual-vacuum extraction
EBS	Environmental baseline survey
EISB	Enhanced in situ bioremediation
ERM-West	ERM-West, Inc.
FFA	Federal Facility Agreement
FFSRA	Federal Facility Site Remediation Agreement
FL	Fuel Line
FOST	Finding of Suitability to Transfer
FS	Feasibility study
FSS	Final Status Survey
GAP	Generator accumulation point
G-RAM	General radioactive material
HHRA	Human health risk assessment
HRA	Historical radiological assessment
HSC	California Health and Safety Code

## ACRONYMS AND ABBREVIATIONS (CONTINUED)

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IAS	Initial assessment study
IC	Institutional Control
ISB	In situ bioremediation
IR	Installation Restoration
I-RACR	Interim remedial action completion report
ISCO	In situ chemical oxidation
IWTP	Industrial waste treatment plant
LBP	Lead-based paint
LIFOC	Lease in furtherance of conveyance
LPL	Large parcel lease
LRA	Local Redevelopment Authority
MCL	Maximum contaminant level
MEC	Munitions and explosives of concern
mg/kg	Milligram per kilogram
MPPEH	Munitions Potentially Presenting an Explosive Hazard
MNA	Monitored natural attenuation
MOA	Memorandum of Agreement
MRP	Munitions Response Program
NA	No Action
NACIP	Navy Assessment and Control of Installation Pollutants
NADEP	Naval aviation depot
NAS	Naval air station
Navy	Department of the Navy
NEESA	Naval Energy and Environmental Support Activity
NFA	No Further Action
NPL	National Priorities List
NRMP	Navy Radioactive Materials Permit
NTCRA	Non-Time Critical Removal Action
OPS	Operating properly and successfully
OU	Operable Unit
OWS	Oil-water separator
PAH	Polycyclic aromatic hydrocarbons
PBC	Public benefit conveyance
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethylene
PHNSY	Pearl Harbor Naval Shipyard
PMO	Program Management Office
PMP	Petroleum Management Plan
ppm	parts per million



## ACRONYMS AND ABBREVIATIONS (CONTINUED)

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RACR	Remedial action completion report
RAP	Remedial action plan
RAO	Remedial action objective
RASO	Navy Radiological Affairs Support Office
RAWP	Remedial action work plan
RC	Response Complete
RCA	Radiological Controlled Area
RCRA	Resource Conservation and Recovery Act
RD	Remedial design
RFA	RCRA facility assessment
RG	Remedial goal
RI	Remedial investigation
ROD	Record of decision
Shaw	Shaw Environmental and Infrastructure, Inc.
SI	Site investigation
SVOC	Semivolatile organic compound
SWMU	Solid waste management unit
TCE	Trichloroethene
TCRA	Time-critical removal action
Tetra Tech	Tetra Tech EM, Inc.
TPH	Total petroleum hydrocarbons
TRW	Tarry refinery waste
TSCA	Toxic Substances Control Act
TtECI	TetraTech EC, Inc.
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
USC	United States Code
UST	Underground storage tank
VOC	Volatile organic compound
Water Board	Regional Water Quality Control Board
WD	Wash down area

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## 1.0 PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated materials have been satisfied for the former Naval Air Station (NAS) Alameda, now referred to as Alameda Point, by the United States (U.S.) Department of the Navy (Navy) (see [Figure 1](#)).

For simplicity, the lands covered by this FOST are referred to hereinafter as the FOST Parcel. The FOST Parcel is composed of five non-contiguous upland and submerged land areas. [Figure 2](#) shows the FOST Parcel. The lands identified for this FOST are described in [Section 2.0](#).

This FOST provides documentation that the real property made available through the closure of NAS Alameda is environmentally suitable for transfer by deed. Note that certain environmental program activities are ongoing, including the Alameda Point Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Program, as discussed in [Section 4.1](#), and Alameda Point Petroleum Program activities, as discussed in [Section 4.2](#). As discussed in [Section 5.0](#), these activities will continue after transfer until regulatory closure is received.

This FOST was prepared in accordance with the Department of Defense (DoD) Base Redevelopment and Realignment Manual (BRRM) ([DoD 2006](#)) and the Navy Base Realignment and Closure (BRAC) Program Management Office (PMO) Policy for Processing Findings of Suitability to Transfer or Lease ([Navy 2008c](#)).

## 2.0 PROPERTY DESCRIPTION

Former NAS Alameda is located in the San Francisco Bay Area (see [Figure 1](#)). Former NAS Alameda is located on the western end of Alameda Island, which lies on the eastern side of the San Francisco Bay, adjacent to the City of Oakland. The upland portion of former NAS Alameda is roughly rectangular in shape, about 2 miles long east-west and 1 mile wide north-south, and occupies 1,734 acres of upland land. The upland portion of former NAS Alameda included in this FOST occupies about 511 acres and the submerged portion occupies about 870 acres.

The FOST Parcel is generally bounded on the north by the Oakland Inner Harbor, east by Main Street, and south and west by San Francisco Bay (see [Figure 2](#)). The FOST Parcel contains 15 out of the 34 Former NAS Alameda Installation Restoration (IR) sites. The 15 IR sites are presented in [Section 3](#) and described in [Section 4.1](#).

On March 24, 1997, the Navy entered into a Large Parcel Lease (LPL) with the Alameda Reuse and Redevelopment Authority (ARRA) to allow the ARRA to lease various property and buildings prior to transfer ([Navy and ARRA 1997](#)). All of the FOST Parcel was leased to the ARRA under this LPL. In June 2000, the Navy entered into Lease in Furtherance of Conveyance (LIFOC) with the ARRA to replace the LPL and to allow the ARRA to continue to lease property and buildings prior to transfer ([Navy and ARRA 2000a](#)). Also in June 2000, the Navy and the ARRA entered into a Memorandum of Agreement (MOA) for the conveyance by the Navy of portions of former NAS Alameda to the ARRA ([Navy and ARRA 2000b](#)). The ARRA

was dissolved in 2012 and the City of Alameda, as the recognized Local Redevelopment Authority (LRA), assumed all of ARRA's rights, duties, assets, and obligations under the LIFOC and the MOA. Therefore, the LIFOC has transferred to the City of Alameda. This LIFOC included all of the FOST Parcel described herein.

Sanitary sewer, storm drain, fuel, and electric power lines are present within the FOST Parcel. The entire electrical and natural gas distribution systems for former NAS Alameda were transferred to the City of Alameda in July 2001 and are now operated by Alameda Municipal Power. Fee title to the underlying property remained with the Navy ([Tetra Tech 2003a](#)). Under the LIFOC, the City of Alameda (formerly the ARRA) is responsible for the operation, maintenance, repair, replacement, and administration of buildings and utility systems within former NAS Alameda ([Tetra Tech 2003a](#)).

The FOST Parcel has been found suitable for transfer, based on previous investigations, remedial action completion reports, or because remedial action treatment is in place and operating properly and successfully (OPS), as determined by the United States Environmental Protection Agency (U.S. EPA) through the Defense Environmental Restoration Program (DERP).

### **3.0 REGULATORY COORDINATION**

In September 1992, the Navy, the State of California Department of Health Services (now referred to as California EPA/Department of Toxic Substances Control [DTSC]), and the California Regional Water Quality Control Board (Water Board), entered into a Federal Facility Site Remediation Agreement (FFSRA) ([DTSC 1992a](#)). The U.S. EPA was not a signatory to this agreement. The FFSRA defined the Navy's obligations for corrective action and response action under the Resource Conservation and Recovery Act (RCRA) and CERCLA for sites that had been identified in the Navy's IR Program at former NAS Alameda. Subsequent to the execution of the FFSRA, and following designation of former NAS Alameda as a National Priorities List (NPL) site in 1999, the Navy and U.S. EPA executed a Federal Facility Agreement (FFA) in July 2001. Subsequently, DTSC signed the FFA in October 2005 and the Water Board signed it in November 2005. The FFA superseded the FFSRA and defines the Navy's corrective action and response obligations under RCRA and CERCLA for the CERCLA sites that have been identified at former NAS Alameda. U.S. EPA, DTSC, and the Water Board were notified of the initiation of this FOST and were issued copies for review. Regulatory agency comments to this FOST are provided in [Attachment 1](#), [Attachment 2](#) is unresolved comments (of which there are none), and a Hazardous Substances Notification Table is provided in [Attachment 3](#).

#### **3.1 RESOURCE CONSERVATION AND RECOVERY ACT PART A OR B PERMITS AND SUBTITLE C CORRECTIVE ACTION**

This FOST reviews sites that were evaluated and addressed under the Navy's CERCLA and DERP authority, as well as sites addressed under the corrective action requirements of RCRA Subtitle C (for solid waste management units [SWMUs]), RCRA Subtitle I (for underground storage tanks [USTs]), and associated state laws and regulations administered by the U.S. EPA, the State of California, and Alameda County. These corrective action authorities are similar to CERCLA in that they require response/corrective action (cleanup) where necessary to ensure adequate protection of human health and the environment - see Section (§) 121(d) of CERCLA,

California Health and Safety Code (HSC) § 25296.10(b), Title 23 California Code of Regulations (CCR) §§ 2720 (definition of “corrective action”) and 2725(c), and Title 22 CCR §66264.101(a).

A decision that No Action (NA) is required in order to protect human health and the environment, made by the Navy or an environmental regulator under the laws and regulations listed above, also supports a Navy determination under § 120(h) of CERCLA that all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken.

The rationale for integrating CERCLA and RCRA corrective action requirements is straightforward. The cleanup standard for CERCLA is set forth in § 121 of CERCLA (Cleanup Standards), which states in the relevant part of Subsection 121(b)(1): “...The President shall select a remedial action that is protective of human health and the environment...” (42 United States Code [USC] § 9621(b)(1)). The cleanup standard for RCRA Subtitle C corrective action in the State of California, as set forth in Title 22 CCR § 66264.101(a), provides: “The owner or operator of a facility seeking a permit for the transfer, treatment, storage, or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid or hazardous waste management unit at the facility, regardless of the time at which waste was placed in such unit.” Also see HSC §§ 25187 and 25200.10(b).

The DERP, codified as 10 USC §§ 2701–2709, gave the DoD Environmental Restoration Program a statutory basis. The Navy implements the DERP subject to, and in a manner consistent with, CERCLA and its regulations.

Former NAS Alameda was previously subject to a RCRA permit (CA2170023236). This permit expired in July 2003. As part of the RCRA permit closeout activities, a RCRA Facility Assessment (RFA) was conducted in 1992 and identified numerous SWMUs (which were referred to as “non-permitted SWMUs” for a period of time) at former NAS Alameda, and which had not been previously identified in the RCRA permit.

All RCRA-permitted units have been closed, and all non-permitted units were delegated either to the CERCLA Program or the Petroleum Program as detailed in [Table 4](#).

### **3.2 RESOURCE CONSERVATION AND RECOVERY ACT SUBTITLE I CORRECTIVE ACTION**

The Water Board administers the underground storage tank (UST) corrective action program at former NAS Alameda pursuant to RCRA Subtitle I and §§ 25280-25299.8 of the California HSC. The authority of the Water Board to require corrective action at UST sites is set forth at Title 23 CCR Division 3, Chapter 16.

Many of the Petroleum Program sites were originally evaluated as part of the remedial investigation (RI) completed under CERCLA (Title 42 USC § 9601[14]) at former NAS Alameda between 1992 and 1995. However, petroleum and petroleum-related constituents including tarry refinery waste (TRW), are not included in the definition of hazardous substances under CERCLA (Title 42 USC § 9601[14]). By 1997, sufficient data had been obtained and

analyzed for the BRAC Cleanup Team (BCT) to determine that a number of IR sites only contained petroleum or petroleum-related constituents and, therefore, a subset of these sites were moved into the Petroleum Program ([Navy 1997](#)). By letter dated June 20, 1997, DTSC concurred with this decision ([DTSC 1997](#)). Petroleum-only sites and their constituents are being remediated under the 1994 California UST regulation (Title 23 CCR § 2720), which addresses release to soil and groundwater from former USTs, aboveground storage tanks (ASTs), and pipelines.

### **3.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT**

In 1993, the Defense Base Closure and Realignment Commission recommended the closure of former NAS Alameda, which was operationally closed in 1997. In 1999, former NAS Alameda was added to the NPL. Under Executive Order 12580, the Navy is the lead agency responsible for cleanup efforts at Navy properties.

CERCLA response actions are initiated at environmental sites where CERCLA hazardous substances have been or may have been released. There are fifteen areas known as IR Program sites in this FOST. As discussed in [Section 4.1](#), CERCLA investigations were conducted under the IR program for these sites.

## **4.0 SUMMARY OF ENVIRONMENTAL CONDITIONS AND NOTIFICATIONS**

This section summarizes the environmental conditions and notifications, as they relate to CERCLA, petroleum products and derivatives, asbestos-containing materials (ACM), lead-based paint (LBP), and other regulated materials.

The deed(s) for the CERCLA-impacted FOST Parcel will contain, to the extent such information is available on the basis of a complete search of agency files, a notification of hazardous substances stored for one (1) year or more, or known to be released, or disposed of within the FOST Parcel, in the form and manner prescribed by CERCLA (42 USC Section 9620(h)) and Title 40 of the Code of Federal Regulations (CFR) Part 373. This notice is provided in [Attachment 3](#), the Hazardous Substances Notification Table.

In addition to the hazardous substance notice, the BRRM outlines other environmental topics that must be addressed in a FOST. These topics are further discussed below, including the environmental conditions and actions taken on the FOST Parcel, identification of notification requirements related to CERCLA, munitions response, petroleum corrective action, and information regarding ACM, LBP, and polychlorinated biphenyls (PCBs).

### **4.1 CERCLA PROGRAM**

This section addresses the CERCLA sites within the FOST Parcel. The Navy initiated environmental investigations at former NAS Alameda under the Navy Assessment and Control of Installation Pollutants (NACIP) Program. Under the NACIP Program, the Navy performed an initial assessment study (IAS) in 1982 to assess former NAS Alameda for areas posing a potential threat to human health or the environment due to contamination from historical uses involving hazardous materials ([Ecology and Environment 1983](#)).

On June 6, 1988, the Navy received a Remedial Action Order from the Department of Health Services (now DTSC) that identified former NAS Alameda sites as needing a remedial investigation and feasibility study (RI/FS), in accordance with the requirements of CERCLA. In response, the Navy converted its NACIP Program into the IR Program to be more consistent with CERCLA, and investigations were conducted in a phased approach.

A comprehensive base closure strategy was developed by the BCT as part of the 1997 BRAC Cleanup Plan (BCP) at former NAS Alameda. This strategy consolidated the initial 23 IR sites into four Operable Units (OUs) (OUs-2 and -4 were later subdivided) as a management tool to accelerate site investigation (SI). IR Sites 24 through 29 were added later and consolidated into OUs-5 and -6. IR Site 18 (Storm Sewers) was reconfigured and the site was eliminated, and associated contamination in the storm sewers was investigated and remediated within the footprint of individual sites. Three IR sites were added to the CERCLA program in December 2002: IR Sites 30, 31, and 32. An additional three new sites, IR Sites 33, 34, and 35, were added after 2002. The new sites were not assigned to an OU.

Fifteen out of 34 former NAS Alameda IR sites are located within the FOST Parcel ([Figure 3](#)) and include IR Sites 7, 8, 9, 13 (partial), 14, 15 (partial), 19, 20, 22, 23, 26, 27, 28, 29 and 35.

Not all environmental sites within the FOST Parcel have received regulatory agency concurrence for either No Action (NA) or Response Complete (RC). The status of the IR Sites is presented in [Table 1](#). Some CERCLA sites remain open; however, the remedy has been implemented and the U.S. EPA has determined that the remedy is OPS. An NA or RC determination is based on the findings of evaluations or cleanup actions that the parcel is suitable for transfer as long as the applicable notifications and restrictions, outlined in [Sections 4.0](#) and [5.0](#), have been implemented. No Further Action (NFA) designations include sites that have received NFA designations either because no response action was required to provide adequate protection of human health and the environment, or because the required remedial action has been completed.

Besides the IR sites, another contaminated unit investigated under the CERCLA Program at former NAS Alameda is the Marsh Crust. The Marsh Crust is a layer of sediment contaminated with semivolatile organic compounds (SVOCs) that was deposited across the tidelands and the former subtidal areas from the late 1800s until the 1920s. The contamination is believed to have resulted from direct discharges of petroleum products and wastes from former industrial processes into San Francisco Bay. The Final Marsh Crust Remedial Action Plan (RAP)/Record of Decision (ROD) was signed in February 2001 ([Navy 2001](#)). The Marsh Crust RAP/ROD affects the FOST Parcel ([Figure 11](#)).

A summary of the remainder of the CERCLA investigations conducted at IR sites within the FOST Parcel is discussed below.

#### **4.1.1 IR Site 7 (OU-1)**

IR Site 7, the Navy Exchange Service Station, occupies 3.9 acres and is located on the eastern boundary of former NAS Alameda, adjacent to Main Street ([Figure 3](#)). IR Site 7 consists of buildings and structures that cover about 30 percent of the site, while the remainder of the site is



open space covered with asphalt, concrete, and some unpaved areas. IR Site 7 was grouped with IR Sites 6, 8, 14, 15, and 16 under OU-1.

Historical uses at IR Site 7 include an automotive repair and servicing facility and an incinerator (former Building 68-3) surrounded by grassy open space (Navy 2007b). The RI report identified COCs in the soil at IR Site 7 (Tetra Tech 2004) that required remedial action. No COCs were identified for groundwater at IR Site 7 (Tetra Tech 2004); therefore, NA was identified for groundwater. The Final FS was completed in 2005. Pre-design data gaps sampling was conducted in 2007 and 2008 to optimize the remedial design. The ROD selected the remedial action of soil excavation and off-site disposal, which was conducted from November 2009 to January 2011 (Navy 2007b).

The Remedial Action Completion Report (RACR) documented that the implemented remedy met remedial goals and remedial action objectives (RGs/RAOs) for unrestricted use (URS 2013).

#### **4.1.2 IR Site 8 (OU-1)**

IR Site 8, Building 114 (Pesticide Storage Area), is 4.3 acres in size, located in the central portion of former NAS Alameda, and also includes Building 191, Building 391, and sewage pumping station 10 (Figure 3). Eighty percent of IR Site 8 is covered by asphalt, concrete, buildings, roads, and parking lots. Building 191 was used as storage for the Public Works Department, and Building 391 was used to store paints, degreasers, petroleum products, and hazardous waste. IR Site 8 was grouped with IR Sites 6, 7, 14, 15, and 16 under OU-1.

The OU-1 RI report identified COCs in soil at IR Site 8 that required remedial action (Tetra Tech 2004). No COCs were identified for groundwater.

The FS report was completed in 2005. Pre-design data gaps sampling was conducted in 2007 and 2008 to optimize the remedial design (URS 2012b). The OU-1 ROD (Navy 2007b) selected the remedial action of soil excavation and off-site disposal which was conducted from November 2009 to July 2010.

The RACR documented that the implemented remedy met RGs/RAOs for unrestricted use (URS 2012b). EPA approved the Final RACR in July 2012.

#### **4.1.3 IR Site 9 (OU-2A)**

IR Site 9, Building 410 (Paint Stripping Facility), is 2.9 acres in size and is located in the southeastern portion of the former NAS Alameda (Figure 3). Two buildings (Buildings 410 and 351), covering approximately 37,000 square feet, are present at IR Site 9. Industrial Wastewater Treatment Plant (IWTP) 410, also known as Structure 588, was located east of Building 351 and treated paint-stripping wastes. IR Site 9 is grouped with Sites 13, 19, 22, and 23 under OU-2A.

The FS Report concluded that there were no COCs for soil. Groundwater COCs identified in the FS Report included volatile organic compounds (VOCs) that exceeded drinking water standards (i.e., maximum contaminant levels [MCLs]) (OTIE 2011). A Proposed Plan was submitted in August 2011 (Navy 2011a). By letter dated August 6, 2012, the Navy provided information to



support a Groundwater Beneficial Use Exception for Southeast Alameda Point based on several lines of evidence, including proximity to San Francisco Bay and potential for salt water intrusion, high salinity, current county restrictions on well installation in shallow groundwater, and potential for surface runoff to contaminate groundwater (Navy 2012a). The regulatory agencies concurred with the Beneficial Use Exception (Water Board 2012a; U.S. EPA 2012c). As a result of the Beneficial Use Exception, drinking water standards no longer apply as cleanup goals. The OU-2A ROD documents NA for soil and Institutional Controls (ICs) preventing use of groundwater at Site 9 (Navy 2012b).

#### **4.1.4 IR Site 13 (OU-2A)**

IR Site 13, the Former Oil Refinery, is 17.5 acres in size and is located in the southeastern portion of the former NAS Alameda (Figure 3). IR Site 13 includes Building 397, a 17,400-square-foot aircraft overhaul plant and engine test facility constructed in 1958 and operated by the Naval Air Rework Facility Alameda. A self-storage facility occupies the southeastern corner of the site. The rest of the site is paved or open space. IR Site 13 is grouped with IR Sites 9, 19, 22, and 23 under OU-2A.

The revised FS concluded there were no soil COCs, and benzene and ethylbenzene were groundwater COCs at Site 13 due to localized vapor intrusion risk. A Proposed Plan was submitted in August 2011 (Navy 2011a). The ROD selected NFA for soil and in situ bioremediation (ISB), with monitored natural attenuation (MNA) and ICs for the localized benzene plume in the southeast corner of Site 13 (Figure 2) and an IC restricting use of groundwater for all of Site 13 (Navy 2012b). The groundwater area of Site 13 requiring remedial action is excluded from the FOST Parcel. The Water Board retains its authority to regulate the TRW and/or co-located petroleum in the future at Site 13.

#### **4.1.5 IR Site 14 (OU-1)**

IR Site 14, Former Fire Training Area, is 14.2 acres in size and is located in the northwestern portion of former NAS Alameda near the Oakland Inner Harbor (Figure 3). IR Site 14 is partially paved and relatively flat, and includes five buildings (26, 120, 121, 122, and 388) and open space. Historical use at IR Site 14 included airfield-related materials and equipment storage, and firefighter training in the northwestern portion of the site (Navy 2007a). The buildings at IR Site 14 are currently unoccupied. Site 14 is grouped with IR Sites 6, 7, 8, 15, and 16 within OU-1.

CERCLA investigations were conducted in 1991, with follow-on investigations in 1994 and 1998, data gap sampling in 1998, supplemental RI data gap sampling in 2001, and removal of soil containing dioxins in 2001 (Tetra Tech 2003b).

The ROD documented NFA for soil and selected ISCO, monitoring, and temporary ICs for groundwater (Navy 2007a). Data gaps were identified and further investigations were conducted in March and April 2007, including a pilot test on a portion of the groundwater plume, to optimize the remedial design. The groundwater remedial action began in September 2008. A Technology Transition Technical Memorandum (Battelle 2010d) was submitted to the agencies in December 2010 and presented the findings of the post-ISCO monitoring, as well as support to transition to MNA. The MNA work plan was completed as an addendum to the remedial action

work plan (RAWP) ([Battelle 2011a](#)). Groundwater monitoring will continue until RAOs are completed. Based on progress of the remedial action, U.S. EPA determined that the remedy is OPS and, therefore, Site 14 is suitable for transfer ([U.S. EPA 2012a](#)).

#### **4.1.6 IR Site 15 (OU-1)**

IR Site 15, the Former Transformer Storage Area, consists of 5.8 unpaved acres. IR Site 15 is located in the northwestern portion of former NAS Alameda, adjacent to the Oakland Inner Harbor ([Figure 3](#)). IR Site 15 includes Building 27 and former Buildings 283, 301, and 389, constructed by the Navy in the 1950s. IR Site 15 was used primarily to store petroleum products, biocides, electrical equipment, including oil-filled transformers and machinery. IR Site 15 is grouped with IR Sites 6, 7, 8, 14, and 16 within OU-1.

An RI Report for IR Sites 14 and 15 was prepared in 2003 ([Tetra Tech 2003b](#)). In 2005, soil samples were collected at IR Site 15 for further polycyclic aromatic hydrocarbon (PAH) analysis because detection limits for historical PAH data were elevated ([Navy 2006a](#)). The average PAH concentration in soil, expressed as benzo(a)pyrene (B(a)P) equivalents, was below the screening level of 0.62 milligrams per kilogram (mg/kg) ([Navy 2006a](#)).

In October 2005, the Navy distributed the Proposed Plan for IR Site 15, which included a recommendation for NFA for soil and NA for groundwater ([Navy 2005a](#)). The Navy prepared a ROD documenting the decision of NFA for soil and NA for groundwater for IR Site 15. The final ROD was signed with regulatory concurrence in June 2006 ([Navy 2006a](#)). IR Site 15 is closed.

#### **4.1.7 IR Site 19 (OU-2A)**

IR Site 19, Yard D-13 (Hazardous Waste Storage), is 2.7 acres in size and is located in the southeastern area of the former NAS Alameda ([Figure 3](#)). IR Site 19 includes Building 616 and Yard D-13, the only two structures on the site. IR Site 19 is grouped with IR Sites 9, 13, and 23 under OU-2A.

The FS Report concluded that there were no COCs for soil. Groundwater COCs identified in the FS Report included VOCs that exceeded drinking water standards (i.e., MCLs) ([OTIE 2011](#)). A Proposed Plan was submitted in August 2011 ([Navy 2011a](#)). By letter dated August 6, 2012, the Navy provided information to support a Groundwater Beneficial Use Exception for Southeast Alameda Point based on several lines of evidence, including proximity to San Francisco Bay and potential for salt water intrusion, high salinity, current county restrictions on well installation in shallow groundwater, and potential for surface runoff to contaminate groundwater ([Navy 2012a](#)). The regulatory agencies concurred with the Beneficial Use Exception ([Water Board 2012a](#); [U.S. EPA 2012c](#)). As a result of the Beneficial Use Exception, drinking water standards no longer apply as cleanup goals. The OU-2A ROD documents NA for soil and ICs preventing use of groundwater at Site 19 ([Navy 2012b](#)).

#### **4.1.8 IR Site 20 (OU-4C)**

IR Site 20, also known as Oakland Inner Harbor, is located offshore of former NAS Alameda, on the southern side of the Oakland Inner Harbor Channel. The Oakland Inner Harbor Channel is a

major industrial waterway, serving marine terminals and repair facilities in the cities of Oakland and Alameda. The shoreline of IR Site 20 extends 3,960 feet. There are four storm sewer outfalls along the IR Site 20 shoreline ([Figure 3](#)).

The RI report ([Battelle, ARCADIS \(BBL\), and Neptune & Company 2007](#)) for IR Site 20 documents that there are no unacceptable risks to human or ecological receptors. IR Site 20 received regulatory closure with a no-action ROD in September 2008 ([Navy 2008b](#)).

#### **4.1.9 IR Site 22 (OU-2A)**

IR Site 22, Building 547 (Former Service Station), is 2.1 acres in size and is located in the southeastern area of former NAS Alameda along Main Street (eastern property boundary) ([Figure 3](#)). IR Site 22 was formerly a gasoline distribution and service station. All buildings associated with the service station (Building 547, 547A, and Structure 547) have been demolished. IR Site 22 is grouped with IR Sites 9, 13, 19, and 23 under OU-2A.

Lead was the only chemical of concern (COC) identified in soil at IR Site 22 in the RI report. No COCs were identified for groundwater at IR Site 22. Data gaps were identified during preparation of the FS for IR Site 22. The draft FS recommended collection of additional data including soil samples beneath OWS-547 to be analyzed for metals, PCBs, pesticides, and VOCs ([SulTech 2005b](#)). The data gaps investigation was completed in 2008. The results of the data gaps investigation were reported in the final data gap technical memorandum for OU-2A and -2B, submitted in January 2009. The results of a supplemental data gaps investigation were reported in 2010. The revised FS report was submitted in June 2011 ([OTIE 2011](#)). The Proposed Plan was submitted in August 2011 ([Navy 2011a](#)).

The OU-2A ROD documents NA for soil and groundwater at Site 22 ([Navy 2012b](#)).

#### **4.1.10 IR Site 23 (OU-2A)**

IR Site 23, Building 530 (Missile Rework Operations), is 14.3 acres in size and is located in the southeastern area of former NAS Alameda along the eastern property boundary ([Figure 3](#)). Building 530 is the main structure at IR Site 23, along with Buildings 529 and 600. The eastern one-third of IR Site 23 is used currently as a self-storage facility ([SulTech 2005a](#)). Site 23 is grouped with IR Sites 9, 13, 19, and 22 under OU-2A.

Arsenic and TRW (lead, PAHs, and benzene) were identified as COCs in soil. No COCs were identified for groundwater at IR Site 23 ([SulTech 2005a](#)).

Data gaps were identified during preparation of the FS for IR Site 23. The draft FS recommended collection of additional data, including samples of groundwater near generator accumulation point (GAP) 64 for analysis of VOCs. In addition, the draft FS recommended collecting samples of soil beneath OWSs 529 and 530 to be analyzed for metals, PCBs, pesticides, and VOCs ([SulTech 2005b](#)). The data gaps investigation was completed in 2008. The results of the data gaps investigation were reported in the final data gap technical memorandum for OU-2A and -2B, submitted in January 2009. The revised FS report was submitted in June 2011 ([OTIE 2011](#)). The proposed plan was submitted in August 2011 ([Navy 2011a](#)).

The OU-2A ROD documents NA for soil and groundwater at Site 23 ([Navy 2012b](#)). The Water Board retains its authority to regulate the TRW and/or co-located petroleum in the future at Site 23.

#### **4.1.11 IR Site 26 (OU-6)**

IR Site 26, the former Western Hangar Zone, is located in the center of former NAS Alameda ([Figure 3](#)). IR Site 26 is covered by pavement, four aircraft hangars (Buildings 20 through 23), a painting and finishing building (Building 24), and several ancillary buildings.

No COCs were identified for soil at IR Site 26. COCs identified for groundwater were cis-1,2-dichloroethene (DCE), trichloroethene (TCE), and vinyl chloride ([Bechtel Environmental, Inc. \[Bechtel\] 2003](#)). The final ROD documented no further action for soil and ISCO, enhanced ISB (EISB), MNA, and ICs for groundwater ([Navy 2006b](#)). The Final Remedial Design/Remedial Action Work Plan (RD/RAWP) for groundwater was submitted in October 2008 ([Battelle 2008](#)).

Full-scale in situ chemical oxidation (ISCO) was performed between July 2008 and February 2009. EISB was performed between October 1, 2008 and November 5, 2008 ([Battelle 2011b](#)). Evaluation of continuing groundwater monitoring is guiding the ongoing remedial action. Based on the documented remedial action progress, U.S. EPA has determined that the remedy is OPS ([U.S. EPA 2012b](#)) and, therefore, Site 26 is suitable for transfer.

#### **4.1.12 IR Site 27 (OU-6)**

IR Site 27, the Dock Zone, is 15.8 acres. IR Site 27 is located in the southeastern portion of former NAS Alameda, adjacent to the Seaplane Lagoon ([Figure 3](#)). IR Site 27 is mostly paved or covered by buildings. The site includes Buildings 68, 168, 555, and 601; Ferry Point Road and West Oriskany Avenue; inactive railroad tracks and sidings; and fenced open space between Building 168 and Ferry Point Road.

Historical activities at IR Site 27 included ship docking, ship repair, and marine painting. The eastern portion of IR Site 27 was used for storing materials and equipment, as well as vehicle parking. Building 168 was used as a warehouse and to support waterfront services, including welding activities. Building 555 was used as an electrical substation. Historically, open space at IR Site 27 was used as an aircraft parking area. The southern portion of a former fuel farm area is located in the northwestern portion of IR Site 27.

The ROD ([Navy 2008a](#)) documented that NA was selected for soil and selected ISCO, MNA, and ICs for groundwater in the central and eastern portion of IR Site 27. Sampling was conducted to support the design of the selected remedy. The IR Site 27 RD/RAWP was submitted in June 2009 ([Battelle 2009](#)). Remedial action began in July 2009 with ISCO completed and MNA currently ongoing. A Technology Transfer Technical Memorandum documents the Remedy-In-Place for IR Site 27 ([Battelle 2010b](#)). Evaluation of continuing groundwater monitoring is guiding the ongoing remedial action. Based on the documented remedial action progress, U.S. EPA has determined that the remedy is OPS ([U.S. EPA 2012d](#)) and, therefore, Site 27 is suitable for transfer.

#### **4.1.13 IR Site 28 (OU-6)**

IR Site 28, Todd Shipyards, is 2.9 acres in size and is located in the northeastern portion of former NAS Alameda on the Oakland Inner Harbor (Figure 3). The ROD was signed in October 2007 and included soil excavation and disposal and groundwater metals immobilization (Navy 2007c). The RA was completed in June 2010.

The Site 28 I-RACR (Battelle 2012a) documents that all necessary soil remedial actions have been conducted to achieve the RAOs for soil and that the soil remedy is complete. The I-RACR also documents the groundwater remedy which consisted of removing and disposing of source-area soil, applying and injecting metals immobilization compound, and follow-on groundwater monitoring. Evaluation of continued groundwater monitoring is guiding the ongoing remedial action. Based on the progress documented in the I-RACR, U.S. EPA has determined that the remedy is OPS (U.S. EPA 2012e) and, therefore, Site 28 is suitable for transfer.

#### **4.1.14 IR Site 29 (OU-4C)**

IR Site 29, former Skeet Range, is a submerged site located along the northwestern shoreline of former NAS Alameda. IR Site 29 extends to approximately 800 feet off shore into the San Francisco Bay (Figure 3).

The former Skeet Range consisted of two main shooting ranges (northern and southern) that were actively used for 30 to 40 years until they were closed in 1993. Lead shot was discharged from guns toward clay pigeon targets projected westerly over San Francisco Bay at the former Skeet Range. All of the historical structures related to the shooting ranges have been removed from the property (Navy 2005b).

No COCs were identified in sediments at IR Site 29. PAHs in sediments at IR Site 29 were unrelated to the Skeet Range and could be associated with other background sources of PAHs throughout the San Francisco Bay area (Navy 2005b). The remedial alternative in the ROD identified NA for sediments at IR Site 29 (Navy 2005b).

The ROD documenting NA for IR Site 29 was signed with regulatory concurrence in September 2005 (Navy 2005b) and the site is closed.

#### **4.1.15 IR Site 35**

IR Site 35 is composed of 23 study areas, known as areas of concern (AOCs) (Figure 3). In 1995 and 1997, a Time Critical Removal Action (TCRA) for storm sewer sediment removal was completed by Navy. A portion of this work occurred within IR Site 35. In 2001, a non-Time Critical Removal Action (NTCRA) was conducted in AOC 12 to remove lead-containing soil. In 2002, a TCRA was conducted for soil with reported benzo(a)pyrene (b(a)p) equivalent concentrations that exceeded 1.0 mg/kg in the top two feet of soil in the West Housing Area (IR Site 35 AOCs 4, 5, 7, 9, 13, and 14). In 2002 a TCRA was conducted at Building 195 to remove a pesticide/fertilizer shed in AOC 8. These interim actions were documented in the ROD as being protective of unrestricted site use.



A Final RI/FS Report was prepared for IR Site 35 in April 2007 ([Bechtel 2007](#)). Based on the findings of the RI portion of the report, eight AOCs were identified for soil action and no action for groundwater. AOCs 19 and 22 were removed from Site 35 and included within IR Site 6 and Corrective Action Area (CAA)-B prior to completion of the Final RI/FS ([Navy 2010a](#)). The ROD ([Navy 2010a](#)) documented NA for groundwater, NFA required for AOCs 14, 15, 16 and remedial action required for soil in AOCs 3, 10, and 12. Remedial action included soil excavation and offsite disposal followed by site restoration ([Navy 2010a](#)).

The RACR documented that the implemented remedy met RGs/RAOs ([OTIE 2012](#)) for unrestricted use. U.S. EPA concurred with the Site 35 RACR and with site closure ([U.S. EPA 2012f](#)).

## **4.2 PETROLEUM PRODUCTS AND DERIVATIVES**

The history and status of the Alameda Petroleum Program is documented in the Petroleum Management Plan (PMP) ([Battelle 2010a](#)) and a subsequent update ([Battelle 2012b](#)). Unless otherwise noted, these two documents are the primary source for the descriptions in the following two sections and the associated tables.

The Petroleum Program was created to address potential and actual soil and groundwater contamination related to petroleum products, which are excluded from CERCLA regulations. The Navy developed a fuel site closure plan in 2001 in cooperation with the Water Board and DTSC. The Water Board issued a letter in 2001 providing concurrence on the approach.

The Navy identified a variety of CAAs as part of the Petroleum Program. Those CAAs wholly or partially within the FOST Parcel are listed in [Table 2](#). Separately, the Navy and DTSC prepared a RFA ([DTSC 1992b](#)) to identify sites potentially requiring closure under RCRA regulations. The RFA identified all RCRA Units during an evaluation conducted between 2004 and 2006 ([SulTech 2007b](#)). These included individual or collections of USTs, ASTs, OWSs, GAPS, and vehicle washdown areas (WDs). The RCRA Units were evaluated in 18 SWMU evaluation reports, generally as part of ongoing CERCLA investigations. RCRA Units requiring additional action were assigned to the CERCLA Program or the Petroleum Program.

USTs and ASTs within the FOST Parcel are listed in [Table 3](#). Other RCRA Units within the FOST Parcel are listed in [Table 4](#). The tables identify under which program closure is being addressed.

CAA locations are shown on [Figure 4](#). Fuel line (FL) locations are shown on [Figure 5](#). AST locations are shown on [Figure 6](#) and UST locations are shown on [Figure 7](#).

### **4.2.1 Open Petroleum Program Sites**

The Petroleum Program sites discussed in this section are open. The TRW and co-located petroleum in areas of Sites 13 and 23 were closed under CERCLA. However, in the OU-2A ROD the Water Board retained its authority to regulate petroleum compounds in these areas in perpetuity to mitigate potential risks to human health, safety and the environment. They include sites with outstanding NFA requests that are awaiting written regulatory concurrence and sites for which the Navy is considering submitting NFA requests in the future. Site investigation, remediation, and/or monitoring activities are ongoing at several of these open sites.

AOC 23 – A request for closure was submitted to the Water Board in December 2011 for petroleum site AOC 23, a 1,2-dichlorethane (DCA) plume.

CAA-4B – CAA-4B consists of the area around Building 372 that was used as an engine test facility. It includes USTs 372-1 and 372-2 (and an associated fuel spill called AOC 372 or SWMU 372.) Both tanks were removed in 1995. It also includes former fuel oil AST 372, removed some time prior to 2002. These tanks, and the majority of the site, are not within the FOST Parcel.

The site also includes USTs 616-1 and 616-2 (sometimes collectively called AOC 616.) These tanks were for emergency spill control, but reportedly were never used and never held anything but water. They are closed-in-place and are within the small portion of this site that is within the FOST Parcel. A closure summary report is with the Water Board pending agency concurrence.

The PMP indicates a recommendation of NFA for the USTs and for CAA-4B.

CAA-4C – The site consists of the area around former Building 547 that was used as a gasoline service station and car wash between 1971 and 1980. It includes USTs 547-1 through 547-3 (sometimes collectively called UST(R)-17), all removed in 1994. Suspected USTs 547-4 and 547-5 (identified in the RFA) could not be located by geophysical survey and do not appear on base records. Based on research into the existence of these USTs, it is concluded that the USTs never existed and were incorrectly identified by prior contractors. These USTs have been removed from the AP Petroleum Program. CAA-4C also includes former Oil Water Separator (OWS) 547. All were within the footprint of the FOST, as is the majority of the site.

CAA-6 – Only a small portion of this site is within the FOST Parcel. [See Section 6.2.14](#) for site discussion.

CAA-7 – The site consists of the area around Building 459 that was used as an automobile service station, and Building 506 that was used for maintenance and miscellaneous equipment storage. It includes USTs 459-1 through -8 (sometimes collectively called UST RCRA Unit [UST(R)]-16, and UST 459-7 is sometimes referred to as NAS GAP 16) and UST 506-1, all removed in the mid- to late-1990s.

CAA-8 – The site consists of the area around Building 114 that was used for public works maintenance and storage and an administrative office, and Building 191 that was used for storage. It includes WD 114, a washdown area in the courtyard of Building 114, and OWS 114, located within the washdown area. The entire site is within the FOST Parcel.

CAA-9A – The site consists of the area around Building 584 which was used for storage of corrosives, lubricating oils, and water treatment chemicals. It includes USTs 584-1 and 584-2, both removed in 1994. The entire site is within the FOST Parcel.

CAA-11A – The site consists of the area around Building 14 that was used as an aircraft engine test and repair facility. The site includes USTs 14-1 through 14-6, sometimes referred to as UST(R)-06, which were removed in 1994, and former OWS 162. Only a small portion of the site, and none of the above-listed associated features, is within the FOST Parcel. A biosparging system was implemented between 2003 and 2004 for releases attributed to USTs 14-1, 14-2, 14-

3, and 14-6. The Water Board was provided a Summary Closure Report in October of 2011 ([Navy 2011b](#)).

CAA-11B – The site consists of the area designated Area 37, a fuel storage area. Area 37 includes Structure 598 (also sometimes called HW-04) that was a secondary containment area for ASTs 598A through 598C. These ASTs were removed in 2004 and all are within the FOST Parcel. Area 37 also includes USTs 37-1 through 37-24, sometimes collectively referred to as UST(R)-07, which were removed between 1995 and 1998. A majority of the site and 18 of the 24 USTs are within the FOST Parcel. Area 37 also includes former ASTs 037A through 037D which were on adjacent property.

CAA-12 – The site consists of the area around Building 29 that was an aircraft weapons overhaul and testing facility; Building 38, which served as an acoustical enclosure for aircraft engines; and Facilities 461A, B, and C, which served as aircraft run-up areas. The site includes former ASTs 029 and 038 and former OWS 038. The majority of the site and all the above-listed associated features are within the FOST Parcel. OWS 038 received closure by the Water Board in February 2012 ([Water Board 2012b](#)).

CAA-13 – The site consists of the area around Building 397 that was a jet engine testing facility, Building 406A which contained control equipment for a defueling facility, Building 529 which supplied auxiliary power for Building 530, and Building 606 which was used as an administration building. The site includes former ASTs 530A through 530C, and closed-in-place OWSs 529 and 530. Free product was noted during sampling activities around the defueling facilities, sometimes referred to as Defueling Area 530. The site also includes former OWSs 397A through 397D, and a 3,500- to 17,000-gallon jet fuel spill circa 1991 when heavy rains caused these four OWSs to overflow, and a drain valve left open on a fuel supply line allowed the release of jet fuel ([Shaw E&I 2011](#)). Dual-vacuum extraction (DVE) and biosparging systems were operated from 2003 until 2006. Most of the site, and all the above-listed associated features, are within the FOST Parcel.

CAA-14 – The site consists of the area around Building 331 that was used as a woodworking facility and offices. It includes former AST 331, also referred to as SWMU 331.

CAA-B – The site consists of the area around three east-west, parallel FLs used to transport jet fuel, with multiple crossing FLs (about 22,500 feet) that link a series of fueling pits. The FLs were abandoned in place in 1998. The majority of the site is within the FOST Parcel.

CAA-C – The site consists of the area around Hanger 23 that was used for aircraft parking, maintenance, and fueling activities. The FLs were closed in place. DVE and air sparging systems operated in 2008 and 2009. Post-remediation monitoring is ongoing. The majority of the site is within the FOST Parcel.

IR 09 – Free product at IR 09 is being addressed under the Petroleum Program, referred to in the PMP as IR SITE 09-FP1/2 ([Battelle 2010c](#)). The entire site is within the FOST Parcel.

EDC-12 AOC 3: This is a former aircraft scrap yard, parts storage, treated and lumber storage area where TPH-motor oil has been detected. The entire site is within the FOST Parcel.

EDC-12 AOC 5: This is a former aircraft washdown area where TPH-diesel and TPH-motor oil have been detected. The entire site is within the FOST Parcel.



#### 4.2.2 Open Aboveground Storage Tanks, Oil and Water Separators, Washdown Areas, Fuel Line Sites, and Underground Storage Tanks

Open Petroleum Program ASTs, OWSs, WDs, FLs, and USTs present in the FOST Parcel not associated with a CAA are listed below. Additional information can be found in [Table 3](#), [Table 4](#), and [Table 7](#).

- |            |            |  |
|------------|------------|--|
| • AST 008  | • AST 511B | • FL-155                                 |
| • AST 016  | • AST 528  | • FL-155B                                |
| • AST 021B | • AST 620  | • FL-155C                                |
| • AST 039  | • AST 623A | • FL155D                                 |
| • AST 152  | • AST 623E | • FL-163A                                |
| • AST 173A | • AST P20  | • FL-165                                 |
| • AST 173B | • OWS 067  | • FL-191                                 |
| • AST 173C | • OWS 166A | • FL-192                                 |
| • AST 324  | • OWS 166B | • UST 39-1 (also<br>known as AOC 039)    |
| • AST 325  | • WD 166   | • UST 173-1                              |
| • AST 326  | • FL-032   | • UST 173-2                              |
| • AST 327  | • FL-033   | • UST 173-3                              |
| • AST 328  | • FL-035   | • UST 473-1 (also<br>known as AOC 473)   |
| • AST 331  | • FL-125   | • UST 506-1 (also<br>known as UST[R]-16) |
| • AST 342C | • FL-126   |  |
| • AST 345A | • FL-139   |  |
| • AST 345B | • FL-139A  |  |
| • AST 345C | • FL-140   |  |
| • AST 494  | • FL-142   |  |
| • AST 511A | • FL-154   |  |

#### 4.2.3 Closed Petroleum Program Corrective Action Area Sites

The following Petroleum Program CAA Sites are closed with written regulatory concurrence. [Figure 4](#) shows the Corrective Action Areas.

CAA-2 – The site consists of the area around UST 357 FS-1, sometimes also referred to as AOC 357 or UST 357-1. The tank was removed in 1995 and the site received closure concurrence with land use restrictions in 2011 ([Water Board 2011](#)).

CAA-A – The site consists of the area around two parallel, 10-inch fuel lines used to transport jet fuel. The site was closed with concurrence in 2007 ([Water Board 2007](#)) without restrictions.

CAA-10 – The site consists of the area around Building 19 that was a control tower, photographic processing operations area, and fire/rescue station; and Building 491 that housed an emergency generator. It includes UST 491-1 (sometimes referred to as AOC 491) and ASTs

019A through 019C. The entire site is within the FOST Parcel. The site was closed with land use restrictions ([Water Board 2012c](#)).

#### **4.2.4 Closed Underground Storage Tanks**

Closed Petroleum Program USTs not associated with a CAA are listed below. Additional information can be found in [Table 3](#). Sites listed below were closed without the need for land use restrictions:

- UST 1-1 (also known as AOC 001)
- UST 117-1 (also known as UST[R]-08)
- UST 13-1
- UST 13-2
- UST 13-3
- UST 13-4
- UST 13-5
- UST 271-AV1
- UST 271-AV2
- UST 340-1 (also known as AOC 340)
- UST 374-1
- UST 374-2
- UST 374P-1 (also known as RCRA (R)-10)
- UST 392-1
- UST 393-1
- UST 40-1
- UST 411-1
- UST 7-1
- UST(R)-10/ NAS GAP 27

#### **4.2.5 Closed Aboveground Storage Tanks, Oil and Water Separators, and Fuel Lines**

Closed Petroleum Program ASTs, OWSs, and FLs present in the FOST Parcel not associated with a CAA are listed below. Additional information can be found in [Table 3](#), [Table 4](#), and [Table 7](#). Sites listed below were closed without land use restrictions:

- AST 176
- AST 179
- AST 623B
- AST 623C
- AST 623D
- AST 623F
- AST 623G
- AST 623H
- AST 623I
- OWS 494
- OWS 588
- FL-016
- FL-016B
- FL-023
- FL-023E
- FL-023G
- FL-023H
- FL-157
- FL-163

### **4.3 ASBESTOS-CONTAINING MATERIAL**

DoD policy is to manage ACM in a manner protective of human health and the environment, and to comply with all applicable federal, state, and local laws and regulations governing ACM hazards (DoD 1994). All property subject to this FOST was subject to an Economic Development Conveyance MOA between the Navy and ARRA (now the City of Alameda), dated June 6, 2000. All available information regarding the existence, extent and condition of known ACM was fully identified in Exhibit "I" to the Economic Development Conveyance MOA. Pursuant to and contemporaneous with that agreement, a real property interest for all of the FOST Parcel was conveyed to the ARRA in accordance with and subject to a LIFOC. Prior to that, the property had been leased to the ARRA pursuant to an LPL. All available information regarding the existence, extent, and condition of known ACM was fully identified in Exhibit "B" to the LPL.

Since that time, ACM which, following the commencement of the LPL, may have become damaged or deteriorated through the passage of time, or as a consequence of the ARRA (now the City of Alameda) activities, has been the responsibility of the ARRA (now the City of Alameda). In addition, the ARRA (now the City of Alameda) has been responsible for monitoring the condition of existing ACM on the FOST Parcel for deterioration or damage and accomplishing repairs or abatement pursuant to the LIFOC, and has agreed to comply with all applicable federal, state, and local laws relating to ACM. The ARRA (now the City of Alameda) has agreed to prohibit occupancy of buildings or structures containing known ACM prior to abatement of the ACM or demolition of the structure. The Navy is not responsible for any damages relating to ACM arising out of any activities occurring after the date of the LIFOC.

No additional notices are required with respect to ACM. A restriction is required as discussed in [Section 5.3](#) to carry forward the appropriate ACM restrictions from the LIFOC.

### **4.4 LEAD-BASED PAINT**

LBP hazards are defined in the Federal Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102550), as codified in 42 USC § 4822 (Act) as “any condition that causes exposure to lead...that would result in adverse health effects.” The Act provides for regulation of lead hazard abatement from LBP. Hazards include lead-contaminated dust and soil for target housing only. The Act defines target housing as any housing constructed before 1978, except any housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any zero-bedroom dwelling. Under the Act, the Navy is required to disclose the presence of known LBP and/or LBP hazards prior to the sale or transfer of property to a non-federal entity.

In 1998, the Navy conducted a LBP risk assessment for former NAS Alameda. The Navy found LBP hazards throughout (i.e., the interior and exterior of all former housing units surveyed). Notice of the existence of LBP at former NAS Alameda was provided to the ARRA (now the City of Alameda) in 2000 when the LIFOC was executed. The LIFOC transferred all responsibility for LBP from the Navy to the ARRA (now the City of Alameda) and required the ARRA (now the City of Alameda) to comply with all applicable federal, state, and local laws.

The LIFOC notified the ARRA (now the City of Alameda) that (1) buildings and other painted structures in the leased premises potentially contained LBP, and (2) such buildings and structures were not suitable for occupancy for residential purposes until any inspections and abatement required by applicable law have been completed. As a condition of property transfer, the City of Alameda will be required to acknowledge receipt of the U.S. EPA-approved pamphlet, “Protect Your Family From Lead in Your Home,” (EPA 747-K-94-001) and to agree that in any improvements on the FOST Parcel defined as target housing by Title X and constructed before 1978, LBP hazards will be disclosed to future occupants before use of such improvements as a residential dwelling.

A notification will be provided that buildings at former NAS Alameda that were constructed prior to 1978 may contain LBP, and demolition of nonresidential buildings constructed before 1978 poses the possibility that lead will be found in the soil as a result of these activities. If the transferee intends to demolish and redevelop for residential use after transfer any nonresidential buildings, the transferee may, under applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to the nonresidential buildings for the hazards of lead in soil. Residential buildings identified with LBP are summarized on [Table 6](#).

No additional notices are required with respect LBP. A restriction is required as discussed in [Section 5.4](#) to carry forward the appropriate LBP restrictions from the LIFOC.

#### **4.5 POLYCHLORINATED BIPHENYLS**

DoD policy guidance for PCBs is based on the Toxic Substances Control Act (TSCA) regulations found in Title 40 CFR Part 761. All Navy equipment at former NAS Alameda with oil or other dielectric fluids that contain PCBs had a PCB concentration of less than 40 parts per million (ppm), and all of the equipment on the FOST Parcel was transferred to the Alameda Bureau of Power and Light, currently known as the Alameda Municipal Power in 2001.

#### **4.6 MUNITIONS AND EXPLOSIVES OF CONCERN**

Under the Munitions Response Program (MRP), the Navy conducted a search to address munitions and explosives of concern (MEC), and munitions constituents used or released at sites from past on-site activities.

In 1994 an Environmental Baseline Survey (EBS) was prepared and included a fence-to-fence inspection, a comprehensive document review, and personnel interviews to establish the history of MEC use, storage, and disposal at former NAS Alameda. The EBS documented use and storage of MEC, but did not identify any MEC disposal within the parcel boundaries of this FOST ([ERM-West 1994](#)).

Ordnance has been stored and used at former NAS Alameda throughout its history as a military installation. Ordnance storage included ship and aircraft weapons systems, combat force weapons, and small arms and ammunition used by base security personnel. The Navy has removed all stored ordnance from former NAS Alameda ([EFA-West 1999](#)).

No further MEC investigation is required for the FOST Parcel.

## **4.7 RADIOLOGICAL PROGRAM**

During the base-wide EBS, the Navy reviewed on-site records and searched for additional information on known and potential uses of radiological materials at former NAS Alameda ([ERM-West 1994](#)). Radioactive materials are any materials that are radioactive, except excluded radioactive materials as defined in Section 101(22) of CERCLA. Following this, a 1995 survey and a subsequent Historical Radiological Assessment (HRA) were conducted by the Navy.

The results of the HRA were presented as a two-volume set. Volume I addressed radioactivity associated with the Naval Nuclear Propulsion Program (Pearl Harbor Naval Shipyard [\[PHNSY\] 2000](#)) and Volume II addressed radioactivity associated with general radioactive material (G-RAM) which, for the purposes of the HRA, is defined as any radioactive material used by the Navy or Navy contractors not associated with the Naval Nuclear Propulsion Program ([Weston 2007](#)). The two volumes were written by different organizations and published separately because different Naval Sea Systems Command offices manage G-RAM apart from the Naval Nuclear Propulsion Program.

### **4.7.1 Naval Nuclear Propulsion Program**

Historically, nuclear-powered ships have used former NAS Alameda port facilities. Volume I of the HRA presents the Navy's investigation of radioactivity associated with the Naval Nuclear Propulsion Program at former NAS Alameda ([PHNSY 2000](#)). The HRA assessed the impact on the environment from nuclear-powered ship maintenance, overhaul, and refueling. The HRA concluded that the berthing and maintenance of nuclear-powered ships at former NAS Alameda from 1956 to 1997 resulted in no adverse effects on human health or the environment. Volume I of the HRA also concluded that an independent review conducted by U.S. EPA was consistent with findings presented in the Navy report ([EFA-West 1999](#)).

No notices or restrictions are required regarding the Naval Nuclear Propulsion Program.

### **4.7.2 General Radioactive Material**

Former NAS Alameda used and stored G-RAM during past base operations. The Volume II HRA designated historical use sites as either radiologically "impacted" or "non-impacted". The HRA defined a site as "impacted" when the site "has or historically had a potential for G-RAM contamination based on the site operating history or known contamination detected during previous radiation surveys." An "impacted" site designation identified a site as having a possibility for contamination based on historical records. Impacted sites include sites where radioactive materials were used or stored; sites where known spills, discharges, or other instances involving radioactive materials have occurred; or sites where radioactive materials might have been disposed of or buried ([Weston 2007](#)).

Of 685 potential G-RAM sites at former NAS Alameda, the HRA designated 23 sites as radiologically "impacted." Of these impacted sites, nine are located within the FOST Parcel ([Table 5](#)). The radiological site locations and status of each site are shown on [Figure 9](#). Other radiologically impacted sites identified in the HRA are located outside the boundaries of this FOST and described in [Section 6.0](#).

**Sewer Line F - RAD SS-F** – The storm drain lines associated with Buildings 5 and 400 that discharge into the northwest corner of Seaplane Lagoon contained radioactive contamination and required a response action. An Action Memorandum was issued to document this decision, and a TCRA work plan was finalized in June 2008. Excavation of lines began in July 2008 and demobilization was completed in September 2010. Where necessary to accommodate drainage needs, new storm drain lines were installed to replace those that were removed. Radiologically impacted soil and debris were characterized and disposed of at a fully permitted off-site disposal facility (Tetra Tech EC [TtECI] 2011). The Final TCRA report was submitted in September 2011 (TtECI 2011) and no further action is required for these lines.

**Building 310 - RAD 053-2 -, and Building 309 - RAD 053-3** - Buildings 309 and 310 were located above the storm drain line and were subsequently surveyed and demolished during the removal for access to the drain line. The Final TCRA report that documents these activities was submitted in September 2011 (TtECI 2011) and no further action is required for these sites.

**Hangar 12 RAD 053-1** – In the HRA, Hangar 12 was recommended for No Further Action. The HRA noted that the California Department of Health Services (predecessor organization to CDPH) verified Navy Radiological Affairs Support Office (RASO) surveys, performed some confirmation surveys, and concurred with the unrestricted release for Hangar 12. No further action is required for RAD 053-1 (Weston 2007) and the site is closed.

**Building 114 Courtyard - RAD 075** - Building 114 Courtyard is located within IR Site 8 and is a large, asphalt-paved area between sections of Building 114 and surrounding a smaller Building 191. There is no history of the Navy storing radioactive material in the courtyard prior to base closure; however, one area has been used for the temporary storage of radium-contaminated piping removed by remediation contractors from Building 5 (ChaduxTt 2012b). The radionuclide of concern is radium-226 based on the HRA (Weston 2007). A survey was performed to confirm that the courtyard is free of radioactive materials (ChaduxTt 2012b). The piping consisted of drain piping from the rooms used for radium dial painting and dial maintenance. The contaminated piping was stored in closed bins along the north side of the southern portion of Building 114 Courtyard. Approximately 14,000 square feet were surveyed and the survey included alpha surface scanning measurements, direct measurements, swipe surveys at defined and random locations for alpha and beta radiations, and measurements of radioactivity in courtyard drains (ChaduxTt 2012b).

The results of alpha surface radioactivity measurements collected in the 13 survey units of the Building 114 Courtyard indicate that only background levels of radioactivity are present, with no measurements exceeding the release criteria. The data are normally distributed above and below established site-specific background levels, with distributions typical of background radioactivity. No evidence of residual radioactivity from historical Navy activities was found and the Building 114 Courtyard is suitable for unrestricted use (ChaduxTt 2013).

**Building 7 - RAD 082** - Building 7 contained laboratory instrumentation that used radioactive sources. Building 7 was noted as impacted in the HRA because of the loss of a sealed radioactive source in 1989 from one of the instruments used in the laboratory (ChaduxTt 2011a). The sealed sources contained in Building 7 instrumentation were controlled under Navy Radioactive Materials Permit (NRMP) No. 04-00236-K1NP (ChaduxTt 2011a). The NRMP was closed after all efforts to locate the source had been exhausted and all known sources were transferred to



Nuclear Regulatory Commission license holders. In June 1997, the Navy RASO recommended termination of the NRMP. In October 1997, a closeout scoping survey was conducted of Rooms 211, 212, and 215 in Building 7 to evaluate whether residual contamination existed from the lost sealed source. No results were above background ([ChaduxTt 2011a](#)). A 1997 RASO review of the surveys in Building 7 concluded that the building was suitable for unrestricted use. The Navy published a Building 7 radiological closure report ([ChaduxTt 2011a](#)).

**Seaplane Ramp and Parking Apron- RAD 23F** – The HRA listed the Seaplane Ramp and Parking Apron as an impacted site with the Recommended Action of Free Release pending final Navy and regulatory agency review and concurrence of a 100% gamma survey. “Free release” is defined in the HRA as *“a recommendation made after historical documentation and previous and current investigations and surveys indicate all applicable release criteria have been met and the site is ready for review by Navy and regulatory agencies for future non-radiological use.”*

The Final Radiation Survey Report was reviewed and concurred by Navy and regulatory agencies ([PRCEMI 1998](#)). In January 2011, the Seaplane Ramp and Parking Apron was incorporated in the Radiological Controlled Area (RCA) in support of the Site 17, Seaplane Lagoon, remedial action. As part of the Navy’s work plan a drying pad was built over the previously released area. While discreet sources of radioactive materials were found in the sediment, no loose sediment contamination was found. After the dredge work and sediment drying was completed, the Navy removed the pads. The portion of the Seaplane Lagoon Ramp and Parking Apron that is included in this FOST was surveyed for radioactivity and the results indicate that only background levels of radioactivity are present, with no measurements exceeding the release criteria. The data are normally distributed above and below established site-specific background levels, with distributions typical of background radioactivity. No evidence of residual radioactivity from historical Navy activities was found and no further action is required for this area prior to transfer. A formal completion report reporting results for the entire area is planned for 2014.

**Building 66 - RAD 125** - Building 66 is a single-story, approximately 31,000-square-foot structure used for aircraft engine work and engine accessory testing. Included were work on spark gap irradiators that contained radioactive materials, and possible decontamination and overhaul of contaminated aircraft engines. Radionuclides of concern are cesium 137, cobalt 60, strontium 90, plutonium 239, and uranium dioxide ([ChaduxTt 2011b](#)). Based on the recommendation of the HRA ([Weston 2007](#)), a survey was performed to confirm that the building is free of radioactive materials associated with historical Navy activities and Building 66 is suitable for unrestricted use ([ChaduxTt 2012a](#)).

**Former Smelter Area - RAD 125-1** - The Former Smelter Area is a 40,000-square-foot area east of Building 66 where a former smelter building was previously constructed. The Smelter Area is now occupied by Buildings 398 and 399 and associated support equipment. The HRA ([Weston 2007](#)) identified the possibility that radium components were melted down at the smelter, along with other metal components when the previous smelter was in operation. A scoping survey was performed to evaluate whether radionuclides of concern were present in accessible areas and to provide information to assist in assessing whether the site was impacted or non-impacted and to identify future actions, if necessary ([ChaduxTt 2012a](#)). The results of the scoping survey did not identify any radioactivity in soil or the concrete pad above background

levels or that can be associated with the Navy's former smelter operations; therefore, the site is suitable for unrestricted use ([ChaduxTt 2012b](#)).

#### **4.8 PESTICIDES**

The FOST Parcel may contain residue from pesticides that have been applied in the management of the property. The Navy knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act, Title 7 USC § 136, et seq., its implementing regulations, and according to the labeling provided with such substances. It is the Navy's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, Title 42 USC §§ 96720(h)(3)(A)(ii), for the remediation of legally applied pesticides.

#### **4.9 OTHER AREAS INVESTIGATED/ISSUES**

No other locations of concern were identified in areas that are not within IR Site boundaries.

### **5.0 SUMMARY OF RESTRICTIONS**

This section summarizes the restrictions if any, associated with the FOST Parcel proposed for transfer related to CERCLA/RCRA sites, petroleum products and derivatives, ACM, and LBP. These restrictions on certain activities ensure that post-transfer use of the FOST Parcel is consistent with protection of human health and the environment.

#### **5.1 CERCLA**

As detailed in the following subsections, ICs will be implemented to prevent exposures to COCs in soil and groundwater on the property. Legal instruments known as restrictive covenants will include land use and activity restrictions in the deed between the Navy and the property recipient and in "Covenants(s) to Restrict Use of Property (CRUP)" between the DTSC and the Navy to limit exposure to contaminated soil, and groundwater. The CERCLA ICs will be implemented in accordance with remedial design documents for CERCLA sites where the remedy is either complete or the remedy is ongoing but has been determined to be operating successfully. The following land use and activity restrictions were developed and presented in RODs and within this FOST for sites where the remedy is ongoing but has been determined to be operating successfully.

##### **5.1.1 CERCLA Sites with Remedial Action Complete**

All sites with Response Complete are unrestricted, with the exception of OU-2A. OU-2A requires ICs, including legal controls that minimize the potential for human exposure to impacted groundwater by restricting its use. The legal controls prohibit use of groundwater. ICs include a restriction on installation of groundwater wells and/or production of shallow groundwater (i.e., groundwater present above the Yerba Buena Mud).



### 5.1.2 CERCLA Sites that have an OPS Determination

The subject CERCLA sites are described in [Section 4.1](#) and [Section 4.7](#) and listed in [Table 1](#). These sites are those for which an OPS determination has been made but RAOs have yet to be achieved. The deed will contain the following restrictions for these CERCLA sites:

- A covenant by the transferee on behalf of itself, its successors, and assigns that prohibits any excavation, grading, removal, trenching, filling, earth movement, mining, or other disturbance of the soil or groundwater, including development at these sites, at or below six inches of the current ground surface without a site management plan approved by the Navy and regulatory agencies.
- No land use change will be implemented that substantially increases risk to human health, the environment, or water quality due to residual contamination without prior consultation with the Navy.
- No construction of any kind without written approval by the Navy.
- No disturbance of or limitations on access to groundwater wells ([Figure 10](#)), or remedial systems
- The Navy retains the right to access, and retains real property interests sufficient to install, maintain, operate, and remove groundwater wells or remedial systems as needed

The footprints of the portions of CERCLA sites for which these restrictions apply are shown in [Figure 11](#).

These interim restrictions may be removed as documented by a ROD or RACR concurred with by the US EPA.

### 5.1.3 Marsh Crust

The Final Marsh Crust RAP/ROD was signed in February 2001 ([Navy 2001](#)). The Marsh Crust RAP/ROD identifies restrictions on excavations within all of the upland FOST Parcel (see [Figure 11](#)).

For the areas shown on [Figure 11](#), excavation within the Marsh Crust and former subtidal area is prohibited, unless proper precautions are taken to protect worker health and safety and to ensure that excavated material is disposed of properly. This prohibition will be implemented with a three-tiered approach following transfer of the land from the Navy to the City: (1) a land use covenant will be executed between DTSC and the City of Alameda, (2) an Environmental Restriction will be included in the Deed, and (3) enforcement of the existing City of Alameda Excavation Ordinance Number 2824 ([City Ordinance 2824] [Navy 2001](#)). The Navy, City and DTSC will all have enforcement authority for the Marsh Crust restrictions.

## 5.2 PETROLEUM PRODUCTS AND DERIVATIVES

Although the Navy intends to obtain regulatory closure for all sites under the petroleum program, the FOST Parcel will likely be transferred before the Navy obtains regulatory closure for some

petroleum sites, and obtaining regulatory closure, including required investigation, remediation, and reporting, for these sites shall remain the Navy's responsibility after the transfer. Transfer while petroleum remediation is ongoing is allowable under CERCLA because Section 101(14) excludes crude oil and fractions of crude oil, including the hazardous substances such as benzene that are constituents of those petroleum substances, from the definition of hazardous substance. The Navy will fulfill its petroleum remediation obligation either by completing regulatory closure under Navy direction or by negotiating an agreement with the transferee to complete these actions on behalf of the Navy.

Based on current environmental conditions, some petroleum-impacted areas of the FOST Parcel cannot support unrestricted use due to potentially unacceptable human health risk from residual petroleum contamination in soil and/or groundwater. In addition, after property transfer the presence of residual petroleum in some areas of the FOST Parcel will require implementation of procedures for proper handling and disposal of any potentially contaminated soil or groundwater encountered during construction or removal from the site. Accordingly, land use or activity restrictions relating to the presence of residual petroleum contamination will be necessary.

Federal quitclaim deed(s) for transfer of property that include petroleum sites subject to restrictions will contain a notice stating that the property has been investigated and remediated, but contains residual petroleum contamination, and the property will be the subject of a recorded covenant between the City of Alameda and the Water Board which identifies the conditions and requirements necessary to protect human health, safety and the environment ("Covenant"). The Covenant will be executed and recorded immediately following conveyance of the property by the Navy to the City of Alameda. A footprint of sites to which the Covenant shall apply shall be identified on a map to be approved by the Water Board and attached to the Covenant. Property that includes such restricted closed petroleum sites will be enrolled in the City of Alameda Land-Use Restriction Tracking and Soil/Groundwater Management Plan Program ("City Program"). Any work conducted on the property that involves soil excavation, trenching, or groundwater contact shall be conducted in accordance with the Covenant and the City Program.

Federal quitclaim deed(s) for transfer of property that include open petroleum sites not subject to restrictions will contain a notice saying that the property has not been remediated to the satisfaction of the Water Board, or has not been investigated to the satisfaction of the Water Board to determine whether corrective action is appropriate. The property will be enrolled in the City Program discussed above, and any work conducted on the property that involves soil excavation, trenching, or groundwater contact shall be conducted pursuant to a soil/groundwater management plan that is acceptable to the Water Board, and in accordance with the City Program.

### **5.3 ASBESTOS-CONTAINING MATERIAL**

The deed will contain a restriction that the transferee covenants, on behalf of itself, its successors and assigns, as a covenant running with the land, that it will prohibit occupancy and use of buildings and structures, or portions thereof, containing known asbestos hazards before abatement of such hazards. In connection with its use and occupancy of the FOST Parcel, including, but not limited to, demolition of buildings and structures containing asbestos or ACM, it will comply with all applicable federal, state, and local laws relating to asbestos and ACM.

In the event that friable, accessible, or damaged asbestos is discovered by the transferee, access, use, or occupancy is prohibited until either (1) any necessary ACM abatement has been completed, or (2) the building is demolished by the transferee in accordance with all applicable federal, state, and local laws and other requirements relating to asbestos or ACM. Until abatement or demolition is complete, the transferee must manage the ACM in accordance with all applicable federal, state, and local laws and requirements.

#### **5.4 LEAD-BASED PAINT**

The deed will contain a restriction that the transferee covenants, on behalf of itself, its successors and assigns, as a covenant running with the land, in its use and occupancy of the property, including, but not limited to, demolition of buildings, structures, and facilities, and identification and evaluation of any LBP hazards, the transferee shall be responsible for managing LBP and LBP hazards in accordance with applicable federal, state, and local laws, and other requirements relating to LBP and LBP hazards. Further, the transferee, its successors, and assigns will prohibit residential occupancy and use of buildings and structures, or portions thereof, prior to identification and/or evaluation of any LBP hazards, and abatement of any hazards identified as required.

#### **6.0 ADJACENT PROPERTIES**

The CERCLA and Petroleum Program sites located immediately adjacent to FOST Parcel that could affect the FOST Parcel are discussed in this section. Environmental programs at former NAS Alameda have progressed to the point where characterization of the extent of contamination is generally complete and the CERCLA and petroleum site boundaries have been established to conservatively encompass all known contamination as well as any anticipated migration. As a result, these boundaries may be generally relied upon to determine if the FOST Parcel is impacted by adjacent sites simply by determining if the site boundaries overlap into the FOST Parcel. A review of CERCLA and Petroleum Program sites adjacent to FOST Parcel shows that none of the adjacent sites is a potential source of contamination to the FOST Parcel, as further discussed below.

#### **6.1 ENVIROSTOR AND GEOTRACKER LISTED SITES**

The DTSC EnviroStor and Water Board Geotracker web sites were reviewed to determine if adjacent sites exist to the east of the FOST Parcel that could affect the FOST Parcel. No sites are shown on the EnviroStor site and three open UST sites are shown on the Geotracker site. One UST site is the Encinal High School leaking UST (LUST) site. However, it is not expected to impact the FOST Parcel due to its distance from the FOST Parcel and its status is listed as case closed. Four open UST sites are USTs 173-1 through 3 and UST 506-1, and these are shown as located east of Main Street; however, the location and status in Geotracker are both incorrect. Site closure letters have been issued by the Water Board for each of these sites and the USTs are actually located in the FOST Parcel west of Main Street.

## **6.2 FORMER NAS ALAMEDA ADJACENT PROPERTY**

Sites located on former NAS Alameda that are situated adjacent to the FOST Parcel and are undergoing evaluation or remedial action are discussed and no impact is anticipated to the FOST Parcel from this adjacent property, as detailed below.

### **6.2.1 OU-1 (IR Sites 6 and 16)**

There is a high degree of confidence in the IR Site 6 and 16 boundaries as the sites have progressed through ROD and have had CERCLA remedies implemented. IR Site 6, Aircraft Intermediate Maintenance Facility, is 5.6 acres in size, located in the mid-eastern area of former NAS Alameda ([Figure 3](#)), and includes Buildings 41, 273, and 501; asphalt; concrete; roads; and parking lots. No COCs were identified for soil. The selected remedy for groundwater is ISCO.

IR Site 16, Shipping Container Storage Area (CANS), is 11.1 acres in size and is located in the southeastern portion of former NAS Alameda ([Figure 3](#)). IR Site 16 consists mostly of asphalt paved areas, concrete roads, parking lots, and buildings and storage sheds, with some unpaved open areas. A portion of IR Site 16 is occupied by a storage facility, and another portion is used as an auto shop. The remedial action for soil began in October 2009 and was completed in March 2010. NFA is required for Site 16 soil ([URS 2012a](#)).

The remedial action for groundwater in the ROD was treatment to remediation goals with ISCO, MNA, and ICs. ISCO was implemented in May 2010. Plume boundaries for IR Sites 6 and 16 do not, and are not, expected to impact the FOST Parcel.

### **6.2.2 OU-2B (IR Sites 3, 4, 11 and 21) and Petroleum Sites CAA-11B, CAA-4A, CAA-3A, CAA-3C, and CAA-4B**

There is a high degree of confidence in the OU-2B site boundaries as the site has progressed through RI and FS. The RI included assessment of total petroleum hydrocarbon (TPH) contamination to soil and groundwater from Petroleum Sites CAA-11B, CAA-4A, and CAA-4B. As a result, the site boundaries may be relied upon to determine if the FOST Parcel is impacted by this adjacent site and those site boundaries do not overlap into the FOST Parcel. CAA-3C contained aviation gas tanks that were all cleaned and closed in place, and includes petroleum site CAA-3A. Site CAA-3C is adequately characterized and, while additional characterization of Site CAA-3A has been recommended, plume boundaries do not and are not expected to impact the FOST Parcel.

### **6.2.3 OU-2C (IR Sites 5, 10, 12) Petroleum Sites CAA-5A and CAA-5B**

IR Site 5, also known as Building 5 (Aircraft Rework Facility), is 47 acres in size and is located on the north side of OU-2C. IR Site 5 is relatively flat and includes several buildings, paved parking lots, and roads. Building 5 is the largest building and covers approximately 32 percent of the site. Additional features associated with IR Site 5 include several smaller buildings and paved and unpaved open space, USTs, ASTs, OWSs 005, 006A, 006B, and 615, SWMUs, sanitary sewer lines, storm drain lines, and industrial waste lines. IR Site 5 was used for aircraft, aircraft component repair, and maintenance operations. Four CAAs have been identified in IR

Site 5 around Building 5 under the Petroleum Program: CAA-5B West (south of Building 5); CAA-5A and CAA-B (east of Building 5); and CAA-5B (south of Building 5).

VOCs and metals were identified as COCs in soil. VOCs were identified as COCs in groundwater at IR Site 5. The presence of TPH-related compounds in soil and groundwater that are not being handled under CERCLA are being addressed under the Petroleum Program at IR Site 5. Potentially radiologically impacted storm drain lines running to the north and to the east of IR Site 5 are included in the OU-2C program.

IR Site 10, also known as Building 400 (Missile Rework Operations), is 4 acres in size and is located on the south side of OU-2C. IR Site 10 is relatively flat and is covered by buildings, paved parking lots, and roads. Building 400 covers approximately 85 percent of the site. Building 400 is currently used as office space and a production lot. Because of possible petroleum contamination, a portion of IR Site 10 is designated as CAA-5C ([Bechtel 2007](#)). No impacts to the FOST Parcel are anticipated from IR Site 10.

IR Site 12, also known as Building 10 (Power Plant), is 2 acres in size and is located on the southwestern corner of OU-2C. IR Site 12 is relatively flat and is covered by buildings, paved parking lots, and roads. Building 10 occupies approximately 25 percent of the site. Ten percent of IR Site 12 is unpaved; the remaining 70 percent is paved and consists of roads and parking lots. From the late 1930s to the early 1970s, Building 10 was used as the power plant that generated steam and compressed air. No action was recommended at IR Site 12 in the RI report ([Bechtel 2007](#)). No impacts to the FOST Parcel are anticipated from IR Site 12.

An addendum to the OU-2C FS report was finalized in January 2012 ([TtECI 2012a](#)) and supplements the final FS Report for OU-2C IR Sites 5 and 10, which was finalized in May 2011 ([Battelle 2011c](#)). The Proposed Plan was submitted October 4, 2012 ([Navy 2012d](#)).

Petroleum Site CAA-5A - the site includes waste oil tanks AST 005G and UST 5-3 and jet fuel tank UST 5-2. No impacts to the FOST Parcel are anticipated from CAA-5A.

#### **6.2.4 OU-3 (IR Site 1)**

IR Site 1, also known as the 1943-1956 Disposal Area, occupies 36.8 acres. IR Site 1 is located in the northwestern portion of former NAS Alameda. Approximately 15.5 acres of seasonal wetlands were identified at IR Site 1. IR Site 1 includes four buildings (111, 133, 339, and 576), part of former aircraft runways 7 and 13, a former pistol range, a former pistol and skeet range, a former baseball field, a former aircraft engine and part storage area, three closed ASTs (AST 466A, 466B, 467A) that stored diesel and hydraulic fluid, three catch basins, and several storm and sanitary sewer lines. IR Site 1 was primarily used to dispose of waste, store aircraft parts and petroleum, and as a pistol and skeet range ([Navy 2009](#)).

A radiological survey of IR Site 1 in 1998 resulted in the discovery of 335 live, 20-millimeter (mm), high-explosive projectiles and two small arms rounds. In 2007, a TCRA was conducted to remove material potentially presenting an explosive hazard (MPPEH) at a former Firing-Range Berm and Debris Pit at IR Site 1 ([TtECI 2009](#)). No future MRP activity, including the imposition of explosive arcs, is anticipated that would impact the FOST Parcel.

The final ROD was submitted in February 2009 and includes treatment of groundwater to remediation goals with ISCO, MNA, and long-term groundwater monitoring to ensure permanent reduction of COCs. A radiological RD/RAWP was issued in October 2012. A groundwater remedial design implementation plan was issued in December 2011. The groundwater remedial action (ISCO) began in February 2012. A final sampling and analysis plan for the burn area focused feasibility study was issued in May 2012 ([AMEC Earth and Environment 2012](#)). Submittal of an IR Site 1 ROD amendment is pending.

#### **6.2.5 OU-4A (IR Site 2)**

IR Site 2, also known as OU-4A and referred to as the West Beach Landfill and Wetlands, encompasses 127.1 acres in the far southwestern portion of former NAS Alameda. The landfill portion of the site (West Beach Landfill) occupies 77 acres and the wetlands portion of the site (West Beach Wetlands) occupies approximately 33 acres. IR Site 2 was originally constructed in a shallow open water environment through dredging and filling. Beginning in 1956, IR Site 2 was reportedly used for disposal of waste generated by former NAS Alameda activities from the 1950s through 1978. Landfill operations at IR Site 2 terminated in early 1978 ([Battelle and BBL 2008](#)).

An approximately 2.5-acre burial site containing MPPEH was located in the southeast corner of the IR Site 2 landfill. The identification of this area was based on the results of a geophysical survey, site history, and interviews conducted with former NAS Alameda departmental personnel.

Reportedly, the MPPEH originated from the Defense Logistics Agency in Alameda. Approximately four truckloads of MPPEH ranging in size (from 4 feet long by 1 foot wide to smaller munitions) were disposed of at this location in 1976 ([SSPORTS 1999](#)). In 2002, a total of 8,675 20-mm soft-steel target practice rounds were identified within 12 inches of the surface at the burial site, and were removed in accordance with an emergency removal action ([FWC 2003](#)). Given the implementation of this removal action and the results of other subsequent investigation activities that have not indicated the presence of MPPEH, the Final FS for IR Site 2 does not consider MPPEH a significant issue pertinent to the overall risk management framework for the site ([Battelle and BBL 2008](#)).

Based on a human health risk assessment, PAHs, total PCBs, metals, and radionuclides were identified as primary human risk drivers in soil at IR Site 2 in the landfill area. Metals, total PCBs, and radionuclides were identified as primary human risk drivers in soil in the wetland area, again based on the risk assessment. A TCRA was recommended to address radionuclides in surface and subsurface soil at IR Site 2. The primary human risk drivers identified in groundwater were total PCBs, pesticides, and polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. Metals, total PCBs, pesticides, and radionuclides were identified in the ecological risk assessment as primary ecological risk drivers in soil at IR Site 2 in the landfill and the wetland areas ([Battelle and BBL 2008](#)).

The TCRA for radiological materials at IR Site 2 was completed in July 2008. The final FS report was submitted in September 2008. The final TCRA completion report was issued in August 2009. The Navy assessed the potential for off-site methane migration in December 2008, in the interest of obtaining the necessary data to support the real estate transfer. The results were



presented in the draft technical memorandum data gaps investigation results report ([SulTech 2009](#)). The Proposed Plan was issued in September 2009 and selected a multilayer soil cover, engineering controls and ICs, and monitoring for the remedial alternative. The ROD was issued in October 2010. The pre-design field investigation work plan was issued in February 2011.

#### **6.2.6 OU-4B (IR Sites 17 and 24)**

OU-4B consists of Site 17 (Seaplane Lagoon) and Site 24 (Piers 1 and 2 Sediments). The Final ROD for Site 17 was submitted in November 2006. The preferred alternative for contaminated sediment at Site 17 is dredging, dewatering, and disposal at a permitted off-site waste disposal facility. A combined Preliminary RD/RAWP was submitted in October 2007. The Site 17 RD was finalized in July 2008 and the Final RAWP was issued in January 2011. Remedial action began in January 2011 and is expected to be completed in December 2012. A TCRA was conducted to remove the construction debris piles located along the northern shoreline of Site 17 ([TtECI 2012b](#)). The Final TCRA Action Memorandum and Work Plan were issued in September 2008. TCRA fieldwork started in September 2008. After evaluation of post-dredging data, additional sediment was removed from the debris pile area in May 2011 ([Battelle 2012c](#)).

The ROD for Site 24 was issued May 2010 ([Navy 2010b](#)) and detailed the selection of the preferred alternative that includes dredging, dewatering, and disposal of contaminated sediment at a permitted off-site waste disposal facility.

#### **6.2.7 IR Site 32 (Northwest Ordnance Storage Area) and Associated Issues**

This site was added to the CERCLA program in January 2003 based on VOCs in groundwater. DTSC accepted the draft final RI report, with data gaps to be filled during the RD phase. A final FS was issued in January 2008; however, a TCRA completed in June of 2008 expanded the investigation of Site 32 outside of the IR site boundary adjacent to the FOST Parcel ([TtECI 2009](#)). The investigation of the expanded area is not complete. The FOST parcel has been changed from that presented in the draft FOST to remove those areas where the expanded investigation is taking place outside of IR Site 32. The investigation of the expanded area is not complete. The Investigation of the Site 32 area indicated that soils at IR Site 32 are radium-226 impacted. The radium-226 at IR Site 32 is not mobile.

#### **6.2.8 IR Site 33**

IR Site 33 is in the site inspection phase of investigation. An expanded site inspection report was submitted in January 2011 and a TCRA work plan and Final Action Memo have been issued. Removal actions began in the fall of 2012. The primary contaminants are PAHs in soil.

#### **6.2.9 IR Site 34 (Former Northwest Shop Area) and Associated Issues**

This site is a 4.18-acre area that is a partially paved, relatively flat open space. IR Site 34 was a Naval Air Rework Facility used to maintain base equipment, such as scaffolding and other apparatus. The site was used primarily for painting services, storage, wood and metal shops, and sandblasting. IR Site 34 formerly contained several structures, including 12 buildings (330, 331, 343, 344, 472, 474, 475, 476, 477, 479, 510, and 604) and intervening open areas; seven ASTs (330A, 330B, 344A, 344B, 344C, 344D, and 331); GAPs 78 and 79; 15 transformers; and an aviation gasoline fuel line. All buildings, ASTs, GAPs, transformers, and fuel lines were

removed between 1996 and 2000, except for their concrete pads. The ROD for Site 34 was issued April 2011 ([Navy 2011c](#)). The ROD documents the preferred remedial action of excavation, transportation, and disposal of chemically impacted soil, and no action for groundwater. In addition, soil that contains TPH above cleanup standards collocated with CERCLA contaminants would also be excavated and disposed of at an acceptable site. The disposal site will be chosen (including possible locations at Alameda Point) based on the results from the waste characterization sampling ([Navy 2011c](#)).

#### **6.2.10 EDC-12 AOC 1**

This site is a former storage yard where arsenic and cobalt were detected above background levels and residential RSLs. Investigation is ongoing, but the site is not expected to impact the FOST parcel because the contaminants are not considered mobile.

#### **6.2.11 EDC-12 AOC 6**

This site is an area where hexavalent chromium was detected in soil samples above background levels and residential RSLs. Investigation is ongoing, but the site is not expected to impact the FOST parcel because the contaminants are not considered mobile.

#### **6.2.12 Radiologically Impacted Storm Drain Corridors**

Radiologically impacted storm drain corridors are located adjacent to the FOST Parcel and originate from Buildings 5, 10, and 400 north to the Oakland Inner Harbor and south to the Seaplane Lagoon. The FOST Parcel footprint has been established to exclude these drain lines and to allow for sufficient buffer to exist between the drains and the FOST Parcel including sufficient footprint to allow for equipment access, laydown areas, and to ensure that the FOST Parcel is not impacted by any potential release from defects in the sewer system along the run of piping.

#### **6.2.13 Radiological Sites**

Some radiological sites identified in the HRA ([Weston 2007](#)) are located on land adjacent to the FOST Parcel. These sites include Building 5 (RAD 054-2), Building 400 (RAD 052), IR Site 1 (RAD IR1), IR Site 2 (RAD IR2), the RadShack Area (RAD 006), Seaplane Lagoon (RAD Lagoon), and former smelter, sanitary, and storm drain systems (RAD SS-F). In addition, the HRA also recommended a FSS be conducted for the Seaplane Ramp (RAD 23F) (a portion of which is adjacent to FOST parcel), and Pier 3 (RAD Pier 3). These adjacent sites are in various stages of evaluation and cannot be recommended for unrestricted release (any residual contamination is below today's release criteria) until the Navy and appropriate regulatory agencies have reviewed each Final Status Survey (FSS) report and agreed with the assessment.

The overall conclusion of the HRA ([Weston 2007](#)) is that low levels of radioactive contamination exist within the confines of former NAS Alameda. The review of previous radiological activities, cleanup actions, and release surveys has not identified any imminent threat or substantial risk to tenants of former NAS Alameda or the local community. The locations and status of the radiological sites are shown on [Figure 9](#).



#### **6.2.14 Petroleum Sites**

Several adjacent petroleum sites are located in proximity to the FOST Parcel and they are further discussed below:

AOC 23G – The site consists of the area around the former gas station located at the eastern end of Runway 25. The site is on property adjacent to the FOST Parcel assigned to the Department of Interior. The site contamination is beneath a current runway and separated from the FOST Parcel by sufficient distance to minimize the potential for migration of contaminants from the site to the FOST Parcel.

CAA-B – The site consists of the area around three east-west, parallel FLs used to transport jet fuel, with multiple crossing FLs (about 22,500 feet) that link a series of fueling pits. The FLs were abandoned in place in 1998. The site is located both within and adjacent to the FOST Parcel.

CAA-3A – The site consists of the area around Building 398 that was used for Auxiliary Power Units, Cooling Air Turbines, shop, and aircraft engine test cells. It includes USTs 398-1 and 398-2 (sometimes collectively called AOC 398) and associated piping. It also includes Naval Aviation Depot (NADEP) GAP 45, a turbine accessory shop in Building 398, and M-07, the Building 398 solvent distillation unit. The site also includes ASTs 398-1 through 398-3. The majority of the site is on adjacent property, with a small sliver extending into the FOST Parcel. None of the tanks was within the FOST Parcel. In 1995 the tanks were removed along with portions of the piping, and remaining portions of piping were plugged. Free product was identified during tank removal. Site investigation is ongoing.

CAA-3B - The site consists of the area around Building 109 and 430 which was a gasoline truck loading station. Historical documents suggest an inadvertent release occurred during fueling. The site has been characterized and there is no source remaining. The FOST Parcel is not expected to be impacted by any releases from the site.

CAA-3C – The site consists of the area around USTs 97-A through -E. The majority of the site is on adjacent property, with a small sliver extending into the FOST Parcel. None of the tanks was within the FOST Parcel. Leaks were found in several of the tanks in the mid- to late- 1970s. In 1987 the tanks were removed, and the FOST Parcel is not expected to be impacted by any releases from the site.

CAA-6 – The site consists of the area around Building 373 that was used as a fuel-loading station. It includes USTs 373-1 and 373-2 (sometimes collectively called AOC 373) and OWS 373, all removed in 1998-1999, and a solvent storage area known as GAP 37. DVE and biosparging systems were installed and operated between 2002 and 2005. A small portion of the site, but none of the above listed associated features, is within the FOST Parcel.

Petroleum Site CAA-6 overlaps into the FOST Parcel and requires further action for closure. Therefore, this site requires restrictions as discussed in [Section 5.0](#).

CAA-9B – The site consists of the area around Building 608 that was used as an automobile service and repair facility. Waste oil tanks and OWSs within the site footprint are assigned to

CERCLA IR Site 16, which overlaps the CAA. No tanks or other RCRA Units are associated with the CAA. The Navy is working with the Water Board to complete the closure package for this site.

## **7.0 ACCESS CLAUSE**

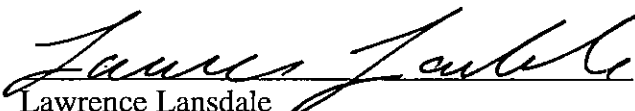
The deed(s) will reserve and the transferee shall grant to the U.S. (Navy and U.S. EPA) access to the FOST Parcel pursuant to CERCLA Section 120(h)(3)(A)(iii). DTSC, the Water Board, and U.S. EPA and their successors and assigns shall also be granted access to the property to enter the FOST Parcel in any case in which response action or corrective action is found necessary on the FOST Parcel after the date of transfer. In addition, the deed(s) will provide for a right of access for the U.S. to traverse property owned by the transferee to gain access to property still owned by the U.S.

## **8.0 COVENANTS**

The deed for transfer of any property on which "any hazardous substance was stored for one year or more, [or] known to have been released, or disposed..." as a result of former activities conducted by the U.S., will include a covenant made pursuant to CERCLA Section 120(h)(3)(A)(ii) and (B). The covenant will warrant that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to section 120(h)(3)(A)(i)(I) of the CERCLA of 1980 remaining on the property has been taken before the date of this deed(s)" and that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States." This covenant will not apply to any remedial action required on the FOST Parcel that is the result of an act or omission of the transferee that causes a new release of hazardous substances.

## **9.0 FINDING OF SUITABILITY TO TRANSFER STATEMENT**

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deed, the FOST Parcel at the former NAS Alameda is suitable for transfer.

Signature:   
Lawrence Lansdale  
by Direction of the Director  
BRAC Program Management Office West

Date: 4/19/13

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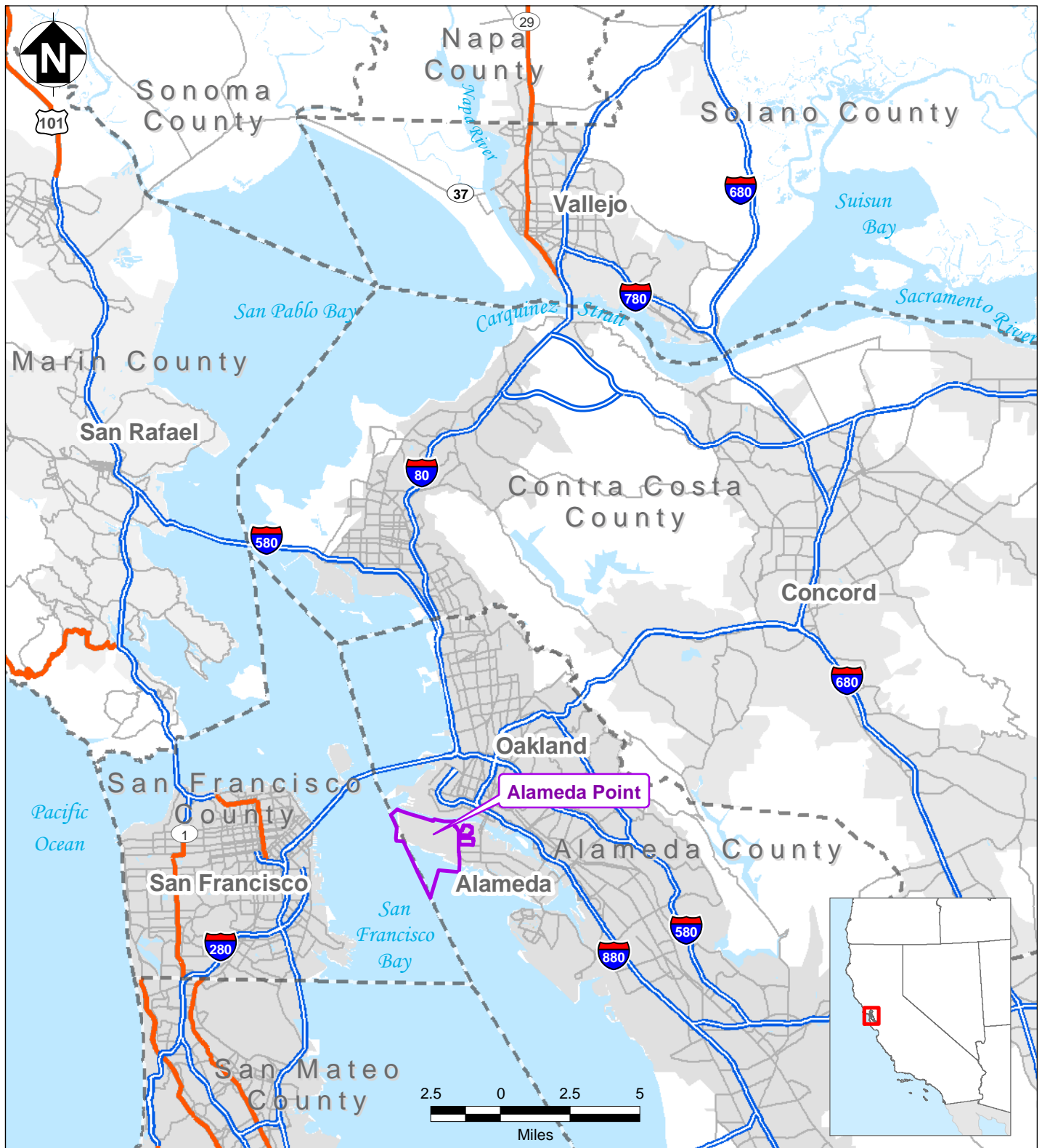
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## FIGURES

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- Former Naval Air Station Alameda
- County Boundary
- Urban Area\*
- Interstate
- Highway
- Major Road

Note:

\* Darker shading indicates greater population density



TETRA TECH

#### Alameda Point, Alameda, California

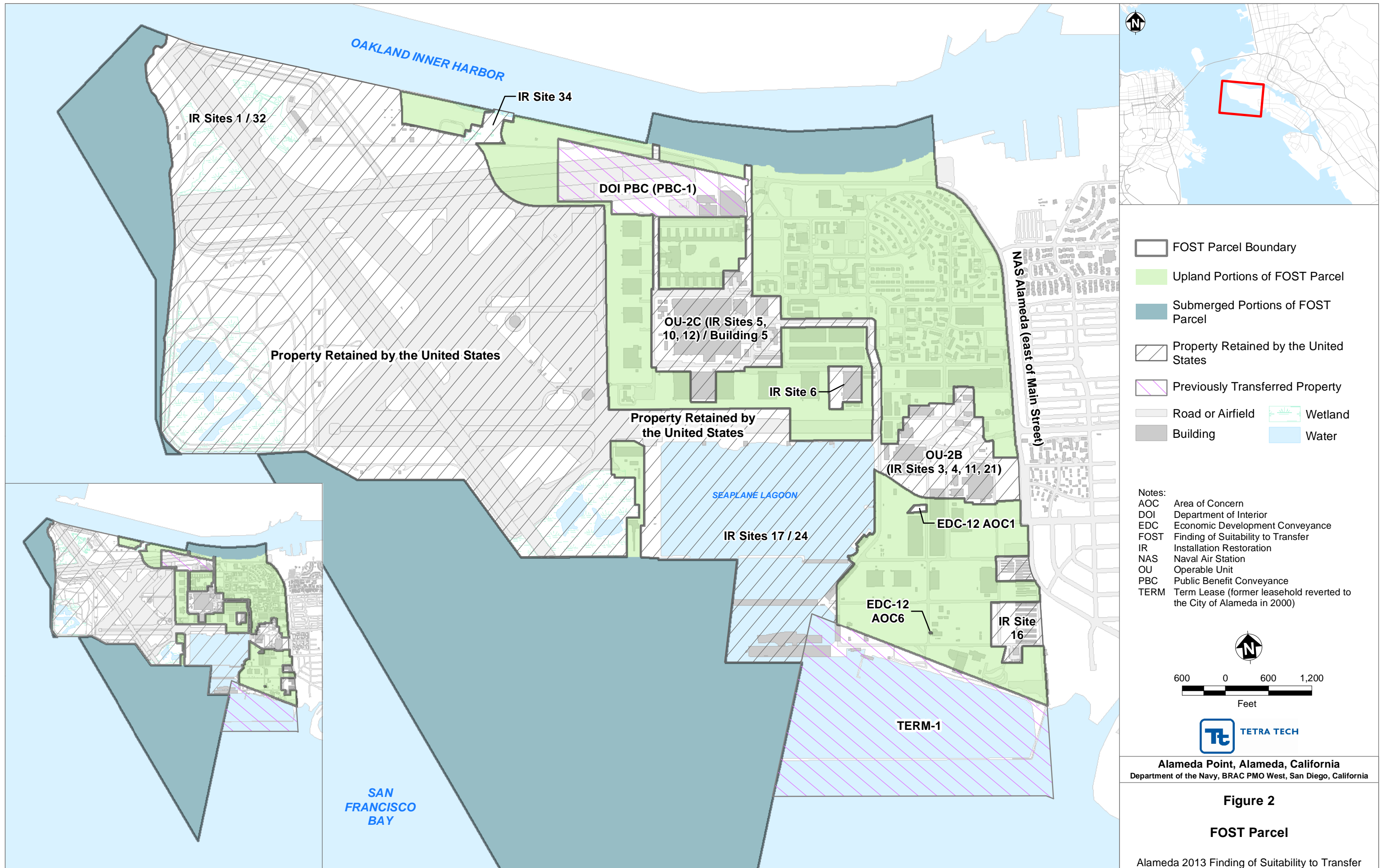
Department of the Navy, BRAC PMO West, San Diego, California

#### Figure 1

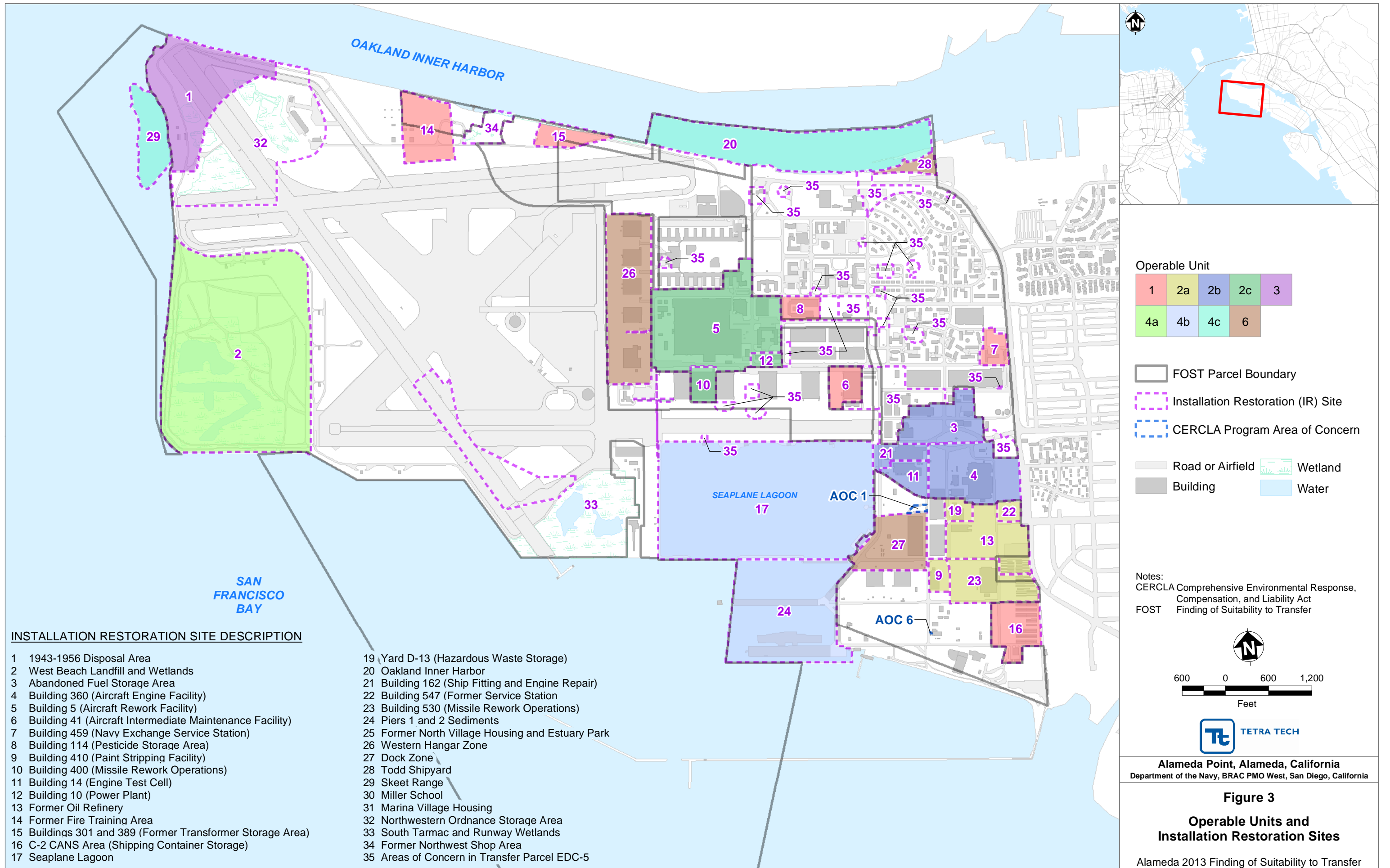
#### Site Location Map

Alameda 2013 Finding of Suitability to Transfer

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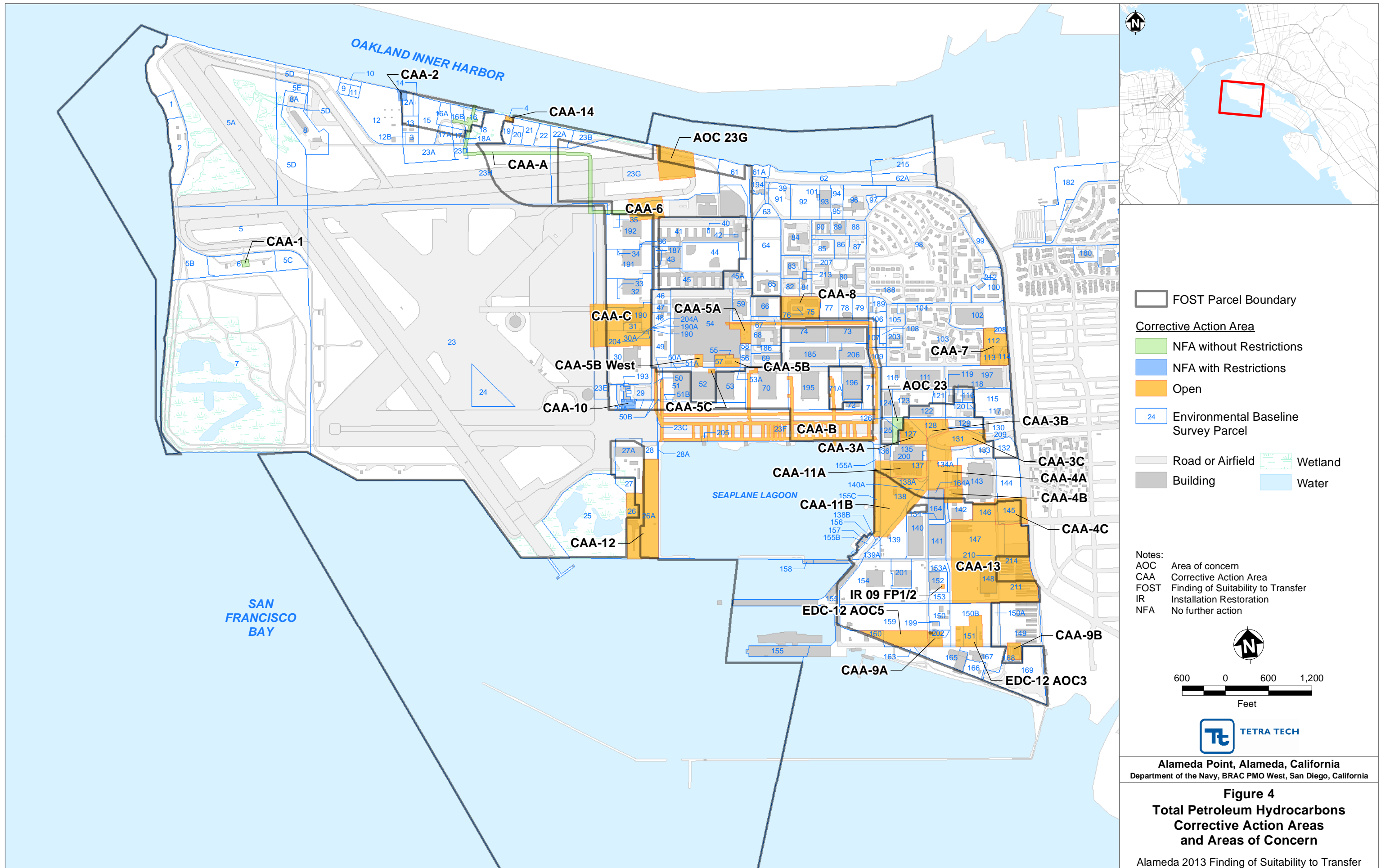


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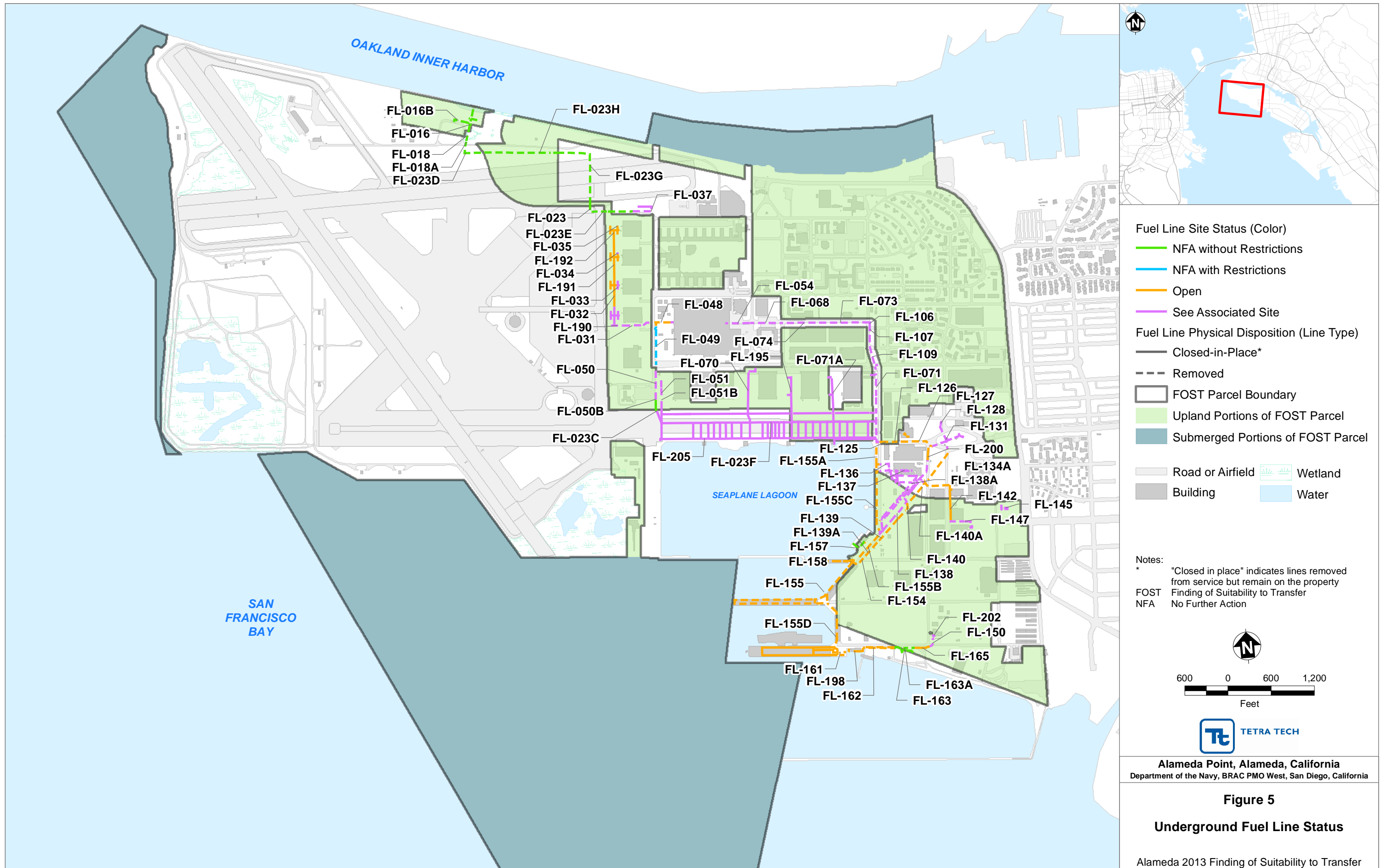
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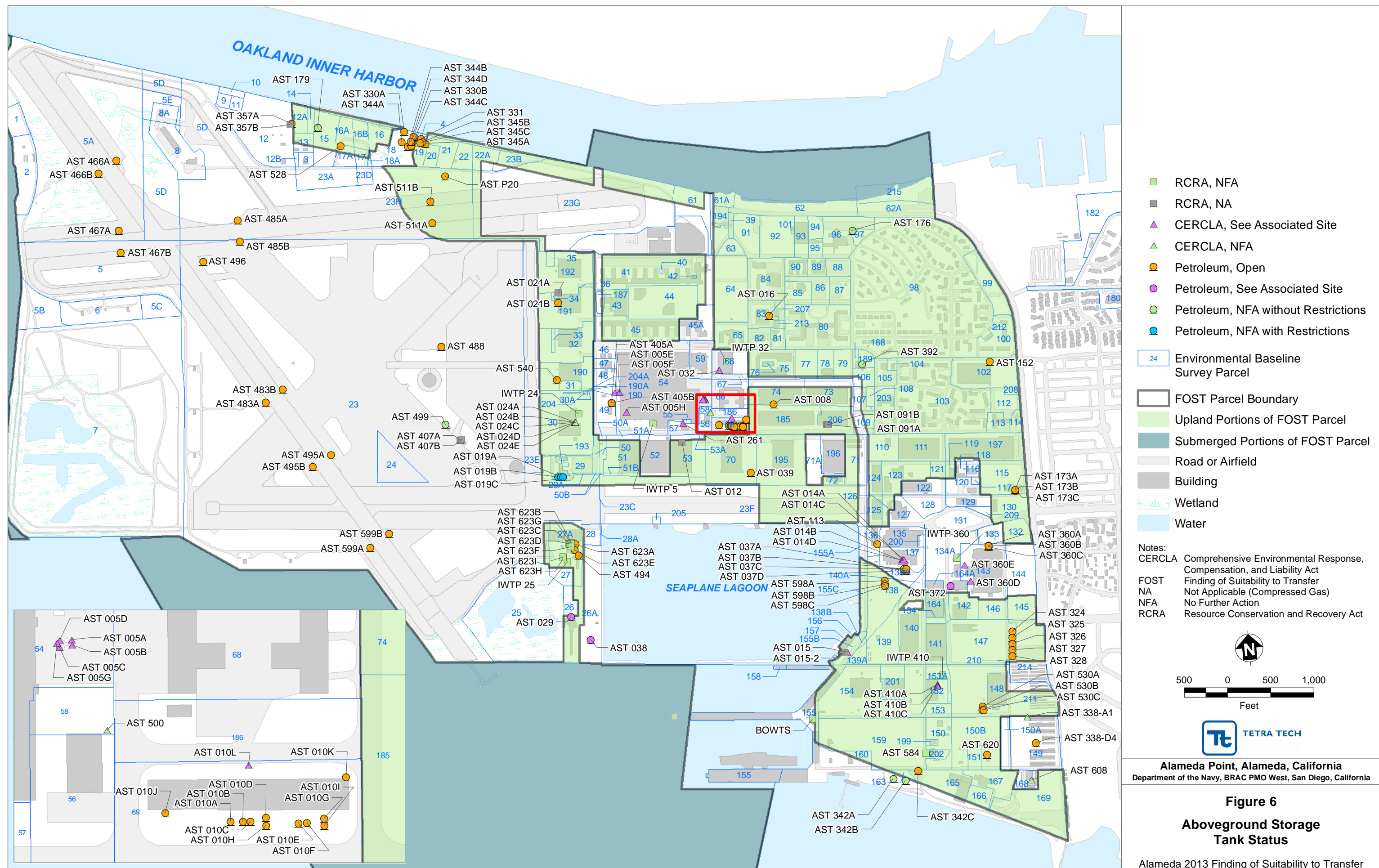




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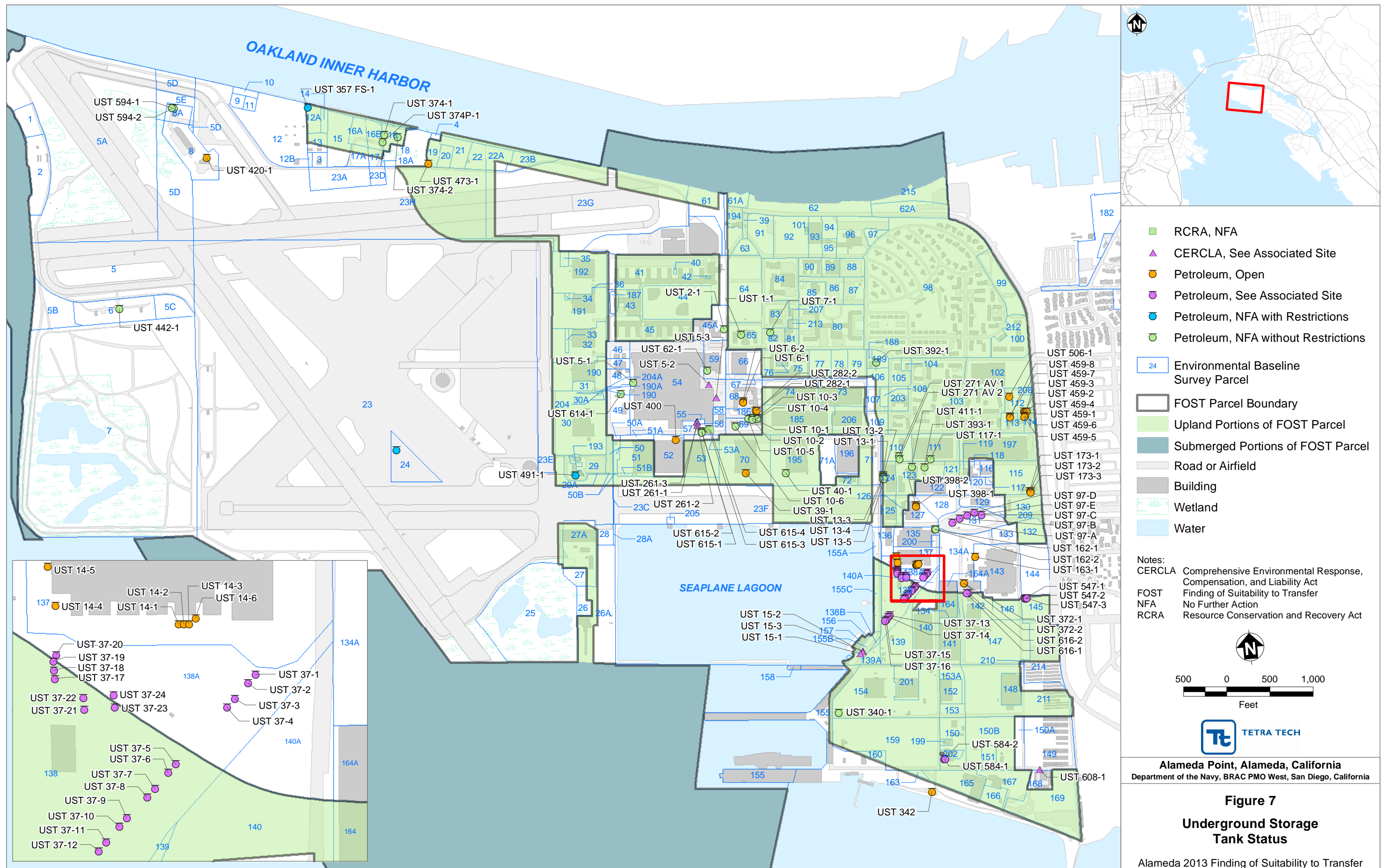


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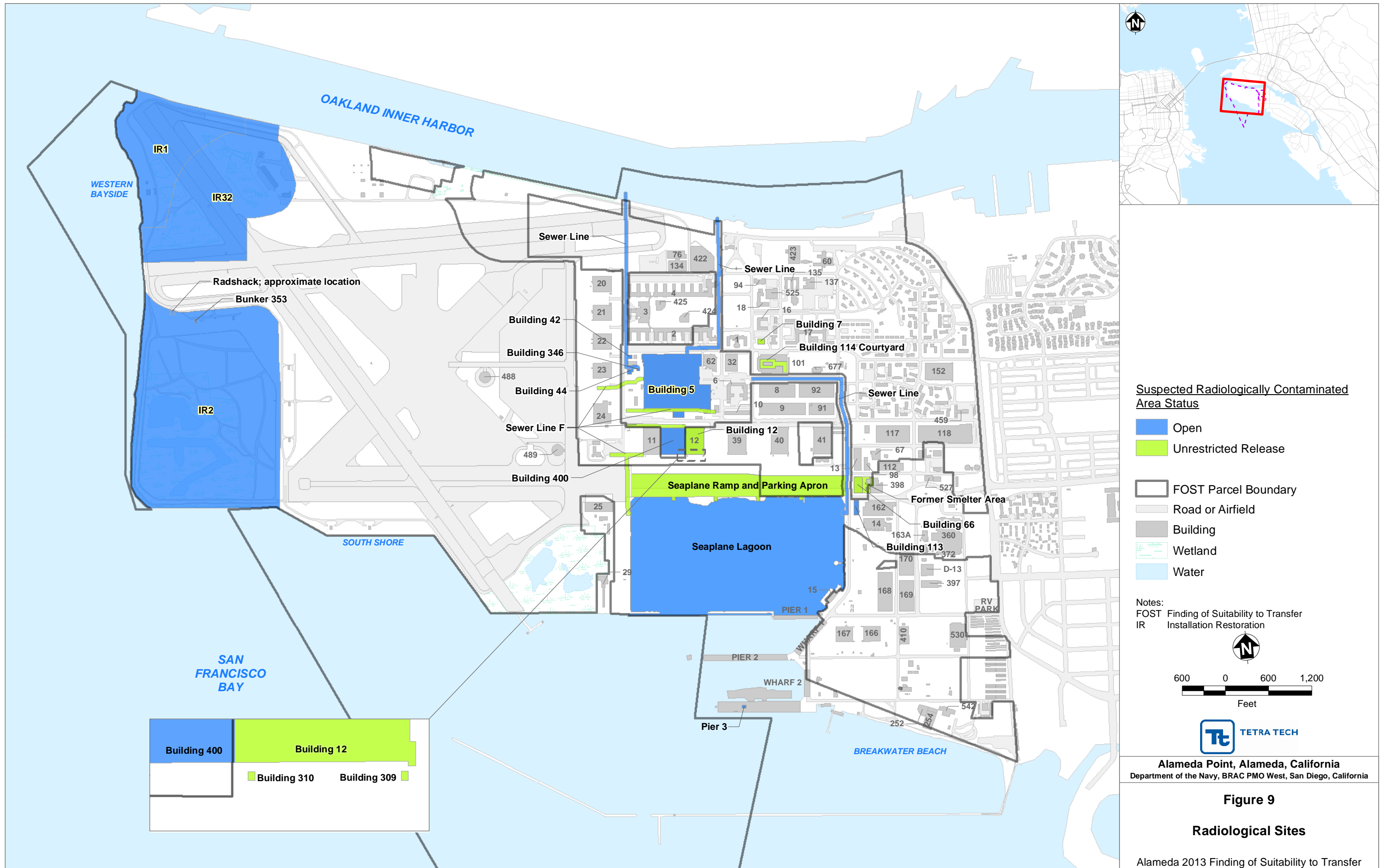


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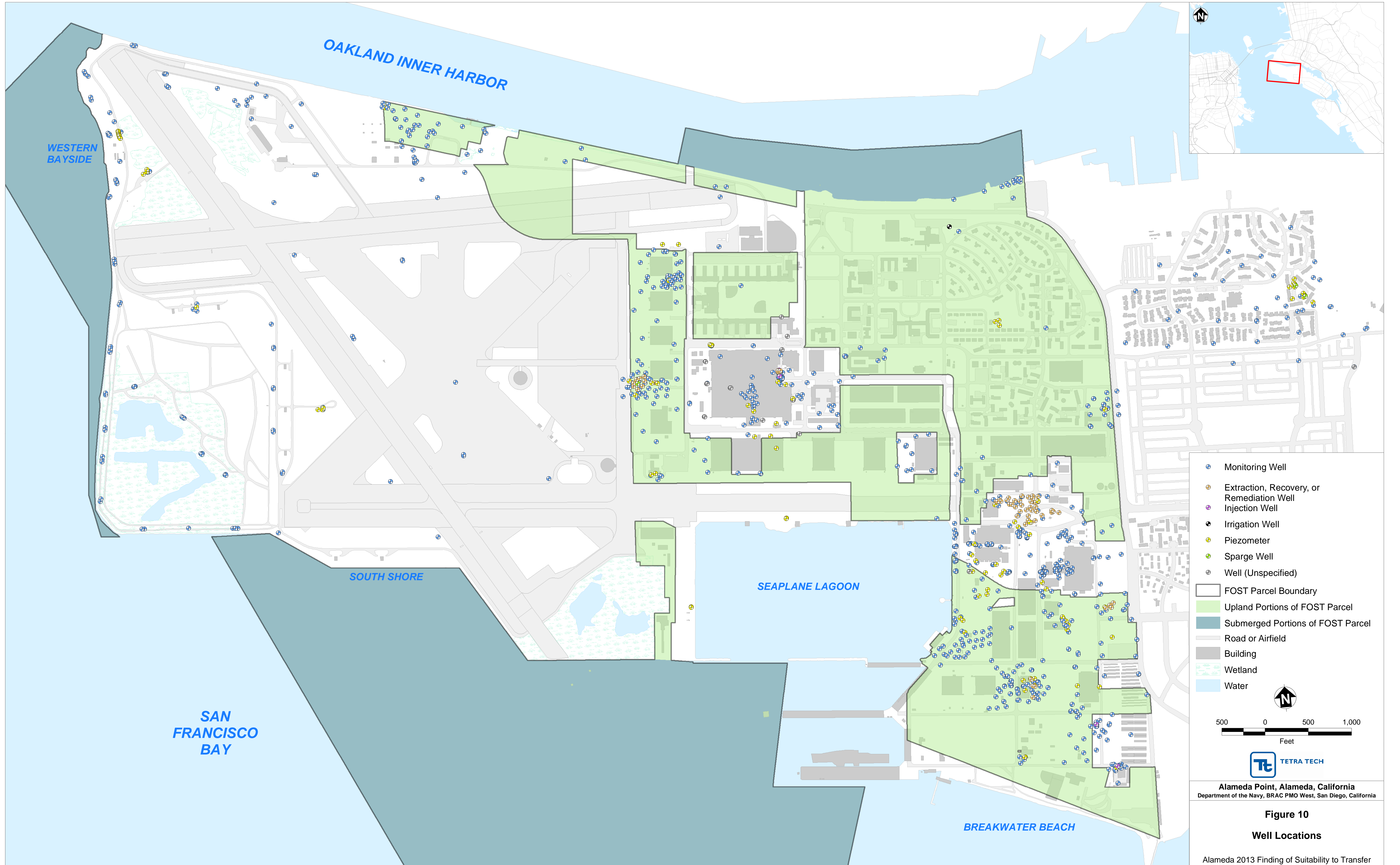




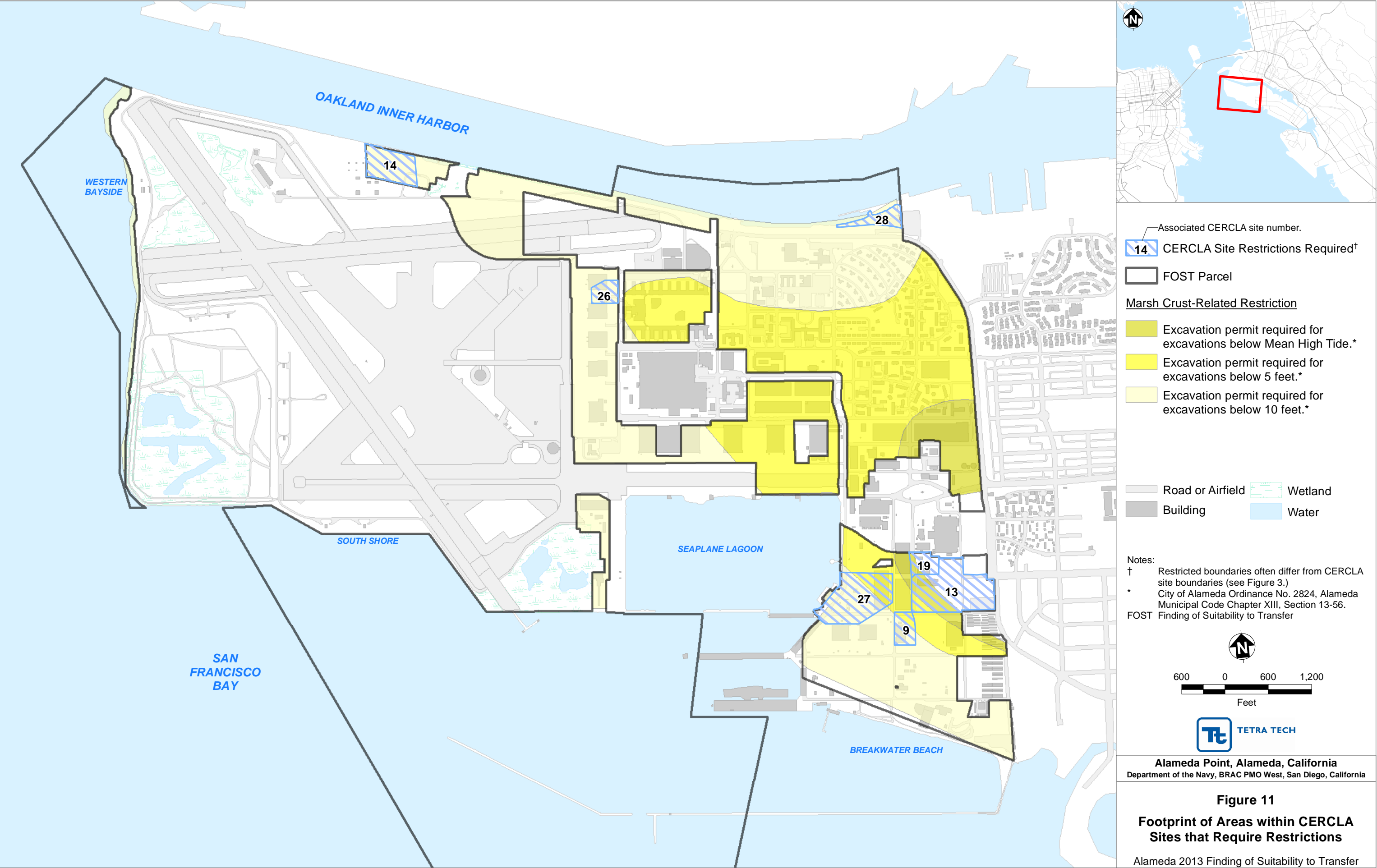




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## **TABLES**

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## TABLE 1: IR SITE STATUS

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Site Name	Status	Reference°
IR 07	Building 459 (Navy Exchange Service Station)	Response Complete	URS In Press
IR 08	Building 114 (Pesticide Storage Area)	Response Complete	URS 2012
IR 09	Building 410 (Paint Stripping Facility)	Operating Properly and Successfully	U.S. EPA In Press
IR 13	Former Oil Refinery	Operating Properly and Successfully	U.S. EPA In Press
IR 14	Former Fire Training Area	Operating Properly and Successfully	U.S. EPA In Press
IR 15	Buildings 301 and 389 (Former Transformer Storage Area)	Response Complete	SulTech 2006a
IR 19	Yard D-13 (Hazardous Waste Storage)	Operating Properly and Successfully	U.S. EPA In Press
IR 20	Oakland Inner Harbor	Response Complete	Navy 2008b
IR 22	Building 547 (Former Service Station)	Response Complete	Navy In Press
IR 23	Building 530 (Missile Rework Operations)	Response Complete	Navy In Press
IR 26	Western Hangar Zone	Operating Properly and Successfully	U.S. EPA In Press
IR 27	Dock Zone	Operating Properly and Successfully	U.S. EPA In Press
IR 28	Todd Shipyard	Operating Properly and Successfully	U.S. EPA In Press
IR 29	Skeet Range	Response Complete	Battelle 2005
IR 35	Areas of Concern in Transfer Parcel EDC-5	Response Complete	EPA 2012, Navy 2010

Notes:

° If blank, the site remains open  
 EDC Shipping container storage  
 IR Installation Restoration  
 NFA No further action

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**TABLE 2: PETROLEUM CORRECTIVE ACTION AREA AND AREAS OF CONCERN SITE STATUS**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Site Name	Status	Closure Reference°
AOC 23	A portion of IR 35 (AOC 23) with a potential 1,2-DCA plume which will be handled under the petroleum program.	NFA without Restrictions	Water Board 2012g
AOC 23G	Area of Concern 23G	Open	
CAA-02	Petroleum Corrective Action Area 02	NFA with Restrictions	Water Board 2011
CAA-04B	Petroleum Corrective Action Area 04B	Open	
CAA-04C	Petroleum Corrective Action Area 04C	Open	
CAA-06	Petroleum Corrective Action Area 06	Open	
CAA-07	Petroleum Corrective Action Area 07	Open	
CAA-08	Petroleum Corrective Action Area 08	Open	
CAA-09A	Petroleum Corrective Action Area 09A	Open	
CAA-10	Petroleum Corrective Action Area 10	NFA with Restrictions	Water Board 2012f
CAA-11A	Petroleum Corrective Action Area 11A	Open	
CAA-11B	Petroleum Corrective Action Area 11B	Open	
CAA-12	Petroleum Corrective Action Area 12	Open	
CAA-13	Petroleum Corrective Action Area 13	Open	
CAA-14	Petroleum Corrective Action Area 14	Open	
CAA-A	Petroleum Corrective Action Area Fuel Line A	NFA without Restrictions	Water Board 2007
CAA-B	Petroleum Corrective Action Area Fuel Line B	Open	
CAA-C	Petroleum Corrective Action Area Fuel Line C	Open	
EDC-12 AOC 3	TPH-motor oil (aircraft scrap yard, parts storage, treated lumber storage)	Open	

**TABLE 2: PETROLEUM CORRECTIVE ACTION AREA AND AREAS OF CONCERN SITE STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Site Name	Status	Closure Reference°
EDC-12 AOC 5	TPH-D and TPH-motor oil (washdown area)	Open	
IR 09 FP1/2	IR 09 Free Product	Open	

## Notes:

°	If blank, the site remains open
AOC	Area of concern
CAA	Corrective action area
DCA	1,2-Dichloroethane
IR	Installation Restoration
NFA	No further action
Water Board	Regional Water Quality Control Board

**TABLE 3: STORAGE TANK STATUS**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Tank	Program	Physical Status	Contents	Capacity (gallons)	Install Date	Removal Date	Regulatory Status	Associated Site	Closure Reference°
AST 008	Petroleum	Removed	Diesel	100	Unknown	1995 - 2002	Open		
AST 012	RCRA	Present	Compressed Air (erroneously thought to contain carbon dioxide)	1,000	1941	NA	NA		Compressed Gas
AST 015	CERCLA	Removed	Diesel	1,100	Unknown	Before 1994	See Associated Site	IR 27	
AST 015-2	RCRA	Present	Propane	Unknown	Unknown	NA	NA		Compressed Gas
AST 016	Petroleum	Present	Diesel	360	Unknown	NA	Open		
AST 019A	Petroleum	Removed	Diesel	250	Unknown	Unknown	NFA with Restrictions	CAA-10	Water Board 2012f
AST 019B	Petroleum	Removed	Diesel	250	Unknown	Unknown	NFA with Restrictions	CAA-10	Water Board 2012f
AST 019C	Petroleum	Removed	Fuel	40	Unknown	Unknown	NFA with Restrictions	CAA-10	Water Board 2012f
AST 019D	Petroleum	Removed	Fuel	40	Unknown	Unknown	Open	CAA-10	
AST 019E	Petroleum	Removed	Fuel	500	Unknown	Unknown	Open	CAA-10	
AST 021A	RCRA	Tenant-Installed	Propane	Unknown	Unknown	NA	NA		Compressed Gas, Not Navy Property
AST 021B	Petroleum	Removed	Diesel	350	Unknown	2002 - 2004	Open		
AST 024A	CERCLA	Present	Acetone	100	Unknown	NA	NFA	IR 26	SulTech 2006b
AST 024B	CERCLA	Present	Lacquer acetate	100	Unknown	NA	NFA	IR 26	SulTech 2006b
AST 024C	CERCLA	Present	Ethyl acetate	100	Unknown	NA	NFA	IR 26	SulTech 2006b
AST 024D	CERCLA	Present	Penetone detergent	200	Unknown	NA	NFA	IR 26	SulTech 2006b
AST 024E	CERCLA	Present	Polyurethane solvent (erroneously thought to contain oxygen)	100	Unknown	NA	NFA	IR 26	SulTech 2006b

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
AST 029	Petroleum	Removed	Oil	800	Unknown	Unknown	See Associated Site	CAA-12	
AST 039	Petroleum	Removed	Diesel	1,000	Unknown	11/3/1998	Open		
AST 091A	RCRA	Removed	Propane	200	Unknown	Unknown	NA		Compressed Gas
AST 091B	RCRA	Removed	Propane	200	Unknown	Unknown	NA		Compressed Gas
AST 152	Petroleum	Removed	Fuel Oil	50	Unknown	1995 - 2002	Open		
AST 173A	Petroleum	Present	Diesel	100	Unknown	NA	Open		
AST 173B	Petroleum	Present	Diesel	100	Unknown	NA	Open		
AST 173C	Petroleum	Present	Diesel	100	Unknown	NA	Open		
AST 179	Petroleum	Removed	Petroleum	5,000	Unknown	1994 - 1995	NFA without Restrictions		Water Board 2012c
AST 324	Petroleum	Removed	Fuel	Unknown	Unknown	1990	Open		
AST 325	Petroleum	Removed	Fuel	Unknown	Unknown	1990	Open		
AST 326	Petroleum	Removed	Fuel	Unknown	Unknown	1990	Open		
AST 327	Petroleum	Removed	Fuel	Unknown	Unknown	1990	Open		
AST 328	Petroleum	Removed	Fuel	Unknown	Unknown	1990	Open		
AST 331	Petroleum	Removed	Diesel	500	Unknown	Unknown	Open		
AST 342C	Petroleum	Removed	Diesel	500	Unknown	1995 - 2002	Open		
AST 345A	Petroleum	Removed	Diesel	100	Unknown	1992 - 1994	Open		
AST 345B	Petroleum	Removed	Diesel	100	Unknown	1992 - 1994	Open		
AST 345C	Petroleum	Removed	Diesel	60	Unknown	1992 - 1994	Open		
AST 392	Petroleum	Removed	Diesel	200	Unknown	1992 - 1994	NFA without Restrictions		Water Board 2013
AST 410A	CERCLA	Removed	Methylene chloride	10,000	Unknown	Unknown	See Associated Site	IR 09	
AST 410B	CERCLA	Removed	Phenol	10,000	Unknown	Unknown	See Associated Site	IR 09	

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
AST 410C	CERCLA	Removed	Surfactant	1,500	Unknown	Unknown	See Associated Site	IR 09	
AST 494	Petroleum	Removed	Heating oil	60	Unknown	Before 1994	Open		
AST 511A	Petroleum	Removed	Diesel	30	Unknown	Before 1994	Open		
AST 511B	Petroleum	Removed	Diesel	30	Unknown	Before 1994	Open		
AST 528	Petroleum	Removed	Diesel	250	Unknown	Before 1994	Open		
AST 530A	Petroleum	Removed	1010 oil	10,000	Unknown	Unknown	Open	CAA-13	
AST 530B	Petroleum	Removed	Fuel or oil	10,000	Unknown	Unknown	Open	CAA-13	
AST 530C	Petroleum	Removed	Jet fuel	15,000	Unknown	Unknown	Open	CAA-13	
AST 540	Petroleum	Present	Diesel	200	Unknown	NA	Open	CAA-C	
AST 598A	Petroleum	Removed	Fuel oil (previously AVGAS)	25,000	Unknown	August 2004	Open	CAA-11B	
AST 598B	Petroleum	Removed	Fuel oil (previously AVGAS)	25,000	Unknown	August 2004	Open	CAA-11B	
AST 598C	Petroleum	Removed	AVGAS	25,000	Unknown	August 2004	Open	CAA-11B	
AST 620	Petroleum	Removed	Gasoline	1,000	Unknown	1995 - 2002	Open		
AST 623A	Petroleum	Closed-in-Place	Fuel oils	10,000	Unknown	NA	Open		
AST 623B	RCRA	Present	Detergent	15,000	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST 623C	RCRA	Present	Methylene chloride	15,000	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST 623D	RCRA	Present	Methylene chloride	15,000	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
AST 623E	Petroleum	Closed-in-Place	Diesel	500	Unknown	NA	Open		
AST 623F	RCRA	Closed-in-Place	Compressed air	Unknown	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST 623G	RCRA	Present	Process tank (detergent and steam)	Unknown	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST 623H	RCRA	Present	Lime Mix Tank (calcium oxide solution)	1,000	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST 623I	RCRA	Present	Sulfuric acid	300	Unknown	NA	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
AST P20	Petroleum	Removed	Fuel	250	Unknown	1992 - 1994	Open		
UST 1-1	Petroleum	Closed-in-Place	Unleaded Gasoline	500	Unknown	12/8/1998	NFA without Restrictions		Water Board 2005
UST 7-1	Petroleum	Removed	Waste Fuel	500	1990	12/17/2001	NFA without Restrictions		Water Board 2003a
UST 13-1	Petroleum	Removed	Lubricant Oil	2,400	Unknown	10/13/1994	NFA without Restrictions		Water Board 2001b
UST 13-2	Petroleum	Removed	Lubricant Oil	2,400	Unknown	10/13/1994	NFA without Restrictions		Water Board 2001b
UST 13-3	Petroleum	Removed	Lubricant Oil	2,400	Unknown	10/13/1994	NFA without Restrictions		Water Board 2001b
UST 13-4	Petroleum	Removed	Fuel Oil	5,000	Unknown	10/13/1994	NFA without Restrictions		Water Board 2001b
UST 13-5	Petroleum	Removed	Fuel Oil	4,000	Unknown	10/30/1994	NFA without Restrictions		Water Board 2001b
UST 15-1	CERCLA	Removed	Diesel	5,000	Unknown	12/20/1994	See Associated Site	IR 27	



**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference<sup>o</sup></b>
UST 15-2	CERCLA	Removed	Diesel	2,000	Unknown	12/20/1994	See Associated Site	IR 27	
UST 15-3	CERCLA	Removed	Diesel	2,000	Unknown	12/20/1994	See Associated Site	IR 27	
UST 37-5	Petroleum	Removed	Fuels	25,000	1941	11/16/1998	See Associated Site	CAA-11B	
UST 37-6	Petroleum	Removed	Fuels	25,000	1941	11/20/1998	See Associated Site	CAA-11B	
UST 37-7	Petroleum	Removed	Fuels	25,000	1941	11/16/1998	See Associated Site	CAA-11B	
UST 37-8	Petroleum	Removed	Fuels	25,000	1941	11/16/1998	See Associated Site	CAA-11B	
UST 37-9	Petroleum	Removed	Fuels	27,000	1941	2/3/1995	See Associated Site	CAA-11B	
UST 37-10	Petroleum	Removed	Fuels	27,000	1941	2/3/1995	See Associated Site	CAA-11B	
UST 37-11	Petroleum	Removed	Fuels	27,000	1941	2/9/1995	See Associated Site	CAA-11B	
UST 37-12	Petroleum	Removed	Fuels	27,000	1941	2/9/1995	See Associated Site	CAA-11B	
UST 37-13	Petroleum	Removed	JP-5 and jet fuel mixed with water	25,000	1941	12/14/1998	See Associated Site	CAA-11B	
UST 37-14	Petroleum	Removed	JP-5 and jet fuel mixed with water	25,000	1941	12/14/1998	See Associated Site	CAA-11B	
UST 37-15	Petroleum	Removed	JP-5 and jet fuel mixed with water	25,000	1941	12/14/1998	See Associated Site	CAA-11B	
UST 37-16	Petroleum	Removed	JP-5 and jet fuel mixed with water	25,000	1941	12/14/1998	See Associated Site	CAA-11B	
UST 37-17	Petroleum	Removed	Fuels	13,000	1941	11/24/1998	See Associated Site	CAA-11B	

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
UST 37-18	Petroleum	Removed	Fuels	13,000	1941	11/24/1998	See Associated Site	CAA-11B	
UST 37-19	Petroleum	Removed	Fuels	13,000	1941	11/24/1998	See Associated Site	CAA-11B	
UST 37-21	Petroleum	Removed	Fuels	28,000	1941	6/25/1995	See Associated Site	CAA-11B	
UST 37-22	Petroleum	Removed	Fuels	28,000	1941	6/25/1995	See Associated Site	CAA-11B	
UST 37-23	Petroleum	Removed	Fuels	28,000	1941	7/13/1995	See Associated Site	CAA-11B	
UST 39-1	Petroleum	Removed	Diesel	60	n/a	9/13/1994	Open		
UST 40-1	Petroleum	Removed	Waste Oil and Solvents	500	Unknown	11/3/1998	NFA without Restrictions		Water Board 2006e
UST 117-1	Petroleum	Removed	Diesel Fuel and Water	1,000	Unknown	8/25/1994	NFA without Restrictions		Water Board 2006e
UST 173-1	Petroleum	Removed	Diesel	2,000	Unknown	Unknown	Open		
UST 173-2	Petroleum	Removed	Diesel	2,000	Unknown	Unknown	Open		
UST 173-3	Petroleum	Removed	Diesel	2,000	1981	9/13/1994	Open		
UST 271-AV1	Petroleum	Removed	Lubricant	22,000	Unknown	9/13/1994	NFA without Restrictions		Water Board 2006c
UST 271-AV2	Petroleum	Removed	Gasoline/Diesel	3,000	Unknown	9/13/1994	NFA without Restrictions		Water Board 2006c
UST 340-1	Petroleum	Removed	Diesel	1,200	Unknown	1/19/1995	NFA without Restrictions		Water Board 2006a
UST 357 FS-1	Petroleum	Removed	Diesel	1,000	Unknown	3/30/1995	NFA with Restrictions	CAA-02	Water Board 2011
UST 374-1	Petroleum	Closed-in-Place	JP-5	512,000	1954	9/15/1997	NFA without Restrictions		Water Board 2009c
UST 374-2	Petroleum	Closed-in-Place	JP-5	512,000	1954	9/15/1997	NFA without Restrictions		Water Board 2009c

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
UST 374P-1	Petroleum	Removed	Jet Fuel Overflows	4,400	Unknown	1/9/1995	NFA without Restrictions		Water Board 2006b
UST 392-1	Petroleum	Removed	Unleaded Gasoline	500	Unknown	8/25/1994	NFA without Restrictions		Water Board 2001b
UST 393	Petroleum	Removed	Waste Oil	600	Unknown	11/17/1994	NFA without Restrictions		Water Board 2010
UST 411-1	Petroleum	Removed	Diesel	15,000	Unknown	10/25/1994	NFA without Restrictions		Water Board 2001b
UST 459-1	Petroleum	Removed	Unleaded Gasoline	10,000	1966	11/13/1998	Open	CAA-07	
UST 459-2	Petroleum	Removed	Premium Gasoline	10,000	1966	11/13/1998	Open	CAA-07	
UST 459-3	Petroleum	Removed	Unleaded Gasoline	10,000	1966	11/13/1998	Open	CAA-07	
UST 459-4	Petroleum	Removed	Gasoline	10,000	1966	11/13/1998	Open	CAA-07	
UST 459-5	Petroleum	Removed	Gasoline	10,000	Before 1966	4/5/1995	Open	CAA-07	
UST 459-6	Petroleum	Removed	Gasoline	8,000	Before 1966	4/5/1995	Open	CAA-07	
UST 459-7	Petroleum	Removed	Waste Oil	2,000	Before 1966	1/26/1995	Open	CAA-07	
UST 459-8	Petroleum	Removed	Fuel Oil	600	Before 1966	1/26/1995	Open	CAA-07	
UST 473-1	Petroleum	Removed	Gasoline	500	1948	11/3/1994	Open		
UST 491-1	Petroleum	Removed	Gasoline	550	Unknown	8/25/1994	NFA with Restrictions	CAA-10	Water Board 2012f
UST 506-1	Petroleum	Removed	Lubricant Oil	1,400	Unknown	2/9/1995	Open		
UST 547-1	Petroleum	Removed	Gasoline	12,000	Unknown	11/3/1994	See Associated Site	CAA-04C	
UST 547-2	Petroleum	Removed	Gasoline	12,000	Unknown	11/3/1994	See Associated Site	CAA-04C	

**TABLE 3: STORAGE TANK STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Tank</b>	<b>Program</b>	<b>Physical Status</b>	<b>Contents</b>	<b>Capacity (gallons)</b>	<b>Install Date</b>	<b>Removal Date</b>	<b>Regulatory Status</b>	<b>Associated Site</b>	<b>Closure Reference°</b>
UST 547-3	Petroleum	Removed	Gasoline	12,000	Unknown	11/3/1994	See Associated Site	CAA-04C	
UST 584-1	Petroleum	Removed	Diesel	4,000	Unknown	10/20/1994	See Associated Site	CAA-09A	
UST 584-2	Petroleum	Removed	Diesel	4,000	Unknown	11/3/1994	See Associated Site	CAA-09A	
UST 616-1	Petroleum	Closed-in-Place	Spill Control; held water	5,000	Unknown	NA	See Associated Site	CAA-04B	
UST 616-2	Petroleum	Closed-in-Place	Spill Control; held water	10,000	Unknown	NA	See Associated Site	CAA-04B	

## Notes:

° If blank, the site remains open

AST Aboveground storage tank

AVGAS Aviation Gasoline

CAA Corrective Action Area

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

IR Installation Restoration

NA Not applicable

Navy Department of the Navy

NFA No further action

RCRA Resource Conservation and Recovery Act

UST Underground storage tank

Water Board Regional Water Quality Control Board

**TABLE 4: RCRA UNIT STATUS**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
AOC 001	Petroleum	UST 1-1	Unleaded gasoline	Part B	NFA without Restrictions	UST 1-1	Water Board 2005
AOC 009	Petroleum	ASTs - 324, 325, 326, 327, 328	Petroleum Hydrocarbon (Fuel)	Part B	See Associated Site	AST 324, AST 325, AST 326, AST 327, AST 328	
AOC 015	CERCLA	USTs 15-1, 15-2, and 15-3	Diesel	Part B	See Associated Site	IR 27	
AOC 039	Petroleum	UST 39-1	Diesel	Part B	Open	UST 39-1	
AOC 098	CERCLA	Building 98 60-day temporary accumulation point	Hazardous wastes, including waste petroleum products, corrosives, metals, asbestos, nonhalogenated organic compounds, solvents, lube oil, and corrosion inhibitors	Part B	NFA	IR 35	Navy 2010
AOC 173	Petroleum	USTs 173-1 & 173-2	Diesel	Part B	Open	UST 173-1, UST 173-2	
AOC 271	Petroleum	USTs AV-1 and AV-2	Lubricant & Gasoline/Diesel	Part B	NFA without Restrictions	UST 271-AV1, UST	Water Board 2006c
AOC 340	Petroleum	UST 340-1	Diesel	Part B	NFA without Restrictions	UST 340-1	Water Board 2006a
AOC 357	Petroleum	UST 357-FS-1; Fire Training Area	Diesel	Part B	NFA without Restrictions	CAA-02, UST 357 FS-1	Water Board 2011
AOC 374	Petroleum	UST 374-1 & 374-2	JP-5	Part B	NFA without Restrictions	UST 374-1, UST 374-2	Water Board 2009c
AOC 392	Petroleum	UST 392-1	Unleaded gasoline	Part B	NFA without Restrictions	UST 392-1	Water Board 2001b
AOC 397	Petroleum	Fuel/oil-water mixture spill; part of TPH CAA-13	Jet fuel from spill	Part B	Open	CAA-13	

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
AOC 411	Petroleum	UST 411-1	Diesel	Part B	NFA without Restrictions	UST 411-1	Water Board 2001b
AOC 473	Petroleum	UST 473-1	Gasoline	Part B	See Associated Site	UST 473-1	
AOC 491	Petroleum	UST 491-1	Gasoline	Part B	NFA with Restrictions	UST 491-1	Water Board 2012f
AOC 616	CERCLA	Area of Concern 616	Spill Control; held water	Part B	See Associated Site	IR 19	
BUILDING 13/ HW-03	RCRA	Building 13; greater than 90-day waste storage	Acids, oxidizers, caustics, ORM liquids, ORM-E liquids, flammable liquids and solids, PCB storage, and nonflammable solids	Parts A and B	NFA		DTSC 2000a, DTSC 2000b
GAP 621	CERCLA	Building 621 GAP	Cleaning agents, paints, and solvents	Part B	NFA		Bechtel 2007e
IWTP 24/ HW-01/ GAP IWTP 24	RCRA	Industrial Waste Treatment Plant at Building 24 and associated GAP		Parts A and B	NFA		DTSC 1998a
IWTP 25/ HW-06/ GAP IWTP 25	RCRA	Industrial Waste Treatment Plant at Building 25 and associated GAP		Parts A and B	NFA		DTSC 2006a
IWTP 410	RCRA	Industrial Waste Treatment Plant 410		Parts A and B	NFA		DTSC 1998b
NADEP GAP 06	CERCLA	Building 11 Shop 95823 GAP	Shop paper towels, sealant, aerosol spray cans, sweeping compound with oil and fuel; Waste generated from cleaning and rework of A-6 Aircrafts	Part B	NFA	IR 05	DTSC 1999c

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
NADEP GAP 07	CERCLA	Building 11 Shop 95821 GAP	Petroleum oil, JP-5, and Freon 113	Part B	NFA	IR 05	DTSC 1999c
NADEP GAP 28	RCRA	GAP west of Building 29	Blasting grit (glass, garnet, mixed), aerosol paint, lubrication, and solvents	Part B	NFA		DTSC 1999c
NADEP GAP 33	CERCLA	Building 12 Shop 95923 GAP	Aerosol paint, aerosol lacquer, beryllium, and stripper	Part B	NFA	IR 05	DTSC 1999c
NADEP GAP 43	CERCLA	Building 66 Shop 96321 GAP	Aerosol paint, solvent, lacquer, JP-5, type II fuel, oil, and trichlorotrifluorethane	Part B	NFA	IR 35	Bechtel 2005
NADEP GAP 62	CERCLA	Building 397 Shop 96231 GAP	Mil-L-23699 lubrication and engine oil	Part B	NFA	IR 13	DTSC 1999c
NADEP GAP 63	CERCLA	Building 530 Shop 94224 GAP	Acetone, naphtha with solvents (MEK), poly paint and thinner, 1,1,1-TCA, and MX-4M solvent	Part B	NFA	IR 23	DTSC 1999c
NADEP GAP 63A	CERCLA	Building 530 Shop 94223 GAP	Hydraulic oil (Bowser)	Part B	NFA	IR 23	DTSC 1999c
NADEP GAP 64	CERCLA	Building 530 Shop 94224 GAP	Aerosol paint, lubrication, solvents, rust remover, WD-40; MX-4M solvent, silicate ester, and 1,1,1-TCA	Part B	NFA	IR 23	DTSC 1999c
NADEP GAP 65	RCRA	Building 166 Shop 96312 GAP	Aerosol paint cans and oil contaminated rags	Part B	NFA		Bechtel 2007e, DTSC 1999c
NADEP GAP 66	RCRA	Building 166 Shop 96312 GAP	Lubrication and engine oils, and PD-680	Part B	NFA		Bechtel 2007e, DTSC 1999c
NADEP GAP 67	CERCLA	Building 167 Shop 96311 GAP	Oil-contaminated rags and aerosol paint	Part B	NFA		Bechtel 2007e
NADEP GAP 68	CERCLA	Building 167 Shop 96314 GAP	Oil-contaminated rags and waste adhesives cans	Part B	NFA		Bechtel 2007e

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference <sup>e</sup>
NADEP GAP 69	CERCLA	West of Building 167 Shop 96313 GAP	Corrosive waste with heavy metals including caustic soda, nitric acid, and chromic acid	Part B	NFA		Bechtel 2007e
NADEP GAP 71	CERCLA	Building 167 Shop 96312 GAP	Aerosol paint and lube cans, rags contaminated with oil and solvent, small cans of paint and resin	Part B	NFA		Bechtel 2007e
NADEP GAP 72	CERCLA	Outside southwestern wall of Building 167 Shop 96313 GAP	55-gallon drums of hydraulic oil, PD-680, sweeping compound, and scrap lead	Part B	NFA		Bechtel 2007e
NADEP GAP 81	CERCLA	Building 7 Shop 0542 (Laboratory) GAP	Water-based primer, alcohol, poly paint and thinners, and paint strippers	Part B	NFA		Bechtel 2005, DTSC 1999c
NADEP GAP 82	CERCLA	Building 7 Shop 0542 (Laboratory) GAP	JP-5 and JP-4, metal laboratory analyses wastes, hydraulic fluid, and heavy metal solutions	Part B	NFA		Bechtel 2005, DTSC 1999c
NADEP GAP 83	CERCLA	Building 7 Shop 0541 (Laboratory) GAP	Acidic metal etching rinse water	Part B	NFA		Bechtel 2005, DTSC 1999c
NAS GAP 03	CERCLA	Building 114 GAP	Paints, solvents, acids, freon, oil and grease, batteries, fluorescent lights, and PCB capacitors	Part B	NFA	IR 08	DTSC 2005e, SulTech 2007c
NAS GAP 04/ SWMU 584	Petroleum	Diesel spill site, Building 584 GAP	Waste oil and diesel	Part B	Open	CAA-09A	
NAS GAP 06	CERCLA	Building 4 metal cabinet GAP	Paints and paint thinners	Part B	NFA		Bechtel 2005, DTSC 1999c
NAS GAP 08	CERCLA	Building 166 GAP	Paint thinner and paint wastes, waste oil, solvents, and hydraulic fluid	Part B	NFA	IR 27	DTSC 1999c



**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference <sup>o</sup>
NAS GAP 12	CERCLA	Building 19 GAP	Waste film, paper, silver solution, metallic sludge, and flake storage	Part B	NFA	IR 05	DTSC 1999c
NAS GAP 13	CERCLA	Building 16 (Branch Medical Clinic X-Ray Unit) GAP	Scrap amalgam, x-ray film, waste x-ray solution, and waste generated from everyday dental activities	Part B	NFA		Bechtel 2005
NAS GAP 14	CERCLA	Building 130 GAP	Dilute pesticide and rinse solution	Part B	NFA	IR 35	EPA 2012
NAS GAP 15/ NAS GAP 29	CERCLA	Building 67 GAP	Waste paint material, solvents, thinner, rags, and waste oil	Part B	NFA	IR 35	Navy 2010
NAS GAP 18/ SHWAP 18 NAS	CERCLA	Port Services GAP	Petroleum products, oily wastewater, adsorbent material with oil, paint wastes, solvents, thinners, and batteries	Part B	NFA	IR 27	DTSC 1999c
NAS GAP 19	CERCLA	Building 20 GAP	Oil, solvents, paint-related material, rags, and hydraulic fluid	Part B	NFA	IR 26	DTSC 1999c, DTSC 2006b, SulTech 2006b
NAS GAP 20	CERCLA	Building 21 GAP	Oil, solvent, paint-related material, rags, and hydraulic fluid	Part B	NFA	IR 26	DTSC 1999c, DTSC 2006b, SulTech 2006b
NAS GAP 21	CERCLA	Building 22 GAP	Oil, solvent, paint-related material, rags, and hydraulic fluid	Part B	NFA	IR 26	DTSC 1999c, DTSC 2006b, SulTech 2006b
NAS GAP 22	CERCLA	Building 23 GAP	Oil, solvent, paint-related material, rags, and hydraulic fluid	Part B	NFA	IR 26	DTSC 1999c, DTSC 2006b, SulTech 2006b
NAS GAP 23	CERCLA	Building 39 GAP	Oil, solvent, paint-related material, and rags	Part B	NFA		Bechtel 2007a, DTSC 1999c
NAS GAP 24	CERCLA	Building 40 GAP	Oil, solvent, paint-related material, and rags	Part B	NFA		Bechtel 2005, DTSC 1999c

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
NAS GAP 28	CERCLA	Mare Island Temporary Storage Facilities GAP	Paint-related material, rags, and empty cans (crushed)	Part B	NFA		Bechtel 2007e
NAS GAP 30	CERCLA	Building 408 GAP	Automotive body shop and dry cleaning waste	Part B	NFA	IR 07	SulTech 2007c
OWS 012A	CERCLA	Oil-Water Separator 012A	Oil/water from spill trenches surrounding aircraft parking area	Part B	NFA	IR 35	EPA 2012
OWS 012B	CERCLA	Oil-Water Separator 012B	Oil/water from spill trenches surrounding aircraft parking area	Part B	NFA	IR 35	EPA 2012
OWS 017	CERCLA	Oil-Water Separator 017	Associated with kitchen in Building 17; contained trash and water, did not contain hazardous materials.	Part B	NFA	IR 35	EPA 2012
OWS 020	CERCLA	Oil-Water Separator 020	Oily Wastewater	Part B	See Associated Site	IR 26	
OWS 040A	CERCLA	Oil-Water Separator 040A	Aircraft washdown	Part B	NFA	IR 06	URS 2010
OWS 040B	CERCLA	Oil-Water Separator 040B	Aircraft washdown	Part B	NFA	IR 06	URS 2010
OWS 063A	CERCLA	Oil-Water Separator 063A	Grease pit for kitchen associated with Building 3	Part B	NFA	IR 35	EPA 2012
OWS 063B	CERCLA	Oil-Water Separator 063B	Unknown materials collected in OWS	Part B	NFA	IR 35	EPA 2012
OWS 063C	CERCLA	Oil-Water Separator 063C	Grease pit for kitchen associated with Building 3	Part B	NFA	IR 35	EPA 2012
OWS 067	Petroleum	Oil-Water Separator 067	Materials collected from parking area south of automotive repair shop	Part B	Open		
OWS 114	Petroleum	Oil-Water Separator 114	Wastewater from cleaning aircraft or large machinery	Part B	Open	CAA-08	

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
OWS 118	CERCLA	Oil-Water Separator 118	Building 118 served as a warehouse and Navy Exchange.	Part B	NFA	IR 35	EPA 2012
OWS 166A	Petroleum	Oil-Water Separator 166A	Unknown	Part B	Open		
OWS 166B	Petroleum	Oil-Water Separator 166B	Unknown	Part B	Open		
OWS 397A	Petroleum	Oil-Water Separator 397A	Dirty water sump	Part B	Open	CAA-13	
OWS 397B	Petroleum	Oil-Water Separator 397B	Dirty water sump	Part B	Open	CAA-13	
OWS 397C	Petroleum	Oil-Water Separator 397C	Dirty water sump	Part B	Open	CAA-13	
OWS 397D	Petroleum	Oil-Water Separator 397D	Dirty water sump	Part B	Open	CAA-13	
OWS 410A	CERCLA	Oil-Water Separator 410A	Rinsewater from washrack	Part B	See Associated Site	IR 09	
OWS 410B	CERCLA	Oil-Water Separator 410B	Stormwater runoff	Part B	See Associated Site	IR 09	
OWS 459	CERCLA	Oil-Water Separator 459	Unknown	Part B	See Associated Site	IR 07	
OWS 494	RCRA	Oil-Water Separator 494	Unknown	Part B	NFA		DTSC 2006a
OWS 529	Petroleum	Oil-Water Separator 529	Unknown	Part B	Open	CAA-13	
OWS 530	Petroleum	Oil-Water Separator 530	Unknown	Part B	Open	CAA-13	
OWS 547	Petroleum	Oil-Water Separator 547	Unknown (associated with car wash)	Part B	See Associated Site	CAA-04C	

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
OWS 588	RCRA	Oil-Water Separator 588	Unknown	Part B	NFA	IWTP 410	DTSC 1998b
OWS 601	CERCLA	Oil-Water Separator 601	Unknown	Part B	See Associated Site	IR 27	
STRUCTURE 598/ HW-04	Petroleum	Structure 598 - secondary containment for 3 ASTs	Aviation Gasoline	Part B	NFA without Restrictions	CAA-11B	DTSC 1995
SWMU 331	Petroleum	Solid Waste Management Unit Building 331	Diesel	Part B	Open	AST 331, CAA-14	
TC Sump	Petroleum	TC Sump	Drainage from fueling system hose pits. Geotracker number is T10000002020.	No	Open		
TP-02	CERCLA		Spent x-ray fixer containing silver	Part B	NFA	NAS GAP 13	Bechtel 2005
TP-08	RCRA		Paint Stripper	Parts A and B	NFA	IWTP 25/ HW-06/ GAP IWTP 25	DTSC 2006a
UST(R)-03	Petroleum	UST RCRA Unit 03: UST 7-1	Waste fuel	Unknown	NFA without Restrictions	UST 7-1	Water Board 2003a
UST(R)-05	Petroleum	UST RCRA Unit 05: USTs 13 -1, 13-2, and 13-3	Lubricant oil	Unknown	NFA without Restrictions	UST 13-1, UST 13-2, UST 13-3	Water Board 2001b
UST(R)-07/ Area 37	Petroleum	Area 37 and RCRA USTs: USTs 37-1 through 37-24; Structure 598, and temporary Baker tanks	Various petroleum fuels, waste combustible liquids, and wastewater	Part A	Open	CAA-11B	
UST(R)-08	Petroleum	UST RCRA Unit 08: UST 117-1	Diesel fuel and water	Unknown	Open	UST 117-1	

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
UST(R)-10/ NAS GAP 27	Petroleum	UST RCRA Unit 10 and Naval Air Station Generator Accumulation Point 27: UST 374P-1	Jet fuel overflows	Unknown	NFA without Restrictions	UST 374P-1	Water Board 2006b
UST(R)-11	Petroleum	UST RCRA Unit 11: UST 393-1	Waste oil	Unknown	Open	UST 393	
UST(R)-15/ NAS GAP 16	Petroleum	UST RCRA Unit 15: USTs 459-1 through 459-8; NAS GAP 16: UST 459-7	Fuel oil, gasoline, and waste oil	Unknown	Open	CAA-07, UST 459-1, UST 459-2, UST 459-3, UST 459-4, UST 459-5, UST 459-6, UST 459-7, UST 459-8	
UST(R)-16	Petroleum	UST RCRA Unit 16: UST 506-1	Lubricant oil	Unknown	Open	UST 506-1	
UST(R)-17	Petroleum	UST RCRA Unit 17: USTs 547-1, 547-2, and 547-3	Gasoline	Unknown	See Associated Site	CAA-04C	
WD 020	CERCLA	Washdown Area Building 20	Wastewater from cleaning aircraft or large machinery	Part B	See Associated Site	IR 26	
WD 023	CERCLA	Washdown Area Building 23	Wastewater from cleaning aircraft or large machinery	Part B	NFA	IR 26	DTSC 2006b, SulTech 2006b
WD 041B	CERCLA	Washdown Area (B) Building 41	Wastewater from cleaning aircraft or large machinery	Part B	NFA	IR 35	EPA 2012
WD 114	Petroleum	Washdown Area Building 114	Wastewater from cleaning aircraft or large machinery	Part B	Open	CAA-08	
WD 166	Petroleum	Washdown Area Building 166	Wastewater from cleaning aircraft or large machinery	Part B	Open		

**TABLE 4: RCRA UNIT STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Program	Description	Material Stored / Disposed Of	Permitted	Status	Associated Site(s)	Closure Reference°
YARD D-13/ HW-07/ SWMU 616	RCRA	Yard D-13 (Hazardous Waste Storage)	Alkali (Poison B), acid, acid oxidizer, flammables, and combustibles	Part B	NFA		DTSC 1999a

## Notes:

°	If blank, the site remains open	RCRA	Miscellaneous area identified in RFA	SWMU	Solid waste management unit
AOC	Area of concern	SHWAP	Methyl ethyl ketone	TCA	Trichloroethane
AST	Aboveground storage tank	M	Not applicable	TERM	Term lease (former leasehold reverted to the City of Alameda in 2000)
BOWTS	Bilge oily water treatment system	MEK	Naval Aviation Depot	TP	RCRA Unit tiered permit facility
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NA	Naval Air Station	TPH	Total petroleum hydrocarbons
CAA	Corrective action area	NADEP	No further action	UST	Underground storage tank
DTSC	Department of Toxic Substances Control	NAS	Other regulated material	UST(R)	UST numbering system as identified in RFA
GAP	Generator accumulation point	NFA	Oil-water separator	Water Board	Regional Water Quality Control Board
HW	Hazardous waste area defined in RFA	ORM	Polychlorinated biphenyls	WD	Washdown area
IWTP	Industrial wastewater treatment plant	OWS	RCRA Facility Assessment		
JP-5	Jet propellant #5	PCB	Resource Conservation and Recovery Act		
		RFA	Solid hazardous waste accumulation point		

**TABLE 5: RADIOLOGICALLY IMPACTED SITES**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Description	Status	Closure Reference
Building 114 Courtyard	Public Works offices and maintenance shops. Temporary storage of radioactive (Ra-226) piping from Building 5 in courtyard.	Unrestricted	ChaduxTt 2013
Building 12	Hangar 12 Seaplane hangar. Inspection of depleted uranium counterweights.	Unrestricted	Weston 2007
Building 309	Small concrete storage bunker, on the southeast corner of Hangar 12 used for storage of depleted uranium counterweights.	Unrestricted	TtECI 2011
Building 310	Storage of new and corroded depleted uranium counterweights and radium waste.	Unrestricted	TtECI 2011
Building 66	Jet engines overhaul facility. Work on ignition equipment containing Cs-137, Co-60, Kr-85, and/or UO2. Possible use for decontamination of radioactive aircraft engines.	Unrestricted	ChaduxTt 2012a
Building 7	Materials Engineering Laboratory. Former location of gas chromatograph equipment with Ni-63 source. Navy Radioactive Material Permit closed June 1997.	Unrestricted	ChaduxTt 2011
Former Smelter Area	Melting of scrap metals (Ra-226). Former smelter was immediately east of Building 66, in use until approximately 1946.	Unrestricted	ChaduxTt 2012b
Seaplane Ramp	Access to the seaplane lagoon from the hangars at Buildings 11, 400, and 12 (Ra-226).	Unrestricted	PRCEMI 1998
Sewer Line F	Industrial drain for Buildings 5 and 400 and in particular the locations associated with radium paint facility work in both buildings (Ra-226).	Unrestricted	TtECI 2011

## Notes:

Co-60	Cobalt-60	Ni-63	Nickel-63
Cs-137	Cesium 137	Ra-226	Radium-226
DTSC	Department of Toxic Substances Control	UO2	Uranium dioxide
Kr-85	Krypton-85		

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**TABLE 6: SUMMARY OF LEAD-BASED PAINT IN RESIDENTIAL BUILDINGS  
CIRCA 1995**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Building</b>	<b>Year Built</b>	<b>Survey Date</b>	<b>Address</b>	<b>LBP Present</b>	<b>LBP in Soil Hazard*</b>
FH-0001	1941	1995	101 Corpus Christi Rd	Yes - Abated 1998	No
FH-0002	1941	1995	103 Corpus Christi Rd	Yes - Abated 1998	No
FH-0003	1941	1995	105 Corpus Christi Rd	Yes - Abated 1998	No
FH-0004	1941	1995	107 Corpus Christi Rd	Yes - Abated 1998	No
FH-0005	1941	1995	109 Corpus Christi Rd	Yes - Abated 1998	No
FH-0006	1941	1995	111 Corpus Christi Rd	Yes - Abated 1998	No
FH-0007	1941	1995	111 Pensacola Rd	Yes - Abated 1998	No
FH-0008	1941	1995	110 Pensacola Rd	Yes - Abated 1998	No
FH-0009	1941	1995	108 Pensacola Rd	Yes - Abated 1998	No
FH-0010	1941	1995	106 Pensacola Rd	Yes - Abated 1998	No
FH-0011	1941	1995	104 Pensacola Rd	Yes - Abated 1998	No
FH-0012	1941	1995	102 Pensacola Rd	Yes - Abated 1998	No
FH-0013	1941	1995	100 Pensacola Rd	Yes - Abated 1998	No
FH-0014	1941	1995	106 Corpus Christi Rd	Yes - Abated 1998	No
FH-0015	1942	1995	108 Corpus Christi Rd	Yes - Abated 1998	No
FH-0016	1942	1995	110 Corpus Christi Rd	Yes - Abated 1998	No
FH-0017	1942	1995	112 Corpus Christi Rd	Yes - Abated 1998	No
FH-0018	1942	1995	114 Corpus Christi Rd	Yes - Abated 1998	No
FH-0019	1942	1995	116 Corpus Christi Rd	Yes - Abated 1998	No
FH-0020	1942	1995	118 Corpus Christi Rd	Yes - Abated 1998	No
FH-0021	1942	1995	120 Corpus Christi Rd	Yes - Abated 1998	No
FH-0022	1942	1995	122 Corpus Christi Rd	Yes - Abated 1998	No
FH-0023	1942	1995	102 Corpus Christi Rd	Yes - Abated 1998	No
FH-0024	1942	1995	104 Corpus Christi Rd	Yes - Abated 1998	No
FH-0025	1942	1995	123 Corpus Christi Rd	Yes - Abated 1998	No
FH-0026	1942	1995	121 Corpus Christi Rd	Yes - Abated 1998	No
FH-0027	1942	1995	119 Corpus Christi Rd	Yes - Abated 1998	No
FH-0028	1942	1995	117 Corpus Christi Rd	Yes - Abated 1998	No
FH-0029	1942	1995	115 Corpus Christi Rd	Yes - Abated 1998	No
FH-0030	1942	1995	113 Corpus Christi Rd	Yes - Abated 1998	No
FH-0730	1963	1995	102 Barbers Point Rd	Yes	No
FH-0731	1963	1995	100 Pearl Harbor Rd	Yes	No
FH-0732	1963	1995	101 Pearl Harbor Rd	Yes	No
FH-0733	1963	1995	103 Pearl Harbor Rd	Yes	No
FH-0734	1963	1995	105 Pearl Harbor Rd	Yes	No
FH-0735	1963	1995	107 Pearl Harbor Rd	Yes	No
FH-0736	1963	1995	106 Alameda Rd	Yes	No

**TABLE 6: SUMMARY OF LEAD-BASED PAINT IN RESIDENTIAL BUILDINGS  
CIRCA 1995 (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Building</b>	<b>Year Built</b>	<b>Survey Date</b>	<b>Address</b>	<b>LBP Present</b>	<b>LBP in Soil Hazard*</b>
FH-0737	1963	1995	112 Pearl Harbor Rd	Yes	No
FH-0738	1963	1995	119 Norfolk Rd	Yes	No
FH-0739	1963	1995	117 Norfolk Rd	Yes	No
FH-0740	1963	1995	115 Norfolk Rd	Yes	No
FH-0741	1963	1995	113 Norfolk Rd	Yes	No
FH-0742	1963	1995	125 Corpus Christi Rd	Yes	No
FH-0743	1964	1995	113 Barbers Point Rd	Yes	No
FH-0744	1964	1995	114 Barbers Point Rd	Yes	No
FH-0745	1964	1995	115 Barbers Point Rd	Yes	No
FH-0746	1964	1995	116 Barbers Point Rd	Yes	No
FH-0747	1964	1995	117 Barbers Point Rd	Yes	No
FH-0748	1964	1995	118 Barbers Point Rd	Yes	No
FH-0749	1964	1995	109 Pearl Harbor Rd	Yes	No
FH-0750	1964	1995	111 Pearl Harbor Rd	Yes	No
FH-0751	1964	1995	113 Pearl Harbor Rd	Yes	No
FH-0752	1964	1995	104 Alameda Rd	Yes	No
FH-0753	1964	1995	110 Norfolk Rd	Yes	No
FH-0754	1964	1995	148 Barbers Point Rd	Yes	No
FH-0755	1964	1995	146 Barbers Point Rd	Yes	No
FH-0756	1964	1995	149 Barbers Point Rd	Yes	No
FH-0757	1964	1995	147 Barbers Point Rd	Yes	No
FH-0758	1965	1995	144 Barbers Point Rd	Yes	No
FH-0759	1965	1995	140 Barbers Point Rd	Yes	No
FH-0760	1965	1995	112 Norfolk Rd	Yes	No
FH-0761	1965	1995	114 Norfolk Rd	Yes	No
FH-0762	1965	1995	136 Barbers Point Rd	Yes	No
FH-0763	1965	1995	116 Norfolk Rd	Yes	No
FH-0764	1965	1995	134 Barbers Point Rd	Yes	No
FH-0765	1965	1995	118 Norfolk Rd	Yes	No
FH-0766	1965	1995	116 Pearl Harbor Rd	Yes	No
FH-0767	1965	1995	115 Pearl Harbor Rd	Yes	No
FH-0768	1965	1995	117 Pearl Harbor Rd	Yes	No
FH-0769	1965	1995	122 Barbers Point Rd	Yes	No
FH-0770	1965	1995	120 Barbers Point Rd	Yes	No
FH-0771	1965	1995	119 Barbers Point Rd	Yes	No
FH-0772	1965	1995	121 Barbers Point Rd	Yes	No
FH-0773	1965	1995	123 Barbers Point Rd	Yes	No

**TABLE 6: SUMMARY OF LEAD-BASED PAINT IN RESIDENTIAL BUILDINGS  
CIRCA 1995 (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

<b>Building</b>	<b>Year Built</b>	<b>Survey Date</b>	<b>Address</b>	<b>LBP Present</b>	<b>LBP in Soil Hazard*</b>
FH-0774	1965	1995	125 Barbers Point Rd	Yes	No
FH-0775	1966	1995	95 Alameda Rd	Yes	No
FH-0776	1966	1995	104 San Diego Rd	Yes	No
FH-0777	1964	1995	105 Alameda Rd	Yes	No
FH-0778	1966	1995	100 Lemoore Rd	Yes	No
FH-0779	1966	1995	101 Lemoore Rd	Yes	No
FH-0780	1966	1995	103 Lemoore Rd	Yes	No
FH-0781	1966	1995	105 Lemoore Rd	Yes	No
FH-0782	1966	1995	138 Barbers Point Rd	Yes	No
FH-0783	1966	1995	142 Barbers Point Rd	Yes	No
FH-0784	1966	1995	145 Barbers Point Rd	Yes	No
FH-0800	1963	1995	112 Pensacola Rd	Yes	No
FH-0801	1963	1995	113 Pensacola Rd	Yes	No
FH-0802	1963	1995	124 Corpus Christi Rd	Yes	No
FH-0803	1963	1995	126 Corpus Christi Rd	Yes	No
FH-0804	1963	1995	128 Corpus Christi Rd	Yes	No
FH-0805	1963	1995	112 7th Ave	Yes	No
FH-0806	1963	1995	111 Norfolk Rd	Yes	No
FH-0807	1963	1995	110 El Toro Rd	Yes	No
FH-0808	1963	1995	101 Miramar Rd	Yes	No
FH-0809	1963	1995	103 Miramar Rd	Yes	No
FH-0810	1963	1995	105 Miramar Rd	Yes	No
FH-0811	1963	1995	107 Miramar Rd	Yes	No
FH-0812	1963	1995	109 Norfolk Rd	Yes	No
FH-0813	1963	1995	100 Miramar Rd	Yes	No
FH-0814	1963	1995	102 Miramar Rd	Yes	No
FH-0815	1963	1995	104 Miramar Rd	Yes	No
FH-0816	1963	1995	108 7th Ave	Yes	No
FH-0817	1963	1995	106 7th Ave	Yes	No
FH-0818	1963	1995	100 6th Ave	Yes	No
FH-0819	1963	1995	102 6th Ave	Yes	No
FH-0820	1963	1995	100 7th Ave	Yes	No
FH-0821	1963	1995	102 7th Ave	Yes	No
FH-0822	1963	1995	104 7th Ave	Yes	No
FH-0823	1963	1995	101 Norfolk Rd	Yes	No
FH-0824	1963	1995	103 Norfolk Rd	Yes	No
FH-0825	1963	1995	105 Norfolk Rd	Yes	No

**TABLE 6: SUMMARY OF LEAD-BASED PAINT IN RESIDENTIAL BUILDINGS  
CIRCA 1995 (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Building	Year Built	Survey Date	Address	LBP Present	LBP in Soil Hazard*
FH-0826	1963	1995	107 Norfolk Rd	Yes	No
FH-0827	1963	1995	108 Norfolk Rd	Yes	No
FH-0828	1963	1995	106 Norfolk Rd	Yes	No
FH-0829	1963	1995	102 Norfolk Rd	Yes	No
FH-0830	1963	1995	104 Norfolk Rd	Yes	No
FH-0831	1963	1995	106 Miramar Rd	Yes	No
FH-0832	1963	1995	108 Miramar Rd	Yes	No
FH-0833	1963	1995	100 Glenview Rd	Yes	No
FH-0834	1963	1995	102 Glenview Rd	Yes	No
FH-0835	1963	1995	104 Glenview Rd	Yes	No
FH-0836	1963	1995	103 Glenview Rd	Yes	No
FH-0837	1963	1995	101 Glenview Rd	Yes	No
FH-A	1941	1995	100 Alameda Rd	Yes - Abated 1998	No
FH-B	1941	1995	100 Seattle Rd	Yes - Abated 1998	No
FH-C	1941	1995	102 Seattle Rd	Yes - Abated 1998	No
FH-D	1941	1995	100 Newport Rd	Yes	No
FH-E	1941	1995	102 Newport Rd	Yes	No
FH-F	1941	1995	104 Newport Rd	Yes	No
FH-G	1941	1995	106 Newport Rd	Yes	No
FH-H	1941	1995	100 San Diego Rd	Yes - Abated 1998	No
FH-I	1941	1995	102 San Diego Rd	Yes - Abated 1998	No
FH-K	1941	1995	106 San Diego Rd	Yes - Abated 1998	No
FH-L	1941	1995	108 San Diego Rd	Yes - Abated 1998	No
FH-M	1941	1995	100 San Pedro Rd	Yes - Abated 1998	No
FH-N	1941	1995	102 San Pedro Rd	Yes - Abated 1998	No
FH-O	1941	1995	104 San Pedro Rd	Yes - Abated 1998	No
FH-P	1941	1995	106 San Pedro Rd	Yes - Abated 1998	No
FH-Q	1941	1995	108 San Pedro Rd	Yes - Abated 1998	No
FH-S	1941	1995	102 Pearl Harbor Rd	Yes - Abated 1998	Yes - Abated
FH-T	1941	1995	104 Pearl Harbor Rd	Yes - Abated 1998	No
FH-U	1941	1995	106 Pearl Harbor Rd	Yes - Abated 1998	No

Notes:

* ppm Ave	Hazard based on lead concentrations exceeding 400 ppm Parts per million Avenue	FH LBP Rd	Family housing Lead-based paint Road
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**TABLE 7: UNDERGROUND FUEL LINE STATUS**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Physical Status	Regulatory Status	Associated Site	Closure Reference°
FL-016	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-016B	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-023	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-023E	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-023F	Closed in place	See Associated Site	CAA-B	
FL-023G	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-023H	Removed	NFA without Restrictions	CAA-A	Water Board 2007
FL-031	Removed	See Associated Site	CAA-C	
FL-032	Removed	Open		
FL-033	Closed in place	See Associated Site	FL-032	
FL-035	Closed in place	Open		
FL-050	Removed	See Associated Site	CAA-B	
FL-050B	Removed	See Associated Site	CAA-B	
FL-051	Removed	See Associated Site	CAA-B	
FL-051B	Removed	See Associated Site	CAA-B	
FL-070	Removed	See Associated Site	CAA-B	
FL-071	Removed	See Associated Site	CAA-B	
FL-125	Removed	Open		
FL-126	Removed	Open		
FL-138	Removed	See Associated Site	CAA-11B	
FL-139	Removed	Open	CAA-11B	
FL-139A	Removed	Open	CAA-11B	
FL-140	Removed	Open	CAA-11B	
FL-142	Removed	Open		
FL-145	Removed	See Associated Site	CAA-04C	
FL-147	Removed	See Associated Site	CAA-13	
FL-150	Removed	See Associated Site	CAA-09A	
FL-154	Removed	Open		
FL-155	Closed-in-Place	Open		
FL-155B	Removed	Open		

**TABLE 7: UNDERGROUND FUEL LINE STATUS (Continued)**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification	Physical Status	Regulatory Status	Associated Site	Closure Reference°
FL-155C	Removed	Open	CAA-11B	
FL-157	Removed	NFA without Restrictions		Water Board 2012d
FL-163	Removed	NFA without Restrictions	AST 342A, AST 342B	Water Board 2009d
FL-163A	Removed	NFA without Restrictions		
FL-165	Closed-in-Place	Open		
FL-190	Closed in place	See Associated Site	CAA-C	
FL-191	Closed in place	Open		
FL-192	Closed in place	Open		
FL-195	Removed	See Associated Site	CAA-B	
FL-202	Removed	See Associated Site	CAA-09A	

Notes:

° If blank, the site remains open  
NFA No further action  
Water Board Regional Water Quality Control Board

**ATTACHMENT 1**  
**RESPONSES TO REGULATORY AGENCY COMMENTS**

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## **RESPONSE TO REGULATORY AGENCY COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER FOR FORMER NAVAL AIR STATION ALAMEDA, ALAMEDA POINT, ALAMEDA, CALIFORNIA**

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This document presents the Department of the Navy's responses to comments from Xuan-Mai Tran, Robert Carr, John Chesnutt, and Christopher Lichens of the U.S. Environmental Protection Agency (EPA) Region 9; John West of the San Francisco Bay Regional Water Quality Control Board (Water Board); and Karen Toth of the Department of Toxic Substances Control (DTSC). These comments were submitted on the "Draft Finding of Suitability to Transfer for Former Naval Air Station (NAS) Alameda, Alameda Point, Alameda, California" dated September 21, 2012, the Revised Draft Finding of Suitability to Transfer for Former Naval Air Station Alameda, Alameda Point, Alameda, California" dated December 27, 2012, and the Draft Final Finding of Suitability to Transfer for Former Naval Air Station Alameda, Alameda Point, Alameda, California" dated February 6, 2013.

### **RESPONSES TO EPA COMMENTS**

#### **GENERAL COMMENTS**

1. **Comment:** EPA's review of the Draft Finding of Suitability to Transfer (FOST) for Former Naval Air Station Alameda is based on the expectation that the following listed documents will be finalized and/or approved prior to the FOST signature:
- a. **Interim Remedial Action Completion Report (I-RACR) for Sites 6 and 16**
  - b. **RACR for Site 7**
  - c. **Operating Properly and Successfully determination for Site 6**
  - d. **Operating Properly and Successfully determination for Site 16**
  - e. **Operable Unit 2A Record of Decision**
  - f. **Land Use Controls (LUC) RD for Sites 9, 13 and 19**

**Please see the specific comments below for details.**

**Response:** IR Sites 6 and 16 have been removed from the footprint of the FOST and, therefore, an I-RACR (Operating Properly and Successfully determination) is no longer required in support of this FOST. Documents b) and e) in the above comment were finalized and actual issue dates were entered in "Section 10.0 REFERENCES" of the FOST prior to signature of Section 9.0 of the FOST. The last document in the list, Land Use Controls (LUC) RD for Sites 9, 13 and 19, does not need to be completed prior to finalizing the FOST. This is because the land use controls are sufficiently described in the OU-2A ROD for purposes of supporting the

FOST finding. The necessary restrictions will be agreed upon with the BCT prior to transfer and later documented in the LUC RD..

2. **Comment:** EPA notes that Navy policy provides for a 30-day public notice prior to the signing of the FOST which should be acknowledged in Section 9.0. We believe that a document which responds to the attached comments should be the basis for such notice, provided that the above documents are noted as “under review” or “pending approval”.

Response: The Navy will provide the public a 30-day public notice prior to the signing of the FOST. Please note that the exact text contained in Section 9.0 is stipulated by Navy guidance and, therefore, has not been changed.

#### **SPECIFIC COMMENTS**

1. **Comment:** *Section 4.0, Summary of Environmental Conditions and Notifications, Page 4:* The statute requires that in addition to the Notice describing the types and quantities of hazardous substances known to have been stored released or disposed of on the parcel, there must be a description of the actions that have been taken. The information can be presented in the table format that includes the media, the COCs and the responses that have been taken.

Response: As noted in the comment, the statute (Section 120(h)(3)(A)(i)(III)) requires a description of the remedial action taken, whereas the implementing regulations found at 40 CFR 373 do not. The Hazardous Substances Notification Table, Attachment 3, has been modified to comply with the statute by adding a new column entitled “Action Taken.” The text in the second paragraph, Section 4.0, which discusses 40 CFR 373 has not been changed as it is accurate as written.

2. **Comment:** *Section 4.1.1, IR Site 6 (OU-1), Page 6:* The last sentence in this section states that “Based on the progress documented in the I[I]RACR, U.S. EPA has determined that the remedy is OPS (U.S. EPA 2012c) and, therefore, Site 6 is suitable for transfer.” Please note that the I-RACR for Site 6 has to be concurred on prior to the FOST signature. In addition, an OPS request needs to be submitted and an official EPA’s OPS determination needs to be documented.

Response: As noted in the response to General Comment #1, IR Sites 6 and 16 have been removed from the footprint of the FOST and; therefore, an I-RACR (Operating Properly and Successfully determination) is no longer required in support of this FOST.

3. **Comment:** *Section 4.1.2, IR Site 7 (OU-1), Page 7: The last sentence in this section states that “The Remedial Action Completion Report (RACR) documented that the implemented remedy met remedial goals and remedial action objectives (RG/RAOs) for unrestricted use (URS 2012c).” Please note that the RACR for Site 7 has to be concurred on prior to the FOST signature.*

**Response:** The Navy finalized the Site 7 RACR and obtained EPA concurrence prior to signature of the Final FOST.

4. **Comment:** *Section 4.1.3, IR Site 8 (OU-1), Page 7: The last sentence in this section states that “The RACR documented that the implemented remedy met RG/RAOs for unrestricted use (URS 2012d).” Please expand the description indicating EPA’s approval of the Final RACR.*

**Response:** Comment noted. Section 4.1.3 (now Section 4.1.2) has been expanded to include a description of EPA’s concurrence with the Final RACR. The RACR was finalized with agency concurrence in July 2012.

5. **Comment:** *Section 4.1.4, IR Site 9 (OU-2A), Page 7: The LUC RD for Site 9 needs to be referenced in this section and it needs to be prepared prior to the FOST signature. In addition, there is a typo at the bottom of page 7. It was supposed to be “Site 9” not “Site 19”.*

**Response:** The typographical error was corrected as noted. The requested reference to the LUC RD has not been added to the text. As noted in the Navy response to EPA general comment #1, LUC RDs do not need to be completed prior to finalizing the FOST because the land use controls are sufficiently documented in the OU-2A ROD for purposes of supporting the FOST finding. The LUC RD will be completed prior to transfer of the property by deed.

6. **Comment:** *Section 4.1.5, IR Site 13 (OU-2A), Page 8: Although the text states “The groundwater area of Site 13 requiring remedial action is excluded from the FOST Parcel.”, please clarify the area where active remediation was selected will be excluded and that there will be a groundwater use restriction for the rest of Site 13. In addition, the LUC RD for Site 13 needs to be referenced in this section and it needs to be prepared prior to the FOST signature.*

**Response:** The second paragraph of Section 4.1.5 (now Section 4.1.4), second (now third) sentence, has been replaced with the following sentence to address the groundwater use restriction: “*The ROD selected NFA for soil and in situ bioremediation (ISB), with monitored natural attenuation (MNA) and*

*ICs for the localized benzene plume in the southeast corner of Site 13 (Figure 2) and an IC restricting use of groundwater for all of Site 13 (Navy 2012b)."*

The requested reference to the LUC RD has not been added to the text. As noted in the Navy response to EPA general comment #1, LUC RDs do not need to be completed prior to finalizing the FOST because the land use controls are sufficiently documented in the OU-2A ROD for purposes of supporting the FOST finding. The LUC RD will be completed prior to transfer of the property by deed.

7. **Comment:** *Section 4.1.8, IR Site 16 (OU-1), Page 9: The last sentence in this section states that "Based on the progress documented in the i[I]RACR, U.S. EPA has determined that the remedy is OPS (U.S. EPA 2012c) and, therefore, Site 16 is suitable for transfer." Please note that the I-RACR for Site 16 has to be concurred on prior to the FOST signature. In addition, an OPS request needs to be submitted and an official EPA's OPS determination needs to be documented.*

**Response:** As noted in the response to General Comment #1, IR Sites 6 and 16 have been removed from the footprint of the FOST and; therefore, an I-RACR (Operating Properly and Successfully determination) is no longer required in support of this FOST.

8. **Comment:** *Section 4.1.9, IR Site 19 (OU-2A), Page 10: The LUC RD for Site 19 needs to be referenced in this section and it needs to be prepared prior to the FOST signature.*

**Response:** The requested reference to the LUC RD has not been added to the text. As noted in the Navy response to EPA general comment #1, LUC RDs do not need to be completed prior to finalizing the FOST. This is because the land use controls are sufficiently described in the OU-2A ROD for purposes of supporting the FOST finding. The LUC RD will be completed prior to transfer of the property by deed.

9. **Comment:** *Section 4.1.16, IR Site 29, Page 13: Please change "NFA" in the last sentence in this section to "NA" in order to be consistent with the sentence right above it, "The remedial alternative in the ROD identified NA for sediments at IR Site 29 (Navy 2005b)."*

**Response:** The text has been revised as suggested.

10. **Comment:** *Section 4.8, Pesticides, Page 24: EPA does not agree with the Navy assertion regarding its obligation to address post-transfer discovery of*

**pesticide contamination. If such contamination requires a response action, it is not excluded from the Navy's CERCLA obligation.**

Response: The Navy's position on the responsibility for legally applied pesticides remains unchanged. The FOST was not changed as a result of this comment. Despite the Navy and EPA's difference of opinion, in the past EPA has concurred with the Navy's determination that the parcel is suitable for transfer but has included the following statement in its concurrence letter: "EPA concurs with the Navy's determination that the parcel is suitable for transfer; however, it is EPA's position that residual pesticide contamination, if discovered following transfer at levels requiring a response action, is not excluded from the Navy's post-transfer obligations."

**11. Comment: Section 5, Summary of Restrictions: Please add a sub-section to describe the Water Board restrictions related to TRW at Site 13.**

Response: As noted in Water Board specific comment 3, the Regional Water Board will exercise its authority, independent of CERCLA, to restrict the property. As such, Section 4.1.5 (now Section 4.1.4) has been revised to add "*The Regional Water Board retains its authority to regulate Tarry Refinery Waste (TRW) and/or co-located petroleum in the future at Site 13.*"

**12. Comment: Section 5.1.3, Marsh Crust, Page 25: The current text needs to be revised to speak prospectively and to describe the relationship between the Navy, DTSC and the City. EPA believes that the land use covenant should be executed by the Navy prior to the transfer of the property and should reference the City Ordinance as an implementation tool.**

Response: The text of Section 5.1.3 has been revised as follows in response to this comment: "*The Final Marsh Crust RAP/ROD was signed in February 2001 (Navy 2001). The Marsh Crust RAP/ROD identifies restrictions on excavations within all of the upland FOST Parcel (see Figure 11).*"

*For the areas shown on Figure 11, excavation within the Marsh Crust and former subtidal area is prohibited, unless proper precautions are taken to protect worker health and safety and to ensure that excavated material is disposed of properly. This prohibition will be implemented with a three-tiered approach: (1) a land use covenant will be executed between DTSC and the City of Alameda, (2) an Environmental Restriction will be included in the Deed, and (3) enforcement of the existing City of Alameda Excavation Ordinance Number 2824 ([City Ordinance 2824] Navy 2001).*

*The Navy, City, and DTSC will all have enforcement authority for the Marsh Crust restrictions.”*

- 13. Comment:** ***Section 6.2.5, OU-4B (IR Sites 17 and 24), Page 30: Please add the reference to the Final Addendum 1 to the Completion Report for TCRA, Site 17 Construction Debris Piles, dated October 2012.***

**Response:** The requested reference has been added to the end of the sixth (seventh?) sentence of Section 6.2.5 (now Section 6.2.6).

- 14. Comment:** ***Section 6.2.6, IR Site 32 (Northwest Ordnance Storage Area) and Associated Issues, Page 30: Please elaborate the text in this section to include the current status of this site as well as a description of how the boundary is being defined between Site 32 and the FOST Parcel.***

**Response:** The second-to-last sentence in Section 6.2.6 (now Section 6.2.7) has been rewritten as follows: “*A final FS was issued in January 2008; however, a TCRA completed in June of 2008 expanded the investigation of Site 32 outside of the IR site boundary adjacent to the FOST Parcel. The investigation of the expanded area is not complete.*” The FOST parcel has been changed from that presented in the draft FOST to remove those areas where the expanded investigation is taking place outside of IR Site 32.

- 15. Comment:** ***Section 6.2.7, IR Site 33, Page 31: Please update this section to reflect the current status for Site 33.***

**Response:** The paragraph has been revised to read as follows in response to this comment: “*IR Site 33 is in the site inspection phase of investigation. An expanded site inspection report was submitted in January 2011 and a TCRA work plan and Final Action Memo have been issued. Removal actions began in the fall of 2012. The primary contaminants are PAHs in soil.*”

- 16. Comment:** ***Section 6.2.8, IR Site 34 (Former Northwest Shop Area) and Associated Issues, Page 31: Please clarify the statement “The site has progressed through a CERCLA ROD (Navy 2011d).” Perhaps, the text should state the selected remedy stated in the ROD as it was done for the other sites.***

**Response:** IR Site 34 is now Section 6.2.9. The statement has been clarified to read: “*The ROD for Site 34 was issued April 2011 (Navy 2011c). The ROD documents the preferred remedial action of excavation, transportation and disposal of chemically impacted soil, and no action for groundwater. In addition, soil that contains TPH above cleanup standards collocated with*

*CERCLA contaminants would also be excavated and disposed of at an acceptable site. The disposal site will be chosen (including possible locations at Alameda Point) based on the results from the waste characterization sampling (Navy 2011c)."*

- 17. Comment:** *Section 6.2.9, Radiologically Impacted Storm Drain Corridors, Page 31: This section needs to be revised to clarify the relationship between the radiological impacted drain lines and the FOST parcel. The term "transects" indicates that the drain lines cut across the FOST parcel. For all impacted lines indicate how the real property will be surveyed to exclude these areas.*

**Response:** *Section 6.2.9 (now Section 6.2.12) has been revised to read as follows: "Radiologically impacted storm drain corridors are located adjacent to the FOST Parcel and originate from Buildings 5, 10, and 400 north to the Oakland Inner Harbor and south to the Seaplane Lagoon. The FOST Parcel footprint has been established to exclude these drain lines and to allow for sufficient buffer to exist between the drains and the FOST Parcel, including sufficient footprint to allow for equipment access, laydown areas, and to ensure that the FOST Parcel is not impacted by any potential release from defects in the sewer system along the run of piping."*

- 18. Comment:** *Section 7, Access Clause, Page 32: The term "remedial" should be replaced with "response" to make it clear that the right of access will include investigations to determine if there is a need for a remedial action.*

**Response:** The text has been revised as suggested.

#### **MINOR COMMENTS**

- 1. Comment:** *Acronyms and Abbreviations, Page v: To be consistent with the abbreviation in the other documents, please change the abbreviation for Interim Remedial Action Completion Report from "iRACR" to "I-RACR".*

**Response:** The text has been revised as suggested globally throughout the document.

- 2. Comment:** *The full justification of the document caused the spelling on some of the words to be incorrect. Please do a global search throughout the document to correct them.*

Response: The spelling has been reviewed and corrected throughout the document.

## RESPONSES TO WATER BOARD COMMENTS

### SPECIFIC COMMENTS

1. **Comment:** *Section 3.0, Regulatory Coordination, Page 2: The State of California did not sign the Federal Facilities Agreement until November 2005. Change the text from July 2001 to November 2005.*

Response: Both the DTSC and the Water Board commented on this third sentence of Section 3.0. The third sentence of section 3.0 has been rewritten as follows as suggested by the DTSC in their specific comment #1: *“Subsequent to the execution of the FFSRA, and following designation of former NAS Alameda as a National Priorities List (NPL) site in 1999, the Navy and U.S. EPA executed a Federal Facility Agreement (FFA) in July 2001. Subsequently, DTSC signed the FFA in October 2005 and the Water Board signed it in November 2005.”*

2. **Comment:** *Section 3.2 Resource Conservation and Recovery Act Subtitle I Corrective Action, Page 4: Please include “tarry refinery waste (TRW)” as a petroleum constituent excluded from CERCLA.*

Response: The second sentence has been rewritten to read: *“However, petroleum and petroleum-related constituents, including tarry refinery waste (TRW) are not included in the definition of hazardous substances under CERCLA (Title 42 USC § 9601[14]).”*

3. **Comment:** *Section 4.1.5, IR Site 13 (OU-2A), Page 8: At the end of the second paragraph add the following statement “The Regional Water Board will exercise its authority, independent of CERCLA, to require ICs in the form of a deed restriction at the time of transfer for areas of TRW and co-located petroleum at Site 13.”*

Response: In accordance with the OU-2A ROD, the following language has been added to Section 4.1.4: *“The Regional Water Board retains its authority to regulate the TRW and/or co-located petroleum in the future at Site 13.”*

4. **Comment:** *Section 4.1.12 IR Site 23 (OU-2A), Page 11: After the last sentence, insert the following statement “The Regional Water Board will exercise its authority, independent of CERCLA, to require ICs in the form of a deed restriction at the time of transfer for areas of TRW and co-located petroleum at Site 23.”*



Response: In accordance with the OU-2A ROD, the following language has been added to Section 4.1.10: *“The Regional Water Board retains its authority to regulate the TRW and/or co-located petroleum in the future at Site 23.”*

- 5      **Comment:**    ***Section 4.2 Petroleum Products and Derivatives, Page 14: Table 2 and Figure 4 should be modified to list areas of TRW and co-located petroleum.***

Response: The purpose of Table 2 and Figure 4 is to provide the status and location for Petroleum Corrective Action Areas (CAAs). TRW areas are not CAAs and, therefore, it is not appropriate to list them on these table and figures so no changes have been made.

- 6      **Comment:**    ***Section 4.2.1 Open Petroleum Sites, Page 14: After the first sentence, insert the following statement “The TRW and co-located petroleum in areas of Sites 13 and 23 were closed under CERCLA. However, in the OU-2A ROD, the Regional Water Board retained its authority to regulate petroleum compounds in these areas in perpetuity to mitigate potential risks to human health, safety and the environment.”***

Response: The paragraph has been amended as suggested.

7.      **Comment:**    ***Section 5.2 Petroleum Products and Derivatives, Page 25: After the first sentence in the second paragraph (Based on current environmental conditions, some petroleum-impacted areas of the FOST Parcel cannot support unrestricted use due to potentially unacceptable human health risk from residual petroleum contamination in soil and/or groundwater) add the statement “These areas are identified on [figure X].”***

Response: A figure is being prepared independent of the FOST as part of a covenant to be entered into by the City of Alameda and the Regional Water Board. The covenant will be executed and recorded immediately following conveyance of the property.

8      **Comment:**    ***Section 5.2 Petroleum Products and Derivatives, Page 25:a.) 3-28-13 - WB submitted a recommended paragraph for use in Section 5.2 (see paragraph in response below). Navy accepted.***

***b.) Rewrite the third paragraph and bullets a and b to read; “The deed(s) transferring the parcel(s) from the Navy to the City of Alameda will be recorded simultaneously with a deed restriction containing the language attached in [new attachment].”***

**c.) Rewrite the last paragraph to read; “A footprint for which the above restrictions shall apply shall be identified in a map to be approved by the Regional Water Board and attached to the deed restriction. Affected sites shall include open petroleum sites and petroleum sites that were closed to commercial/industrial cleanup standards. The City intends to prepare a Regional Water Board-approved soil and groundwater management plan for any work conducted on any portion of the affected property described in the map.”**

Response: After review of the City of Alameda’s proposed Land-Use Restriction Tracking and Soil/Groundwater Management Plan Program for petroleum sites (“City Program”) and discussions between the Navy, City and Regional Water Board, in lieu of the language suggested by the Water Board, the first paragraph of Section 5.2 has been replaced by the following paragraph suggested by the WB:

*“Although the Navy intends to obtain regulatory closure for all sites under the petroleum program the FOST Parcel will likely be transferred before the Navy obtains regulatory closure for some petroleum sites, and obtaining regulatory closure, including required investigation, remediation, and reporting, for these sites shall remain the Navy’s responsibility after the transfer. Transfer while petroleum remediation is ongoing is allowable under CERCLA because Section 101(14) excludes crude oil and fractions of crude oil, including the hazardous substances such as benzene that are constituents of those petroleum substances, from the definition of hazardous substance. The Navy will fulfill its petroleum remediation obligation either by completing regulatory closure under Navy direction or by negotiating an agreement with the transferee to complete these actions on behalf of the Navy.”*

and the last two paragraphs of Section 5.2. have been replaced with the following:

*“Federal quitclaim deed(s) for transfer of property that include petroleum sites subject to restrictions will contain a notice stating that the property has been investigated and remediated, but contains residual petroleum contamination, and the property will be the subject of a recorded covenant between the City of Alameda and the Water Board which identifies the conditions and requirements necessary to protect human health, safety and the environment (“Covenant”). The Covenant will be executed and recorded immediately following conveyance of the property by the Navy to the City of Alameda. A footprint of sites to which the Covenant shall apply shall be identified on a map to be approved by the RWQCB and attached to the Covenant. Property that includes such restricted closed petroleum sites will be enrolled in the City of Alameda Land-Use Restriction Tracking and Soil/Groundwater Management Plan Program (“City Program”). Any work conducted on the Property that involves soil excavation, trenching or*

*groundwater contact shall be conducted in accordance with the Covenant and the City Program.”*

Federal quitclaim deed(s) for transfer of property that include open petroleum sites not subject to restrictions will contain a notice saying that the property has not been remediated to the satisfaction of the Water Board, or has not been investigated to the satisfaction of the Water Board to determine whether corrective action is appropriate. The property will be enrolled in the City Program discussed above, and any work conducted on the property that involves soil excavation, trenching, or groundwater contact shall be conducted pursuant to a soil/groundwater management plan that is acceptable to the Water Board, and in accordance with the City Program.

9. **Comment:** ***Section 8.0 Covenants, Page 33: It is unclear whether there are areas where Petroleum Program sites overlap with CERCLA areas that are covered by this section. Please provide us with an evaluation of any overlapping areas so we can avoid duplicative covenants/deed restrictions.***

Response: The Navy does not consider that areas of overlapping CERCLA and Petroleum restrictions would be duplicative. It is appropriate to independently impose restrictions based on the legal authority under which they have been developed such that future modifications, if any, can be addressed under the respective authority.

10. **Comment:** ***Figures and Tables: Tables 1 and 2 and Figure 4 should be modified to list areas of TRW and co-located petroleum at Sites 13 and 23.***

Response: No action was found necessary for TRW under the CERCLA Program; therefore, the document was not revised to incorporate the requested changes. As noted in Response to the Water Board’s specific comments 3 and 4, the FOST was revised to report that the Regional Water Board is taking action under independent authority to regulate the TRW.

## RESPONSES TO DTSC COMMENTS

### SPECIFIC COMMENTS

1. **Comment:** **Page 2, Section 3.0, Regulatory Coordination: In the 7th line from the bottom, please make the following corrections:**

***“.....as a National Priority List (NPL) site in 1999, the Navy and U.S. EPA [delete the reference to “and the State of California”] executed a***

**Federal Facility Agreement (FFA) in July 2001. Subsequently, DTSC signed the FFA in October 2005 and the Water Board signed it in November 2005.**” (add underlined text)

Response: Both the DTSC and the Water Board (Water Board Specific Comment #1) commented on this third sentence of Section 3.0. The third sentence of section 3.0 has been rewritten as follows as suggested by the DTSC in this comment: *“Subsequent to the execution of the FFSRA, and following designation of former NAS Alameda as a National Priorities List (NPL) site in 1999, the Navy and U.S. EPA executed a Federal Facility Agreement (FFA) in July 2001. Subsequently, DTSC signed the FFA in October 2005 and the Water Board signed it in November 2005.”*

2. **Comment:** **Sections 4.1.1, 4.1.4, 4.1.6, 4.1.8, 4.1.9, 4.1.13, 4.1.14, and 4.1.15 (summaries of CERCLA Program investigations for various IR Sites included in the FOST):** These sections describe sites where the decision document included the use of institutional controls (ICs). At the time of property transfer, ICs require implementation of Land Use Covenants (LUCs) between the Navy and the property recipient (City of Alameda) and Covenants(s) to Restrict Use of Property (CRUP) between the Navy and DTSC to limit exposure by the public to contaminated soil and groundwater. There is no mention of LUCs/CRUPs in the site descriptions or in Section 5.1.2 (Summary of Restrictions for open CERCLA Sites that have an OPS determination). Please add language that clearly states that when ICs are required, the LUC will be recorded at the time of transfer. Attached is a section from the draft Parcel B FOST for Hunters Point as an example of how LUCs/CRUPs could be addressed in the FOST.

Response: As suggested by the comment, the Hunters Point language has been used as a template for adding new text to Section 5.1 of the FOST. Section 5.1 has been replaced in its entirety with the following new language: *“As detailed in the following subsections, ICs will be implemented to prevent exposures to COCs in soil and groundwater on the property. Legal instruments known as restrictive covenants will include land use and activity restrictions in the deed between the Navy and the property recipient and in “Covenants(s) to Restrict Use of Property (CRUP)” between the DTSC and the Navy to limit exposure to contaminated soil, and groundwater. The CERCLA ICs will be implemented in accordance with remedial design documents for CERCLA sites where the remedy is either complete or the remedy is ongoing but has been determined to be operating successfully. The following land use and activity restrictions were developed and presented in RODs or within this FOST for sites where the remedy is ongoing but has been determined to be operating successfully.”*

3. **Comment:** Section 4.7.2 General Radioactive Material. This section lists nine sites within the FOST Parcel that were determined in the Historical Radiological Assessment (HRA) to be radiologically impacted. The sites include the following:

Sewer Line F, storm drains that were removed as part of a time critical removal action (TCRA) and two now demolished buildings (Buildings 309 and 310) previously located over those storm drains

Building 66 and 114 courtyard, subject to Final Status Survey

Building 7, subject to a Radiological Closure

Former Smelter Area (FSA), subject to Scoping Survey

Portion of Seaplane Ramp and Parking Apron, used as a staging area for IR Site 17 equipment, dredging and dewatering activities during an ongoing remedial action

Building 12, previously verified as meeting state and federal standards and approved for unrestricted release by California Department of Public Health (CDPH)

- a) Per CDPH, the following Sites within the FOST parcel are subject to reclassification from “radiologically impacted” to “not radiologically impacted”: Building 66, Building 114 Courtyard, and the FSA. Additionally, all other sites outside of the FOST Parcel for which a FSSR has been prepared are also subject to reclassification. In order for these sites to be so reclassified, the Navy must prepare a technical memo with a description of the activities performed by the Navy to verify that the sites are not in fact radiologically impacted. As non-impacted sites, they do not need to be recommended by CDPH for free release.

In the descriptions of the reclassified sites in Section 4.7.2, any statement about providing or obtaining concurrence for unrestricted release must be removed. Instead, there should be a statement to the effect that the site has been reclassified as “not radiologically impacted” with a reference to the technical memo. This reclassification does not apply to any of the sites not listed above.

- b) According to the HRA, the recommended action for Building 12 was “No Further Action”. As such it is not subject to unrestricted release with applies only to radiologically impacted buildings.

- c) **The remedial action for IR Site 17 is making use of a portion of the Seaplane Parking Apron. That remedial action is still ongoing and there has been no completion report from which to request concurrence and approval for unrestricted release.**
- d) **Sewer Line F and the associated buildings were removed as part of a TCRA Action, the completion report for which is still under review by CDPH. Before this the site can be recommended for free release, CDPH must complete its review of the reports, concur with the findings, and conduct confirmation sampling of soil from the sites.**
- e) **While the Navy may have determined that all of the sites meet the requirements for unrestricted release, they cannot claim that they have obtained concurrence. For each radiologically impacted site that has not been recommended for unconditional release by CDPH or has not been reclassified as “not radiologically impacted” the FOST should contain a statement such as: “A notification will be provided that this radiologically impacted site has been cleared by the Navy but that CDPH has not yet confirmed those results and CDPH and DTSC have not yet given concurrence for unrestricted release. Furthermore, the Navy maintains responsibility for obtaining CDPH and DTSC concurrence for unrestricted release including remediating and any possible radiological contamination remaining at the site even after the property has been transferred.”**
- f) **Below are suggested changes/language for the not radiologically impacted areas/buildings:**

**Building 114 Courtyard – RAD 075, Page 23. Delete last sentence “The Navy obtained concurrence.....” and insert the following, “The Navy prepared a Technical Memorandum (NAVY, 2012) summarizing the activities conducted and the results of the FSS and the conclusion that the Building 114 Courtyard was not radiologically impacted. DTSC and CDPH concurred with the determination that this area was not radiologically impacted (DTSC, 2012d).” If these activities have not yet occurred then you cannot state this in the FOST, edit accordingly.**

**Building 7 – RAD 082, Page 23 – Same issue, since you have documented that there was no release, CDPH and DTSC will concur with a determination that this building was not radiologically impacted.**

**Building 66 - RAD 125, Page 23 – Same issue, since you have documented that there was no release, CDPH and DTSC will**

concur with a determination that this building was not radiologically impacted.

**Former Smelter Area – RAD 125-1, Page 23 – Replace last sentence with “DTSC and CDPH concurred with the determination that this area was not radiologically impacted (DTSC, 2012h).”**

Response: The Navy response to each DTSC comment subsection are presented in the same order of the DTSC comments in the following text:

- a) Per discussions with DTSC and CDPH, the language in Final Status Survey documents for Building 66 and Building 114 Courtyard have been changed to indicate that the sites are suitable for unrestricted use. The documents used to show that Building 7 and the Former Smelter Area are suitable for unrestricted use were not Final Status Surveys and were finalized in 2001 and 2012, respectively. Subsequently, these documents were not changed.
- b) **Hangar 12:** The text for Hangar 12 RAD 053-1 has been revised to read as follows: *“In the HRA, Hangar 12 was recommended for No Further Action. The HRA noted that the California Department of Health Services (predecessor organization to CDPH) verified Navy Radiological Affairs Support Office (RASO) surveys, performed some confirmation surveys, and concurred with the unrestricted release for Hangar 12. No further action is required for RAD 053-1 (Weston 2007) and the site is closed.”*
- c) **Seaplane Ramp:** The HRA Seaplane Ramp and Parking Apron site was approved for unrestricted release. Subsequent activity in support of the Site 17, Seaplane Lagoon, remedial action incorporated this area in an RCA. The portion of the RCA area that is included in this FOST has been down-posted after an appropriate survey. The area was not contaminated therefore no request for concurrence and approval for unrestricted release is required. This section of the document will be changed as follows.  
*“The HRA listed the Seaplane Ramp and Parking Apron as an impacted site with the Recommended Action of Free Release pending final Navy and regulatory agency review and concurrence of a 100% gamma survey. “Free release” is defined in the HRA as “a recommendation made after historical documentation and previous and current investigation and surveys indicate all applicable release criteria have been met and the site is ready for review by Navy and regulatory agencies for future non-radiological use.”*

*The Final Radiation Survey Report was reviewed and concurred by Navy and regulatory agencies (PRCEMI 1998). In January 2011 the Seaplane Ramp and Parking Apron was incorporated in the Radiological Controlled Area (RCA) in support of the Site 17, Seaplane Lagoon, remedial action. As part of the Navy's work plan a drying pad was built over the previously released area. While discreet sources of radioactive materials were found in the sediment, no loose sediment contamination was found. After the dredge work and sediment drying was completed, the Navy removed the pads. The portion of the Seaplane Lagoon Ramp and Parking Apron that is included in this FOST was surveyed for radioactivity and the results indicate that only background levels of radioactivity are present, with no measurements exceeding the release criteria. The data are normally distributed above and below established site-specific background levels, with distributions typical of background radioactivity. No evidence of residual radioactivity from historical Navy activities was found and no further action is required for this area prior to transfer. A formal completion report reporting results for the entire area is planned for 2014."*

- d) **Sewer Line F and associated buildings:** The text in this section has been changed to reflect the current status of the area and the reference to CPDH concurrence has been removed.
- e) **Regulatory concurrence prior to transfer:** As agreed upon with CDPH and DTSC, obtaining unrestricted release is not a requirement for the sites in question. The language in the individual site documents and FOST sections has been changed to reflect these discussions.
- f) Please see response to a) above.



**ATTACHMENT 2**  
**UNRESOLVED COMMENTS (NONE)**

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**ATTACHMENT 3**  
**HAZARDOUS SUBSTANCES NOTIFICATION TABLE**

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**ATTACHMENT 3: HAZARDOUS SUBSTANCES NOTIFICATION TABLE**

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification <sup>a</sup>	Media/ Description	Hazardous Substance <sup>b,c</sup>	Reportable Quantity (lbs) <sup>b</sup>	CAS Number	RCRA Waste Code <sup>b</sup>	Quantity Stored, Released, or Disposed <sup>d</sup>	Date Stored, Released, or Disposed <sup>d</sup>	Stored (S), Released (R), or Disposed (D)	Action Taken
IR Site 7	Soil	Antimony	5,000	7440-36-0	NA	Unknown	Unknown	R	Between 1991 and 2006 a series of soil and groundwater investigations and removal actions were conducted at the site in correlation with OU-1. No groundwater COCs were identified. Soil ROD was signed in 2007. The ROD selected the remedial action of soil excavation and off-site disposal, which was conducted from November 2009 to January 2011. Soil remedial action is complete.
		Arsenic	1	7440-38-2	NA	Unknown	Unknown	R	
		Cadmium	10	7440-43-9	NA	Unknown	Unknown	R	
		Chromium	5,000	7440-47-3	NA	Unknown	Unknown	R	
		Copper	5,000	7440-50-8	NA	Unknown	Unknown	R	
		Lead	10	7439-92-1	NA	Unknown	Unknown	R	
		Nickel	100	7440-02-0	NA	Unknown	Unknown	R	
		Benzo(a)pyrene	1	50-32-8	U022	Unknown	Unknown	R	
IR Site 8	Soil	Lead	10	7439-92-1	NA	Unknown	Unknown	R	Between 1991 and 2006 a series of soil and groundwater investigations and removal actions were conducted at the site in correlation with OU-1. No groundwater COCs were identified. The OU-1 ROD selected the remedial action of soil excavation and off-site disposal, which was conducted from November 2009 to July 2010. The ROD selected remedial action of soil excavation and off-site disposal which was conducted from November 2009 to July 2010. Soil remedial action is complete.
		Dieldrin	1	60-57-1	P037	Unknown	Unknown	R	
		PCBs	1	1336-36-3	NA	Unknown	Unknown	R	
IR Site 9	Groundwater	1,1-Dichloroethane	1,000	75-34-3	U076	Unknown	Unknown	R	Soil and groundwater investigations and removal actions were conducted between 1991 and 2010 in correlation with OU-2A. No soil COCs were identified. DVE corrective action was conducted in 2005 - 2006. ISCO treatment was conducted in 2006. A Groundwater Beneficial Use Exception for Southeast Alameda Point was granted by the Water Board, which exempted the site from cleanup to drinking water standards. The OU-2A ROD selected No Action for soil, MNA for groundwater, and ICs to prevent use of groundwater.
		1,1-Dichloroethene	100	75-35-4	U078	Unknown	Unknown	R	
		Benzene	10	71-43-2	U019	Unknown	Unknown	R	
		cis-1,2-Dichloroethene	1,000	156-60-5	U079	Unknown	Unknown	R	
		Methyl tert-butyl ether	1,000	1634-04-4	NA	Unknown	Unknown	R	
		Vinyl chloride	1	75-01-4	U043	Unknown	Unknown	R	
IR Site 13	Groundwater	Benzene	10	71-43-2	U019	Unknown	Unknown	R	Soil and groundwater investigations and removal actions were conducted between 1991 and 2010 in correlation with OU-2A. A TRW investigation was conducted in 2007 - 2008. The OU-2A ROD selected NFA for soil; ISB treatment and MNA to treat groundwater and IC prevent its use. The groundwater area of Site 13 requiring remedial action is excluded from the FOST Parcel.
		Ethylbenzene	1,000	100-41-4	NA	Unknown	Unknown	R	
		Toluene	1,000	108-88-3	U220	Unknown	Unknown	R	
		Xylenes	100	1330-20-7	U239	Unknown	Unknown	R	
IR Site 14	Groundwater	Vinyl chloride	1	75-01-4	U043	Unknown	Unknown	R	A series of soil and groundwater investigations were conducted between 1991 and 2007. A soil removal action was conducted in 2001. The ROD documented NFA for soil and selected ISCO, monitoring, and temporary ICs for groundwater. No soil COCs were identified. The groundwater remedial action began in September 2008. A Technology Transition Technical Memorandum (2010) presented the findings of the post-ISCO monitoring, as well as support to transition to MNA. Groundwater monitoring will continue until remedial goals are met. Based on progress of the remedial action, U.S. EPA determined that the remedy is OPS.

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IR Site 15	Soil	PCBs	1	1336-36-3	NA	Unknown	Unknown	R	Between 1991 and 2006 a series of soil and groundwater investigations and removal actions were conducted at IR Site 15. Contamination included PCBs (Aroclor 1260) and lead, which may have been released to soil from spills or leaking oil-containing transformers, use of PCB-containing oil for weed control, or storage and use of lead-based paints. During 1994 to 1995, 6,600 cubic yards of PCB and lead-contaminated soil was removed from the site. A ROD documenting NFA for soil and No Action for groundwater was signed June 2006. IR Site 15 is closed.
		Lead	10	7439-92-1	NA	Unknown	Unknown	R	
IR Site 19	Groundwater	Tetrachloroethene	100	127-18-4	U210	Unknown	Unknown	R	A series of soil and groundwater investigations and removal actions were conducted between 1991 and 2010 in correlation with OU-2A. A DVE corrective action was conducted in 2005 - 2006. ISCO treatment was conducted in 2006. A Groundwater Beneficial Use Exception for Southeast Alameda Point was granted by the Water Board, exempting the site from cleanup to drinking water standards. The OU-2A ROD selected No Action for soil, MNA for groundwater, and ICs to prevent use of groundwater.
		Trichloroethane	100	79-01-6	U228	Unknown	Unknown	R	
		Vinyl chloride	1	75-01-4	U043	Unknown	Unknown	R	
IR Site 20	Sediment	PCBs	1	1336-36-3	NA	Unknown	Unknown	R	Investigations were conducted between 1997 and 2006. Sediment from storm sewer outfalls was removed in 1997. A ROD documenting NFA for sediment was signed in September 2008. IR Site 20 is closed.
	Sediment	Arsenic	1	7440-38-2	NA	Unknown	Unknown	R	
	Sediment	4,4 DDD	1	72-54-8	U060	Unknown	Unknown	R	
	Sediment	4,4 DDE	1	72-55-9	NA	Unknown	Unknown	R	
	Sediment	4,4 DDT	1	50-29-3	U061	Unknown	Unknown	R	
	Sediment	Lead	10	7439-92-1	NA	Unknown	Unknown	R	
IR Site 22	Soil	Arsenic	1	7440-38-2	NA	Unknown	Unknown	R	Between 1991 and 2009 a series of soil and groundwater investigations were conducted at IR Site 22. Removal actions were conducted as part of the Petroleum Program, including the removal of USTs in 1994 and fuel lines in 1995. A remedial action using dual vapor extraction to remove floating petroleum product in 2004. No COCs requiring CERCLA response action were selected for further evaluation in the revised FS for soil or groundwater at IR Site 22. The Final ROD documented no further action was necessary at IR Site 22 for CERCLA constituents.
	Soil	Lead	10	7439-92-1	NA	Unknown	Unknown	R	
	Soil	Benzo(a)pyrene	1	50-32-8	U022	Unknown	Unknown	R	

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IR Site 23	Soil	Arsenic	1	7440-38-2	NA	Unknown	Unknown	R	Between 1991 and 2009 a series of soil and groundwater investigations were conducted at IR Site 23. A removal action conducted as part of the Petroleum Program, including dual vapor extraction was conducted between 2002 and 2006. No COCs requiring CERCLA response action were selected for further evaluation in the revised FS for soil or groundwater at IR Site 23. The Final ROD documented NFA was necessary at IR Site 23 for CERCLA constituents.
		Benzo(a)pyrene	1	50-32-8	U022	Unknown	Unknown	R	
IR Site 26	Groundwater	cis-1,2-Dichloroethene	1,000	156-60-5	U079	Unknown	Unknown	R	A series of soil and groundwater investigations and removal actions were conducted between 1982 and 2005. The final ROD documented no further action for soil and ISCO, enhanced ISB, MNA, and ICs for groundwater. No COCs were identified for soil at IR Site 26. Full-scale ISCO was completed in 2008 - 2009 and enhanced ISB was completed in 2008. Continuing groundwater monitoring is guiding the ongoing remedial action. Based on documented remedial action progress, U.S. EPA has determined the site is OPS.
		Trichloroethane	100	79-01-6	U228	Unknown	Unknown	R	
		Vinyl chloride	1	75-01-4	U043	Unknown	Unknown	R	
IR Site 27	Groundwater	cis-1,2-Dichloroethene	1,000	156-60-5	U079	Unknown	Unknown	R	A series of soil and groundwater investigations and removal actions were conducted between 1992 and 2006. No soil COCs were identified. The Site 27 ROD was issued in 2007 and selected ISCO, MNA, and ICs. Remedial action began in July 2009 with ISCO completed and MNA currently ongoing. A Technology Transfer Technical Memorandum documents the Remedy-In-Place. Evaluation of continuing groundwater monitoring is guiding the ongoing remedial action. Based on the documented remedial action progress, U.S. EPA has determined that the remedy is OPS.
		Tetrachloroethene	100	127-18-4	U210	Unknown	Unknown	R	
		trans-1,2-Dichloroethene	1,000	156-60-5	U079	Unknown	Unknown	R	
		Trichloroethane	100	79-01-6	U228	Unknown	Unknown	R	
		Vinyl chloride	1	75-01-4	U043	Unknown	Unknown	R	
IR Site 28	Soil	Arsenic	1	7440-38-2	NA	Unknown	Unknown	R	A series of soil and groundwater investigations were conducted at the site between 1988 and 2007. The ROD was signed in October 2007 and included remedial actions for soil and groundwater. The soil remedial action was completed in June 2010. The I-RACR documents the soil excavation and disposal. All necessary soil remedial actions have been conducted and the soil remedy is complete. The I-RACR also documents the groundwater remedy which consisted of removing and disposing of source-area soil, applying and injecting metals immobilization compound, and follow-on groundwater monitoring. Evaluation of continued groundwater monitoring is guiding the ongoing remedial action. Based on the progress documented in the I-RACR, U.S. EPA has determined that the groundwater remedy is OPS.
		Lead	10	7439-92-1	NA	Unknown	Unknown	R	
	Groundwater	Copper	5,000	7440-50-8	NA	Unknown	Unknown	R	
IR Site 29	Sediment	Lead Shot	10	7439-92-1	NA	Unknown	Unknown	R	Investigations were conducted between 1994 and 2001. A No-Action ROD was signed September 2005. IR Site 29 is closed.
IR Site 35 (AOCs 2 through 13 and 23 through 25)	Soil (AOC 3)	Heptachlor	1	76-44-8	P059	Unknown	Unknown	R	A series of soil and groundwater investigations and removal actions were conducted between 1992 and 2008 for the 23 study areas of concern (AOCs). The ROD was issued in 2010. Only three AOCs required further remedial action for soil; AOCs 3, 10 and 12. The ROD documented no action for groundwater and soil excavation and offsite disposal followed by site restoration for AOCs 3, 10 and 12. The remedial action was completed in 2011 - 2012 and documented in the RACR. The U.S. EPA concurred with the Site 35 RACR and with site closure for unrestricted use.
	Soil (AOC 10)	Lead	10	7439-92-1	NA	Unknown	Unknown	R	
	Soil (AOC 12)	Lead	10	7439-92-1	NA	Unknown	Unknown	R	

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AST 410A	10,000 gallon tank	Methylene chloride	1,000	75-09-2	U080	110,994	Unknown	S	These features were previously located at IR Site 9, have been removed, and were closed under IWTP 410. The former contents of AST meets the definition of hazardous material or hazardous waste; however there was no evidence of contamination.
AST 410B	10,000 gallon tank	Phenol	1,000	108-95-2	U188	89,486	Unknown	S	
AST 623C	15,000 gallon tank	Methylene chloride	1,000	75-09-2	U080	166,491	Unknown	S	None. Materials stored on site. No spills or releases reported.
AST 623D	15,000 gallon tank	Methylene chloride	1,000	75-09-2	U080	166,491	Unknown	S	None. Materials stored on site. No spills or releases reported.
AST 623I	300 gallon tank	Sulfuric Acid	1,000	7664-93-9	NA	4,604	Unknown	S	None. Materials stored on site. No spills or releases reported.
Building 114	Building 114	Ammonia	100	7664-41-7	NA	300	Unknown	S	None. Materials stored on site. No spills or releases reported.
Building 24A	Building 24A - IWTP	Sulfuric Acid	1,000	7664-93-9	NA	4,604	Unknown	S	None. Materials stored on site. No spills or releases reported.
Building 25A	Building 25A - IWTP	Ammonia	100	7664-41-7	NA	755	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Sulfuric Acid	1,000	7664-93-9	NA	4,604	Unknown	S	
Building 29	Inside and outside of Building 29	1,1,1-Trichloroethane	1,000	71-55-6	U226	3,580	Unknown	R	A series of soil and groundwater investigations were conducted between 1993 and 2001 in correlation with the Correction Action Area (CAA) 12 assessment. CERCLA contaminants at concentrations that may present a risk to human health or the environment were not identified during the investigations for CAA 12 and no evidence of contamination was reported at Building 29. The Navy requested no further action for CAA 12 in 2003; however, low levels of petroleum hydrocarbons remain on site and CAA 12 is not yet closed.
Building 414	Building 414	Ammonium hydrogen fluoride	100	1341-49-7	NA	1,878	Unknown	S	None. Materials stored on site. No spills or releases reported.
Building 618	Building 618	Calcium Hypochlorite	10	7778-54-3	NA	3,922	Unknown	S	None. Materials stored on site. No spills or releases reported.
Building 619	Building 619	Sodium Hydroxide	1,000	1310-73-2	NA	19,553	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Cupric Sulfate	10	7758-98-7	NA	300	Unknown	S	
Building 19	Building 19	Photographic corrosive	1,000	NA	NA	180	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Nonhalogenated organic compounds	1,000	NA	NA	Unknown	Unknown	S	
Storm Sewer Line F	Storm Sewer Line F	Radium 226	0.1 Ci	7440-14-4	NA	Unknown	Unknown	R	Based on information presented in the Historical Radiological Assessment, Volume II, Alameda Naval Air Station, the DON determined that storm drain lines associated with Buildings 5 and 400 that discharge into the northwest corner of Seaplane Lagoon contained radioactive contamination and required a response action. An Action Memorandum documents this decision and a work plan was finalized in June 2008. A removal action was completed in September 2010. The Final TCRA Completion Report IR Sites 5 and 10 Storm Drain Line Removal (September 2011) documents meeting the criteria for free release.
Former Building 332	Former Building 332	solvents	100	NA	NA	Unknown	Unknown	S	None. Materials stored on site. No spills or releases reported.
		acids	1,000	NA	NA	Unknown	Unknown	S	



### ATTACHMENT 3: HAZARDOUS SUBSTANCES NOTIFICATION TABLE

Alameda 2013 Finding of Suitability to Transfer, Alameda Point

Identification <sup>a</sup>	Media/ Description	Hazardous Substance <sup>b,c</sup>	Reportable Quantity (lbs) <sup>b</sup>	CAS Number	RCRA Waste Code <sup>b</sup>	Quantity Stored, Released, or Disposed <sup>d</sup>	Date Stored, Released, or Disposed <sup>d</sup>	Stored (S), Released (R), or Disposed (D)	Action Taken
Building 8	Building 8	Urethane	100	51796	NA	2,000	Unknown	S	None. Materials stored on site. No spills or releases reported.
		corrosive penetrants	1,000	NA	NA	Unknown	Unknown	S	
		Sodium Hydroxide	1,000	1310-73-2	NA	Unknown	Unknown	S	
Area 37	Fuel and Chemical Storage Area	Solvents	100	NA	NA	Unknown	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Amizole	10	61825	NA	Unknown	Unknown	S	
		Beryllium compounds	1	NA	NA	Unknown	Unknown	S	
		Mercury	1	7439976	NA	Unknown	Unknown	S	
Building 584	Building 584	Corrosives	1,000	NA	NA	Unknown	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Water Treatment Chemicals	various	NA	NA	Unknown	Unknown	S	
Building 618	Building 618	Solvents	100	NA	NA	Unknown	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Oxidizers	1,000	NA	NA	Unknown	Unknown	S	
		Corrosives	1,000	NA	NA	Unknown	Unknown	S	
Building 619	Building 619	Sodium Hydroxide	1,000	1310-73-2	NA	Unknown	Unknown	S	None. Materials stored on site. No spills or releases reported.
		Cupric Sulfate	10	7758-98-7	NA	Unknown	Unknown	S	
		Caustic soda	1,000	1310732	NA	Unknown	Unknown	S	
		Cyclohexylamine	10,000	108918	NA	Unknown	Unknown	S	Materials stored on site. A spill is documented from July 1992. Approximately 5 gallons of the product was spilled from a hole in a drum. The leak was secured and the spilled material was re-drummed.

Notes:

- a No chemicals were found to have been stored, disposed, or released within other areas of the FOST property.
- b This table was prepared in accordance with 40 CFR 373 and 40 CFR 302.4. The substances which do not have chemicals-specific break down (and associated annual reportable quantity) are not listed in 40 CFR 302.4, and therefore have no corresponding CAS number, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities. Hazardous substances listed in this table were compiled based on known contamination at the sites.
- c The Property may contain pesticide residue from pesticides that have been applied in the management of the Property. The Grantor knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA - 7 U.S.C. Sec. 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the Grantor's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of CERCLA, 42 U.S.C. Sections 9620(h)(3)(A)(ii), for the remediation of legally applied pesticides.
- d The quantity stored, released, or disposed, and the date stored, released, or disposed, is unknown because documentation related to storage, release, or disposal of these hazardous substances was not available during records searches for the property.

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Acronyms and Abbreviations:

AST	Aboveground storage tank					NA		Not available	
AOC	Area of concern					NFA		No Further Action	
CAS	Chemical abstract system					OU		Operable unit	
COC	Chemical of concern					OPS		Operating properly and successfully	
CFR	<i>Code of Federal Regulations</i>					PCB		Polychlorinated biphenyl	
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980					lbs		Pounds	
DDD	Dichlorodiphenyldichloroethane					R		Released	
DDE	Dichlorodiphenyldichloroethylene					RCRA		Resource Conservation and Recovery Act	
DDT	Dichlorodiphenyltrichloroethane					ROD		Record of Decision	
DVE	Dual-phase vapor extraction					S		Stored	
IC	Institutional control					U.S.C.		United States Code	
IR	Installation restoration								
I-RACR	Interim remedial action completion report								
ISB	In situ bioremediation								
ISCO	In situ chemical oxidation								
IWTP	Industrial Waste Treatment Plant								