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NAS WHITING FIELD
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PROPOSED PLAN FOR SITE 18 NAS WHITING FIELD FL
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PROPOSED PLAN

August 2006

Site 18, Crash Crew Training Area B Surface and Subsurface Soils

In accordance with the National Contingency Plan (NCP) §300.430(f) as well as Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), this document summarizes the Navy's proposal for Engineering Controls and Land Use Controls at Site 18 (Crash Crew Training Area B) at NAS Whiting Field.

The Department of Defense and the Navy have completed the investigation of surface and subsurface soil at Naval Air Station Whiting Field Site 18, Crash Crew Training Area B. The site history and current conditions require a remedy which includes Engineering Controls and Land Use Controls restricting future land use at the site to non-residential activities.

The Proposal

In accordance with the National Contingency Plan (NCP) §300.430(f) as well as Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), this document identifies the Preferred Alternative to address contaminated surface and subsurface soils at Site 18, Crash Crew Training Area B, at NAS Whiting Field (Figure 1), and provides the rationale for this preference. Groundwater at Site 18 is being handled separately as part of the NAS Whiting Field base-wide groundwater study (a.k.a. Site 40).

This proposal was developed by the Navy, the lead agency, with approval from the U.S. Environmental Protection Agency (USEPA), a support agency, and concurrence from Florida Department of Environmental Protection (FDEP), a support agency.

The final proposed remedy for Site 18 is Engineering Controls (ECs) and Land-Use Controls (LUCs) for surface and subsurface soils. ECs are in place, in the form of a soil cover, and LUCs will be implemented at the site restricting future use of the site to non-residential activities such as parks and pedestrian trails. The ECs and LUCs will specifically prohibit land uses such as housing developments, playgrounds, schools, and child care facilities. The current and potential future land use at Site 18 is non-residential/recreational.

The proposed plan is a document intended to fulfill the public participation requirements under CERCLA and the NCP with specific purposes as follows: provide basic background information; identify the preferred alternative for remedial action at the site and explain the reasons for the preference; solicit public review and comment on the

remedy; and provide information on how the public can be involved in the remedy selection process.

The NAS Whiting Field Restoration Advisory Board (RAB) has provided input into the development of the proposed remedy.

The Navy, USEPA, and FDEP will select a final response action for surface and subsurface soil at Site 18 after the public comment period has ended and all written comments received have been evaluated. The final response action will be selected to ensure protection of human health and the environment and will be detailed in a Record of Decision (ROD) document for the site. This document will be published as a permanent part of the administrative record for NAS Whiting Field.

This Proposed Plan summarizes information found in greater detail in the *Remedial Investigation (RI) Report Site 18, Crash Crew Training Area B*; the *Feasibility Study (FS) for Site 18, Crash Crew Training Area B*; and other site documents. These materials are available for review at the **NAS Whiting Field Information Repository, West Florida Regional Library, Milton Branch, 805 Alabama Street, Milton, Florida, 32570; (850) 623-5565.**

Site History

Location: Site 18 is approximately 5 acres in size and is located along the northwestern facility boundary at NAS Whiting Field, near the North Air Field taxiway. The approximate location of Site 18 is shown on Figure 1.

Operational and Waste Disposal History: It has been reported that firefighting crew training exercises and activities were conducted at Site 18 between 1951 and 1991. The site consists of 11 burn pits rimmed by mounded earth. Each of the pits contained decommissioned fuel tanks or aircraft fuselage to simulate aircraft crashes. The training exercises typically involved pouring approximately 110 gallons of jet propellant (JP-5) fuel into the burn pits, igniting it, and extinguishing the fires with aqueous film-forming foam (Geraghty & Miller, 1986).

Current Conditions: At this time, Site 18 consists of a vacant, unused open field with sparse native grasses. These site characteristics limit the current potential for fugitive dust emissions and soil transport by surface water runoff. In 1999, areas of concern at Site 18, including the burn pits, were covered with soil. A 24-inch permeable soil layer and native grass cover was placed over the surface soil at the site. The site was graded to slope gently towards the southwest, and is currently maintained as an open grassy field. Site 18 is not fenced; however, access is controlled at the perimeter security gate.



Comments

The Navy will be accepting written comments (see insert) from **15 August through 14 September 2006**. The comment period includes an opportunity for a public meeting where the Navy would present more detailed site information. A meeting will be held if there is a request from members of the public before the end of the comment period. All comments will be considered before a final decision is reached.

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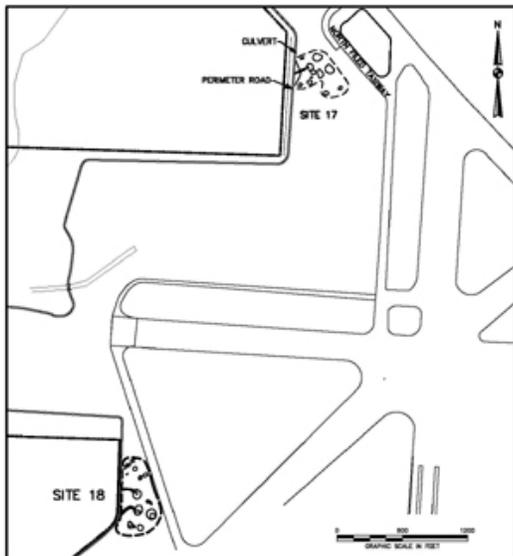


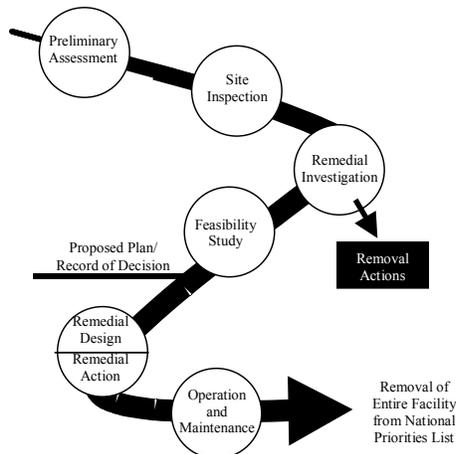
Figure 1. Site 18 Location Map

Environmental History

Regulatory Framework

NAS Whiting Field was placed on the USEPA National Priorities List (NPL) for environmental study and cleanup in June 1994.

Environmental work at Site 18 is part of the ongoing program at NAS Whiting Field. This is a Department of Defense program to investigate and, if necessary, clean up conditions related to suspected past releases of hazardous materials at military facilities. The program complies with the CERCLA and other applicable Florida and Federal environmental regulations, and is typically performed in the following stages:



Investigation Activities

The RI at Site 18 was conducted in phases from 1992 through 1996. Fieldwork included a range of environmental studies to collect the data needed to determine the presence, nature, and extent of contamination. The field activities and their objectives included the following:

Surface Soil Sampling: conducted to determine surface soil characteristics and contaminant concentrations by laboratory chemical analysis.

Subsurface Soil Sampling: conducted to determine subsurface soil characteristics and contaminant concentrations by laboratory chemical analysis.

Investigation Findings

The RI Report provided an understanding of the soil environmental conditions at Site 18. Groundwater conditions at Site 18 will be investigated and evaluated separately in the base-wide groundwater study (Site 40). After the RI Report was completed in 1999, a FS was conducted to identify the best approach to address the soil contamination at the site.

Since this time, the following site conditions changed:

- Arsenic, originally identified in the FS as a constituent of concern (COC), was determined to be naturally occurring at Site 18. Aluminum, iron, manganese, and vanadium were also determined to be naturally occurring at NAS Whiting Field. This

was based on additional review of data from the facility and surrounding area.

- Over the course of investigations at this site, the USEPA changed its screening criteria for evaluation of hazardous waste-related sites.

To address these changed site conditions, a revised human health risk assessment (HHRA) was conducted in 2004.

The current findings of soil environmental conditions at the site are summarized below.

General Site Conditions: Surface and subsurface soil is predominantly sand and silt with thin layers of clay. The terrain at the site consists of a gentle slope to the southwest.

Soil Conditions:

- The constituents detected in surface soils at Site 18 included seven volatile organic compound (VOC), 15 semi-volatile organic compounds (SVOCs), 22 inorganic constituents, and total recoverable petroleum hydrocarbon (TRPH). Carcinogenic polynuclear aromatic hydrocarbon (cPAHs), barium, copper, and TRPH were detected at concentrations in excess of the direct contact, risk based screening levels and were identified as COCs for surface soils at Site 18.
- The constituents detected in subsurface soils at Site 18 included four VOCs, eight SVOCs, one pesticides, 19 inorganic constituents, TRPH, and cyanide. cPAHs and TRPH were detected at concentrations in excess of the direct contact, risk based screening levels and were identified as COCs for subsurface soil at Site 18.

Current and Future Land Uses: The current and future anticipated land use at Site 18 is non-residential/recreational.

Risk Assessment Findings: The data collected during the RI is used in preparing two risk assessments: the HHRA and the ecological risk assessment, to determine if risks to human health or the environment are present. Several COCs were identified in surface or subsurface soils at Site 18 above FDEP or USEPA target risk levels for protection of human health and the environment under a residential land use scenario.

Human Health Risks: The HHRA evaluates the risk associated with cancer-causing (carcinogenic) constituents as well as those constituents associated with non-cancer adverse health effects. Based on the findings of the HHRA, carcinogenic risk based on cPAHs, exceeds the State of Florida target risk level for the hypothetical future resident and construction worker exposed to surface and subsurface soil at Site 18.

For non-cancer-causing constituents, the measure of the likelihood of adverse effects occurring in humans is called the Hazard Index (HI). An HI greater than 1.0 suggests adverse effects are possible. At Site 18 the total HI for all potential receptors is less than 1.0 indicating no unacceptable non-cancer adverse health



Comments

For your convenience a public comment form is included with this proposed plan. Written comments and requests for more information or a public meeting must be mailed (postmarked) by 14 September 2006.

Environmental History

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effects have been identified for exposure to surface and subsurface soil at Site 18.

Ecological Risks: The quantity of the terrestrial habitat at Site 18 is limited. The site is comprised of currently vacant, unused land consisting of exposed soil with sparse native grasses. Most importantly, the site comprises only a small portion of the home ranges of most of the terrestrial wildlife species found on-base. No unacceptable ecological risk was identified for surface or subsurface soil at Site 18.

It is the lead agency's current judgment that the preferred alternative identified in this Proposed Plan, or one of the other active measures considered is necessary to protect public health, welfare or the environment from actual or threatened releases of hazardous substances into the environment.

Basis for the Proposal

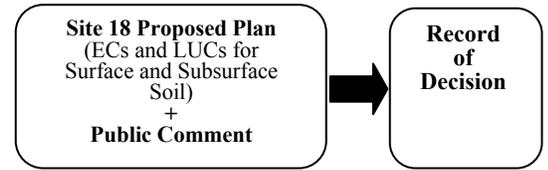
Based on the RI, the FS, and review of inorganic data from the facility, the Navy is proposing ECs and LUCs for surface and subsurface soil at Site 18. Under this action, future land use will be restricted to non-residential activities such as parks or pedestrian trails. The ECs and LUCs will specifically prohibit land uses such as housing developments, playgrounds, schools, and child care facilities. Because this remedy will result in hazardous substances, pollutants, or contaminants remaining on site above residential health-based levels, a statutory review will be conducted every five years after initiation of the remedy to ensure the remedy continues to be protective of human health and the environment.

Community acceptance of the proposed remedial action is the next step. Once the proposal is approved, the ROD will be signed by the Navy and USEPA with concurrence by FDEP. This document will establish the ECs and LUCs for surface and subsurface soil decision at Site 18. No other soil cleanup measures at Site 18 will be proposed after approval of the selected remedial action.

Public Involvement

The Navy has established an active outreach program to ensure community involvement in environmental activities at Site 18 and throughout NAS Whiting Field. The Navy will be accepting written comments on the proposed Site 18 remedial action from 15 August through 14 September, 2006. Public participation in the selection is encouraged.

Comments can be submitted using the enclosed form. Comments will be summarized and responses provided in the responsiveness summary section of the ROD.



The comment period includes an opportunity for a public meeting where the Navy would present the RI and FS reports, the Proposed Plan, answer questions, and receive comments in writing from the public. A public meeting will be held if one is requested by members of the public before the end of the comment period.

The NAS Whiting Field RAB is another method used by the Navy to promote public involvement in the base environmental cleanup program. For example, the RAB has been invited to participate in developing the proposed remedy by reviewing the documents, offering suggestions, and expressing their concerns on the proposed remedial actions. The RAB meets at convenient times and locations to discuss Installation Restoration program status and provide community input into the cleanup process. RAB meetings are open to the public and are advertised in local media.



Technical Presentation at a RAB meeting

A community mailing list is also maintained to distribute updates about the environmental program directly to interested members of the community.

If you need additional information, would like to comment on the proposed remedy or would like to request a public meeting, please contact:



Mr. Ronald Joyner
Public Works Department
NAS Whiting Field
7151 USS WASP Street
Milton, Florida 32570-6159
(850) 623-7181 (Ext. 40)

Glossary (commonly used terms)

Aquifer: an underground layer of rock, sand, or gravel capable of storing and transmitting water within cracks and pore spaces, or between grains.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): a Federal law enacted in 1980 and amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986. CERCLA, administered by the USEPA and commonly known as Superfund, outlines a process to evaluate, and remediate if necessary, hazardous waste conditions that may pose a threat to human health or the environment.

Engineering Controls (ECs): actual physical engineering tools and/or barriers reducing potential risk of contact with contaminated media in designated areas.

Feasibility Study (FS): an engineering analysis and report identifying and evaluating the most appropriate technical approaches for addressing contamination at a site.

Hazard Index (HI): the measure of the likelihood of non-cancer adverse health effects occurring to humans from exposure to chemical constituents.

Information Repository: a public file containing technical reports, reference documents, and other materials relevant to the site cleanup.

Land Use Controls (LUCs): enforceable documentation that restricts access to and future use of designated land areas.

National Priorities List (NPL): the USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund.

Proposed Plan: a public participation document detailing the preferred response action at a site.

Public Comment Period: a legally required opportunity for the community to provide written and oral comments on a proposed environmental action at a hazardous waste site.

Record of Decision (ROD): a public document explaining selected cleanup alternatives at a site; it is based on information and technical analysis, and on consideration of public comments and concerns. The ROD is issued and signed by the Navy and the USEPA at the completion of a Remedial Investigation and Feasibility Study and after community acceptance of the Proposed Plan.

Remedial Action: the actual construction or cleanup phase following the selection of cleanup alternatives.

Removal Action: an action taken to address a release or potential release of hazardous substances, which may or may not, pose an immediate danger to public health or the environment.

Remedial Investigation (RI): an in-depth study to determine the nature and extent of contamination and establish cleanup criteria.

Response Action: a federally authorized action to respond to environmental contamination. There are two types: removal action taken over the short-term to respond quickly to a more immediate threat, and remedial action involving long-term activities for a more permanent cleanup solution.

Responsiveness Summary: a section of the ROD summarizing the public comments received and the responses to the comments.

Restoration Advisory Board (RAB): an advisory group composed of regulatory agency representatives, site personnel, and community volunteers who provide input and promote public involvement in cleanup activities.

Risk Assessment: a study estimating the potential risk from a site to human health and the environment.

Site Inspection: an investigation phase where environmental samples are collected and analyzed to assess the presence of contamination.

Soil Cleanup Target Levels (SCTLs): target concentration levels established by FDEP (Chapter 62-770, F.A.C.) and determined to be protective of human health and the environment.