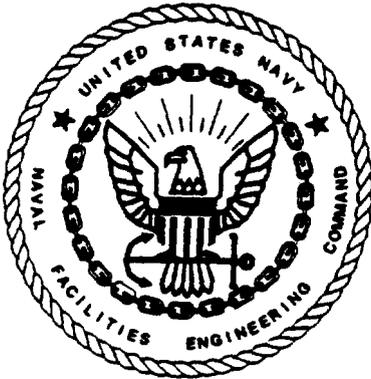


Final Proposed Plan
Site 39
NAS Pensacola
Pensacola, Florida

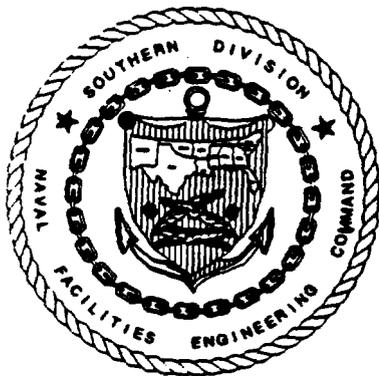
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19. Abstract

A proposed remedial action plan has been prepared from the remedial investigation conducted for Site 39, the Oak Grove Campground at the Naval Air Station (NAS) Pensacola. The purpose of this proposed plan is to describe the alternative that the U.S. Navy has selected to address groundwater and soil contamination at the site. The following summarizes the proposed plan.

- **Historical records provided little information regarding the source of the stained soil at the Oak Grove campground. Interviews with naval personnel indicated several possible sources, including disposal of construction debris from Building 29 demolition (evidenced today by the brick, concrete, nails, and glass at the site), former stockpiling of railroad ties, and used motor oil dumping by campers using the campground.**
- **Analytical results from previous investigations indicate the stain is petroleum-based. Based on the relatively limited area of contamination and the lack of suitable habitat, contaminant effects to biota are not expected to be a concern. However, specific effects to overall biota within the affected area are unknown. This is compounded by the lack of available data on acute and chronic toxicity in soil for the chemicals of concern discussed. Instead of attempting to quantify these effects, it was determined that the most cost-effective and environmentally and aesthetically beneficial remedy was to simply remove and properly dispose of the contaminated soil and replace it with clean fill material.**
- **The VOCs tetrachloroethene and 1,1-dichloroethane (first round of sampling) and tetrachloroethene (second round of sampling) were the only organic compounds present in groundwater. These VOCs were only in the top of the uppermost aquifer zone; all VOC concentrations were below drinking water standards.**

Inorganic compounds exceeding secondary drinking water standards concentrations were aluminum and iron. In addition, boric acid, barium, calcium, lead, magnesium, and vanadium exceeded their respective NAS Pensacola reference (background) concentrations. In the bottom of the uppermost aquifer, only iron exceeded a secondary drinking water standard. Arsenic may be potentially related to saltwater intrusion or suspended sediment in samples and is likely not site-related. Concentrations of aluminum, iron, calcium, and sodium are comparable with NAS Pensacola reference concentrations or those for ambient groundwater quality of the Sand and Gravel aquifer in this area. In addition calcium, iron, magnesium, and sodium are essential nutrients and are only toxic at extremely high concentrations.

- **Between July 25 and July 29, 1994 NAS Pensacola's Public Works Center Environmental Department removed 864 tons of stained soil from Site 39. The soil was tested for the full Toxicity Characteristic Leaching Procedure analysis by the Environmental Department's Laboratory and was negative for all contaminants. The stained soil was disposed of at the Escambia County Solid Waste Department's Perdido Landfill, 13009 Baulah Road, Cantonment, Florida. The excavated soil was replaced with clean fill from NAS Pensacola's backfill stockpile. An analysis of this soil showed that it was free of any contaminants above the preliminary remediation goals and did not contain any volatiles, semivolatiles, or pesticides/polychlorinated biphenyls.**
- **The human health risk associated with exposure to environmental media at NAS Pensacola Site 39 was assessed for future site residents. The soil exposure media considered in this assessment after the screening process for selecting chemicals of potential concern (COPCs) did not identify any COPCs in the 0- to 1-foot depth backfill material. It was determined that risk or hazard via the ingestion of groundwater for the combined shallow and intermediate groundwater pathway hazard index was 2.0 for the future child resident and 0.9 for the adult. However, the target organ for each COC is different. Therefore, individual hazard quotients should be considered instead of summing the hazard quotient for all COCs. The two main contributors to the hazard index of 2, aluminum and arsenic, each contribute approximately 1 to the hazard index. The potential carcinogenic risk was computed to be 1.3E-04.**

Due to the limited contamination found in the remedial investigation and the removal of the stained soil, the site did not warrant the detailed evaluation of remedial alternatives associated with a feasibility study. The proposed plan presents a no action alternative. The no action alternative for soil and groundwater meets or exceeds the requirements of the USEPA's evaluation criteria.

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FOREWORD

This **final Proposed Plan** represents a revision of the *draft Site 39 Proposed Plan* made in response to the USEPA and FDEP comments on the *draft Proposed Plan*. Changes to the text are denoted by **[bold and bracketed]** text.

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List of Abbreviations

Title	Definition
ARAR	Applicable or Relevant and Appropriate Requirements
bls	Below Land Surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
COPC	Chemical of Potential Concern
DERA	Defense Environmental Restoration Account
DOD	U.S. Department of Defense
E/A&H	EnSafe/Allen & Hoshall
FDEP	Florida Department of Environmental prosection
FFA	Federal Facilities Agreement
FS	Feasibility Study
MCL	Maximum Contaminant Level
mg/L	Milligrams Per Liter
NAS	Naval Air Station
NPL	National Priorities List
PCB	Polychlorinated Biphenyl
ppb	Parts Per Billion
PRG	Preliminary Remediation Goal
PWC	Public Works Center
RCRA	Resource Conservation and Recovery Act
RG	Remediation Goal
RI	Remedial Investigation
ROD	Record Of Decision
SARA	Superfund Amendments and Reauthorization Act of 1986
SVOC	Semivolatile organic compound
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
µg/L	Micrograms Per Liter

EXECUTIVE SUMMARY

A proposed remedial action plan has been prepared from the remedial investigation conducted for Site 39, the **Oak Grove Campground** at the Naval Air Station (NAS) Pensacola. The purpose of this proposed plan is to describe the alternative that the U.S. Navy has selected to address groundwater and soil contamination at the site. The following summarizes the proposed plan.

- Historical records provided little information regarding the source of the stained soil at the **Oak Grove** campground. Interviews with naval personnel indicated several possible sources, including disposal of construction debris from Building 29 demolition (evidenced today by the brick, concrete, nails, and glass at the site), former stockpiling of railroad ties, and used motor oil dumping by campers using the campground.
- Analytical results from previous investigations indicate the stain is petroleum-based. Based on the relatively limited area of contamination and the lack of suitable habitat, contaminant effects to biota are not expected to be a concern. However, specific effects to overall biota within the affected area are unknown. This is compounded by the lack of available data on acute and chronic toxicity in soil for the chemicals of concern discussed. Instead of attempting to quantify these effects, it was determined that the most cost-effective and environmentally and aesthetically beneficial remedy was to simply remove and properly dispose of the contaminated soil and replace it with clean fill material.
- The VOCs tetrachloroethene and 1,1-dichloroethane (first round of sampling) and tetrachloroethene (second round of sampling) were the only organic compounds present in groundwater. These VOCs were only in the top of the uppermost aquifer zone; all VOC concentrations were below drinking water standards.

Inorganic compounds exceeding secondary drinking water standards concentrations were aluminum and iron. In addition, arsenic, barium, calcium, lead, magnesium, and vanadium exceeded their respective NAS Pensacola reference (background)

concentrations. In the bottom of the **uppermost aquifer**, only iron exceeded a **secondary drinking water standard**. Arsenic may be **potentially** related to **saltwater intrusion** and is likely not site-related. **Concentration of aluminum**, iron, calcium, and sodium are comparable with **NAS Pensacola reference concentration** or those for ambient groundwater *quality of* the Sand and Gravel aquifer in this area. In addition calcium, iron, **magnesium**, and **sodium are essential nutrients** and are only toxic **at** extremely high **concentrations**.

- **Between July 25 and July 29, 1994 NAS Pensacola's Public Works Center Environmental Department removed 864 tons of stained soil from Site 39.** The soil was tested for the full **Toxicity Characteristic Leaching Procedure** analysis by the Environmental Department's **Laboratory** and was negative for all contaminants. The stained soil was **disposed of** at the **Escambia County Solid Waste Department's Perdido Landfill, 13009 Beulah Road, Cantonment, Florida.** The excavated soil was replaced with clean fill from **NAS Pensacola's backfill stockpile.** An analysis of this soil showed that it was **free of any contaminants** above the **preliminary remediation goals** and did not contain any **volatiles, semivolatiles, or pesticides/polychlorinated biphenyls.**
- **The human health risk associated with exposure to environmental media at NAS Pensacola Site 39 was assessed for future site residents.** The soil *exposure media* considered in this **assessment** after the **screening** process for selecting **chemicals of potential concern (COPCs)** did not identify any **COPCs** in the 0- to 1-foot depth **backfill material.** It was determined that risk or hazard via the **ingestion of groundwater** for the combined shallow and **intermediate groundwater pathway** hazard **index was 2.0** for the future child resident **and 0.9** for the adult. **However, the target organ for each COC is different.** Therefore, **individual hazard quotients** should be considered **instead of summing** the hazard quotient for all **COCs.** The two main contributors to the hazard index of 2, **aluminum and arsenic, each contribute** approximately 1 to the hazard index. The **potential carcinogenic risk** was computed to be **1.3E-04.**

Due to the limited contamination found in the remedial investigation and the removal of the stained soil, the site did not warrant the detailed evaluation of remedial alternatives associated with a feasibility study. The proposed plan presents a no action alternative. The no action alternative for soil and groundwater meets or exceeds the requirements of the USEPA's evaluation criteria.

The U.S. Navy's preferred alternative represents a preliminary decision, which is subject to public comment. The U.S. Navy relies on public comments to ensure that the remedial alternatives being evaluated and selected for its sites are fully understood and that the concerns of the local community have been considered. The U.S. Navy has set a public comment period from May 30 to June 30, 1995, to encourage public participation in the selection process.

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1.0 INTRODUCTION

This Proposed Remedial Action Plan describes the alternative that the U.S. Navy has selected to address potential groundwater and soil contamination at Site 39 — Oak Grove Campground, NAS Pensacola, Florida. The Navy is the lead agency responsible for cleanup at NAS Pensacola. The United States Environmental Protection Agency (USEPA) and the Florida Department of Environmental Protection (FDEP) are the federal and state regulatory agencies charged with overseeing the cleanup. Together they work with the Navy through the Federal Facilities Agreement (FFA), an interagency agreement that defines the roles and responsibilities for each agency.

This plan presents an evaluation of the remedial alternative preferred by the Navy. The information summarized here is detailed in the Remedial Investigation report, which was conducted to characterize the nature and extent of contamination at the site and can be found in the administrative record at the information repositories. The remedial investigation was conducted in accordance with the environmental guidelines of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and Superfund Amendments and Reauthorization Act (SARA) of 1986. A feasibility study was not completed because a previous removal action [reduced] risks to human health and the environment so that no further action is necessary.

The U.S. Navy's preferred alternative represents a preliminary decision, which is subject to public comment. Section 117 (a) of CERCLA requires publication of a notice and a brief analysis of the proposed plan. This plan provides background information on the site, describes the interim removal action, provides the rationale for no further action at the site, and outlines the public's role in helping the Navy make a final decision on a remedy.

Section 121(d)(2)(A) of CERCLA incorporates into law the CERCLA Compliance Policy which specifies that remedial actions must meet any Federal or State standards, requirements, criteria,

or limitations that are **determined to be legally applicable or relevant and appropriate requirements (ARARs)**. **The presented remedy meets all ARARs required by CERCLA.**

2.0 SITE BACKGROUND

2.1 General Site History

In December 1989, **NAS Pensacola** was placed on the **USEPA's National Priorities List (NPL)** based on a numerical ranking of **42.4 out of 100 of the potential hazards it poses to human health and the environment**. *Although all sites added to the NPL are generally called "Superfund sites," DOD sites like NAS Pensacola are cleaned up using Defense Environmental Restoration Account (DERA) funds.*

The FFA, signed in *[October 1990]*, **outlines the regulatory path that will be followed at the naval air station. NAS Pensacola must complete not only the regulatory obligations associated with its NPL listing, but it must also satisfy the ongoing requirements of an environmental permit issued in 1988. That permit [addresses the treatment, storage, and disposal of hazardous materials and waste and also the investigation and remediation of any releases of hazardous waste and/or constituents from solid waste management units.]** The **Resource Conservation and Recovery Act (RCRA)** governs *ongoing use* of hazardous materials, and the rules of the operating permit. **RCRA and CERCLA investigations and actions are coordinated through the FFA, streamlining the cleanup process.**

Site 39 was a circular **area** approximately 300 feet in diameter littered with broken brick, concrete, tile, glass, coal, **and** nails. Within this area, a **zone** of darkly stained soil and stressed vegetation measured approximately 60 feet x 80 feet. A 130-foot x 200-foot area of lighter staining and less distressed vegetation surrounded the more darkly *stained* area.

The site is *in the* **southwestern** portion of **NAS Pensacola**, approximately 2,500 feet south of **Forrest Sherman Field** and 520 feet northwest of the **Pensacola Bay shoreline**, as shown on

Figure 1. The **sandy soil** is covered by **some grass** and brush growth, **surrounded** by trees. As shown in Figure 2, Site 39 is approximately **200 feet** south of the Oak Grove trailer campground.

Little is **known** about the **history** of Site 39. **No records** indicating the **source** of the debris and **stained** soil have **been** identified. A boiler-powered **sawmill** was reported in the vicinity of Site 39; however, **this** has not **be** confirmed. During the **remedial** investigation (RI), little additional historical information **was** obtained. **Mr. Ron Joyner** from the Facilities Management Division at NAS Pensacola **stated** there had not **been** a **sawmill** at Site 39. Rather, the site **was** a disposal area for debris **from** the demolition of Building 29. **Mr. Joyner** believed that the stained area may have **been** caused by campers dumping **used motor oil** onto the ground. **Mr. Tucker**, caretaker for the Lighthouse Point **Oak** Grove Rental, said that railroad ties were once stockpiled at the site.

In the **spring** of 1990, campers reported **stained** soil with a hydrocarbon odor south of the campground. NAS Facilities Management personnel **collected** two grab samples from a depth of **0** to **7** inches below land surface (b/s) **from** the **stained soil area** at Site 39. Analysis of these samples indicated petroleum **contamination**.

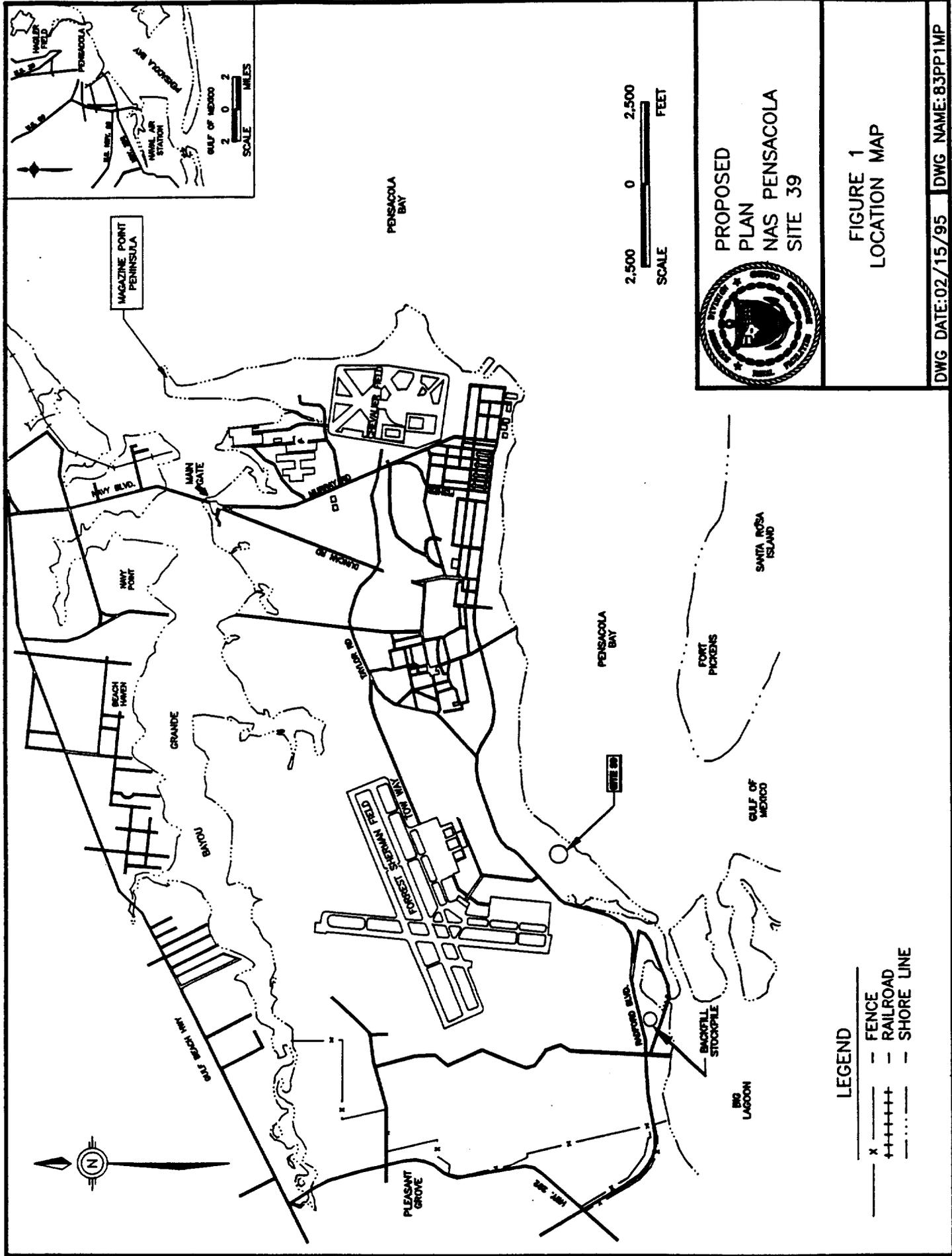
2.2 Remedial Investigation Summary

Between December 1992 and November 1994, EnSafe/Allen & Hoshall (E/A&H) performed an RI at Site 39 on behalf of the U.S. Navy. The RI **was** divided into three phases: pre-removal sampling, interim removal action, and post-removal sampling. **[The following sections describe these phases.]**

2.2.1 Pre-Removal Site Information

The RI involved sampling **soil** and groundwater to characterize **the nature** and extent of contamination at the site.

- **The stained soil was limited vertically to the uppermost foot over most of the site with pockets approximately 3 feet deep. Low to moderate concentrations of semivolatile compounds (SVOCs) were identified within the stained area, specifically pyrene (1.9 mg/kg), which is commonly found in wood preservatives and waste oil. Low concentrations of volatile organic compounds (VOCs) were found within the stained area, specifically trichloroethane and toluene at total concentrations of less than 2 µg/kg. Specific metals identified at the site above preliminary remediation goals (PRGs) and NAS Pensacola reference concentrations include aluminum, arsenic, calcium, iron, magnesium, and sodium; however, all metals detected except for magnesium and sodium were within the range of the reference concentrations. The NAS Pensacola reference concentration is derived by multiplying the average concentration of a contaminant in the reference or "background" samples at NAS Pensacola by two. Magnesium and sodium are essential nutrients and are only toxic at extremely high concentrations.**
- Groundwater flows south and southeast, respectively in the upper and lower portions of the uppermost zone (surficial zone) of the aquifer. Underlying this uppermost zone is the low permeability zone, consisting of clay, [clayey sand, and sandy clay], which separates the upper water-bearing zone from the main producing zone (regional potable water source). Although the entire thickness of the low permeability zone was not investigated at this site, previous investigations conducted at NAS Pensacola have shown that the low permeability zone ranges from 12 to 17 feet thick, and is characterized by low hydraulic conductivities. Hence, potential for flow between the aquifer zones is considered minimal.
- **On the basis of the groundwater analytical results, site 39 soil is not impacting the groundwater with appreciable amounts of organic compounds. The VOCs tetrachloroethene and 1,1-dichloroethane (first round of sampling) and tetrachloroethene**



PROPOSED
PLAN
NAS PENSACOLA
SITE 39

FIGURE 1
LOCATION MAP

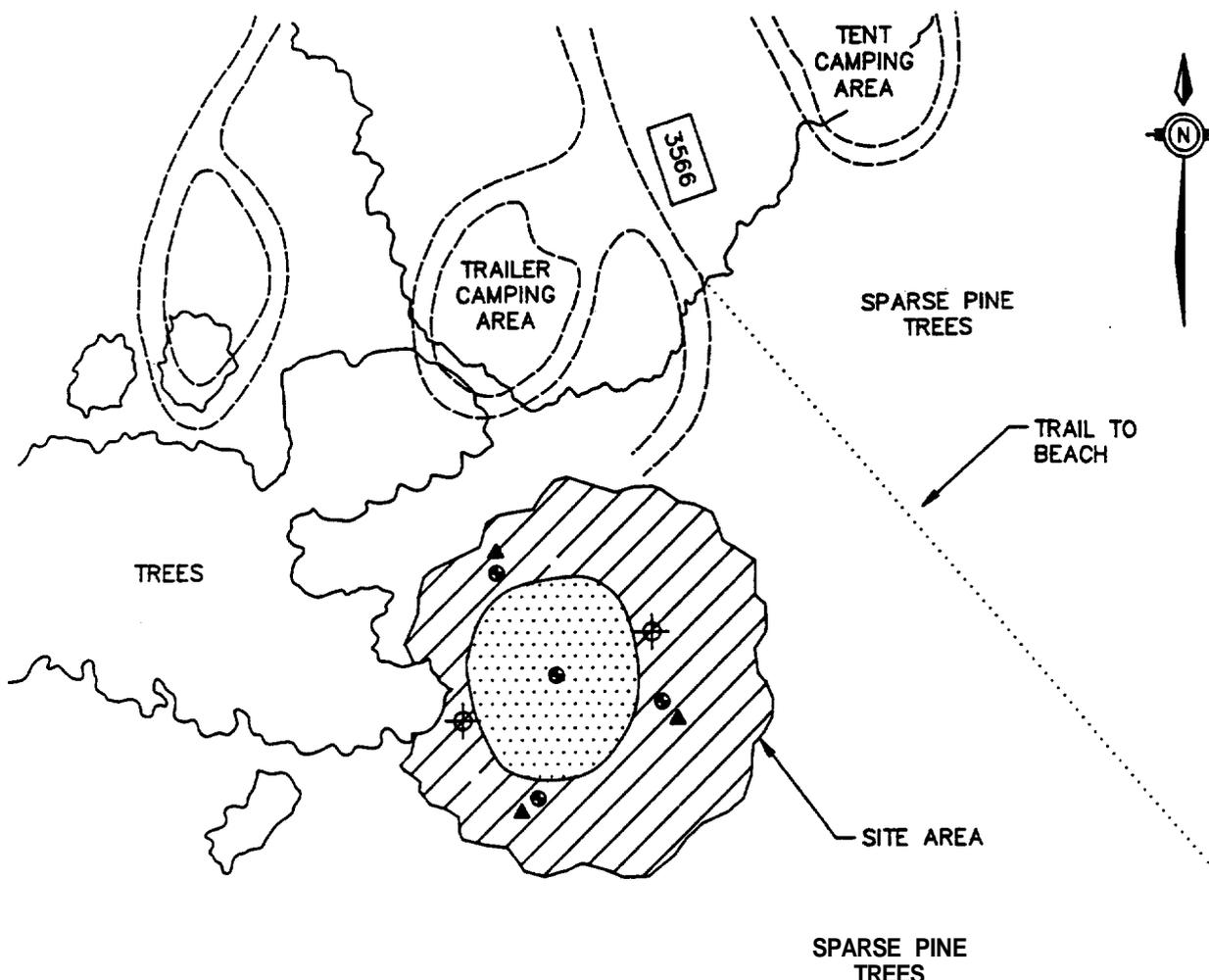
LEGEND

- x — FENCE
- +++++ — RAILROAD
- ····· — SHORE LINE

2,500 0 2,500
SCALE FEET

2 0 2
SCALE MILES

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- LEGEND**
- SOIL BORING
 - SOIL BORING AND SHALLOW MONITORING WELL
 - INTERMEDIATE WELL
 - UNPAVED ROAD
 - BUILDING
 - AREA OF SCATTERED DEBRIS & LIGHT VEGETATION
 - AREA OF STAINED SOILS



PROPOSED
PLAN
NAS PENSACOLA
SITE 39

FIGURE 2
SITE MAP

SOURCE E&E 1991

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(second round of sampling) were the **only** organic **compounds present in** groundwater. These VOCs were detected only in **the** top of **the uppermost** aquifer zone; all concentrations were below **drinking** water standards.

Due to the high turbidity of **the** groundwater during **the initial sampling**, the metals data were considered unreliable and a second round of groundwater sampling was undertaken using a low-flow purging and sampling **technique**. This method reduced turbidity and consequent metals concentrations significantly. Inorganic **compounds** exceeding secondary drinking water standards were **aluminum and iron**. In addition, arsenic, barium, calcium, lead, magnesium, and vanadium exceeded their respective NAS Pensacola reference (background) **concentrations**. In **the bottom** of the uppermost aquifer, only **iron** exceeded a *secondary drinking water standard*. [Arsenic may be potentially related to saltwater intrusion and is likely not site-related. Concentrations of **aluminum, iron, calcium, and sodium** are comparable with NAS Pensacola reference concentrations or those for ambient groundwater quality of the Sand and Gravel aquifer in *this area*.] In addition calcium, **iron**, magnesium, and **sodium** are essential nutrients and are only toxic at extremely high concentrations.

2.2.2 Interim Removal Action Summary

It **was** determined that **the** most cost-effective, environmentally, and aesthetically beneficial remedy was to remove and properly **dispose** of the contaminated upper **12 inches** of **soil** and replace it with clean fill **material**.

Between July **25** and July **29, 1994**, NAS Pensacola's Public Works Center (**PWC**) Environmental Department removed **864 tons** of *stained soil* from Site 39. **The soil** was tested by the Environmental Department's Laboratory and determined to be a **nonhazardous** waste. The **stained soil** was disposed of **at** the Escambia **County** Solid Waste Department's Perdido Landfill, 13009 Beulah Road, Cantonment, Florida. The excavated **soil** was **replaced** with clean

fill from NAS Pensacola's **backfill stockpile** (see Figure 1). An analysis of this soil did not identify any contaminants above the preliminary remediation goals for, VOCs, SVOCs, or pesticides/polychlorinated biphenyls (PCBs).

2.2.3 Post-Removal Site Information

[Before **backfilling** Site 39, four **post-removal confirmation samples** were collected from the soil. No VOCs were detected in any of these samples. Only one SVOC detected exceeded a PRG. **Benzo(a)pyrene slightly exceeded its PRGs in two post-removal samples.** The Site showed an improvement from pre-removal conditions. After the removal action, no pesticide detected exceeded the PRGs. No PCBs were detected in the samples after the removal action. The *only inorganic constituent* to exceed PRGs in the **post-removal** samples was arsenic, which exceeded its PRG (0.37 ppm) in one sampling location (1.2 ppm); however, its concentration is within the range typical of NAS Pensacola (1.56 ppm). As discussed in the previous section the **entire site was backfilled** with 1 to 3 feet of *clean material after post-removal confirmation* sampling.

3.0 SCOPE AND ROLE OF THE OPERABLE UNIT

The proposed remedial action identified in this document is the **no action** alternative. This decision is the only remedial action identified for Site 39. The *previously cited* removal action has removed all heavily **contaminated** soil from the site. Therefore, no **further** action is proposed for Site 39 because it has been **determined that it is not a threat to human health and the environment.**

Note that Site 39 is one of 37 sites at NAS Pensacola being investigated in accordance with CERCLA. Separate investigations and assessments are being conducted for these other sites. Therefore, this **proposed plan applies only to site 39.**]

4.0 SUMMARY OF SITE RISKS

The human health **risk** associated with exposure to **environmental** media at NAS Pensacola Site 39 was **assessed** for future site residents as part of the **RI** process. **[After the screening process, no chemicals of potential concern (COPCs) were identified in the site soil.]**

COCs identified in the groundwater at Site 39 were aluminum, arsenic, and tetrachloroethene. The state of Florida does not consider arsenic a COPC at this site because arsenic concentrations did not exceed its Florida Primary Drinking Water standard. It was determined that **risk** or hazard via the ingestion and **inhalation** of groundwater for the combined shallow and intermediate groundwater pathway **hazard** index was **2** for the future child resident and **0.9** for the adult. However, the target organ for each COC is different and the hazard quotient **should be** considered individually.] The potential carcinogenic **risk** was computed to be **1.3E-04** [due to arsenic concentrations]. Customarily a hazard index of 1 and carcinogenic **risk** range of 1E-04 to 1E-06 is considered acceptable [by the USEPA while the **FDEP** considers 1E-06 acceptable]. Arsenic is potentially related to saltwater intrusion in samples and is likely not site-related. [In addition, the arsenic (0.005 mg/L) and tetrachloroethene (0.002 mg/L) exposure point concentrations (i.e., the maximum concentration detected) were below the corresponding state and federal drinking water standards of 0.05 mg/L and 0.003 mg/L.] While [the aluminum exposure point concentration of **15 mg/L**] exceeds the EPA secondary drinking water standard of .05 to .2 mg/L, this standard is not health-based but applies to the taste, odor, color, and certain other non-aesthetic effects of drinking water. EPA recommends these guidelines as reasonable goals, but federal law does not **require** strict compliance with them.

Due to the abundant supply of good quality water in the deeper main producing zone, groundwater from the surficial zone of the Sand-and-Gravel Aquifer is not used as potable water in Southern Escambia County nor is it anticipated to be used for that purpose in the future. Furthermore, groundwater at the site and at NAS Pensacola is highly turbid and contains ambient

iron and *manganese* concentrations **exceeding** Florida's **secondary drinking water standard** concentration. **The data from this investigation suggest** that **the site** has not **degraded the** quality of the **aquifer**; instead, [**the lithology of the surficial zone** of the Sand and Gravel aquifer *can* locally contain high **percentages of ferrous/manganese** hydroxides and clays so the abundance of **aluminum, iron, and manganese** is reasonable.]

[Currently there are no **full time residents nor** potable **water wells** at **Site 39**; **therefore**, there are no human receptors for the *Site 39* groundwater, and consequently no current *exposure*. **The hazard index is based on a summation of the hazard quotients** for all of the COCs for a future child resident. However, the target **organ** for each COC is different. Therefore, individual hazard quotients should be **considered** instead of *summing* the hazard quotient for all COCs. The two **primary** contributors to the hazard index of 2, **aluminum and arsenic**, each contribute approximately 1. If a hazard index of 1 was **selected** for a cleanup threshold, no **remediation** would be needed to *meet* the **selected** threshold, *since* the hazard index are approximately equal to 1 without **remediation**.

An ecological risk assessment was performed to **determine the actual or potential effects** of *Site 39* on the **surrounding** ecosystem. Based on the **relatively** limited area of contamination and the **lack of suitable habitat**, contaminant effects to biota **are not expected** to be a concern. However, specific *effects* to overall biota within the affected area are unknown. This is compounded by the **lack** of available data on **acute** and chronic toxicity in soil for the **chemicals** of concern discussed. *Instead of attempting to quantify these effects*, it was determined *that* the most **cost-effective** and **environmentally** and **aesthetically** beneficial remedy was to simply **remove** and properly dispose of *the* contaminated soil and replace it with **clean fill** material.]

5.0 NO ACTION ALTERNATIVE

No further action is proposed for Site 39 because it has been determined not to be a threat to human health and the environment. This alternative will consist of leaving the site as is. [In accordance with 40 CFR Section 300.435(f)(4)(ii), since the remedial action selected will result in "hazardous substances, pollutants or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action".] This remedial alternative will have no cost associated with it. Based on new information or public comment, the U.S. Navy, in consultation with the USEPA and FDEP, may modify the proposed plan. The public is encouraged to review and comment on the proposed plan.

6.0 THE COMMUNITY'S ROLE IN THE SELECTION PROCESS

The U.S. Navy relies on public comments to ensure that the remedial alternatives being evaluated and selected for its sites are fully understood and that the concerns of the local community have been considered. The U.S. Navy has set a public comment period from May 30 to June 30, 1995, to encourage public participation in the selection process. The comment period includes a public meeting at which the Navy will present the RI report and proposed plan, answer questions, and receive comments from the public. The public meeting is scheduled for 7:30 p.m., Tuesday, June 13, 1995, at Pensacola Junior College, Warrington Campus. Comments will be summarized and responses provided in the responsiveness summary section of the record of decision. The public can send written comments to the following individuals, from whom they can request additional information:

William Hill
SOUTHNAVFACENGCOM
2155 Eagle Drive
North Charleston, SC 29418

Allison Humphris
USEPA
345 Courtland Street, NE
Atlanta, **GA 30365**

David Clowes
Florida **Department** of Environmental **Protection**
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

The U.S. Navy is soliciting public comments about the most acceptable way to clean up Site 39, the Oak Grove Campground. **The proposed** plan and RI report have **been** placed in the Information Repositories and **Administrative Record** for the site. **The Administrative Record** includes documents such as **work plans, data analyses, public comments, transcripts,** and other relevant **material used** in developing the remedial alternatives for the site. **These** documents are available for public review and copying at:

NAS Pensacola Library
Building 633
Hours of Operation:
M-F 8:00 a.m. to 6:00 p.m.
Sat 9:30 a.m. to 5:00 p.m.

West Florida Regional Library
200 West **Gregory Street**
Hours of Operation:
T-Th 9:00 a.m. to 8:00 p.m.
Fri, Sat 9:00 a.m. to 5:00 p.m.

John C. Pace Library
University of West Florida
Hours of Operation:
M-Th 8:00 a.m. to 10:00 p.m.
Friday 8:00 a.m. to 5:00 p.m.
Saturday 9:00 a.m. to 5:00 p.m.
Sunday 1:00 p.m. to 9:00 p.m.

Appendix A
Professional seals

FLORIDA PROFESSIONAL GEOLOGIST SEAL

I have read and approve of this Final **Proposed** Plan for Site 39 and **seal** it in accordance with Chapter **492** of the Florida Statutes. In sealing this document, I **certify** the geological information contained in it is true to the best of **my** knowledge and the **geological** methods and procedures included herein **are** consistent with currently accepted geological **practices**.

Name: Steven J. Parker
License Number: #1651
State: Florida
Expiration Date: July 31, 1996

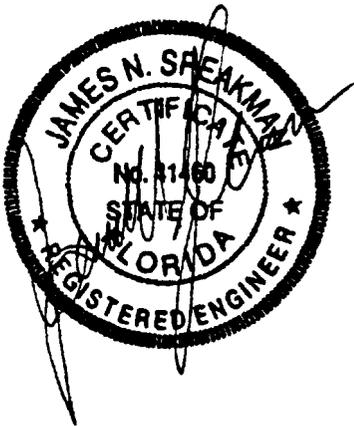


Steven J. Parker

5/25/95
Date

FLORIDA PROFESSIONAL ENGINEER SEAL

I am registered to practice engineering by the Florida State Board of Professional Examiners (License number 41460). I certify, under penalty of law, that the Final Proposed Plan for Naval Air Station Pensacola Site 39 was performed in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, the information submitted is true, accurate, and complete, and the contents of this proposal are consistent with currently accepted engineering practices. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



James N. Speakman, Ph.D., P.E.

May 26, 1995

Appendix B

Glossary

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

ADMINISTRATIVE RECORD: A file which contains information used by **the** lead agency to make its decision in **selecting** a response action under CERCLA. **This** file is to be available for public review and a copy is to be established **at** or near **the** site, usually at one of the information repositories. **Also** a duplicate is filed in a *central* location, such as a regional or state office.

AQUIFER: An underground formation of materials such as sand, soil, or gravel that **can** store and supply groundwater to wells and **springs**. **Most** aquifers used in **the** United States are within a thousand feet of the **earth's** surface.

BASELINE RISK ASSESSMENT: A study conducted as a supplement to a remedial investigation to determine the **nature** and extent of **contamination** at a Superfund site and **the** risks posed to public health and/or **the** environment.

CARCINOGEN: A substance that *can* cause cancer.

CLEANUP: Actions taken to deal with a **release** or **threatened** release of **hazardous** substances that could affect public health and/or **the** environment. "Cleanup" **is** often used broadly to describe various response actions or phases of **remedial responses** such as a remedial investigation/feasibility study.

COMMENT PERIOD: A time during which **the** public **can** 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** six-week comment period is held to allow community **members** to review the administrative record and review and comment on the proposed plan.

COMMUNITY RELATIONS: USEPA's, and subsequently Naval **Air** Station Pensacola's, program to inform and involve the public in the Superfund process and respond to **community** concerns.

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.

DEFENSE ENVIRONMENTAL RESTORATION ACCOUNT (DERA): An account established by Congress to fund **DOD hazardous waste site cleanups**, building demolition, and hazardous waste minimization. The account was established under the Superfund Amendments and Reauthorization Act.

DRINKING WATER STANDARDS: standards for quality of drinking water that are set by both the USEPA and the FDEP.

EXPLANATION OF DIFFERENCES: The lead agency is required to publish an explanation of any significant differences and why they were made **after** adoption of final remedial action plan, if any remedial or enforcement action is taken, or if any settlement or consent **decree** is entered into, and if the settlement or decree differs significantly from the final plan.

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 that it can be used for drinking water, irrigation, and other purposes.

HAZARD RANKING SYSTEM (HRS): A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. USEPA and states use the HRS to calculate a site score, from 0 to 100, based on the actual or potential release of hazardous substances from a site through air, surface water, or groundwater to affect people. This score is the primary factor used to decide if a hazardous site should be placed on the NPL.

HAZARDOUS SUBSTANCES: Any material that poses a threat to public health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

INFORMATION REPOSITORY: A file containing information, technical reports, and reference documents regarding a Superfund site. Information repositories for Naval Air Station Pensacola are located at the West Florida Regional Library, 200 W. Gregory Street, Pensacola, Florida; The John C. Pace Library, University of West Florida; and the NAS Pensacola Library, Building 633, Naval Air Station, Pensacola, Florida.

MAXIMUM CONTAMINANT LEVEL: National standards for acceptable concentrations of contaminants in drinking water. These standards are legally enforceable standards set by the USEPA under the Safe Drinking Water Act.

MONITORING WELLS: Wells drilled at specific locations on or off a hazardous waste site at which groundwater can be sampled at selected depths and studied to assess the groundwater flow direction and the types and amounts of contaminants present, etc.

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. The list is based primarily on the score a site receives on the Hazard Ranking System. USEPA is required to update the NPL at least once a year.

PARTS PER BILLION (ppb)/PARTS PER MILLION (ppm): Units commonly used to express low concentrations of contaminants. For example, 1 ounce of trichloroethylene in one million ounces of water is 1 ppm; 1 ounce of trichloroethylene in one billion ounces of water is 1 ppb. If one drop of trichloroethylene is mixed in a competition-size swimming pool, the water will contain about 1 ppb of trichloroethylene.

PRELIMINARY REMEDIATION GOALS: Screening concentrations that are provided by the USEPA and the FDEP and used in the assessment of the site for comparative purposes prior to remedial goals being set during the baseline risk assessment.

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 ACTION (RA): The actual construction or implementation phase that follows the remedial design and the selected cleanup alternative at a site on the NPL.

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 a Superfund site; (2) establish criteria for cleaning up the site; (3) identify and screen cleanup alternatives for remedial action; and (4) analyze the technology and costs of the alternatives in detail.

REMEDIAL RESPONSE: A long-term action that stops or substantially reduces a release or threatened hazardous substance release that is serious, but does not pose an immediate threat to public health and/or the environment.

REMOVAL ACTION: An immediate action performed quickly to address a release or threatened release of hazardous substances.

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.

RESPONSE ACTION: As defined by Section 101(25) of CERCLA, means "...remove, removal, remedy, or remedial action, including enforcement activities related thereto."

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 record of decision, highlighting community concerns for USEPA decision-makers.

SECONDARY DRINKING WATER STANDARDS: Secondary drinking water regulations are set by the USEPA. These guidelines are not designed to protect public health, instead they are intended to protect "public welfare" by providing guidelines regarding the taste, odor, color, and other aesthetic aspects of drinking water which do not present a health risk.

SUPERFUND: The trust fund established by CERCLA which can be drawn upon to plan and conduct clean ups of past hazardous waste disposal sites, and current releases or threats of releases of nonpetroleum products. Superfund is often divided into removal, remedial, and enforcement components.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA): The public law enacted on October 17, 1986, to reauthorize the funding provisions, and to amend the authorities and requirements of CERCLA and associated laws. Section 120 of SARA requires that all federal facilities "be subject to and comply with, this act in the same manner and to the same extent as any non-governmental entity."

SURFACE WATER: Bodies of water that are above ground, such as rivers, lakes, and streams.

VOLATILE ORGANIC COMPOUND: An organic (carbon-containing) compound that evaporates (volatilizes) readily at room temperature.