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DECISION DOCUMENT FOR STUDY AREA 25 WITH TRANSMITTAL LETTER NTC
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DECISION DOCUMENT

STUDY AREA 25

**NAVAL TRAINING CENTER
ORLANDO, FLORIDA**

Contract No. N62467-94-D-0888

Contract Task Order 0024

Prepared by:

**Tetra Tech NUS, Inc.
Foster Plaza 7
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Prepared for:

**Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29419**

April 2000

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0400-A050

April 25, 2000

Ms. Barbara Nwokike (Code 1873) (IRP RPM)
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0024

Subject: Study Area Decision Documents
Naval Training Center, Orlando, Florida

Dear Ms. Nwokike:

Enclosed are the final Decision Documents for Study Areas 2, 21, 25, and 52. The documents include changes received from the Orlando Partnering Team at the March meeting. Please note the signature block (in each of the documents) to be signed and dated by Wayne Hansel.

If you have any questions regarding the documents, please contact me at (865) 220-4730.

Sincerely,

Steven B. McCoy, P.E.
Task Order Manager

SBM:ckf

Enclosures

c: Mr. Rick Allen, Harding Lawson
Mr. Michael J. Campbell, Tetra Tech NUS
Mr. David Grabka, FDEP
Mr. Wayne Hansel, SOUTHDIV (2 copies)
Mr. Allan Jenkins, Tetra Tech NUS
Mr. Mark Perry/File, Tetra Tech NUS (unbound)
Ms. Nancy Rodriguez, USEPA Region 4
Mr. Steve Tsangaris, CH2M Hill
Ms. Debbie Wroblewski, Tetra Tech NUS (cover letter only)
File/Edb

Introduction

A site screening investigation has been completed for Study Area (SA) 25 at the Navy's McCoy Annex property. The results of the investigation and the actions selected by the Orlando Partnering Team (OPT) to protect future site occupants are described in this Final Decision. The OPT, which was assembled to address environmental issues at the Naval Training Center (NTC), Orlando consists of representatives from the Navy and its contractors, the Florida Department of Environmental Protection (FDEP), and the U.S. Environmental Protection Agency (USEPA). The OPT determined that the future development of the western portion of SA 25 shall be restricted to nonresidential use.

Site Background

McCoy Annex is one of four facilities that comprised the NTC, Orlando (Figure 1). The other three facilities are the Main Base, Area C, and Herndon Annex. McCoy Annex is located approximately 8 miles south of the Main Base and immediately west of the Orlando International Airport. The Beeline Expressway lies north of the Annex, and most development near the expressway consists of motels, restaurants, and other businesses related to air travel. The area west of McCoy Annex is zoned for industrial use but is sparsely developed. Undeveloped woodlands lie south of the Annex.

Beginning in 1940, the facilities were known as the Orlando Army Air Base and were operated under the command of the U.S. Army Air Corps. Between 1947 and 1968, the U.S. Air Force commanded the facilities at Orlando and the facilities were renamed the Orlando Air Force Base. McCoy Annex consisted of undeveloped wetlands until the Army Air Corps opened a new airfield on the property in 1943. The airfield was deactivated at the end of World War II and reactivated as Pinecastle Air Force Base during the Korean Conflict. The base was renamed McCoy Air Force Base

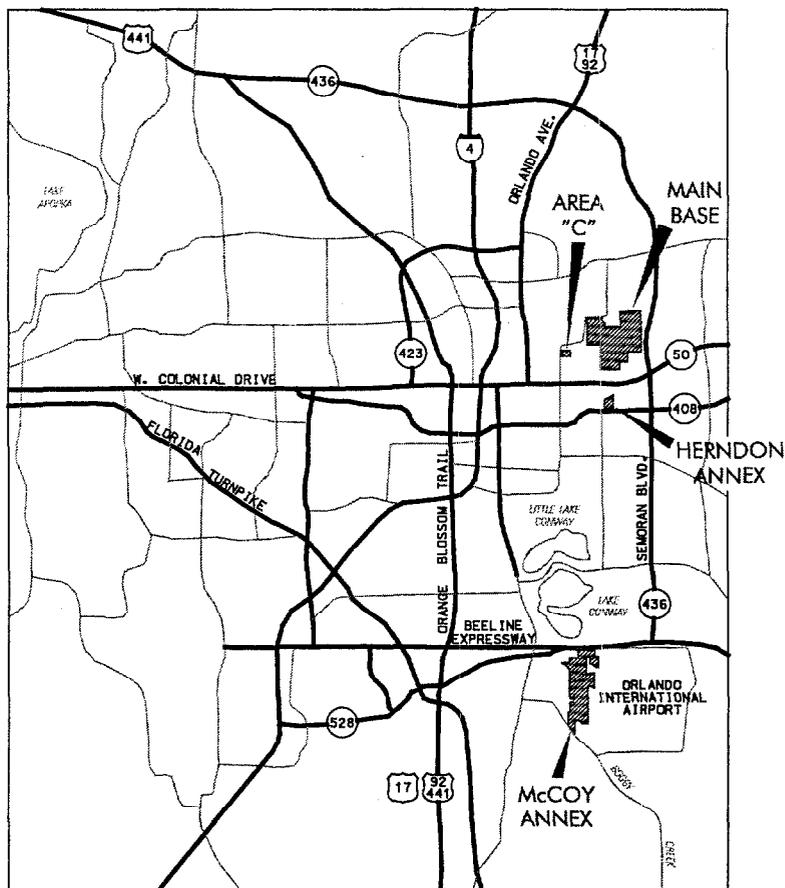


Figure 1. McCoy Annex Location

until its closure in 1973. NTC acquired the property at that time and changed its name to McCoy Annex. The City of Orlando retained title to the runways and large hangers formerly used by the Air Force and incorporated them into the Orlando International Airport. NTC, Orlando was closed in April 1999 as part of the Defense Base Realignment and Closure (BRAC) Act of 1990.

Figure 2 shows the location of SA 25 at McCoy Annex. A domestic wastewater treatment plant operated at SA 25 from sometime in the 1940s until it was shut down in 1987. At the time of closure, the plant had a capacity of about 1.35 million gallons per day. The facility included a settling basin, several sludge beds, and two hyacinth ponds. More recently, portions of the area have been used for vehicle storage. SA 25 was a grassy field at the time of the site screening investigation, but workers were able to identify former operational areas from aerial photographs.

Investigation Summary

The site screening activities at SA 25 were conducted in May 1995. Additional sampling was conducted in June 1996. The sampling locations are shown in Figure 3. Results of the investigations were documented in the *Environmental Site Screening Report, Study Area 25* (ABB Environmental Services, Inc., July 1997). The discussion below describes the contaminants detected and comparisons of the observed concentrations with regulatory screening criteria.

Soil Surface. Eight surface soil samples were collected from seven locations in the former sludge beds and hyacinth ponds. Laboratory analysis of the samples revealed concentrations of polynuclear aromatic hydrocarbons (PAHs) and pesticides that exceeded regulatory criteria.

One surface soil sample contained the PAH benzo(a)pyrene at a concentration that exceeded its residential regulatory criterion. Two surface soil

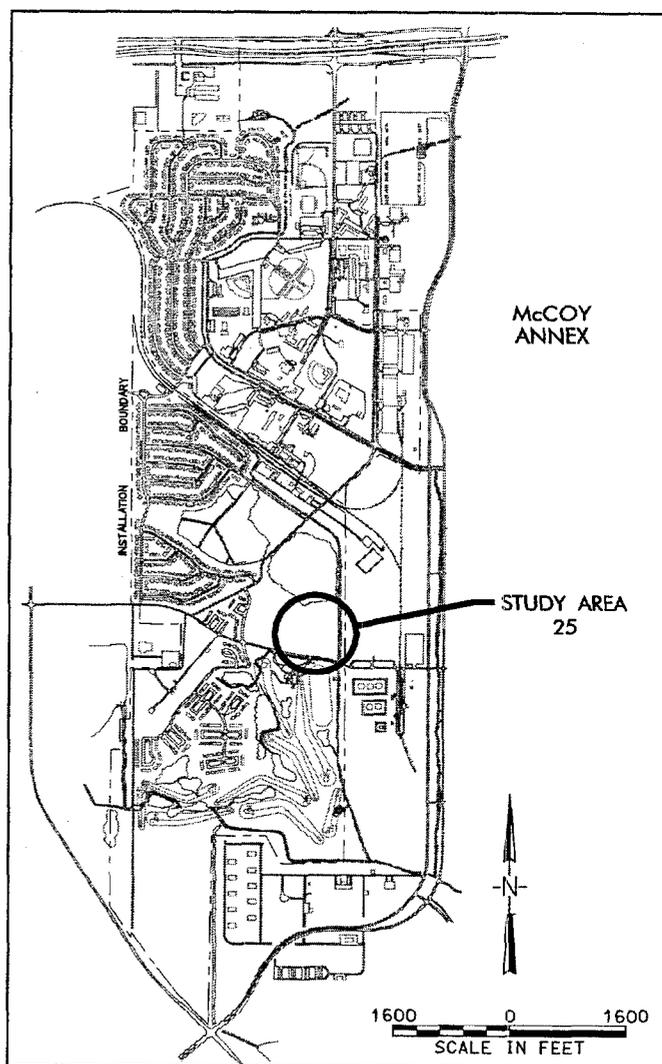


Figure 2. Location of Study Area 25

samples contained the pesticide Dieldrin at concentrations that exceeded its residential regulatory criterion, and one sample contained heptachlor epoxide that exceeded its residential regulatory criterion.

Subsurface Soil. Five subsurface soil samples were collected at depths of 2.5 to 8 feet in borings advanced in a former sludge bed, a former settling basin, and a former hyacinth pond. Detected concentrations of the PAHs benzo(a)pyrene and dibenz(a,h)anthracene exceeded their respective residential regulatory criteria in one subsurface soil sample. Four pesticides were also detected in subsurface soil samples, but none of the observed concentrations exceeded their respective residential regulatory criteria.

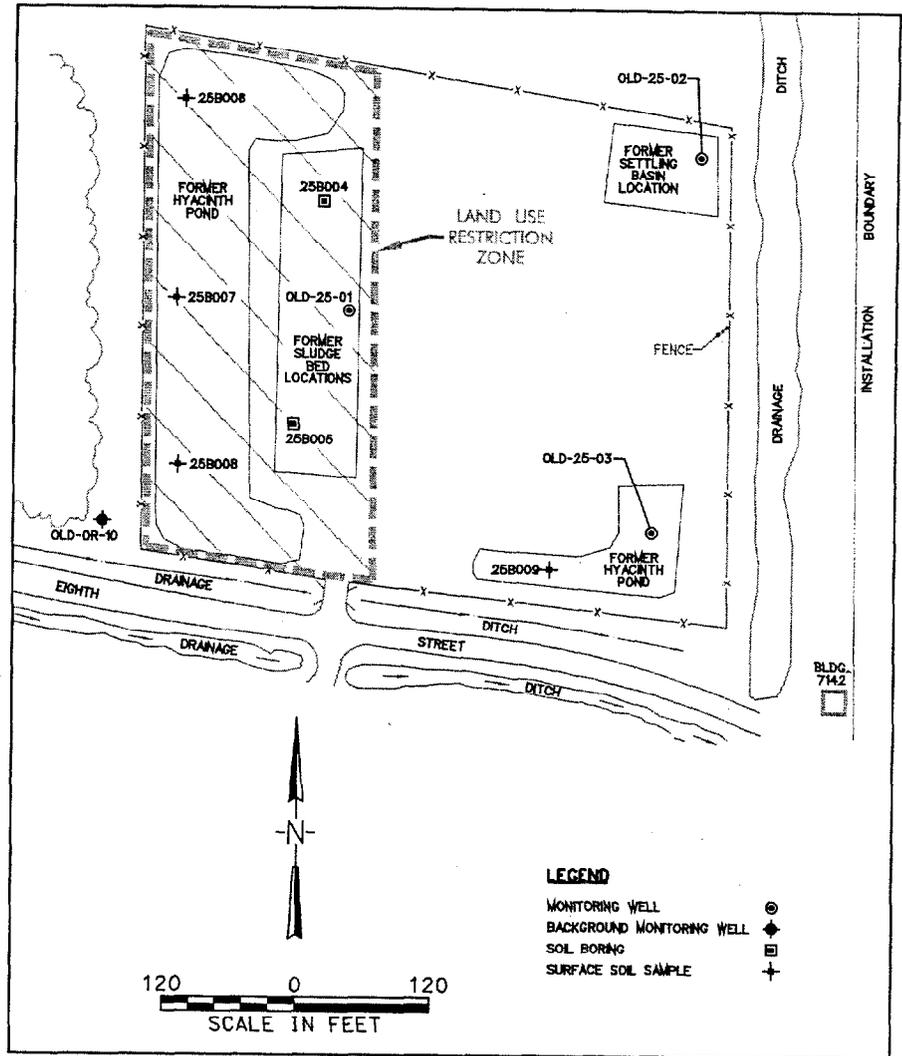


Figure 3. Sampling Locations at Study Area 25

Groundwater. Investigators installed three monitoring wells at SA 25: one in a former sludge bed, one in a former settling basin, and one in a former hyacinth pond. No organic compounds were detected in groundwater. Of the inorganic detections, iron and manganese concentrations exceeded Florida and USEPA secondary standards for drinking water. The observed concentrations may cause extracted groundwater to have objectionable color, taste, or odor, but do not pose significant health risks.

Selected Remedy

The remedy for the contamination at SA 25 consists of institutional controls including deed restrictions prohibiting residential use of the site and a requirement that potential users of groundwater from the

surficial aquifer be informed that the water may be unsuitable for potable or irrigation purposes. The rationale for the remedy is described below.

Surface Soil. The observed concentrations of contaminants in surface soil at SA 25 do not warrant additional evaluation or remediation because the intended reuse for the parcel is nonresidential. PAH and pesticide concentrations exceeded residential regulatory criteria in only two locations, and no detections exceeded the industrial regulatory criteria. No observed inorganic concentrations exceeded the industrial regulatory criteria.

Subsurface Soil. Concentrations of some PAHs detected in subsurface soil exceeded their respective regulatory criteria, but none exceeded industrial regulatory criteria. No observed inorganic concentration exceeded industrial regulatory criteria. No additional evaluation or remedial action is required.

Groundwater. The iron and manganese concentrations in groundwater exceeded Florida and USEPA secondary standards. The observed concentrations warrant institutional controls, but no further evaluation or active remediation is required.

The institutional controls to be implemented at SA 25 are described in greater detail in the following section.

Institutional Controls

The goals of the institutional controls at SA 25 are to protect human health and the environment by

- Warning potential users that groundwater beneath the site does not meet Florida secondary standards
- Preventing the future development of the site for residential purposes

Institutional controls at SA 25 will consist of administrative measures taken to prevent excessive exposure of human receptors to surface soils and to inform potential groundwater users that the groundwater does not meet the Florida secondary standards for iron and manganese. Consistent with the *Environmental Baseline Survey for Transfer and Finding of Suitability to Transfer* (both documents, Southern Division, Naval Facilities Engineering Command, December 1997), these institutional controls will be established on the Navy property at the time of property transfer, employing deed restrictions prohibiting future residential use, notices, and agreements in a layering strategy to mutually reinforce the goals of the institutional controls.

Land Use Restrictions. Land use restrictions will be placed on the western portion of SA 25 prohibiting residential use of that area (see Figure 3). The land use restrictions shall be implemented by attaching a Restrictive Covenant to the deed.

Redevelopment activities at SA 25 must be consistent with land use restrictions. The restrictions shall remain in place until such time that FDEP and USEPA agree that the restrictions are no longer required. At that time, the Navy may remove the land use restrictions with FDEP concurrence.

Groundwater Use Restrictions. The OPT will notify the St. Johns River Water Management District, the Orange County Environmental Protection Division, and the City of Orlando that groundwater in the surficial aquifer beneath the site may be unsuitable for potable or irrigation purposes without treatment. The warning to potential groundwater users will be included in the Restrictive Covenant to the deed as described above.

Community Acceptance

Community acceptance of the selected remedy for SA 25 was evaluated during meetings of the facility's Restoration Advisory Board (RAB). RAB meetings are open to the public and their bimonthly meetings are publicized in *The Orlando Sentinel*. The public was given an opportunity to comment during presentations on remedy, status updates for NTC sites, and annual reviews of the BRAC Business Plan. Comments and questions from the RAB and the general public about the SA 25 remedy were addressed at the RAB meetings.

Declaration

Based on the administrative record compiled for this corrective action, the Navy has determined that the remedy selected for SA 25 is appropriate and protective of human health and the environment and complies with the Federal and State regulatory requirements. The OPT concurs with the selected remedy.

Signature

Wayne Hansel, P.E.

Date

Base Realignment and Closure Environmental Coordinator
