FINAL

ENVIRONMENTAL SUMMARY DOCUMENT

VA FED TRANSFER PARCEL

ALAMEDA POINT, ALAMEDA, CALIFORNIA

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ABBREVIATIONS AND ACRONYMS

ACM	asbestos-containing material
AOC	area of concern
AST	above ground storage tank
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
CAA	corrective action area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chemicals of concern
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DON	Department of Navy
DTSC	Department of Toxic Substances Control
EBS	Environmental Baseline Survey
EPA	Environmental Protection Agency
ESD	Environmental Summary Document
FFA	Federal Facility Agreement
FS	Feasibility Study
HRA	Historical Radiological Assessment
IC	institutional controls
IR	Installation Restoration
LBP	lead-based paint
LUC	land-use control
MEC	munitions and explosives of concern
MOU	Memorandum of Understanding
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priority List
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyls
PCDD/PCDF	polychlorinated dibenzodioxins and dibenzofurans
PMO	Program Management Office
ppm	parts per million
Ra-226	Radium-226
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act of 1986
SI	Site Inspection
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TCRA	time-critical removal action
UST	underground storage tank
VA	Veterans Affairs
VOC	volatile organic compound

Section 1.0: PURPOSE

The purpose of this Environmental Summary Document (ESD) is to summarize the environmental conditions on the Department of Veterans Affairs (VA) transfer parcel at the former Naval Air Station, Alameda, California, now referred to as Alameda Point.

This ESD has been prepared in compliance with the "Department of Navy (DON) Environmental Policy Memorandum 95-01: Environmental Requirements for Federal Agency-to-Agency Property Transfer at BRAC Installations" (DON 1995).

Section 2.0: PROPERTY DESCRIPTION

Alameda Point is located at the western end of Alameda Island with the San Francisco Bay to the south and west and the Oakland Inner Harbor to the north and east (Figure 1). Alameda Point has a rectangular shape, about 2 miles long (east to west) and 1 mile wide (north to south), and occupies 1,734 acres of onshore land. Alameda Point was operationally closed in April 1997, pursuant to the Department of Defense (DOD) Base Realignment and Closure (BRAC) Act, as amended. The facility was designated as a National Priority List site in July 1999 (U.S. EPA 1999).

The property subject to this ESD (the Property) is approximately 549 acres of land in the western portion of Alameda Point (Figure 2). To facilitate the BRAC process, the Navy initiated the Environmental Baseline Survey (EBS) to assess potential environmental impacts of base operations and to facilitate property transfer and reuse. EBS Parcels were defined to separate different use areas or to divide known contaminated property from potentially uncontaminated property. The Property consists of EBS Parcels: 5, 5B, 5C, 6, 7, 23E, 24, 25, 26, 27, and most of 23 (Figure 3). At one point in time the Property was identified as transfer parcels FED-1A, FED-2A, and FED-2B. Utilities located on the Property are not adequate to support future development of the Property. The following buildings and structures currently exist on the Property: 50, 51, 56, 57, 58, 100, 272 (with metal shed), 353, 354, 407, 441, 442, 452A, 452B, 480, 488, 489, 499, 259, portions of Runways 7, 13, 25 and 31, taxiways and parking aprons. The following buildings and structures were formerly present within the Property, but have been demolished: 19A, WD 259, 270, 379, 406, AST 407A, AST 407B, 467B, AST 467B, 483A, AST 483A, 483B, AST 483B, 485B, AST 485B, AST 488, 490, 492, 495A, AST 495A, 495B, AST 495B, 496, AST 496, AST 499, 519, 520, 567, 568 through 581, 599A, AST 599A, 599B, AST 599B, AST A, AST B, and two unnumbered buildings.

The Property was historically used as an active airfield for Alameda Point

flight operations and contains numerous small bunkers formerly used for ammunition storage. Open space in the northern and central portions of the Property was historically used for fire-fighting training activities.

The VA intends to use a portion of the Property to construct and operate an Outpatient Clinic, a columbaria-only national cemetery, and regional offices and medical space to serve veterans in northern Alameda County and the greater San Francisco Bay Area. Other proposed uses include a nature center, Bay Trail, and use of existing bunkers to store emergency supplies.

Section 3.0: REGULATORY COORDINATION

The facility was designated as a National Priority List (NPL) site (EPA ID: CA2170023236) under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) in July 1999 (U.S. EPA 1999). The listing of Alameda Point on the NPL invokes the applicable requirements of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Defense Environmental Restoration Program (DERP), codified in 10 *United States Code* Sections (§§) 2701–2709 and 2810, gave the Department of Defense (DOD) Installation Restoration (IR) Program a statutory basis. The DON implements the DERP subject to, and in a manner consistent with, CERCLA and its regulations.

3.1 FEDERAL FACILITIES AGREEMENT

The President, by Executive Order 12580, delegated most of his CERCLA authority to the United States Environmental Protection Agency (U.S. EPA); however, in the case of hazardous substances releases on DOD properties, the President delegated his authority to the DOD. Accordingly, the DOD has lead agency authority to respond to such releases at DOD installations. The DOD has re-delegated its lead agency authority to the individual departments (e.g., the DON).

The DON and U.S. EPA negotiated and signed a Federal Facility Agreement (FFA) in 2001 (DON 2001), and the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) and the California Regional Water Quality Control Board (RWQCB) signed it in 2005. The general purposes of the FFA are to:

1. ensure that environmental impacts associated with past and present activities are thoroughly investigated and appropriate remedial action is taken, as necessary, to protect the public health and welfare and the environment;
2. establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions in

accordance with CERCLA/Superfund Amendments and Reauthorization Act (SARA), the NCP, the Resource Conservation and Recovery Act (RCRA), RCRA guidance and policy, SARA guidance and policy, and applicable state law;

3. facilitate cooperation, exchange of information, and participation of the parties in such action; and
4. ensure the adequate assessment of potential injury to natural resources and the prompt notification, cooperation and coordination with the federal and state natural resource trustees to ensure the implementation of response actions to achieve appropriate cleanup levels.

DOD guidance directs the formation of a Base Realignment and Closure (BRAC) Cleanup Team (BCT) for installations that are closed or scheduled for closure. At Alameda Point, the BCT consists of one representative from the DON (the BRAC Environmental Coordinator [BEC]), two representatives from the state (DTSC and RWQCB), and one representative from the U.S. EPA. The BEC is the lead member of the BCT. The Alameda Point BCT functions to coordinate and oversee the investigation and cleanup at Alameda Point as agreed upon in the FFA.

Section 4.0: SUMMARY OF ENVIRONMENTAL CONDITIONS

This section summarizes the environmental conditions related to hazardous substances, petroleum products, and other regulated materials on the Property. This section also summarizes required conditions and restrictions.

4.1 CERCLA

CERCLA addresses environmental releases or threatened releases of hazardous substances to the air, surface water, groundwater, sediment, and soil. CERCLA was amended by SARA in 1986. The DOD implements CERCLA through the DERP. The DON IR Program was designed to identify and clean up past contamination from hazardous substances, pollutants, and contaminants in order to protect human health and safety, and the environment at existing and former DON installations. The Property contains IR Sites 2 and 33 (Figure 2).

4.1.1 IR Site 2

Between 1956 and 1978, IR Site 2 was used as the principal landfill facility for Alameda Point (Battelle and BBL 2008a). IR Site 2 was created by constructing a perimeter seawall of large boulders, along the southern and western shorelines of IR

Site 2, and filling shallow open waters of San Francisco Bay within this boundary. The volume of waste disposed of at Site 2 varied over the years. Available solid waste disposal records indicate that 188,360 cubic yards of loose waste was disposed of in 1964 and increased to 397,027 cubic yards by 1972. The density of loose waste was estimated to be 3.5 pounds per cubic foot, or 94.5 pounds per cubic yard. The average annual volume of compacted, in-place waste from the period 1958 to 1968 was 41,114 cubic yards. Potential sources of contamination in soil and groundwater include general household waste and several industrial and process wastes, including asbestos, pesticides, sandblasting grit, waste oils, solvents, painting and plating wastes, inert ordnance, batteries, polychlorinated biphenyls (PCB)-containing liquids, low-level radiological waste from radium dials and dial paints, and medical wastes (Battelle and BBL 2008a). Road surfaces on the landfill were constructed in part with spent sandblasting grit and abrasives used to rework metal parts and strip paint from ship hulls (Battelle and BBL 2008a). Waste oils and PCB-containing oils were used as dust suppressants on the roads in the northeastern corner of the landfill (Battelle and BBL 2008a). In July 1999, Alameda Point, including IR Site 2, was officially added to the U. S. EPA's National Priorities List of Superfund sites. IR Site 2 includes EBS Parcels 5B, 5C, 6, and 7. IR Site 2 is comprised of the West Beach Landfill, which occupies approximately 77 acres, and the West Beach Wetland, which covers approximately 33 acres.

A Remedial Investigation (RI) was initiated at IR Site 2 in 2001. The primary objectives of the RI were to characterize the environmental conditions at the site, describe the nature and extent of contamination, present the results of the ecological and human health risk assessments and define any areas requiring evaluation in a Feasibility Study (FS).

A time-critical removal action (TCRA) was conducted in a possible munitions and explosives of concern (MEC) burial site comprised of approximately 2.5 acres at IR Site 2 in February and March of 2002 (Foster Wheeler 2002b). The Final Focused RI Work Plan described the scope of the TCRA (Foster Wheeler 2002a). The site was excavated to a depth of 1 foot and the inert munitions and large debris were removed. The TCRA activities that were completed resulted in the removal and demilitarization of 8,882 20-millimeter target practice rounds and some miscellaneous ordnance and explosives scrap in the form of casing fragments. Although no live MEC was found, items recovered verified that the area was used to bury munitions. Additional inert munitions may be present below a depth of 1 foot (TTEMI 2003a).

The RI report for IR Site 2 was finalized in 2006 (Battelle and BBL 2006). The results of the RI indicated that PCBs, certain metals, semivolatile organic compounds (SVOCs), polynuclear aromatic hydrocarbon (PAHs), pesticides, radionuclides, and polychlorinated dibenzodioxins and dibenzofurans (PCDDs/PCDFs) were the primary human health and/or ecological risk drivers at the site.

A radiological TCRA was conducted in 2007 and 2008 and a Draft Time-Critical Removal Action Post Construction Report for IR Sites 1, 2, and 32 dated April 2009 is currently available for review (TTECI 2009). Items and soils contaminated with radium-226 (Ra-226) were identified and removed. Current field conditions indicate that Ra-226 contamination is still present throughout the IR Site, but does not pose an immediate threat to human health and the environment unless intrusive activities are performed (e.g., excavations and well drilling) in a way that equipment and personnel come into contact with the Ra-226 contamination. Therefore, IR Site 2 will continue to be fenced off and access to the site be controlled and radiation surveys will be conducted when any intrusive activities are performed in the site.

A Historical Radiological Assessment (HRA) was finalized in 2007. The HRA concluded that radioactive items at IR Site 2 would have included waste from radium painting operations, damaged instruments, and other radioluminescent devices including both radium and strontium deck or bridge markers, and thoriated glass optical devices (Weston Solutions 2007).

Remedial alternatives for soil and groundwater were evaluated in the FS Report, which was finalized in 2008 (Battelle and BBL 2008a). Six remedial alternatives for soil were developed and screened in the FS Report. Four of the six soil alternatives were retained for detailed analysis in the FS Report. All three of the remedial alternatives for groundwater were retained for detailed analysis in the FS Report.

The Navy's recommended remedial alternative for soil is a multi-layer soil cover, engineering and institutional controls, and monitoring. The recommended remedial alternative for groundwater is monitored natural attenuation, and engineering and institutional controls. The Proposed Plan, which presents the Navy and regulatory agency's preferred alternatives for soil and groundwater, was released for public comment in August 2009. A public meeting was held on August 27, 2009. The Record of Decision (ROD) is scheduled to be finalized by May 2010.

4.1.2 IR Site 33

IR Site 33 is located within the boundaries of EBS Parcels 25, 26, 27, and a portion of EBS Parcel 23 (previously referred to as transfer parcels FED-1A and FED-2B). A Draft Site Inspection (SI) Report (Bechtel 2008) was prepared for transfer parcels FED-1A, FED-2B, and FED-2C which includes an evaluation of the existing information regarding IR Site 33 and provides recommendations for the modification of the site boundaries. Additional sampling and evaluation of contaminants will be conducted as part of the Expanded SI, which is expected to be completed in the summer of 2010.

4.1.3 On-Going Investigations

In 2008, a Draft SI (Bechtel 2008) identified three areas of concern (AOCs) on the Property, AOC 1 (adjacent to IR Site 2) and AOC 2 (between IR Sites 2 and 32; AOC 2 is not part of IR Site 32) in EBS Parcel 5 and AOC 3 (near IR Site 33) in EBS Parcel 24 (Figures 2 and 4). These areas were recommended for further evaluation as part of an Expanded SI. While the scope of work for the Expanded SI will be finalized in coordination with the regulatory agencies, the following activities are currently planned:

- AOC 1, Pesticide and PCB Evaluation – Define extent of PCB and pesticides above residential screening criteria.

- AOC 2, Vinyl Chloride in Groundwater – Further evaluate volatile organic compounds in groundwater to ensure the protection of human health.

- AOC 3, PAHs and Metals in Groundwater – Evaluate potential release of CERCLA-related contaminants from former underground storage tank.

- Aboveground storage tanks – Evaluate potential release of petroleum compounds, metals, lead-based paint, and PCBs at 12 former tank locations.

- IR Site 33, PAHs in soil – Define extent of PAHs above residential screening criteria.

- Parcel FED-1A – Munitions chemicals in soil at Former Munitions Storage Area – Assess whether historical activities resulted in releases of munitions-related chemicals.

- Parcel FED-1A, Firefighting Training Area – Assess whether historical activities resulted in CERCLA releases of hazardous substances.

- Parcels FED-1A and FED-2C, Stained Areas – Evaluate areas that appear to be stains on aerial photographs and assess whether historical activities resulted in the release of petroleum compounds and/or chlorinated solvents to soil and groundwater.

- Parcel FED-1A, Building 100 – Evaluate whether historical activities resulted in the release of PCBs.

- Parcel FED-1A, Washdown Rack 259 – Evaluate drain integrity and whether historical activities resulted in the releases of CERCLA hazardous substances.

- Parcels FED-1A, Storm Drain Evaluation - Evaluate whether historical activities resulted in the releases of CERCLA hazardous substances.

- Parcel FED-1A, Radium-226 Investigation – As part of the Site 32 investigation, portions of Parcel FED-1A adjacent to Sites 1, 2, and 32 will be investigated to assess whether radium-226 has been released to the soil.

Additional investigation is also planned at Corrective Action Area C, which is partially located in the FED-2C transfer parcel. The investigation will assess the potential for petroleum contamination associated with buried fuel lines. This site also includes regular operation and maintenance of a dual-phase extraction and biosparging system that removes petroleum contamination from the soil and groundwater.

Additional investigation is planned at IR Site 2. The investigation will provide additional data to aid in the engineering design of the selected remedial alternative. The Navy and regulatory agencies will coordinate during the preparation of the investigation work plan.

4.1.4 Pesticides

Registered insecticides, pesticides, herbicides, and rodenticides typically used in construction, management and landscaping have been properly applied at the Property for their intended purposes at Alameda Point by Navy Public Works Center personnel and contractors in compliance with the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (TTEMI 2003a).

Prior to the 1980s, pesticides applied at Alameda Point included, but were not limited to, the insecticides chlordane, heptachlor, lindane, and dichlorodiphenyltrichloroethane, as well as the herbicides telvar, chlorvar, and 2,4-dichlorophenoxyacetic acid, which were used for pest and weed control (TTEMI 2003a). In the 1980s and 1990s, pesticides applied included Roundup, Princep, and Krovar I; insecticides applied included malathion and diazinon; and the rodenticide applied was warfarin (TTEMI 2003a).

Potential sources of contamination in soil and groundwater at IR Site 2 include pesticides, as discussed in Section 4.1.1.

4.2 Resource Conservation and Recovery Act (RCRA)

Alameda Point 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 was conducted in 1992. Fifteen SWMUs were identified on the Property. SWMU UST(R)-14, also known as UST 442-1, is located on the east side of Building 442 and was investigated under the Petroleum Program as Corrective Action Area (CAA) 1. Three SWMUs, which include two above ground storage tanks (ASTs) (AST 407A and AST 407B) and one aircraft wash pad (WD 259), are being investigated under CERCLA. These areas are included for further evaluation during the planned site

investigation work described in Section 4.1.3. The remaining SWMUs are ASTs and are discussed in Sections 4.3 and 4.4.

4.3 Presence of Petroleum Products and Derivatives

Four corrective action areas (CAA) are located partially or entirely on the Property. The Navy determined that no further action was necessary for fuel line CAA-A, which passes through the northeast corner of the property, and the Regional Water Quality Control Board concurred with site closure in 2007 (TTEMI 2004, RWQCB 2007). Additionally, the Navy has determined that no further action is necessary and has recommended regulatory closure for CAA-12, which is located in EBS Parcel 26, on a portion of the Property. (TTEMI 2003b). The third corrective action area located on the property is CAA-1/UST-442, and regulatory closure for that site was obtained following a Navy recommendation of no further action (TTEMI 2001, RWQCB 2003). CAA-C is an aviation fuel spill area that is currently being cleaned up using a combination of dual-phase extraction and biosparging. Most of CAA-C lies within IR Site 26, but a portion extends onto Parcel FED 2C (EBS Parcel 23E). Ongoing environmental work includes operation and maintenance of the CAA-C treatment system. Additional investigation is also planned at CAA-C (Section 4.1.3).

4.4 Underground Storage Tanks (USTs)/Above Storage Tanks (ASTs)

UST 442-1 was removed October 20, 1994 (IT 2001) and was closed under the Petroleum Program as CAA-1 (TTEMI 2001, RWQCB 2003). In March 2005, an unnumbered 500-gallon UST was removed in EBS Parcel 24, the least tern nesting area. A no further action recommendation for this unnumbered UST will be included in the Petroleum Program Summary Report, which will document the status of the Petroleum Program. The draft report is being prepared.

There are currently no ASTs on the Property. Twelve ASTs were removed on EBS Parcel 23 (Bechtel 2008). Ten of the former ASTs (AST 483A, AST 483B, AST 485B, AST 488, AST 495A, AST 495B, AST 496, AST 499, AST 599A, and AST 599B) will be included in the Petroleum Program Summary Report (described above). All twelve former ASTs will be evaluated further under the CERCLA program, described in Section 4.1.3. Additional soil investigation in the vicinity of the ASTs will be conducted to assess potential petroleum contamination, metals, lead-based paint, and PCB releases. These activities are included in the Expanded SI Work Plan, which is in preparation. AST 467B on EBS Parcel 5 was removed; the removal date is unknown (TTEMI 2001). AST 467B will be included in the Petroleum Program Summary Report.

4.5 Munitions and Explosives of Concern (MEC)

From February to March 2002, a CERCLA removal action for inert munitions

down to a depth of 1 foot was conducted at IR Site 2 as discussed in Section 4.1.1.

Ammunition and arms were stored in the high explosives magazines at Buildings 50, 51, 56, 57, 353, 354; the ready magazines 568 through 581; and the missile magazine at Building 58 (TTEMI 2003).

Additional investigation for munitions-related chemicals in soil will be conducted as part of the Expanded SI (Section 4.1.3).

4.6 Asbestos-Containing Material (ACM)

IR Site 2 operated as a Class II landfill accepting solid and liquid wastes generated at Alameda Point between 1956 and 1978 (IT 2001). Solid wastes disposed in the landfill included asbestos. The Initial Assessment Study (NEESA 1983) shows the approximate area in IR Site 2 used for asbestos disposal.

ACM is either suspected or confirmed present in Buildings 407, 441, 442, and 499 (TTEMI 2003).

The following buildings were inspected for ACM and found to have no ACM (IT 2001): 50, 51, 56, 57, 58, 272, 353, 354 and 452.

Building 100 has not been inspected for ACM (IT 2001).

4.7 Lead-Based Paint (LBP)

The DON complies with the United States Code, which requires LBP inspections only for target housing built prior to 1979, and further defines target housing to exclude zero-bedroom dwellings. The Property does not contain target housing, and as a result, no LBP surveys were conducted. However, based on the age of the following buildings, LBP is likely present in buildings: 50, 51, 56, 57, 58, 272, 353, 354, 407, 441, 442, 452, 499, and 576 (IT 2001).

There were a total of 12 ASTs on Parcel 23 of the Property. These ASTs may have been painted with lead based paint. Therefore, further evaluation of LBP in the vicinity of these ASTs on the Property will be included in the Expanded SI (see Section 4.1.3).

4.8 Polychlorinated Biphenyls (PCB)

The transformer in Building 442 in EBS Parcel 6 has been removed. It is not known when this transformer was removed.

Building 100 in EBS Parcel 23 served as a former transformer vault. All

equipment was removed from the building during the Phase I EBS, which was completed in October 1994. Further evaluation will be conducted in the vicinity of Building 100, the Aircraft Arresting Devices, and ASTs for potential PCB contamination as part of the Expanded SI (Section 4.1.3).

Eleven transformers, 17 switches, 7 capacitors, and 11 regulators on EBS Parcel 23 were sampled for PCBs (IT 2001). Detected concentrations of PCBs ranged from non-detect to 199 ppm. Sampling of Aircraft Arresting Devices resulted in PCB concentrations of 24,000 and 32,000 ppm. This equipment was removed. No PCBs were detected in the soil under the Aircraft Arresting Devices.

As of August 2001, all equipment containing oil contaminated with PCBs at a concentration of greater than 40 ppm was removed from service and disposed of (TTEMI 2003a). No remaining equipment containing oil in excess of 40 ppm remains on the Property.

Fluorescent light fixtures were not included in any of the PCB equipment inventories (TTEMI 2003a). However, based on the age of most of the buildings at the Property, it is assumed that some light ballasts in the buildings may contain PCBs. Fluorescent light ballasts manufactured before 1979 often include PCB-containing small capacitors that may be disposed of as municipal solid waste. No action is required at the buildings, unless large quantities of PCB-containing fluorescent light ballasts are removed (TTEMI 2003a).

PCBs were found in IR Site 2 as discussed in Section 4.1.1. Evaluation of PCBs in AOC 1 is discussed in Section 4.1.3.

4.9 Radiological Concerns

A historical radiological assessment (Weston Solutions 2007) documents radiological operations from the establishment of NAS Alameda as a naval facility (1941) up to the time of closure and subsequent radiological surveys and investigations through June 2005. Radiological surveys for IR Site 2 were done in 1995, 1996, 1998-1999, and 2005. Bunker 353 and the RadShack Area (both located in IR Site 2) and IR Site 2 were identified as impacted by radiological operations. A TCRA was conducted at IR Site 2 and is discussed in Section 4.1.1.

As part of the planned IR Site 32 investigation, portions of Parcel FED-1A adjacent to Sites 1, 2, and 32 will be investigated to assess whether radium-226 has been released to the soil (Section 4.1.3).

4.10 Adjacent Property

Contaminant migration from adjacent IR Site 26 and nearby IR Sites 1, 5, 14,

15, 17, 18, and 20 (Figure 2) do not impact the Property (Bechtel 2008, IT 2001).

Further investigation of Ra-226 from adjacent IR Site 32 on EBS Parcel 5 will be necessary (Figures 2 and 4). The IR Site 32 boundary was changed in 2008 and is shown in Figure 2.

4.11 Monitoring Wells

During the CERCLA investigations, a total of 62 groundwater monitoring wells (48 within IR Site 2 and 14 on the remainder of the Property) have been installed to characterize groundwater and twelve soil gas wells have been installed at IR Site 2 to monitor methane (Figure 5), including seven which were installed in 2008 along the perimeter of the site. Three abandoned soil gas monitoring points also remain at IR Site 2. Site assessment and remedial activities may require the installation of additional wells.

Section 5.0: SUMMARY OF NOTIFICATIONS AND RESTRICTIONS

5.1 Hazardous Substances and Petroleum Products

The following are notifications and restrictions relevant to hazardous substances and petroleum products on the Property.

5.1.1 Notifications

The following notifications apply to the entire Property:

Past activities at the Property include use, storage, and disposal of hazardous substances and petroleum products, discussed in Section 4.0. Table 5-1 lists the hazardous substances on the Property that require notification under CERCLA § 120(h). The transfer documents will contain a notice that petroleum products and derivatives have been left in place on the Property.

Transferee shall allow the DON and FFA signatories and their authorized agents, employees, contractors, and subcontractors to have access to the Property to conduct investigations, tests, or surveys; inspect field activities; or construct, operate, and maintain any response action as required or necessary. Additional investigations are described in Sections 4.1.3 and 4.4.

Transferee shall comply with any land-use restrictions/institutional controls (ICs) required by a CERCLA decision document (ROD or Action Memorandum) addressing the Property that may be issued by the DON.

Transferee is solely responsible for the federal government's compliance with all applicable federal and state environmental, public health, and cultural and natural resource protection laws and regulations for the Property.

5.1.2 Restrictions

5.1.2.1 Restrictions on Entire Property

The following restrictions apply to the entire Property, including IR Site 2. The recipient shall be prohibited from conducting any "land disturbing activity," including but not limited to those listed below, unless approval is received from FFA Signatories prior to conducting the activity:

- Excavation of soil;
- Construction of roads, utilities, facilities, structures, and appurtenances of any kind;
- Demolition or removal of "hardscape" (for example, concrete roadways, parking lots, foundations, and sidewalks);
- Any activity that involves movement of soil to the surface from below the surface of the land;
- Any other activity that causes or facilitates the movement of known contaminated groundwater;
- Alteration, disturbance, or removal of any component of a response or cleanup action (including but not limited to pump-and-treat facilities, revetment walls and shoreline protection, and soil cap/containment systems); groundwater extraction, injection, and monitoring wells and associated piping and equipment; or associated utilities;
- Extraction of groundwater and installation of new groundwater wells; and
- Removal of or damage to security features (for example, locks on monitoring wells, survey monuments, fencing, signs, or monitoring equipment and associated pipelines and appurtenances).

Removal of any land disturbing activity restrictions will be based on: results of site investigation, subsequent cleanup considered necessary, or a determination that no-further remedial action is necessary.

Transferee shall not conduct operations or make any alterations that would interfere with, or otherwise restrict, DON operations or environmental cleanup or restoration actions by the DON or FFA signatories or their contractors."

5.1.2.2 Specific Land Use Restrictions

The following land uses are prohibited for property in the IR Site 2 Area. The DON does not anticipate significant changes to the restrictions at IR Site 2; however,

minor changes may occur during finalization of the IR Site 2 ROD. Restricted uses include:

- A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation;
- A hospital for humans;
- A school for persons under 21 years of age;
- A day care facility for children;
- Any permanently occupied human habitation other than those used for commercial or industrial purposes;

5.2 Munitions and Explosives of Concern (MEC)

The following are notifications and restrictions relevant to MEC on the Property.

5.2.1 Notifications

No MEC is present at the surface of IR Site 2; however, MEC may be present below 1 foot within the 2.5-acre area of IR Site 2, as discussed in Section 4.1.1. Ordnance was stored in Buildings 50, 51, 56, 57, 58, 353, 354, and 568 through 581. Further evaluation of potential munitions constituents in soils at the former magazines will be done by the Navy.

5.2.2 Restrictions

Although not specifically written for MEC, the restrictions described in Section 5.1.2 will be protective of human health and the environment with respect to MEC.

5.3 Asbestos-Containing Material (ACM)

The following are notifications and restrictions relevant to monitoring ACM on the Property.

5.3.1 Notifications

Solid wastes disposed in the landfill included asbestos. ACM is either suspected or confirmed present in Buildings 407, 441, 442, and 499. Building 100 may have ACM.

5.3.2 Restrictions

No restrictions are required for ACM.

5.4 Lead-Based Paint (LBP)

The following are notifications and restrictions relevant to monitoring LBP on the Property.

5.4.1 Notifications

Based on the age of the following buildings, LBP is likely present: 50, 51, 56, 57, 58, 272, 353, 354, 407, 441, 442, 452, 499, and 576. Additional investigation in the vicinity of each AST in Parcel 23 for potential LBP contamination will be conducted by the Navy as part of the Expanded Site Investigation.

5.4.2 Restrictions

No restrictions are required for LBP.

5.5 Polychlorinated Biphenyls (PCB)

The following are notifications and restrictions relevant to PCBs on the Property.

5.5.1 Notifications

Light ballasts may contain PCBs. Further evaluation will be conducted in the vicinity of Building 100, the Aircraft Arresting Devices, and ASTs in Parcel 23 for potential PCB contamination as part of the Expanded Site Investigation.

5.5.2 Restrictions

No restrictions are required for PCBs.

5.6 Radiological

The following are notifications and restrictions relevant to radiological concerns on the Property.

5.6.1 Notifications

Current field conditions indicate that Ra-226 contamination is still present throughout IR Site 2, but does not pose an immediate threat to human health and the environment unless intrusive activities are performed. Additional radiological investigations and remediation are necessary at IR Site 2, e.g., surface surveys as part

of the remedial design. Further investigation is planned at areas adjacent to IR Sites 1, 2, and 32. Other areas of the Property may be investigated based on consultation between the Navy and regulatory agencies.

5.6.2 Restrictions

The restrictions described in Section 5.1.2 will be protective of human health and the environment with respect to radiological concerns on the Property.

Section 6.0: RESPONSIBILITY FOR EXISTING OR FUTURE ENVIRONMENTAL RESTORATION

A Memorandum of Understanding (MOU) between the DON and the VA will be prepared and executed. The responsibility of the DON and the VA for existing or future environmental restoration is described in the MOU.

Section 7.0: STATEMENT OF FINDING OF ENVIRONMENTAL SUITABILITY

Based on a review of existing environmental documents, the Property is currently considered environmentally suitable for transfer. Although the Property contains some level of contamination, it can be transferred for the proposed use, with the specified use restrictions and notifications, with acceptable risk to human health and the environment, and without interference with the environmental restoration process.

Date: 9/30/09

Signature: Laura Duchnak

LAURA DUCHNAK
Director, BRAC PMO West

ENCLOSURES

Enclosure (1)

Figures

Figure 1

Location Map

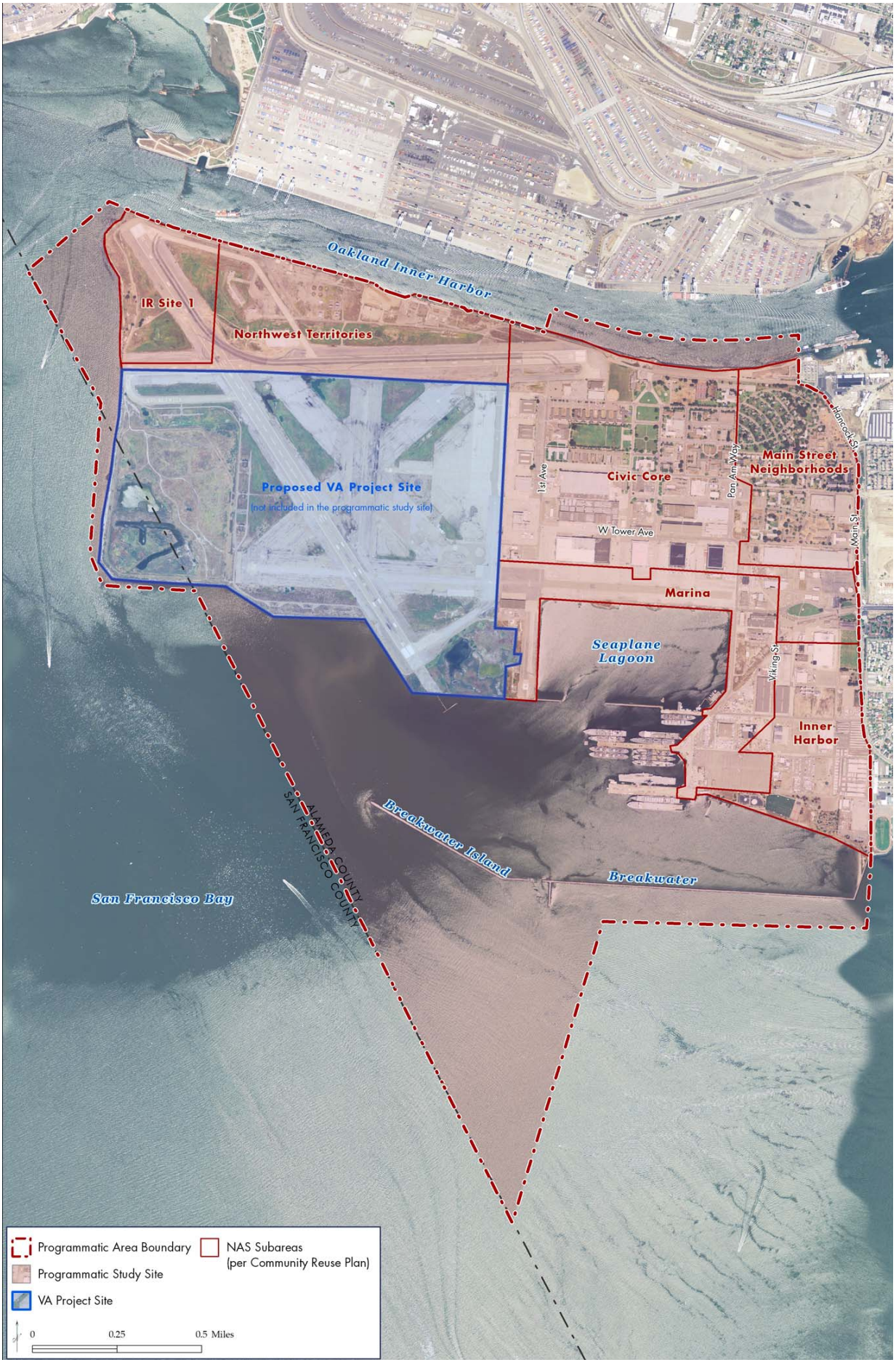
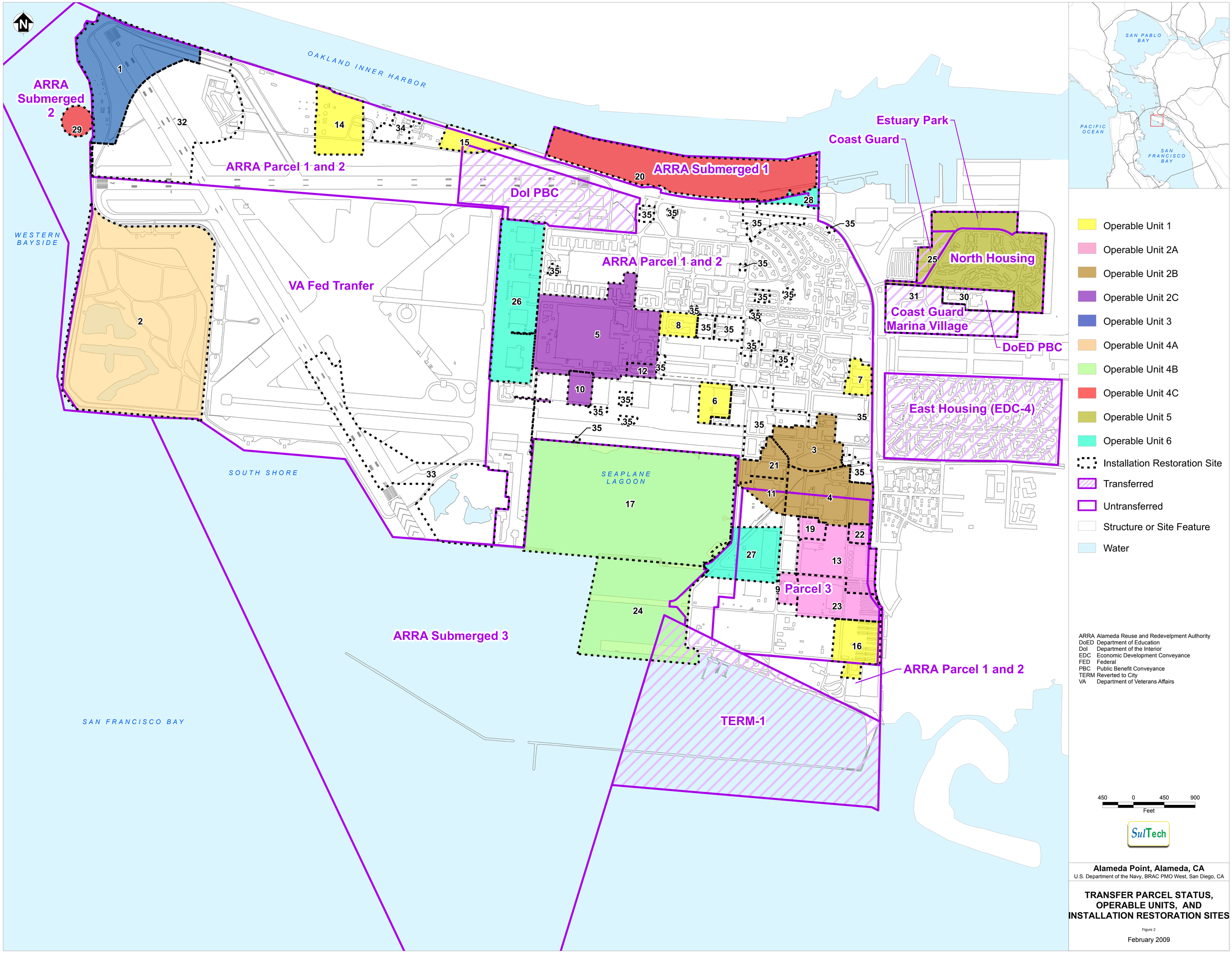


Figure 1
Location Map

Source: Draft Project and Programmatic Biological Assessment by EDAW

Figure 2

Transfer Parcels and IR Sites



Alameda Point, Alameda, CA

U.S. Department of the Navy, BRAC PMO West, San Diego, CA

TRANSFER PARCEL STATUS, OPERABLE UNITS, AND INSTALLATION RESTORATION SITES

Figure 2

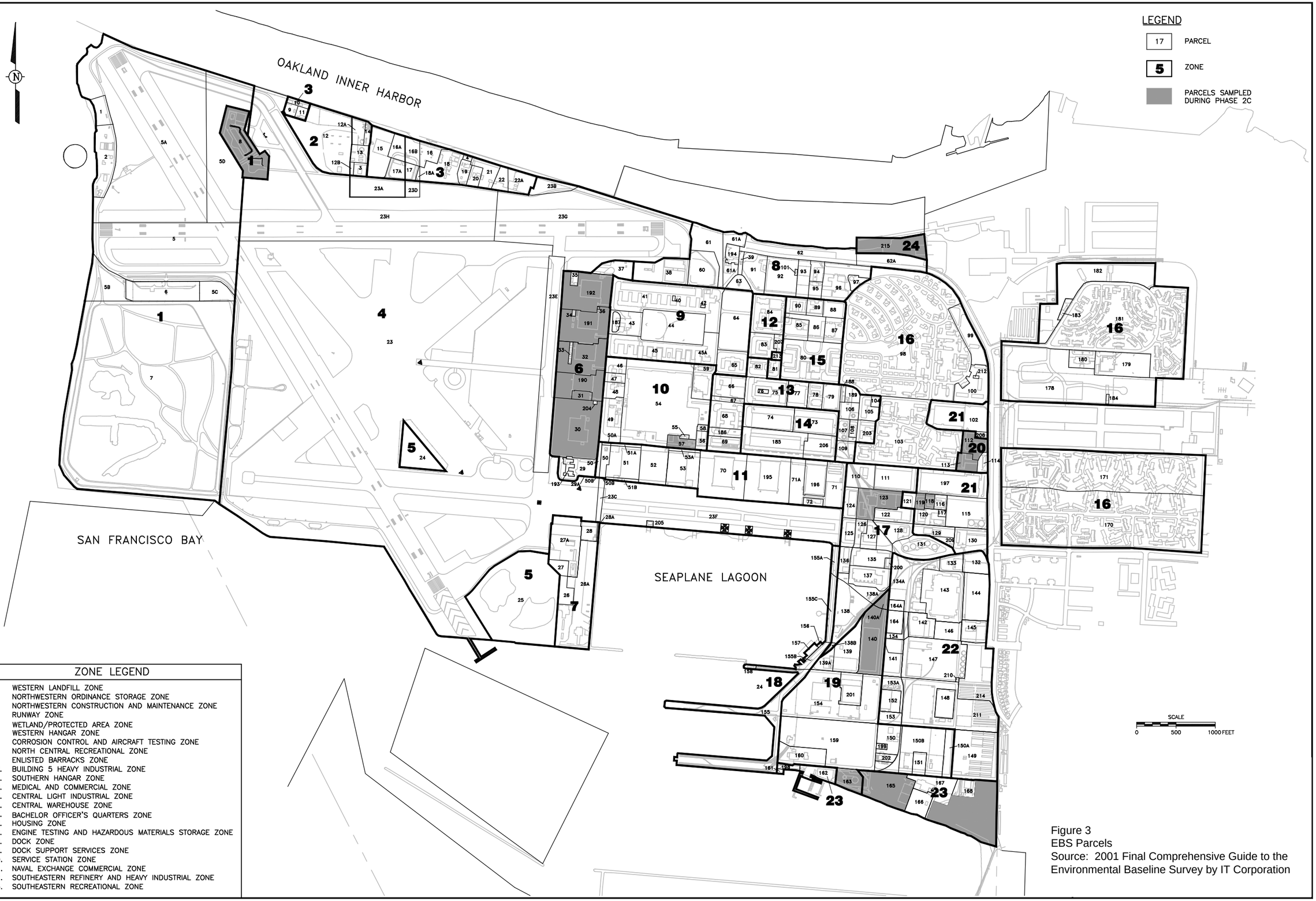
February 2009

Figure 3

EBS Parcels

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY
812348-D3	---	---	B. Jensen 6-21-01

IMAGE	X-REF	OFFICE
---	---	CONC



ZONE LEGEND

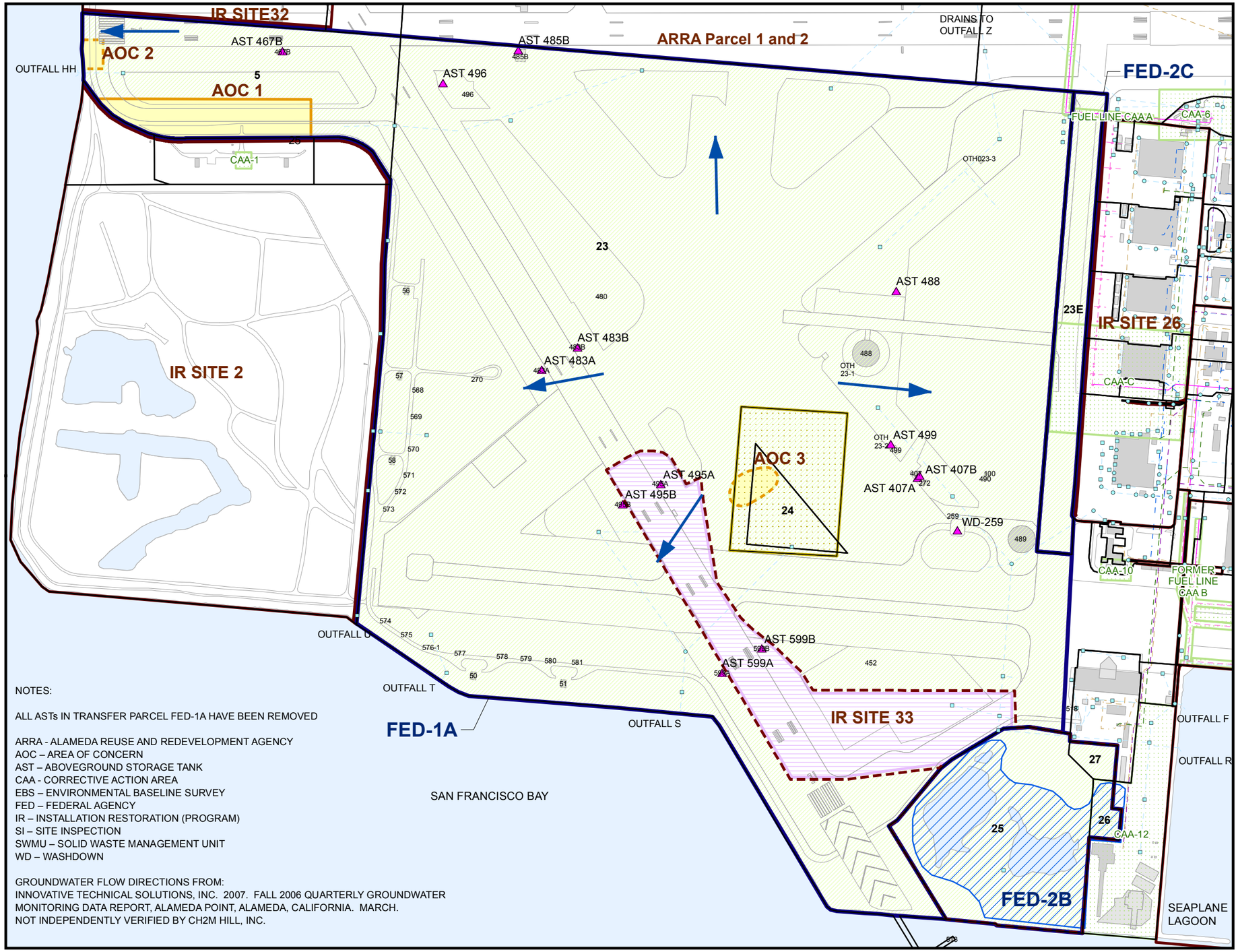
1. WESTERN LANDFILL ZONE
2. NORTHWESTERN ORDINANCE STORAGE ZONE
3. NORTHWESTERN CONSTRUCTION AND MAINTENANCE ZONE
4. RUNWAY ZONE
5. WETLAND/PROTECTED AREA ZONE
6. WESTERN HANGAR ZONE
7. CORROSION CONTROL AND AIRCRAFT TESTING ZONE
8. NORTH CENTRAL RECREATIONAL ZONE
9. ENLISTED BARRACKS ZONE
10. BUILDING 5 HEAVY INDUSTRIAL ZONE
11. SOUTHERN HANGAR ZONE
12. MEDICAL AND COMMERCIAL ZONE
13. CENTRAL LIGHT INDUSTRIAL ZONE
14. CENTRAL WAREHOUSE ZONE
15. BACHELOR OFFICER'S QUARTERS ZONE
16. HOUSING ZONE
17. ENGINE TESTING AND HAZARDOUS MATERIALS STORAGE ZONE
18. DOCK ZONE
19. DOCK SUPPORT SERVICES ZONE
20. SERVICE STATION ZONE
21. NAVAL EXCHANGE COMMERCIAL ZONE
22. SOUTHEASTERN REFINERY AND HEAVY INDUSTRIAL ZONE
23. SOUTHEASTERN RECREATIONAL ZONE

Figure 3
EBS Parcels
Source: 2001 Final Comprehensive Guide to the Environmental Baseline Survey by IT Corporation

FORMAT REVISION 2/2/99

Figure 4

IR Sites and AOCs
on the VA Transfer Parcel



NOTES:

ALL ASTs IN TRANSFER PARCEL FED-1A HAVE BEEN REMOVED

ARRA - ALAMEDA REUSE AND REDEVELOPMENT AGENCY
AOC – AREA OF CONCERN
AST – ABOVEGROUND STORAGE TANK
CAA - CORRECTIVE ACTION AREA
EBS – ENVIRONMENTAL BASELINE SURVEY
FED – FEDERAL AGENCY
IR – INSTALLATION RESTORATION (PROGRAM)
SI – SITE INSPECTION
SWMU – SOLID WASTE MANAGEMENT UNIT
WD – WASHDOWN

GROUNDWATER FLOW DIRECTIONS FROM:
INNOVATIVE TECHNICAL SOLUTIONS, INC. 2007. FALL 2006 QUARTERLY GROUNDWATER MONITORING DATA REPORT, ALAMEDA POINT, ALAMEDA, CALIFORNIA. MARCH.
NOT INDEPENDENTLY VERIFIED BY CH2M HILL, INC.

LEGEND

- AREA RECOMMENDED FOR NO FURTHER EVALUATION
- AREA OF CONCERN (SOIL)
- AREA OF CONCERN (GROUNDWATER)
- PROPOSED REVISION OF ESTIMATED IR SITE 33 BOUNDARY
- TRANSFER PARCELS FED-1A, -2B, -2C BOUNDARIES
- ADJACENT IR SITE BOUNDARY
- ESTIMATED IR SITE 33 BOUNDARY
- ROAD
- 23 — EBS PARCEL INCLUDED IN TRANSFER PARCELS FED-1A, -2B, -2C
- WATER
- WETLAND
- CALIFORNIA LEAST TERN SANCTUARY
- 489 — BUILDING OR STRUCTURE (PRESENT)
- 485B — BUILDING OR STRUCTURE (REMOVED)
- CORRECTIVE ACTION AREA (CAA)
- SWMU LOCATION
- CATCH BASIN
- MANHOLE
- STORM DRAIN
- STEAM LINE
- SANITARY SEWER LINE
- INDUSTRIAL WASTEWATER LINE
- GAS LINE
- FUEL LINE
- FUEL LINE (ABANDONED-IN-PLACE)
- FUEL LINE (REMOVED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

N
W E
S

600 300 0 600 Feet

FIGURE 4
IR Sites and AOCs on the VA Transfer Parcel
Adapted from Draft SI Report for Transfer Parcels FED-1A, -2B, and -2C, May 2008, by Bechtel Environmental, Inc
Alameda Point, Alameda, California

CH2MHILL

Figure 5

Groundwater Monitoring and Soil Gas Well Locations

M025-A
M025-E
M025-C
M009-A
M103-A
M103-B
M024-A
M024-E
442-MW1
IR2-SG-01
IR2-SG-03
IR2-SG-04
M023-A
M023-E
M023-B
M023-C
IR2-SG-02
MG2-05-S,D
M011-A
IR2-SG-05
M104-C
M104-A
M010-A
M010-B
M036-B
M036-A
M036-E
MG2-04-S,M,D
IR2-SG-06
M022-E
M022-A
M012-B
M012-A
M109-A
26SW02
M021-C
M021-A
M021-E
MG2-01-S
M037-A
M037-B
M037-E
MG2-03-S,M
IR2-SG-07
M105-B
M105-A
M013-A
IR2-SG-08
M013-C
M020-E
M020-A
M020-B
M038-A
M038-B
M038-E
MG2-02-S,M
IR2-SG-09
M039-A
M039-E
M039-B
M014-B
M014-A
M108-B
M108-A
M019-E
M019-A
IR2-SG-10
M017-A
M016-E
M106-A
DRA-01
M018-E
M018-A
M016-A
M016-B
M015-A
M107-A

VA Fed Transfer

SAN FRANCISCO BAY

Legend

- First Water-Bearing Zone (FWBZ) Well
- Second Water-Bearing Zone (SWBZ) Well
- Soil Gas Well
- Abandoned Soil Gas Well
- VA Fed Transfer Area
- Facility Infrastructure

N

600 0 600

Feet

Innovative Technical Solutions, Inc.

U.S. DEPARTMENT OF THE NAVY, BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA
ALAMEDA POINT, ALAMEDA, CALIFORNIA

Figure 5
Groundwater Monitoring and Soil Gas Well Locations

G:\ArcGIS\Navy\ALMDA\PROJECTS\07033.0015 CTO-015 Basewide Ground Water Monitoring\VA Parcel\IR Site 2.mxd 3/30/2009 ITSI-WC Eloise Anderson

Enclosure (2)

Tables