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1999 GOPHER TORTOISE SURVEY OPERABLE UNIT 2 (OU 2) NTC ORLANDO FL
4/30/1999
BECHTEL



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APR 30 1999

Mr. Tim Breen
Florida Game and Fresh Water Fish Commission
1239 SW Tenth Street
Ocala, Florida 34474-2797

SUBJECT: Bechtel Job No. 22567
Department of Navy Contract No. N62467-93-D-0936
McCOY ANNEX LANDFILL COVER IRA
GOPHER TORTOISE SURVEY
DELIVERY ORDER NO. 107
Subject Code: 7550

Dear Mr. Breen:

Enclosed is a copy of the "1999 Gopher Tortoise Survey" for McCoy Annex, Naval Training Center Orlando. As we have previously discussed by phone with Ms. Hovis, Bechtel is a Response Action Contractor for the Southern Division of the Naval Facilities Engineering Command and has been tasked to perform an interim remedial action (IRA) at the McCoy Annex site. The scope of the IRA involves the placement of a 2-ft. thick soil cover over a former landfill location. The landfill site is approximately 25 acres in size and has not been in use since 1978. Therefore, the project area is currently overlain by second growth forest, scrub brush and tall grass. We must clear this area prior to the placement of the soil cover. It is important to note this is not a low permeability landfill cap. We are using soils similar to those now found on site for the cover and will only compact the material using the tracks of the earthmoving equipment.

Bechtel's remediation work plan has been approved by the Florida Department of Environmental Protection and EPA Region IV. We have mobilized to the site and began the site clearing activities and some placement of soil cover on the northern most extent of the site. The Gopher Tortoise burrows (active and inactive) are all located on the southern half of the site. We plan to do some clearing in proximity to the burrows by hand, avoiding the use of any heavy equipment near the burrows. No cover will be placed within 50 ft. of the active burrow locations.

In addition to the report provided to us by Ms. Julea Hovey, with Tetra Tech NUS, we have enclosed a few figures from our work plan to assist you in identifying the location of the project. Tetra Tech NUS is another contractor for Southern Division, and they have the natural resource specialists needed to support these types of surveys. We work closely with them in planning and executing remediation projects for sites at the Naval Training Center and its annexes.

Please review the information provided and we would like to schedule a follow-up conference call with you at your earliest convenience. The purpose of that call would be to discuss any questions you may have about the survey or our project and to determine a specific course of action to take with respect to the burrows impacted by the landfill cover.

If you have any questions about the project or the information provided herein, please do not hesitate to call me at (423) 220-2406.

Sincerely



J. Robin Manning
Project Engineer

Enclosures (as stated)

- cc: Ms. Nancy Rodriguez, EPA Region IV (w/enclosure)
- cc: Mr. Dave Grabka, Florida Department of Environmental Protection (w/enclosure)
- cc: Lt. Gary Whipple, Public Work Department, NTC Orlando (w/enclosure)
- cc: Mr. Steve McCoy, NUS Tetra-Tech (w/enclosure)
- cc: Ms. Barbara Nwokike, SOUTHDIV (w/enclosure)
- cc: Mr. Wayne Hansel, SOUTHDIV (w/enclosure)
- cc: Mr. Jerry Eggebrecht, REICC, Orlando (w/enclosure)

1999 Gopher Tortoise Survey
McCoy Annex Landfill, Operable Unit 2
NTC Orlando, Florida

Introduction

Tetra Tech NUS conducted a field survey for the presence of gopher tortoises (*Gopherus polyphemus*) on the southern portion of Operable Unit (OU) 2 at the McCoy Annex, NTC Orlando, Florida on April 22, 1999. The survey was conducted to support the interim remedial activities in progress at McCoy Annex. In Florida, the gopher tortoise is listed as a Species of Special Concern by the Florida Game and Fresh Water Fish Commission, and has been observed at the McCoy Annex (NeSmith, 1998). The survey was conducted by Julea B. Hovey, Tetra Tech NUS ecologist, with the assistance of Chris Rewolinski and Charles Raquest of Bechtel.

Background

The McCoy Annex landfill (OU2) is located in the southern portion of McCoy Annex and underlies a large part of the 9-hole golf course and the most of the wooded area to the south of the golf course. The landfill's last reported use was in 1978. As a result of the remedial investigation (TiNUS, 1999), the interim remedial action chosen for the McCoy Annex Landfill by the Orlando Partnering Team (U.S. Department of the Navy – Southern Division, Florida Department of Environmental Protection, the U.S. Environmental Protection Agency Region IV, and other contractors) is placement of an additional 2-foot soil cap over the landfill area in the northern portion of the wooded area where the existing cover material is thin. The wooded area, located south of the golf course, is about 50 acres in size. This area is bordered by a canal and fenced bunker area to the east, wooded areas to the west (separated from the main area by a dirt access road), and Boggy Creek Road to the south. This area is predominantly pine flatwoods, mainly slash pines (*Pinus elliotii*), with an understory of sawtooth palmetto (*Serenoa repens*), muscadine (*Vitis rotundifolia*) vines, and other brushy vegetation.

The interim remedial action for this area will be limited to approximately 25 acres of the 50-acre wooded area (Figure 1). Activities will include clearing, grubbing, grading, and capping with a 2-foot soil cover. The area of soil cover will be re-vegetated with plant species that are compatible with other uses of the property and those that will stabilize the soil in the area. Currently, McCoy Annex is being controlled by the City of Orlando and will eventually be owned fully by the City. Future use of the area has been designated to be recreational in conjunction with a sports complex that will be constructed in the vicinity of this area.

The Florida Natural Areas Inventory (FNAI) has recorded three gopher tortoise burrows (one active) at McCoy Annex in the wooded area south of the golf course, with the last observation in

1992 (NeSmith, 1998). These burrows were observed in an open area near the eastern border of the area of concern. Gopher tortoises live in dry habitats, such as pine-scrub oak savannas, live oak and red oak hammocks, sand pine, wiregrass flatwoods, and coastal dune ecosystems. Three conditions that are basic for healthy tortoise populations are well-drained sandy soils for digging burrows, sufficient low plant growth for food, and open, sunny areas for nesting. The gopher tortoise is generally described as an herbivore, but will consume a wide variety of plant, animal, and organic matter. Broad-leafed grasses, wiregrass, and legumes form the bulk of the diet (Cox et. al, 1987). The southern portion of the OU2 wooded area provides these habitat requirements in a few small areas.

Methods

The survey was conducted in order to determine the presence or absence of gopher tortoise activity (e.g., burrows) in the southern portion of OU2, to estimate the potential population of gopher tortoises on-site, and to determine the number of burrows which exist in the area that could be affected by the remedial activities. A comprehensive survey of the approximate 25-acre parcel was performed on foot. The entire site was surveyed by walking 10 north-south transects that were spaced approximately 100 feet apart. Three surveyors were equally spaced across the 100-foot transects providing thorough coverage of the entire survey area.

Gopher tortoise burrows observed during the survey were marked with orange flagging tape, and classified as active, inactive, or abandoned (old) using the following criteria:

- Active - obvious tortoise tracks or shell scraping signs at the burrow mouth
- Inactive - no tracks or shell scrapings, but recent use apparent, burrow unblocked by debris
- Abandoned - burrow covered with sticks, weeds, grass; burrow collapsed, dilapidated

In addition, the location of the burrows classified as active or inactive were plotted on project maps to show the location of these burrows relative to the area of proposed disturbance.

Results

Two active, one inactive, and thirteen abandoned burrows were observed in the area surveyed. The locations of the active/inactive burrows are shown on the attached figure. One of the active burrows (burrow number 5) is located on the eastern side of the area and outside of the remediation area. This area is fairly open with some grasses and other low growing vegetation. This burrow is believed to be the active burrow noted above that was recorded by FNAI. The other two burrows (burrow numbers 13 and 15) are located on the western side of the area approximately 300 feet apart. These two burrows are located on the margin of an open area that

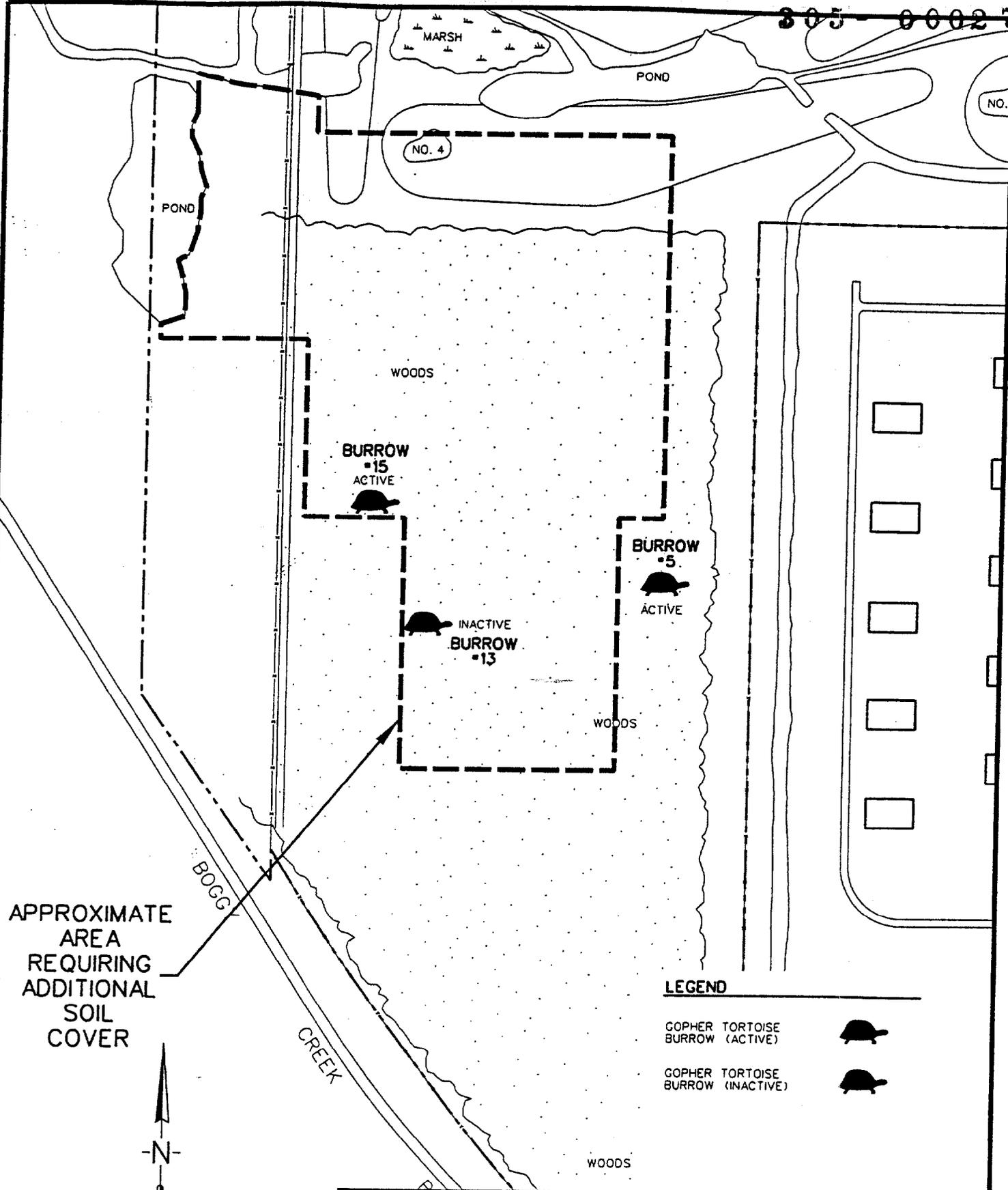
is vegetated with some wiregrass (*Aristida stricta*) and is dominated by other taller grasses. All of the burrows, the three noted above and the abandoned burrows, were located in the southern portion of the survey area. The vegetation in the northern portion is densely wooded, mainly slash pines, with a thick understory of muscadine vines and other brushy vegetation. Most of this area does not contain suitable gopher tortoise habitat.

A small area to the west of the dirt access road that is located along the western boundary of OU2 was also surveyed. This area is approximately 2 acres in size and is densely wooded with several large earpod trees (*Enterolobium contortisiliquum*). It does not contain suitable gopher tortoise habitat. No burrows were located in this area.

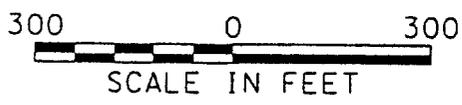
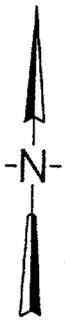
Because the area of interest was thoroughly surveyed, it is believed that the observed burrows constitute all the gopher tortoise burrows that exist within the survey area.

References

- NeSmith, K. 1998, Personal communication between Katy NeSmith, Florida Natural Areas Inventory biologist, and K.T. Cabbage, TtNUS ecotoxicologist, regarding rare, threatened, and endangered species on and near the McCoy Annex, November 9.
- TtNUS (Tetra Tech NUS), 1999, "Draft Remedial Investigation for Operable Unit 2, McCoy Annex Landfill, Naval Training Center, Orlando, Florida," January.
- Cox, J., D. Inkley, and R. Kantz, 1987, "Ecology and Habitat Protection Needs of Gopher Tortoise (*Gopherus Polyphemus*), Populations Found on Lands Slated for Large-Scale Development in Florida," Nongame Wildlife Program Technical Report No. 4, Florida Game and Fresh Fish Commission, December.



APPROXIMATE
AREA
REQUIRING
ADDITIONAL
SOIL
COVER



LEGEND

- GOPHER TORTOISE BURROW (ACTIVE) 
- GOPHER TORTOISE BURROW (INACTIVE) 



**GOPHER TORTOISE LOCATIONS
OPERABLE UNIT 2
MCCOY ANNEX LANDFILL**

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

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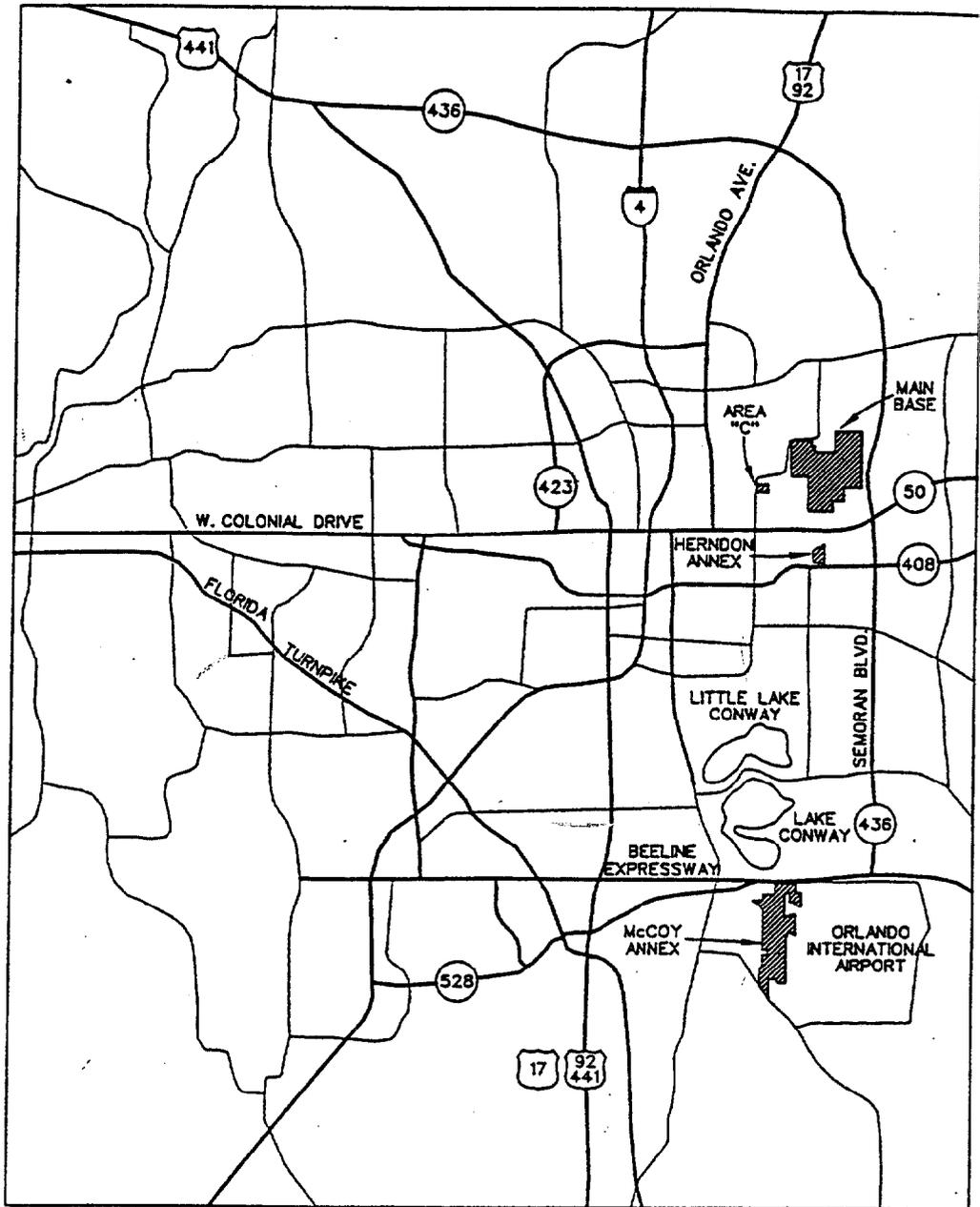
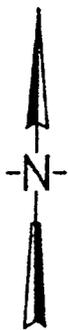


FIGURE 1-1



1-5x11v.dgn



FACILITY LOCATIONS
McCoy ANNEX LANDFILL
REMEDIAL INVESTIGATION

NAVAL TRAINING CENTER
ORLANDO, FLORIDA

00427E01Z

McCOY ANNEX

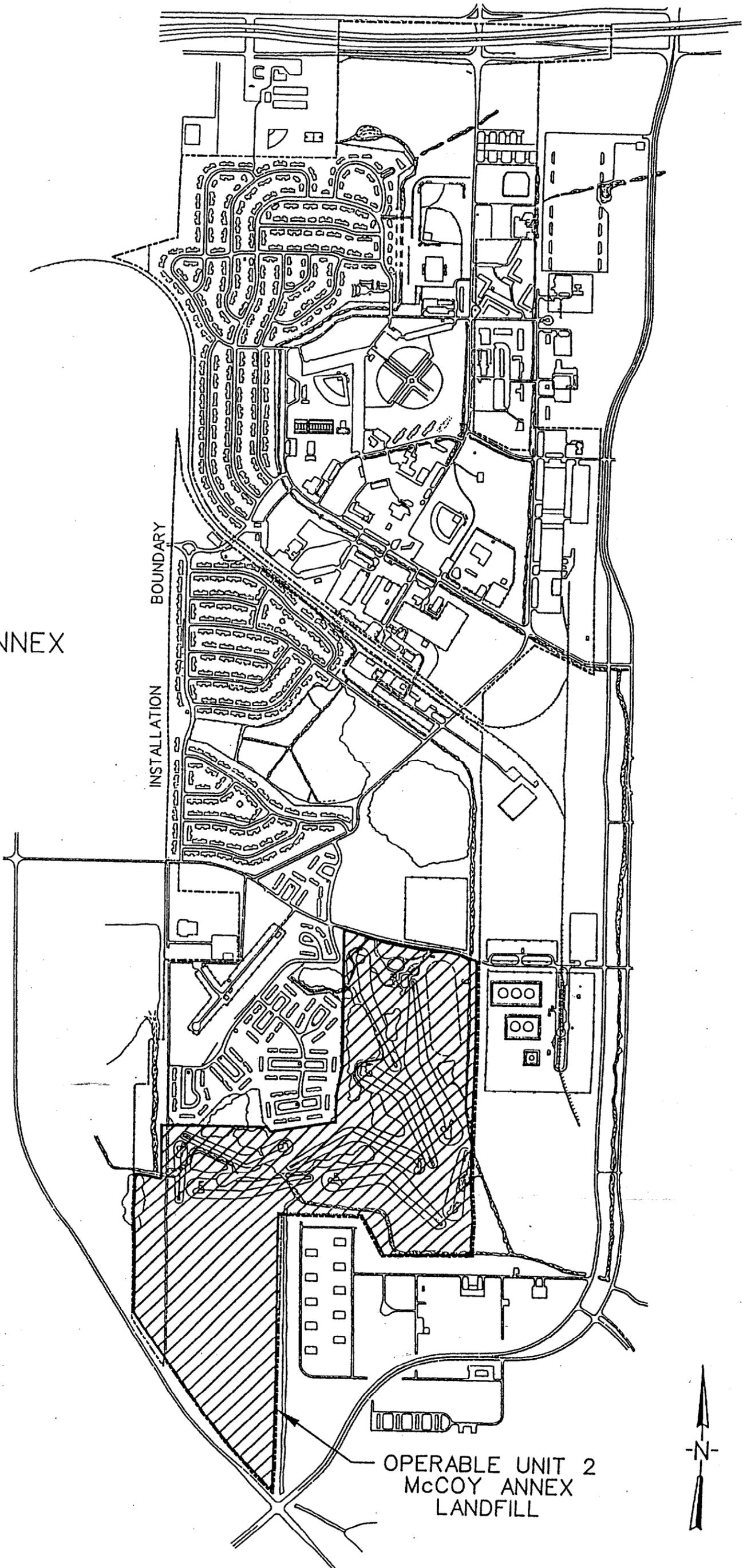


FIGURE 1-2



SITE LOCATION MAP
 McCOY ANNEX LANDFILL
 REMEDIAL INVESTIGATION
 NAVAL TRAINING CENTER
 ORLANDO, FLORIDA

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