

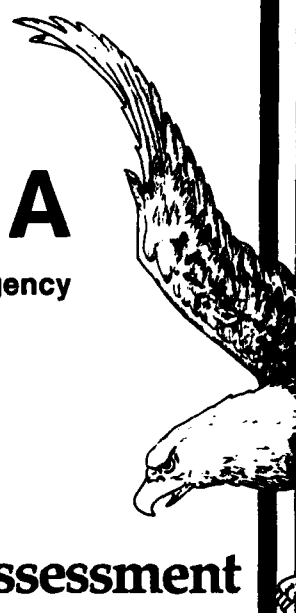
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Report No. CETHA-BC-CR-89288

**AD-A218 986**

**USATHAMA**

**U.S. Army Toxic and Hazardous Materials Agency**



**Task Order 2  
Enhanced Preliminary Assessment**

**CAPE ST. GEORGE RESERVATION  
LITTLE ST. GEORGE ISLAND, FLORIDA**

Contract Number DAAA15-88-D-0007

December 1989

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**Prepared for**

**U.S. Army Toxic and Hazardous Materials Agency  
Aberdeen Proving Ground, Maryland 21010-5401**

**Prepared by**



**Roy F. Weston, Inc.  
West Chester,  
Pennsylvania 19380**

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Report No. CETHA-BC-CR-89288


USATHAMA Task Order 2  
ENHANCED PRELIMINARY ASSESSMENT

CAPE ST. GEORGE RESERVATION  
LITTLE ST. GEORGE ISLAND, FLORIDA

Contract No. DAAA15-88-D-0007

  
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14  
An Enhanced Preliminary Assessment was conducted at the Cape St. George Reservation, Franklin County, Florida. This 6.4 acre facility which is planned for inclusion in the Base Closure Program is located on Little St. George Island which separates Apalachicola Bay from the Gulf of Mexico. The scope of this assessment was restricted to the property held by the Army, excluding a 60 ft. by 60 ft. parcel of land still held by the U.S. Coast Guard on which an historic lighthouse is located.

Between 1973 and 1986 the Army utilized this property as a landing area for helicopters to arm weapons systems and clear jams in the event of misfire. No weapon firings, storage of ordnance, or maintenance or refueling of aircraft reportedly occurred on the property. Prior to 1973 the land was owned by the U.S. Coast Guard and was used as an operational lighthouse facility. Cape St. George Reservation is not currently used.

Two areas of past practices during Coast Guard ownership were identified as areas of interest: The oil house formerly used to store kerosene and the generator building with a former aboveground storage tank. No staining or evidence of past spills was observed and no further action is recommended. One 20 mm. shell casing was found and was assumed to have been dropped during a helicopter layover. A surface sweep of the entire property for ordnance is recommended. The effects on human or environmental receptors would be negligible.

*Keywords: Environmental assessment;  
waste disposal; hazardous materials; military facilities;*

(FT) ~~←~~



**DISCLAIMER**

This Enhanced Preliminary Assessment report is based primarily on the environmental conditions observed at Cape St. George Reservation, Little St. George Island, Florida, on 5 October 1989. Past site conditions and management practices were evaluated, based on readily available records and the recollections of people interviewed. Every effort was made, within the scope of the task, to interview all identified site personnel, especially those personnel with a historical perspective of site operations.

No environmental sampling was conducted as part of the assessment. The findings and recommendations for further action are based on WESTON's experience and technical judgment, as well as current regulatory agency requirements. Future regulations as well as any modifications to current statutes may affect the compliance status of this site.

WESTON does not warrant or guarantee that the property is suitable for any particular purpose or certify any areas of the property as "clean." An assessment of conditions such as air quality, radon, and other health and safety-related items has not been included in this report.

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Justification	
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## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	DISCLAIMER	iii
	EXECUTIVE SUMMARY	ES-1
1	INTRODUCTION	1-1
1.1	Background	1-1
1.2	Objectives	1-1
1.3	Procedures	1-2
1.4	Report Format	1-2
2	PROPERTY CHARACTERIZATION	2-1
2.1	General Property Description and History	2-1
2.1.1	Description of Facilities	2-1
2.1.2	Generation and Disposal of Wastes	2-5
2.2	Permitting Status	2-5
2.3	General Environmental Information	2-5
2.3.1	Demographics and Land Use	2-5
2.3.2	Climate	2-6
2.3.3	Surface Water and Physiography	2-6
2.3.4	Soils and Geology	2-8
2.3.5	Groundwater and Hydrology	2-8
2.3.6	Sensitive Environments	2-9
3	ENVIRONMENTALLY SIGNIFICANT OPERATIONS	3-1
3.1	Oil House	3-1
3.2	Generator Building	3-1
4	HUMAN AND ENVIRONMENTAL RECEPTORS	4-1
4.1	Groundwater	4-1
4.2	Surface Water	4-1
4.3	Soil	4-1
4.4	Air	4-1
4.5	Other Hazards	4-1
4.5.1	Fire and Explosives	4-1
4.5.2	Direct Contact	4-2
4.5.3	Physical Hazards	4-2
5	CONCLUSIONS AND RECOMMENDATIONS	5-1
5.1	Summary of Findings	5-1
5.2	Recommendations for Further Action	5-1

**TABLE OF CONTENTS  
(continued)**

<b>Section</b>	<b>Title</b>	<b>Page</b>
6	REFERENCES	6-1
6.1	Direct Interviews	6-1
6.2	Telephone Interviews	6-1
6.3	Reports and Other Documents	6-2
7	PHOTOGRAPHS	7-1
	APPENDIX A - SUPPORTING DOCUMENTATION	



### LIST OF TABLES

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
2-1	Property Information Summary	2-3

### LIST OF FIGURES

<u>Figure No.</u>	<u>Title</u>	<u>Page</u>
ES-1	Property Summary Composite	ES-3
2-1	Property Location	2-2
2-2	Site Plan	2-4
2-3	Wind Rose	2-7
3-1	Environmentally Significant Operations	3-2



## **EXECUTIVE SUMMARY**

### **BACKGROUND AND PROCEDURES**

This Enhanced Preliminary Assessment (PA) report has been prepared by Roy F. Weston, Inc. (WESTON) at the request of the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) pursuant to Contract DAAA15-88-D-0007, Task Order 2. The purpose of the PA report is to present WESTON's findings as to the environmental conditions at the Cape St. George Reservation located on Little St. George Island, Franklin County, Florida, and to provide recommendations for further action.

The objectives of the PA were to:

- Identify and characterize environmentally significant operations (ESOs) associated with the historical use of the Cape St. George Reservation.
- Identify and characterize possible impacts of the ESOs on the surrounding environment.
- Identify additional environmental actions, if any, that should be implemented for the ESOs identified.

Information contained in this enhanced PA report was obtained through:

- Visual inspection of the facility.
- Review of available information from current and former property owners, the U.S. Army and the U.S. Coast Guard, respectively.
- Review of related regulatory agency files at the township, state, and federal levels.
- Interviews with available former personnel associated with the facility.

### **ENVIRONMENTALLY SIGNIFICANT OPERATIONS**

The Cape St. George Reservation is a 6.4-acre property located on the southernmost point of Little St. George Island, Franklin County, Florida. The property is situated on a barrier island separating Apalachicola Bay from the Gulf of Mexico.

The land was owned by the U.S. Coast Guard from 1852 to 1973 and used as an operational lighthouse facility. In 1973 the Army acquired the entire property except for a 60 ft by 60 ft parcel immediately surrounding the lighthouse which is still held by the Coast Guard.

Between 1973 and 1986 the Army utilized the Cape St. George Reservation as a landing area for helicopters to arm weapons systems and clear jams in the event of misfires. No weapon firings, storage of ordnance, or maintenance or refueling of aircraft reportedly occurred on this property.

There are no ESOs currently occurring on the property. Based on limited information, past ESOs identified on the property include:

- Storage of kerosene in a brick oil house. Kerosene was used to light the lighthouse lamp between 1852 and 1940.
- An aboveground storage tank of an estimated capacity of less than 500 gal that stored fuel used to power a generator housed in the adjacent building.

Figure ES-1 shows the locations of the ESOs.

### **HUMAN AND ENVIRONMENTAL RECEPTORS**

Cape St. George Reservation is located on the near-shore and low dune areas of a barrier island. Fresh water wetlands that drain to the Gulf of Mexico are present in the northeast corner of the property. The endangered loggerhead turtle (*Caretta caretta*) is known to nest on this island.

Groundwater is not utilized in this area. The nearest operational private wells are approximately 10 miles from the site. The surrounding Gulf of Mexico and Apalachicola Bay are used for recreational purposes and for a commercial fishing industry.

Because of the sandy soil occurring over the entire site, any potential past spills would have percolated through the soil to the groundwater. It is likely that the groundwater may discharge into the Gulf of Mexico.

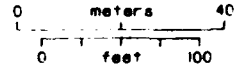
### **CONCLUSIONS AND RECOMMENDATIONS**

A surface sweep of the property for ordnance is all that is required. Although no firing or reloading of weapons occurred, the potential exists for accidental dropping of ordnance or shell casings during helicopter layovers.

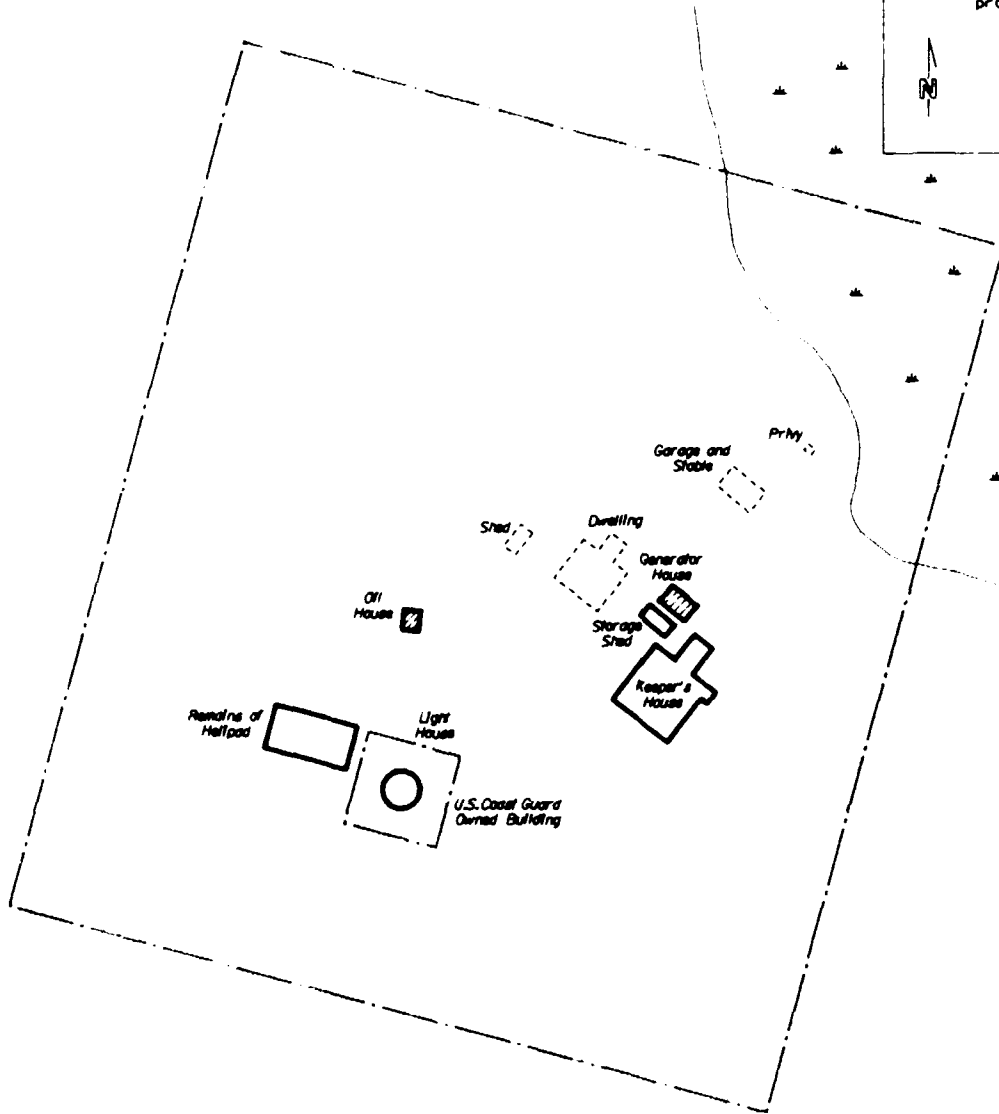
For the ESOs identified on the Cape St. George Reservation, no sampling is required. It should be noted that no records of activities on the property were available and no former Coast Guard employees associated with the facility could be interviewed.

**Figure ES-1**  
**Property Information**  
**Composite**

Compiled in 1989 from various sources  
provided by the U.S. Army Toxic and  
Hazardous Materials Agency



ENVIRONMENTALLY SIGNIFICANT OPERATIONS



Gulf of Mexico



**USATHAMA**

U.S. Army Toxic and Hazardous Materials Agency



## SECTION 1

### INTRODUCTION

#### 1.1 BACKGROUND

Roy F. Weston, Inc. (WESTON) has been retained by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) to conduct waste site characterizations of specific Department of Army properties under the authority of Contract DAAA15-88-D-0007, Task Order 2. This work is being performed within the scope of the U.S. Army Installation Restoration Program (IRP). As part of this contract, WESTON has also been asked to prepare enhanced preliminary assessment (PA) reports for those selected properties destined to be included as part of the Base Closure Program. The purpose of the PA reports is to present WESTON's findings concerning the environmental conditions of the properties and to provide recommendations for further action. These recommendations will serve as a guide to the U.S. Army in prioritizing the activities necessary to report the properties as excess.

This report discusses the preliminary assessment of the Cape St. George Reservation, which is located on Little St. George Island, Franklin County, Florida. WESTON conducted a site visit to this property on 5 October 1989. The scope of the survey was restricted to the property held by the Army, excluding a 60 ft by 60 ft parcel of land still held by the U.S. Coast Guard, on which the lighthouse is situated. This parcel is surrounded by Army property and is centrally located near the shore line.

#### 1.2 OBJECTIVES

This PA report was prepared using existing information from property records and from information obtained from personnel either currently or formerly associated with this property. No sampling activities were completed as part of the assessment.

The objectives of the PA were as follows:

- Identify and characterize ESOs associated with the historical use of the property.
- Identify and characterize possible impacts of the ESOs on the surrounding environment.
- Identify additional environmental actions, if any, that should be initiated for the ESOs identified.

### **1.3 PROCEDURES**

The information contained in this preliminary assessment is based on the following data-gathering activities:

- Visual inspection of the facility.
- Review of available Army documentation.
- Review of available information from the former property owner, the U.S Coast Guard.
- Contact with the U.S. Environmental Protection Agency (EPA) Region IV.
- Contact with the Florida Department of Environmental Regulation.
- Contact with Franklin County offices (Soil Conservation Service, Chamber of Commerce, Clerks Office).
- Interviews with available personnel formerly and currently associated with the facility.

### **1.4 REPORT FORMAT**

This enhanced PA report presents an evaluation of the relevant data for the Cape St. George site.

Section 2 describes the property and the surrounding environment and land uses. Section 3 identifies and characterizes all ESOs related to known and suspected releases to the environment. The potential impact of these operations on the local environment and human receptors is discussed in Section 4. Section 5 summarizes the findings and conclusions, discusses the quality and reliability of the supporting information, identifies areas requiring further action, and suggests how such actions may be accomplished. Section 6 lists the pertinent materials reviewed and the agencies that were contacted. Photographs of the items that were investigated for this assessment are provided in Section 7. Supporting documentation is provided in Appendix A.

References are presented throughout this report, where appropriate, by means of a letter and number designation in brackets, as follows: I refers to direct interviews; T refers to telephone conversations; and R refers to reports or other written documents. The number following the letter refers to the specific item in the respective lists provided in Section 6.

**SECTION 2****PROPERTY CHARACTERIZATION****2.1 GENERAL PROPERTY DESCRIPTION AND HISTORY**

The Cape St. George Reservation is a 6.4-acre property and is located on the southernmost point of Little St. George Island which covers an area of approximately 2,300 acres (Figure 2-1). Little St. George Island was created when a channel was cut through St. George Island in approximately 1958. The channel connects Apalachicola Bay with the Gulf of Mexico. In this report, Little St. George Island will refer to the western portion and St. George Island will refer to the larger eastern portion, unless otherwise specified.

The Army owns this entire property except for a 60 ft by 60 ft parcel, owned by the U.S. Coast Guard, on which a lighthouse is located. The Army acquired the property from the Coast Guard in March 1973. General information for the Cape St. George Reservation is summarized in Table 2-1.

**2.1.1 DESCRIPTION OF FACILITIES**

Currently, the property is uninhabited, and there are no functional improvements onsite. In addition to the lighthouse, there are the remains of other structures dating back to the period when the lighthouse was manned. There are no Army activities occurring onsite. The present lighthouse was built in 1852. It is 70 ft high, conical in shape, constructed of brick, and rests on pilings. In November 1974, the lighthouse was placed on the National Register of Historic Places. The lamp for the lighthouse was fueled initially by kerosene. During the late 1930s to early 1940s, the lamp was converted to battery power [R-1]. Ten to 12 dry cell batteries were used and extra batteries were stored inside the lighthouse. Since April 1986, the light has been powered by a solar panel [T-1].

Between 1878 and 1880, a single-story wood frame dwelling and a two-story brick dwelling were built. Several other associated outbuildings were erected between 1890 and 1939. These included a pump house, stable, oil storage, privy, generator building, and two storage sheds. There were also underground cisterns for the storage of rainwater. In 1961, all of these structures, except the oil storage, wooden dwelling, generator building, and one storage shed, were destroyed by fire [R-1]. There is no remaining evidence of their existence, but their former locations are indicated in Figure 2-2 by dotted lines. The remaining wooden residence was temporarily inhabited during the years 1956-1961. The lease was not renewed because the tenant failed to keep the house in good repair. The dwelling has remained unoccupied since 1961 (photo 1) [R-2].

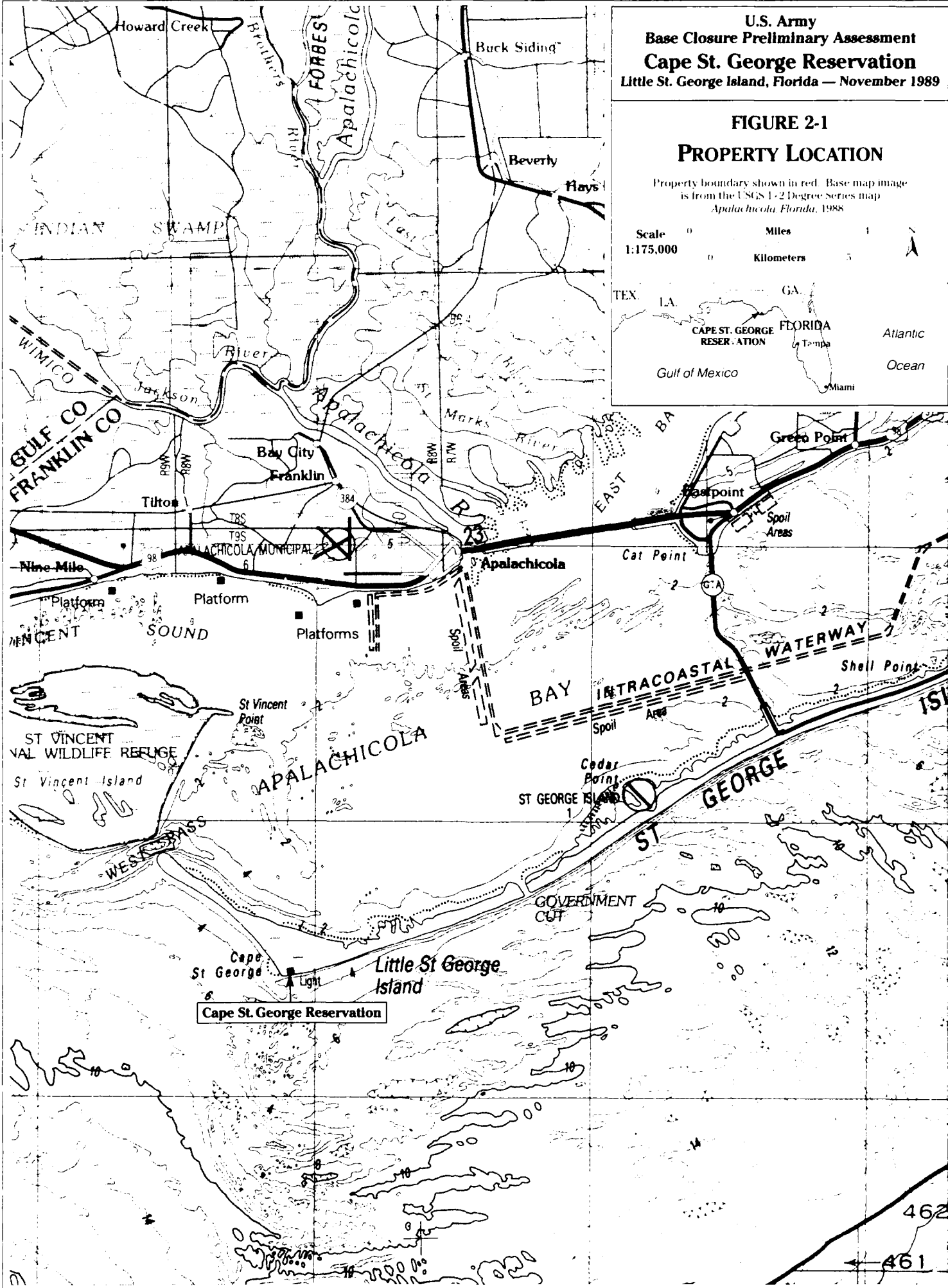
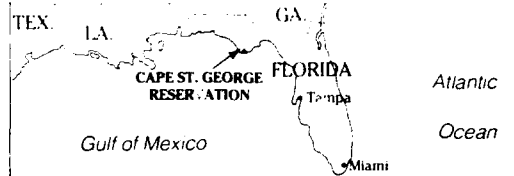
In 1973, ownership of the site was transferred from the U.S. Coast Guard to the Army. This corresponded with the establishment of an overwater firing range in 1971-1972 in the Gulf of Mexico south of Cape St. George. The range was utilized for reliability tests on aircraft armament systems and was not authorized for the use of high explosive weapons [T-2].

U.S. Army  
 Base Closure Preliminary Assessment  
**Cape St. George Reservation**  
 Little St. George Island, Florida — November 1989

**FIGURE 2-1**  
**PROPERTY LOCATION**

Property boundary shown in red. Base map image is from the USGS 1-2 Degree Series map Apalachicola, Florida, 1988.

Scale 0 1 Miles  
 0 5 Kilometers



462  
 ← 461



Table 2--1

Property Information Summary

---

Name: Cape St. George Reservation

FFIS: FL-213722831

Property Number: 1205.

Facility Address: No mailing address

Commanding Officer: None at present

Location: Little St. George Island, 9 miles SSW of  
Apalachicola, Florida, in the Gulf of Mexico.

Installation Coordinates: 29° 35' 15" N, 80° 02' 50" W

Size: 6.4 acres

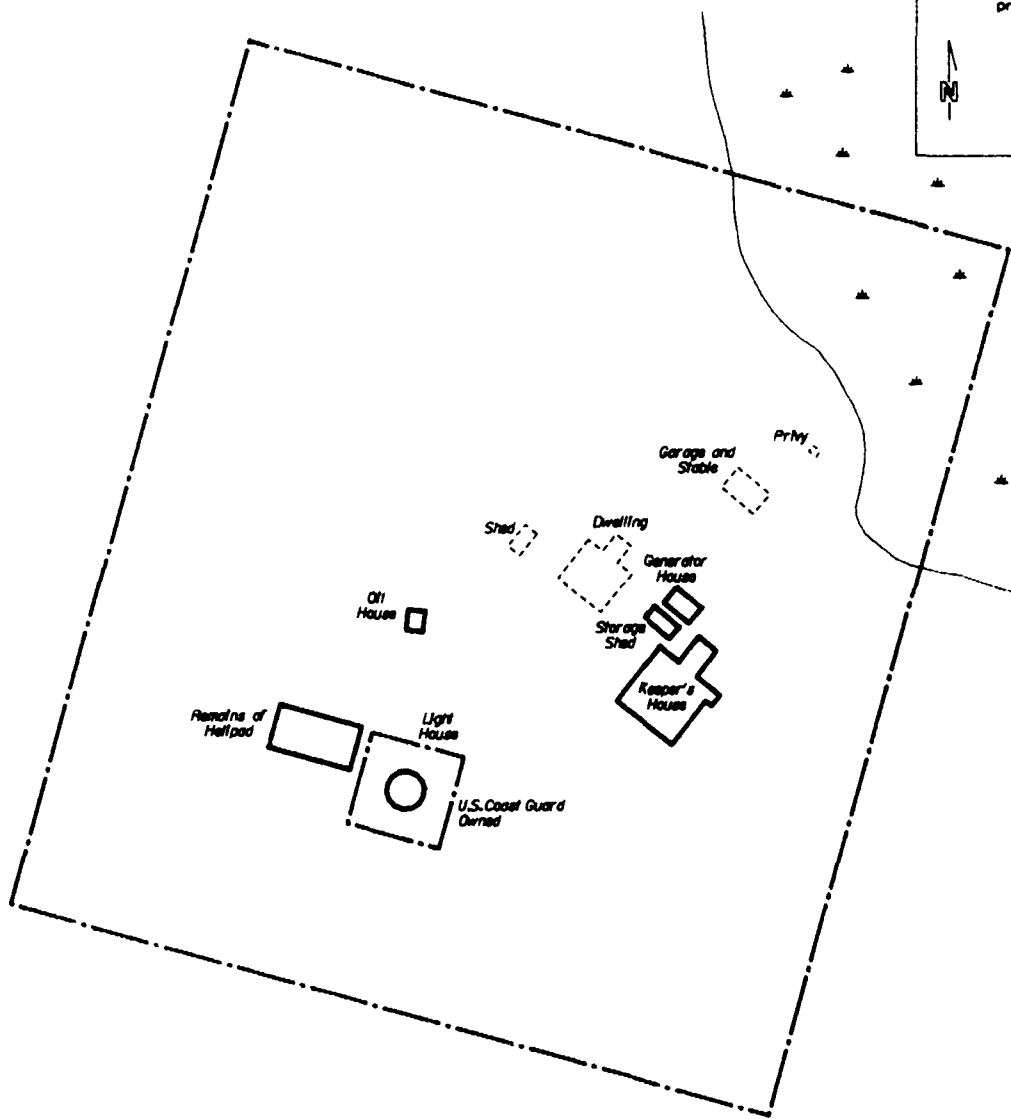
Mission: Landing area for helicopters to arm weapon systems or  
clear jams in case of misfire prior to the return of  
aircraft to the overwater firing range or an airfield.

Operations: No operations are ongoing at this site.

---

**Figure 2-2**  
**Site Plan**

Compiled in 1989 from various sources  
provided by the U.S. Army Toxic and  
Hazardous Materials Agency



Gulf of Mexico



Because of its proximity to the Gulf firing range, Cape St. George provided a convenient landing area for helicopters to arm weapons systems and clear jams in the event of weapons misfire. No weapon firings, storage of ordnance, aircraft maintenance, or refueling reportedly ever occurred on this property. No Army personnel were ever stationed onsite. The range and consequently the Cape St. George Reservation were used approximately 2 to 3 times per year during the period 1972 through 1986 [I-1; R-3, R-4].

The only improvement to the property by the Army was the construction of a helicopter landing pad 15 ft higher than the adjacent grass. The interlocking steel mats used as a landing surface have been dislocated by wave action and the landing pad is currently unusable (photo 2) [I-2; R-5].

### **2.1.2 GENERATION AND DISPOSAL OF WASTES**

At the present time there is no waste generated at the Cape St. George Reservation. The dwelling is uninhabited and there are no Army activities occurring.

Records indicate that the dwellings were occupied between 1878 and 1961. No information is available on disposal practices during that period. It is assumed that biodegradable household waste as well as sanitary waste was disposed of in the privy. There is no indication of onsite disposal (burial) of wastes.

All petroleum products utilized on the island were consumed during normal operations of the lighthouse. Prior to 1940 kerosene was burned to light the lamp. Fuel of an unknown type was burned to power a generator. Army activities between 1972 and 1986 produced no waste products. There was no reported maintenance or refueling of aircraft on the island.

### **2.2 PERMITTING STATUS**

There are no records at the federal or state levels of any permits associated with the Cape St. George Reservation. Contacts with EPA Region IV and the Florida Department of Environmental Regulation, Waste Management, Water Facilities, Water Management, and Air Management Divisions produced no records of any permits having been issued. There are no records of reportable spills [T-3, T-4]. Supporting documentation is provided in Appendix A.

### **2.3 GENERAL ENVIRONMENTAL INFORMATION**

#### **2.3.1 DEMOGRAPHICS AND LAND USE**

Cape St. George Reservation is located in Franklin County, Florida (population 8,500). The nearest town is Apalachicola 9 miles north northeast across Apalachicola Bay. The economy of the area is supported by commercial fishing, primarily oyster and shrimp harvesting. The commercial fisherman reach the Gulf of Mexico through a manmade channel, cut around 1958, which separates Little St. George Island from St. George Island.

Apalachicola has numerous small businesses characteristic of a town of 2,600. Apalachicola Bay, which is very shallow, is used primarily for boating and sport fishing. There are approximately 1,300 vacation homes on the St. George Island [T-5].

### **2.3.2 CLIMATE**

St. George Island, located approximately 9 miles south southwest of Apalachicola, Florida, is a barrier island between Apalachicola Bay and the Gulf of Mexico.

Because of the moderating effect of the Gulf, and proximity to the Atlantic Ocean, temperatures are mild and subtropical in nature. Figure 2-3 is a wind rose for the Apalachicola weather station during 1988. The prevailing wind direction during 1988 was from the north and a secondary maximum occurred from the southeast.

Normal yearly precipitation is 54.98 inches. September is the wettest month with 8.66 inches, and November is the driest month with 2.82 inches of precipitation. Snowfall is rare and normally melts on surface contact. The maximum monthly and maximum 24-hour snowfall both occurred in February 1958 when 1.2 inches were measured.

Temperatures are mild throughout the year, but vary from season to season. The annual normal average temperature is 68.2°F. The coldest month is January with a normal average temperature of 52.8°F, and the warmest month is July with a normal average temperature of 81.5°F. Temperatures above 100°F are rare but do occur. Temperatures below 32°F are not uncommon, but seldom last for more than a few days.

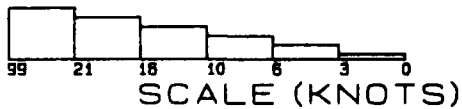
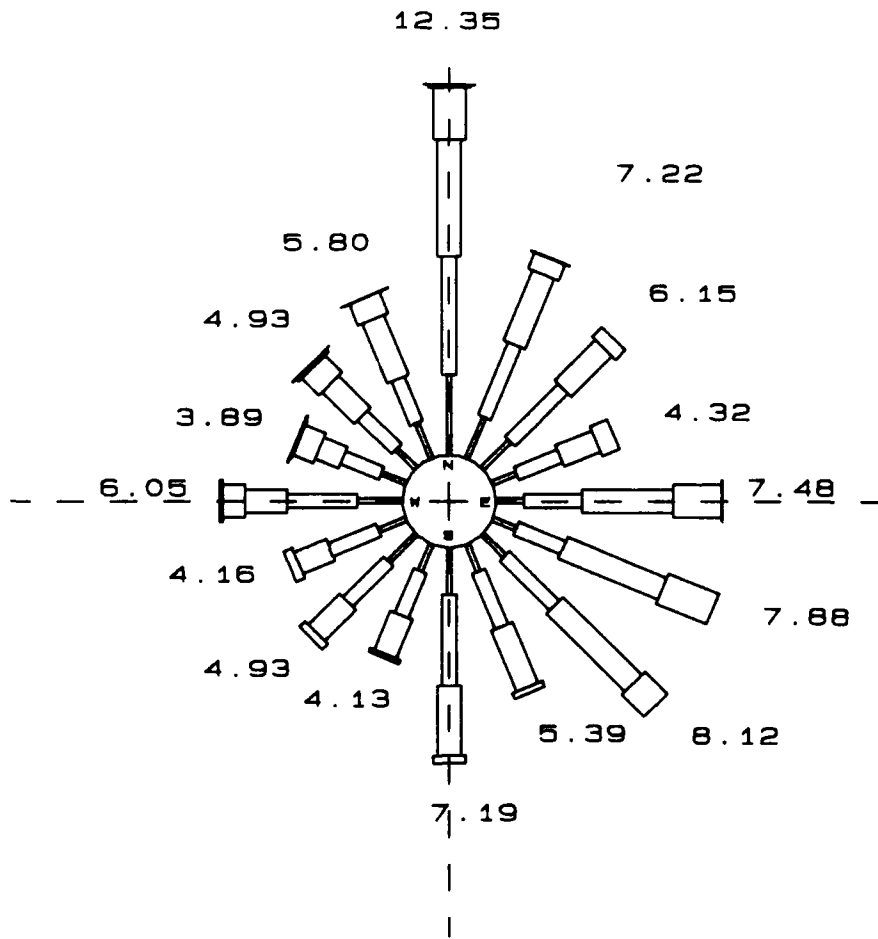
Thunderstorms occur in all months, with the majority occurring during the summer months. Thunderstorms accompanied by hail average less than one occurrence a year. There is no record of any sleet or glaze occurring in Apalachicola area. Very few tropical storms have affected the area. Heavy rains associated with tropical storms have, on occasion, caused flooding in the area [R-6].

### **2.3.3 SURFACE WATER AND PHYSIOGRAPHY**

The Cape St. George Reservation is located on the Gulf Shore of Little St. George Island. Any surface water runoff would discharge directly to the Gulf or percolate through the sandy soil. The only body of water onsite is a small swamp in the northeast corner of the property (photo 3). Aerial photography indicates a drainage channel connecting this wet area with the Gulf [R-7].

St. George Island is only 1 mile wide in the vicinity of the Reservation. At an elevation of approximately 10 ft above mean sea level, the property is subject to flooding during severe storms. An indentation behind the lighthouse is evidence of frequent flooding (photo 4). During hurricanes it is not uncommon for as much as one-third of the island to be submerged, and on at least one occasion, in 1882, hurricane-driven waves broke over the island [T-6; R-8].

APALACHICOLA, FLORIDA  
 YEAR: 1988  
 CALMS INCLUDED



	WIND SPEED (KNOTS)						PERCENT OCCURRENCE						
	0-3	3-6	6-10	10-16	16-21	>21	0-3	3-6	6-10	10-16	16-21	>21	
N	2.69	3.92	3.90	1.73	0.09	0.01	S	1.87	3.06	2.31	0.25	0.00	0.00
NNE	1.50	2.62	2.50	0.58	0.02	0.00	SSW	0.97	1.62	1.40	0.15	0.00	0.00
NE	1.28	2.49	1.91	0.48	0.00	0.00	SW	1.29	1.91	1.47	0.26	0.00	0.00
ENE	0.85	1.56	1.30	0.61	0.00	0.00	WSW	0.98	1.72	1.14	0.32	0.00	0.00
E	0.92	1.92	3.01	1.62	0.01	0.00	W	1.49	2.33	1.39	0.73	0.11	0.00
ESE	0.83	1.67	3.57	1.80	0.00	0.00	WNW	0.86	1.37	0.84	0.73	0.05	0.03
SE	1.03	2.36	3.69	1.06	0.00	0.00	NW	0.91	1.89	1.80	0.60	0.11	0.01
SSE	0.98	2.02	2.19	0.20	0.00	0.00	NNW	1.27	1.61	2.14	0.76	0.01	0.01

FIGURE 2-3 WIND ROSE

The surrounding waters of Apalachicola Bay and the Gulf of Mexico are used for recreation and commercial fishing.

#### **2.3.4 SOILS AND GEOLOGY**

Cape St. George Reservation is located on a barrier island separating Apalachicola Bay from the Gulf of Mexico. The site stretches from the relatively flat near-shore beaches to low dunes of 0 to 5 percent slope. The northeast corner of the study area is a wetland with visible standing water.

Soils in this area are predominantly sandy of the Newhan-Corolla, Duckston-Bohicket-Corolla complexes as well as sections of the Corolla and Maurepas series. The following descriptions of the individual soil series are taken from the U.S.D.A. Soils Conservation Service, Soil Survey of Franklin County, Florida (1989).

The Newhan series consists of gently undulating to steep, excessively drained soil. In a representative profile, the surface layer is grayish brown fine sand about 2 in. thick. The underlying layer to a depth of 72 in. is light gray. It is fine sand in the upper part and sand in the lower part.

The Duckston series consists of poorly drained sands at elevations of 5 ft or less. They have grayish brown and dark grayish brown fine sand surface layers over gray sand layers that have been reworked by wind and waves.

The Bohicket series consists of very poorly drained soils of tidal marshes. They are flooded by sea water daily. Typically, they have a dark gray silty clay loam surface layer underlain by grayish clayey materials.

The Corolla series are moderately well and somewhat poorly drained sands along the coast at elevations of 5 ft or less. They are grayish brown and pale brown sand surface layers over dark grayish brown, light brownish gray, and gray sand layers. These sands have been reworked by wind and waves.

The Maurepas series consists of level, very poorly drained, rapidly permeable soils and have a dark brown organic layer more than 51 in. thick. These soils formed in woody plant remains. Logs, dominantly cypress and wood fragments are common throughout the profile [R-9].

#### **2.3.5 GROUNDWATER AND HYDROLOGY**

Groundwater exists at a depth of 20 to 30 ft. It is potable, but has a noticeable sulfur and iron content. The fresh recharge water tends to mound over the more dense salt water. The mound mimics the narrow shape of the island. Therefore, over-pumping is likely to cause salt intrusion into the wells.

There currently is no utilization of groundwater on the entire Little St. George Island. Historically, a former land owner, Herbert Marshall, used wells to supply water for his livestock. When the lighthouse was manned,

rainwater stored in underground cisterns was the preferred source of water, although reportedly there was a well. All wells would have been located in the interior of the island. The Cape St. George Reservation is located near the beach and not within the fresh water recharge area [T-7, T-8, T-9].

### **2.3.6 SENSITIVE ENVIRONMENTS**

Cape St. George Reservation is located on a barrier island, which is an extremely delicate and dynamic ecosystem. All upland portions of the island, or approximately 2,295 acres surrounding the site, are managed as a wildlife refuge by the State of Florida Department of Natural Resources. The northeast corner of the site is marshy and poorly drained. This area may be considered a wetland [R-10].

There are no reported endangered plant species on the island. The wooded sections are comprised of sand pine and palmetto. Sea oats and cacti sparsely vegetate the dune areas [I-3].

The endangered loggerhead turtle (Caretta caretta) is known to nest on both portions of St. George Island. According to the National Fisheries Service, there are more recent records of the loggerhead nesting on St. George Island than on any other beach on the northern Gulf Coast. These turtles, which average 200 lbs, nest only on the Gulf shore beaches, and human disruption causes disorientation and loss of nesting areas [T-6; R-11].

**SECTION 3****ENVIRONMENTALLY SIGNIFICANT OPERATIONS**

The objective of this section is to document areas where hazardous materials were managed and to identify potential or known releases of these materials into the environment, including their likely migratory pathways. The Cape St. George Reservation is a unique site in that no ESOs are occurring on the property. None of the existing buildings are being used or even appears to be useable.

Only limited information is available on past activities. Those of primary concern will be discussed in the following subsections. Figure 3-1 shows the location of all past ESOs.

**3.1 OIL HOUSE****3.1.1 DESCRIPTION**

Located approximately 100 ft north of the lighthouse is a small brick building which was reported to be a storage area for kerosene needed for the lighthouse operation (photo 5). Historical records indicate that the building was built in 1890 with an approximate floor space of 169 sq ft. At the time of the site visit, the building was intact, but gutted. Rubble on the floor and around the building suggests prior damage by fire, storms, or possible vandalism. Only portions of a metal roof remain.

No information could be obtained regarding the amount of material stored or storage practices. Kerosene was used until the late 1930s or early 1940s when the lamplight was converted to dry cell batteries. Reports mention that batteries were stored within the lighthouse but it is not known if they were stored elsewhere. In 1961, the oil house was damaged by fire.

**3.1.2 KNOWN AND SUSPECTED RELEASES**

As described in Section 3.1.1, no documentation related to storage and handling practices of kerosene or other materials could be found.

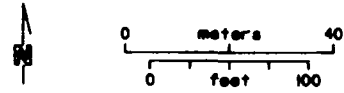
There were no reported spills and no stains were visible during inspection of the building; however, many years have passed since the oil was stored. It was not possible to see the floor of the building because it was covered with rubble.

**3.2 GENERATOR BUILDING****3.2.1 DESCRIPTION**

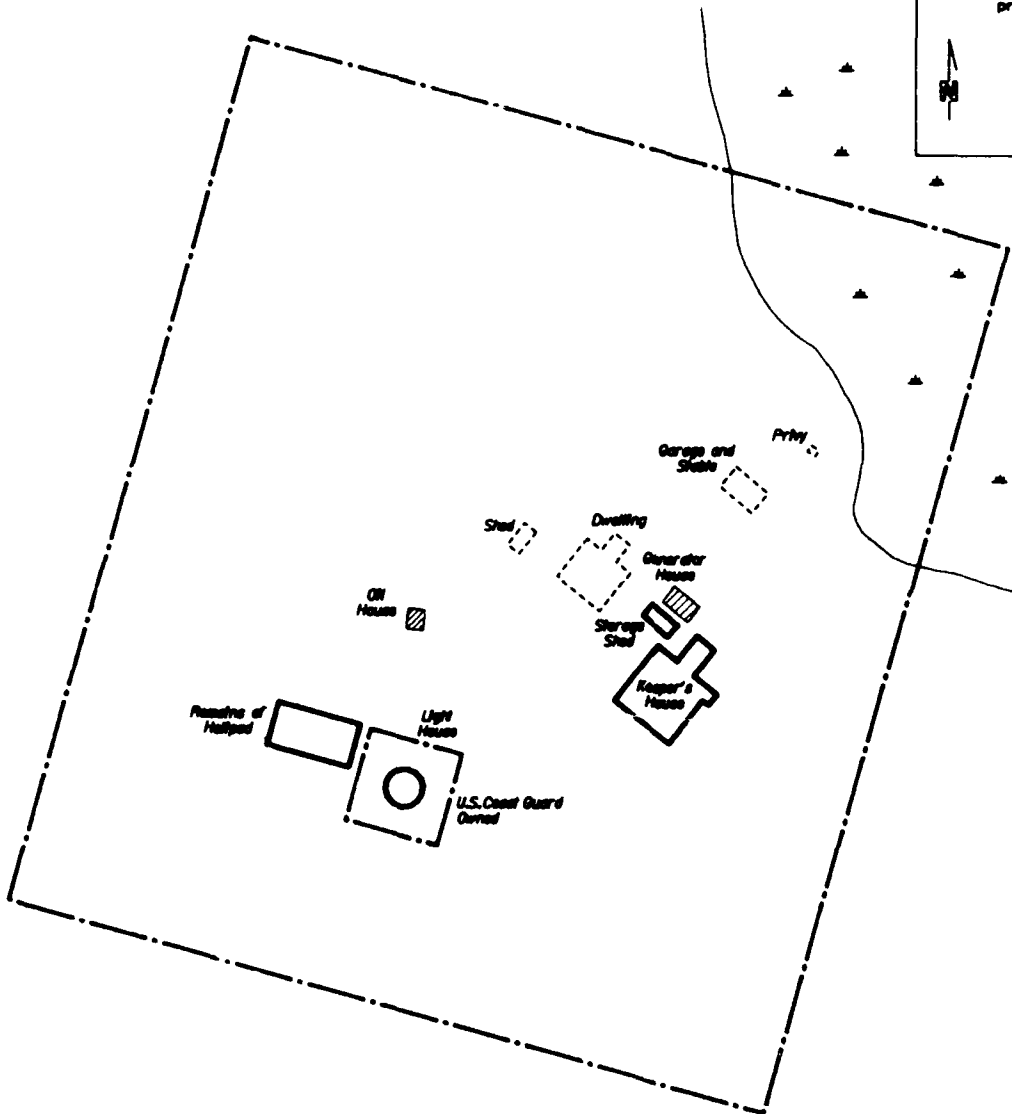
The generator building is located at the rear of the lighthouse keepers quarters. The existence of a former aboveground storage tank is substantiated by the presence of concrete cradle supports on the north side of the

**Figure 3-1**  
**Environmentally Significant**  
**Operations**

Compiled in 1989 from various sources  
provided by the U.S. Army Toxic and  
Hazardous Materials Agency



ENVIRONMENTALLY SIGNIFICANT OPERATIONS



**USATHAMA**

U.S. Army Toxic and Hazardous Materials Agency

building (photo 6). Based on the distance between the supports, the tank size is estimated to be less than 500-gal capacity. Three concrete mounts within the building indicate the location of a former generator (photo 7).

### **3.2.2 KNOWN AND SUSPECTED RELEASES**

The nature and extent of any spills associated with this building cannot be verified. No information could be obtained on the handling procedures, including refueling operations, or type of fuel. No evidence of prior spills was found during the visual inspection of the property. It should be noted that due to the surrounding soil type, spills would have been absorbed into the ground. Discoloration on the concrete cradles appeared to have resulted from normal wear and weathering.

## SECTION 4

### HUMAN AND ENVIRONMENTAL RECEPTORS

The pathways by which human and environmental receptors may be exposed to site-related substances are discussed in this section.

#### 4.1 GROUNDWATER

There is no staining or evidence of a past spill. Given the high water table and good drainage of the soil, it is likely that a potential release would have reached the groundwater through percolation. Due to the proximity of surface water, it is probable that groundwater discharges to surface water following periods of recharge [T-9].

The nearest identified active wells are a minimum of 10 miles from the site. These wells supply residences on the eastern end of St. George Island. Therefore, the effects on human and environmental receptors utilizing groundwater would be negligible or nonexistent.

#### 4.2 SURFACE WATER

Because of the sandy soil, it is unlikely that any contamination would migrate directly to either the marshy area or the adjacent Gulf of Mexico. Possibly during times of very high tides, storm waters might have flushed any contaminants from the surface soils. Any such release would have been so diluted by the Gulf as to render it negligible. Therefore, the effects on human and environmental receptors would be nonexistent.

#### 4.3 SOIL

No soil appears or is known to be contaminated. If the former aboveground tank beside the generator building or the cans of kerosene in the oil house had leaked, the underlying soil would be contaminated. Each of these areas is located beyond the nesting habitat of loggerhead turtles. Therefore, no impact on human or environmental receptors is expected. Any potential contaminants would be expected to have migrated to the groundwater.

#### 4.4 AIR

No previous or current sources of air contaminants were identified at the site.

#### 4.5 OTHER HAZARDS

##### 4.5.1 FIRE AND EXPLOSIONS

No fire or explosion hazards are known to exist at the site.

#### **4.5.2 DIRECT CONTACT**

No direct contact hazards exist at the site.

#### **4.5.3 PHYSICAL HAZARDS**

The presence of several abandoned buildings, specifically the keeper's residence, the generator building, the oil house, and the storage shed present a risk of personal injury. All buildings are in varying degrees of disrepair, and their structural integrity is unknown.

In addition, the property reportedly has been vandalized on several occasions. Other outbuildings have been destroyed by fire, and the potential for similar destruction of the remaining structures exists.

**SECTION 5****CONCLUSIONS AND RECOMMENDATIONS****5.1 SUMMARY OF FINDINGS**

This assessment has identified two areas on the Cape St. George Reservation as ESOs. It should be noted that very few records of activities on the property were available, and no former Coast Guard employees associated with the facility could be contacted.

**5.2 RECOMMENDATIONS FOR FURTHER ACTION**

A surface sweep of the entire property for ordnance is recommended. Even though no firing or reloading of weapons occurred onsite, the potential exists for inadvertent dropping of ordnance or shell casings during helicopter layovers. One 20 mm shell casing was found during the site visit, which may have been left during helicopter operations.

No conditions such as staining or stressed vegetation were observed on the property. This, along with the previous findings of this report, indicates there is no likely threat to human health or the environment from previous activities. Therefore there is no need for any additional follow-on action other than the surface sweep for ordnance.

**SECTION 6****REFERENCES****6.1 DIRECT INTERVIEWS**

- I-1 Technical Director, Test Board Activity  
U.S. Army, Ft. Rucker, Alabama  
3 October 1989
- I-2 Shore Maintenance Detachment  
Miami District, U.S. Coast Guard, Miami, Florida  
6 October 1989
- I-3 Environmental Management Office, DEH  
Ft. Rucker, Alabama  
5 October 1989
- I-4 Real Property Office, DEH  
Ft. Rucker, Alabama  
3 October 1989
- I-5 Environmental Management Office, DEH  
Ft. Rucker, Alabama  
3 October 1989

**6.2 TELEPHONE INTERVIEWS**

- T-1 Aids to Navigation Office, U.S. Coast Guard  
Panama City, Florida  
25 October 1989
- T-2 Logistics Supervisor, Test Board Activity  
U.S. Army, Ft. Rucker, Alabama  
25 October 1989
- T-3 FOI Coordinator, U.S. Environmental Protection Agency Region IV  
Atlanta, Georgia  
29 September 1989
- T-4 Water Facilities Program, Florida Department of Environmental  
Regulations  
Pensacola, Florida  
28 September 1989
- T-5 Apalachicola Bay Chamber of Commerce  
Apalachicola, Florida  
4 October 1989
- T-6 Ecologist, U.S. Army Corps of Engineers, Mobile District  
Mobile, Alabama  
26 September 1989

- T-7 St. George Island Utilities  
14 November 1989
- T-8 Extension Office, Franklin County Clerk's Office  
Apalachicola, Florida  
14 November 1989
- T-9 Technical Director, Roy F. Weston, Inc.  
West Chester, Pennsylvania  
17 November 1989
- T-10 Historical Officer, State Historical Preservation Office  
Tallahassee, Florida  
26 October 1989

### **6.3 REPORTS AND OTHER DOCUMENTS**

- R-1 Entries in the National Register, (Cape St. George Light (ACLL134))  
10 September 1974.
- R-2 Acting Chief of Staff, CCGD Eighth Engineering Division.  
Memorandum to Chief, Aids to Navigation Branch, U.S. Coast Guard. 7  
July 1961.
- R-3 Chief Logistics Management Branch, Test Board Activity, U.S. Army,  
Ft. Rucker, Alabama. Memorandum to Cdr, USAAVNC, 9 August 1989.
- R-4 Director, Engineering and Housing, Ft. Rucker, Alabama. General  
Memorandum, 2 August 1988.
- R-5 Executive Officer Signal Corps, Test Board Activity, U.S. Army, Ft.  
Rucker. Memorandum to Cdr, Hqtr. USAAC and Ft. Rucker, 8  
November 1974.
- R-6 1988 Local Climatological Data, Annual Summary with Comparative  
Data, Apalachicola, Florida, National Oceanic and Atmospheric  
Administration, Asheville, North Carolina.
- R-7 Peroutky, James D., Installation Assessment Army Base Closure  
Program, Cape St. George Coast Guard Station, Apalachicola/Franklin  
County, Florida. Environmental Photographic Interpretation Center,  
September 1989.
- R-8 Cipra, David L., Lighthouses and Lightships of the Northern Gulf of  
Mexico, U.S. Department of Transportation, U.S. Coast Guard.
- R-9 Soil Survey of Franklin County, Florida, U.S. Department of Agriculture  
Soil Conservation Service, Gainesville, Florida, 1989.
- R-10 Assistant Deputy Chief of Staff, TRADOC, Ft. Monroe, Virginia.  
Memorandum to HQDA, Washington, DC, 28 April 1989.
- R-11 Endangered Species Notebook, U.S. Fish and Wildlife Service, February  
1989.



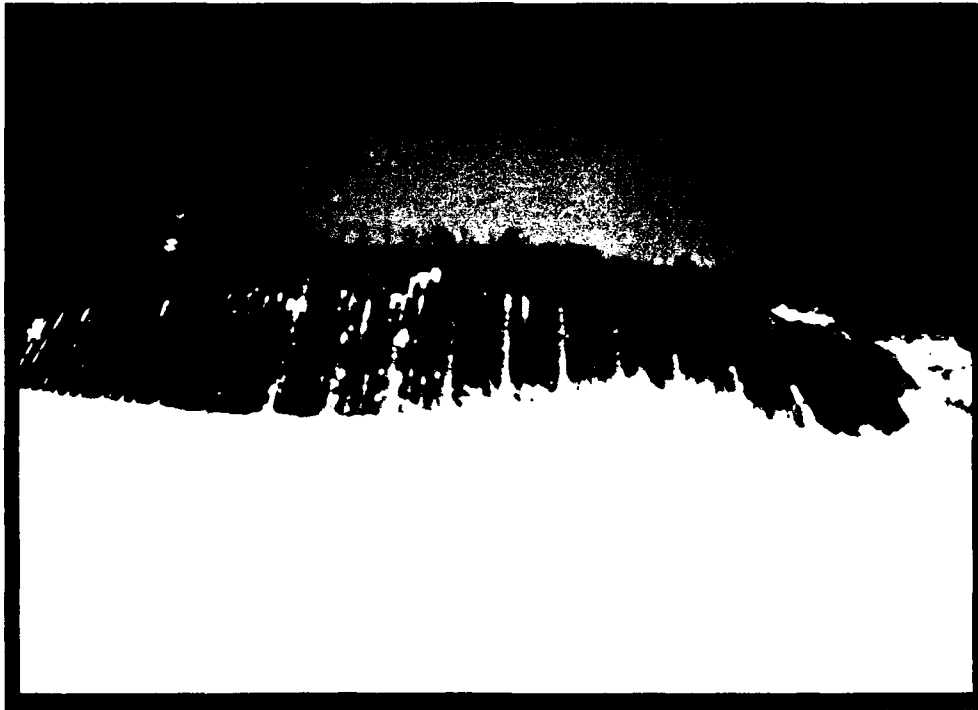
**SECTION 7**

**PHOTOGRAPHS**

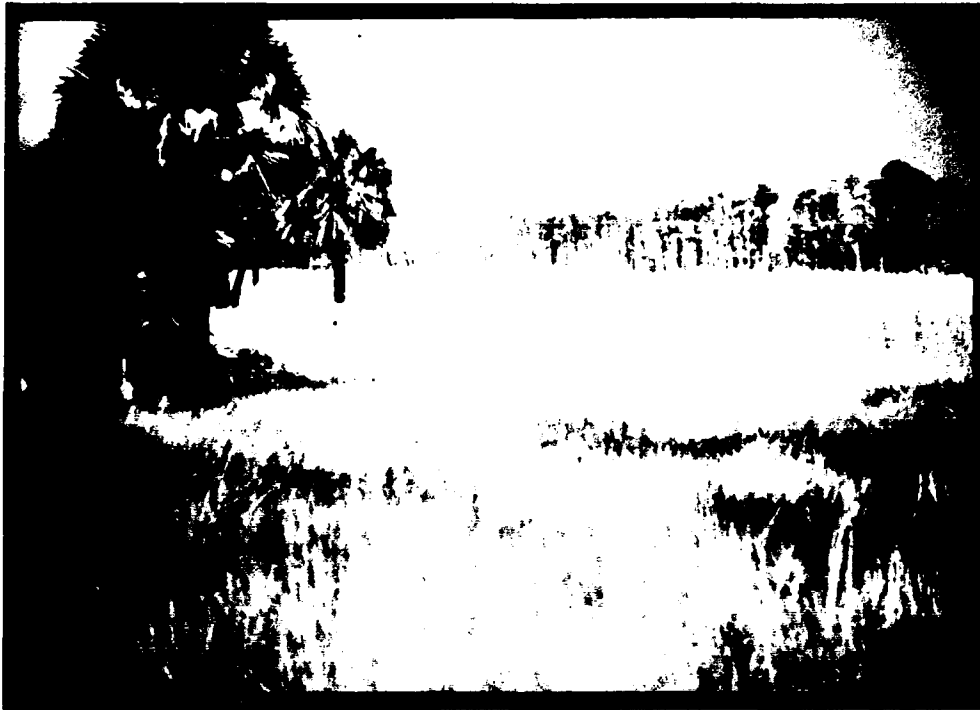
Photographs of the ESOs investigated for the Cape St. George Enhanced Preliminary Assessment are provided on the following pages.



**1. REMAINS OF THE KEEPER'S HOUSE**



**2. FORMER HELICOPTER LANDING PAD**



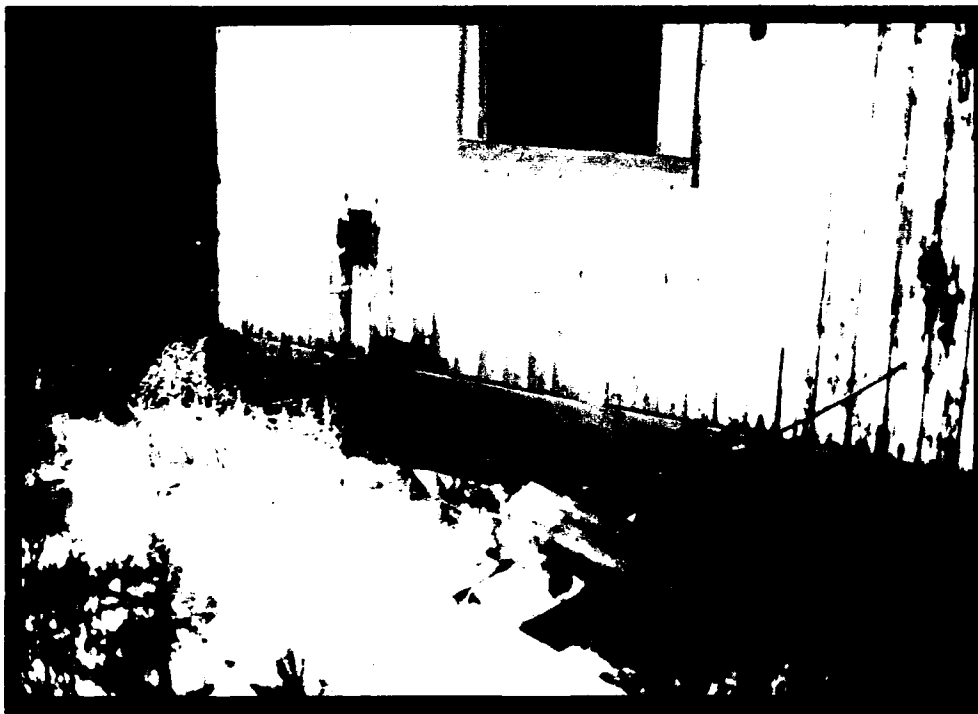
**3. WETLANDS IN CORNER OF PROPERTY**



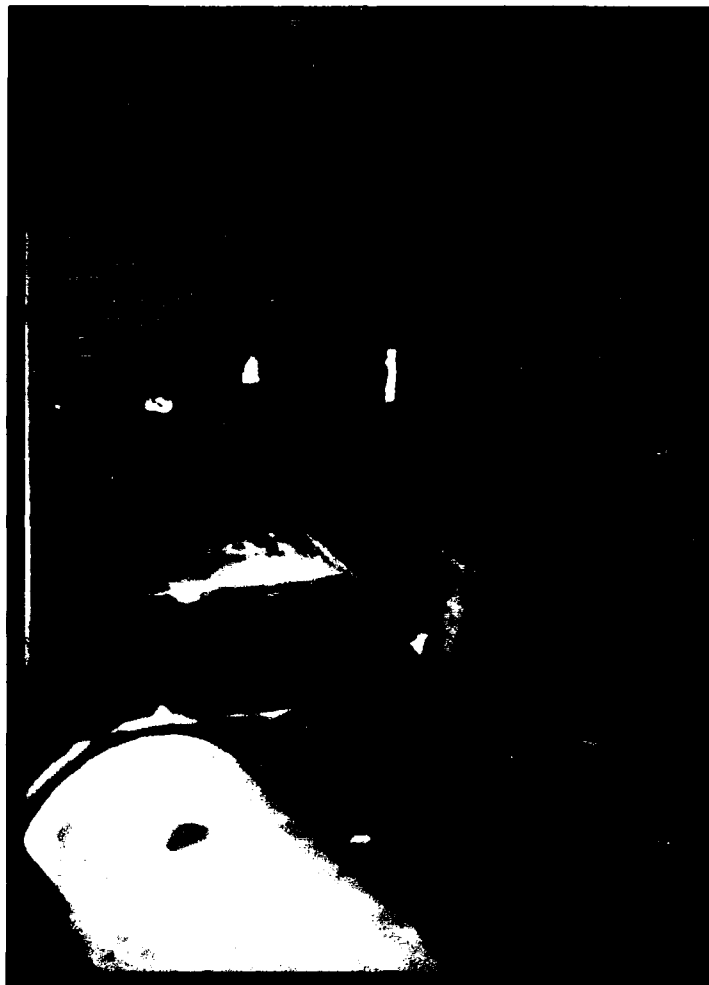
**4. AREA PRONE TO FLOODING**



**5. OIL HOUSE**



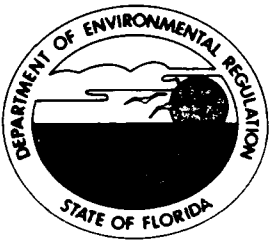
**6. PROBABLE TANK LOCATION**



**7. INTERIOR OF GENERATOR BUILDING**

**WESTON**

**APPENDIX A**  
**SUPPORTING DOCUMENTATION**



# Florida Department of Environmental Regulation

Northwest District • 160 Governmental Center • Pensacola, Florida 32501-5794 • 904-436-8300

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Robert Kriegel, Deputy Assistant Secretary

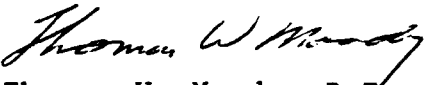
September 29, 1989

Ms. Karen M. Clevely  
Assistant Project Engineer  
Roy F. Weston, Inc.  
Weston Way  
West Chester, PA 19380

Dear Ms. Clevely:

This is in response to your September 22 inquiry regarding Army property at Cape St. George. We have no files on this property.

Sincerely,

  
Thomas W. Moody, P.E.  
Waste Management Program  
Administrator

TWM:tml



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

OCT 12 1989

4WD-SISB

Lawrence J. Bove, P.E.  
Project Manager  
Weston Weston Way  
West Chester, PA 19380

Re: 4-RIN-2381-89

Dear Mr. Bove:

This is in response to your Freedom of Information Act (FOIA) request for a copy of the CERCLIS list for Coosa River Annex, Alabama and Cape St. George, FL from Region IV files.

Please find the enclosed materials.

The fees are waived as de minimis.

Should you have questions, please contact Harold Key at (404) 347-2930.

Sincerely yours,

  
H. Kirk Lucius  
Freedom of Information Coordinator

Enclosure