

N00213.AR.000408  
NAS KEY WEST  
5090.3a

PROPOSED PLAN FOR SOIL REMEDY AT HAMACA HAWK MISSILE SITE SEWAGE LIFT  
STATION NAS KEY WEST FL  
9/19/1999  
NAS KEY WEST



## PROPOSED PLAN



### Naval Air Station Key West, Florida

**Facility/Unit Type:** Hamaca Hawk Missile Site Sewage Lift Station  
**Contaminants:** Arsenic  
**Media:** Soil  
**Remedy:** Land-Use Controls

#### INTRODUCTION

This Proposed Plan is issued by the U.S. Navy, the lead agency for Naval Air Station (NAS) Key West remedial activities, with concurrence by the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP). The proposed remedial activities are conducted under the Department of Defense's Base Realignment and Closure (BRAC) program in accordance with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Contingency Plan (NCP), and the FDEP Brownfields Cleanup Criteria Rule (62-785 F.A.C.). The Sewage Lift Station at Hamaca Hawk Missile Site is the site of interest and is known as Parcel A, Subzone 4.

This Proposed Plan identifies the proposed remedy for the Sewage Lift Station at NAS Key West, explains the rationale for the preference, solicits public review and comment on the conclusions of the Supplemental Site Inspection (SSI), and provides information as to how the public can be involved in the remedy selection process. The Proposed Plan provides a summary of past environmental work at the Sewage Lift Station. This document provides key highlights of the SSI Report but should not be used as a substitute. Additional details regarding the site and the investigation conducted may be found in the SSI Report that is kept as part of the information repository. Please refer to the cover letter for the repository location.

The public is encouraged to comment on the proposed remedy. The U.S. Navy emphasizes that the proposed remedy is the initial recommendation of the Agency. Changes to the proposed remedy, or a change from the proposed remedy to another remedy, may be made if public comments or additional data indicate that such a change would result in a more appropriate solution.

#### PROPOSED REMEDY

The proposed remedy is land-use controls because contamination at the site has been sufficiently remediated. Minimal costs are associated with implementing and administering these land-use controls.

#### FACILITY BACKGROUND

Hamaca Hawk Missile Site is located at the east end of Key West. Based on historical maps and aerial photographs, it is thought that the site was originally made up of salt ponds that were filled by the U.S. Army. This facility was built in 1964 as a defense site to repel an expected Cuban and Russian assault as a result of the Cuban Missile Crisis. The site was used for coastal defense until the early 1980s when it was transferred to the Navy. The Navy did not use the property but allowed homeless veterans to stay there in 1994 and 1995.

The Sewage Lift Station is shown in Figure 1. Arsenic was detected above its 2.7 mg/kg action level during the Site Inspection (SI) conducted in 1998. The SI Report describes contaminants detected at Hamaca Hawk Missile Site and determines the media and contaminants of concern based on these detections. In addition, the Engineer's Estimate/Cost Analysis (EE/CA) for Alternatives for BRAC Fast Track Soil Removal Parcels and the Action Memorandum for BRAC Fast Track Soil Removal Parcels briefly describe contamination at Hamaca Hawk Missile Site, remedial alternatives evaluated for the Interim Remedial Action (IRA), and costs associated with remediation. The SSI Report describes in detail the IRA performed and results of confirmation samples taken at the site.

The IRA at the site removed 2 feet of arsenic-contaminated soil to the concrete foundations to the south (former above-ground storage tank (AST) and former Veterans Administration building), bedrock to the east, and below the action level for arsenic to the west (Figure 1). The approximate volume removed was 45 cubic yards. The SI analyte of concern, arsenic, showed a reduction in concentration from 6 mg/kg and 28.8 mg/kg at two locations before excavation to one exceedance of 21.4 mg/kg after excavation. However, this exceedance was located beneath a concrete foundation adjacent to the veterans Administration Building. Due to the foundation location and the protection provided by it no further excavation was performed. Clean fill was placed in the excavation to return the site to grade.

The soil removal activities were performed in accordance with the FDEP Brownfields Cleanup Criteria Rule, No Further Action Criteria [62-785.680 F.A.C.] that provided a secondary regulatory driver to the site action levels. The regulation addresses no-further-action remedies with institutional controls and engineering controls (Refer to the Land-Use Control section, below, for definitions) such as alternate cleanup criteria for the soil contaminant concentrations 2 feet below land surface. These cleanup criteria were implemented during the soil removal activities at the site. The no-further-action regulation also addresses the use of permanent cover and containment material to prevent human exposure and limit water infiltration. The concrete-covered areas found during excavation activities at the sewage lift station meet the definition of permanent cover material.

## **SCOPE OF THE REMEDIAL ACTION**

### **Land-Use Controls**

In accordance with U.S. Navy and FDEP policies, the site remedy will include land-use controls. These remedies are often used when contamination poses low, long-term threats to the environment or where full treatment is impracticable. Land-use controls include engineering controls and institutional controls. Engineering controls include signs, guards, landfill caps, provisions for potable water, sheet pile, pumping and treatment of groundwater, monitoring wells and vapor extraction systems. Institutional controls are a variety of legal devices imposed to ensure that the engineering controls stay in place or, where there are no engineering controls, to ensure the restrictions on land use stay in place. Institution controls include easements, covenants, permits, notices (in deeds, newspapers, etc.) zoning, agreements with regulators, and land-use control maintenance reporting.

Soil excavation at the Sewage Lift Station was impeded by building foundations to the south. This impediment provides engineering controls to the remaining soil contaminants preventing exposure of the soil to the environment. Further, the excavation of all of the remaining contaminated soils was not deemed practical due to the possible adverse impact on the standing buildings or structures.

The land-use controls at the Sewage Lift Station will include deed restrictions (institutional control) that will require anyone who disturbs structures identified as a permanent cover and/or containment materials do so in compliance with appropriate laws and regulations. For example, future workers who disturb these areas shall be in compliance with Occupational Safety and Health Administration (OSHA) regulations (promulgated under Chapter 29 of the Code of Federal Regulations, Section 1910.120) and appropriate Resource Conservation Recovery Act (RCRA) and CERCLA Laws as a result of elevated arsenic concentrations in soils.

### **Alternative Remedial Action**

As required by the Department of the Navy Policy Memorandum 99-02; Land Use Controls, an alternative that provides an unrestricted property use was evaluated for the Sewage Lift Station. This alternative requires excavation of soils from beneath building/tank foundations, which could cause damage to the structures. Therefore, this alternative was not selected because the building/foundation provides an acceptable level of protection to human health and the environment and the possible adverse impact to the structures.

The U.S. Navy recognizes that CERCLA allows various options for implementing remedies based on site conditions. For the Sewage Lift Station at NAS Key West, the SSI Report indicates that the IRA (soil removal) reduced the threat to human health and the environment to acceptable levels in accordance with CERCLA, the NCP, and the Brownfields Cleanup Criteria Rule. Therefore, there is sufficient justification to propose land-use controls for the site.

### **NAS Key West Contact**

Phillip Williams  
Installation Restoration Coordinator  
Environmental Branch  
U.S. Naval Air Station Key West  
P.O. Box 9007  
Key West, Florida 33040-9007  
(Phone: 305-293-2061; Fax: 305-293-2542)

**NEXT STEPS**

Following a 30-day public comment period, the U.S. Navy will issue a final decision on the proposed remedy. The Decision Document, which will describe the remedy chosen for the Sewage Lift Station and other BRAC sites, will include responses to oral comments received during the public comment period. Concurrence from EPA and FDEP will be obtained before implementing the final remedy.

