PROPOSED PLAN for Operable Unit 2A Installation Restoration Program Sites 9, 13, 19, 22, and 23, Former NAS Alameda, Alameda, California

Alameda, California

August 2011

THE DEPARTMENT OF THE NAVY ANNOUNCES PROPOSED PLAN

The Department of the Navy encourages the public to comment on this ***Proposed Plan**** for groundwater response actions associated with ***Installation Restoration (IR)*** Sites 9, 13, and 19 located within Operable Unit-2A (OU-2A) at former Naval Air Station (NAS) Alameda, known as Alameda Point, in Alameda, California. No further action is required for soil and groundwater at IR Sites 22 and 23, and for soil at IR Sites 9, 13, and 19, based on the evaluation of human health risks. The Navy is making this request in cooperation with the ***U.S. Environmental Protection Agency, Region 9 (EPA)***, the ***San Francisco Bay Regional Water Quality Control Board (Water Board)***, and the ***California Department of Toxic Substances Control (DTSC)***.

This Proposed Plan summarizes and compares the possible remedies and identifies the Navy's ***preferred remedial alternatives*** for groundwater at IR Sites 9, 13, and 19 (Figure 1). The Navy proposes the following to remediate groundwater at IR Sites 9, 13, and 19:

- ***Monitored natural attenuation (MNA)*** of ***chemicals of concern (COCs)*** to meet the ***remedial action objectives (RAOs)*** at IR Sites 9 and 19.
- Remediate groundwater contaminated with COCs using ***in-situ biological treatment/ bioremediation*** to meet the RAOs at IR Site 13.

Further discussion of COCs and RAOs is presented on page 7. Further discussion of the proposed remedies is presented on page 12.

Based on the evaluation of human health risks, no further action is required for soil at IR Sites 9, 13, and 19. In addition, no further action is required for soil and groundwater at IR Sites 22 and 23 (see risk assessment summary on pages 6 and 7).

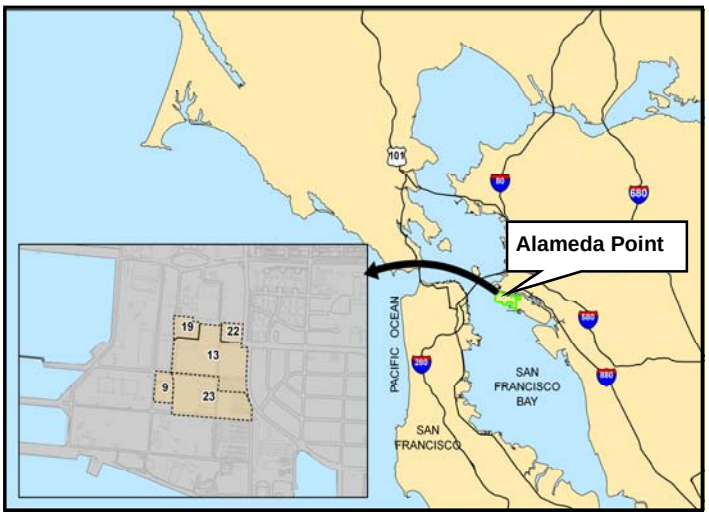

Figure 1: Location of Alameda Point

This Proposed Plan summarizes the site history, the environmental investigations, and the response action alternatives evaluated in accordance with the ***Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)***, as amended by the ***Superfund Amendments and***

-NOTICE-

Public Comment Period

August 24 through September 24, 2011

Public Meeting

August 31, 2011
Alameda Point Main Office Bldg 1, Room 201
950 West Mall Square, Alameda, California
6:30 p.m. to 8:00 p.m.

* Words in bold and italic type are defined in the Glossary of Terms beginning on page 15.

Reauthorization Act (SARA), and explains the basis for choosing the preferred remedial alternative. The Navy will consider and respond to public comments on this Proposed Plan in a responsiveness summary when the ***Record of Decision (ROD)*** is prepared for OU-2A.

THE CERCLA PROCESS

CERCLA requires that the Navy involve the community in the decision-making process for the cleanup of IR Sites 9, 13, 19, 22, and 23. The Proposed Plan is the stage of the CERCLA process where the public has the opportunity to provide comments to the Navy about the proposed cleanup plan for the sites.

Figure 2 illustrates the current status of IR Sites 9, 13, 19, 22, and 23 in the CERCLA process.

This Proposed Plan summarizes information detailed in the ***Remedial Investigation (RI)*** and ***Feasibility Study (FS)***, along with other documents contained in the administrative record file for IR Sites 9, 13, 19, 22, and 23. The administrative record contains the reports and historical documents that will be used to support selection of remedial alternatives. The Navy encourages the public to review these documents to gain an understanding of the environmental assessments and investigations that have been conducted at IR Sites 9, 13, 19, 22, and 23. The documents are available for public review at the locations listed on page 14.

SITE BACKGROUND

Former NAS Alameda, now called Alameda Point, is located on the western tip of Alameda Island, on the eastern side of the San Francisco Bay. The Navy acquired Alameda Point from the Army in 1936 and began building the air station called NAS Alameda. Its original primary mission was to provide facilities and support for fleet aviation. After World War II, NAS Alameda served as a critical component to support Navy activities during the Korean War, the Vietnam War, and Operation Desert Storm. Alameda Point was identified for closure in 1993 and naval operations ceased in 1997.

As a management tool to accelerate investigation, cleanup, and reuse, the Navy has divided 35

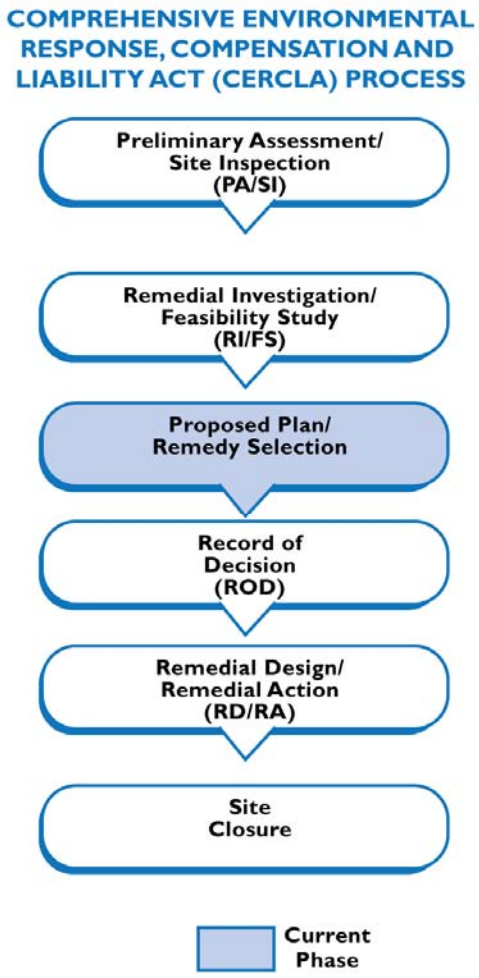

Figure 2. CERCLA Process

CERCLA sites at Alameda Point into ten OUs. This proposed plan addresses OU-2A, which includes IR Site 9 (Paint Stripping Facility), IR Site 13 (Former Oil Refinery), IR Site 19 (Hazardous Waste Storage), IR Site 22 (Former Service Station), and IR Site 23 (Missile Rework Operations/Former Plane Defueling Area).

IR SITE 9

IR Site 9 covers approximately 2.9 acres in the southwestern corner of OU-2A (Figure 3). Two buildings (Buildings 410 and 351) covering approximately 37,000 square feet are still present at IR Site 9 (Figure 4). Building 410 was constructed in 1958 as an aircraft paint stripping facility and was used for storage since the early 1990s.

IR SITE 13

IR Site 13 covers approximately 17.5 acres in the northern half of OU-2A (Figure 3). IR Site 13 includes Building 397, a 17,400 square foot aircraft overhaul plant and engine test facility constructed in

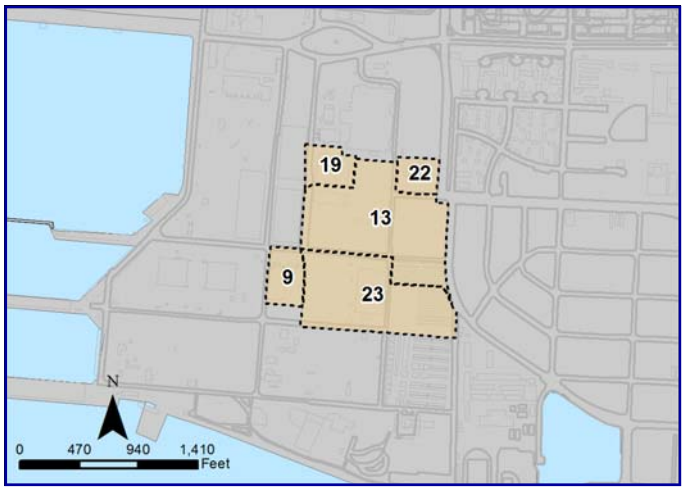

Figure 3: Location of OU-2A Sites

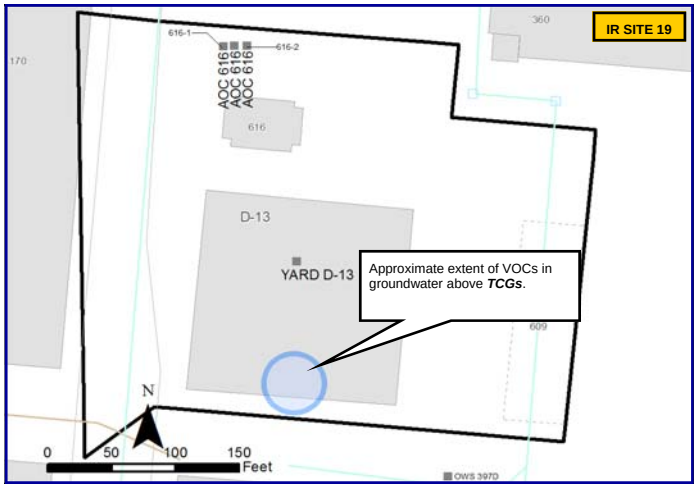

Figure 6: IR Site 19 Layout and Features

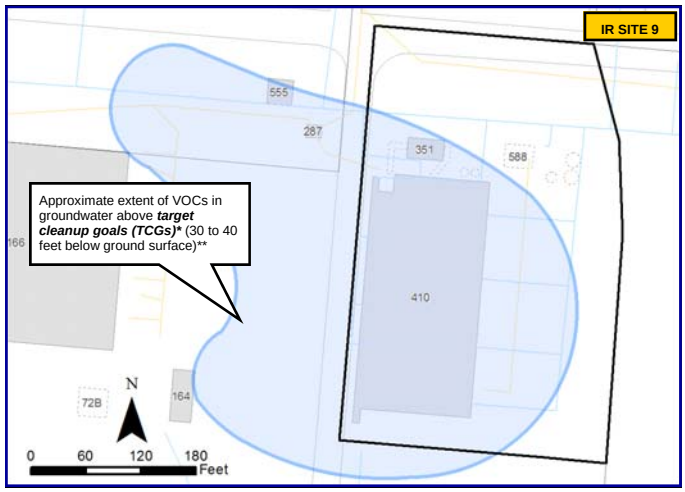

Figure 4: IR Site 9 Layout and Features

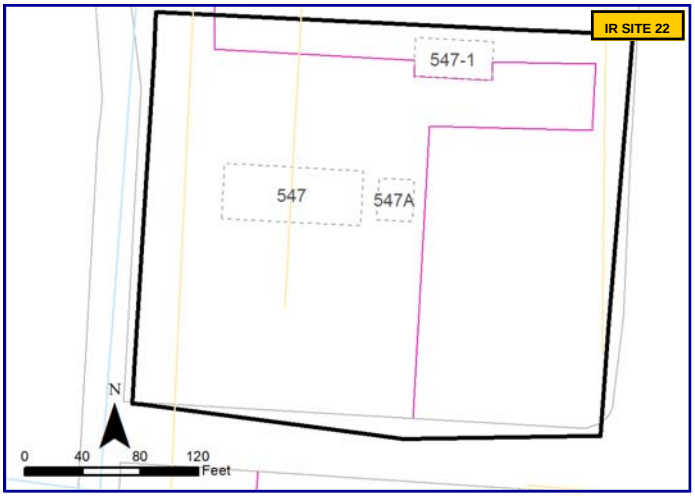

Figure 7: IR Site 22 Layout and Features

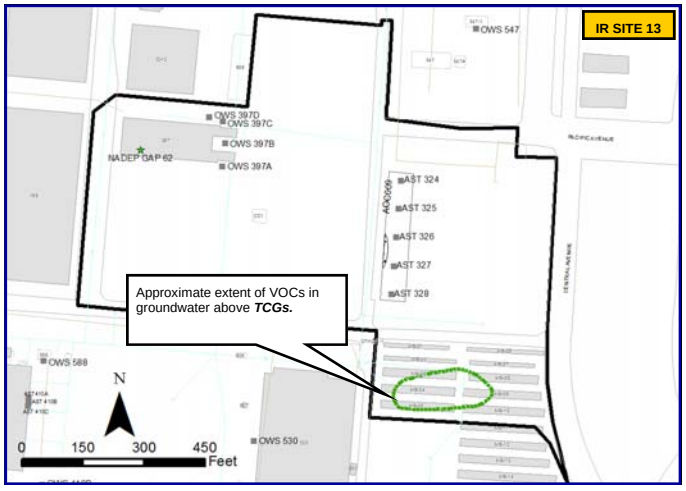

Figure 5: IR Site 13 Layout and Features

Figure 8: IR Site 23 Layout and Features

Notes:

* ***Target Cleanup Goal*** (TCG) is defined in the Glossary of Terms beginning on Page 15.

** Extents of VOCs in groundwater vary with depth.

1958 (Figure 5). Materials stored during Building 397 operations included petroleum products, solvents, and aircraft fuel.

A petroleum refinery operated by Pacific Coast Oil Works Company existed at IR Site 13 from 1879 to 1903. It is assumed that petroleum refinery wastes were disposed at IR Site 13 during refinery operations. Releases of petroleum hydrocarbons at IR Site 13 are being addressed under the Petroleum Program, and are not discussed in this Proposed Plan.

IR SITE 19

IR Site 19 covers approximately 2.3 acres in the northwestern corner of OU-2A (Figure 3). There are two structures on the site, Building 616 and Yard D-13 (Figure 6). Building 616 is a materials storage unit. Yard D-13 encompasses 30,000 square feet and was a ***Resource Conservation and Recovery Act (RCRA)***-permitted hazardous waste storage area with a steel roof and secondary containment berms. The facility ceased accepting hazardous waste as a permitted storage facility in 1996, and was formally closed by the DTSC in 1999. Two underground storage tanks (USTs) are located at IR Site 19. These USTs were constructed for spill control but were never used.

IR SITE 22

IR Site 22 covers approximately 2.1 acres in the northeastern corner of OU-2A (Figure 3). This site was formerly a gasoline distribution and service station from 1971 to 1980.

Three USTs (547-1 through 547-3) associated with the service station were removed (Figure 7). These tanks each held a 12,000-gallon capacity of gasoline. One oil-water separator (OWS) is located south of the car wash pad.

Numerous releases of petroleum fuels from leaking USTs or fuel lines were reported during gas station operations as documented in the OU-2A RI Report. Impacted groundwater beneath IR Site 22 is being remediated under the Petroleum Program and is not discussed in this Proposed Plan.

IR SITE 23

IR Site 23 covers approximately 14.3 acres at the southern half of OU-2A (Figure 3). This area was used for plane defueling between 1953 and the early 1970s. The main structure located at IR Site 23 is Building 530 (Figure 8). Building 530 was constructed in 1973 for missile rework operations. Two smaller buildings on the site, Buildings 529 and 600, provided operational support for Building 530. Currently IR Site 23 is being addressed under the Petroleum Program.

PREVIOUS SITE INVESTIGATIONS

Various environmental investigations have been performed for soil and groundwater at OU-2A sites in conformance with CERCLA, the Petroleum Program, and the RCRA. Primary investigations performed at OU-2A sites included the following:

- Phases I and 2A investigations (1992)
- Phases 2B and 3 investigations (1992)
- Follow-on investigations (1994, 1995, and 1996)
- Supplemental RI data gap sampling (2002)
- Basewide polycyclic aromatic hydrocarbon (PAH) investigation (2003)
- Terrain conductivity mapping to delineate the location of the tarry refined waste (TRW) at IR Site 13 due to former refinery operations (2003)
- TRW investigation (2008)
- Data gap sampling at OU-2A and OU-2B (2009)
- Supplemental data gap investigation (2010)
- Routine basewide groundwater monitoring (ongoing on regular basis)

INVESTIGATIONS RESULTS SUMMARY — SOIL

The investigations for soil at IR Sites 9, 13, 19, 22, and 23 included collection of soil samples for various analytes including ***volatile organic compounds (VOCs)***, ***semi-volatile organic compounds (SVOCs)***, pesticides, ***polychlorinated biphenyls (PCBs)***, metals, **polycyclic aromatic *hydrocarbons (PAHs)***, and/or ***total petroleum hydrocarbons (TPH).***

IR Site 9

None of the reported concentrations of VOCs, SVOCs, pesticides, PCBs, PAHs, and metals in IR Site 9 soil samples exceeded the ***comparison criteria*** (see glossary of technical terms on pages 15 and 16).

IR Site 13

None of the reported SVOCs, pesticides, and PCBs in IR Site 13 soil exceeded the comparison criteria. Metals (arsenic, chromium, cobalt, iron, vanadium, and lead) exceeded the comparison criteria at few isolated locations and in less than 3 percent of the total number of samples. PAHs exceeded the ***comparison criteria*** of 0.62 mg/kg at a few isolated locations. These exceedances mainly occur at depths greater than 4 feet below ground surface and may be associated with fill material used to construct the island. Based on the overall distribution of PAHs, these exceedances did not indicate widespread impact or unacceptable exposure.

IR Site 19

None of the reported VOCs, SVOCs, and metals in IR Site 19 soil exceeded the comparison criteria. PAHs concentrations were generally less than the ***comparison criteria***, except at two isolated locations. The two isolated PAH exceedances, south-west of Yard D-13 (at 4.5 feet to 5 feet bgs) and in the north-east portion of IR site 19 (at 0.5-foot to 2 feet bgs) may be associated with fill material used to construct the base and did not indicate widespread impact or unacceptable exposure.

IR Site 22

None of the reported pesticides or SVOCs in IR Site 22 soil exceeded the comparison criteria. Benzene, ethylbenzene, and xylenes were reported at maximum concentrations of 3.3 mg/kg, 570 mg/kg, and 2,600 mg/kg at a depth of 5 feet to 6 feet bgs. These locations were related to the fuel and sanitary sewer lines and are being addressed under the Petroleum Program.

Arsenic and PAHs exceeded their respective ***comparison criteria*** at few isolated locations (less than 5 percent of the total number of samples) These exceedances did not indicate widespread impact or unacceptable exposure.

Lead was reported at a maximum concentration of 9,890 mg/kg at one location (MW547-5) in a shallow soil sample (0.5 feet to 1 foot bgs) collected from an open area southeast of the site with clean deeper samples. However, subsequent sampling adjacent to this location reported lead below the comparison criteria of 207 mg/kg. Thus the single elevated concentration of lead in the surface sample does not indicate a widespread impact or unacceptable exposure. Therefore, no further action is recommended at IR Site 22.

IR Site 23

None of the reported concentrations of VOCs, SVOCs, PCBs, and metals in IR Site 23 soil exceeded the comparison criteria. Toxaphene was reported above the laboratory reporting limit and the comparison criteria in only one sample. PAHs exceeded the ***comparison criteria*** of 0.62 mg/kg at localized regions west of Building 530 and east of Building 530. These exceedances mainly occur at depths greater than 4 feet which may be associated with fill material used to construct the island. Based on the overall distribution of PAHs, these exceedances did not indicate widespread impact or unacceptable exposure.

INVESTIGATIONS RESULTS SUMMARY — GROUNDWATER

The investigations for groundwater at IR Sites 9, 13, 19, 22, and 23 included collection of groundwater samples from monitoring wells and hydropunch locations, and analyses for VOCs, SVOCs, dissolved and total metals, general chemistry, TPH and/or PAHs.

IR Site 9

Data collected following the ISCO treatment shows VOCs exceeding their TCGs in IR Site 9 groundwater from 5 to 60 feet bgs. The VOCs exceeding the TCGs included vinyl chloride (VC), benzene, cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and methyl tert-butyl ether. The nature and horizontal extents of VOCs vary with depth. Figure 4 presents extents of VOCs in IR Site 9 groundwater from 30 to 40 feet bgs. The horizontal extent of VOCs are estimated to be the largest at the depth range of 30-40 feet bgs.

Metals including arsenic, chromium, copper, iron, lead, manganese, selenium, thallium, vanadium, and zinc exceeded their respective background values in IR Site 9 groundwater. An analysis of metals in groundwater indicated that metals present above

background levels are related to temporary chemical changes in groundwater associated with the degradation of VOCs. Therefore, these elevated levels do not indicate an ongoing source of groundwater contamination.

IR Site 13

Previous investigations have reported benzene, toluene, ethylbenzene and xylene (total) at concentrations exceeding their TCGs in shallow groundwater (5 to 15 feet bgs) at IR Site 13 (Figure 5).

Metals including arsenic, copper, iron, lead, manganese, and selenium exceeded their respective background values in IR Site 13 groundwater. An analysis of metals in groundwater indicated that metals present above background levels are related to temporary chemical changes in groundwater associated with the degradation of VOCs. Therefore, these elevated levels do not indicate an ongoing source of groundwater contamination.

IR Site 19

Previous investigations have reported PCE, TCE, and VC at concentrations exceeding their TCGs in shallow groundwater (5 to 15 feet bgs) at IR Site 19 (Figure 6).

Metals including vanadium and zinc exceeded their respective background values in IR Site 19 groundwater. An analysis of metals in groundwater indicated that metals present above background levels are related to temporary chemical changes in groundwater associated with the degradation of VOCs. Therefore, these elevated levels do not indicate an ongoing source of groundwater contamination.

IR Site 22

Previous investigations have reported few VOCs (1,2-dichloroethane, benzene, ethylbenzene, toluene, xylenes), and metals (arsenic, iron, manganese, and thallium) in groundwater exceeding their respective ***maximum contaminant levels (MCLs)***.

The VOCs reported represent petroleum hydrocarbon constituents and are likely a result of releases of petroleum fuels based on the historic site activities. The impacted groundwater beneath IR Site 22 is being remediated under the Petroleum Program.

IR Site 23

Previous investigations have reported a few VOCs (1,2-dibromo-3-chloropropane, 1,2-dibromoethane, cis-1,2-DCE, and methylene chloride), and metals (arsenic, iron, and manganese) exceeded their respective MCLs. The evaluation of the data indicated sporadic/isolated detections of VOCs as evident from the very low detection frequencies (less than or equal to 10 percent for analytes with total number of samples of greater than 100). In addition, all reported concentrations of arsenic, iron, and manganese were less than their naturally-occurring background values established for OU-2A.

Summary of Previous Groundwater Response Actions/Pilot Studies

In November 2002, field studies were conducted to evaluate the feasibility of ***in-situ chemical oxidation*** (ISCO) for remediation of VOCs in IR Site 9 groundwater. This was followed by a larger scale implementation of ISCO at IR Site 9 as part of a CERCLA Removal Action between January and May 2006. After six oxidant injection events in shallow and deep groundwater, decreases in VOC concentrations were observed, although VOCs remain above TCGs.

RISK ASSESSMENT PROCESS

As part of the FS, a ***baseline human health risk assessment (BHHRA)*** was conducted to assess risks at IR Sites 9, 13, 19, 22, and 23 from the detected contaminants. “Risk” is the likelihood or probability that a hazardous chemical, when released to the environment, will cause adverse effects on exposed humans or other biological receptors. The HHRA evaluated the potential risks to humans based on potential future use of the OU-2A area.

Under the current reuse plan for Alameda Point, the OU-2A area is planned to be used for residential use, commercial mixed use, and commercial/employment centers. Based on this, the residential use was evaluated in the risk assessment, since it represents the worst-case scenario in terms of potential exposure to contamination. In addition, potential risks as a result of VOC vapor intrusion into indoor air due to impacted groundwater were evaluated for

commercial use scenario.

The hypothetical resident was assumed to be exposed to contamination in soil and groundwater by the following pathways: ingestion of soil and homegrown produce, inhalation of particulates from soil in outdoor air, inhalation of vapors in indoor and outdoor air, and dermal contact with soil. These exposure pathways represent the most reasonable exposure pathways under current and future use because it is highly unlikely that shallow groundwater at OU-2A would be used as the primary source of drinking water.

BHHRA Results

Based on the evaluation of risk assessment results, no chemicals were selected for further evaluation in the FS for soil at IR Sites 9, 13, 19, 22, and 23; and for groundwater at IR Sites 22 and 23. The majority of the risk due to groundwater at IR Site 22 is attributed to petroleum hydrocarbon constituents like benzene, which are being handled under Petroleum Program.

For groundwater, COCs identified in the risk assessment for further evaluation in the FS for IR Sites 9, 13, and 19 are presented in Table 1 on page 8.

ECOLOGICAL RISK ASSESSMENT

Currently, ecological habitat capable of supporting significant wildlife is not present at OU-2A sites. However, ecological risk evaluation was performed as part of the RI for terrestrial receptors to provide conservative estimate of risk. Exposure pathways for aquatic receptors were considered incomplete because groundwater plumes were not discharging to the Seaplane Lagoon or San Francisco Bay.

Based on the risk calculations and qualitative evaluations and the planned future use of the IR Sites 9, 13, 19, 22, and 23, no risks to ecological receptors were identified that require further evaluation or mitigation.

FEASIBILITY STUDY

The FS demonstrated that no further CERCLA response action is required for soil at all of the OU-2A sites. In addition, the FS identified RAOs and remedial alternatives for groundwater at IR Sites 9, 13, and 19. The remedial alternatives identified in the FS were evaluated against seven of the nine criteria required by CERCLA and as specified in the ***National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*** and summarized in Figure 9. The two final criteria are State acceptance and community acceptance. The State acceptance is documented in this Proposed Plan. Community acceptance is evaluated based on either written and oral comments on this Proposed Plan as outlined on page 13.

Remedial Action Objectives

The RAOs are the final cleanup objectives for the site, and provide the foundation for the alternatives presented in the Proposed Plan. The anticipated future use of the site is an important consideration in selecting the RAOs. RAOs have been established for groundwater at IR Sites 9, 13, and 19 to be protective of human health and the environment.

The following RAOs were developed for remediation of impacted groundwater and to address the potential risks to human health at IR Sites 9, 13, and 19:

- Minimize the potential for domestic use of groundwater at IR Sites 9, 13, and 19 with concentrations of COCs exceeding the established TCGs.
- Protect future receptors from unacceptable risks associated with inhalation of VOCs in groundwater.

The COCs for groundwater were selected based on the regulatory requirements considered ***applicable or relevant and appropriate requirements (ARARs)*** and to be protective of human health. Numerical concentrations were developed as TCGs from the RAOs to guide groundwater remedial actions. These goals were based on the COCs, potential exposure pathways and receptors, ***risk-based concentrations (RBCs)***, and ARARs. The list of groundwater COCs and their TCGs are presented in Table 1. For the majority of COCs, the TCGs are Federal or more stringent State drinking water MCLs.

Remedial Alternatives

Four remedial alternatives were developed for remediation of groundwater at IR Sites 9, 13, and 19:

- Alternative G-1: No Action

- Alternative G-2: MNA and Institutional Controls (ICs)
- Alternative G-3: ISCO, MNA, and ICs
- Alternative G-4: In-situ Bioremediation, MNA, and ICs

Each alternative is discussed in more detail in Table 2.

EVALUTION OF REMEDIAL ALTERNATIVES

Table 3 summarizes the comparison of groundwater remedial Alternatives G-1 through G-4. The alternatives were compared using the NCP criteria (Figure 9). The nature of constituents at IR Sites 9 and 19 is different from those present at IR Site 13; therefore, where appropriate, comparison on alternatives with respect to the NCP criterion was carried out separately for IR Sites 9 and 19, and IR Site 13. A detailed comparison of the alternatives can be found in the FS, which is available at the Information Repositories listed on page 14 of this Proposed Plan.

The following is a summary of the comparisons that were made for the groundwater remedial alternatives for IR Sites 9, 19, and 13.

1. Overall Protection of Human-Health and the Environment

All alternatives, except Alternative G-1 (No Action) satisfy the threshold criterion of overall protection of human health and the environment. Under Alternative G-1, no remedial action would be implemented to treat or reduce potential for exposure to COCs above their respective TCGs. In addition, Alternative G-1 does not reduce risks to potential receptors due to exposure to impacted groundwater since no restrictions are imposed on groundwater use. Since Alternative G-1 does not meet the threshold criteria of overall protection of human health and the environment, it cannot be selected as a remedy and will not be discussed further in the nine criteria analysis.

Alternative G-2 would rely on natural attenuation mechanisms such as dilution, dispersion, and biodegradation to reduce concentrations of COCs in groundwater. Alternative G-2 provides protection by implementation of land/groundwater use restrictions to minimize the potential for exposure to COCs above their respective TCGs. Alternatives G-3 and G-4 include implementation of ISCO and bioremediation, respectively, to treat COCs in groundwater. ICs implemented as part of Alternatives G-3 and G-4 would minimize the potential for exposure to COCs until these are reduced to concentrations below their respective TCGs.

2. Compliance with Applicable or Relevant and Appropriate Requirements

ARARs are Federal and State laws and regulations that are identified for each remedial alternative. The Alternatives G-2, G-3, and G-4 would meet the project ARARs. The key ARARs are presented in Attachment 1.

3. Long-Term Effectiveness and Permanence

Under Alternative G-2, natural processes such as dilution, dispersion, and biodegradation would reduce toxicity of groundwater by reducing concentrations of COCs. Under Alternatives G-3 and G-4, concentrations of COCs in groundwater

Table 1: Target Cleanup Goals – IR Sites 9, 13, and 19 Groundwater

Chemical of Concern	Target Cleanup Goal[a] (µg/L)
IR Site 9	
VC	0.5[a]
1,1-DCA	5[a]
cis-1,2-DCE	6[a]
Benzene	1[a]
Methyl tert-butyl Ether	13[a]
1,1-DCE	6[a]
1,2,3-TCP	0.5[b]
IR Site 13	
Benzene	1[a]
Ethylbenzene	300[a]
Toluene	150[a]
Total Xylene	1,750[a]
IR Site 19	
TCE	5[a]
PCE	5[a]
VC	0.5[a]

Notes:
[a] Based on Federal or more stringent State drinking water MCL.
[b] Based on the California Department of Public Health Response Level.

Table 2: Summary of Groundwater Remedial Alternatives – IR Sites 9, 13, and 19			
Remedial Alternatives	**Estimated Remediation Duration (years)**	**Total Cost (millions)**	**Description**
G-1: No Action	0	—	CERCLA requires the evaluation of a no-action alternative to establish a baseline for comparison with other alternatives. Under this scenario, no action would be performed to remediate groundwater at IR Sites 9, 13, and 19.
G-2: MNA and ICs	22 (IR Sites 9 and19) 14 (IR Site 13)	$2.8 (IR Sites 9 and19) $2.4 (IR Site 13)	Alternative G-2 would rely on natural attenuation processes and monitoring for remediation of COC-impacted groundwater at IR Sites 9, 13, and 19. The natural attenuation processes may include a variety of physical, chemical or biological processes, including dilution, dispersion, and biodegradation that, under favorable conditions, would act without human intervention to reduce concentrations of COCs in groundwater. Alternative G-2 would include groundwater monitoring to demonstrate that natural attenuation is occurring and to assess their further migration in groundwater. The ICs including land and/groundwater-use restrictions would be implemented under Alternative G-2 to limit exposure of future landowner (s) and/or user(s) to COC-impacted groundwater until the concentrations of COCs are reduced to levels below TCGs through implementation of MNA. In addition, ICs will include restrictions on activities which could interfere with the effectiveness of the remedies until goals are achieved including protection of remediation systems and limits on the extraction of contaminated groundwater.
G-3: ISCO, MNA, and ICs	< 5	$4.6 (IR Sites 9 and19) $2.1 (IR Site 13)	Alternative G-3 would include injection of chemical oxidant into the subsurface to chemically oxidize the COCs present in groundwater at IR Sites 9, 13, and 19 into innocuous products such as carbon dioxide and water. Several commercially available oxidants may be used for ISCO such as Fenton's reagent, activated persulfate or ozone. Groundwater monitoring would be conducted following injection of chemical oxidant to assess the decreases in COC concentrations. Based on the analysis of groundwater monitoring data and with the concurrence of the regulatory agencies, active treatment using ISCO may be stopped before the concentrations of COCs are reduced to levels below the TCGs to allow natural attenuation mechanisms to act to reduce the remaining COCs to concentrations below TCGs. Similar to Alternative G-2, ICs including land and/groundwater-use restrictions would also be implemented as part of Alternative G-3 until the concentrations of COCs are reduced to levels below TCGs.
G-4: In-situ Bioremediation, MNA, and ICs	< 5	$7.0 (IR Sites 9 and19) $2.4 (IR Site 13)	Alternative G-4 would include injection of commercially-available bioremediation amendments (e.g. food sources such as vegetable oil) into the subsurface to stimulate naturally-occurring bacteria to biologically degrade COCs present in groundwater at IR Sites 9, 13, and 19 into innocuous products such as carbon dioxide and water. This alternative may also include subsurface injection of commercially-available strains of bacteria known to degrade COCs presented in groundwater at IR Sites 9, 13, and 19. Groundwater monitoring would be conducted following injection of bioremediation amendments to assess the decreases in COC concentrations. Based on the analysis of groundwater monitoring data and with the concurrence of the regulatory agencies, active treatment using in-situ bioremediation may be stopped before the concentrations of COCs are reduced to levels below the TCGs to allow natural attenuation mechanisms to act to reduce the remaining COCs to concentrations below TCGs. Similar to Alternative G-2, ICs including land and/groundwater-use restrictions would also be implemented as part of Alternative G-4 until the concentrations of COCs are reduced to levels below TCGs.

would be permanently reduced through active treatment methods such as ISCO and bioremediation. Alternatives G-2, G-3, and G-4 would include active groundwater monitoring until the concentrations of COCs are reduced to less than their respective TCGs.

ICs would be implemented under Alternatives G-2, G-3, and G-4 to prohibit the use of impacted groundwater until concentrations of COCs are reduced below their respective TCGs. Monitoring and maintaining these ICs would ensure their long-term effectiveness.

4. Reduction of Toxicity, Mobility, or Volume

Alternative G-2 would rely on natural attenuation mechanisms for reduction in concentrations and toxicity of COCs in groundwater. Alternatives G-3 and G-4 employ active treatment technologies to permanently reduce toxicity, mobility or volume of COCs in groundwater. Alternatives G-3 includes implementation of ISCO and Alternative G-4 would involve implementation of bioremediation to reduce concentrations of COCs below their respective TCGs.

5. Short-Term Effectiveness

Alternative G-2 would include limited remedial construction operations (e.g. installation of additional monitoring wells) compared to Alternatives G-3 and G-4. Alternatives G-3 and G-4 would include drilling/installation of monitoring wells, and handling and subsurface injection of reagents. Based on the sustainability evaluation (see text box on page 11), for IR Sites 9 and 19, the environmental footprint (estimated pollutant and green house gas emissions and energy use), and potential injury/ fatality risks to workers are estimated to be higher for Alternatives G-3 and G-4, compared to Alternative G-2. However, for IR Site 13, the environmental footprint (estimated green house gas emissions and energy use), and potential injury/fatality risks to workers are estimated to be higher for Alternative G-2, compared to compared to Alternatives G-3 and G-4.

6. Implementability

Alternative G-2 would be the simplest to construct and operate. The implementation of Alternative G-2 would require installation of monitoring wells and periodic groundwater monitoring. Well drilling and construction present little or no technical difficulties. Services of experienced personnel and laboratory, equipment, and material/supplies for

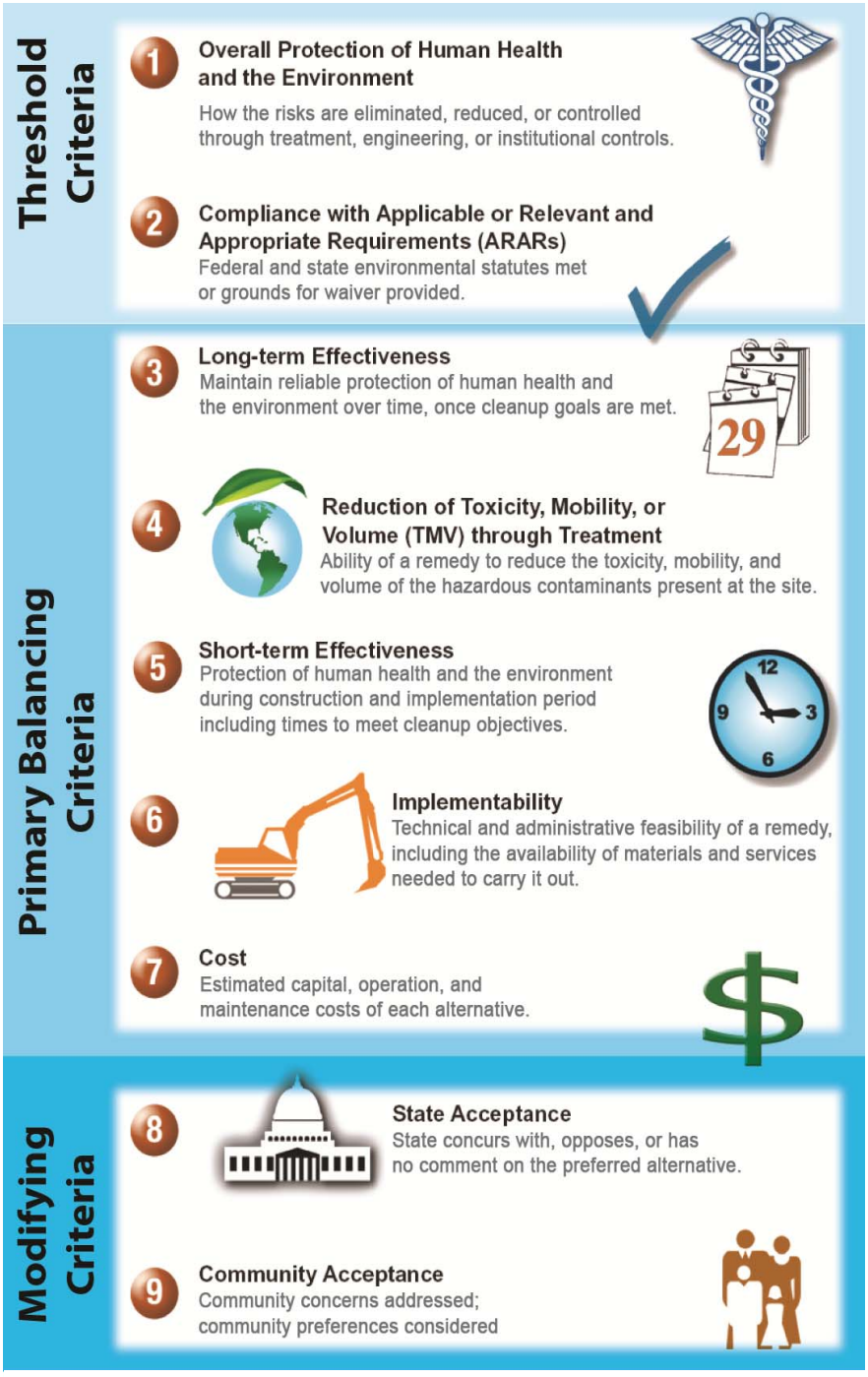

Figure 9: Criteria for Comparison of Alternatives

groundwater sampling and analysis are generally readily implementable.

Alternative G-3 would include implementation of ISCO. Materials and vendors for implementation of ISCO are readily available. Pilot tests and removal actions implemented at IR Site 9 in the past would provide valuable data to optimize the design of the full-scale ISCO implementation at IR Sites 9 and 19.

The implementation of bioremediation under Alternative G-4 at IR Sites 9 and 19 may require additional testing. Therefore, technical implementation of bioremediation at IR Sites 9 and 19 is expected to be difficult compared to implementation of ISCO.

For IR Site 13, the implementation of ISCO is expected to be difficult compared to implementation of bioremediation because ISCO has never been implemented at IR Site 13 in the past, while bioremediation has been implemented in the vicinity of IR Site 13 in the past.

7. Cost

For IR Sites 9 and 19, the estimated costs for Alternatives G-2, G-3, and G-4 are $2.8 million, $4.6 million, and $7.0 million. For IR Site 13, the estimated costs for Alternatives G-2, G-3, and G-4 are $2.4 million, $2.1 million, and $2.4 million.

THE PREFERRED GROUNDWATER REMEDIAL ALTERNATIVE – IR SITES 9 AND 19

The preferred remedial alternative for groundwater at IR Sites 9 and 19 is Alternative G-2 (MNA and

Sustainable Environmental Remediation Evaluation

As part of the evaluation of remedial alternatives with respect to short-term effectiveness, the sustainability of each alternative was evaluated with respect to metrics such as energy consumption, green house gas generation, pollutant emissions, water consumption, and worker safety. The results of this sustainable environmental remediation (SER) evaluation were presented in the FS and were considered by the Navy during the identification of the preferred alternatives.

Table 3: Comparative Analysis of Groundwater Remedial Alternatives – IR Sites 9, 13, and 19

Remedial Alternative	Overall Protection of Human Health and the Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction in Toxicity, Mobility, or Volume through Treatment	Short-Term Effectiveness	Implementability	Cost[a]
G-1: No Action	No	Since Alternative G-1 is not protective of human health and the environment, no ratings have been assigned to the other criteria.					
G-2: MNA and ICs[b]	Yes	Yes	◑	◑[c]	● (IR Sites 9 and 19) ◑ (IR Site 13)	●	● (IR Sites 9 and 19) ◑ (IR Site 13)
G-3: ISCO, MNA, and ICs	Yes	Yes	●	●	◑ (IR Sites 9 and 19) ● (IR Site 13)	◑ (IR Sites 9 and 19) ○ (IR Site 13)	◑ (IR Sites 9 and 19) ● (IR Site 13)
G-4: In-situ Bioremediation, MNA, and ICs[b]	Yes	Yes	●	●	◑ (IR Sites 9 and 19) ● (IR Site 13)	○ (IR Sites 9 and 19) ◑ (IR Site 13)	○ (IR Sites 9 and 19) ◑ (IR Site 13)

Notes:

○ = Poor ◑ = Fair ● = Good

[a] Cost evaluation is based on the net present value (NPV). The lower cost receives a high rating because it is more cost-effective.

[b] G-2 is the preferred remedial alternative for IR Sites 9 and 19, and G-4 is the preferred remedial alternative for IR Site 13.

[c] Alternative G-2 has been assigned a fair rating as natural attenuation processes including biodegradation will lead to reduction in COC concentrations

NA = Not applicable

ICs). Based on the information available at this time, Alternative G-2 would be protective of human health and the environment, and would attain the RAOs for groundwater. In addition, based on the sustainability evaluation, Alternative G-2 was rated as having an overall lower impact to the environment during implementation.

As shown on Table 3, Alternative G-2 provides the best balance of trade-offs between the nine-NCP criteria for the evaluation and selection of the remedy at IR Sites 9 and 19. Alternative G-2 would rely on natural attenuation processes such as dilution, dispersion, and biodegradation to reduce concentrations of COCs in groundwater. Groundwater monitoring would be conducted under Alternative G-2 to demonstrate that natural attenuation is occurring and to assess further migration of COCs in groundwater. In addition, ICs including land/groundwater-use restrictions would be implemented to limit exposure of future landowner(s) and/or user(s) to COC-impacted groundwater until the concentrations of COCs are reduced to levels below their respective TCGs. The ICs would also ensure that the integrity of the remedial action components such as monitoring wells is maintained.

THE PREFERRED GROUNDWATER REMEDIAL ALTERNATIVE – IR SITE 13

The preferred remedial alternative for groundwater at IR Site 13 is Alternative G-4 (In-situ Bioremediation, MNA, and ICs). Based on the information available at this time, Alternative G-4 would be protective of human health and the environment, and would attain the RAOs for groundwater. In addition, based on the sustainability evaluation, Alternative G-4 is expected to have a lower impact to the environment than Alternative G-3 during implementation.

As shown on Table 3, Alternative G-4 provides the best balance of trade-offs between the nine-NCP criteria for the evaluation and selection of the remedy at IR Site 13. Alternative G-4 would include delivery of the source of molecular oxygen into the subsurface. This would stimulate naturally -occurring bacteria to biologically degrade COCs present in groundwater. Groundwater monitoring would be conducted following and/or in conjunction with oxygen delivery to assess the decreases in COC concentrations. Based on the analysis of groundwater monitoring data and with the concurrence of the regulatory agencies, active treatment using in-situ bioremediation may be stopped before the concentrations of COCs are reduced to levels below the TCGs to allow natural attenuation mechanisms to act to reduce the remaining COCs to concentrations below TCGs.

Alternative G-4 would also include implementation of ICs to ensure protection of human-health and attainment of RAOs. The ICs would include land/groundwater-use restrictions to limit exposure of future landowner(s) and/or user (s) to COC-impacted groundwater until the concentrations of COCs are reduced to levels below TCGs through implementation of in-situ bioremediation and MNA.

BRAC CLEANUP TEAM

The Base Realignment and Closure (BRAC) Cleanup Team (BCT) includes Remedial Project Managers (RPMs) from the Navy, EPA, DTSC, and the Water Board. The primary goals of the BCT RPMs are to protect human health and the environment, coordinate environmental investigations, and expedite the environmental restoration of Alameda Point. The BCT RPMs have collectively overseen all documents and investigations associated with OU-2A, including the RI and FS. Based on these reviews and discussions of key documents, the regulatory agencies have concurred with the proposed no further action recommendation for soil at all the OU-2A sites and the Navy's preferred remedial alternatives for groundwater at IR Sites 9, 13, and 19.

COMMUNITY PARTICIPATION

The Navy, EPA, DTSC, and Water Board encourage the public to gain a more thorough understanding of IR Sites 9, 13, 19, 22, and 23 located within OU-2A and the CERCLA activities that have been conducted at Alameda Point by visiting the information repository, reviewing the administrative record file, attending public meetings, and getting on the mailing list to receive regular project information. Restoration Advisory Board meetings are held on the first Thursday evening of every month and are open to the public. For more information, visit the Navy's website, www.bracpmo.navy.mil.

There are two ways for you to provide your comments on this Proposed Plan:

1. Public Comment Period. During the public comment period from **August 24 to September 24, 2011,** you may use the comment form included with this Proposed Plan to send written comments to the BRAC Environmental Coordinator, Navy BRAC Program Management Office West, at 1455 Frazee Road, Suite 900, San Diego, California 92108-4310. You may also submit comments electronically via e-mail or fax to the BRAC Environmental Coordinator derek.j.robinson1@navy.mil.

2. Public Meeting. You may provide written or oral comments during the public meeting on **August 31, 2011** which will be held in the Alameda Point Main Office Building 1, Room 201, 950 West Mall Square, Alameda California. A stenographer will be at the meeting to record all public comments.

After the public comment period is over, the Navy will review and consider the comments and in consultation with the regulatory agencies, the Navy may modify the preferred remedial alternative or select another cleanup remedy based on feedback from the community or on new information. Therefore, the community is strongly encouraged to review and comment. A final decision will not be made until all comments are considered. Community acceptance will be evaluated after the public comment period for this Proposed Plan. The Navy will address these comments in a responsiveness summary presented in the ROD. All relevant site-related documents are available for review at the information repositories shown on page 14.

PUBLIC COMMENT PERIOD

The 30-day public comment period for the Proposed Plan is from **August 24 to September 24, 2011**.

Submit Comments

There are two ways to provide comments during this period:

- Offer oral or written comments during the public meeting.
- Provide written comments by mail, e-mail, or fax (no later than **September 24, 2011**).

Public Meeting

The public meeting will be held on **August 31, 2011** at Alameda Point Main Office Building 1, Room 201, 950 West Mall Square, Alameda, California, from 6:30 pm to 8:00 pm. Navy representatives will provide visual displays and information on the environmental investigations and the remedial alternatives evaluated. You will have an opportunity to formally comment on this Proposed Plan.

Or you can send Comments to:

Derek Robinson
BRAC Environmental Coordinator
Department of the Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310
Phone (619) 532-0951
Fax (619) 532-0983

INFORMATION REPOSITORIES

Two information repositories have been established to provide public access to technical reports and other IR Program information that supports this proposed plan.

Alameda Public Library
1550 Oak Street,
Alameda, CA 97501
Telephone: (510) 747-7777

Alameda Point
Room 240, 950 West Mall Square, Bldg 1,
Alameda, CA 94501

Administrative Record File
Contact: Ms. Diane Silva
Administrative Records Coordinator
Naval Facilities Engineering Command, Southwest
Naval Base San Diego, Building 3519
2965 Mole Road
San Diego, California 92132-5190
Telephone: (619) 556-1280

You may view these documents by appointment during working hours (Monday through Friday, 8 a.m. to 5 p.m.). Please contact Ms. Silva at the number provided above to make an appointment.

PROJECT CONTACTS

Mr. Derek Robinson

BRAC Environmental Coordinator
Department of Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310
(619) 532-0951

Ms. Xuan-Mai Tran

Project Manager
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3002

Mr. James Fyfe

Project Manager
Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710
(510) 540-3850

Mr. John West

Project Manager
San Francisco Bay Water Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2438

Mr. Wayne Hagen

Public Participation Specialist
Department of Toxic Substance Control
700 Heinz Avenue
Berkeley, CA 94710
(510) 540-3911

Mr. Dave Cooper

Community Involvement Coordinator
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3245

GLOSSARY OF TECHNICAL TERMS

Applicable or relevant and appropriate requirement (ARARs): Federal, State, and local regulations and standards determined to be legally applicable or relevant and appropriate to remedial actions at a CERCLA site.

B(a)P equivalent concentration: The B(a)P equivalent concentration represents single value calculated to estimate overall cancer risk from the combination of different potentially cancer-causing PAHs. This calculation uses United States Environmental Protection Agency and California Department of Toxic Substances-approved methodology.

Baseline Human Health Risk Assessment (BHHRA): Estimate of potential harmful effects humans may experience as a result of exposure to chemicals.

California Department of Toxic Substances Control (DTSC): A part of the California Environmental Protection Agency and California's lead environmental regulatory agency. Its mission is to protect public health and the environment from toxic substances.

Cancer risk: The probability that an individual will develop cancer from direct exposure to chemicals classified as carcinogens. A carcinogen is a chemical that causes cancer.

Chemicals of concern (COCs): Chemicals that have been identified as having the potential to pose a significant threat to human health and the environment.

Comparison criteria: These are concentrations of chemicals set by Federal and State agencies as a basis of comparison to soil data from specific sites to identify potential contamination.

Soil data were compared with EPA residential regional screening levels (RSLs), California modified residential preliminary remediation goals (PRGs), lead screening valued established based on the DTSC Lead Spreadsheet, background concentrations of metals, and a screening level established by the Navy and agencies for PAHs (expressed as average benzo(a)pyrene (B[a]P)-equivalent concentrations).

Feasibility Study (FS): The second of two major studies (the Remedial Investigation is the first study) that must be completed before a decision can be made about how to clean up a site. The FS is a study to identify, screen, and compare remedial alternatives for a site.

Hazard index (HI): The HI is the sum of all individual hazard quotients. For human health, it is a calculated value used to represent a potential noncancer health risk for more than one chemical or exposure pathway. An HI value of 1.0 or less is considered an acceptable exposure level.

Institutional Control (IC): Administrative and legal controls, established and administered to restrict use of property to limit human exposure to contaminated waste, soil, sediment, or groundwater, and protect the integrity of the remedy.

In-situ biological treatment/bioremediation: This technology includes in-place treatment of groundwater without above-ground pumping and relies on naturally-occurring microbes (microscopic "bugs") that live in soil or groundwater to destroy the contaminants. The chemicals are injected into the subsurface that stimulate the activity of microbes and help them to grow and multiply. The microbes act on the contaminants and change them into water and harmless gases such as carbon dioxide.

In-situ chemical oxidation: This technology includes in-place treatment of groundwater without above-ground pumping. The chemicals called oxidants are injected/pumped directly into the contaminated groundwater. The oxidant mixes with contaminants and causes them to break down. When the process is complete, only water and other harmless chemicals are left behind.

Installation Restoration: The IR Program is the Department of Defense's comprehensive program to investigate and clean up environmental contamination at military facilities in full compliance with CERCLA.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. The MCLs are set by the United States Environmental Protection Agency and/or the State of California.

Monitored Natural Attenuation (MNA): MNA is a technique used to monitor or test the progress of natural attenuation processes that can degrade contaminants in soil and groundwater. The natural attenuation processes may include biological degradation by naturally occurring microbes, sorption (sticking) to soil, or dilution due to mixing with clean water.

Operable Unit: The DON is conducting investigations in accordance with the CERCLA at various sites at Alameda Point. As a management tool to accelerate site investigation, cleanup, and reuse, the thirty-five CERCLA sites at Alameda Point are divided into ten operable units (OUs). IR Sites 9, 13, 19, 22, and 23 fall under OU-2A.

Polychlorinated biphenyl (PCB): Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees.

GLOSSARY OF TECHNICAL TERMS

Petroleum Program: The Petroleum Program is a program to investigate and cleanup environmental contamination due to releases of petroleum products such as gasoline and jet fuel. By law, the petroleum releases cannot be addressed under CERCLA.

Polycyclic aromatic hydrocarbon (PAH): Specific class or group of semi volatile organic compounds whose molecules consist of multiple benzene rings. "Polycyclic" means multi-ringed.

Preferred remedial alternative: The remedial alternative selected by the Navy, in conjunction with the regulatory agencies, based on the evaluation of remedial alternatives presented in the FS.

Proposed Plan: A document that reviews the remedial alternatives presented in the FS, summarizes the proposed preferred remedial alternative, explains the reasons for recommending the alternative, and notifies the community of the proposed preferred alternative.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The NCP is the Federal government's blueprint for responding to both oil spills and hazardous substance releases. The NCP contains the guidelines and procedures for implementing the CERCLA.

Record of Decision (ROD): A decision document that identifies the remedial alternatives chosen for implementation at a CERCLA site; the ROD is based on information from the RI and FS reports, the PP, and on public comments and community concerns.

Remedial Action Objective (RAO): A statement containing a cleanup goal for the protection of one or more receptors from one or more chemicals in a specific medium (such as soil, groundwater, or air) at a site.

Target Cleanup Goal (TCG): Chemical concentration limit that provides a numerical goal for the remedial alternatives; may be based on human or ecological risk calculations, federal or state regulations, background concentrations, or other numerical standard.

Groundwater data were compared with Federal/ State drinking water maximum contaminant levels (MCLs), background concentrations of metals at Alameda Point, and Preliminary Remediation Criteria (PRCs) established by the Navy and regulatory agencies for petroleum-impacted sites (for diesel, gasoline, and motor oil).

Resource Conservation and Recovery Act (RCRA): Establishes the framework for treatment, storage, transportation, and disposal of solid and hazardous wastes.

Risk-based concentration (RBC): The concentration of the chemical that is protective of human health and/or the environment calculated based on conditions present at a specific site.

Risk driver: Chemical that exhibits a significant impact in the results of a risk estimate.

Risk management range: The risk management range as derived from the NCP is used for making risk management decisions. The range is considered to represent an excess lifetime cancer risk to an individual between 1 in 10,000 and 1 in 1,000,000 (10^{-4} and 10^{-6}).

San Francisco Bay Regional Water Quality Control Board (Water Board): The California Water Quality Authority, which is part of the California Water Quality Control Board, within the California Environmental Protection Agency. Its mission is to preserve, enhance, and restore California's water resources.

Semi-volatile organic compound (SVOC): An organic (carbon containing) compound that does not readily evaporate at room temperature. SVOCs include certain oils, pesticides, and PAHs.

Total petroleum hydrocarbon (TPH): A family of several hundred chemical compounds in crude oil, such as benzene, hexane, toluene, and others. TPH includes motor oil-, diesel-, and gasoline-range hydrocarbons.

U.S. Environmental Protection Agency, Region 9 (EPA): The Federal regulatory agency responsible for administration and enforcement of CERCLA (and other Federal environmental regulations).

Volatile organic compound (VOC): An organic (carbon containing) compound that evaporates readily at room temperature. VOCs are found in industrial solvents commonly used in dry cleaning, metal plating, and machinery degreasing operations.

ATTACHMENT 1

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that remedial actions meet Federal or State (if more stringent) environmental standards, requirements, criteria, or limitations that are determined to be applicable of relevant and appropriate requirements (ARARs). The following summarizes the key chemical-, and action-specific ARARs for the preferred groundwater remedial alternatives for IR Sites 9, 13, and 19 described in this Proposed Plan. Please refer to Appendix A in the Operable Unit-2A (OU-2A) Feasibility Study (FS) for more specific and comprehensive information on all potential ARARs including location-specific ARARs.

Potential Chemical-specific ARARs

Chemical-specific ARARs are health- or risk-based numerical values for various environmental media, specified in Federal or State statutes or regulations.

Federal

Based on the study conducted in 2000, the groundwater beneath Alameda Point (including OU-2A) is a Class II aquifer (current or potential source of drinking water that has other beneficial uses). Therefore, the substantive provisions of the following requirements are potential ARARs for remediation of IR Sites 9, 13, and 19 groundwater:

- Federal maximum contaminant levels (MCLs) of volatile organic compound (VOC)-impacted groundwater at Title 40 Code of Federal Regulations (C.F.R.) Section (§) 141.61(a) and (c) and Federal non-zero maximum contaminant level goals (MCLGs) at 40 C.F.R. § 141.50.
- Resource Conservation and Recovery Act (RCRA) groundwater protection standards in California Code of Regulations (Cal. Code Regs.) title (tit.) 22, § 66264.94, except 66264.94(a)(2) and 66264.94(b).

State

The substantive provisions of the following requirements are potential ARARs for remediation of IR Sites 9, 13, and 19 groundwater:

- State Water Resources Control Board (SWRCB) Resolution 88-63 (Sources of Drinking Water Policy)
- The State primary MCLs for VOCs at Cal. Code Regs. tit. 22, § 64444.
- Substantive requirements including beneficial uses and water quality objectives (WQOs) documented in the Comprehensive Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) (Cal. Water Code § 13240).

Potential Action-specific ARARs

Action-specific ARARs are regulations that apply to specific activities or technologies used to remediate a site, including design criteria and performance requirements.

Federal

The substantive provisions of the following requirements are potential ARARs for remediation of IR Sites 9, 13, and 19 groundwater:

- Groundwater monitoring requirements at Cal. Code Regs. tit. 22, § 66264.91(a)(4)and (c), except as it cross-references permit requirements;
- Monitoring requirements at Cal. Code Regs. tit. 22, § 66264.97 (b)(1) (A), (b)(1)(D)(1) and (2), (b) (4-7), (e)(6), (12)(A) and (B), (13), and (15);
- Requirements for detection monitoring program at Cal. Code Regs. tit. 22, § 66264.98(e) (1-5), (i), (j), (k)(1-3), (4) (A) and (D),(5), (7)(C) and (D),(n)(1),(2) (B), and (C); and
- Corrective action monitoring program at Cal. Code Regs. tit. 22, § 66264.100(a), (d), and (g)(1).

State

The substantive provisions of the following requirements are potential ARARs for remediation of IR Sites 9, 13, and 19 groundwater:

- SWRCB Resolution 68‑16 (Policy With Respect to Maintaining High Quality of Waters in California) (Cal. Water Code § 13140, Clean Water Act regulations 40 C.F.R. § 131.12) (for IR Site 13 groundwater response action only if groundwater recirculation system is implemented as part of the remedy);
- Land-use covenants, Cal. Code Regs. tit. 22, § 67391.1; and
- Institutional controls at California Civil Code § 1471, California Health and Safety Code (HSC) §§ 25202.5, 25222.1 and 25355.5 (a)(1)(C), 25233(c), 25234, and § 25232(b)(1)(A)–(E) (these requirements are ARARs for transfer of the property to a non-Federal entity).

Proposed Plan Comment Form

IR Sites 9, 13, 19, 22, and 23

The public comment period for the Proposed Plan for Installation Restoration Sites 9, 13, 19, 22, and 23 at Alameda Point, Alameda, California, is from **August 24 to September 24, 2011**. A public meeting to present the Proposed Plan will be held at the Alameda Point Main Office Building 1, Room 201, 950 West Mall Square, Alameda, California, on **August 31, 2011 from 6:30 pm to 8:00 pm**. You may provide comments verbally at the public meeting, where all comments will be recorded by a court reporter. Alternatively, you may provide written comments in the space provided below or on your own stationery. All written comments must be postmarked no later than **September 24, 2011**. After completing your comments and your contact information, please mail this form to the address provided on the reverse side. You may also submit this form to a Navy representative at the public meeting. Comments are also being accepted by e-mail; please address e-mail messages to derek.j.robinson1@navy.mil. Comments are also being accepted by fax: (619) 532-0995.

Name: _____

Representing: (optional) _____

Phone Number: (optional) _____

Address: (optional) _____

☐ Please check box if you would like to be added to the Navy's Environmental Mailing List for Alameda Point.

Comments:

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Comments:

Attn: Derek Robinson
BRAC Environmental Coordinator
Department of the Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

Proposed Plan for Installation Restoration
Sites 9, 13, 19, 22, and 23
Alameda Point,
Alameda, California