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DECISION DOCUMENT FOR STUDY AREA 21 WITH TRANSMITTAL LETTER NTC
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DECISION DOCUMENT

STUDY AREA 21

**NAVAL TRAINING CENTER
ORLANDO, FLORIDA**

Contract No. N62467-94-D-0888

Contract Task Order 0024

Prepared by:

**Tetra Tech NUS, Inc.
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Prepared for:

**Department of the Navy, Southern Division
Naval Facilities Engineering Command
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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) 21 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 SA 21 shall be limited 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.

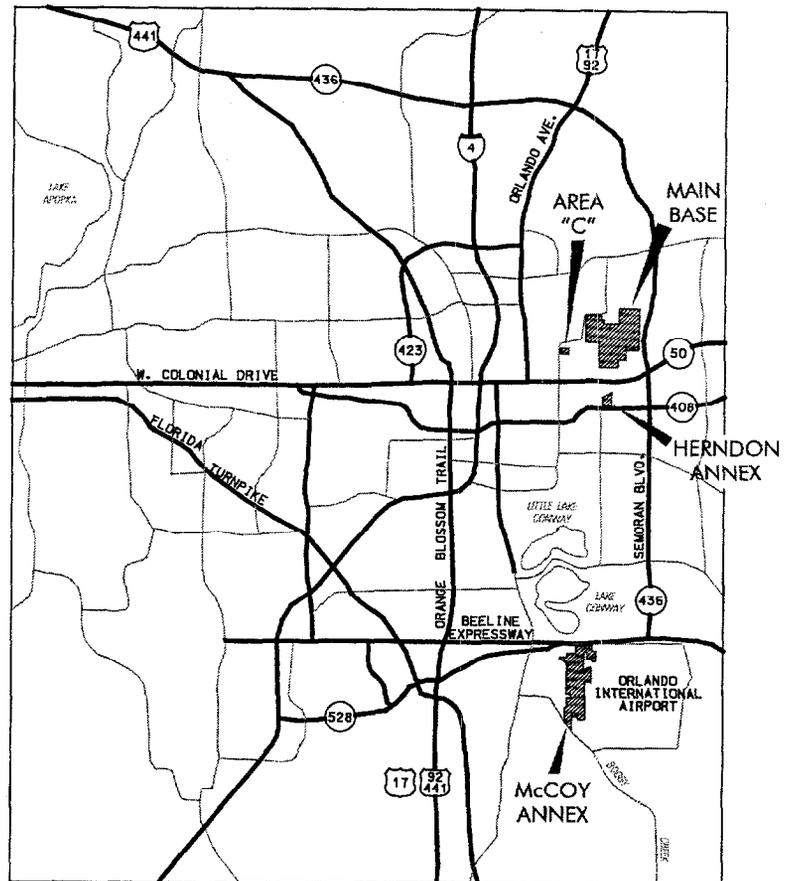


Figure 1. McCoy Annex Location

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 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 Act of 1990.

Figure 2 shows the location of SA 21 at McCoy Annex. SA 21 was most recently used as a storage area for lawn mowers, tractors, and other maintenance equipment. Building 7203 is the most prominent site feature. A flammable materials storage shed at the northwestern corner of the site once held 5-gallon gasoline cans. Another shed near the northeastern corner of Building 7203 is thought to have contained medical supplies before 1981 and pesticides for the golf course afterwards. A 300-gallon aboveground storage tank at the north end of the study area was removed in October 1996, and a 560-gallon underground storage tank on the west side of Building 7203 was removed in November 1996. FDEP approved both tank sites for clean closure in April 1997. Concerns about possible fuel or pesticide spills and the unknown nature of the spoil piles shown in Figure 3 prompted the OPT to conduct site screening activities at the study area.

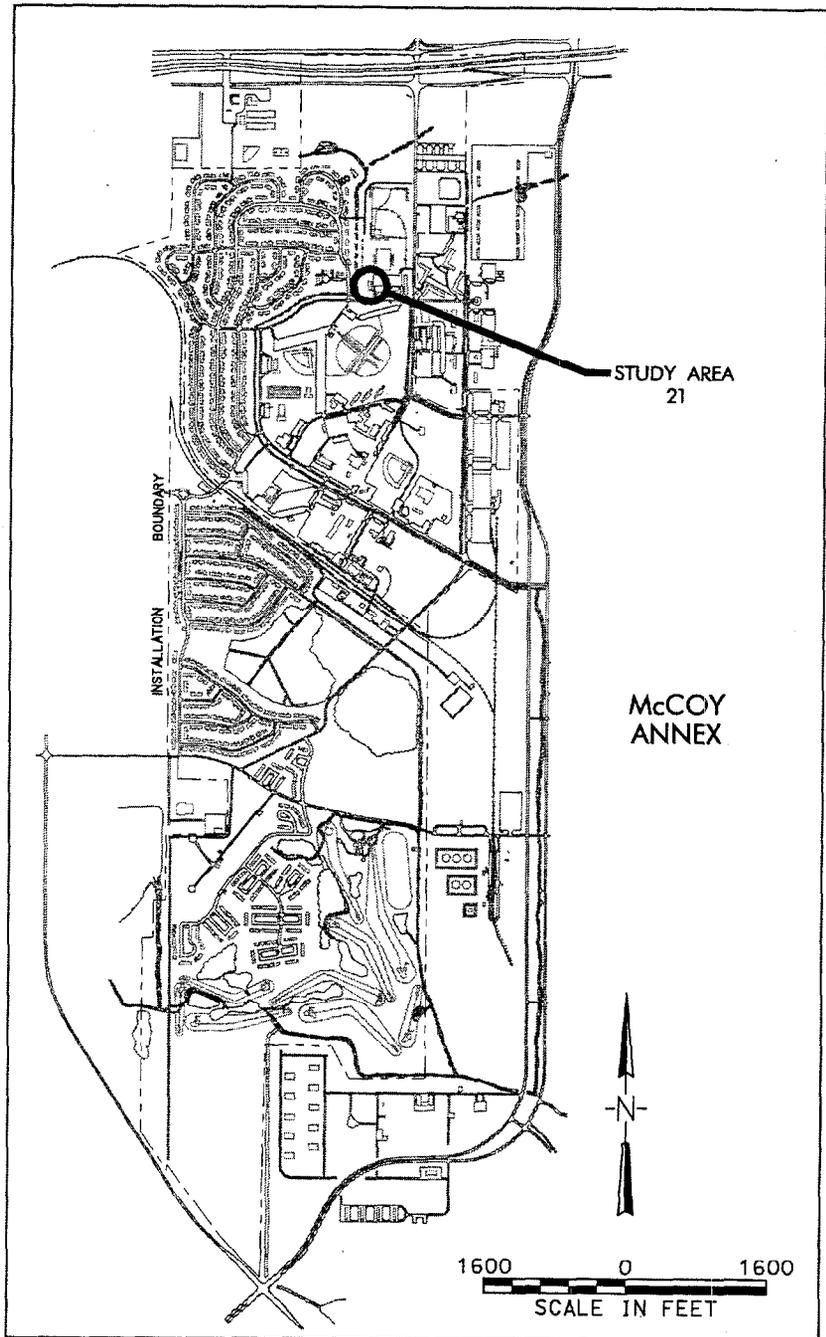


Figure 2. Location of Study Area 21

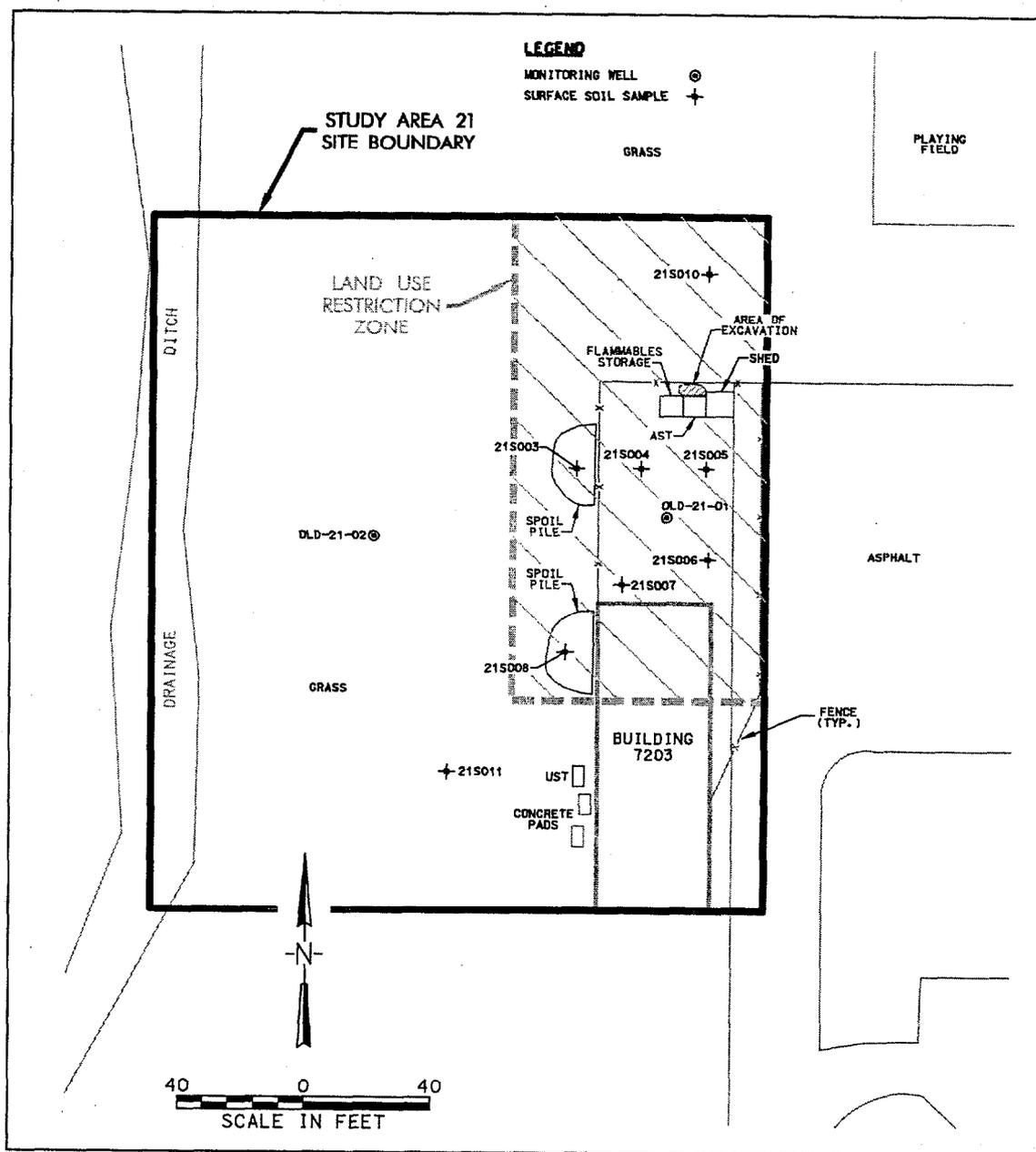


Figure 3. Sampling Locations at Study Area 21

Investigation Summary

The site screening investigation of SA 21 began in April 1995 and was completed in July 1997. The results of the investigation were documented in the *Environmental Site Screening Report, Study Area 21* (ABB Environmental Services, Inc., August 1997). The discussion below describes the contaminants detected and comparisons of the observed concentrations with regulatory screening criteria.

Soil Investigation

Eight surface soil samples and one subsurface soil sample were collected during the initial sampling round. Additional surface soil samples were collected in April and July 1997 to confirm elevated polynuclear aromatic hydrocarbon (PAH) and arsenic concentrations observed in the first sampling round.

PAHs. During the initial sampling, observed concentrations of the PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene in surface soils exceeded residential regulatory criteria, but did not exceed the industrial criteria. Concentrations of PAHs observed in the subsequent sampling were much lower, with only benzo(a)pyrene exceeding its residential criterion.

Dieldrin. The pesticide Dieldrin was detected in one surface soil sample at a concentration that exceeded its residential regulatory criterion, but did not exceed its industrial criterion.

Inorganics. Arsenic concentrations exceeded the background screening concentration and the residential regulatory criteria in three samples, and one sample exceeded industrial criteria. The beryllium concentration at one location slightly exceeded its residential regulatory criterion, but not its industrial criterion.

The locations with elevated arsenic concentrations were resampled to confirm the initial results. The highest arsenic concentration observed in the second set of samples only slightly exceeded the background screening concentration. None of the arsenic concentrations exceeded the industrial regulatory criterion.

Groundwater Investigation

Investigators installed a monitoring well in the fenced area north of Building 7203 and a temporary monitoring well west of Building 7203. The temporary well was abandoned after sampling the well and completing the sample analyses.

No organic compounds were detected in groundwater. Of the inorganic detections, only that of aluminum exceeded the background screening concentration and the FDEP Groundwater Guidance (FDEPG) secondary standard. However, the observed concentration was within the range of aluminum concentrations in groundwater reported in the NTC, Orlando *Background Sampling Report* (ABB Environmental Services, Inc., August 1995). The elevated aluminum concentration was attributed in part to high sample turbidity.

Selected Remedy

The remedy for the contamination at SA 21 consists of institutional controls including deed restrictions prohibiting residential use of a portion 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 21 do not warrant additional evaluation or remediation because the intended reuse for the parcel is recreational. PAH concentrations exceeded residential criteria in only two locations, and no detections exceeded the industrial criteria.

Groundwater. The aluminum concentration in groundwater was found to exceed FDEPG secondary standards. The observed concentrations suggest that potential users should be warned that groundwater from the surficial aquifer may be unsuitable for potable or irrigation use, but no further evaluation or active remediation is required.

The institutional controls to be implemented at SA 21 are described in greater detail in the following section.

Institutional Controls

The goals of the institutional controls at SA 21 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 a portion of the site for residential purposes

Institutional controls at SA 21 will consist of administrative measures taken to prevent excessive exposure of human receptors to surface soils and to inform potential groundwater users that the water does not meet the Florida secondary standard for aluminum. 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 prohibit residential use of an 80- by 160-foot area in the northeast corner of the site (see Figure 3). The land use restrictions shall be implemented by attaching a Restrictive Covenant to the deed.

Groundwater Advisory. 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 near monitoring well OLD-21-01 may be unsuitable for potable or irrigation purposes without treatment. The advisory to potential groundwater users will be included in the Restrictive Covenant to the deed as described above.

Redevelopment activities at SA 21 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.

Community Acceptance

Community acceptance of the selected remedy for SA 21 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 21 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 21 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.
Base Realignment and Closure Environmental Coordinator

Date