Final PROPOSED PLAN FOR INLAND AREA
FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD
Installation Restoration Site 22A

Concord, California

November 2012

NAVY ANNOUNCES PROPOSED PLAN FOR SITE 22A

INTRODUCTION

The Department of the Navy (Navy) requests public comments on the *Installation Restoration (IR) Site 22A *Proposed Plan* for the Inland Area at the former Naval Weapons Station Seal Beach Detachment Concord (NAVWPNSTA Concord), located in Concord, California.**

This Proposed Plan presents the Navy's ***preferred alternatives*** of no action at Magazine Groups 1, 2, and 4 and implementation of ***land use controls*** (LUC) at Magazine Groups 3 and 5 to address arsenic contamination in surface soil at Site 22A. It also summarizes the remedial (cleanup) alternatives evaluated under the ***Comprehensive Environmental Response, Compensation, and Liability Act*** (CERCLA).

This Proposed Plan describes the site history and the nature and extent of contamination, the Navy's preferred alternatives, and the basis for the proposed no action and LUC alternatives. The Navy worked 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 ***Department of Toxic Substances Control*** (DTSC) in evaluating remedial alternatives for Site 22A. In consultation with the regulatory agencies, the Navy may modify or select another response action based on new information or public comments.

The public is encouraged to review all of the alternatives presented in the Proposed Plan and provide comments. The 45-day comment period is from November 5, 2012, through December 20, 2012. See the text box on page 10 for more information on how to comment. The Navy will review and consider all comments received before preparing a ***Record of Decision*** (ROD) for Site 22A documenting the Navy's remedial action decision. The ROD will include a ***Responsiveness Summary*** with responses to significant comments received on the Proposed Plan.

The Navy proposes to take no action at Magazine Group 1 because arsenic in surface soil is below the ***background concentration*** level and no action at Magazine Groups 2 and 4 because concentrations of arsenic in surface soil do not pose unacceptable risk to human health and the environment, although they are above the background concentration level. The Navy proposes to implement LUCs at Magazine Groups 3 and 5 to restrict use of the property because concentrations of arsenic in surface soil may pose potential risk to future residents.

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— PROPOSED PLAN COMMENT PERIOD AND PUBLIC MEETING —

Public Comment Period

November 5, 2012, to December 20, 2012

Public Meeting

Wednesday, December 5, 2012

Clyde Community Center
109 Wellington Avenue
Clyde, CA 94520
6:00 to 8:00 p.m.

This public meeting is an opportunity for the community to hear about the Navy's Proposed Plan and to submit written comments and have verbal comments recorded at the meeting. See the text box on page 10 for more information.

** Specialized or technical terms are highlighted in **bold and italic** the first time they appear and are defined in the glossary on page 11.*

The CERCLA Process

As the lead agency responsible for the investigation and remediation of contamination resulting from historical Navy operations at the former NAVWPNSTA Concord, the Navy prepared this Proposed Plan to provide an opportunity for the community to participate in the Navy's decision-making and remedy selection process for Site 22A. This Proposed Plan was prepared pursuant to the requirements of Section (§) 117(a) of CERCLA, as amended by the ***Superfund Amendments and Reauthorization Act*** (SARA) and §300.430(f)(2) of the ***National Oil and Hazardous Substances Pollution Contingency Plan*** (NCP). CERCLA and the NCP establish a comprehensive, statutory framework for identifying, investigating, and cleaning up releases of hazardous substances to the environment. Figure 1 shows the current stage of Site 22A in the CERCLA process.

This Proposed Plan summarizes information presented in greater detail in the ***Remedial Investigation (RI)*** *for IR Site 22A, Former NAVWPNSTA Concord*, Concord, California, dated June 1, 2009, and the ***Feasibility Study (FS)*** *for IR Site 22A, Former NAVWPNSTA Concord*, Concord, California, dated March 9, 2011, along with other documents in the ***administrative record file*** for Site 22A. The administrative record contains the reports and historical documents used to select remedial alternatives. The Navy encourages the public to review these documents to gain an understanding of Site 22A and the environmental assessments and investigations that have been conducted. The documents are available for public review at the locations listed on page 10.

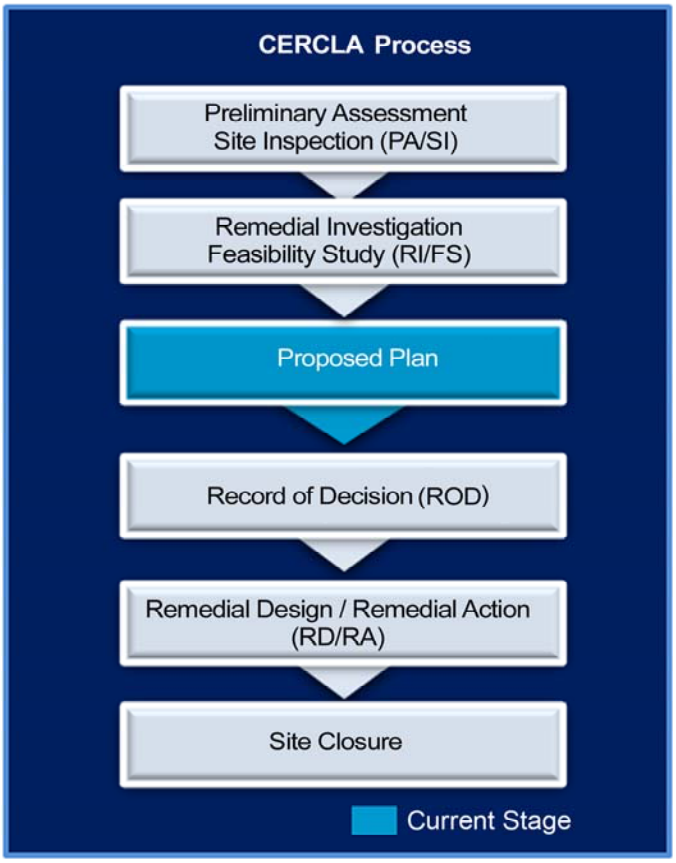

Figure 1. Current Stage for Site 22A in CERCLA Process

Site Background

The former NAVWPNSTA Concord was a major naval munitions transport and shipment facility located in the north-central portion of Contra Costa County, California, about 30 miles northeast of San Francisco (Figure 2). The facility included two principal areas: the Inland Area and the Tidal Area. As a result of workload and budget reductions, the former NAVWPNSTA Concord was placed into a reduced operational status in October 1999. The Department of the Army's Surface Deployment and Distribution Command later assumed port operations in the Tidal Area under a use permit from the Navy.

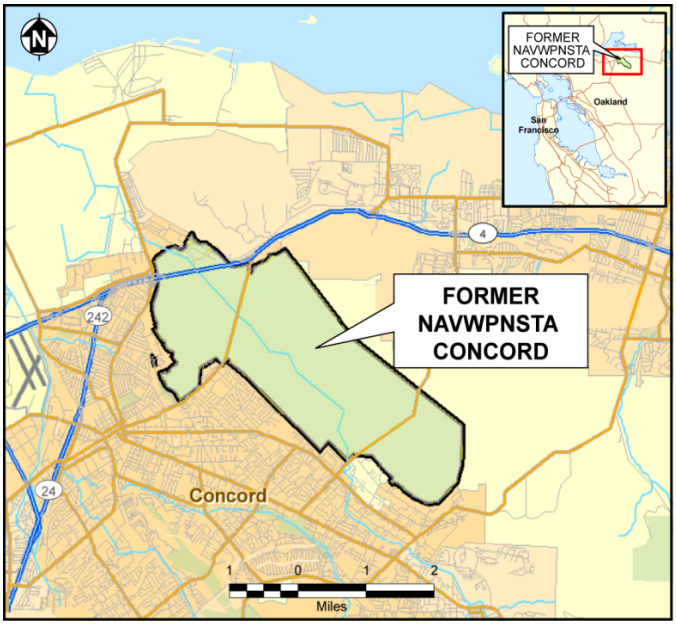

Figure 2. Location of Former Naval Weapons Station Seal Beach Detachment Concord

In 2005, the Defense ***Base Realignment and Closure (BRAC)*** Commission recommended closure of the Inland Area except for the property and facilities necessary to support Army operations in the Tidal Area. Furthermore, the Tidal Area, along with the retained portion of the Inland Area, was to be transferred to the Army. Therefore, the Tidal Area and 115 acres of the Inland Area were transferred to the Army on September 30, 2008; this property was renamed Military Ocean Terminal Concord. The Inland Area was declared surplus in March 2007 and was operationally closed in September 2008.

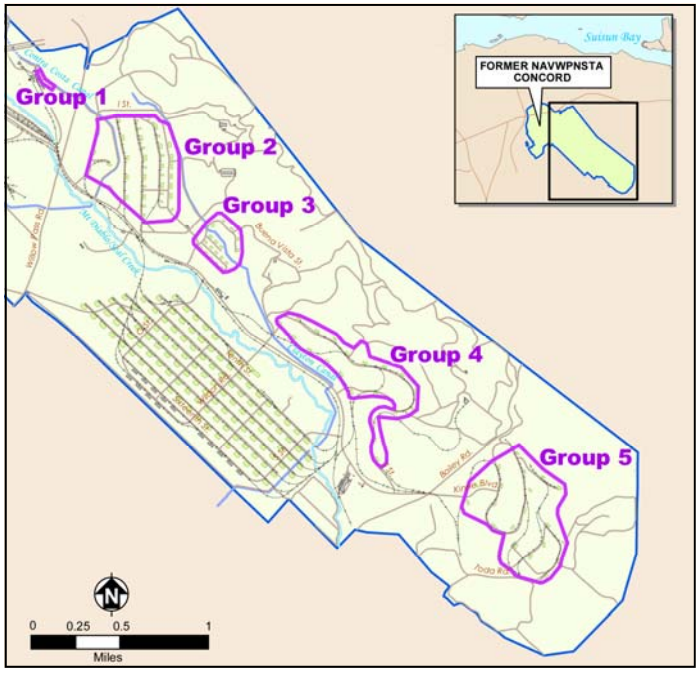

Figure 3. Site 22A Layout

Site 22A is located within the central portion of the Inland Area of the former NAVWPNSTA Concord (Figure 3). Site 22A encompasses 504 acres divided into five subareas, known as Groups 1 through 5 Magazine Areas, which include 103 munitions storage magazines (see photographs) connected by roads and railroad spurs, and surrounding open grassland. The number of magazines and acreage for each group are as follows:

- Group 1 – 6 magazines; 2.4 acres
- Group 2 – 39 magazines; 154 acres
- Group 3 – 18 magazines; 39 acres
- Group 4 – 20 magazines; 124 acres
- Group 5 – 20 magazines; 185 acres

The magazines in Groups 1 through 5 were constructed during the mid-1940s on agricultural land to support wartime activities. The Navy stored munitions and explosives in the magazines from the mid-1940s to 2001.

The future use of Site 22A is designated to be conservation open space, greenways, citywide parks and tournament facilities, and unspecified commercial use, according to the 2011 City of Concord's Reuse Project Area Plan. Future residential land use is not planned for any of the magazine groups.

Overview of Site Investigations

Field investigations at Site 22A to characterize arsenic in soil began in December 2005 with a site investigation that included 30 surface soil samples collected from Groups 2 through 5 Magazine Areas and analyzed for arsenic. The results indicated that arsenic concentrations in soil within the open areas between magazines were below the background concentration level (10 milligrams per kilogram [mg/kg]), and arsenic concentrations in soil within areas near the magazines were above the background concentration level. These findings were consistent with the working hypothesis that arsenic-containing herbicides had been applied to control the fire hazard from vegetation around the magazines.

Site 22A Photographs

The Site 22A RI investigated whether arsenic-containing herbicides had been applied at Groups 1 through 5 Magazine Areas and whether arsenic has migrated to groundwater or via surface water runoff. The RI included two soil sampling events: Tier 1 in August 2007 and Tier 2 in January 2008. For Tier 1, surface soil samples (0 to 0.5 foot below ground surface [bgs]) were collected at random locations near the munitions magazines and from selected open-space locations. Based on an evaluation of the Tier 1 sampling, Tier 2 samples were collected from: (1) ditches downslope of the munitions magazines, including the inlet and outlet of Cistern Pond, (2) subsurface soil at locations with the highest concentrations of arsenic, and (3) locations along the fence lines.

Nature and Extent of Contamination

Analytical results from the 156 soil samples collected within the magazine areas as part of the RI were combined with the results from the surface soil samples collected during the 2005 site investigation. Analytical results showed a distribution of arsenic at Site 22A consistent with application of an herbicide, as the elevated arsenic concentrations were only found in surface soils within 90 feet of a subset of magazines.

The maximum arsenic concentration in soil was 69 mg/kg in a sample collected in the Group 5 Magazine Area. Concentrations of arsenic in open areas and at depths greater than 0.5 foot bgs were generally below the background concentration level, suggesting that the clayey soils at Site 22A have limited the mobility and leaching of arsenic in surface soil to subsurface soils and groundwater. Arsenic concentrations detected across the site were as follows:

- Arsenic concentrations in soil throughout Group 1 Magazine Area were below the background concentration level.
- Arsenic concentrations in soil throughout Groups 2 through 5 Magazine Areas were generally below the background concentration level at depths greater than 0.5 foot bgs.
- Arsenic concentrations above the background concentration level were found within the upper 0.5 foot of surface soil, and arsenic had not leached to subsurface soils or into groundwater.
- Surface soil samples collected from ditches and low-lying areas were generally above the background concentration level, indicating possible migration by surface water runoff; however, the data do not indicate extensive migration from the areas that were sprayed.
- Sediment samples collected at the inlet (upstream) and outlet (downstream) of Cistern Pond were below both the background soil concentration level and the freshwater sediment screening level for protection of benthic invertebrates.

Based on a review of aerial photographs, EPA requested additional sampling of surface soil southeast of Group 3 Magazine Area in April 2009, where suspected burning of hay may have occurred. In June 2009, five additional surface soil samples were collected near Group 3 Magazine Area. Analytical results from all five soil samples collected during the suspected burn area investigation showed arsenic concentrations below the background concentration level.

What are the Site Risks?

Chemical data were used to assess potential risks to both human and ecological receptors (plants and animals that inhabit or visit the site) under current and possible future uses of Site 22A. "Risk" is the likelihood or probability that a hazardous chemical, when released into the environment, will cause adverse effects on exposed humans or other organisms. A baseline ***human health risk assessment (HHRA)*** and a ***screening-level ecological risk assessment (SLERA)*** were conducted to assess the potential risk of arsenic to humans, plants, and animals.

Human Health Risk

The baseline HHRA estimated potential health risks from human exposure to arsenic in surface and subsurface soil within four areas at Site 22A (Groups 2 through 5 Magazine Areas), via three exposure pathways (incidental soil ingestion, dermal contact with soil, and inhalation of arsenic in windblown soil). Although total, background, and incremental risks were calculated in the HHRA, the risk discussion in the Proposed Plan is limited to the incremental risk evaluation from arsenic; that is, the risks for arsenic that are attributable to site-related activities. The receptors evaluated in the baseline HHRA were: (1) current rancher, (2) future industrial worker (protective of park/recreational users; excluding playgrounds), (3) future construction worker (protective of utility and landscape workers), and (4) future resident (representing an unrestricted land use, including playgrounds). Human health risk is classified as noncancer (from exposure to noncarcinogens) or as cancer (from exposure to carcinogens). Noncancer risk is calculated using a ***hazard index (HI)*** while cancer risk is generally expressed as a probability. For example, a cancer risk probability of 5 in 100,000 (typically written as 5×10^{-5}) means that five additional cancer cases may occur in a population of 100,000 people as a result of exposure to chemicals at a site.

Cancer and noncancer risks were not calculated for Group 1 Magazine Area because arsenic concentrations were below the background concentration level in all Group 1 soil samples. Therefore, there are no site-related health risks at Group 1.

Cancer risks were estimated using both federal and State of California toxicity criteria for each evaluation. Although two sets of cancer risks were calculated, the Navy uses the federally established ***risk management range*** of 10^{-6} to 10^{-4} to evaluate site cancer risks. When the risk is above this range (10^{-4}, or more than one additional cancer case in a population of 10,000), action is generally warranted; when risk is within this range, site-specific factors are considered to determine whether action is required. Noncancer hazard does not differ between federal and State of California toxicity criteria. An HI of 1 or less is considered protective of noncancer health hazards.

The baseline HHRA results are summarized below:

- Group 2 through 5 Magazine Areas, Nonresidential Receptors:
  - Incremental cancer risks are either below or within the risk management range (10^{-6} to 10^{-4}) using federal and State of California toxicity criteria.
  - The noncancer HI is below 1.
- Groups 2 through 5 Magazine Areas, Residential Receptors:
  - Incremental cancer risks are within the risk management range based on federal toxicity criteria.
  - Incremental cancer risks are within the risk management range based on State of California toxicity criteria for Group 2 Magazine Area. Cancer risks slightly exceed the upper end of the risk management range based on State of California toxicity criteria for Groups 3 through 5 Magazine Areas.
  - The noncancer HI is at or below 1.

The risks for the background concentration level of arsenic in soil (10 mg/kg) were estimated for comparison to the risks calculated for the magazine areas. The background cancer risks are also within the risk management range for the rancher, industrial worker, and commercial worker scenarios, and slightly above the risk management range for a future resident based on State of California toxicity criteria.

- The background arsenic cancer risks for a future industrial worker and construction worker are within the risk management range using both the federal and State of California toxicity criteria.
- The background arsenic cancer risks for a future resident are within the risk management range using the federal toxicity criteria.
- The background arsenic cancer risk for a future resident is slightly above the risk management range using the State of California toxicity criteria.

Ecological Risk

The SLERA evaluated whether arsenic in soil for each of the magazine areas at Site 22A (Groups 1 through 5) poses unacceptable risk to plants, terrestrial invertebrates, amphibians, birds, and mammals. Risk was evaluated for representative birds and mammals at Site 22A that included the American robin, red-tailed hawk, California ground squirrel, western harvest mouse, black-tailed deer, and grey fox. Since the California tiger salamander (federally and state-listed as threatened) and the California red legged frog (federally listed as threatened) could be present at the site, a qualitative evaluation of risk to amphibians was also conducted. The SLERA concluded that exposure to arsenic in soil would not cause adverse effects on plants or animals at Site 22A.

Remedial Action Objectives

Based on the findings of the RI, an FS was conducted to address the human health risks associated with a future residential exposure to arsenic-contaminated surface soil at Site 22A Groups 2 through 5 Magazine Areas, and no further action was recommended for the Group 1 Magazine Area.

The FS identified a ***remedial action objective (RAO)*** and remedial alternatives for arsenic-contaminated surface soil at Site 22A. RAOs provide the foundation for development of remedial alternatives. RAOs are medium-specific (such as soil and groundwater) goals for protection of human health and the environment. The following RAO was identified for Site 22A based on the potential for future residents to be exposed to surface soils containing elevated concentrations of arsenic:

- Reduce exposure of potential future residents through inhalation, ingestion, and dermal contact to arsenic concentrations in surface soils at Site 22A that result in a cancer risk above 10^{-4} or an HI greater than 1.

A risk-based chemical concentration for the ***chemical of concern (COC)*** (referred to as a "***remedial goal***") was selected to address risk to potential future residents from arsenic in surface soil. The remedial goal identified in this Proposed Plan for arsenic at Site 22A is 22 mg/kg.

Table 1 presents the ***exposure point concentrations (EPC)*** for each magazine area. The EPCs for Groups 3 and 5 Magazine Areas are above the remedial goal of 22 mg/kg.

Table 1. EXPOSURE POINT CONCENTRATION SUMMARY

Magazine Area	0 - 0.5 ft bgs EPC (mg/kg)	0 - 10 ft bgs EPC (mg/kg)
Group 1	4.82	4.82
Group 2	18.3	16.7
Group 3	26.8	30.6
Group 4	21.9	21.2
Group 5	32.1	26.9

Notes:

EPC Exposure point concentration; The EPC is the statistically determined concentration of arsenic in soil that represents the concentration of arsenic throughout an area for purposes of risk assessments.

ft bgs Foot below ground surface

mg/kg milligram per kilogram

Summary of Remedial Alternatives

Multiple remedial options were considered, and the best options were refined into four remedial alternatives. The remedial alternatives are listed in Table 2 and described below.

Table 2. REMEDIAL ALTERNATIVES

Alternative Number	Description
1	No Action
2	LUCs
3	Excavation and Off-site Disposal
4	Excavation, Containment, and LUCs

Alternative 1 — No Action

Estimated Capital Cost:	$0
Estimated Future Value Annual Operation and Maintenance Cost:	$0
Estimated Future Value Total Cost:	$0
Estimated Total Present Value Cost:	$0
Estimated Time to Complete Remediation:	Not applicable

No remedial action or monitoring would be conducted. Under this alternative, no response actions would be conducted at Site 22A; therefore, there would be no associated costs.

This option is the Preferred Alternative for Groups 1, 2 and 4 Magazine Areas.

Alternative 2 — LUCs

Estimated Capital Cost:	$191,000
Estimated Future Value Annual Operation and Maintenance Cost:	$0
Estimated Future Value Total Cost:	$123,000
Estimated Total Present Value Cost:	$659,000
Estimated Time to Complete Remediation:	12 Months

LUCs would be implemented through access restrictions, land use restrictions, and covenants to restrict residential use of the property. A LUC remedial design would be prepared to describe the specific LUC implementation actions. The LUCs are expected to take 1 year or less to implement, followed by long-term monitoring.

This option is the Preferred Alternative for Groups 3 and 5 Magazine Areas.

Alternative 3 — Excavation and Off-site Disposal

Estimated Capital Cost:	$256,000
Estimated Future Value Annual Operation and Maintenance Cost:	$0
Estimated Future Value Total Cost:	$ 1.5 Million
Estimated Total Present Value Cost:	$1.73 Million
Estimated Time to Complete Remediation:	16 Months

Surface soil that contains arsenic at concentrations above the remedial goal of 22 mg/kg would be excavated (6,200 cubic yards) and transported off site to a licensed disposal facility.

Alternative 4 — Excavation, Containment, and LUCs

Estimated Capital Cost:	$425,000
Estimated Future Value Annual Operation and Maintenance Cost:	$26,000
Estimated Future Value Total Cost:	$911,000
Estimated Total Present Value Cost:	$2.36 Million
Estimated Time to Complete Remediation:	17 Months

Surface soil that contains arsenic at concentrations above the remedial goal of 22 mg/kg would be excavated (6,200 cubic yards) and placed in a newly constructed on-site ***corrective action management unit*** (CAMU). LUCs would be implemented for the CAMU to maintain the effectiveness of the alternative, and other areas of the site would be available for unrestricted use. The CAMU would require long-term maintenance and monitoring.

How do the Alternatives Compare?

The four remedial alternatives were evaluated for protectiveness of future residents from arsenic in soil with respect to seven of the nine NCP criteria. The first two NCP criteria are thresholds (overall protection of human health and the environment, and compliance with ***applicable or relevant and appropriate requirements [ARAR]***), which must be satisfied for an alternative to be eligible for selection.

The next five are the primary balancing criteria (long-term effectiveness and permanence; reduction of toxicity, mobility, and volume through treatment; short-term effectiveness; implementability; and cost). The last two criteria are the modifying criteria (community and State acceptance) and are taken into account after public comments are received on the Proposed Plan and reviewed with the various regulatory agencies to decide whether the preferred alternatives remain the most appropriate remedial action. Figure 4 describes the nine evaluation criteria. The relative performance of each alternative is compared in Table 3.

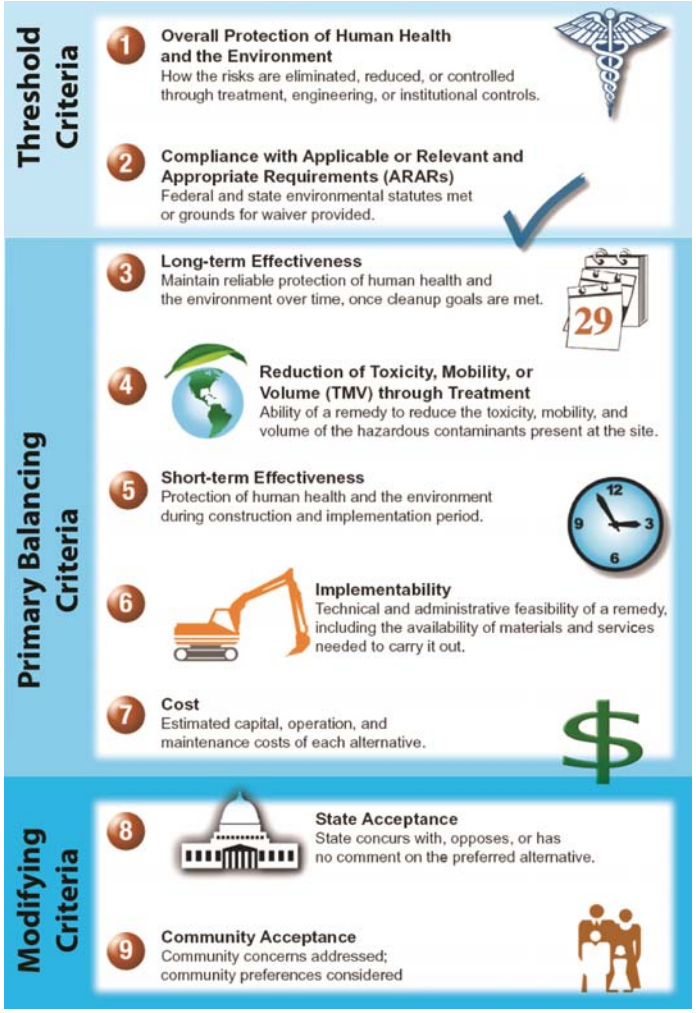

Figure 4. EPA Comparison Criteria for Alternatives

1. Overall Protection of Human Health and the Environment

Alternative 1 (No Action) is rated as protective for the first threshold criterion because arsenic in surface soil at the Magazine Groups 1, 2 and 4 does not pose an unacceptable risk to human health or the environment. Therefore, these magazine areas are appropriate for unrestricted site use. Alternatives 2 (LUCs), 3 (Excavation and Off-site Disposal), and 4 (Excavation, Containment, and LUCs) each meet the first threshold criterion of overall protection of human health and the environment for all Magazine Groups.

2. Compliance with Applicable or Relevant and Appropriate Requirements

ARARs are federal and state laws and regulations identified for each remedial alternative. The criterion of compliance with ARARs does not apply to Alternative 1 because no action would be taken. Alternatives 2 (LUCs), 3 (Excavation and Off-site Disposal), and 4 (Excavation, Containment, and LUCs) meet the second threshold criterion of compliance with ARARs. The ARARs are presented in Appendix A (Page 13), after the Glossary.

3. Long-Term Effectiveness and Permanence

Alternative 3 (Excavation and Off-site Disposal) is the most effective and permanent alternative in the long term because surface soil at the site with concentrations above the arsenic remedial goal would be excavated and removed. Alternatives 2 (LUCs) and 4 (Excavation, Containment, and LUCs) would not be as effective as Alternative 3 because these would rely on LUCs. The LUCs for Alternative 2 would restrict future residential use within areas that exceed the remedial goal. LUCs for Alternative 4 would only prohibit use of the smaller CAMU area. However, the CAMU in Alternative 4 must be monitored and maintained to sustain the protectiveness of the remedial alternative. Alternative 3 is the most effective and permanent alternative in the long term, followed in order by Alternatives 4, 2, and 1.

4. Reduction of Toxicity, Mobility, and Volume

None of the alternatives includes treatment of arsenic in surface soil to reduce the toxicity, mobility, or volume of contaminated soil. As a result, none of the remedial alternatives satisfies the statutory preference for treatment, and all alternatives rate the same.

5. Short-Term Effectiveness

Alternative 1 would not create any new risks to the community or the environment because no action would be taken and is thus highly effective in the short term. Alternative 2 (LUCs) would also be highly effective in the short term by restricting use of the land and thereby removing the exposure pathway. Alternatives 3 (Excavation and Off-site Disposal) and 4 (Excavation, Containment, and LUCs) include excavation of soil, which may expose the community, remedial workers, or the environment to contaminated soils. Alternative 4 is more effective in the short term than Alternative 3 because the public would not be potentially exposed to contaminated soils during transportation of the soil from Site 22A to a landfill. Alternatives 1 and 2 are the most effective in the short term, followed in order by Alternatives 4 and 3.

6. Implementability

Alternative 1 would be easy to implement because it requires no action. Alternative 2 (LUCs) would also be easy to implement because it consists of legal and administrative actions only. Alternatives 3 (Excavation and Off-site Disposal) and 4 (Excavation, Containment, and LUCs) include activities that are relatively common (such as

Table 3: COMPARATIVE ANALYSIS OF ALTERNATIVES

Remedial Alternative	Overall Protection of Human Health and Environment*	Compliance with ARARs*	Long-Term Effectiveness/ Permanence	Reduction of Toxicity, Mobility, or Volume through Treatment	Short-Term Effectiveness	Implement -ability	Cost	Relative Ranking
1: No Action	Protective	NA	◐	○	●	●	●	◑
2: Land Use Controls	Protective	Meets ARARs	◐	○	●	●	◑	◑
3: Excavation and Off-Site Disposal	Protective	Meets ARARs	●	○	◐	◑	◑	◑
4: Excavation, Containment and Land Use Controls	Protective	Meets ARARs	◑	○	◐	◑	◐	◑

Notes:

○ = Poor ◐ = Marginal ◑ = Good ◑ =Very Good ● = Excellent

* Overall protection of human health and the environment and compliance with ARARs are threshold criteria, and alternatives are judged as either meeting or not meeting the criteria

ARAR Applicable or relevant and appropriate requirement

NA Not applicable; ARARs are only applicable when a remedial action is taken

excavation, transportation, off-site disposal, and containment of soil), and vendors and equipment to perform these activities are readily available. Protection measures would be required for federally- or state- listed threatened amphibian species, if present, increasing the difficulty of implementation. Alternatives 1 and 2 are the easiest to implement, followed by Alternatives 3 and 4.

7. Cost

No costs would be associated with Alternative 1 (No Action) because it requires no action. Alternative 2 (LUCs) would be the least expensive alternative, followed by Alternative 3 (Excavation and Off-site Disposal) and Alternative 4 (Excavation, Containment and LUCs), in that order.

The Preferred Alternatives

The preferred alternatives are protective of human health and the environment and eliminate, reduce, or control exposure to all receptors, including potential future residents. The Navy's preferred remedial alternatives for Site 22A are summarized below.

Magazine Groups 1, 2 and 4

The Navy proposes Alternative 1 (No Action) as the preferred alternative for Magazine Groups 1, 2, and 4 at Site 22A. Arsenic in surface soil in these areas

Table 4. PREFERRED ALTERNATIVES FOR EACH MAGAZINE GROUP

Magazine Area	Preferred Alternative	Reason for Selecting Alternative
Group 1	No Action	Arsenic concentrations are below the background concentration level.
Group 2	No Action	The arsenic EPC is below the RG of 22 mg/kg. There is no unacceptable risk to human health or the environment.
Group 3	LUCs	The arsenic EPC is above the RG of 22 mg/kg. LUCs will restrict residential use of the property.
Group 4	No Action	The arsenic EPC is below the RG of 22 mg/kg. There is no unacceptable risk to human health or the environment.
Group 5	LUCs	The arsenic EPC is above the RG of 22 mg/kg. LUCs will restrict residential use of the property.

Notes:

Potential human health risk is the reason for selecting LUCs for Groups 3 and 5. There is no unacceptable risk to the environment.

EPC Exposure point concentration; the concentration of arsenic in surface soil to which a person, animal or plant is assumed to be exposed

LUCs Land use controls

mg/kg Milligrams per kilogram

RG Remedial goal

does not pose an unacceptable risk to human health or the environment. Additionally, arsenic in surface soil at Site 22A is limited in extent and is relatively immobile. Therefore, no action is necessary to ensure protection of human health and the environment. No action is proposed for Site 22A Magazine Groups 1, 2, and 4 for the reasons summarized below.

Alternative 1 is:

- Protective of human health and the environment because (1) arsenic concentrations are below the background concentration level at Group 1; (2) cancer risks from arsenic at Groups 2 and 4 Magazine Areas are within the federal risk management range, and the HIs do not exceed 1; and (3) exposure to arsenic in soil would not cause adverse effects on plants or animals at Site 22A.
- The most effective in the short term and would have the least impact on the community, remedial workers, and the environment because surface soil would not be disturbed.
- Easy to implement because it would not require implementation of LUCs or construction and operation of a remedial system.
- The most cost-effective because no cost is associated with it.

Magazine Groups 3 and 5

The Navy proposes Alternative 2 (LUCs) as the preferred alternative for Magazine Groups 3 and 5 at Site 22A. Implementation of LUCs would prohibit residential reuse and playground construction to limit human exposure to arsenic-contaminated surface soil at Groups 3 and 5 Magazine Areas, where the exposure point concentration is above the remedial goal for these activities. Open space parkland and other recreational reuse activities would not be prohibited. Additionally, monitoring and inspections would be conducted to ensure that the LUCs are being maintained. Implementation of this remedial alternative would not preclude further response actions by future landowners or developers. LUCs may be modified, resulting in a less-restricted use, or terminated, which would allow for unrestricted reuse. Any modification or termination of the LUCs will require the approval of the Navy and the regulatory agencies. The process for modification and termination of the LUCs will be specified in the Land Use Control Remedial Design, which the Navy will prepare after the ROD becomes final. LUCs are proposed for Site 22A Magazine Groups 3 and 5 for the reasons summarized as follows.

Alternative 2 is:

- Protective of human health and the environment because (1) LUCs would restrict use of the property and limit exposure to arsenic-contaminated surface soil under a future potential residential scenario, and (2) exposure to arsenic in soil would not cause adverse effects on plants or animals at Site 22A.
- Effective in the short term and would have little impact on the community, remedial workers, and the environment because surface soil would not be disturbed.
- Easy to implement because only legal and administrative controls would be necessary.
- The most cost-effective way to reduce exposure to arsenic under a residential scenario.
- Consistent with the City of Concord's Reuse Project Area Plan for Magazine Groups 3 and 5; residential reuse is not planned.

Multi-Agency Environmental Team Supports the Navy's Preferred Alternatives

The Remedial Project Managers (RPM) include the Navy, EPA, DTSC, and the Water Board. The primary goals of the RPMs are to protect human health and the environment, coordinate environmental investigations, and expedite environmental restoration of former NAVWPNSTA Concord**.** The RPMs have reviewed all major documents and investigations associated with Site 22A, including the RI and FS reports. Based on these reviews and discussions of key documents, the regulatory agencies support the Navy's preferred remedial alternatives.

Community Participation

The Navy, EPA, DTSC, and the Water Board provide information about Site 22A to the public through public meetings, the administrative record file, and notices published in local newspapers. An information repository has been established to provide public access to technical reports and other Installation Restoration Program information that supports the Navy's selection of the preferred alternatives. The administrative record contains the reports and historical documents used to select remedial alternatives. Restoration Advisory Board meetings are also held quarterly and are open to the public. All Site 22A documents, meeting minutes, newsletters, public meeting announcements, and other items are also available for review on the Navy's website.

INFORMATION REPOSITORY

An information repository and the administrative record provide public access to technical reports and other Installation Restoration Program information that support this Proposed Plan.

Concord Public Library

2900 Salvio Street
Concord, California 94519
Phone: (925) 646-5455

WEBSITE

For more information on the closure and transfer of former NAVWPNSTA Concord, please visit the website at:
http://www.bracpmo.navy.mil

Administrative Record File

Contact: Ms. Diane Silva
Administrative Records Coordinator
Naval Facilities Engineering Command, Southwest
1220 Pacific Highway
Code EV33, NBSD Bldg. 3519
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Telephone: (619) 532-3676

Please call in advance for an appointment
Monday through Friday
between 8:30 a.m. and 4:30 p.m.

HOW YOU CAN COMMENT ON THE NAVY'S PROPOSED PLAN

The Navy will accept comments on this Proposed Plan during a **45-day public comment period** from November 5 through December 20, 2012. You may use the comment form included with this Proposed Plan to send written comments.

Submit Comments

There are two ways to provide comments during this period:

- Provide written comments by mail, e-mail, or fax (no later than December 20, 2012) to Scott Anderson, BRAC Environmental Coordinator. Letters must be postmarked by December 20, 2012.

  Scott Anderson
  BRAC Program Management Office West
  1455 Frazee Road, Suite 900
  San Diego, CA 92108-4310
  Phone: (619) 532-0938
  Fax: (619) 532-0940
  E-mail: scott.d.anderson@navy.mil

Provide comments verbally or in writing during the public meeting on December 5, 2012.

This Proposed Plan is the Navy's invitation to the community to comment on the preferred alternatives for Site 22A. Community acceptance will be evaluated after the conclusion of the public comment period and will be documented in the Responsiveness Summary section of the ROD. A final decision on the remedy for Site 22A will be made after comments submitted during the public comment period have been considered.

Project Contacts

Navy Contact

Mr. Scott Anderson
BRAC Environmental Coordinator
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310
(619) 532-0938
scott.d.anderson@navy.mil

Water Board Contact

Ms. Tina Low
1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-5682
tlow@waterboards.ca.gov

DTSC Contact

Mr. Jim Pinasco
8800 Cal Center Drive,
Sacramento, CA 95826-3200
(916) 255-3719
jpinasco@dtsc.ca.gov

EPA Contact

Ms. Yvonne Fong
75 Hawthorne St. SFD 8-3
San Francisco, CA 94105-3901
(415) 947-4117
fong.yvonnew@epa.gov

Glossary of Technical Terms

Administrative record file: Reports and historical documents used to select remediation strategy or environmental management alternatives.

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

Background concentration (commonly referred to as "ambient concentrations"): Chemical concentrations that occur naturally in the environment or that occur from human activities related to nonspecific sources.

Base Realignment and Closure (BRAC): A program established by Congress under which Department of Defense installations undergo closure, environmental remediation, and property transfer to other federal agencies or communities for reuse.

Chemicals of concern (COC): Chemicals identified as potentially posing a threat to human health and the environment.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Commonly referred to as "Superfund," this law was enacted to address contamination resulting from past practices of handling and disposing of hazardous materials, which often resulted in the release of pollutants to the environment.

Corrective action management unit (CAMU): An area within a facility used only for managing wastes for implementing remediation at the facility. A CAMU must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated.

Department of Toxic Substances Control (DTSC): Part of the California Environmental Protection Agency, and California's lead environmental regulatory agency with a mission to protect public health and the environment from toxic substances.

Exposure point concentration (EPC): An estimate of the average concentration of a chemical in soil, used to represent that chemical throughout the area being studied.

Feasibility Study (FS): An engineering evaluation to identify, screen, and compare remedial alternatives for a site.

Hazard index (HI): Used for human health risk assessments, the HI is a summation of the risks of potential exposure to each chemical at the site representing the potential noncancer health risk. An HI value of 1 or less is considered an acceptable exposure level.

Human health risk assessment (HHRA): Estimate of potential harmful effects humans may experience as a result of exposure to chemicals.

Installation Restoration (IR): 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.

Land use controls (LUC): Legal and administrative mechanisms to implement land use and access restrictions limiting the exposure of hypothetical landowners or users of the property to contamination in the environment. LUCs can also be used to maintain the integrity of a response action.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The regulatory basis for government responses to oil and hazardous substances spills, releases, and sites where these materials have been released.

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

Proposed Plan: A document that reviews the remedial alternatives presented in the FS, summarizes the recommended remedial alternatives, explains the reasons for recommending the actions, and requests comments from the community.

Record of Decision (ROD): A decision document identifying the remedial alternative chosen for implementation at a CERCLA site; the ROD is based on information from the RI report and FS, and on public comments and community concerns. The ROD for Site 22A will be signed by the Navy, EPA, DTSC, and Water Board.

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.

Remedial goal: 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 standards.

Remedial Investigation (RI): The first of two major studies that must be completed before a decision can be made about how to clean up a site. (The FS is the second study.) The RI is designed to evaluate the nature and extent of contamination and to estimate human health and ecological risks posed by chemicals of potential concern at a site.

Responsiveness Summary: A summary provided in the ROD of oral and written comments on the Proposed Plan received during the comment period, and responses to those comments.

Risk management range: The range of cancer risks (from 1 in 10,000 to 1 in 1,000,000 people) that is generally used by EPA to evaluate whether potential risks to human health are acceptable. Cancer risks within or exceeding this range may require further assessment to determine whether remedial action is warranted. Cancer risks below the risk management range generally do not require further action.

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

Screening-level ecological risk assessment (SLERA): An analysis of the potential ecological effects caused by exposure to hazardous substances at a site using conservative exposure assumptions and maximum detected chemical concentrations.

Superfund Amendments and Reauthorization Act (SARA): SARA amended CERCLA on October 17, 1986, making several important changes and additions to the program, including new enforcement authorities and settlement tools.

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

APPENDIX A: APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

CERCLA requires that remedial actions meet federal or state (if more stringent) environmental standards, requirements, criteria, or limitations that are determined to be ARARs.

The following summarizes the federal and state chemical-, location-, and action-specific ARARs for the preferred alternative of LUCs (Alternative 2) at Magazine Groups 3 and 5 described in this Proposed Plan. ARARs do not apply to the No Action alternative (Alternative 1) preferred for Magazine Group 1, 2 and 4 because no action would be taken. Please refer to Appendix C of the Site 22A FS for more specific information on potential ARARs.

POTENTIAL CHEMICAL-SPECIFIC ARARS

The only chemical-specific ARARs for Site 22A identified in the FS were associated with characterizing soil during excavation. There are no chemical-specific ARARs because the proposed alternative for Magazine Groups 3 and 5 consists of LUCs and does not include excavation.

POTENTIAL LOCATION-SPECIFIC ARARS

Location-specific ARARs are restrictions on the concentrations of hazardous substances or site activities as a result of the characteristics of the site or its immediate environment.

FEDERAL

The substantive provisions of the following requirements are potential federal location-specific ARARs:

- Migratory Bird Treaty Act of 1972 (16 U.S.C. § 703), protecting species of native migratory birds in the United States from unregulated "take"
- Endangered Species Act of 1973 (16 U.S.C. § 1536(a), (h)(1)(B)), providing that federal agencies may not jeopardize the continued existence of any listed species or cause the destruction or adverse modification of critical habitat
- Executive Order No. 11990, requiring the avoidance, to the extent possible, of the adverse impacts associated with the destruction or loss of wetlands and avoiding support of new construction in wetlands if practicable alternatives exist
- Executive Order 11988, requiring the evaluation of potential effects of actions in a floodplain to avoid, to the extent possible, adverse effects associated with direct and indirect development of a floodplain

STATE

The substantive provisions of the following requirements are potential state location-specific ARARs:

- California Fish & Game Code § 3511, prohibiting take of fully protected birds
- California Fish & Game Code § 2080, protection of endangered and threatened species

POTENTIAL ACTION-SPECIFIC ARARS

The following requirements are potential ARARs for LUCs:

FEDERAL

There are no federal action-specific ARARs for LUCs.

STATE

- Requirements for LUCs at California Civil Code § 1471; Cal. Code Regs. tit. 22 § 67391.1; California Health and Safety Code § 25202.5 and 25355.5(a)(1)(C)

NOTES

NOTES

Attn: **Scott Anderson**
Navy BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

Proposed Plan for Installation Restoration Site 22A Former Naval Weapons Station Seal Beach Detachment, Concord, California

Public Comment Period: November 5, 2012 through December 20, 2012
Public Meeting: December 5, 2012

INLAND AREA, FORMER NAVAL WEAPONS STATION
SEAL BEACH DETACHMENT, CONCORD,
Installation Restoration Site 22A, Magazine Groups 1 through 5
PUBLIC MEETING
December 5, 2012 6:00 – 8:00 p.m.
Clyde Community Center
109 Wellington Avenue, Clyde, CA 94520

Proposed Plan Comment Form

The public comment period for the Proposed Plan for Installation Restoration Site 22A, Inland Area, Former Naval Weapons Station Seal Beach Detachment Concord, is from **November 5 through December 20, 2012**. You may provide oral comments at the public meeting listed above, 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 **December 20, 2012**. After you complete 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 scott.d.anderson@navy.mil. Comments are also being accepted by fax: (619) 532-0940.

Name: _____

Representing: (optional) _____

Phone Number: (optional) _____

Address: (optional) _____

Please check the appropriate box if you would like to be added to or removed from the Navy's Environmental Mailing List for Concord: ☐ Add me ☐ Remove me

Comments:

Affix
Postage

Mr. Scott Anderson
Navy BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-43101

Fold here and Seal