

N00213.AR.000318  
NAS KEY WEST  
5090.3a

PROPOSED PLAN FOR BIG COPPITT KEY ABANDONED CIVILIAN DISPOSAL AREA NAS  
KEY WEST FL  
10/18/1998  
NAS KEY WEST



## PROPOSED PLAN



### Naval Air Station Key West, Florida

**Facility/Unit Type:** Military Installation/Big Coppitt Key Abandoned Civilian Disposal Area (AOC B)  
**Contaminants:** Organics, Metals, and Pesticides  
**Media:** Soil, Sediment, Surface Water, Groundwater, and Biota  
**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 Florida Department of Environmental Protection (FDEP). The proposed remedial activities are conducted under the Department of Defense's Installation Restoration Program (IRP) in accordance with Section 120 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP). The Big Coppitt Key Abandoned Civilian Disposal Area is the site of interest and is known as AOC B.

The purpose of this Proposed Plan is several-fold. The Proposed Plan identifies the proposed remedy for AOC B at NAS Key West and explains the rationale for the preference, solicits public review and comment on conclusions of the CERCLA Remedial Investigation (RI); 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 AOC B. This document provides key highlights of the Supplemental RCRA Facility Investigation and Remedial Investigation Report January 1998 (RI Report), but should not be used as a substitute. Additional details regarding the facility and the investigation conducted may be found in the RI Report that is kept as part of the

information repository. Please refer to the Public Participation section for its location.

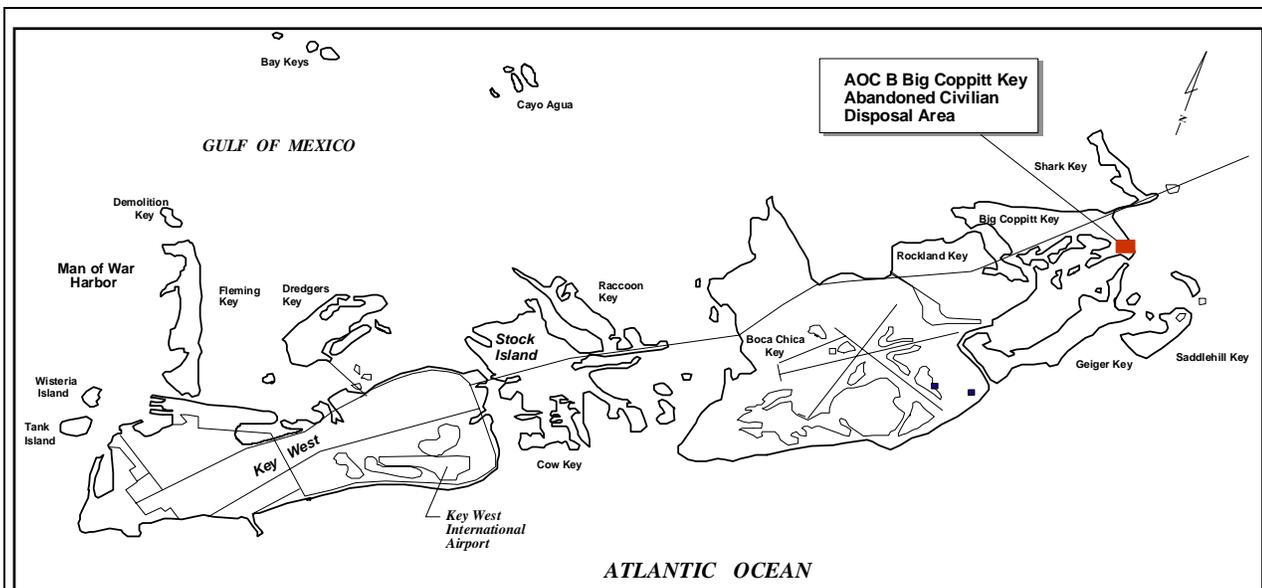
The public is encouraged to comment on the proposed remedy which is based on the conclusions of the RI Report. The U.S. Navy emphasizes that the proposed remedy is the initial recommendation of the Agency. Changes to the proposed remedy, or a change from the proposed remedy to another remedy, may be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

#### PROPOSED REMEDY

As discussed above, the proposed remedy represents the U.S. Navy's initial recommendation for AOC B. The proposed remedy is no remedial action beyond that done in the Interim Remedial Action (IRA) because the contamination at the site has been sufficiently remediated. Land-use controls will be required. Minimal costs are associated with implementing and administering land-use control.

#### FACILITY BACKGROUND

The U.S. Navy owns 5,660 acres in Monroe County, Florida as part of NAS Key West. AOC B is located on Big Coppitt Key to the east of Boca Chica Key (Figure 1).



**Figure 1. NAS Key West AOC B Big Coppitt Key Abandoned Civilian Disposal Area.**

In 1987, an Initial Assessment Study (IAS) was conducted at NAS Key West. Based on the results of the IAS, an RI was recommended at AOC B, the Big Coppitt Key Abandoned Civilian Disposal Area.

AOC B encompasses approximately 10 acres, of which approximately 1.6 acres is occupied by a dead-end canal (Figure 2). The southeastern end is the former disposal area. A mangrove swamp extends to the east, west, and south of the former disposal area. A canal and a large cleared area are located north of the former disposal area. Ground elevations at the site vary from sea level up to approximately 2 feet above sea level. All runoff from precipitation appears to drain directly into the canal and into the mangrove wetlands.

The area was used by civilians to dispose of discarded car/truck body and frame parts. The U. S. Navy purchased the property in 1985 to comply with the Federal Aviation Administration requirement for an Aircraft Compatibility Usage Installation Zone. In 1996, the U. S. Navy conducted an IRA to excavate and dispose of contaminated soils at AOC B. The action removed 1,251 cubic yards of soil for offsite treatment and disposal.

Sampling was performed in 1993, 1995, and 1996 during a series of remedial investigations at the site. Metals were the only

compounds analyzed in soil sampling during the 1995 study. Zinc was the only metal detected in excess of its applicable or relevant and appropriate requirements and screening action levels (ARAR/SAL) although several other metals were detected.

In 1993, sediment sampling did not detect the presence of volatile organic compounds (VOCs). One semivolatile organic compound (SVOC) (phenanthrene) was found at concentrations below its ARAR/SAL level. In addition pesticides (4,4'-DDT and its degradation products), polychlorinated biphenyls (PCBs), and metals (arsenic, beryllium, cadmium, chromium, copper, iron, lead, mercury, nickel, and zinc) were detected in excess of ARAR/SALs.

Surface water was sampled at AOC B in 1993. No VOCs or SVOCs were detected during the sampling events. No pesticides were detected above ARAR/SALs. Four PCBs were detected at one sampling location in excess of ARAR/SALs in 1993. Inorganics (antimony, arsenic, beryllium, chromium, copper, iron, lead, nickel, tin, and zinc) were detected in excess of ARAR/SALs in 1993. Generally, fewer metals were detected, and the concentrations were less in 1996, compared to the 1993 surface water sampling study; only copper, iron, manganese, and nickel exceeded SALs in 1996.

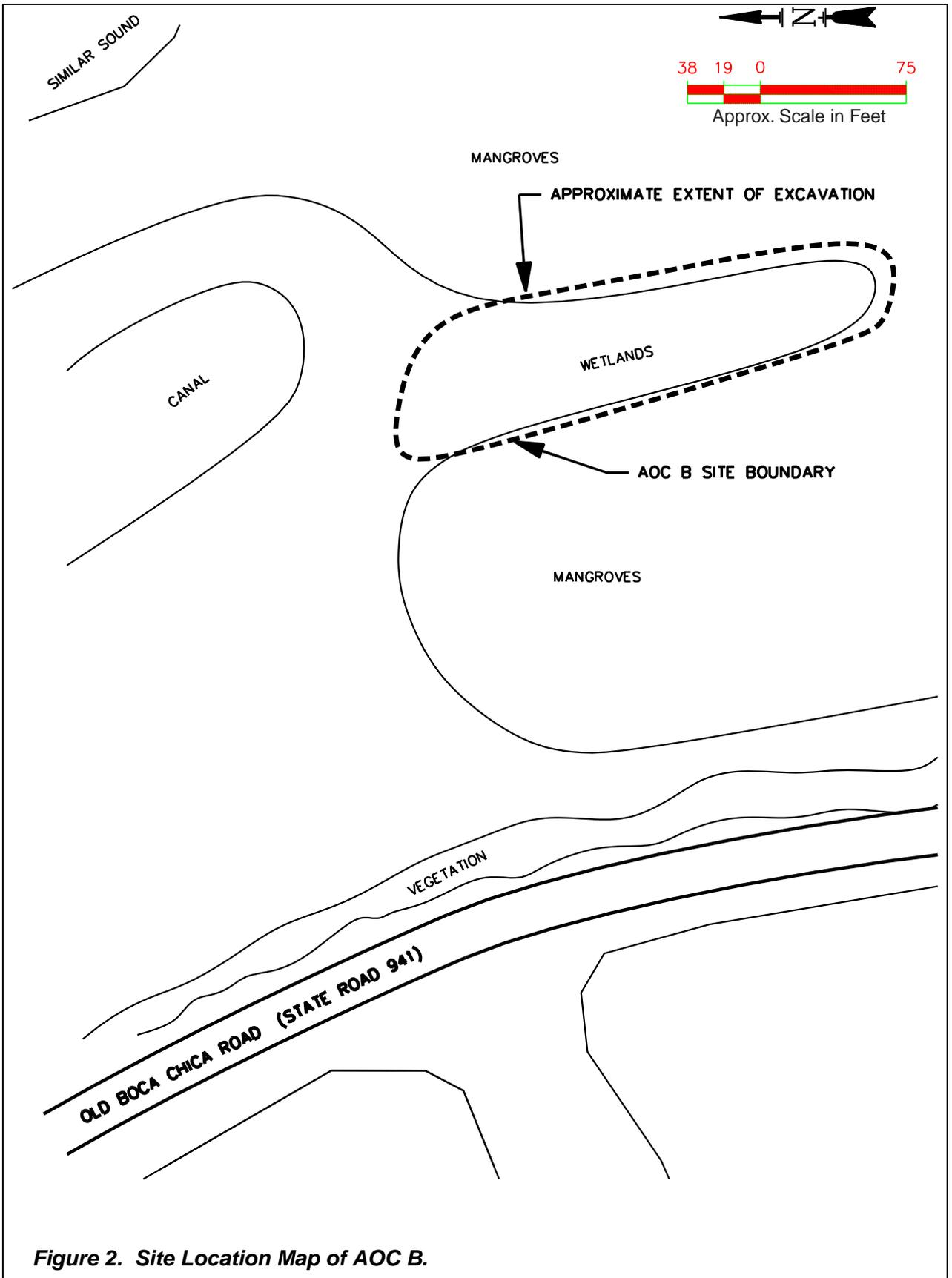


Figure 2. Site Location Map of AOC B.

Groundwater was sampled at AOC B in 1993 and 1996. Groundwater analytical results indicated the presence of metals in all investigations; however, in 1996 the frequency and magnitude of the detections were reduced from previous investigations. No VOCs and SVOCs were detected; however, pesticides were detected in excess of ARAR/SALs.

### **SUMMARY OF FACILITY RISKS**

A Human Health Baseline Risk Assessment (BRA) and an Ecological Risk Assessment (ERA) were performed as part of the RI Report. The IR sites at NAS Key West were evaluated for risk following CERCLA guidance at the request of FDEP and EPA Region IV. No data from samples that were taken from the area excavated during the IRA were used during the risk analyses to account for the contamination that was removed at AOC B.

In the BRA, human health risks associated with the exposure to detected contaminants in soil, sediment, and surface water were estimated for each potential receptor. Although groundwater was sampled and analyzed, it was not considered a pathway of concern since groundwater at this site meets the FDEP criteria for a Class G-III nonpotable aquifer. The full BRA is in the RI Report.

The potential receptors were based on current and future land uses. The current potential receptors identified for AOC B include adolescent/adult trespasser, occupational worker, and site maintenance worker. Under the future land-use scenario, the most likely potential receptor is believed to be an excavation worker. Also considered under the future land-use scenario is a residential child and adult, although residential development of AOC B is considered unlikely. Under the master plan for land use on NAS Key West, the future land use for the area where AOC B is located is as a restricted-access military base, with future zoning to limit access at the site. In addition, the memorandum of agreement has been developed and signed and land-use controls have been developed.

There is potential for a future resident to be exposed to concentrations of contaminants that may cause limited carcinogenic and noncarcinogenic risks. This potential risk was modeled for possible human receptors. Conservative risk-based screening levels are used in the exposure pathway model for

sediment and surface water. This results in the selection of chemicals of potential concern (COPCs) that do not contribute significantly to the quantitative risk. The COPCs were selected within a medium based on comparison of the detected concentrations to risk-based screening levels. The selected COPCs represent those chemicals at AOC B that are expected to contribute significantly to one or more of the exposure pathways selected for risk estimation. The BRA identified no COPCs in soil because all detected contaminants were detected at levels below risk based concentrations (RBCs) developed for the residential land-use scenario. The BRA identified metals (antimony, arsenic, beryllium, cadmium, chromium, copper, iron, manganese, and zinc), PCBs (Aroclor-1254, Aroclor-1260), and one polynuclear aromatic hydrocarbon (phenanthrene) in sediment and surface water as COPCs for the current adolescent and adult trespasser and potential future residents. Lastly, manganese and pesticides (heptachlor, alpha-BHC, chlorobenzilate, dieldrin, and aldrin) were identified as COPCs in surface water for potential consumption of shellfish by the future resident.

For the BRA, the carcinogenic and noncarcinogenic risks associated with detected contaminants are considered negligible. Further, both types of risk are calculated for receptors, who, in all probability, will never be present at the site (i.e., residential). The land use for that part of NAS Key West does not include residential use in the foreseeable future, and access is restricted because it is part of a military installation. The AOC B BRA identified four risk scenarios exceeding the one in one million ( $1 \times 10^{-6}$ ) cancer threshold. The principal constituents contributing to the cancer risks are arsenic, dieldrin, and heptachlor in sediment. However, the uncertainty analysis indicates that the estimate of the cancer risk associated with these constituents for the three receptors (current adolescent or adult trespasser, future resident) is very conservative.

The BRA also identified a single noncarcinogenic risk scenario for the future resident exceeding the hazard index threshold of 1.0. The principal constituent contributing to the noncarcinogenic risk is antimony in surface water and arsenic in sediment. However, again the uncertainty analysis indicates that the estimate of the noncarcinogenic risk associated

with arsenic for the future residential receptor is very conservative.

An ERA was conducted to evaluate the possibility that aquatic or terrestrial ecological receptors may be at risk from site-related contaminants. The ERA was based on laboratory analyses of groundwater, surface-water, sediment, and soil samples; and laboratory analyses of fish collected from the nearby lagoon. Contaminant concentrations in all media did not appear to pose significant risks to plants or animals. The ERA concluded that potential risk to terrestrial and aquatic receptors at AOC B is negligible.

The proposed remedy for AOC B is land-use controls. The previous soil removal has eliminated the need for additional remedial action. Land-use controls will be protective of human health and the environment at AOC B.

#### **SCOPE OF THE REMEDIAL ACTION**

The U.S. Navy recognizes that CERCLA allows various options for implementing remedies based on site conditions. For AOC B at NAS Key West, the RI Report indicates that the IRA (soil removal) performed at the site reduced the threat to human health and the environment to acceptable levels in accordance with CERCLA and the NCP. Therefore, there is sufficient justification to propose no remedial action for the site with land-use controls. There are no costs associated with the no remedial action remedy and minimal cost to implement and administer land-use controls.

#### **PUBLIC PARTICIPATION**

To make a final decision and incorporate a remedy into the Decision Document, the U.S. Navy is soliciting public review and comment on this Proposed Plan for the proposed remedy to AOC B at NAS Key West. CERCLA requires a comment period for public to review and comment of the proposed remedy.

The comment period will begin on Sunday, October 18, 1998, which is the date of publication of the public notice in *The Citizen* newspaper. Friday, December 18, 1998 is the end of the comment period.

The Proposed Plan and the associated administrative file, including the RI Report, may be viewed and copied at the FDEP Office in Tallahassee, Florida between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, except legal holidays. Additional copies of the RI Report and Proposed Plan are available for public review at the information repository in the Local and State History Department at the Monroe County Library, 700 Fleming Street, Key West, Florida (Phone 305-292-3595).

Further, the U. S. Navy has determined there is sufficient need to hold a public meeting. It will occur at 7:00 p.m. on Monday, November 16, 1998, at the Holiday Inn Beachside, N. Roosevelt Blvd., Key West, Florida. Please call Phillip Williams at 305-293-2061 for directions to the public meeting. At the meeting, the proposed remedy will be discussed and questions will be answered. The public meeting will also address the proposed remedies for IR 3 and IR 7. To request information about the public meeting or comment period, to obtain more information concerning this Proposed Plan, or to submit written comments, please contact Philip Williams at the following address:

#### **NAS Key West Contact**

Phillip Williams  
Installation Restoration Coordinator  
Environmental Branch  
U.S. Naval Air Station Key West  
P.O. Box 9000  
Key West, Florida 33040-9001  
(Phone: 305-293-2061; Fax: 305-293-2542)

All comments must be postmarked by Friday, December 18, 1998.

#### **NEXT STEPS**

Following the 60-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 AOC-B, will include responses to oral and written comments received during the public comment period. Concurrence from EPA and FDEP will be obtained before implementing the final remedy.



**Comments on Proposed Plan  
Big Coppitt Key Abandoned Civilian Disposal  
Area (AOC B)**

---

---

---

Place  
Stamp  
Here

Phillip Williams  
Installation Restoration Coordinator  
Environmental Branch  
U.S. Naval Air Station Key West  
P.O. Box 9000  
Key West, Florida 33040-9001