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NAS CECIL FIELD, FL
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PROPOSED PLAN FOR OPERABLE UNIT 12 (OU 12) SITE 42 FORMER BOILER
HOUSE/STEAM PLANT AND GENERAL STOREHOUSE NAS CECIL FIELD FL
6/3/2002
TETRA TECH NUS INC



INSTALLATION RESTORATION PROGRAM

June 2002



Proposed Plan for Operable Unit 12, Site 42 Former Boiler House/Steam Plant and General Storehouse Naval Air Station Cecil Field Jacksonville, Florida

Facility Description

Naval Air Station (NAS) Cecil Field (see Figure 1) was established in 1941 and provided facilities, services, and material support for naval operations. It was added to the **National Priorities List (NPL)** in 1989. In July 1993, the Base Realignment and Closure (BRAC) Commission recommended the closure of NAS Cecil Field. On September 30, 1999, the base was closed and the majority of the flightline was transferred to the Jacksonville Airport Authority (formerly Jacksonville Port Authority). In September 2000, most of the balance of the base was transferred to the city of Jacksonville.

Site Description

Operable Unit (OU) 12, Site 42, the Former Boiler House/Steam Plant and General Warehouse, is located in the Yellow Water Weapons Area (YWWA) (see Figure 1). The site is on former "B" Street, near former Mariner Street (see Figure 2). The steam plant and storehouse buildings were demolished about 40 years ago and all that remains are foundations and concrete rubble. A coal storage area was located on the eastern side of the steam plant. A railroad spur once served the buildings, but it was removed decades ago. A small block structure, Building 311, is located at the western end of the steam plant foundation. This building was built in 1959 and was used for munitions storage. No munitions remain in Building 311. Currently, the site is overgrown with vegetation and is surrounded by undeveloped or overgrown land. The reuse plan identifies the site for recreational uses.

Site activities have resulted in contamination of soil with several **polynuclear aromatic hydrocarbons (PAHs)**, metals (antimony, arsenic, barium, and chromium), and **total recoverable petroleum hydrocarbons (TRPH)**. **PAHs** were

evaluated collectively as benzo(a)pyrene (BaP) equivalents (BaPEq) to estimate site risks. **Preliminary Remedial Goals (PRGs)** for soil were established for these **chemicals of concern (COCs)** on the basis that human health would be adequately protected if the 95-percent **upper confidence level (UCL)** of the detected concentrations of these **COCs** did not exceed the Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs) for residential exposure and if no detected concentrations exceeded the SCTLs for leachability to groundwater or three times the SCTLs for residential exposure. As part of a time-critical **Interim Removal Action (IRA)** based on the location of samples where **COCs** were detected in excess of **PRGs**, 2,420 tons of soil were excavated (see Figure 3) and disposed off-base at a Subtitle D landfill.

About This Document

In accordance with Section 117 of the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**, the law that established the Superfund program, this document summarizes the Navy's proposal for site cleanup to help the public understand and comment on it. This plan has been developed by the NAS Cecil Field **BRAC Cleanup Team (BCT)** that consists of representatives from the Navy, the United States Environmental Protection Agency (U.S. EPA), and the FDEP. The **BCT**, in consultation with the **Restoration Advisory Board (RAB)**, will select a final remedy for **OU 12**, Site 42 after public comments have been addressed. One of the purposes of this plan is to solicit the public's views and comments on the proposal for site cleanup. This plan highlights the key information from the Technical Memorandum for No Further Action report, but is not a substitute for that document. More complete information can be found in that report and other documents within the **Administrative Record**.

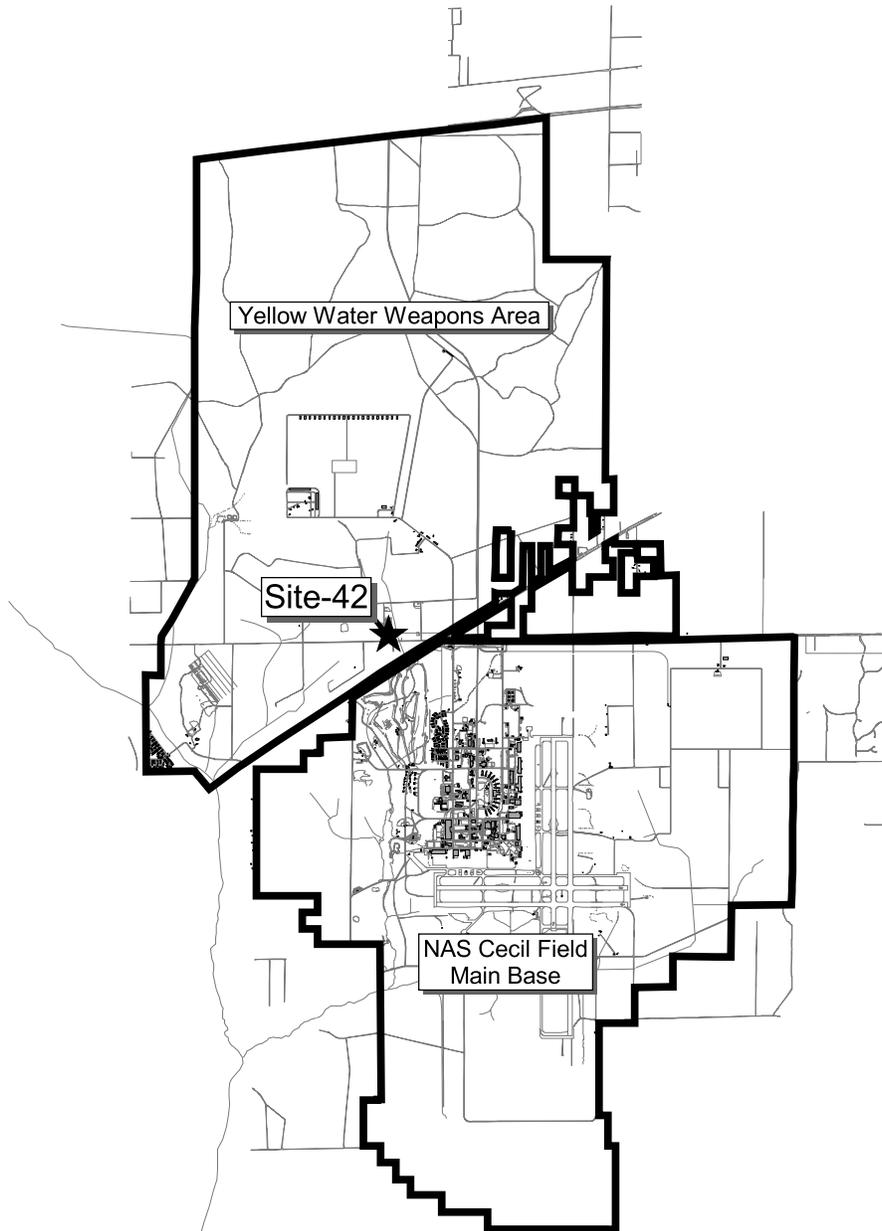
The Proposed Cleanup Plan

Based on an evaluation of findings from detailed environmental studies and the results of an **IRA** as presented in the Technical Memorandum for No Further Action for Site 42, No Further Action (NFA) has been proposed for the site.

NFA has been proposed because the time-critical **IRA** conducted at Site 42 is protective of human health and the environment. In addition, no **land use controls (LUCs)** are required because the **IRA** was conducted to meet **PRGs** that allow unrestricted site use. U.S. EPA and FDEP concur with the proposed clean-up plan.

*This document summarizes the NAS Cecil Field **BCT** proposed cleanup plan. For detailed information on the options evaluated for **OU 12**, Site 42, consult the documents contained within the **Administrative Record** that is available for review at the information repository located at Building 907, 13357 Lake Newman Street, Cecil Commerce Center, Jacksonville, Florida.*

Bolded terms throughout this Proposed Plan are explained in the Glossary of Terms presented on pages 6 and 7.



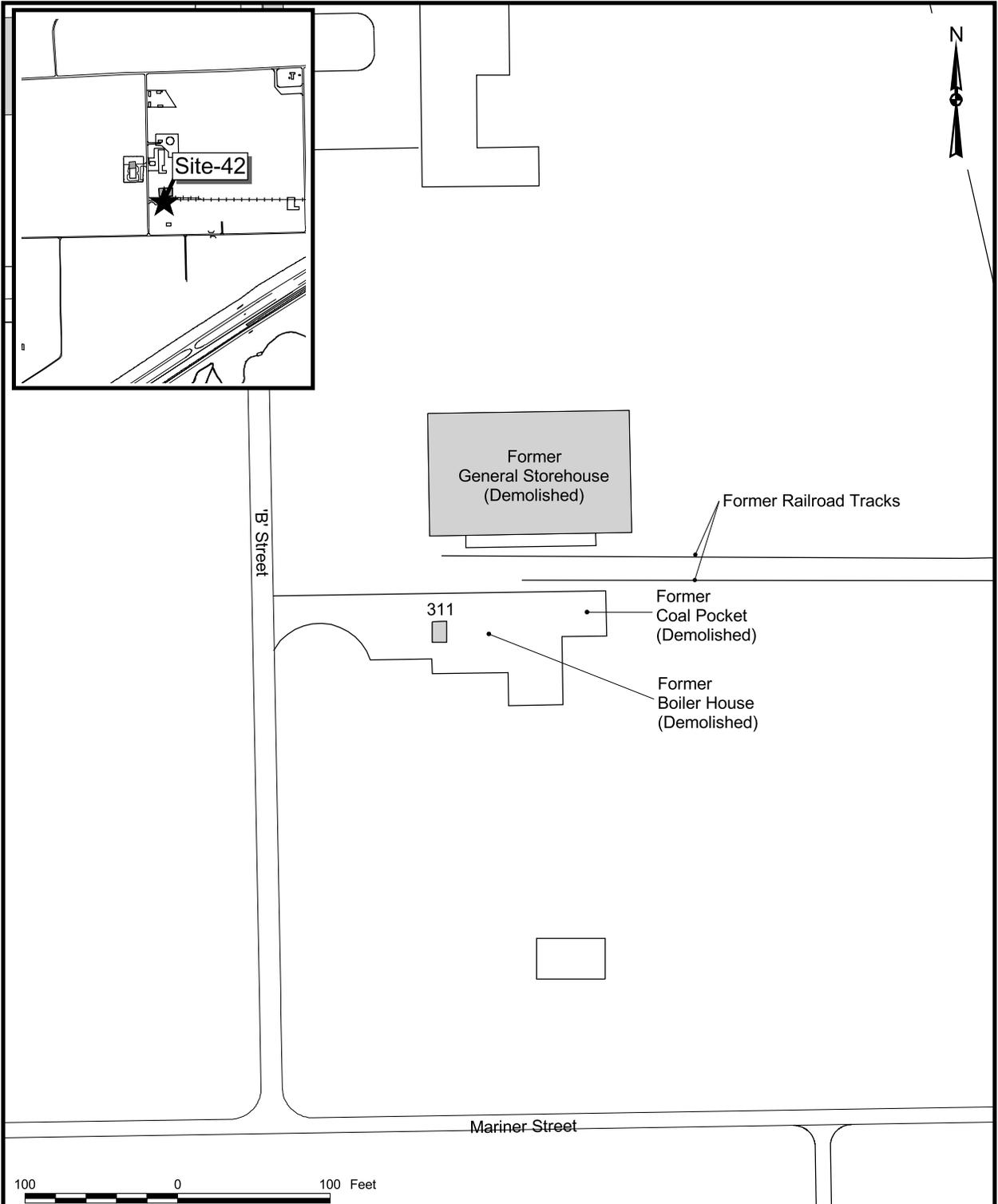
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GENERAL LOCATION MAP
OU12, SITE 42
FORMER BOILER HOUSE/STEAM PLANT
AND GENERAL STOREHOUSE
PROPOSED PLAN
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

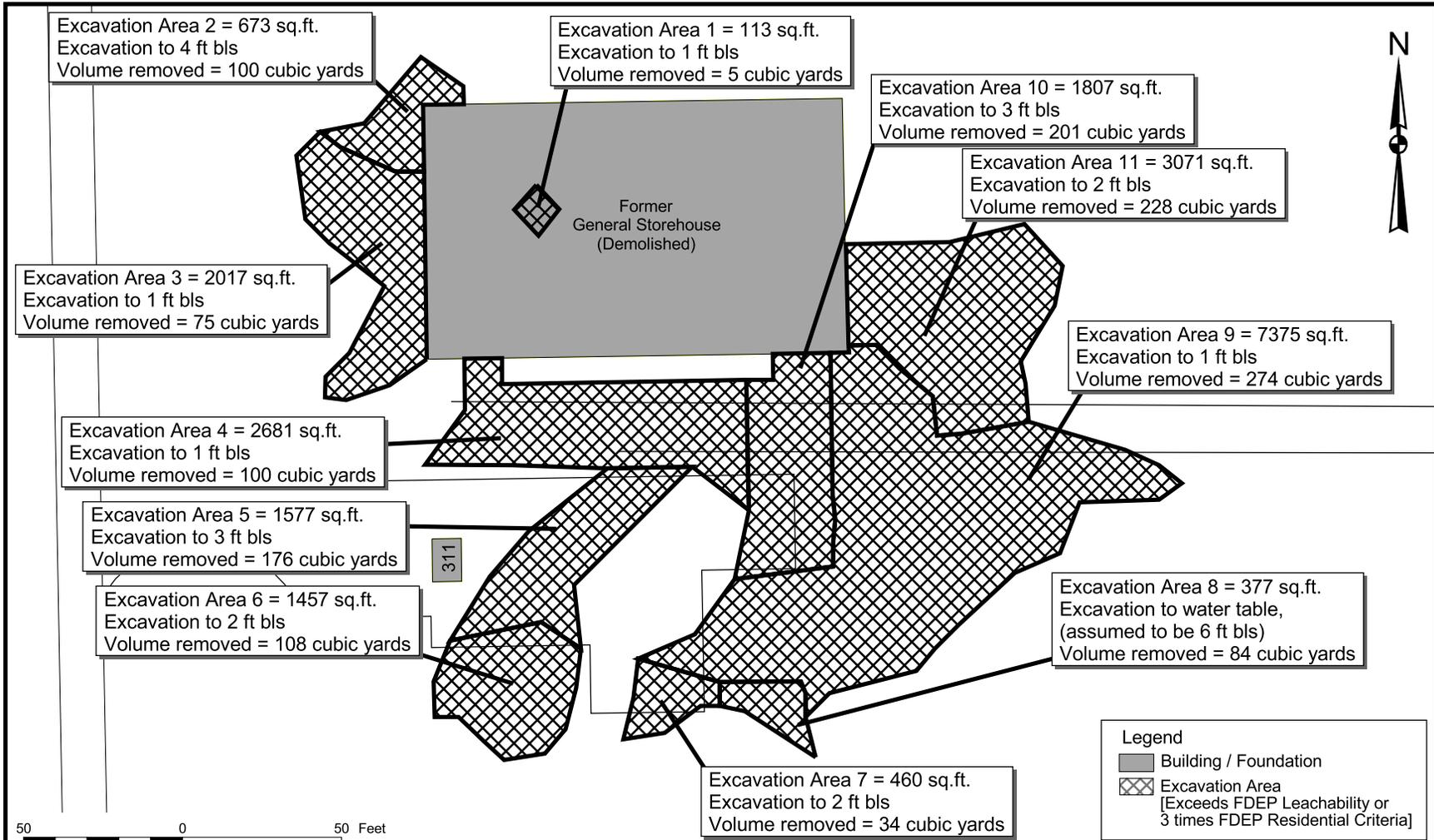
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DRAWING NO. FIGURE 1	REV 0

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DRAWN BY MJJ CHECKED BY COST/SCHEDULE-AREA SCALE AS NOTED	DATE 22Apr02 DATE DATE DATE		SITE MAP OU12, SITE 42 FORMER BOILER HOUSE/STEAM PLANT AND GENERAL STOREHOUSE PROPOSED PLAN NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 4187
				APPROVED BY APPROVED BY DRAWING NO. FIGURE 2

P:\GIS\NAS_CecilField\IPSC42_ProposedPlan.apr 22Apr02 MJJ Facility Location Layout



DRAWN BY MJJ CHECKED BY COST/SCHEDULE-AREA SCALE AS NOTED	DATE 22Apr02 DATE DATE DATE DATE		INTERIM REMOVAL ACTION OU12, SITE 42 FORMER BOILER HOUSE/STEAM PLANT AND GENERAL STOREHOUSE PROPOSED PLAN NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 4187 APPROVED BY _____ DATE _____ APPROVED BY _____ DATE _____ DRAWING NO. FIGURE-3 REV 0
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What do you think?

The Navy, as the lead agency, is accepting formal public comments on this proposal from June 7, 2002 to July 7, 2002. You don't have to be a technical expert to comment. If you have a concern or preference, the **BCT** wants to hear it before making a final decision on how to protect your community. To comment formally:

- Offer oral comments during the comment portion of the public hearing, if such a hearing is requested (see page 7 for details).
- Send written comments postmarked no later than July 7, 2002 to:

Commander
Department of the Navy
Southern Division
Naval Facilities Engineering Command
Attn: Scott Glass, P.E. (Code ES3)
2155 Eagle Drive
North Charleston, SC 29406
Tel: 843-820-5587

- E-mail comments by July 7, 2002 to:

glasssa@efdsouth.navy.mil

Why No Further Action Was Selected

The Navy's studies of **OU 12**, Site 42 have resulted in the following conclusions:

- Areas of soil where concentrations of BaPEq, antimony, arsenic, barium, chromium, and TRPH exceeded either the FDEP SCTLs for leachability to groundwater or three times the FDEP SCTLs for residential exposure have been excavated and disposed at a Subtitle D landfill. This resulted in site-wide 95 percent **UCL** concentrations below the residential FDEP SCTLs and allows for unrestricted reuse of the site.
- No groundwater contamination has been identified.
- The excavated area was restored to pre-excitation conditions with certified clean fill material.
- The results of the screening-level ecological risk assessment indicated that concentrations of chemicals remaining in soil after excavation pose negligible or low risks to ecological receptors.
- Since the **IRA** has been conducted, no contaminants or pathways pose a threat to public health or the environment.

Site History

Following is a brief environmental history of Site 42:

- **Late 1940s to early 1950s** – Site was operated in support of the Naval Air Gunnery School (NAGS).
- **1960s** – The steam plant and storehouse buildings were demolished and the railroad spur serving these buildings was removed.
- **1993 - 1999** - In the BRAC Environmental Baseline Survey (EBS) Report, no specific environmental concerns were identified. The report speculated about the presence of an underground storage tank (UST) but none was found. The report also recommended further investigation. A Phase II Sampling and Analysis program was conducted and the results of this investigation were presented in the 1999 YWWA Sampling and Analysis Outline and Report (SAOR). This report indicated several soil samples with concentrations of BaP, arsenic, and barium in excess of the FDEP SCTLs or the NAS Cecil Field site-specific **Inorganic Background Data Set (IBDS)** values. The site was identified as **Potential Source of Contamination (PSC) 42** in January 1999.
- **1999 - 2001** – Additional investigations were conducted at **PSC 42** to delineate the horizontal and vertical extent of soil contamination and to evaluate groundwater quality. A total of 149 soil samples were collected and analyzed over twelve phases from April 1999 to April 2001. In addition, two monitoring wells were installed in the areas of greatest soil contamination and one round of groundwater samples was collected from these wells and analyzed. As a result of these investigations, BaPEq, antimony, arsenic, barium, chromium, and **TRPH** were identified as soil **COCs**, because concentrations of these chemicals in soil exceeded the FDEP

SCTLs for residential exposure or leachability to groundwater or the **IBDS** values. No groundwater **COCs** were identified because none of the detected concentrations exceeded the FDEP Groundwater clean-up Levels (GCTLs) or the **IBDS** values.

- **2001** – An Action Memorandum for **PSC 42** was prepared in January 2001 to identify the need for an **IRA** and to describe and estimate the costs of the proposed **IRA**. The proposed **IRA** included the excavation and off-site disposal of soil contaminated in excess of **PRGs** in a time-critical manner. This **IRA** would allow for unrestricted site use.
- **2001 – IRA**. During March 2001, 2,420 tons (1,390 cubic yards) of soil were excavated from eleven areas of contamination. The depth of excavation ranged from 1 foot below grade to the groundwater table at approximately 6 feet below grade. Prior to excavation, the soil was characterized for disposal. Following excavation, the soil was transported and disposed off site on the same day that the removal occurred. The excavation was then backfilled with certified clean fill prior to being graded and seeded.
- **2001** – In May 2001, the **BCT** decided that, because of the extent of soil contamination delineated during the field investigations and **IRA**, **PSC 42** should be moved into the CERCLA program. The site was re-designated as **Installation Restoration (IR) Site 42** and grouped into **OU 12**.
- **2002** – A Technical Memorandum for No Further Action was prepared in March 2002. This document summarized the results of previous investigations, discussed the additional investigations, and described the nature and extent of contamination. This document also presented human health and ecological **Preliminary Risk Evaluations (PREs)**, summarized the **IRA**, and recommended that **OU 12**, Site 42 be designated as an NFA site.

Next Steps:

By September 9, 2002, the **BCT** expects to have reviewed comments and signed the **ROD** describing the chosen cleanup plan. The **ROD**, which includes a summary of responses to public comments, will then be made available to the public at the Information Repository at Building 907, 13357 Lake Newman Street, Cecil Commerce Center, Jacksonville, Florida. The **BCT** will also announce its decision through the local news media and the community mailing list.

Glossary of Terms

This glossary defines the terms used in this Proposed Plan. The definitions in this glossary apply specifically to this Proposed Plan and may have other meanings when used in different circumstances.

Administrative Record: The complete body of documents pertaining to the investigation and restoration of an environmental site. This body of documents is kept at a location where it can be accessed by the general public.

BRAC Cleanup Team (BCT): A team of representatives from several governmental agencies and private sector companies that cooperates toward the resolution of environmental concerns associated with the closure of Navy facilities. In addition to representatives of the Navy and their contractors, the NAS Cecil Field BCT includes representatives of U.S. EPA and FDEP.

Chemical of Concern (COC): A substance detected at a concentration and/or in a location where it could have an adverse effect on human health and the environment.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A Federal law also known as "Superfund". This law was passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA) and in 1992 by the Community Environmental Response Facilitation Act (CERFA). This law created a special tax that goes into a trust fund to investigate and cleanup abandoned or uncontrolled hazardous waste sites.

Inorganic Background Data Set (IBDS): A compendium of the concentrations of non-organic substances, mostly metals, detected in soil and groundwater in uncontaminated areas of NAS Cecil Field.

Installation Restoration (IR): A program established by the Navy for the investigation and cleanup of Superfund sites at their facilities.

Interim Removal Action (IRA): An interim cleanup action performed to address an immediate environmental threat.

Land Use Control (LUC): Institutional controls formulated and enforced to regulate current and future land use. **LUCs**

most often consist of property deed restrictions that prohibit residential development of an environmental site.

National Priorities List (NPL): The list of national Superfund sites.

Operable Unit (OU): A discrete entity that comprises an incremental step toward the comprehensive cleanup of one or more environmental sites. An **OU** may address a specific medium within a site (e.g., soil or groundwater), a geographical portion of the site, a specific site environmental concern, or the initial phases of an action. At NAS Cecil Field, **OUs** have often been organized to group multiple sites with similar characteristics and environmental concerns.

Polynuclear Aromatic Hydrocarbons (PAHs): High molecular weight, relatively immobile, and moderately toxic solid organic chemical that feature multiple benzenic (aromatic) rings in their chemical formula. **PAHs** are typically formed during the incomplete combustion of coal, oil, gas, garbage, or other organic substance.

Potential Source of Contamination (PSC): An area where environmental contamination was identified but limited to the soil above the groundwater table (vadose or unsaturated zone).

Preliminary Remedial Goal (PRG): A numerical concentration agreed upon by the **BCT** as having to be reached for a certain **COC** in order to meet one or more of the remedial action objectives. A **PRG** may be a regulatory-based criterion, a risk-based concentration, or even a background value.

Preliminary Risk Evaluation (PRE): A streamlined evaluation of current and future potential for adverse human health or environmental effects from exposure to site contaminants. This evaluation typically uses standard conservative criteria rather than site-specific evaluation parameters.

Record of Decision (ROD): An official document that describes the selected Superfund remedy for a specific site. The **ROD** documents the remedy selection process and is issued by the Navy and U.S. EPA following the public comment period.

Restoration Advisory Board (RAB): A body of representatives from the general public that meets on a regular basis to be briefed by the Navy and their contractors on the progress of environmental investigations and cleanup activities for a given facility. The **RAB** provides the opportunity for the community to give input into the cleanup program before final decisions are made.

Total Recoverable Petroleum Hydrocarbon (TRPH): A measurement of petroleum contamination in soil and water as defined by the State of Florida environmental regulations. This method measures the amount of petroleum compounds that have eight to forty carbon atoms.

Upper Confidence Level (UCL): Statistical term used to define a numerical value that is greater than a certain percentage of the numerical values of a given data set. For example, the 95-percent **UCL** of a data set of concentrations expresses the concentration value that is greater than 95 percent of the individual concentration values of the data set.

What's a Formal Comment?



Formal comments are used to improve the cleanup proposal. During the 30-day formal comment period, the BCT will accept formal written comments and hold a hearing, if requested, to accept formal verbal comments.

To make a formal comment, you need to present your views during the public hearing or submit a written comment during the comment period. A request for a public hearing to present your formal comments must be made in writing. The request must be postmarked no later than July 7, 2002. Written comments and requests for a public hearing should be sent to

Commander
Department of the Navy
Southern Division
Naval Facilities Engineering Command
Attn: Mr. Scott Glass, P.E. (Code ES3)
2155 Eagle Drive
North Charleston, SC 29406



Federal regulations require the BCT to distinguish between "formal" and "informal" comments. Although the BCT uses both your comments and RAB comments throughout site investigation and clean-up activities, the team is only required to respond in writing to formal comments on the Proposed Plan. If a public hearing is requested, there will be no verbal response to your comments during the formal hearing portion of the meeting. Once the formal hearing portion of the public meeting is closed, the BCT may respond to informal questions.

The BCT will review the transcript of all formal comments received at the hearing and all written comments received during the formal comment period before making a final cleanup decision. They will then prepare a written response to all formal comments. The transcript of formal comments and the BCT's written responses will then be issued in a document called a Responsiveness Summary when the team releases the final ROD.

For More Detailed Information

To help the public understand and comment on the proposal for the site, this publication summarizes a number of reports and studies. All the technical and public information publications prepared to date for the site are available at the following information repository:

Building 907
13357 Lake Newman Street
Cecil Commerce Center
Jacksonville, Florida 32252
904-573-0336



