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NAS KEY WEST  
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PROPOSED PLAN FOR SOIL AND GROUNDWATER REMEDY AT POINCIANA HOUSING  
NAS KEY WEST FL  
9/19/1999  
NAS KEY WEST



## PROPOSED PLAN



### Naval Air Station Key West, Florida

**Facility/Unit Type:** Poinciana Housing  
**Contaminants:** Arsenic  
**Media:** Soil and Groundwater  
**Remedy:** Land-Use Controls

#### INTRODUCTION

This Proposed Plan (Plan) is issued by the U.S. Navy, the lead agency for Naval Air Station (NAS) Key West remedial activities, with concurrence by 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 Installation Restoration Program (IRP) in accordance with Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), FDEP Brownsfields Cleanup Criteria Rule (62-785 F.A.C.) and the National Contingency Plan (NCP). Poinciana Housing is the site of interest.

The purpose of this Plan is several-fold. The Plan identifies the proposed remedy for Poinciana Housing at NAS Key West and explains the rationale for the preference, solicits public review and comment on 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 Poinciana Housing at NAS Key West. This document provides highlights of the Poinciana Housing Site Inspection (SI) Report April 1998, and The Poinciana Housing SSI Report, June 1999. Additional details regarding the facility and the inspections conducted may be found in the SI and SSI Reports that are 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 that is based on the conclusions of the SSI 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

The proposed remedy is land use controls such as deed restrictions that would impede any digging/excavation activities and access to groundwater in the area of monitoring well MW-01. There are minimal costs associated with implementation and administration of land-use controls.

#### FACILITY BACKGROUND

Poinciana Housing is situated on 33 acres on the east-end of Key West and consists of 212 townhouse-type units constructed in 1966. The site is located in a residential/commercial area with recreational areas nearby including boating, a sports complex, malls, etc. Since 1942, the property has been used as residential housing with the Navy acquiring the property in 1947.

In 1998 the SI detected arsenic in excess of the Florida Maximum Contaminant Level (MCL) of 50 micrograms per liter ( $\mu\text{g/L}$ ) in monitoring well G02-MW-01. Quarterly monitoring in 1998 and 1999 also detected arsenic in excess of the MCL in the same well. In 1999 the SSI identified two locations where arsenic in subsurface soils (greater than 2 feet below land surface) exceeded the NAS Key West Partnering Team selected action level of 2.7 milligrams per kilogram (mg/kg). However, a 95-percent-confidence level was calculated showing arsenic does not exceed the 2.7 mg/kg action level in surface soil (zero to 2 feet below land surface) at Poinciana Housing.

The FDEP Brownfields Cleanup Criteria Rule, No Further Action Criteria [62-785.680 F.A.C.] provides 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. As shown in the SSI, arsenic contamination is present at a depth greater than 2 feet.

**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 may 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. Institutional controls include easements, covenants, permits, notices (in deeds, newspapers, etc.) zoning, agreements with regulators, and land-use control maintenance reporting.

Excavation of soil below 2 feet below land surface was not deemed practical for this site. In addition groundwater is not used for any purpose at this site and all residents of Poinciana Housing receive water via municipal/state supply.

The land-use controls at Poinciana Housing will include deed restrictions (institutional control) that will require anyone who disturbs subsurface soils in the area of MW-01, do so in compliance with appropriate laws and regulations. For example, future workers who disturb subsurface soils in this area 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 and Recovery Act (RCRA) and CERCLA laws as a result of elevated arsenic concentration in soils. The same kind of institutional control will be put in place to address activities that would expose workers or the public to groundwater from this area. In addition the Navy or subsequent owners will be required to perform regular groundwater monitoring at G01-MW-01.

**Alternative Remedial Action**

As required by the Department of the Navy Environmental Policy Memorandum 99-02; Land-Use Controls, an alternative that provides an unrestricted property use was evaluated for Poinciana Housing. Under the alternative subsurface soil would have to be excavated and disposed of and a groundwater pump and treat remedial system installed. Due to the relatively high estimated cost of conducting this alternative, and the low level of risk at Poinciana Housing, this alternative was not selected.

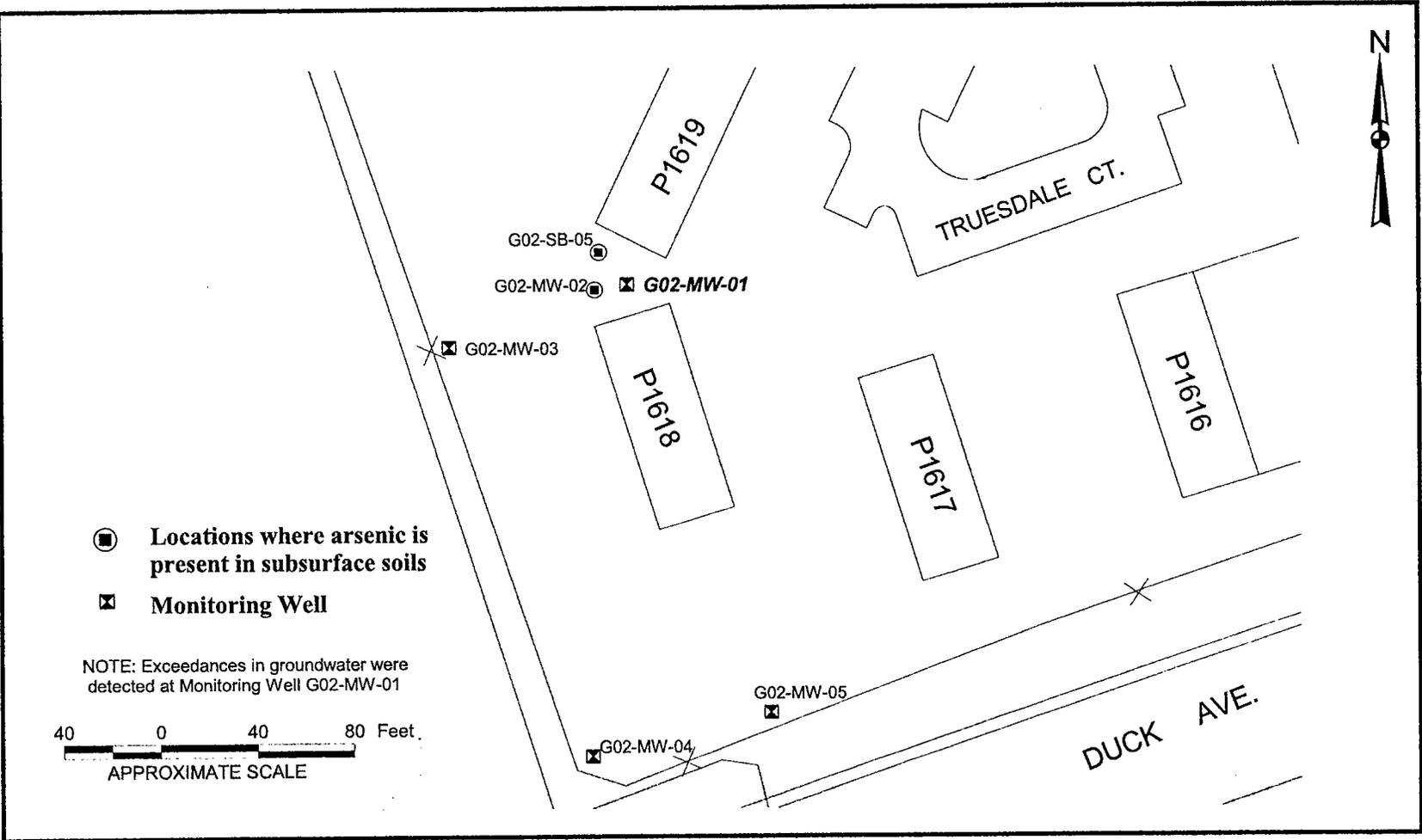
The U.S. Navy recognizes that CERCLA allows various options for implementing remedies based on site conditions. The Poinciana Housing SSI Report shows that surface soils at the site do not contain elevated levels of arsenic. Residents will not be exposed to sub-surface soils or groundwater, therefore, there is sufficient justification to propose land use controls for the site.

**NAS Key West Contact**

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**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 Poinciana Housing 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.





**Comments on Proposed Plans  
For Eleven BRAC IRA Sites at NAS Key West**

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