



Naval Air Station Pen Installation Restoration Pro

This is one in a series of fact sheets informing interested citizens about the environmental investigations and remedial actions at NAS Pensacola. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at NAS Pensacola, (904) 452-2311.

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FACT SHEET 12: U.S. Navy Proposed Plan Site 1 (Operable Unit 1), Naval Air Station, Pensacola

NAS PENSACOLA

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This Fact Sheet will provide:

- ★ The results of the Remedial Investigation at Site 1 (page 3)
- ★ A summary of treatment alternatives developed, including the Navy's preferred alternative (page 6)
- ★ Information on how the public can participate in the decision (page 1)

INTRODUCTION

The U.S. Navy is issuing this Proposed **Plan** for Site 1 (Operable Unit 1), the inactive sanitary landfill, to provide an opportunity for public comment on cleanup alternatives. The Navy, in consultation with the U.S. Environmental Protection Agency (USEPA) and the Florida Department of Environmental Protection (FDEP), will **not** select a final alternative until public comment is considered.

This Proposed Plan is issued under the public involvement portion of the Navy's Installation Restoration Program, and encourages community involvement in selecting the alternative. This plan provides background information on Site 1 and describes the alternatives evaluated. It also outlines the public's role in helping the Navy make a **final** decision.

This plan summarizes information in the **Remedial Investigation (RI) Report**, the **Focused Feasibility Study (FFS)**, the **FFS addendum**, and other documents. These documents can be found in the Administrative Record and **Information Repositories**, at the following public locations:

NAS Pensacola Library
Building 633
M-F: 8 a.m. to 6 p.m.
Sat: 9:30 a.m. to 5 p.m.

John C. Pace Library
University of West Florida
M-Th: 8 a.m. to 10 p.m.
Fri: 8 a.m. to 5 p.m.
Sat: 9 a.m. to 5 p.m.
Sun: 10 a.m. to 9 p.m.

COMMUNITY PARTICIPATION

The U.S. Navy relies on public comments to ensure that the selected **alternative** is fully understood and that community concerns have been considered. The Navy will be accepting written comments from **December 8, 1997, to January 22, 1998**. Public participation in the selection process is encouraged. The **comment period** includes the opportunity for a public meeting at which the Navy would present the RI report, **FFS report and addendum**, and Proposed Plan, answer questions, and receive comments from the public. A meeting will be held if there is a request from members of the public before the end of the comment period. Comments will be summarized and responses provided as part of the **Record of Decision** for Site 1. The public can **send** written comments to the following **person**, from whom **they** may also request a public meeting or additional information:

Commanding Officer
NAS Pensacola, Code 00500
Attn: Ron Joyner
190 Radford Blvd
Pensacola, Florida 32508-5217

Words that appear in bold are defined in the glossary, which begins on Page 9.

SITE BACKGROUND

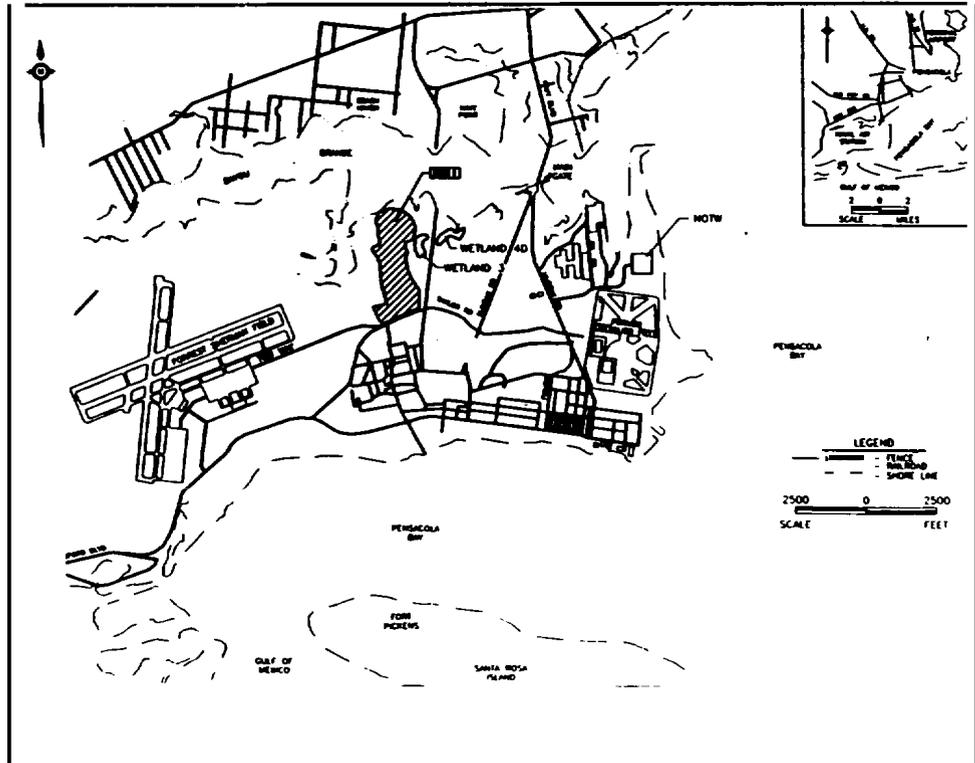
NAS Pensacola was placed on USEPA's National Priorities List (NPL) in December 1989. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) governs cleanup for sites on the NPL. In addition, an environmental permit was issued in 1988 under the Resource Conservation and Recovery Act (RCRA). This permit ensures that ongoing activities are environmentally sound and that spills or leaks of hazardous waste and/or their constituents are investigated and cleaned up. The Federal Facilities Agreement, signed in October 1990, outlines NAS Pensacola's regulatory path through these federal laws. Operable Unit 1, which consists of Site 1, is one of 13 operable units within NAS Pensacola. The purpose of each operable unit is defined in the FY 2007 Site Management Plan for NAS Pensacola, which is in the Administrative Record.

Site 1: Inactive Sanitary Landfill

The landfill was used from the early 1950s until 1976 for disposal of solid and industrial waste generated at NAS Pensacola as well as outlying Navy installations. The site received various wastes, such as polychlorinated biphenyls (PCBs), solvents, pesticides, oils, plating solutions, mercury, asbestos, paint chips and sludge, medical waste, pressurized cylinders, and household garbage. In addition, a tar pit was found on the western edge of the landfill.

The site covers approximately 85 acres and is bordered by Bayou Grande to the north, A.C. Read Golf Course to the east, and vegetation to the west and south. Taylor Road is approximately 200 feet south of the site, beyond the vegetation. The landfill officially closed on October 1, 1976.

The southernmost portion of the site, used during the 1950s, is the landfill's oldest-known section. In the early 1960s, disposal activities moved approximately 3,000 feet to the northernmost portion of the site. Additionally, an area along the northwest



Site Map

border of the site was reportedly filled with construction rubble during the 1950s and 1960s. From the late 1960s until the closure of the landfill, waste was disposed in its central portion. During the earlier years of disposal, waste commonly was burned before burial. However, this practice ended in the late 1960s because of concerns over air pollution.

SCOPE AND ROLE OF ACTION

This Proposed Plan addresses long-term cleanup of soil and groundwater. The purpose of this Proposed Plan is to set forth the alternatives from which the Navy, with regulatory approval, will select a remedy to prevent future exposure to contamination at the site from contact with soil and groundwater.

REMEDIAL INVESTIGATION SUMMARY

The January 1996 Site 1 RI Report concluded the area has been impacted by past activities. The landfill contains detectable levels from all contaminant groups analyzed. These groups are:

- ◆ **Inorganic compounds** — Typically elemental metals (such as aluminum, manganese, and mercury), but also compounds such as cyanide. Inorganics are naturally occurring compounds that can be toxic in large doses.
- ◆ **Volatile organic compounds** — Commonly used in solvents and industrial operations like electroplating and paint stripping.
- ◆ **Semivolatile organic compounds** — Common components of asphalt, coal tar, jet and diesel fuels.
- 4 **Pesticides** — Used to kill insects and other pests.
- ◆ **Polychlorinated biphenyls** — No longer produced, PCBs were used in electrical equipment and hydraulic fluids.

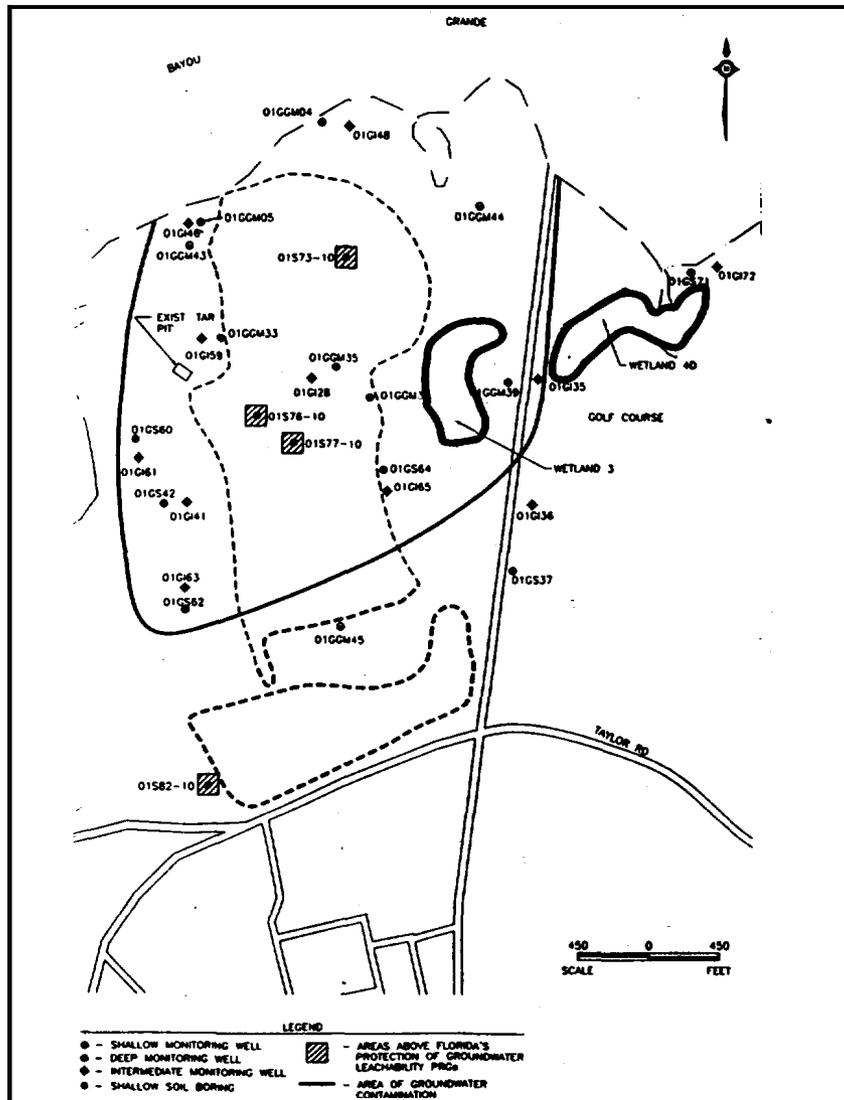
RI Findings

Soil

Soil quality outside the landfill boundary appears to be similar to reference soil conditions for inorganic compounds. Reference conditions are the “natural” levels for inorganic compounds at sites known to be free of related contamination. However, soil within the boundary had detected inorganic and organic compounds. During the RI, subsurface soil from beneath the waste was tested and found to be higher than Florida’s leachability levels to protect groundwater.

Groundwater

The nature and extent of constituents in the groundwater affected by the landfill have been evaluated. Inorganic and organic constituents are present in the surficial zone (as deep as 78.5 feet) beneath the site. Based on 1994 analytical results, the impact from inorganics to surficial groundwater quality appears to be in the center of the site and along the landfill’s eastern, western, and northwestern boundaries. Inorganics exceeding standards were found in areas within and around the landfill perimeter. Of these inorganics, aluminum, iron, and manganese are naturally elevated in these areas.



Extent of Contamination

Organics have consistently been detected near Maximum Contaminant Levels/Florida Groundwater Guidance Concentrations in shallow groundwater within and around the landfill's perimeter. Organics were detected generally in the center of the site and along the eastern and western boundaries, similar to the distribution of elevated inorganics. Organics also extend from the landfill to areas along Bayou Grande's coastline, adjacent wetlands, and beneath the golf course. Except for a single pesticide detection, no inorganic or organic exceedances were detected in samples from the farthest downgradient monitoring well. located across the golf course opposite the landfill.

Based on deep-well sample results, groundwater quality within the main producing zone beneath the site has not been affected by site activities. Groundwater is not a current source of drinking water for NAS Pensacola because potable water is supplied from Corry Station, approximately four miles away. Cleanup goals for groundwater are included in Table 1.

Wetlands and Bayou Grande

Surface water samples were collected from nearby wetlands and Bayou Grande to assess the impact of Site 1 contaminants in groundwater on the wetlands. Florida's surface Water Quality Standard for iron (1,000 parts per billion) was exceeded in every sample collected at Wetland 3. Other metals, lead and aluminum, also exceeded their standards in a limited number of surface water samples. Risk to plants and animals in the wetlands will be further investigated under the Site 41 RI which includes all the wetlands on base.

**Table 1
Cleanup Goals for Groundwater (ppb)**

Contaminant	Frequency of Detection	Detected Concentration		Background	Cleanup Goal
		Mean	Maximum		
Inorganics					
Aluminum	14/25	603	4,780	3,882.76	3,882.76 ^a
Cadmium	1/25	30.5	30.5	3.4	5 ^a
Chromium	1/25	616	616	34.98	100 ^a
Iron	25/25	20,742	73,200	1,707.8	1,707.8
Lead	1/25	5.3	5.3	1.6	15 ^a
Manganese	W 2 5	235.6	600	21.5	50 ^b
Nickel	1/25	253	253	39.9	100 ^a
Organics					
Benzene (VOC)	14/25	14.3	80	NA	1 ^a
Bromoform (SVOC)	21/25	3	4	NA	4 ^c
Chlorobenzene (VOC)	17/25	35	120	NA	100 ^b
Napthalene (SVOC)	9/25	0.5	38	NA	4 ^c
1,1,2,2-Tetrachloroethane (VOC)	2/25	4	6	NA	0.2 ^c
Vinyl Chloride (VOC)	6/25	5.2	12	NA	1 ^c
Xylene (VOC)	7/25	32.7	110	NA	20 ^b

Notes:

- For the inorganics with background concentrations exceeding the standards, the background concentrations is the cleanup goal.
- a - Florida Primary Drinking Water Standard or Maximum Contaminant Level, whichever is lower.
- b - Florida Secondary Drinking Water Standard or Secondary Maximum Contaminant Level, whichever is lower.
- c - Florida Groundwater Guidance Concentration.
- N/A = Not applicable
- ppb = parts per billion

SITE RISK

Federal regulations require that a **Baseline Risk Assessment (BRA)** be conducted to determine if an **NPL** site posts an unacceptable threat, present or future, to human health or the environment. This study provides a basis for determining whether cleanup is needed and what the cleanup levels should be.

In the BRA for Site 1, the human health risk associated with exposure to contaminants in soil and groundwater was assessed for possible future site residents (under residential land use), and for possible exposure to future site workers and current/future trespassing children (under industrial land use). The full study is in the final RI Report.

Incremental lifetime cancer risk (ILCR) refers to the cancer risk over and above the background cancer risk in unexposed individuals. ILCRs are determined by multiplying the intake level with the cancer potency factor. Future child and adult resident exposure to potential carcinogens is combined for a lifetime weighted average (LWA) to calculate ILCR. The calculated risk probability is typically expressed in scientific notation (e.g., 1E-6). For example, an ILCR of 1E-4 means that one additional person out of ten thousand may be at risk of developing cancer due to excessive exposure at a site if no actions are conducted. The USEPA acceptable target risk range is 1E-4 to 1E-6. Florida's acceptable risk is 1E-6. Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the hazard index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. The HI refers to noncarcinogenic effects and is the ratio for the level of exposure to an acceptable level for a contaminant of potential concern. An HI greater than or equal to 1.0 indicated that there may be a concern for noncarcinogenic health effects. Table 2 summarizes the total ILCRs and HIs calculated for Site 1. Neither the current/future site trespasser nor future site worker exceed the 1E-06 point of departure for the ILCR or 1 for the HI.

**Table 2
Total Site Incremental Lifetime Cancer Risk and Hazard Indices**

	Future Resident Adult	Future Resident Child	Current/ Future Site Trespasser	Future Site Worker
All Pathways Cumulative Total Risk/Hazard with Shallow Groundwater				
HI	3	8	0.06	0.01
ILCR	4E-04		1E-6	5E-7
All Pathways Cumulative Total Risk/Hazard with Deep Groundwater				
HI	0.5	1	0.06	0.01
ILCR*	3E-06		1E-6	5E-7

Notes:

- HI = hazard index
 - ILCR = Incremental Lifetime Cancer Risk Lifetime
 - * = For Site Residents. the ILCR is the lifetime weighted average (Combined Child and Adult Exposure)
- Bold values indicate risk levels that exceed acceptable levels.

Human Health: Soil – The BRA did not identify any COCs in soil under current or future residential or industrial use, therefore, no further action is required to protect human health.

Human Health: Groundwater – VOCs, SVOCs, and metals were identified as COCs in shallow/intermediate groundwater for future residential land use. Manganese was the only COC identified for deep groundwater for the future site resident pathway.

Human Health: Surface Water/Sediment – COCs were not identified for the Site 1 surface water and sediment exposure pathways for a child trespasser.

Ecological Risk: Soil — Contaminated soil at Site 1 poses no significant risk to plants and animals.

Ecological Risk: Groundwater Discharge to Wetlands/Surface Water/Sediment — Although risk to plants and animals in the wetlands has not yet been determined, the Florida Surface Water Quality Standard was exceeded for iron. The risk to the plants and animals in the wetlands near Site 1 will be further investigated in the Site 41 R1.

DESCRIPTION OF ALTERNATIVES

Based on the USEPA guidance document *Presumptive Remedy for CERCLA Municipal Landfill Sites*, the FFS and addendum developed and screened four alternatives:

- ① **No action.** This alternative, required as a baseline alternative by the National Contingency Plan, is to leave the site as it is, with no action or preventive measures taken. This action involves no cost.
- ② **Natural attenuation.** Natural attenuation consists of leaving the contaminated soil and groundwater in place, allowing natural processes to degrade the contaminants. Institutional controls (such as designation of the site as "industrial only" in accordance with the Memorandum of Agreement) would be implemented to limit access and prevent the use of groundwater at the site. If groundwater use were to change to drinking water use, it would be treated before use if it still posed a risk. Also, 15 additional monitoring wells would be installed, and a sampling and analysis program would be conducted throughout the actual process to confirm that degradation is proceeding at rates that meet cleanup objectives. The cost of this part of the alternative is \$3 million.

In addition, three natural attenuation options have been developed addressing Wetland 3 and the outfall for Wetland 3 into Wetland 4D.

- a) **Natural attenuation with monitoring only of the water entering and leaving Wetland 3.** Under this alternative, no active remedial steps will be taken, and the wetland is included in the monitoring plan summarized above. Natural processes would decrease contamination of the water discharging into the wetland and these processes would be monitored to ensure they were proceeding as expected. The cost for alternative 2a would be \$218,000 assuming 30 years of monitoring. Total costs for this alternative is \$3.2 million.
 - b) **Natural attenuation for the landfill and enhancement of Wetland 3 to improve its effectiveness.** With this alternative, the wetlands flow would be altered. Plants would be added to the wetland to increase iron uptake. The alterations of the wetland would require that dredge-and-fill permit requirements be met. Alternative 2b would cost \$1.27 million assuming 30 years of operation. Total costs for this alternative is \$4.27 million.
 - c) **Natural attenuation for the landfill with interception of groundwater and treatment before reaching Wetland 3.** The intercepted groundwater would be treated using an aeration and filtration system to remove contaminants to concentrations below the Florida surface water standard before discharge. Organic contaminants will be treated by natural attenuation processes. Alternative 2c would cost \$1.80 million assuming 30 years of operation. Total cost for this alternative is \$4.5 million.
- ③ **Capping includes** the design and construction of a low-permeability surface cap (allowing very little water to enter) over the entire landfill to reduce leachate generation (rainwater draining through the landfill) and infiltration into groundwater. The clearing and excavation proposed would destroy a mature pine forest which is a significant habitat for many animals. Under this alternative, the groundwater would be monitored and expected to meet remedial goals through natural processes. Institutional controls would also be used to limit site access and restrict groundwater use. Alternative 3 is estimated to cost \$13.5 million with 30 years of semiannual groundwater monitoring.
 - ④ **Groundwater extraction** with treatment for the entire landfill. In this alternative, the contaminated groundwater will be actively extracted and treated. Two subalternatives are considered, a) treatment with constructed wetlands and b) treatment with air stripping. Under this alternative, the groundwater would be monitored and expected to meet remedial goals. Institutional controls would also be used to limit site access and restrict groundwater use. The costs for Alternatives 4a and 4b are similar, \$5.2 million and \$5.6 million with 30 years of semiannual groundwater monitoring.

PUBLIC COMMENT SHEET



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Commanding Officer
NAS Pensacola, Code 00500
Attn: Ron Joyner
190 Radford Blvd
Pensacola, Florida 32508-5217

Although discussed in the FFS as part of Alternatives 2, 3, and 4, the tar pit will be the subject of a removal action prior to final remedy selection for the site. The results of the removal action will be documented in a site closeout report. These alternatives listed above were initially evaluated using the screening criteria described below. All the alternatives evaluated in the FFS are technically feasible, implementable, and have been developed and used at other sites. All alternatives except "no action" are protective of human health and the environment. Alternatives 3 and 4 share similar short-term risks. State and community acceptance will be determined in the same manner for each alternative. The key criteria that distinguish the alternatives focus on long-term effectiveness, reduction of mobility, cost, and compliance with federal and state standards.

COMPARISON OF ALTERNATIVES

Overall Protection of Human Health and the Environment

The BRA concluded the ecological risks from contaminated soil at Site 1 were not significant for plants and animals, and no human health effects are expected from groundwater discharge to wetlands near Site 1. Risk to plants and animals in the wetlands near Site 1 will be further investigated during the Site 41 RI.

Alternative 1 does not protect future child residents (an unlikely site use) from risk. Although Site 1 groundwater is not currently being used as a potable water source or for any industrial uses, Alternative 1 does not protect future users of the groundwater. Alternative 2 protects future residents through institutional controls by limiting groundwater use and site access. Assuming iron is causing an environmental impact to Wetland 3, Alternative 2c would be more protective than Alternatives 2a or 2b by eliminating the groundwater discharge to Wetland 3. Ecological risks are, as stated above, minimal for the soil. Groundwater monitoring is required in this alternative.

Alternative 4 protects future residents through treatment of groundwater. Alternatives 3 and 4 afford long-term protection of the environment by reducing the amount of rainfall infiltrating through contaminated soil or by treating the contaminated groundwater. The clearing and excavation proposed in Alternative 3 would destroy a mature pine forest which is a significant habitat for many animals.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs, or "standards")

ARARs, or standards, that apply are specific to the chemicals involved, the action being taken, and the site's physical location.

Alternative 1 does not comply with standards. Alternative 3 will meet all standards by monitoring and natural attenuation. Alternatives 2a and 2b will not comply with surface water standards. Alternative 2b will also require compliance with dredge and fill permit requirements. Alternative 2c will meet all standards. Alternative 4 will meet standards through active groundwater remediation and monitoring. Alternative 4b will require compliance with air permit requirements.

Cost

Alternative 1 has no cost, as no action would be taken. Alternatives 2a, 2b, and 2c are estimated to cost \$3.2 million, \$4.27 million, and \$4.50 million, respectively. Alternative 3 is estimated at \$13.5 million. Alternatives 4a and 4b are estimated at \$5.2 million and \$5.6 million, respectively.

Implementability

All four alternatives are implementable at Site 1. Each alternative is technically and administratively feasible. Constructed wetlands (Alternative 4a) would require a large area of land to be set aside and requires substantial testing and planning. Alternative 4b, air stripping, would require compliance with air permitting requirements before implementation. Air stripping is a process which removes contaminants from soil or water with forced air. Before being released into the atmosphere, the air may require treatment itself.

Short-Term Effectiveness

No short-term effectiveness issues are associated with Alternative 1. Under Alternatives 2, 3, and 4, exposures to workers in the Site 1 area can be managed through engineering controls and use of correct personal protective equipment during grading and/or well installation. Field activity for these alternatives would be relatively short. Alternatives 2a and 2b effectiveness would be achieved over a longer period of time, but would achieve a comparable reduction in toxicity. Alternative 2c would be effective through interception and treatment of groundwater at the

wetland. Alternative 3 would be effective but over a longer period of time. Alternative 4 would most quickly remediate groundwater through extraction and treatment.

Criteria for Evaluating Remedial Alternatives

In selecting a preferred cleanup alternative, the Navy uses the following criteria to evaluate each alternative developed in the FFS.

The first two criteria are essential and must be met before an alternative is considered further.

The next five criteria are used to further evaluate all options that meet the first two criteria.

The final two criteria are used to further evaluate the Navy's Proposed Plan after the public comment period has ended and comments from the community, USEPA and FDEP have been received.

•**Overall Protection of Human Health and the Environment** – Assesses the degree to which an alternative eliminates, reduces, or controls health and environmental threats through treatment, engineering methods, or institutional controls.

•**Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)** – Assesses compliance with federal and/or state requirements.

•**Cost** – Weighing the benefits of a remedy against the cost of implementation.

•**Implementability** – Refers to the technical feasibility and administrative ease of a remedy.

•**Short-Term Effectiveness** – Length of time for remedy to achieve protection and potential impacts of construction and implementation of the remedy.

•**Long-Term Effectiveness and Performance** – Degree to which a remedy can maintain protection of health and the environment once cleanup goals have been met.

•**Reduction of Toxicity, Mobility, or Volume Through Treatment** – Refers to expected performance of the treatment technologies to lessen the harmful nature, movement, or amount of contaminants.

•**State Acceptance** – Consideration of the state's opinion of the preferred alternatives.

•**Community Acceptance** – Consideration of public comments on the Proposed Plan.

Long-Term Effectiveness and Permanence

Alternative 1 has no long-term effectiveness, as no remedial actions are taken onsite. Alternative 2 would provide long-term effectiveness and permanence. Institutional controls, which are part of Alternatives 2, 3, and 4 are adequate for protection of human health, because the site would have limited access and groundwater use would be restricted. Alternative 2c would improve the surface water quality in the wetland through treatment.

Alternative 3 would require long-term cover maintenance and monitoring for at least five years after performance standards were met to ensure continued effectiveness. Alternative 4 removes risk from groundwater with a well system designed for long-term operation. The wells contain contaminated groundwater for treatment. Five-year reviews would be needed to verify that the cleanup remained protective for all alternatives except Alternative 1.

Reduction of Toxicity, Mobility, or Volume Through Treatment

Alternative 1 does not reduce toxicity, mobility, or volume of contaminants, as no treatment would take place. Under Alternatives 2a and 2b, reduction of toxicity, mobility, and volume can only be estimated but would occur over time. Alternative 2c addresses the toxicity, mobility, and volume by removing the iron. Alternative 3 reduces the mobility of soil contaminants by containing them. Alternative 4 reduces toxicity, mobility, and volume of groundwater contaminants through treatment.

State Acceptance

The Navy will obtain concurrence from the State of Florida and USEPA on the selected alternative.

Community Acceptance

The community's acceptance will be assessed following the public comment period.

PREFERRED ALTERNATIVE

Based on the comparison of the alternatives in the **FFS**, the Navy has identified Alternative **2c**, **Natural** attenuation for the landfill with interception of groundwater and treatment before reaching Wetland 3, **as** its preferred course of action for remediating groundwater at Site **1** (OU 1). Alternative **2c** will reduce risk from groundwater by limiting site access **and** groundwater use **and** will reduce the toxicity of the water being discharged to Wetland 3 by removing the iron. This alternative will be protective, cost-effective, **and** will attain all federal **and** state requirements. Because this remedy results in hazardous substances remaining **onsite** above health-based levels, a review will **be** conducted within five years of the start of the remedial action to ensure that the remedy continues to protect human health and the environment. However, the Navy, in consultation with the USEPA and the FDEP, will not select a final alternative until public comment has been considered.

GLOSSARY

This glossary defines terms used in this proposed plan. The **definitions** apply specifically to this proposed plan and may have other meanings when used in different circumstances.

Baseline Risk Assessment: A study conducted as a supplement to a remedial investigation to determine the nature **and extent** of contamination at an NPL site and the risks posed to public health and/or the environment.

Cleanup: Actions taken **to** deal with a release or threatened release of hazardous substances that could affect public health and/or the environment. The **noun** "cleanup" is often used broadly to describe various actions or phases such **as** Remedial Investigation/Feasibility Study.

Comment period: A time for **the** public to review and comment on various documents and actions taken, either by the Department of Defense installation or the USEPA. For example, a comment period is provided when USEPA proposes **to** add sites **to the** National Priorities List. A minimum **45-day** comment period is held to allow community members time to review the Administrative Record **and** review and comment on the Proposed Plan.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The act created a special tax that **goes** into a trust fund, commonly known as "Superfund," to investigate and clean up abandoned or uncontrolled hazardous waste sites.

Under the program the USEPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot **be** located or are unwilling or unable to perform the work.
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the **cost** of the cleanup.

Feasibility Study: See Remedial Investigation/Feasibility Study.

Groundwater: Water beneath the earth's surface that fills pores between materials such **as sand**, soil or gravel. In aquifers, groundwater occurs in sufficient quantities for drinking water, irrigation, and other **uses**.

Information Repository: A file containing information, technical reports, and reference documents regarding an NPL site. Information repositories for NAS Pensacola are at the John **C.** Pace Library at the University of West Florida; and the NAS Pensacola Library in Building 633, Naval Air Station, Pensacola, Florida.

Leach/leaching: The ability of a chemical, pesticide, or other contaminant to wash out of the soil.

National Contingency Plan (NCP): The federal regulation that guides the **NPL** program.

National Priorities List (NPL): The USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the trust fund.

Proposed Plan: A public participation requirement of SARA in which the lead agency summarizes for the public the preferred cleanup strategy, and the rationale for the preference, reviews the alternatives presented in the detailed analysis of the remedial investigation/feasibility study, and presents any waivers to clean up standards of Section 121(d)(4) that may be proposed. This may be prepared either as a fact sheet or as a separate document. In either case, it must actively solicit public review and comment on all alternatives under agency consideration.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used at NPL sites. The Record of Decision is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.

Remedial Investigation/Feasibility Study (RI/FS): Investigation and analytical studies usually performed at the same time in an interactive process, and together referred to as the "RI/FS." They are intended to: (1) gather the data necessary to determine the type and extent of contamination at an NPL site; (2) establish criteria for cleaning up the site; (3) identify and screen cleanup alternatives for remedial action; and (4) analyze in detail the technology and costs of the alternatives.

Resource Conservation and Recovery Act (RCRA): A federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

Responsiveness Summary: A summary of oral and written public comments received by the lead agency during a comment period on key documents, and the response to these comments prepared by the lead agency. The responsiveness summary is a key part of the ROD, highlighting community concerns for decision-makers.



MAILING LIST ADDITIONS/CORRECTIONS

If you would like your name and address placed or corrected on the mailing list for the Installation Restoration Program at NAS Pensacola, please complete this form and return to Harry White, NAS Pensacola Public Affairs Office, Code 00B00, 190 Radford Boulevard, Building 191, Pensacola, Florida 32508-5217.

NAME: _____

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AFFILIATION (If any): _____

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