



DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
P.O. BOX 4970  
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO  
ATTENTION OF

FINDING OF NO SIGNIFICANT IMPACT

INCLUSION OF TWO ADDITIONAL DISPOSAL OPTIONS FOR THE PORT SUTTON  
CHANNEL - TAMPA HARBOR  
HILLSBOROUGH COUNTY, FLORIDA

I have reviewed the Environmental Assessment (EA) of the proposed action. This Finding incorporates by reference all discussions and conclusions contained in the EA enclosed hereto. Based on information analyzed in the EA, reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action of utilizing two additional disposal placement options for material dredged from the construction of the Congressionally authorized Port Sutton Channel, Tampa Harbor, Hillsborough County, Florida, will have no significant impact on the quality of the human environment. Reasons for this conclusion are in summary:

a. The proposed work would not jeopardize the continued existence of any endangered or threatened species. The standard State and Federal manatee protection conditions would be implemented. If a clamshell dredge is used, a special manatee observer equipped with video equipment would be used to monitor manatee impacts. If blasting is conducted, a blasting plan will be prepared and coordinated with the appropriate agencies. This plan includes observers and a "No Blasting Window" November 1 to March 31. An Incidental Harassment Authorization application has been submitted to National Marine Fisheries Service for blasting activities conducted in association with the Port Sutton Project. The District is also working with the U.S. Fish and Wildlife Service to develop a harassment authorization for potential impacts to manatees and bottlenose dolphins. The authorizations will be issued by both agencies prior to commencement of construction.

b. The State Historic Preservation Officer concurred with the U.S. Army Corps of Engineers' determination that there would be no effect on sites of cultural or historical significance in Port Sutton Channel, MacKay Bay Hole filling, the upland DMMA at

Port Sutton and the Dredged Material Management Area CMDA-2D disposal site.

c. State water quality standards will be met.

d. The proposed project has been determined to be consistent with the Florida Coastal Zone Management Program.

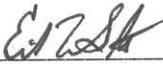
e. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction. The District's Migratory Bird Protection Policy would be implemented.

f. Benefits to the public will be maintenance of the navigation channel and continued local economic stimulus.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and it does not require the preparation of an Environmental Impact Statement.

FEB 24 2006

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Robert M. Carpenter  
Colonel, U.S. Army  
District Engineer

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**Deputy District Engineer**

September 2000  
Revised August 2005

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# **Final Environmental Assessment**

**Evaluation of Two Additional Disposal  
Options for the New Construction  
Port Sutton Navigation Channel  
For Beneficial Uses of Dredged Material  
Tampa Harbor  
Hillsborough County, Florida**



**U.S. Army Corps  
of Engineers**  
Jacksonville District

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# **1 PURPOSE AND NEED FOR ACTION**

## **1.1. Introduction:**

This Environmental Assessment (EA) is a revision of an earlier EA (October 2000). The purpose of the revision is only to consider adding two new disposal alternatives for consideration; the Port Sutton Upland Dredged Material Management Area and the MacKay Bay Hole Placement Area. The feasibility of enlarging the Port Sutton Channel to accommodate larger vessels and incorporate an additional channel segment into the Federal channel has already been evaluated and authorized and is not part of the decision of this revised EA. This was being done to keep pace with the ever-expanding shipping industry that requires larger vessels. In doing so, the Corps looked at the existing channel design and determined that it was necessary to make the channel as efficient and safe as possible while controlling costs and protecting natural resources. The optimum design has been evaluated to determine if there is a federal interest in making this channel a federal project. The Feasibility Report dated October 2000 for the project determined that optimum design. The Project Report had been approved by Congress in the Water Resources Development Act of 2000.

## **1.2. Location.**

The Port Sutton Terminal Channel is part of the Tampa Harbor Navigation Project. It is located in the upper Hillsborough Bay of Tampa Bay, Florida (See Figure1).

## **1.2. Authority.**

The project has been approved by the Water Resources Development Act of 2000.

## **1.3. Decision to be Made**

The decision to be made is only whether to utilize the two additional alternative placement areas for the disposal of dredged material. The inclusion of the rest of the project in the following materials is only to provide a frame of reference for the reader and does not affect the sole decision to be made of whether to utilize two additional alternative placement areas for the disposal of dredged material.

## **1.4. Relevant Issues.**

- a) Water Quality
- b) Water Circulation
- c) Benthic Habitat
- d) Sea Grass Beds
- e) Manatees
- f) Birds
- g) Wetlands
- h) Fisheries
- i) Cultural Resources
- j) Aesthetics
- k) Recreation
- l) Economics

m) Navigation

### **1.5. Permits Required**

A Water Quality Certification (WQC) will be obtained from the State of Florida. In addition, the State of Florida has provided concurrence in the Corps Coastal Zone Consistency Determination at various stages of planning. The final ascent to this determination is the issuance of the WQC. In addition, the local sponsor will be required to obtain a Department of the Army permit for upgrades to the berthing areas.

### **1.6. Methodology**

An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the probable environmental effects, and to prepare the Environmental Assessment (EA).



Florida State Map

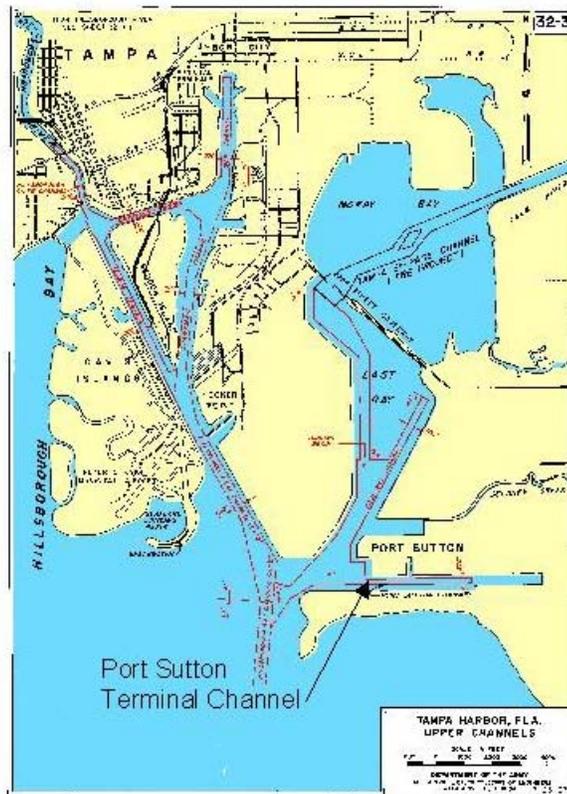


Figure 1, Project Map

## 2 ALTERNATIVES

### 2.1 INTRODUCTION.

This section is based on concerns for resources and impacts upon resources expressed in Section 3.00, Affected Environment, and Section 4.00, Environmental Consequences. The key to this section is the Alternative Comparison Chart (Table 1), page 8. The Alternatives section has five (5) parts:

- a. A description of the process used to derive alternatives.
- b. A description of the alternatives that were initially considered but later eliminated from detailed investigation.
- c. A description of each alternative.
- d. A comparison of the alternatives.
- e. Identification of the Preferred Alternative.

## **2.2 HISTORY OF ALTERNATIVE FORMULATION**

The Tampa Port Authority requested the Corps study improvements to Port Sutton Terminal Navigation Channel. In accordance with the guidelines set forth in the EM-1110-2-1613 (1983), channel width criteria are 2.8 times the width of a Design Vessel Beam. This would require an additional 4 feet in depth, and an additional 25 feet in width on either side to accommodate the average 85-foot vessel beam. Although some vessels are larger, current users of the expanded Big Bend channel (250-ft.) are experiencing no significant problems. Various locations are offered for the disposal of dredged material. These include island renourishment options, filling of marine dredge scars and channels, upland disposal, and littoral creation. The Corps will make the final disposal location determination. Numerous meetings with the Port, US Fish and Wildlife Service and local environmental groups were conducted to discuss the various alternative designs. The US Fish and Wildlife Service was asked to provide a Fish and Wildlife Coordination Act Report for 2 projects; Ybor Navigation Channel Turning Basin and this project, the Port Sutton Channel. During coordination, a final design was formulated. The project coordinated in the Spring of 2000 had a 200-foot bottom width, project depth of 43 feet, and a length of 6,000 feet. The selected plan is a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. The channel design was optimized based on the above criteria. Since the Feasibility Report was approved two new disposal alternatives were suggested for consideration; ie. MacKay Bay Dredge Hole and the Port Sutton Upland Dredged Material Placement Area.

## **2.3 ELIMINATED ALTERNATIVES**

These disposal alternatives were compared with the others and were eliminated for various safety, environmental, economic and logistic reasons. The use of Whiskey Stump Key Seagrass Restoration Area was eliminated because it is too costly and not enough information is available to determine impacts. MacDill Seagrass Restoration Site was also eliminated because it is currently being used for maintenance material. Hookers Point Placement was also eliminated because it would no longer be available after the construction of the new Ybor Navigation Channel Turning Basin.

## **2.4. DESCRIPTION OF ALTERNATIVES**

### **2.4.1 No Action Alternative.**

There would be no construction. The existing water body at Port Sutton Channel is a dead end channel extending approximately 6,195 feet east from the Port Sutton turning basin.

Dependable depths in the channel are 34 feet at the western end, 33 feet at the eastern end, and 18 feet at the very eastern end, in front of Berth 21. Thirty-four feet is the required depth for maintenance dredging, with two feet allowable over-depth for dredging inaccuracies, except at Berth 21, where water depths are shallower. The banks of the water body are stabilized using a variety of measures including rip-rap faced vertical concrete walls. Approximately 25 structures protrude water-ward from the land surface, including concrete dolphins. Loading/unloading apparatus also sticks out into the water. Maintenance dredging would continue with the dredged material going to Dredged Material Management Area CMDA-2D. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during maintenance to eliminate impacts on Manatees and nesting migratory birds. In addition, if a clamshell dredge is used to excavate the material, a special manatee observer would be used to document impacts using a video camera.

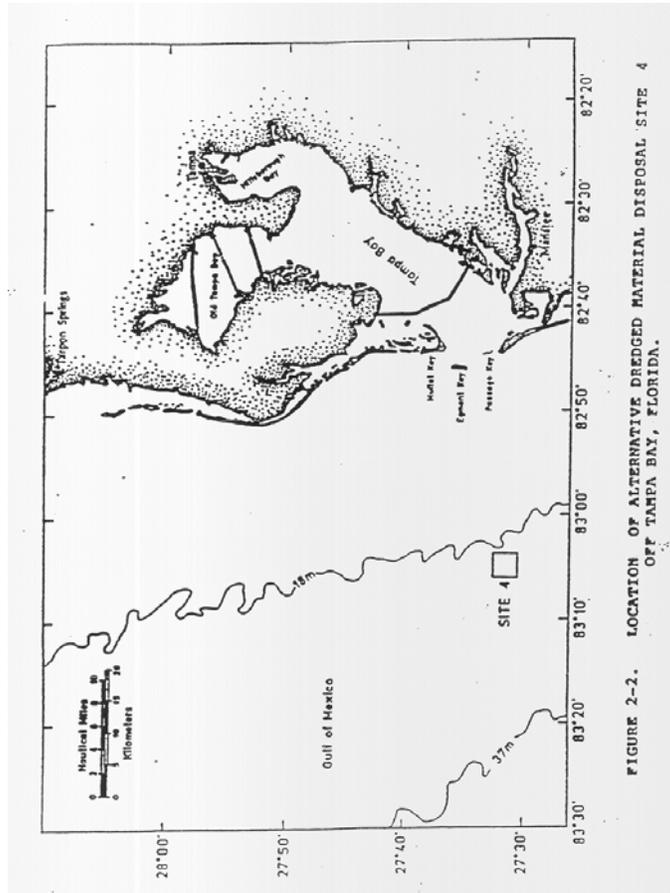
#### **2.4.2 Expansion of Existing Channel and Placement in Existing Upland Dredged Material Management Area CMDA-2D (Preferred Alternative).**

The proposed project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. Placement of the dredged material is to be in placement area CMDA-2D. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required over-depth over rock and one foot allowable over-depth for dredging intolerance and placement in the existing upland Dredged Material Management Area CMDA-2D. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during construction to eliminate impacts on Manatees and nesting migratory birds. In addition, if a clamshell dredge is used to excavate the material, a special manatee observer would be used to document impacts using a video camera. Maintenance dredging of the new channel would occur every 3 to 5 years with the material being placed in CMDA-2D. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.

#### **2.4.3 Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement.**

The proposed project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required over-depth over rock and one foot allowable over-depth for dredging intolerance and the construction material would be placed in the ODMDS. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during construction to eliminate impacts on Manatees and nesting

migratory birds. In addition, if a clamshell dredge is used to excavate the material, a special manatee observer would be used to document impacts using a video camera. Maintenance dredging of the new channel would occur every 3 to 5 years with the material being placed in CMDA-2D. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.

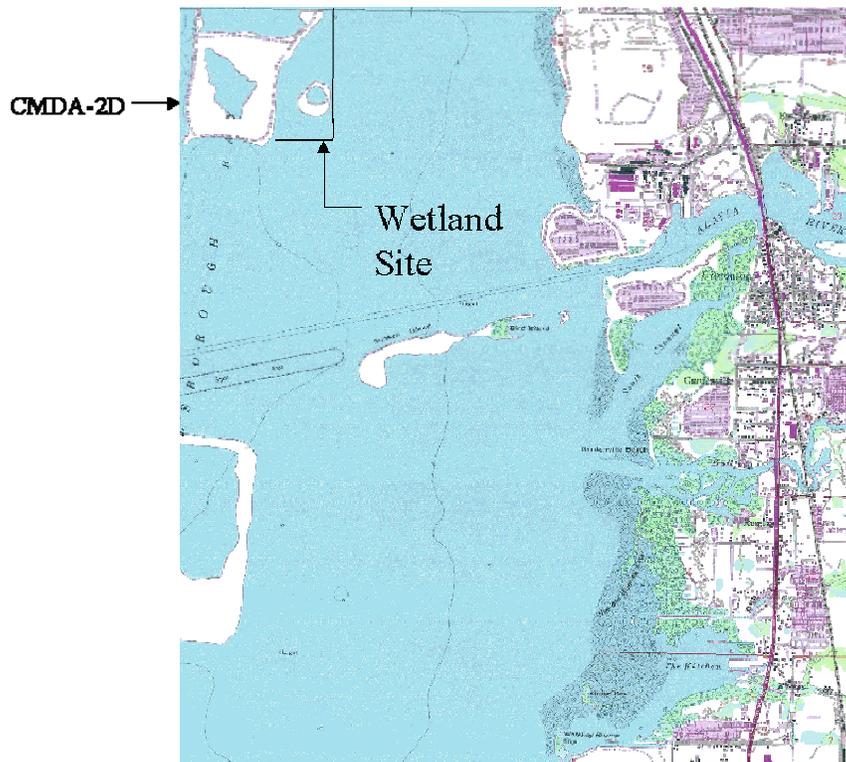


**Figure 2, Ocean Dredged Material Disposal Site.**

**2.4.4 Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D.**

The proposed project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required

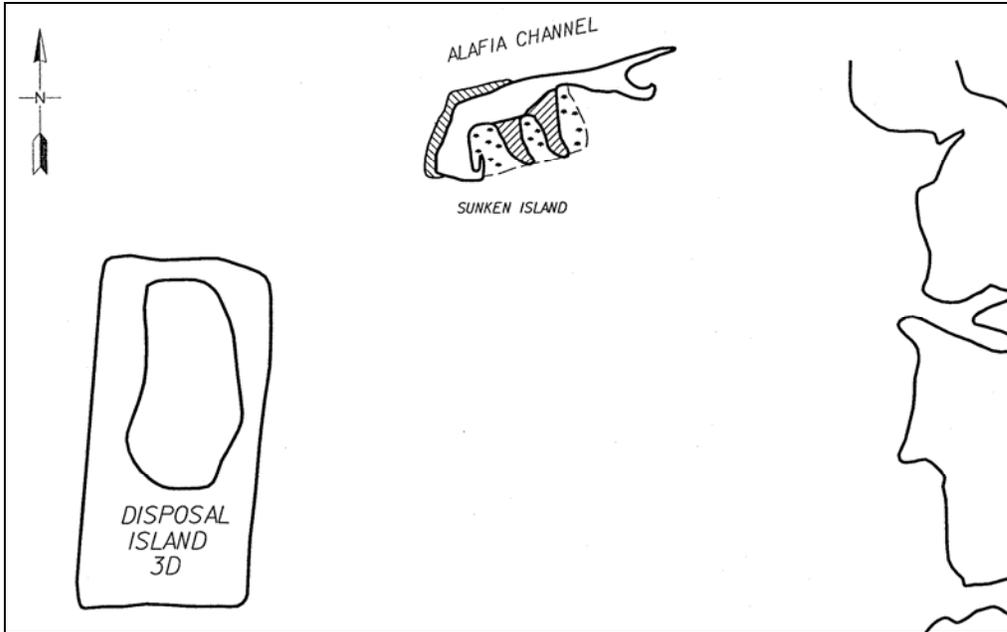
over-depth over rock and one foot allowable over-depth for dredging intolerance. The material would be placed in shallow water adjacent to Dredged Material management Area CMDA-2D to create 107 acres of inter-tidal wetlands. The estimated capacity tangent to Disposal Island 2D is about 1,545,100 cubic yards. *Spartina* sp. would be planted within this area. It would also be designed to have tidal channels and ponds. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during construction to eliminate impacts on Manatees and nesting migratory birds. In addition, if a clamshell is used to excavate the material a special manatee observer would be used to document impacts using a video camera. Maintenance dredging of the new channel would occur every 3 to 5 years with the material being placed in CMDA-2D. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.



**Figure 3, Wetland Creation Site Adjacent to Dredged Material Management Area CMDA-2D.**

#### **2.4.5 Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to the Alafia River Navigation Channel.**

The proposed project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required over-depth over rock and one foot allowable over-depth for dredging intolerance. The Corps has proposed using the dredged material from Port Sutton to expand Bird Island by 25 acres along the south channel of the Alafia River Navigation Channel to enhance the bird nesting areas and wildlife habitat. Additional material not used for the Bird Island expansion would be placed in CMDA-2D. The island has experienced some erosional losses in the past due to major storm events and routine annual tidal forces. Historically, material has been periodically added to the west and northwest banks to replace those losses. The result is to protect, restore, and enhance the suitability of the island as a colony site for nesting birds as well as habitat for aquatic and marsh wildlife. *Spartina* plants would be planted along 2,700 feet of shoreline on the southeastern and eastern banks of the elliptical land area. Mangrove stands are expected to rapidly develop in the *Spartina* planting areas. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during construction to eliminate impacts on Manatees and nesting migratory birds. In addition, if a clamshell is used to excavate the material a special manatee observer would be used to document impacts using a video camera. Seagrass protection conditions would be implemented to avoid affecting adjacent resources. Maintenance dredging of the new channel would occur every 3 to 5 years with the material being placed in CMDA-2D. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.



**Figure 4, Bird/Sunken Island Expansion Site**

**2.4.6. Expansion of Existing Channel and Placement at MacKay Bay Hole**

The proposed project project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required over-depth over rock and one foot allowable over-depth for dredging intolerance. The material would be transported to MacKay Bay and placed in a former dredged hole to cap the degraded bottom sediments and raise the bottom elevation to the surrounding bottom surface elevation. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.

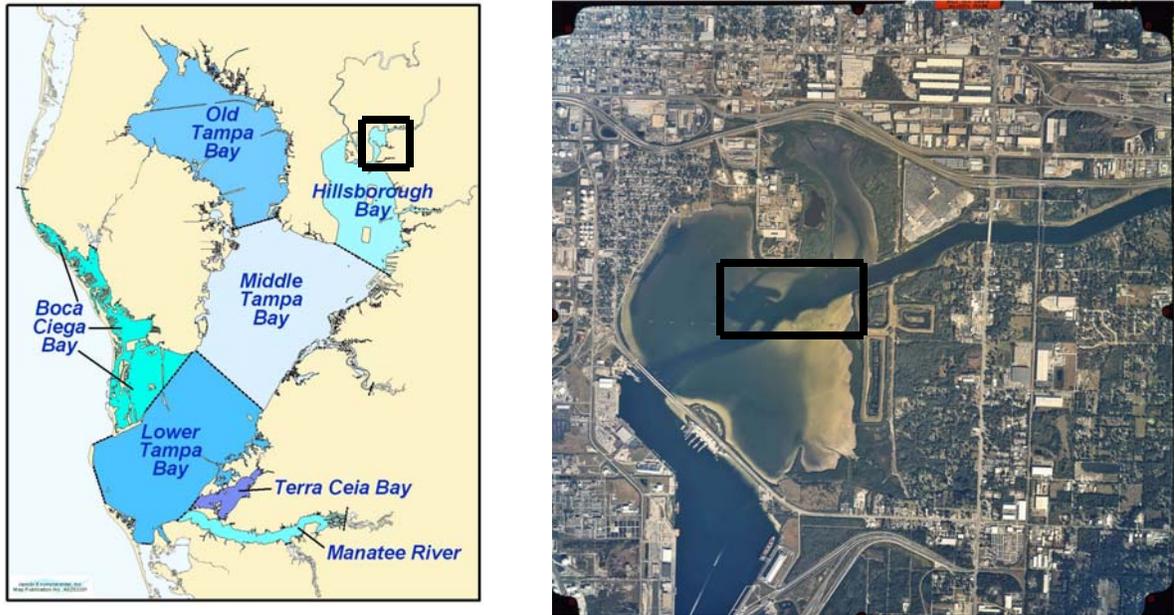


Figure 5. MacKay Bay hole. (Courtesy Tampa Estuary Program)

#### 2.4.7 Expansion of Existing Channel and Placement in an Upland Dredged Material Management Area on Port Sutton Terminal.

The proposed project consists of the construction of a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW. Placement of the dredged material is to be in placement area CMDA-2D. The amount of material to be removed for the maximum project would be about 900,000 cubic yards, this includes two feet required over-depth over rock and one foot allowable over-depth for dredging intolerance and placement in the an upland Dredged Material Management Area on Port Sutton Terminal (PSTDA). The newly created disposal area will have dikes to a maximum height of 40 feet. The standard State and Federal manatee protection conditions and the Jacksonville District Migratory Protection Policy would be implemented during construction to eliminate impacts on Manatees and nesting migratory birds. In addition, if a clamshell dredge is used to excavate the material, a special manatee observer would be used to document impacts using a video camera. Maintenance dredging of the new channel would occur every 3 to 5 years with the material being placed in CMDA-2D or the PSTDA. Blasting could be used by the contractor to loosen the rock in the channel. If blasting is to be done, a special blasting plan will be prepared and coordinated. The plan will include a “No Blasting” window from November 1 through March 31. In addition, there would be observers to watch for manatees and dolphins with the protection zone.



Figure 6. Port Sutton Terminal Disposal Area

## **2.5. ALTERNATIVE ANALYSIS.**

The positive and/or adverse effects upon the important resources for the alternatives have been reviewed and compared in Table 1, Alternative Comparison Chart. This comparison was utilized in the decision-making process.

## **2.6 PREFERRED ALTERNATIVE.**

The environmentally preferred alternative would be to extend the navigation channel to 6195' placing the material at CMDA-2D unless beneficial uses of dredged material is approved for MacKay Bay Hole placement.

**Table 1, Alternative Comparison Chart**

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred)	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Water Quality</b>	Local long-term intermittent increase in turbidity from larger ship trying to enter Port and re-suspending bottom sediments.  Short-term increase in turbidity surrounding maintenance dredging	Short-term increase in turbidity surrounding construction and maintenance dredging	Short-term increase in turbidity surrounding construction and maintenance dredging Short-term increased turbidity from wetland construction.	Short-term increase in turbidity surrounding construction and maintenance dredging and placement. Possible disruption of local boating traffic due to presence of dredging equipment	Short-term increase in turbidity surrounding construction and maintenance dredging and disposal operation	Short-term increase in turbidity surrounding construction and maintenance dredging and placement.	Short-term increase in turbidity surrounding construction and maintenance dredging and placement. Possible disruption of local boating traffic due to presence of dredging equipment
<b>Water Circulation</b>	No affect	No affect	No affect	No affect	No affect	No Affect	No affect.
<b>Birds</b>	No affect	Short-term disruption to bird nesting from presence and operation of disposal equipment.	Short-term disruption to bird nesting from presence and operation of disposal equipment.	Short-term disruption to bird nesting from presence and operation of disposal equipment.	Short-term disruption to bird nesting from presence and operation of disposal equipment during	No Affect	No affect

Resources	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
Manatees	<p>Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operations.</p>	<p>Impact mitigated by implementing migratory bird policy and avoiding bird nesting season 1 April through 31 August. Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operations. Blasting protection plan implemented. No blast window</p>	<p>Impact mitigated by implementing migratory bird policy. Long-term creation of 107 acres of bird nesting and foraging habitat. Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operation Blasting protection plan implemented. No blast window Nov 1 – Mar 31s.</p>	<p>Impact mitigated by implementing migratory bird policy. Long-term creation of 52 acres of bird nesting and foraging habitat Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operations Blasting protection plan implemented. No blast window</p>	<p>maintenance. Impact mitigated by implementing migratory bird policy and avoiding bird nesting season 1 April through 31 Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operation Blasting protection plan implemented. No blast window Nov 1 – Mar 31</p>	<p>Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operation. Blasting protection plan implemented. No blast window</p>	<p>Short term impact on manatees. Impacts mitigated by the implementation of standard protection conditions. Clamshell would require special monitoring requirements and limited to warm weather operations. Blasting protection plan implemented. No blast window</p>

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Seagrass Beds</b>  <b>Wetlands</b>	No impact.	Nov 1 – Mar 31		Nov 1 – Mar 31.		Nov 1 – Mar 31	Nov 1 – Mar 31
		No impact.	No impact.	No impact.	No impact.	No impact	No impact
	No impact	No impact.	Creation of 107-acres of wetland habitat.	Creation of 52-acres of wetland habitat.	No impact.	No impact	No impact

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Benthic Habitat</b>	There would be a change in the habitat along the channel from the maintenance of the existing channel.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative. There would be increased productivity of this aquatic site by creating a wetland area and habitat for a wide variety of aquatic life.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative. There would be increased productivity of this aquatic site by creating a wetland area and habitat for a wide variety of aquatic life.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative.	There would be a 1.7 acre loss of shallow water habitat along the channel from the excavation of the new channel and the maintenance of the existing channel. There would still be the same amount of edge effect as the No Action Alternative.

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Fiseries</b>	No impact	If blasting occurs, minor short-term impact on fish	If blasting occurs, minor short-term impact on fish	If blasting occurs, minor short-term impact on fish	If blasting occurs, minor short-term impact on fish	If blasting occurs, minor short-term impact on fish	If blasting occurs, minor short-term impact on fish
<b>Cultural Resources</b>	No adverse effects.	No adverse effects.	Unknown impacts, site has not been surveyed	Unknown impacts, Bird Island has not been surveyed.	No adverse effects.	No adverse effects	No adverse effects
<b>Recreation</b>	Possible disruption of fishing and boat traffic due to presence of dredging equipment.	Possible disruption of fishing and boat traffic due to presence of dredging equipment	Possible disruption of fishing and boat traffic due to presence of dredging equipment Increased nursery habitat and protection for small fish.	Possible disruption of fishing and boat traffic due to presence of dredging equipment Increased nursery habitat and protection for small fish.	Possible disruption of fishing and boat traffic due to presence of dredging equipment	Possible disruption of fishing and boat traffic due to presence of dredging equipment	Possible disruption of fishing and boat traffic due to presence of dredging equipment

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Aesthetics</b>	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use the shoreline of CMDA-2D	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use Bird Island shoreline.	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.
<b>Navigation</b>	Long-term reduction in safety as larger ships try to use the channel.	More efficient cargo handling from increased vessel size Increased safety for navigation. There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	More efficient cargo handling from increased vessel size Increased safety for navigation. There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	More efficient cargo handling from increased vessel size Increased safety for navigation. There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.	More efficient cargo handling from increased vessel size Increased safety for navigation. Short-term increased traffic flow during transit to and from site.	More efficient cargo handling from increased vessel size Increased safety for navigation. Short-term increased traffic flow during transit to and from site.	More efficient cargo handling from increased vessel size Increased safety for navigation. There would be a short-term minor decrease in aesthetics to recreational fishing and boating that use this area for fishing.

<b>Resources</b>	No-Action Alternative	Expansion of Existing Channel and Existing Upland Dredged Material Management Area CMDA-2D Placement (Preferred	Expansion of Existing Channel and Wetland Creation Adjacent to Dredged Material Management Area CMDA-2D	Expansion of Existing Channel and Bird/Sunken Island Expansion Adjacent to Alafia River Navigation Channel	Expansion of Existing Channel and Ocean Dredged Material Disposal Site Placement	Expansion of Existing Channel and Upland Placement on Port Sutton Terminal	Expansion of the Existing Channel and Placement at MacKay Bay Hole
<b>Economics</b>	There would be a long-term loss in revenues generated by the Port from a reduction in cargo and an adverse impact on the local economy from job losses, salaries, and sale of commodities.	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance. Secondary major long-term benefit from increased shipping	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance.. Secondary major long-term benefit from increased shipping	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance.. Secondary major long-term benefit from increased shipping	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance.. Secondary major long-term benefit from increased shipping	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance.. Secondary major long-term benefit from increased shipping	Short-term minor effect on local economy due to sale of goods and services during construction and maintenance.. Secondary major long-term benefit from increased shipping

### **3 AFFECTED ENVIRONMENT**

#### **3.1 INTRODUCTION.**

The Affected Environment section briefly describes the environmental resources, relevant issues, and their location on or in relation to the site. The environmental issues that are relevant to the decision to be made are:

- a) Water Quality**
- b) Water Circulation**
- c) Sea Grass Beds**
- d) Manatees**
- e) Birds**
- f) Benthic Habitat**
- g) Wetlands**
- h) Fisheries**
- i) Navigation**
- j) Cultural Resources**
- k) Aesthetics**
- l) Recreation**
- m) Economics**

#### **3.2 GENERAL DESCRIPTION.**

Tampa Bay is Florida's largest open-water estuary, spanning almost 400-square miles, and receives drainage from a 2200-square-mile watershed. A rich, mosaic of habitats exist, and are highly productive in terms of wildlife resources. It has been a designated National Estuary Program site since 1990. Historically, Tampa Bay has suffered significant tidal and freshwater wetland losses due to uncontrolled dredge and fill activities associated with a burgeoning population. This, in addition to nutrient loading from various point and non-point sources, over-fishing, and irresponsible boating practices, has reduced the overall quality and quantity of water resources and wildlife habitat (TNEP 1996). Hillsborough County is located in west central Florida and plays an integral part in the economy of the Tampa Bay region. Hillsborough Bay provides access and berthing facilities for international and national shipping firms that serve the

phosphate, coal, and petrochemical industries. It is bounded on the east by Polk County, Tampa Bay on the south and southeast, Pinellas County to the west, and Pasco County to the north. Historically, the bay has been plagued by contaminants. Urbanization and fertilizer runoff from berthing areas caused water quality degradation. The geographical confines of the bay also contribute to the problem by restricting tidal flushing, hence the cleansing action of the bay. Water quality in the bay has improved significantly in recent years, as improvements in municipal waste water facilities, stormwater treatment, and industrial discharge are implemented (TNEP 1993). Two historic spoil islands are located (Sunken Island and Bird Island) just outside of the mouth of the Alafia River, and form the southern terminus of the channel. Port Sutton is on the northeast side of Hillsborough Bay, about 2.5 miles southeast of the Ybor Channel Turning Basin. The Port Sutton Terminal Channel has authorized project dimensions of 3,700 feet long, 200 feet wide, and 43 feet deep down the centerline of the channel. The Corps has not constructed the deepening project of the existing channel, and current mid-channel depths range from 26 to 38 feet. The terminal has been construction using dredged material. Different parts of the upland terminal disposal area are at various elevations. Anywhere from 10 to 30 feet above Tampa Bay.

### **3.3 Relevant Factors of the Environment that would be Affected**

#### **3.3.1 Physical**

- a. **Surface Water Quality.** Studies done by the Environmental Protection Commission of Hillsborough County (EPCHC), Manatee County, and Long et al. (1991), offer comprehensive information for stations near the proposed dredge area. EPCHC information for Hillsborough Bay is based on randomly sampled, 4.4 km<sup>2</sup> (11 acre) cells, to provide a bay segment perspective, versus exact locations on a yearly basis (S.Grabe, G. Blanchard, pers. comm. 1996). (Explanation of ratings and measurements given can be found in the EPCHC publication in the literature cited). Large ship operations in the confined waterway create strong wake on both sides of the channel, which has eroded some areas along the southern shoreline. Water clarity was poor, which precluded benthos identification. A Tier I, water quality evaluation was conducted of the project (Appendix VIII). There is no indication that contamination exists at this site.
- b. **Water Circulation.** The Corps conducted water circulation modeling of Hillsborough Bay using RMA2 WES version 4.3. The results indicate that flows are not affected by increasing the size of disposal islands in this area.

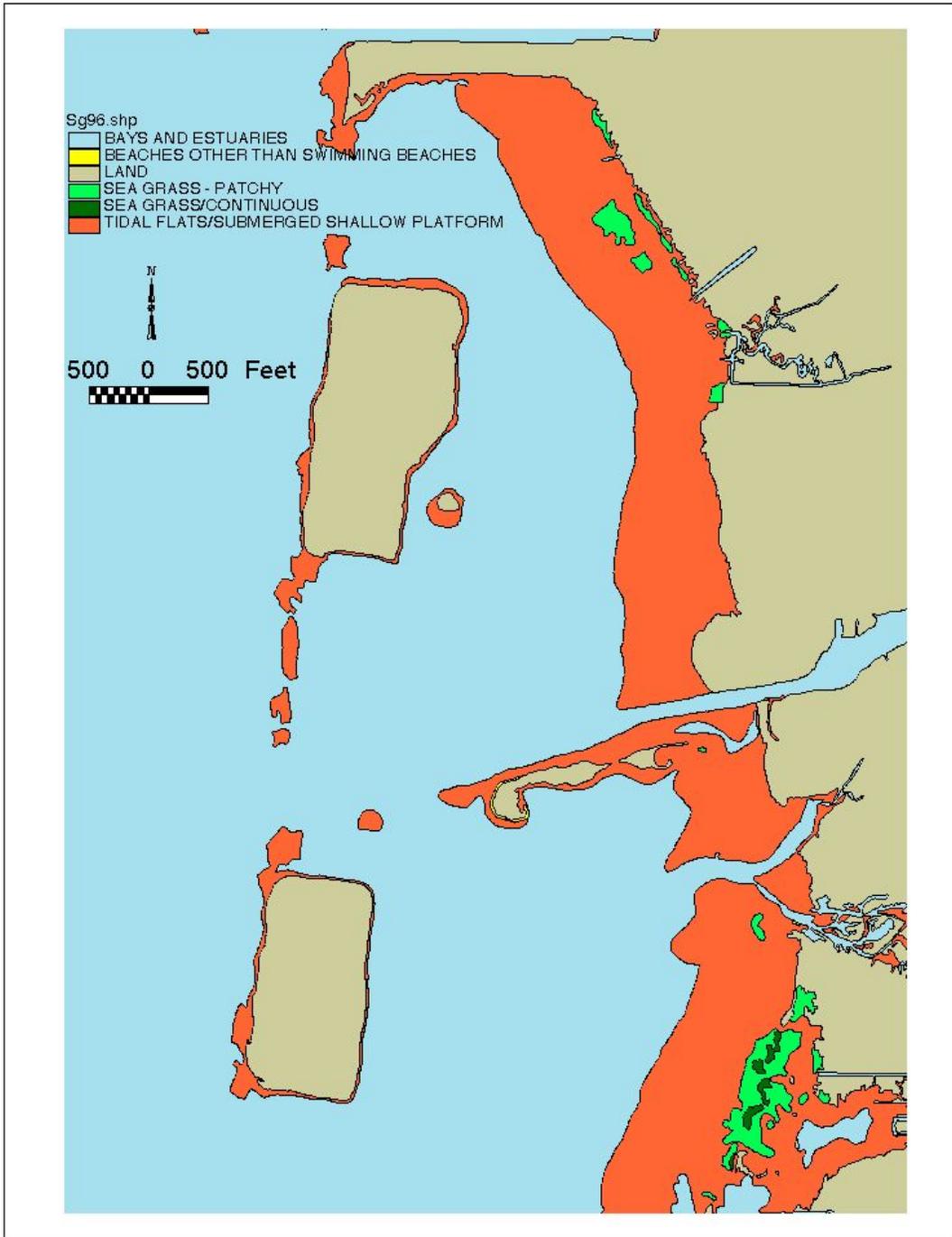
#### **3.3.2 Biological**

- a. **Threatened and Endangered Species.** The endangered Florida manatee (*Trichechus manatus latirostis*) is found within Hillsborough Bay. In the winter months, they travel between warm-water discharges at Port Sutton and Big Bend. They occur in the channel in larger numbers in the warmer months (Ackerman, pers. comm., 1996). The US Fish and Wildlife Service has designated the Port Sutton Terminal Channel as a Manatee Refuge for the terminal channel. This requires vessels to operate at idle speed from November 15<sup>th</sup> through March 31<sup>st</sup>. The USFWS has also designated the power plant outfall channel as a Manatee Sanctuary. This requires vessels to seasonal “No entry” from November 15<sup>th</sup> through March 31<sup>st</sup>.
  
- b. **Wetlands.** The only wetlands in the project area are mangroves on Bird Island, a fringe along the artificial drainage channel at Port Sutton and a fringe of mangroves along the east side of Dredged Material Management Area CMDA-2D.
  
- c. **Birds .** A total of 83 species of birds are associated with marine habitats in Tampa Bay (Dunstan and Lewis 1974). Of significance to this project, adjacent spoil islands 2D, 3D, and the Alafia Banks provide nesting habitat for 22 species of birds, including 10 state-designated “species of special concern”, and 2 federally endangered species (see table 2). According to the National Audubon Society and the Florida Game and Fresh Water Fish Commission (GFC), these dredged material created islands serve as important breeding areas. The Alafia Banks are one of the nation’s outstanding and most diverse bird colonies, as well as being ranked as Florida’s number one colony. It appears the spoil islands provide desirable nesting habitat for many species due to substrate and vegetative conditions, and absence of humans. With appropriate management, these areas will continue to serve as breeding grounds for a myriad of species.
  
- d. The following avian species were observed in the project area: brown pelicans (*Pelecanus occidentalis*), laughing gulls (*Larus atricilla*), ring-billed gulls (*Larus delawarensis*), cormorants (*Phalacrocorax auritus*), roseate spoonbills (*Ajaia ajaja*), reddish egrets (*Egretta rufescens*), tricolored egrets (*Egretta tricolor*), snowy egrets (*Egretta thula*), great egrets (*Casmerodius albus*), little blue herons (*Egretta caerulea*), great blue herons (*Ardea herodias*), willets (*Catoptrophorus semipalmatus*), black-necked stilts (*Himantopus mexicanus*), ruddy turnstones (*Ironware interpret*), white ibis (*Eudocimus albus*), glossy ibis (*Plegadis falcinellus*), caspian terns (*Sterna caspia*), sandwich terns (*Sterna sandricensis*), black skimmer (*Rynchops niger*), american

oystercatchers (*Haematopus palliatus*), and yellow-crowned night herons (*Nycticorax violaceus*).

**Table 2- Breeding Pairs of Alafia Bank and Tampa Port Authority Spoil Islands 2D and 3D for 1996\_ (National Audubon Society 10-96).**

<u>Species</u>	<u>Alafia Bank</u>	<u>Island 2D</u>	<u>Island 3D</u>
Brown Pelican#*	600		
Double-crested Cormorant		200	
Great Blue Heron	80		
Great Egret		80	
Snowy Egret*		200	
Little Blue Heron*		90	
Tricolored Heron*		230	
Reddish Egret*	45		
Cattle Egret		700	
Black-crowned Night Heron		50+	
Yellow-crowned Night Heron		50+	
White Ibis*		8100	
Glossy Ibis		525	
Roseate Spoonbill*		100	
Clapper Rail		+	+
American Oystercatcher*	18	34	11
Willet	6+	10+	5+
Laughing Gull	500	3400	
Caspian Tern			93
Royal Tern			180
Sandwich Tern			135
Black Skimmer*			320
Total Pairs	11,074	544+	4,144



**Figure 7. Seagrass Map, Hillsborough Bay**

- e. **Seagrass.** Seagrass beds are important as they offer habitat to several fish species (red drum, spotted sea trout, spot, silver perch, sheepshead, and snook), invertebrates, algae, dolphin, and the manatee. Historically, Tampa Bay has lost much of its seagrass as a result of dredge and fill activities, and degraded water quality associated with urbanization and industry discharge. Since 1950, losses equal approximately 15 thousand acres. A recent increase has been documented, and is attributed to improved bay water quality (TNEP 1996). Seagrass beds of significant size do not exist in the immediate project area (main channel and 25-feet on either side), in MacKay Bay, along the east side of CMDA-2D, and the south sides of Sunken and Bird Islands. Turbidity could be a problem at the islands due to their close proximity (Johansson, pers. comm., 1996).
- f. **Fisheries.** The Tampa Estuary Program conducted a study of habitats along the shallows. The following species were found to be most common:
1. **Bay Anchovy, *Anchoa mitchilli*:** Most abundant fish in Tampa Bay; entire life cycle within the bay. Small planktivore; important in diets of larger fish. Up to 4 inches; common at 2 inches or less.
  2. **Spot, *Leiostomus xanthurus*:** Uses Tampa Bay as nursery area but spawns offshore. Feeds on benthic organisms and serves as prey for larger fish. Also a popular pan fish. Up to 14 inches.
  3. **Pinfish, *Lagodon rhomboides*:** Juveniles abundant in Tampa Bay, especially seagrass beds; spawns on continental shelf. Feeds on vegetation and invertebrates; important prey for larger fish. Up to 14 inches.
  4. **Pink Shrimp, *Farfantepenaeus duorarum*:** Uses Tampa Bay as nursery area; spawns over continental shelf. Feeds at night on small invertebrates; prominent in the diet of predators such as spotted seatrout. Second most valuable commercial fishery in Florida in 2003. To more than 8 inches.
  5. **Blue Crab, *Callinectes sapidus*:** Spends much of life in Tampa Bay; spawns over continental shelf. Feeds on wide variety of plants and animals; important in diet of

many fishes. Fifth most valuable commercial fishery in Florida in 2003. Width to nearly 10 inches.

6. **Sand Seatrout, *Cynoscion arenarius*:** Can spend entire life within Tampa Bay; juveniles abundant in tidal rivers. Feeds on invertebrates and various fish species, especially bay anchovy. Some commercial value; common in recreational harvest. To 20 inches, but generally less than 12 inches.
7. **Silver Jenny, *Eucinostomus gula*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on benthic invertebrates; consumed by predatory fishes. Up to 8 inches, but usually less than 5 inches in Tampa Bay.
8. **Southern Kingfish, *Menticirrhus americanus*:** Uses Tampa Bay as nursery area but spawns offshore. Feeds on small invertebrates and fishes. Valuable in both commercial and recreational fisheries. To more than 16 inches, but usually smaller in Tampa Bay.
9. **Gulf Flounder, *Paralichthys albigutta*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on fishes and some invertebrates. Valuable in both commercial and recreational fisheries. To 28 inches, but more commonly less than 17 inches.
10. **Spotted Seatrout, *Cynoscion nebulosus*:** Entire life cycle within Tampa Bay. Feeds on fish and crustaceans, especially pink shrimp. One of the most important recreational gamefish in Florida. To more than 28 inches.
11. **Red Drum, *Sciaenops ocellatus*:** Uses Tampa Bay as nursery area; spawns in nearshore marine waters. Feeds on polychaete worms, crustaceans, and fish. One of the most important recreational gamefish in Florida. To more than 40 inches.
12. **Sheepshead, *Archosargus probatocephalus*:** Uses Tampa Bay as nursery but spawns offshore. Feeds on a variety of invertebrates plus fish and some plant material. Valuable in both recreational and commercial fisheries. To more than 24 inches.

### 3.3.3 Social

- a. **Cultural Resources.** A cultural resources remote sensing survey has been conducted for the Port Sutton Terminal Channel and turning basin. No significant historic properties were located during the survey. (See Appendix VI, Compliance)
- b. **Aesthetics.** The general aesthetics of this area is that of an industrial area along the waterfront and recreational boating and fishing along the shoreline. The aesthetics of the dredging area is within a commercial navigation area, which see large ocean going cargo vessels, fishing vessels and large recreation craft transiting the area.
- c. **Recreation.** As mentioned in the previous section, recreational boating and fishing use the channel and shoreline.

### 3.3.4 Economics

- a. **Economics.** The activities that originally justified this project in Tampa Harbor were a tonnage moved of 268,206 in 1898. This is the first available information in the District Office records for Tampa Harbor. The first breakdown of cargo available for Tampa Harbor is in 1913. Principle items received were coal, sand, shell, cement, brick, Havana Tobacco and miscellaneous merchandise. Major items shipped were phosphate, lumber and miscellaneous freight. The total tonnage for 1913 was 2,222,873 tons. This represented increase of 825 percent in just 15 years from 1880. This phenomenal increase had been attributed to channel deepening in the harbor. Since the deepening of the entrance no maintenance dredging has been conducted and sedimentation forcing vessels to light load in the upper channel. This required that the vessels either add additional freight at another port or load from a lighter (a barge) further down the harbor. The data used to justify the Federal project in Tampa was taken from 1971. Tampa Harbor was the 8th largest port in the United States, handling 36,000,000 tons of commerce almost equally divided between inbound and outbound. The major commodities requiring deeper channels are phosphates, petroleum products, and sulfur. Phosphate products were the major beneficiaries of deepening the channels. There were three major phosphate terminals at Tampa where vessels could not be fully loaded because of restrictive channel depths. In that year, there were some 230 outbound vessels of which about 160 could have taken on more cargo if not restricted by draft. Looking at economic information for Tampa Harbor over the last five years, tonnage and growth rates

appear to have stayed reasonably steady. The numbers have varied but while being down one year they recovered in the next. In 1994 Tampa handled about 49 million tons of cargo and commercial passenger transport increased about 50 percent.

- b. **Navigation.** Vessels typically enter the harbor in ballast and load bulk materials until the vessel draft reaches the limit allowed in the channel. Recreational boat traffic also uses this channel.

## 4 ENVIRONMENTAL CONSEQUENCES

### 4.1 INTRODUCTION.

This section describes the probable consequences of implementing each alternative upon selected environmental resources. These resources are directly linked to the relevant issues listed in Section 1.4 that have served to fine-tune the environmental analysis. The following narrative includes predicted changes to the existing environment including both direct and indirect effects, irreversible and irretrievable commitment of resources, unavoidable effects, and cumulative impacts.

#### 4.1.1 Cumulative Impacts.

Cumulative impact is “the impact upon the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions ...” (40 CFR §1508.7).

#### 4.1.2 Irreversible and Irretrievable Commitment of Resources

- a. **Irreversible.** An irreversible commitment of resources is one in which the ability to utilize a resource is lost forever (e.g., the mining of a mineral resource).
- b. **Irretrievable.** An irretrievable commitment of resources is one in which the ability to utilize a resource in its present state or configuration is lost for a period of time (e.g., restricting the flow of a river with a dam).

### 4.2 NO-ACTION ALTERNATIVE

#### 4.2.1 Physical

- a. **Surface Water Quality.** There would be an intermittent local increase in turbidity from the re-suspension of bottom sediments from large ships entering, turning around and leaving the Port. During maintenance dredging there would be a short-term increase in turbidity levels.
- b. **Benthic Habitat.** There would be a minor impact on benthic habitat from the maintenance dredging.

- c. **Water Circulation.** There would be no adverse impact from this alternative.

#### 4.2.2 Biological

- a. **Manatees.** Minor intermittent impact on manatees from the vessels entering, turning and leaving the Port in a substandard channel. A potential exists for manatees to be trapped between vessels and the channel during these operations. The standard State and federal manatee protection conditions would be implemented during maintenance dredging (Appendix I). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment.
- b. **Birds.** There would be a minor adverse impact on migratory bird nesting on CMDA-2D during placement of dredged material during maintenance activities. The impacts would be mitigated by the implementation of the Districts Migratory Bird Protection Policy. Part of this Plan is to avoid bird nesting season 1 April through 31 August or if that is not possible then an observer would be employed to identify nesting sites and notify the contractor to avoid impacting them.
- c. **Seagrass Beds.** There would be no impacts on seagrasses.
- d. **Wetlands.** There would be no impact on wetlands.
- e. **Fisheries.** There would be no impacts from this alternative.

#### 4.2.3 Social

- a. **Cultural Resources.** There would be no adverse effects upon cultural resources from the No-Action Alternative.
- b. **Aesthetics.** The maintenance dredging in the channel would not have much of an impact because of the industrial use of this area
- c. **Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area.

#### 4.2.4 Economics

- a. **Economics.** There would be a major long-term loss of revenues from the gradual reduction in cargo handling capabilities of the Port as vessel sizes increase. Companies using these vessels would seek other Ports with larger vessel handling capabilities. There would be a short-term

stimulus to the local economy from the sale of goods and services in support of maintenance dredging.

- b. Navigation.** Recreational traffic would remain the same if the same size vessels were used. If larger vessel used the port, commercial navigation becomes more difficult and less safe. There would be a long-term reduction in vessel safety as larger vessels try to use the smaller channel.

#### **4.2.5 Cumulative Impacts.**

The only cumulative impact identified with this alternative would be a significant impact on navigation and economics should no actions associated with port improvements be undertaken at other ports either locally or nationally.

#### **4.2.6 Unavoidable Effects.**

No unavoidable effects resulting from the No-Action Alternative were identified.

#### **4.2.7 Irreversible and Irretrievable Commitments of Resources.**

There would be no utilization of resources should this alternative be implemented. Therefore, there is no irreversible or irretrievable commitment of resources.

#### **4.2.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

There would be no short-term uses so; therefore there would be no change in productivity.

### **4.3. Expansion of Existing Channel and Placement in Existing Upland Dredged Material Management Area CMDA-2D (Preferred Alternative).**

#### **4.3.1 Physical**

- a. Surface Water Quality.** There would be an increase in turbidity surrounding the construction and maintenance dredging operations. The dredged material would be placed in the existing upland Dredged Material Management Area CMDA-2D. The confined area would allow for sedimentation of suspended solids prior to the effluent being released back to the Bay through the weir structures. The size of the areas allows for sedimentation such that the effluent meets State water quality standards.
- b. Benthic Habitat.** There would be a loss of 1.7 acres of shallow-water benthic habitat. This area would be re-colonized by species more suited for deeper water.
- c. Water Circulation.** There would be no impact on circulation.

### 4.3.2 Biological

- a. **Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities. This impact would be mitigated by the implementation of the standard State and Federal Manatee Protection Conditions (Appendix I). Part of this plan is the monitoring for the presence of manatees by all workers and cessation of work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. Blasting could also be part of the construction work. A special blasting plan will be implemented. In addition there will be a “No Blasting” window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.
- b. **Birds.** There would be a medium impact on bird nesting activities at the Dredged Material Management Area. This impact would be mitigated by the implementation of the Migratory Bird Protection Plan. Part of this Plan is to avoid bird nesting season 1 April through 31 August or if that is not possible then an observer would be employed to identify nesting sites and notify the contractor to avoid impacting them.
- c. **Seagrass Beds.** There would be no impact on seagrasses from this alternative.
- d. **Wetlands.** There would no impact from this alternative.
- e. **Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and the charge reduction testing to determine the size of the charge required to fracture the rock.

### 4.3.3 Social

- a. **Cultural Resources.** There would be no impacts to historic properties for use of the disposal areas.
- b. **Aesthetics.** The dredging in the channel would not have much of an impact because of the industrial use of this area.
- c. **Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area.

#### **4.3.4 Economics**

- a. Economics.** There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the work. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities.
- b. Navigation.** There would be a short-term adverse impact on vessels using the channel during the construction period. There would be increased safety for vessels using the new channel and turning basin. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### **4.3.5 Cumulative Impacts.**

There would be a minor long-term cumulative impact as all ports increase their sizes to keep pace with industry demands.

#### **4.3.6 Unavoidable Effects.**

The only unavoidable impact of the dredging would be the turbidity generated during dredging.

#### **4.3.7 Irreversible and Irrecoverable Commitment of Resources**

The only loss of resources that cannot be retrieved is the fuel consumption used in the construction effort. The bottom sediments are relocated to other sites and could be retrieved and placed back into the channel.

#### **4.3.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

The relative productivity of this area from the channel construction would not change.

### **7.1. EXPANSION OF EXISTING CHANNEL AND OCEAN DREDGED MATERIAL DISPOSAL SITE PLACEMENT**

#### **4.4.1 Physical**

- a. Surface Water Quality.** There would be a short-term increase in turbidity from the maintenance and construction dredging. There would be a turbidity plume created from the dumping of dredged material at the ODMDS and the smothering and covering of benthic organisms at the site. There would be no impact from maintenance as the material would be placed in the upland Dredged Material Management Area CMDA-2D.

- b. **Benthic Habitat.** There would be a 1.7 acre loss of shallow-water benthic habitat from the widening of the existing channel . Benthic life in the ODMDS would be covered and smothered by the mass dumping of dredged material. The area would be quickly re-colonized from species in the surrounding areas.
- a. **Water Circulation.** There would be no impact on circulation from this alternative.

#### 4.4.2 Biological

- a. **Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities and maintenance. This impact would be mitigated by the implementation of the standard State and Federal Manatee Protection Conditions. Part of this plan is the monitoring for the presence of manatees by all workers and cessation of work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone. ). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. Blasting could also be part of the construction work. A special blasting plan will be implemented. . In addition there will be a “No Blasting” window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.
- b. **Birds.** There would be no impact on birds.
- c. **Seagrass Beds.** There would be no impact on seagrasses.
- d. **Wetlands.** There would be no impacts on wetlands.
- e. **Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and the charge reduction testing to determine the size of the charge required to fracture the rock.

#### 4.4.3 Social

- a. **Cultural Resources.** There would be no impacts to historic properties.
- b. **Aesthetics.** There would be a minor adverse impact on aesthetics from the presence and operation of dredging equipment at the ODMDS.

- c. **Recreation.** There would be a minor adverse impact on recreation use of the ODMDS during disposal operations. This includes fishing and SCUBA diving. There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area

#### 4.4.4 Economics

- a. **Economics.** There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the work. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities..
- b. **Navigation.** There would be a short-term adverse impact on commercial navigation from the transportation of dredged material to and from the ODMDS. This traffic flow would be coordinated with the Tampa Pilots association to minimize impacts. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### 4.4.5 Cumulative Impacts

There would be a minor long-term cumulative impact as all ports increase their sizes to keep pace with industry demands.

#### 4.4.6 Unavoidable Effects.

There would be a turbidity plume created from the dredging and from dumping of dredged material at the ODMDS and the smothering and covering of benthic organisms at the site.

#### 4.4.7 Irreversible and Irretrievable Commitment of Resources

There would be no irretrievable commitment of resources except for the expenditure of fuel for the transportation to and from the disposal site.

#### 4.4.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.

The long-term productivity of the ODMDS would not be affected by placement of material. In fact, the placement of more substrate at this site would create more relief creating more habitat for aquatic life.

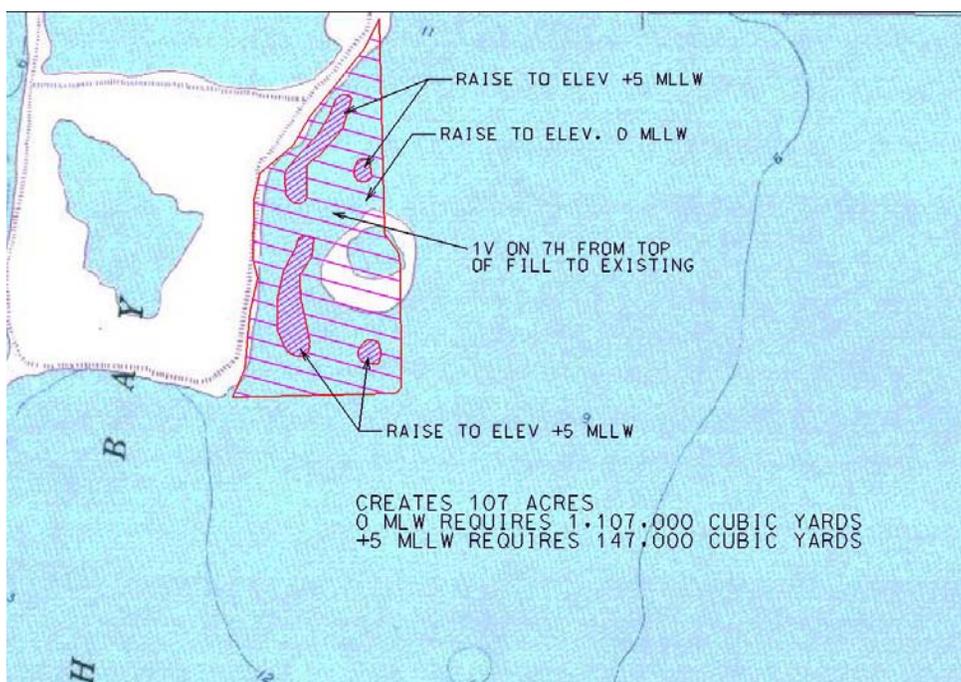
### 4.5. EXPANSION OF EXISTING CHANNEL AND CREATION OF WETLANDS ADJACENT TO DREDGED MATERIAL MANAGEMENT AREA CMDA-2D

#### 4.5.1 Physical

- a. **Surface Water Quality.** There would be a short-term increase in turbidity from the maintenance and construction dredging. There would be a short-

term impact on water quality from the placement of material into an area along CMDA-2D and the associated increased turbidity. In the long-term the creation of wetlands in this area would help water quality through nutrient uptake of the wetland plants. There would be no impact from maintenance as the material would be placed in the upland Dredged Material Management Area CMDA-2D.

- b. **Benthic Habitat.** There would be a 1.7 acre loss of shallow-water habitat from dredging and a change in benthic habitat from an open-water to a shallow-water habitat at the placement site. This would increase the biological productivity of the site by increasing the bottom into the photic zone.



**Figure 8, Wetland Creation Plan Adjacent to Dredged Material Management Area CMDA-2D.**

- c. **Water Circulation.** There would be no impact on circulation from this alternative. Studies of major expansion of Bird Island indicate that creation of large structures in this area would not impact circulation.

#### 4.5.2 Biological

- a. **Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities and dredged material placement. This impact would be mitigated by the implementation of the standard State and Federal Manatee Protection Conditions. Part of this plan is the monitoring for the presence of manatees by all workers and cessation of

work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone. ). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. Blasting could also be part of the construction work. A special blasting plan will be implemented. . In addition there will be a “No Blasting” window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.

- b. Birds.** There would be a short-term adverse impact on bird nesting during the bird-nesting season 1 April through 31 August from the construction at CMDA-2D. This impact could be mitigated by the implementation of a Migratory Bird Protection Plan. If the season cannot be avoided, a bird monitor would be used to identify nesting sites and create a buffer zone around these sites. In the long-term the creation of this 107-acre site would provide a substantial area for birds to nest and forage for food.
- c. Seagrass Beds.** There would be no impact on seagrass beds.
- d. Wetlands.** The placement dredged material adjacent to the Dredged Material Management Area CMDA-2D would create approximately 107 acres of wetland habitat. This area would have a combination of saltmarsh and mangrove habitat.. The amount of habitat would be dependent on the final elevations created.
- e. Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and the charge reduction testing to determine the size of the charge required to fracture the rock.

#### 4.5.3 Social

- a. Cultural Resources.** There would be no impacts to historic properties.
- b. Aesthetics.** There would be a minor aesthetic impact from the presence and operation of dredging equipment adjacent to bird watching and fishing activities.
- c. Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area of the

channel. There would be a minor interruption to fishing and bird watching along this shoreline.

#### **4.5.4 Economics**

- a. Economics.** There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the work. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities. There would be a minor long-term benefit to the Port from the Beneficial Uses of Dredged Material and not using the upland DMMA or the ODMDS.
- b. Navigation.** There would be a minor impact on commercial and recreation navigation from the dredging. There would be a minor short-term disruption to recreation navigation along the shoreline of CMDA-2D. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### **4.5.5 Cumulative Impacts.**

There would be a beneficial cumulative impact from the creation of wetlands with Tampa Bay. If this were done with other dredged material from the federal projects a substantial amount of habitat would be created or restored.

#### **4.5.6 Unavoidable Effects.**

There would be a loss of open-water habitat and some turbidity generated.

#### **4.5.7 Irreversible and Irrecoverable Commitment of Resources.**

The only long-term commitment of resources would be the expenditure of fuel to support the work.

#### **4.5.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

There would be a short-term effect from the placement of material in the open-water and the associated loss of fish habitat. However, in the long-term there would be the creation of 107 acres of saltmarsh habitat, which is considered to be more productive.

### **4.6. EXPANSION OF EXISTING CHANNEL AND CREATION OF AVIAN HABITAT AT BIRD/SUNKEN ISLAND**

#### **4.6.1 Physical**

- a. Surface Water Quality.** There would be a short-term impact on water quality from the maintenance and construction dredging. The placement of material into an area south of Bird Island would also cause an increase

in turbidity. In the long-term the creation of wetlands in this area would help water quality through nutrient uptake of the wetland plants. There would be no impact from maintenance as the material would be placed in the upland Dredged Material Management Area CMDA-2D.

- b. **Benthic Habitat.** There would be a loss of 1.7 acres shallow-water habitat from dredging and of 25 acres open-water habitat from the creation of 25 acres of saltmarsh and mangrove habitat from the placement of dredged material.
- c. **Water Circulation.** There would be no impact on circulation from this alternative. Studies of major expansion of Bird Island indicate that creation of large structures in this area would not impact circulation

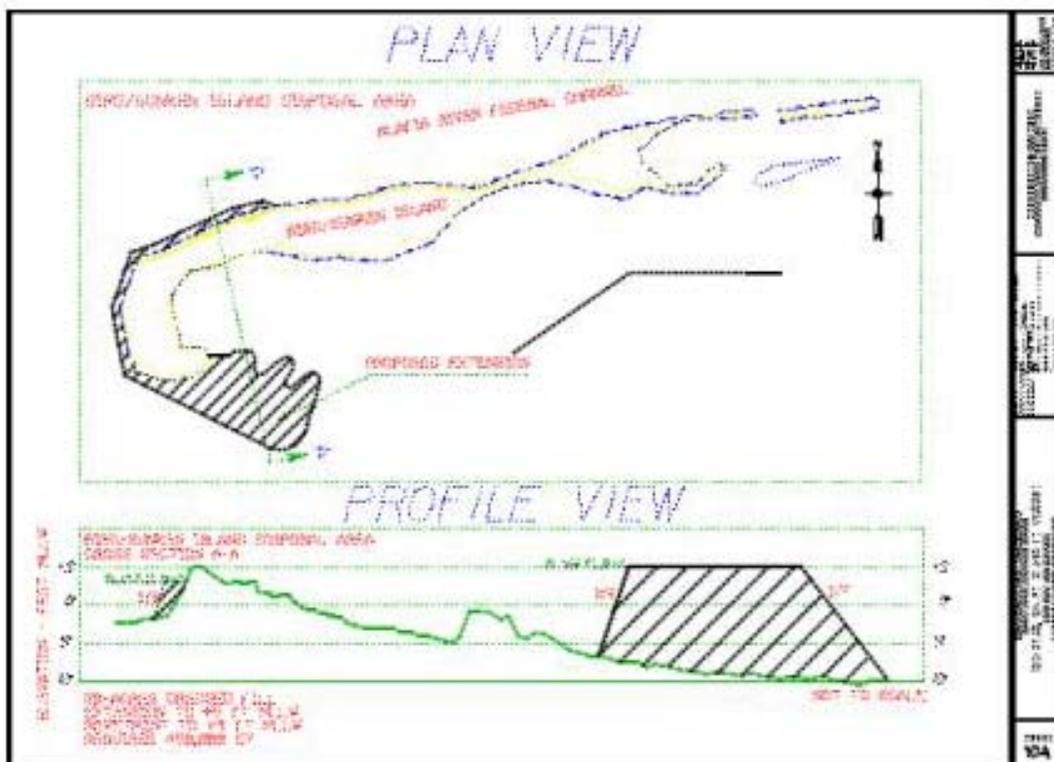


Figure 9, Sunken/Bird Island Habitat Creation Adjacent to Alafia River Navigation Channel

#### 4.6.2 Biological

- a. **Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities and dredged material placement. This impact would be mitigated by the implementation of the standard

State and Federal Manatee Protection Conditions. Part of this plan is the monitoring for the presence of manatees by all workers and cessation of work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. A special blasting plan will be implemented. . In addition there will be a “No Blasting” window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.

- b. Birds.** There would be a short-term adverse impact on bird nesting during the bird-nesting season 1 March through 31 August from the construction. This impact could be mitigated by the implementation of a Migratory Bird Protection Plan. If the season cannot be avoided, a bird monitor would be used to identify nesting sites and create a buffer zone around these sites. In the long-term the creation of this 25-acre site would provide a substantial area for birds to nest and forage for food.
- c. Seagrass Beds.** There would be no impact on seagrasses.
- d. Wetlands.** The dredged material would create approximately 25 acres of wetland habitat. Mangroves would be planted on the uplands, Spartina along the waters edge. At low water the bottom elevations would be exposed for feeding.
- e. Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and the charge reduction testing to determine the size of the charge required to fracture the rock.

#### 4.6.3 Social

- a. Cultural Resources.** There would be unknown impacts to historic properties. Surveys of the “area of potential effect” have not been undertaken.
- b. Aesthetics.** There would be a minor aesthetic impact from the presence and operation of dredging equipment adjacent to bird watching and fishing activities.
- c. Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area . There

would be a substantial interruption to fishing and bird watching along this shoreline.

#### **4.6.4 Economics**

- a. There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the maintenance and construction. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities. There would be a minor long-term benefit to the Port from the Beneficial Uses of Dredged Material and not using the upland DMMA or the ODMDS.
- b. **Navigation.** There would be a minor impact on commercial and recreation navigation from the dredging. There would be a minor impact on recreation boat traffic along the Bird Island shoreline. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### **4.6.5 Cumulative Impacts**

There would be a beneficial cumulative impact from the creation of wetlands with Tampa Bay. If this were done with other dredged material from the federal projects a substantial amount of habitat would be created or restored.

#### **4.6.6 Unavoidable Effects.**

There would be a loss of open-water habitat and some turbidity generated.

#### **4.6.7 Irreversible and Irretrievable Commitment of Resources.**

The only long-term commitment of resources would be the expenditure of fuel to support the work.

#### **4.6.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

There would be a short-term effect from the placement of material in the open-water and the associated loss of fish habitat. However, in the long-term there would be the creation of 25 acres of saltmarsh habitat, which is considered to be more productive.

### **4.7. EXPANSION OF EXISTING CHANNEL AND PLACEMENT IN AN UPLAND DREDGED MATERIAL PLACEMENT AREA – PORT SUTTON TERMINAL.**

#### **4.7.1 Physical**

- a. **Surface Water Quality.** There would be an increase in turbidity surrounding the construction and maintenance dredging operations. The

dredged material would be placed in the a new upland Dredged Material Management Area – Port Sutton Terminal. The confined area would allow for sedimentation of suspended solids prior to the effluent being released back to the Bay through the weir structures. The size of the areas allows for sedimentation such that the effluent meets State water quality standards.

- b. Benthic Habitat.** There would be a loss of 1.7 acres of shallow-water benthic habitat. This area would be re-colonized by species more suited for deeper water.
- c. Water Circulation.** There would be no impact on circulation.

#### 4.7.2 Biological

- a. Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities. This impact would be mitigated by the implementation of the standard State and Federal Manatee Protection Conditions (Appendix I). Part of this plan is the monitoring for the presence of manatees by all workers and cessation of work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. A special blasting plan will be implemented. In addition there will be a “No Blasting” window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.
- b. Birds.** There would be a medium impact on bird nesting activities at the Dredged Material Management Area. This impact would be mitigated by the implementation of the Migratory Bird Protection Plan. Part of this Plan is to avoid bird nesting season 1 April through 31 August or if that is not possible then an observer would be employed to identify nesting sites and notify the contractor to avoid impacting them.
- c. Seagrass Beds.** There would be no impact on seagrasses from this alternative.
- d. Wetlands.** There would no impact from this alternative.
- e. Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and

the charge reduction testing to determine the size of the charge required to fracture the rock.

#### **4.7.3 Social**

- a. Cultural Resources.** There would be no impacts to historic properties for use of this disposal area.
- b. Aesthetics.** The dredging in the channel would not have much of an impact because of the industrial use of this area.
- c. Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area.

#### **4.7.4 Economics**

- a. Economics.** There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the work. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities.
- b. Navigation.** There would be a short-term adverse impact on vessels using the channel during the construction period. There would be increased safety for vessels using the new channel and turning basin. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### **4.7.5 Cumulative Impacts.**

There would be a minor long-term cumulative impact as all ports increase their sizes to keep pace with industry demands.

#### **4.7.6 Unavoidable Effects.**

The only unavoidable impact of the dredging would be the turbidity generated during dredging.

#### **4.7.7 Irreversible and Irretrievable Commitment of Resources**

The only loss of resources that cannot be retrieved is the fuel consumption used in the construction effort. The bottom sediments are relocated to other sites and could be retrieved and placed back into the channel.

#### **4.7.8 Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

The relative productivity of this area from the channel construction would not change.

#### **4.8. EXPANSION OF THE EXISTING TERMINAL AND PLACEMENT IN MACKAY BAY HOLE.**

##### **4.8.1. Physical**

- a. Surface Water Quality.** There would be a short-term impact on water quality from the maintenance, construction dredging and placement in the hole.
- b. Benthic Habitat.** There would be a loss of 1.7 acres shallow-water habitat from dredging. The dredged material would cap the existing poor benthic conditions in the hole and over the long term provide a more viable habitat.
- c. Water Circulation.** There would be no adverse impact on circulation from this alternative.

##### **4.8.2. Biological**

- a. Manatees.** There would be a short-term adverse impact on manatees during construction of the new facilities and dredged material placement. This impact would be mitigated by the implementation of the standard State and Federal Manatee Protection Conditions. Part of this plan is the monitoring for the presence of manatees by all workers and cessation of work should manatees enter the construction zone. Resuming work would only occur should the manatees reach the safe zone). If a clamshell is used, a special manatee observer would be used to document impacts with video equipment. A special blasting plan will be implemented. In addition there will be a "No Blasting" window from November 1 to March 31<sup>st</sup>. This plan has been coordinated with the US Fish and Wildlife Service under the Marine Mammal Protection Act.
- b. Birds.** There would be no impact on birds or bird nesting.
- c. Seagrass Beds.** There would be no impact on seagrasses.
- d. Wetlands.** There would be no adverse impact on wetlands.
- e. Fisheries.** There will be a minor short-term impact from blasting in the channel. Fish within the proximity will be stunned or killed. Monitoring

of this impact will occur and collected snook or redfish will be transported to the Florida marine Institute in St Petersburg, Florida. Impacts will be mitigated by the use of confined blasting technique and the charge reduction testing to determine the size of the charge required to fracture the rock.

#### **4.8.3. Social**

- a. Cultural Resources.** There would be unknown impacts to historic properties. Surveys of the “area of potential effect” have not been undertaken.
- b. Aesthetics.** There would be a minor aesthetic impact from the presence and operation of dredging equipment adjacent to fishing activities.
- c. Recreation.** There would be a minor impact on recreational fishing during the dredging, and recreational boat traffic in the area .

#### **4.8.4. Economics**

- a.** There would be a short-term stimulus to the local economy during construction from the sale of goods and services in support of the maintenance and construction. There would also be a long-term increase in revenues from the use of the port by larger vessels and the increased sale of commodities. There would be a minor long-term benefit to the Port from the Beneficial Uses of Dredged Material and not using the upland DMMA or the ODMDS.
- b. Navigation.** There would be a minor impact on commercial and recreation navigation from the dredging. There would be a long-term benefit to navigation from the increased vessel handling capabilities of the new channel.

#### **4.8.5. Cumulative Impacts**

There would be no cumulative adverse impacts from filling this hole or other holes in Tampa Bay.

#### **4.8.6. Unavoidable Effects.**

There would be some turbidity generated during dredging and placement.

#### **4.8.7. Irreversible and Irretrievable Commitment of Resources.**

The only long-term commitment of resources would be the expenditure of fuel to support the work.

**4.8.8. Relationship of Short-term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity.**

There would be a short-term effect from the placement of material in the open-water and the associated replacement of benthic habitat.

**5 LIST OF PREPARERS**

Name	Job Title	Years Experience	NEPA Participation
William J. Fonferek	Biologist	26 years	NEPA preparation, coordination, endangered species consultation
Tommy Birchett	Archeologist	25 years	Cultural Resources Assessment
Glen Schuster	Civil Engineer	27years	Water Quality Assessment
Peter Besrutchko	Environmental Engineer	15 years	HTRW Assessment
Paul Stevenson	Landscape Planner	17 years	Aesthetic and Recreation Assessment
Tim Murphy	Civil Engineer	13 years	Project Manager

**6 COORDINATION WITH OTHERS**

**6.1 INTRODUCTION.**

This section provides information on how the development and planning of this proposed action was coordinated with concerned agencies and interested parties during initial site selection through the preliminary development of this document.

**6.2. Scoping**

A scoping letter dated May 8, 1998, was sent to all interested parties including adjacent property owners, state and local governments and federal agencies.

**6.3. State Clearinghouse Coordination.**

The State Clearinghouse acknowledged receipt of the May 12, 1998 scoping letter and assigned a number to the file (SAI# FL9805110198C).

**6.4. Pinellas County.**

Pinellas County responded to the scoping letter by letter dated May 12, 1998, stating that only sandy material should be placed on Pinellas County beaches.

RESPONSE: If sandy material is encountered and the State wishes to pay for the additional costs of placing the material on the beach above that considered economical, we would do this.

### **6.5. Hillsborough County Environmental Planning Commission (EPC).**

The Hillsborough County EPC responded by letter dated May 20, 1998, stating its support of dredging projects provided State water quality standards are met; the dredged material is placed in a manner that minimizes environmental and social impacts and is consistent with port and municipal planning. The Commission also recommended the project should demonstrate a substantial need, benefits, and include appropriate measures to minimize and mitigate adverse environmental impacts.

RESPONSE: The dredging and placement of dredged material will meet State water quality standards. An Environmental Assessment has been prepared for the project and circulated in accordance with the NEPA implementing regulations. The alternative selected would be based on the most economical and environmentally sound design. The local sponsor for this project is the Port of Tampa. This proposal was previously authorized but never constructed because at the time it was not considered economical. The Port has requested this be reconsidered because of Port growth and vessel safety in the area. The major emphasis of the General Re-evaluation Report is the economic justification of the project. The EA identifies existing resources within the area, assesses impacts and determines necessary mitigation. Water quality impacts of this channel would not change from the widening. A site investigation by the Corps and field survey of the project area by the US Fish and Wildlife Service revealed no seagrasses in the area. A literature search of the NEP seagrass maps and water quality indicates that the water quality in the area of Hillsborough Bay is relatively degraded so that seagrass would not grow there.

### **6.6. Tampa Pilots.**

The Tampa Bay Pilots responded by letter dated June 17, 1998. They stated that the project would provide increased navigation safety.

### **6.7. State Clearinghouse Coordination.**

The Florida Department of Community Affairs responded by letter dated June 19, 1998. They requested an additional 7 days to make a consistency determination. Subsequently, the Florida Department of Community Affairs responded by letter dated July 17, 1998. The Department requested that impacts to manatees be considered and stated a permit from DEP was necessary and that consistency with the Coastal Zone Management Program be considered. It also recommended that a magnetometer survey of the project area be conducted to determine if underwater cultural resources are located in the area. The Department has also determined that at this stage the project is consistent with the CZMP.

RESPONSE: Impacts on federally threatened and endangered species are addressed in formal consultation with the US Fish and Wildlife Service involving any federal action. The Project will be evaluated in accordance with the Florida Coastal Zone Management Program. A determination will be forwarded to the State Clearinghouse during the review of the draft Environmental Assessment prepared for the project. A magnetometer survey has been conducted and the results have been coordinated with the State.

## **6.8. Field Meeting.**

A field meeting and site visit was conducted on 9 December 1998 to consider alternatives for dredged material placement. Representatives of the Corps, US Fish and Wildlife Service, the Tampa Port Authority, Hillsborough County Environmental Protection Commission and the Florida Department Environmental Protection were in attendance. Alternatives discussed included creation of inter-tidal wetlands adjacent to CMDA-2D, Island creation south of Davis Island airport, marsh creation along Davis Island, Palm River Restoration, Hookers Point fill and Garrison Channel.

## **6.9. Environmental Assessment Coordination.**

The Draft Feasibility Report and Draft Environmental Assessment dated May 2000 were coordinated with the public by letter dated May 8, 2000. The document was also made available to the public on the Districts website at <http://www.saj.usace.army.mil/pd/env-doc.htm>. The following are comments received from the interested parties.

### **6.9.1. Hillsborough County Planning Commission.**

The Commission responded by letter dated April 7, 2000 stating that their past two comment letters were included in the report and their staff has no additional comments at this time.

### **6.9.2. United States Department of Interior.**

The Department of Interior requested a time extension until May 22, 2000. (See Section 6.11.5 for comments provided by the Department of Interior)

### **6.9.3. United States Environmental Protection Agency (EPA).**

The EPA had no reservation about expansion of Bird Island. However, it did feel that the size of the enlargement was excessive and that there would be adverse impacts on biologically sensitive/valuable aquatic resources. Based on this assumption it felt that unless there was a reduction in the expansion of Bird Island that a "Finding of No Signification Impact"(FONSI) was premature. It recommended a 20-acre expansion instead. If the design was acceptable to Audubon and the dredged material placed in an existing upland disposal site, EPA would not have any objection to using the EA and a FONSI.

RESPONSE: The design was obtained from the Audubon Society. We originally proposed to enlarge the design which we coordinated with several groups. They opposed such an increase so we went back to the original design. However, no material would be placed at Bird Island and will be placed in Placement Area CMDA-2D as requested.

#### **6.9.4. Florida Department of Community Affairs (DCA).**

The DCA requested an extension until June 6, 2000. By letter dated June 7, 2000, the Department stated that based on the reviewed Environmental Assessment (EA), the project was to be consistent with the Florida Coastal Zone Management Program. The Department also forwarded several comments from various State agencies. None were significant.

##### **6.9.4.1.DCA Subsequent Response, December 22, 2000.**

By letter dated December 22, 2000, the Florida DCA forwarded concerns as submitted by the Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FFWCC), Florida Coastal Management Program (FCMP), and the Tampa Bay Regional Planning Council (TBRPC). See the individual agencies, as listed in this section, for the communicated concerns.

#### **6.9.5. United States Department of the Interior.**

The Department responded by letter dated May 23, 2000. It stated that this document did not meet the spirit and intent of the National Environmental Policy Act (NEPA) or the CEQ Implementing Regulations. Past planning efforts in this area have resulted in the preparation of an Environmental Impact Statement (EIS). Virtually all conclusions regarding potential impacts are qualitative in nature. The lack of quantitative data makes it impossible to develop conclusions about the potential impacts and spoil disposal on water quality, biota, or hydrodynamics within the dredging and disposal areas. The preferred alternative has not been identified. Because dredging and disposal activities can remobilize contaminants into the water column additional analysis should be done to quantify the types and quantities of sediment-associated pollutants likely to be encountered and the potential for remobilization. Specific analysis of the sediments in the turning basin should be undertaken as well as circulation patterns in this area of the Bay. Beneficial Uses of Dredged Material Alternatives have an unsubstantiated statement that benefits will result and it needs to be justified. The Department indicates that seagrasses have been recently identified adjacent to CMDA-2D. The Department also indicated that the Bird Island expansion was excessive. There is no specific information to base the effects on filling Whiskey Stump Key holes.

RESPONSE: The proposed project is a modification of an existing navigation project currently in use. The NEPA document explores upgrading that facility to current standards. Since there are no significant aquatic habitat that would be impacted by this and the disposal options, it was felt that an EA was the appropriate level of assessment. Additional information concerning water quality and circulation impacts has been added to the document to demonstrate the impacts in a more quantitative manner (Appendix VIII). Even though for this project we are not filling any holes, the Beneficial Uses Alternatives were obtained from the local scientific community through the Tampa Estuary Programs' Comprehensive Conservation Management Plan and the Habitat Restoration Committee of the Agency on Bay Management. This is not to say that these alternatives do not have their detractors, but are generally regarded as beneficial to certain resources in Tampa Bay. This is the case with filling former dredge holes that

are located within seagrass beds. Large fish use these areas to feed on smaller fish as the tide recedes. By filling the holes we raise the bottom elevations encouraging seagrass beds growth which is viewed as more biologically productive. It also eliminates poor oxygen-poor water sites. Each site we consider for restoration is evaluated on its merits. Also there are many sites located too far away from navigation projects to be economically considered. During site visits, the preparation of the EA, reviewing current seagrass maps and the preparation of the Fish and Wildlife Coordination Act Report no seagrasses were identified in the impact areas. Seagrasses are not known in this area except for an experimental plot locate next to the eastern shoreline of Hillsborough Bay. No seagrasses have been found in the area adjacent to CMDA-2D. No material from this project would be used to expand Bird Island.

#### **6.9.6. National Marine Fisheries Service (NMFS).**

The NMFS responded by letter dated June 3, 1998. They expressed concerns for the mangroves and oyster beds along the shoreline in the Ybor Navigation project area. They recommended that USFWS consider the affects of the projects on these resources and that the sediments be sampled to determine suitable disposal sites.

RESPONSE: These comments were addressed in the EA for Ybor Turning Basin Expansion.

#### **6.9.6.1. NMFS Subsequent Response, June 2, 2000.**

The NMFS responded by letter dated June 2, 2000. They had no objection if the material was placed in CMDA-2D or 3D.

RESPONSE: The material is to be placed in CMDA-2D.

#### **6.9.7. The Tampa Bay Regional Planning Council (TBRPC).**

The TBRPC submitted comments by letter dated June 12, 2000 to the State Clearinghouse from their Intergovernmental Coordination and Review process. They stated that the preferred alternative is to place the material in the Placement Area CMDA-2D. They recommended manatee protection measures be incorporated into the project. They commented that the document does not discuss benefits and cost of the project. They stated that the dredging would not directly impact Natural Resources of Regional Significance. They state that the placement of dredged material could impact those resources. Expanding Bird Island and creating wetlands adjacent to CMDA-2D could impact birds and shallow-water habitat. Filling former dredge holes could remove cold weather refugia for fish from Tampa Bay. The EA does not address impacts on water circulation from the expansion of Bird Island and CMDA-2D. Additional studies should be undertaken to determine the long-term effects of creating additional uplands in Tampa Bay.

RESPONSE: Manatee measures are already included in the alternatives. See Response to the Department of the Interior. A model was used to address impacts on water circulation in Hillsborough Bay and EA was updated. A Dredged Material Management Plan is being prepared for Tampa Bay to address long-term dredging strategies in Tampa Bay.

#### **6.10. The U. S. Fish and Wildlife Service (USFWS).**

The USFWS provided a Fish and Wildlife Coordination Act Report CAR dated June 1999 to assist with the planning of this project (See Appendix I). The following is the summary of their CAR comments:

The Ybor Channel Turning Basin and Port Sutton Terminal Channel projects are situated in the most industrialized, modified segment of Tampa Bay and are adjacent to existing dredged deep water channels. In spite of the altered, stressful environmental conditions of the project sites there are fish and wildlife resources that require consideration. In order to minimize project-related adverse impacts to fish and wildlife resources the Service provides the following recommendations:

- avoid dredging-related impacts to the existing mitigation site on northeast side of Harbour Island;
- RESPONSE: This was done for the Ybor Project; therefore, it is not applicable.
  
- salvage existing oyster beds on the shelf extending from Harbour Island for relocation;
- RESPONSE: This was done for the Ybor Project; therefore, it is not applicable.
  
- conduct bulk chemical analyses, bioassay and bio-accumulation tests with sediments from dredge sites;
- RESPONSE: Water quality testing has been done in accordance with EPA's Inland Testing Manual and the State of Florida requirements will be met during the Water Quality Certification process.
  
- if contaminants are found in dredge site sediments, take measures to prevent their dispersal during dredging and spoil disposal operations;
- RESPONSE: State standards will be adhered to.
  
- monitor pipelines to prevent accidental spills;
- RESPONSE: This is normal best management practices.
  
- create 0.5 to 0.7 acres of oyster bed to mitigate the dredging of 25 to 35 acres of relatively shallow bay bottom;
- RESPONSE: The CAR recommends mitigation for immediate loss of the benthic community in the dredging footprint (total footprint for Ybor and Port Sutton) and for the lost community functions during recovery. This loss is due to changing relatively shallow habitats to deep-water habitats. The combined footprint, Ybor and Port Sutton (6,000 foot length) is about 35 acres. Using Bahr and Lanier's (1981) information that oyster reefs provide 50 times the surface area that bare bottoms do, oyster bed creation of 0.5 to 0.7 acres would mitigate the impacts of the dredging at a 1:1 ratio. The actual impact to the shallow habitat at Port Sutton within an area approximately 25 feet wide by 3,000 feet in length is 1.7 acres. This assumes a definition of shallow habitat as being in the photic zone, 10 feet

MLLW in depth or shallower. This definition is very conservative since Port Sutton is an industrial area and the photic zone is more likely less than 3 feet deep. The mitigation suggested by USFWS, using the same multiplier as in the CAR, is about 0.03 acres. This is so small as to be negligible.

- implement the “Final Migratory Bird Protection Policy” to protect nesting birds on 2D and 3D;
- RESPONSE: This will be made a part of the project.
- evaluate changes to hydrology and water quality from Garrison Channel and open bay disposal options; and,
- RESPONSE: This was a part of the Ybor Project and open-water disposal is not part of this project; therefore, it is not applicable.
- seek beneficial use projects, such as described above, for use of dredged material.
- RESPONSE: No beneficial uses of dredged material were available but were considered.

The following Conservation Recommendations were contained in the Endangered Species Act portion of the CAR.

- The standard manatee conditions be implemented at both project sites.
- RESPONSE: These will be made part of the plan
- A hydraulic dredge be used for all dredging in the Port Sutton Channel based on the presence of manatees at the discharge canal during winter months.
- RESPONSE: We cannot dictate the use of any particular type of dredge because of contracting restrictions. However, it is anticipated that a hydraulic dredge will likely be the type of dredging equipment used.
- If a clamshell dredge is used, a no-dredge window from January 1-February 1 be implemented at the Port Sutton site and surrounding channel waters to adequately protect wintering manatees.
- RESPONSE: We cannot accept this because the construction would take about 2 years to complete. In recent discussions with your agency we have increased our protection of manatees by implementing a dedicated manatee observer on all clamshell dredging operations with a video camera to document impacts. Also the standard conditions implemented during this timeframe should insure that manatees are not impacted.
- If a clamshell dredge is used, no night dredging should occur in the Port Sutton channel from November 15-March 1 due to decreased visibility and observation capabilities. Tasks requiring small watercraft or barge movement should be conducted during daylight hours only, or such vessels should be outfitted with propeller guards.

- **RESPONSE:** We cannot accept this because the construction would take about 2 years to complete. In recent discussions with your agency we have increased our protection of manatees by implementing a dedicated manatee observer on all clamshell dredging operations with a video camera to document impacts. Also the standard conditions implemented during this timeframe should insure that manatees are not impacted.
- If a clamshell dredge is used, a designated observer should be used in areas around the discharge canal.
- **RESPONSE:** This has been incorporated into our standard operating procedures for protecting manatees.

#### **6.11. Florida Department of Environmental Protection (FDEP).**

The FDEP by letter dated December 13, 2000, responded that previous agency comments included recommendation to test for the possibility of contamination of the sediment due to the industrial nature of the surrounding area. In response to Corps provided data, the DEP recommended that any further testing that may be required to determine the presence of contaminated sediments be performed during the environmental assessment process. FDEP also recommended that the Corps continue coordination with the Florida Fish and Wildlife Conservation Commission through interagency Endangered Species Working Group, to resolve issues surrounding blasting, no-dredge windows, and nighttime dredging, concerning the protection of manatees during project construction.

#### **6.12. Florida Fish and Wildlife Conservation Commission (FWCC).**

The FWCC responded by letter dated December 19, 2000, that the measures outlined to protect manatees were insufficient. The standard manatee construction conditions alone are inadequate to protect manatees in aggregation areas during the winter time and during night time operations. It was further communicated that the manatee standard conditions were grossly inadequate to offset expected impacts associated with the proposed blasting activities. The FWCC communicated the project would be reviewed for a possible Coastal Zone Consistency issue.

#### **6.13. Revised Draft Environmental Assessment.**

A revised draft EA was coordinated with the interested public by letter dated April 18<sup>th</sup>, 2005 concerning the addition of two new disposal alternatives.

#### **6.14. NMFS Response, May 23, 2005.**

The NMFS responded by letter dated May 23, 2005, expressing concerns for potential impacts to essential fish habitat (EFH) and related fishery resources that could result from two of the three proposed beneficial use of dredged material. Additional concerns were expressed for the loss of shallow estuarine habitat that would result from expansion of Bird Island and impacts to submerged aquatic vegetation (SAV) adjacent to DMMA-2D. The NMFS communicated that final action on the project should include the following EFH Conservation recommendations:

1. The proposed placement of material within the McKay Bay Hole should be authorized and designed to match existing adjacent bay bottom bathymetry and contours.

2. The placement of dredged material at Bird Island and DMMA-2D would result in adverse impacts to SAV and related shallow estuarine habitats and shall not be authorized. The Service responded by letter dated June 2, 2000. They had no objection if the material was placed in CMDA-2D or 3D.

RESPONSE: The material is to be placed in CMDA-2D.

#### **16.15. FDEP Subsequent Response, July 29, 2005.**

The FDEP further responded by letter dated July 29, 2005, acting as designated state lead coastal agency on behalf of the Florida State Clearinghouse. This response also included concerns submitted by the FDEP, FFWCC, DEP Bureau of Beaches and Coastal Systems, and TBRPC. The comments as submitted by the listed state agencies are summarized individually by agency within this section. The FDEP also responded the state did not object to the two alternatives proposed for disposal of the dredged materials. The state, however, noted that concerns have been expressed in the past and continue to be expressed for the measures proposed to protect manatees during channel dredging activities. It was requested that the EA be amended to the Clearinghouse earlier letter, and the reiterated positions regarding endangered species protection. The state found the document insufficient and couldn't complete the coastal consistency review. During the ongoing state permit process, it was suggested that the concerns identified by the FWCC and DEP during consultation with the USFWS be addressed.

RESPONSE: Consultation for blasting had been previously conducted with USFWS in 2002 and no further consultation is required.

#### **16.16. FWCC Subsequent Response, July 28, 2005.**

The FWCC responded the consistency issues were still pending. This letter reiterated concerns the agency communicated earlier, and addressed information contained in the FWS Coordination Act Report (CAR) and Biological Opinion (BO) of 1999. It was the FWCC opinion that recommendations contained in the CAR and BO needed to be revised and specific to Port Sutton. The agency recommended that the Corps re-initiated endangered species coordination with the FWS and that un-resolve issues be addressed during the State's permitting process. The FWCC further responded the State reviews were necessary to clarify what conditions should be required in order for the project to be consistent with Florida Statutes 370.12(1) Protection of Marine Turtles, Chapter 370.12(2) Protection of Manatee or Sea Cows, and Chapter 370.12(3) Protection of Mammalian Dolphins (Porpoises).

RESPONSE : Consultation for blasting had been previously conducted with USFWS in 2002 and no further consultation is required.

#### **16.17. Tampa Port Authority (TPA).**

The TPA responded by letter dated May 17, 2005, stating concern for channel expansion and wetland creation as proposed adjacent to Dredge Material Management Area 2D

(DMMA-2D). It was further stated that placement of dredged material along the eastern and southeastern areas of DMMA-2D and the perimeter of Fantasy Island could be disruptive or impacting to nesting and foraging birds, in addition to, impacting human use of Fantasy Island. The TPA also noted that considerable community effort had been expended to restore the ecology of Fantasy Island and TPA.

**16.18. US Fish and Wildlife Service (USFWS).**

The US Fish and Wildlife Service responded by letter dated July 22, 2005 stating consultation for impacts on manatees should be initiated.

RESPONSE: Consultation for blasting had been previously conducted with USFWS in 2002 and no further consultation is required.

**16.19. The Florida Department of State, Division of Historical Resources.**

The Deputy State Historic Preservation Officer commented by letter dated June 10, 2005 concurring in the determination that it was unlikely to affect historic properties.

## **7 ENVIRONMENTAL COMMITMENTS**

**7.1. Manatee Protection.**

The Standard State and Federal manatee protection conditions will be implemented. In addition, if a clamshell dredge is used, a dedicated observer will be used to monitor for manatees and will document the presence of manatees using a video camera.

**7.2. Migratory Bird Protection.**

The District Migratory Bird Protection Plan (MBPP) will be implemented to protect nesting birds. The District will make every effort to avoid the nesting season from 1 April through 31 August, but if that will not be possible nest monitoring and avoidance will go into effect.

**7.3. Turbidity.**

If open water placement is used for Beneficial Uses of Dredged Material at Bird/Sunken Island or the CMDA-2D Wetland Creation turbidity standards will be met to protect adjacent resources such as seagrass beds.

**7.3. Seagrass Protection.**

The standard seagrass protection measures would be implemented which would not allow disruption to the beds from anchoring or inadvertent disturbance from construction equipment.

**7.4. Blasting.**

Should blasting be required, a special plan would be implanted to include observers, exclusion zones, and charge levels. There would also be a “No Blasting” window implemented between November 1<sup>st</sup> and March 31<sup>st</sup>.

## 7.5. Fisheries.

Fish will be collected and sorted. All snook and redfish will be iced and transported to the Florida Marine Research Institute in St Petersburg, Florida

## 8 SOURCES CITED OR UTILIZED

Council on Environmental Quality. 1994. *Procedures for the Implementation of the National Environmental Policy Act. 40 CFR 1500 et seq.*

Department of the Army Jacksonville District, Corps of Engineers Jacksonville, Florida. April 1980. *Navigation Study for Tampa Harbor, Big Bend Channel, and Alafia River, Florida. Reconnaissance Report - 10128 (Stage I).*

Florida Game and Fresh Water Fish Commission. *Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida.* 1 August 1997. Prepared by T.H. Logan.

Florida Marine Research Institute, January 1995. Fisheries Independent Monitoring Report. MacDill Borrow Pit data.

Kale, H.W., II, and D.S. Maehr. 1990. *Florida's Birds - A Handbook and Reference.* Pineapple Press. Sarasota, FL.

Lewis, R.R., III, M. D. Moffler, and R. C. Phillips. 1984. *Seagrass Meadows of Tampa Bay-Review (draft). Tampa, Florida.*

Paul, Richard. 1991. Personal correspondence. Audubon Society, Tampa, Florida.

Peters and McWilliams, 1998. Draft Report, *Prerestoration Monitoring of Fishes in a Borrow Pit Having Tidal Connection to Tampa Bay, Florida.*

Peterson, R.T. 1980. *Eastern Birds, 4th edition.* Houghton Mifflin Company, Boston, MA

Scurlock, J.P. 1987. *Native Trees and Shrubs of the Florida Keys.* Laurel Press, Inc. Bethel Park, PA

Springer and Woodburn. January 1960. *An Ecological Study of the Fishes of the Tampa Bay Area.*

Tampa Bay Management Study Commission, Tampa Bay Regional Planning Council. *The Future of Tampa Bay.*

Taylor Biological Company. July 1973. *Biological Studies and Inventory Tampa Harbor - Florida Project*

Tampa Estuary Program. April 2005. *Tampa Bay Dredged Hole Habitat Assessment Project, A report to the U.S. Environmental Protection Agency, Region 4*

US Fish and Wildlife Service. 1984. Tampa Bay Environmental Atlas. Biological Report 85(15).

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, NOAA Estuarine Programs Office. February 1989. NOAA Estuary-of-the-Month Seminar Series NO. 11. Tampa and Sarasota Bays: Issues, Resources, Status, and Management.

U.S. Army Engineer Waterways Experiment Station. April 1978. Dredged Material Research Program Technical Report D-78-14. *Colonial Bird Use and Plant Succession of Dredged Material Islands in Florida. Vol. II: Patterns of Plant Succession.*

US Fish and Wildlife Service, Department of the Interior. June 1986. *Mitigation Options for Fish and Wildlife Resources Affected by Port and Other Water-Dependent Developments in Tampa Bay, Florida.*

U.S. Army Corps of Engineers, Jacksonville District. September 1984. *Tampa Harbor - Alafia River and Big Bend Channel Florida. Feasibility Report and Environmental Impact Statement.*

U.S. Army Engineer Waterways Experiment Station. April 1978. Dredged Material Research Program Technical Report D-78-14. *Colonial Bird Use and Plant Succession of Dredged Material Islands in Florida. Vol. I: Sea and Wading Bird Colonies.*

U.S. Army Engineer Waterways Experiment Station. December 1978. Dredged Material Research Program. *Development and Management of Avian Habitat on Dredged Material Islands.*

U.S. Army Engineer Waterways Experiment Station. December 1978. Dredged Material Research Program. *An Introduction to Habitat Development on Dredged Material.*

U.S. Army Corps of Engineers, Jacksonville District. September 1994. Tampa Harbor - Big Bend Channel. Draft Feasibility Report and Environmental Assessment.

U.S. Army Corps of Engineers, Jacksonville District. July 1986. Tampa Harbor, Florida. General Design Memorandum. Branch Channels.

U.S. Army Engineer Waterways Experiment Station. October 1983. *Tampa Bay Dredged Material Disposal Site Analysis.*

- United States Department of the Interior Geological Survey. 1980. *Preliminary Simulated Tidal Flow and Circulation Patterns in Hillsborough Bay, Florida*.
- U.S. Department of the Interior Fish and Wildlife Service. December 1984. *Tampa Bay Environmental Atlas*.
- U.S. Department of the Interior Fish and Wildlife Service. September 1988. *The Ecology of Tampa Bay, Florida: An Estuarine Profile*.
- United States Geological Survey Water-Supply Paper 2282. 1987. *Tidal-Flow, Circulation, and Flushing Changes Caused by Dredge and Fill in Tampa Bay, Florida*.
- United States Department of the Interior Fish and Wildlife Service. Fishery Bulletin, Volume 65 No. 2.
- U.S. Environmental Protection Agency. April 1995. *Final Environmental Impact Statement for the Designation of an Ocean Dredged Material Disposal Site Located Offshore, Tampa, Florida*.
- U.S. Army Corps of Engineers, Jacksonville District. 1995. Draft Dredged Material Management Plan, Tampa Harbor.
- US Fish and Wildlife Service. 1987. *Endangered and Threatened Species of Southeastern United States. Region 4, Atlanta, Georgia*.
- Ward, D.B. (ed.) 1992. *Rare and Endangered Biota of Florida, Volume V. Plants*. Florida Committee of Rare and Endangered Plants and Animals. University Presses of Florida. Gainesville, FL.
- Wunderlin, R.P. 1982. *Guide to the Vascular Plants of Central Florida*. University Presses of Florida. Tampa, FL.

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# APPENDIX I

ENDANGERED SPECIES CONSULTATION AND FISH  
AND WILDLIFE COORDINATION ACT REPORT



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
6620 Southpoint Drive South  
Suite 310  
Jacksonville, Florida 32216-0912

IN REPLY REFER  
TO:

Comment [COMMENT1]: DONT  
EDIT OR DELETE ABOVE THIS  
COMMENT

Comment [COMMENT2]: DONT  
EDIT OR DELETE ABOVE THIS  
COMMENT

FWS/R4/ES-JAFL

Mr. George M. Strain  
Acting Chief, Planning Division  
US Army Corps of Engineers  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

ATTN: Mr. Bill Fonferek

Dear Mr. Strain:

In accordance with an FY 1998 funding agreement with the U.S. Army Corps of Engineers' Jacksonville District, the U.S. Fish and Wildlife Service is submitting the enclosed amended draft Fish and Wildlife Coordination Act Section 2(b) Report with reference to the Tampa Bay-Ybor Channel Turning Basin and the Tampa Harbor-Port Sutton Terminal Channel projects for your review. Included in the draft report is the required section 7 consultation pursuant to the Endangered Species Act. The figures referenced in the report have not been included in the draft, but will be in the final report.

We look forward to receiving your comments and finalizing the report. If you have a question about this report, please contact either Don Palmer at (904) 232-2580, ext. 115 or Bryan Pridgeon at (727) 570-5398, ext. 13.

Sincerely,

David L. Hankla  
Field Supervisor

Enclosure

cc with enclosure:

David Dale, NMFS, St. Petersburg  
Tom Olds, FWS, St. Petersburg  
M. Duncan/FDEP/BPSM  
J. Beever/GFC/Punta Gorda

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TAMPA HARBOR - YBOR CHANNEL TURNING BASIN AND THE TAMPA HARBOR -  
PORT SUTTON TERMINAL CHANNEL PROJECTS

U.S. Fish and Wildlife Service  
Fish and Wildlife Coordination Act Report

AMENDED DRAFT REPORT

Submitted to:  
Department of the Army  
U.S. Army Corps of Engineers  
Jacksonville District  
Planning Division, Environmental Branch  
Jacksonville, Florida

Submitted by:  
Department of the Interior  
U.S. Fish and Wildlife Service  
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### FISH AND WILDLIFE COORDINATION ACT SECTION 2(b), REPORT

#### INTRODUCTION

The U.S. Fish and Wildlife Service (Service) has reviewed project plans and other information related to the Tampa Harbor - Ybor Channel Turning Basin and the Tampa Harbor - Port Sutton Terminal Channel projects. Both are previously authorized projects undergoing limited re-evaluation by the U.S. Army Corps of Engineers (Corps). The Corps is also investigating whether there is a federal interest in extending the Port Sutton Terminal Channel from the currently authorized length of 3,700 feet to 6,000 feet.

This draft report documents the fish and wildlife resources of the proposed project area, the anticipated effects of the project on those resources, and recommends potential mitigative

measures. It has been prepared pursuant to a Fiscal-Year 1998 scope-of-work agreement between the Service and the Corps, and is provided in accordance with Section 2(b) of the Fish and Wildlife Coordination Act. Also incorporated in this report is the Service's biological opinion regarding the effects of the proposed project on federally listed species in the project area, pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

## PROJECT DESCRIPTION

Both projects are located in Hillsborough Bay, in northeast Tampa Bay (Figure 1). The Ybor Channel Turning Basin is the junction of three dredged channels; Sparkman, Garrison, and Ybor. The Port Sutton Channel connects to Cut C of the Tampa Harbor Channel about 2.5 miles southeast of the Ybor Channel Turning Basin.

Two of the channels that enter the Ybor Channel Turning Basin (Sparkman and Ybor) are currently authorized and periodically maintained. The Turning Basin is broadly triangular in shape and maintained at a depth of 34 feet. This project proposes to broaden the basin by dredging 200 feet of additional width on its southwest side, as authorized by the Rivers and Harbors Act of 1970. The Corps would dredge about 8 acres of bottom to 34 feet deep for the widening. They presently propose five sites for disposal of the dredged material; Hooker's Point, CMDA-2D (2D), CMDA-3D (3D), the Garrison Channel, and an open bay disposal site south of Davis Island. Four of the disposal sites are previously approved sites, three of which (Hooker's Point, 2D and 3D) receive material from multiple projects. The Hooker's Point site is at the southern end of the Hooker's Point peninsula that separates the Sparkman Channel from East Bay. Disposal areas 2D and 3D are large confined disposal cells in Hillsborough Bay adjacent to the Cut C segment of the Tampa Harbor channel. The Garrison Channel lies in a roughly northeast to southwest alignment between downtown Tampa and Harbour Island in Hillsborough Bay. Open bay disposal is proposed in a spoil disposal site that is about 0.3 miles south of Davis Island and 1.25 miles west of the Port Sutton Terminal Channel (27° 54' 06" N, 82° 26' 54" W).

Port Sutton is on the northeast side of Hillsborough Bay, about 2.5 miles southeast of the Ybor Channel Turning Basin. The Port Sutton Terminal Channel is currently about 4,000 feet long and 400 feet wide with authorized project dimensions of 3,700 feet long, 200 feet wide, and 43 feet deep down the centerline of the channel. The Corps has not constructed the deepening project of the existing channel, and current mid-channel depths range from 26 to 38 feet. The Corps is investigating constructing the authorized project and also extending the channel up to a total of 6,000 feet. If a 3,700-foot-long project is constructed the channel bottom footprint would cover about 17 acres. A 6,000-foot-long project would cover about 27.5 acres. Dredged material is proposed for disposal in either 2D or 3D.

## STUDY AREA DESCRIPTION AND FISH AND WILDLIFE RESOURCES

The study area includes the proposed dredge sites and disposal sites in upper Hillsborough Bay in northeast Tampa Bay. It is roughly bounded by the City of Tampa on the north, disposal site 3D on the south, the community of Palm River on the east and Harbour Island and Davis Island on the west.

## Dredge Sites

The Ybor Channel Turning Basin and the Port Sutton Terminal Channel are among the series of channels dredged by the Corps and local port authorities to allow large vessels to navigate Tampa Bay. Port of Tampa bulk and general cargo facilities, cruise ship terminals, and ship repair and construction facilities are served by the two projects under consideration.

The de-authorized Garrison Channel enters the Ybor Channel Turning Basin from the west, the Sparkman Channel enters from the south, and the Ybor Channel enters from the north. Vertical bulkheads form the northern shoreline of the Garrison Channel. Its southern shoreline is the north shore of Harbour Island, a largely man-made island of multi- and single family residences. A cove rimmed by Brazilian pepper (*Schinus terebinthifolius*), riprap, and wooden bulkheads, and containing a dilapidated boathouse forms the south shoreline of the Garrison Channel adjacent to the turning basin. The Beneficial Road bridge crosses the channel immediately west of the cove. A permit has been issued for constructing a vertical bulkhead from the bridge westward for the length of the channel not presently bulkheaded. Piers for mooring recreational boats will be constructed from the bulkhead.

The 34-foot-deep Sparkman Channel connects the turning basin and Cut D of the Tampa Bay entrance channel. Its eastern shore is largely hardened and continuously lined with port facilities. Harbour Island forms its western shore. An underwater shelf extends from the shore of the island. The shelf's width varies, widening to the north, becoming about 250 feet wide where the channel joins the turning basin. The southern two-thirds of the Harbour Island shore adjacent to the channel is steep and vegetated predominantly by Brazilian pepper. The northern one-third is a mitigation site for development on the island. It was reshaped and planted with black mangrove (*Avicennia germinans*) and smooth cordgrass (*Spartina alterniflora*).

Both sides of the 400 to 500-foot-wide, 34-foot-deep Ybor Channel are hardened and lined continuously with commercial enterprises. The Florida Aquarium is the only non-marine industry facility on the channel.

The large channel which contains the Port Sutton Terminal Channel is a dead end channel 400 feet wide and approximately 6,000 feet long. Its entry lies between Hooker's Point to the north and Pendola Point to the south. Berths approximately 40 feet deep align the channel's north side and a short section of its south side. On the south side, the berths are located at the extreme ends of the channel with a broad shelf between them that extends into the channel, sloping gradually for a width of 60 to 80 feet before dropping into the terminal channel. No berthing facilities are developed adjacent to the shelf.

Hillsborough Bay is considered the most impacted segment of Tampa Bay as manifested by water quality (Lewis and Estevez 1988, Squires and Cardinale 1996) and altered tidal flow and prism (Goodwin 1987). Squires and Cardinale (1996) reviewed data on salinity, Secchi disk depth, turbidity, dissolved oxygen concentration, total phosphorus, total nitrogen, and chlorophyll-*a* concentrations as water quality indicators. Secchi disk depth and turbidity are two measures of

water clarity, which is important for determining the depth of photosynthesis and allowing visually oriented organisms to find food and shelter. Dissolved oxygen is necessary for the vast majority of organisms to live and its concentration is one of the most important factors controlling the distribution of aquatic organisms; concentrations below four parts per million (ppm) are marginal for supporting aquatic life. Phosphorus and nitrogen are nutrients necessary for the survival and growth of aquatic plants, with their availability and relative concentrations affecting the types and quantities of plants in aquatic systems. Chlorophyll-*a* concentration is an indicator of phytoplankton productivity and serves as an indicator of nutrient loads and fluxes. Figures 2 - 4 show the results of the Squires and Cardinale review. Hillsborough Bay typically had shallower Secchi disk depths, lower dissolved oxygen concentrations, and greater turbidity, total phosphorus, total nitrogen, and chlorophyll-*a* concentrations than other segments of the bay, leading to their conclusion that Hillsborough Bay was the most impacted segment of the bay.

Upper Hillsborough Bay and the Ybor Channel were identified as among the most contaminated segments of Tampa Bay by Frithsen *et al.* (1995) in their synoptic report of Tampa Bay environmental contaminants. Concentrations of cadmium, lead and zinc that exceeded the state's Probable Effects Level were reported from individual samples in Hillsborough Bay. McConnell and Brink (1997) examined the sources of the contaminants of concern identified in Frithsen *et al.* (*Op. Cit.*) in the upper Hillsborough Bay watershed and identified the Ybor Channel as a priority sub-basin for point sources of copper and nickel and non-point sources of metals loading. Polynuclear aromatic hydrocarbons (PAH) were also identified in the Ybor Channel from both permitted stormwater outfalls and stormwater runoff. Long *et al.* (1995) examined sediment toxicity in Tampa Bay and reported it was most evident in upper Hillsborough Bay, including the Ybor Channel, East Bay and adjacent waterways of the harbor. It is evident that the area around the Port of Tampa, including the dredged channels, has a history of environmental contamination, is subject to continued contaminant loading, and tests have shown the contaminants may have a toxic effect on aquatic organisms.

Hillsborough Bay is heavily industrialized, channelized, has a higher sediment silt content, is considered more polluted, and has lower water quality than other segments of Tampa Bay (Lewis and Estevez 1988, Coastal Environmental 1994, Carr *et al.* 1996, Karlen 1996), all of which contribute to its limited diversity of benthic habitats and organisms. Benthic organisms are those that live in or in contact with aquatic substrates and their distribution and abundance are largely determined by water quality and sediment composition (Lewis and Estevez 1988). Information detailed in their synoptic report relates that Hillsborough Bay is one of the few segments of Tampa Bay not supporting a great diversity and abundance of benthic organisms. Karlen (1996) also reported that the fewest species of benthos (200 species, range 200 - 368), and the lowest diversity value (2.33, range 2.33 - 3.47) from benthic samples taken in Tampa Bay in September 1993 came from Hillsborough Bay.

American oysters (*Crassostrea virginica*) are one of the most visible and well studied species of estuarine benthic organisms. They have not been extensively studied in Tampa Bay, although their commercial harvest in Tampa Bay was second only to the harvest from Apalachicola Bay through the 19<sup>th</sup> century (Lewis and Estevez 1988). The Tampa Bay industry was gone by 1970. Oyster beds are important components of estuarine systems not only for their commercial value

but also their functional value. Oysters filter and clean the water passing across them and build reefs that provide habitat for many other organisms. Bahr and Lanier (1981) reported that up to 50m<sup>2</sup> of shell surface was available for epifauna for each square meter of oyster reef surface and found 42 species of invertebrates associated with the reef. Although they reported on a reef community in Georgia, most of the species noted are also present in Tampa Bay and it is reasonable to expect that they are associated with Tampa Bay oyster reefs also. Several oyster beds are known to exist on the shelf proposed for dredging to expand the Ybor Channel Turning Basin. A survey conducted by the Corps (unpublished) confirmed the location and area of eight oyster beds on the shelf, seven of which will be removed by the dredging project. The total area of the beds is just over 1,120 square feet, with the largest covering about 706 square feet.

Estuaries are known for the diversity of fish that reside in them. Some species remain in the bays for their entire life cycle, while others spend only specific stages in the estuary. Either life history type demonstrates the necessity of estuarine conditions for the existence of the species. Over 200 species of fish have been collected from Tampa Bay and adjacent beaches (Comp 1985). Of those, about 125 species can be considered to commonly inhabit the bay. Table 1 lists some fish species that may be found at the project sites.

Despite the lack of any natural habitat adjacent to the dredge sites, birds use the area for foraging and loafing. Birds observed by a Fish and Wildlife Service biologist on August 5, 1998 include; brown pelican (*Pelecanus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), black-crowned night-heron (*Nycticorax nycticorax*), little blue heron (*Egretta caerulea*), great egret (*Casmerodius albus*), great blue heron (*Ardea herodias*), American oystercatcher (*Haematopus palliatus*), spotted sandpiper (*Actitis macularia*), laughing gull (*Larus atricilla*), ring-billed gull (*Larus delawarensis*), Forster's tern (*Sterna forsteri*), and osprey (*Pandion haliaetus*).

#### Disposal Sites

Disposal sites 2D and 3D are confined disposal sites belonging to the Tampa Port Authority that encompass about 1,100 acres. They lie to the east of the Tampa Harbor channel about 1.25 and 4.5 miles, respectively, south of the Port Sutton entry. Both sites are manmade islands, rimmed with containment dikes that have discharge weirs in place. Disposal island 2D is the larger of the two at about 650 acres, with 3D being about 450 acres.

The Hooker's Point disposal site is a Tampa Port Authority open water disposal site at the southern end of Hooker's Point that is being filled under a permit that expires in 1999. When filled it will create an upland site for the port.

Bird use of the dredge sites and the above-mentioned disposal sites is very different. The dredge sites are in highly industrialized locations, with little shallow shoreline and minimal non-industrialized habitat. Although the dredged disposal sites are manmade islands they are isolated from most mainland disturbances, such as traffic, mammalian predation and human disturbance. They also offer sandy unvegetated and grassy locations preferred as nesting sites for many

colonial nesting waterbirds. In the "State of Tampa Bay 1994" (Tampa Bay Regional Planning Council 1995) the National Audubon Society reported that over 6,200 pairs of breeding waterbirds were present on the two disposal islands in 1994.

The Garrison Channel was deauthorized as a Federal channel after the Harbor Boulevard and Beneficial Boulevard bridges were constructed to connect Harbour Island with the mainland. Seawalls line the full length of its northern shoreline. They line about one half of its southern shoreline, with construction underway to complete the lining of the southern shore. With no maintenance, the channel has silted in to about 20 feet deep toward its east end, 10 feet shallower than its previous authorized depth. Channel depth increases toward the west with a maximum depth of about 27 feet (tide approximately +1.5 feet) near the Harbor Boulevard Bridge. The Corps is proposing to use the channel for the disposal of dredged material; although they would continue a commitment to dredge the channel if it fills to a depth of less than 10 feet.

About 146 acres are included in the footprint of the open bay disposal site south of Davis Island. It is situated on a large flat that ends at the 43-foot-deep Cut-C and Cut-D Channels to its east. The flat ranges from about 9 to 14 feet deep and is considered to consist of fine sediments (Coastal Environmental, Inc. 1994). Navigation chart 11413 (Tampa Bay, Northern Part) shows an island within the proposed disposal site. It has eroded and is no longer emergent. The minimum depth over the site was 3.5 feet on May 21, 1999 when the tide elevation was about +1.5 feet.

#### DISCUSSION OF PROJECT-RELATED ENVIRONMENTAL EFFECTS AND MITIGATIVE MEASURES

Both of the projects addressed in this report are located in Hillsborough Bay, the most industrialized, channelized and polluted segment of Tampa Bay. Although fish and wildlife resources associated with the proposed dredging sites are limited when compared to those of most areas in Tampa Bay efforts should be made to eliminate or minimize impacts to them.

The removal of benthic communities, long term changes to water quality resulting from changing relatively shallow habitats to deep water habitats, and the requirement for periodic maintenance dredging will be unavoidable impacts of the dredging projects. Sediment composition and dissolved oxygen concentrations, both of which will be permanently changed by the projects, largely determine benthic community structure and function. One would expect their change to lead to a different benthic community than that presently existing. The community that does establish will be subject to regular removal from maintenance dredging projects.

The most obvious change to the benthic community will be the oyster beds lost to widening the Ybor Channel Turning Basin. They should be relocated to suitable locations rather than dredged and disposed.

The immediate loss of the benthic community in the dredging footprint and the lost community functions during recovery could be mitigated through oyster bed creation. The combined footprint of the two dredging projects is about 25 acres if the Corps dredges a 3,700-foot-long

Port Sutton Terminal Channel and about 35 acres if the Terminal Channel is 6,000 feet long. Using Bahr and Lanier's (1981) information that oyster reefs provide 50 times the surface area that bare bottoms do, oyster bed creation of 0.5 to 0.7 acres would mitigate the impacts of the dredging at a 1:1 ratio. Upper Hillsborough Bay near the Delaney Creek Pop-off or adjacent to disposal sites 2D or 3D could be appropriate locations for creating oyster beds.

No quantifiable adverse effects are expected to fishery species from direct contact with the dredge. However, there is the potential for the resuspension of environmental contaminants that can have negative effects on both mobile and sessile aquatic organisms, as evidenced by Long *et al.* (1995). Results of an elutriate study performed for the Corps, reported in the "Environmental Impact Statement, Port Sutton Channel, Hillsborough County, Florida" (U.S. Army Corps of Engineers 1986) showed no chemicals of concern would exceed State standards. However, elutriate tests are designed to predict the level of contaminants that would be expected in the water leaving the disposal site, and do not accurately predict the level of contaminants resuspended in the water column at the dredging site. No bulk chemistry, bioassay or bioaccumulation tests were reported. Given the time since those samples were collected for analysis (May 11, 1985) and the results reported by Long *et al.* (1995), bulk chemical analyses, bioassay and bioaccumulation tests should be performed on sediments from the proposed dredging sites. If evidence of environmental contamination is found efforts must be made to prevent their spread from the dredge site and they must be disposed of appropriately.

Dredged material disposal is projected for Hooker's Point or disposal islands 2D or 3D. Hooker's Point offers poor fish and wildlife habitat. It is regularly disturbed by crews distributing newly received fill material and is in an industrial setting where domestic cats and dogs are expected. No negative impacts beyond those already mitigated are anticipated from placing fill at Hooker's Point if the materials are contained within the permitted site.

The two disposal islands (2D and 3D) are noted as nesting sites for colonial waterbirds. The Corps recognized this in their environmental assessment for maintenance dredging of the Tampa Harbor and Hillsborough Bay Channels (U.S. Army Corps of Engineers 1989), and committed to conducting maintenance dredging between September 1 and May 1 to avoid adverse impacts to nesting birds on the two disposal islands. The Corps later published the "Final Migratory Bird Protection Policy" (Policy) (U.S. Army Corps of Engineers 1994) that recognized April 1 as the beginning of the nesting season in Florida, but also allowed more flexibility for completing projects that stretched into the nesting season. The policy should be implemented for this project, recognizing that the policy's first priority, avoidance of work in the nesting season, is also the Service's preferred method for protecting nesting birds on the islands.

Hillsborough Bay's average depth has increased, flushing rates have decreased and circulation has been modified from pre-development conditions (Goodwin 1987). Both the Garrison Channel and the open bay disposal site would cause additional changes that should be evaluated with regard to water quality parameters that affect biological resources, particularly dissolved oxygen.

The Garrison Channel is a dredged channel with hardened vertical shorelines connecting two other similar channels. Circulation is limited by the channel's location in the upper reaches of

Tampa Bay where tidal influence is attenuated by distance from the mouth of the bay (Goodwin 1987), by its alignment and by its narrow configuration which limit wind driven circulation. Given the physical constraints on circulation and the inverse relationship between dissolved oxygen concentration and water depth in Hillsborough Bay, bottom water quality is likely to be stressful for biota in the Garrison Channel.

Adding dredged material to raise the bottom elevation could improve water quality in the channel. However, it may do so at the expense of further reducing circulation between the Hillsborough River and Seddon Channel and the Ybor Turning Basin. The Garrison Channel's depth of 20 feet is 5-6 feet shallower than the Seddon Channel and 18-19 feet shallower than the Ybor Turning Basin, so it may already act as a sill, restricting circulation between the two channels. Raising its bottom elevation even more will increase the effects presently experienced. The potential results on water quality of reducing circulation through the dredged channels should be examined before the bottom elevation of the Garrison Channel is raised. A cursory analysis of this disposal option was included in the "Environmental Impact Statement, Port Sutton Channel, Hillsborough County, Florida (U.S. Army Corps of Engineers 1986).

Open bay disposal of dredged material has been one of the leading causes of habitat loss in Tampa Bay. Since the early 1900's an estimated 13,161 acres have been filled for transportation corridors, commercial and residential developments and as disposal sites for small dredge projects, with the overwhelming majority (about 12,000 acres) occurring in shallow waters that previously supported seagrass meadows (Coastal Environmental, Inc. 1994). Most of the area directly impacted by commercial navigation projects (about 14,380 acres) has been in deep water, and not resulting in the direct loss of seagrass habitats. Overall dredge and fill activities have changed the structure of over 27,541 acres (about 43 square miles) of the Tampa Bay system. The disposal site proposed for use south of Davis Island is an existing disposal site and its area is included in the referenced figures.

Open bay disposal of dredged material has an immediate and direct impact on benthic organisms, water quality and circulation patterns. There is a short term loss of benthic productivity when dredged material is disposed on an open bay bottom. The rate of recolonization and post project community structure depend largely on the existing community structure and on the thickness and type of spoil disposed (Stickney 1984). If the sediment type is not changed, the post project benthic community will likely approximate the existing community. The rate of recovery will depend on the project location and sediment type. Water quality impacts can be both short- and long-term in estuaries. Short-term impacts vary among locations with the sediment type determining the degree of the impact. Organic, fine-grained sediments cause a greater increase in biochemical oxygen demand than mineral sediments. Long-term water quality changes result from changes in bottom depth and changes in circulation patterns.

Beneficial use projects for the dredged materials should be sought if there are no sediment contaminants issues. The Palm River and two dredged holes near Whiskey Stump and Green Keys are potential beneficial use project sites. HDR Engineering (1994) recommended decreasing the Palm River's depth and removing high spots that are accreting to improve circulation and dissolved oxygen concentrations near the bottom. There is a hole upstream of the

Highway 41 bridge that is about 21 feet deep with a 12-foot-deep sill beneath the bridge. Filling or partially filling the hole to at least match the upstream bottom depth would begin addressing the widely recognized problem of aquatic habitat degradation in the Palm River.

Filling part or all of the dredged holes near Whiskey Stump and Green Keys are potential beneficial use projects that would require additional study of their importance to local and estuary-wide aquatic resources before the projects could occur. Although the holes are dredged holes and offer markedly different habitats than those present before they were dug, there is anecdotal evidence of their fisheries productivity and function as cold weather refugia. Filling the holes would address the priority objective of the “The Comprehensive Conservation and Management Plan for Tampa Bay” (Tampa Bay National Estuary Program 1996) to restore seagrass beds. However, that objective should be achieved at sites with habitats less productive and diverse than that of the seagrass beds that will replace them. It is uncertain whether the dredged holes would meet this criteria.

#### SUMMARY OF FISH AND WILDLIFE COORDINATION ACT COMMENTS

The Ybor Channel Turning Basin and Port Sutton Terminal Channel projects are situated in the most industrialized, modified segment of Tampa Bay and are adjacent to existing dredged deep water channels. In spite of the altered, stressful environmental conditions of the project sites there are fish and wildlife resources that require consideration. In order to minimize project-related adverse impacts to fish and wildlife resources the Service provides the following recommendations:

- o avoid dredging-related impacts to the existing mitigation site on northeast side of Harbour Island;
- o salvage existing oyster beds on the shelf extending from Harbour Island for relocation;
- o conduct bulk chemical analyses, bioassay and bioaccumulation tests with sediments from dredge sites;
- o if contaminants are found in dredge site sediments, take measures to prevent their dispersal during dredging and spoil disposal operations;
- o monitor pipelines to prevent accidental spills;
- o create 0.5 to 0.7 acres of oyster bed to mitigate the dredging of 25 to 35 acres of relatively shallow bay bottom;
- o implement the “Final Migratory Bird Protection Policy” to protect nesting birds on 2D and 3D;
- o evaluate changes to hydrology and water quality from Garrison Channel and open bay disposal options; and,

- o seek beneficial use projects, such as described above, for use of dredged material.

## **ENDANGERED SPECIES ACT SECTION 7 CONSULTATION**

### **CONSULTATION HISTORY**

The Corps requested a Coordination Act Report and formal section 7 consultation from the Service. A scope of work was received on May 11, 1998, and formal consultation was initiated on that date. This biological opinion is based on information provided in the May 8, 1998 public notice, field inspections, Service data, and other sources of information. A complete administrative record of this consultation is on file at the Service's Jacksonville Field Office.

### **BIOLOGICAL OPINION**

#### Description of Proposed Action

The applicant proposes to widen and deepen the existing Ybor turning basin and Port Sutton Navigation Channel at Tampa Harbor, Tampa, Hillsborough County, Florida. The existing turning basin is maintained to a depth of 34 feet. The authorized project will widen the basin an additional 200 feet on the southwest side. The existing Port Sutton channel is also maintained to a depth of 34 feet. Design parameters are for depths of minus 43 feet, and a width of 200 feet. Additional extension of the Pt. Sutton channel to a length of 6,000 feet long is also under consideration.

The purpose of the project is to improve vessel maneuvering and access capabilities in the immediate area. Dredged material placement areas under consideration for use include Hooker's Point, CMDA-2D, and CMDA-3D, the Garrison Channel and open bay disposal south of Davis Island. A hydraulic dredge is proposed to be used; however, difficulty in transporting slurry material to the Hooker's Point disposal area is anticipated, and may require use of a clamshell dredge in areas.

#### Status of the Species

The Federal government has recognized the threats to the continued existence of the manatee for almost 30 years. The West Indian manatee was first listed as an endangered species in 1967 under the Endangered Species Preservation Act of 1966 (16 U.S.C. 668aa(c)) (32 FR 48:4001). The Endangered Species Conservation Act of 1969 (16 U.S.C. 668aa(c)) continued to recognize the West Indian manatee as endangered (35 FR 16047). The West Indian manatee was listed as an endangered species pursuant to the Endangered Species Act in 1973, as amended. Critical habitat was designated for the manatee in 1976.

The Florida manatee is a native marine mammal that is mostly restricted to coastal waters of Florida and Georgia. Manatees are commonly found in bays, inlets, and rivers occurring in fresh,

brackish, and salt water environments. They are herbivorous and prefer to feed on submerged aquatic vegetation (SAV). Manatees are attracted to freshwater and commonly seen drinking from hoses at marinas and other freshwater discharges.

The only year-round populations of manatees in the United States occur throughout the coastal and inland waterways of peninsular Florida and a small group that overwinters in extreme southeast Georgia. Based on information from the Florida Department of Environmental Protection's Florida Marine Research Institute (FMRI) synoptic aerial survey program, biologists believe that there are at least 2,600 manatees in Florida's coastal waters. Based on this and other sources of information, it has been suggested that the manatee population was slowly increasing throughout its range. Eberhardt and O'Shea (1995) calculated an annual population growth rate of 7 percent at Crystal River, Citrus County, Florida. Garrott et al.'s (1994) analysis of trends at winter aggregation sites suggest a mean annual increase of 7-12 percent in adjusted counts at sites on the east coast from 1978 - 1992. Because of the epizootic and record mortalities attributable to other causes, manatees suffered a serious setback in 1996. It will take a number of years for the population to return to pre-epizootic levels (Ackerman 1997).

Recovery goals for the Florida manatee include restoring the population to optimum sustainable levels and to maintain them at those levels. Levels can be achieved by controlling mortality factors and by making sure critical habitats are secure and threats are controlled or decreased (USFWS 1995).

#### Environmental Baseline

##### Action Area

Because there are two project sites, each will be addressed separately in this biological opinion. The action area for both sites is defined as the immediate areas of dredging for the Ybor basin and Port Sutton.

##### Status of Species in Action Area

The Florida Marine Research Institute (FMRI 1998) documents manatees in Tampa Harbor (Ybor basin area) and Port Sutton Channel year round. In the Ybor basin vicinity, the majority of animals use the channels as travel routes to the Hillsborough River to access forage and fresh water. In Ybor basin exclusively, our information indicates little manatee use, those being primarily traveling manatees.

The other project site is at Port Sutton, approximately 2 miles south of Ybor basin, where a power plant discharge point provides warm water refugia to a small number (2 -17) of manatees in the winter months. Information from the FMRI indicates the number of animals using the discharge area has slightly increased over the years, but consistently averages 2 animals present for every winter aerial survey taken December through February. A maximum of eight animals have been observed at one time in the canal, with a maximum of seventeen for a winter survey period (M. Duncan pers. comm. 1998). Additional manatee activity appears to be concentrated at the

entrance to Port Sutton (west of the canal), with a few sightings east of the canal. Because the power plant operates only intermittently (on days of high electrical demand in colder months), its discharge is not a dependable refuge to manatees.

Manatee mortality records from 1974-1997 indicate seven deaths have occurred in the Ybor basin/Port Sutton area. Two have occurred in the vicinity of Ybor basin, one due to watercraft, and one undetermined. Five have occurred in the Port Sutton Channel, all during December, January, and March. Causes are documented as two by watercraft, one perinatal, one from natural cold, and one undetermined.

#### Effects of the Proposed Action

Causes of manatee mortality include collision with large and small boats, crushing by barges and man-made water control structures and navigation locks, entanglement in nets and lines, entrapment in culverts, poaching, and entanglement in and ingestion of marine debris (e.g., monofilament). A review of manatee mortality from 1974 to the present clearly indicates that watercraft collisions with manatees are a major factor affecting manatee populations in Florida. During this period, watercraft-related mortalities have accounted for 25 percent of all known manatee deaths. An analysis of watercraft related mortalities indicates that small to medium-sized boats are responsible for the majority of all deaths. The number of these implicated mortalities is increasing through time (Wright *et al.* 1995).

Watercraft related mortalities are the result of three types of trauma. These include collisions (or impact), in which a manatee is struck by the hull of a fast-moving boat, a combination of collision and propeller injuries in which a manatee is struck by the hull and is cut by the propeller of a watercraft, and trauma associated solely with propellers.

Our concern involves the safety of manatees while in the power plant channel, and while traversing the main channel of Port Sutton. The numerous barges, tugs, and support boats associated with clamshell dredging operations increase the risk of watercraft related injury to manatees in the action area. The exercise of appropriate caution on the part of personnel operating these vessels is essential to reduce the threat of collisions with manatees.

There is also some possibility that the actual clamshell head could injure a manatee while in use. Although the standard manatee precautions require all operations to cease when a manatee is observed within 50 feet of the dredge site, impact potential remains due to reduced visibility (turbidity), and the increased number of manatees in the area. The use of a hydraulic dredge may be preferable as they operate without a bucket and generally cause less turbidity, thereby improving visibility and the observation abilities of the manatee observer. However, it is our view that the potential for striking a manatee with the dredge bucket is remote.

#### Cumulative Effects

Cumulative effects include the effects of future State, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions

that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act.

The cumulative effect of actions that will increase the likelihood of manatees being struck by boats include those actions that will increase the number of power boats operating within the action area. We are unaware of any other proposed private or state projects in the immediate vicinity.

## CONCLUSION

After reviewing the current status of the Florida manatee, the environmental baseline for the action area, the effects of the proposed maintenance dredge, and the cumulative effects, it is the Service's biological opinion that the proposed projects at the Ybor basin and the Port Sutton Channel are not likely to jeopardize the continued existence of the Florida manatee, or result in the adverse modification of designated critical habitat.

## INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of the Act, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or to attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. "Harm" and "harass" are further defined in Service regulations (50 CFR 17.3). "Harm" is defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. "Harass" is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding or sheltering. Incidental take is any take of listed animal species that results from, but is not the purpose of carrying out an otherwise lawful activity conducted by the Federal agency or the applicant. Under the terms of Section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The Service does not anticipate that the proposed action will incidentally take any manatees. In the accompanying biological opinion, the Service determined that this action is not likely to result in jeopardy to the species. If death or injury to a manatee occurs, the event must stop and the incident must be reported immediately to the Florida Marine Patrol at 1-800-DIAL-FMP and to the Service at (904) 232-2580. In the St.Petersburg area, the Florida Marine Patrol may be contacted directly for assistance at (813) 272-2516.

## CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purpose of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to

minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation measures.

To minimize potential impacts to the manatee, the Service makes the following recommendations:

- o The standard manatee conditions be implemented at both project sites.
- o A hydraulic dredge be used for all dredging in the Port Sutton Channel based on the presence of manatees at the discharge canal during winter months.
- o If a clamshell dredge is used, a no-dredge window from January 1-February 1 be implemented at the Port Sutton site and surrounding channel waters to adequately protect wintering manatees.
- o If a clamshell dredge is used, no night dredging should occur in the Port Sutton channel from November 15-March 1 due to decreased visibility and observation capabilities. Tasks requiring small watercraft or barge movement should be conducted during daylight hours only, or such vessels should be outfitted with propeller guards.
- o If a clamshell dredge is used, a designated observer should be used in areas around the discharge canal.

#### REINITIATION OF SECTION 7 CONSULTATION

This concludes formal consultation on the actions outlined in the request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required when discretionary Federal agency involvement or control over the action has been retained and if: (1) new information reveals effects of the agency action that may effect listed species or critical habitat in a manner or to an extent not considered in this biological opinion, (2) the Corps' action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this biological opinion, or (3) a new species is listed or critical habitat designated that may be effected by the action. Please call Bryan Pridgeon at (727) 570-5398 should you require additional assistance.

#### REFERENCES

Ackerman, B.B., S.D. Wright, R.K. Bonde, D.K. O'Dell, and D.J. Banowetz. 1995. Trends and patterns in mortality of manatees in Florida, 1974-1992. Pages 223-258 *in* T.J. O'Shea, B.B. Ackerman, and H.F. Percival, editors. Population Biology of the Florida Manatee. National Biological Service Information and Technology Report 1.

- Ackerman, B.B. 1997. FDEP Press Release. St. Petersburg Times. St. Petersburg, Florida.
- Bahr, L. and W. Lanier. 1981. Ecology of the intertidal oyster reefs of the South Atlantic Coast: a community profile. U.S. Fish and Wildlife Service, FWS/OBS-81/15. Washington, DC.
- Carr, S., E. Long, H. Windom, D. Chapman, G. Thursby, G. Sloan, and D. Wolfe. 1996. Sediment quality assessment studies of Tampa Bay, Florida. *Environmental Toxicology and Chemistry* 15:1218-1231.
- Coastal Environmental. 1994. Physical impacts to Tampa Bay. Tampa Bay National Estuary Program, Technical Publication #03-93. St. Petersburg, Florida.
- Comp, G. 1985. A survey of the distribution and migration of the fishes in Tampa Bay. Pages 393-425 in S. Treat, J. Simon, R. Lewis and R. Whitman, Jr., editors. *Proceedings: Tampa Bay area scientific information symposium (May 1982)*. Tampa BASIS, Tampa, Florida.
- Duncan, Mary. 1998. Florida Department of Environmental Protection, Bureau of Protected Species Management. Personal communication Re: Port Sutton manatee telemetry.
- Eberhardt, L.L. and T.J. O'Shea. 1995. Integration of manatee life history data and population modeling. Pages 269-279 in T.J. O'Shea, B.B. Ackerman, and H.F. Percival, editors. *Population Biology of the Florida Manatee*. National Biological Service Information and Technology Report 1.
- Florida Department of Environmental Protection, Bureau of Protected Species Management. 1998. Telemetry information map from GIS department. Tallahassee, Florida.
- Frithsen, J., S. Schreiner, D. Strebel, R. Laljani, D. Logan and H. Zarbock. 1995. Chemical contaminants in the Tampa Bay estuary: a summary of distributions and inputs. Tampa Bay National Estuary Program, Technical Publication #01-95. St. Petersburg, Florida.
- Garrott, R.A., B.B. Ackerman, J.R. Cary, D.M. Heisey, J.E. Reynolds, III, R.M. Rose, and J.R. Walkaways. 1994. Trends in counts of Florida manatees at winter aggregation sites. *Journal of Wildlife Management*. 58:642-654.
- Goodwin, C. 1987. Tidal-flow, circulation, and flushing changes caused by dredge and fill in Tampa Bay, Florida. U.S. Geological Survey, Water Supply Paper 2282. Denver, Colorado.
- HDR Engineering, Inc. 1994. Environmental assessment of the Palm River, Tampa/Hillsborough County, Florida. Palm River Management Committee, St. Petersburg, Florida.
- Karlen, D. 1996. Benthic quality. Pages 8-1 to 8-5 in A. Squires, A. Janicki and H. Greening, editors. *Tampa Bay environmental monitoring report, 1992-1993*. Tampa Bay National Estuary Program, Technical Publication #15-96. St. Petersburg, Florida.

- Lewis, R. and E. Estevez. 1988. The ecology of Tampa Bay, Florida: an estuarine profile. U.S. Fish and Wildlife Service, Biological Report 85(7.18). Washington, DC.
- Long, E., S. Carr, G. Thursby, and D. Wolfe. 1995. Sediment toxicity in Tampa Bay: incidence, severity, and spatial distribution. *Florida Scientist* 58:163-178.
- McConnell, R. and T. Brink. 1997. Toxic contamination sources assessment: sources of sediment contaminants of concern and recommendations for prioritization of Hillsborough and Boca Ciega sub-basins. Tampa Bay National Estuary Program, Technical Publication #03-97. St. Petersburg, Florida.
- Morton, J. 1977. Ecological effects of dredging and dredge spoil disposal: a literature review. U.S. Fish and Wildlife Service, Technical Paper 94. Washington, DC.
- Squires, A. and T. Cardinale. 1996. Water quality. Pages 5-1 to 5-13 in A. Squires, A. Janicki and H. Greening, editors. Tampa Bay environmental monitoring report, 1992-1993. Tampa Bay National Estuary Program Technical Publication #15-96. St. Petersburg, Florida.
- Stickney, R. 1984. Estuarine ecology of the southeastern United States and Gulf of Mexico. Texas A&M University Press, College Station, Texas.
- Tampa Bay Regional Planning Council. 1995. State of Tampa Bay 1994. Tampa Bay Regional Planning Council, St. Petersburg, Florida.
- Tampa Bay National Estuary Program. 1996. Charting the course: the comprehensive conservation and management plan for Tampa Bay. Tampa Bay National Estuary Program. St. Petersburg, Florida.
- U.S. Army Corps of Engineers. 1986. Final environmental impact statement: Port Sutton Channel, Hillsborough County, Florida. U.S. Army Corps of Engineers, Jacksonville District Office, Jacksonville, Florida.
- U.S. Army Corps of Engineers. 1989. Tampa harbor, Hillsborough Bay Channels in the vicinity of Tampa, Hillsborough County, Florida: environmental assessment; maintenance dredging and disposal operations. U.S. Army Corps of Engineers, Jacksonville District Office, Jacksonville, Florida.
- U.S. Army Corps of Engineers. 1994. Final migratory bird protection policy. U.S. Army Corps of Engineers, Jacksonville District Office, Jacksonville, Florida.
- U.S. Fish and Wildlife Service. 1996. Florida Manatee Recovery Plan Second Revision. USFWS, Atlanta, Georgia. 160 pp.

Wright, S.D., B.B. Ackerman, R.K. Bonde, C.A. Beck, and D.J. Banowetz. 1995. Analysis of watercraft-related mortalities in Florida, 1979-1991. Pages 259-268 *in* T.J. O'Shea, B.B. Ackerman, and H.F. Percival, editors. Population Biology of the Florida Manatee. National Biological Service Information and Technology Report 1.

## MARINE WILDLIFE SAFETY PLAN

The Marine Wildlife Safety Plan has been prepared to ensure the protection of those species large enough to be located visually within the zone of influence where blasting activities will be taking place.

Historical data from blasting underwater-buried charges is very limited. Some of the important characteristic and parameters to be considered are as follows:

- Substrata Characteristics
- The amount and type of stemming
- Decking and/or delaying
- type of Explosives Used
- Blast Pattern and Geometry
- Geology

Note: The density, strength, and variety of the geology has a significant impact on energy attenuation and the path of pressure wave being transmitted. A number of pre-blast procedures will be employed to provide the maximum level of protection for Marine Mammal Wildlife.

The danger zone radius in feet from the blast can be determined by using the Safety Formula from the U.S. Navy Dive Manual for an uncontrolled blast suspended in the water column. This formula is extremely conservative since the charge(s) to be used for Atlantic Dry Dock are confined within the rock which is the most effective way of reducing both the pressure and impulse of a water shock wave. In addition, the borehole will be stemmed at the collar to further contain the pressures.

The danger zone radius in feet is determined by the following formula:

Safety Formula  $R = 260(W)^{1/3}$

R = Radius

W = Weight of Explosive in pounds per delay

The anticipated maximum pounds per delay for the Atlantic Dry Dock Facility is approximately 70.8 lbs.

$R = 260 (70.8)^{1/3}$

$R = 260 (4.12)$

R = 1073 ft.

To ensure the maximum protection for manatees, the Safety Zone radius is set by the direction of the Florida Department of Environmental Protection at 3422 ft.

**MANATEE, MARINE MAMMAL, AND SEA TURTLE  
SURVEY WATCH PLAN**

The plan is intended to minimize the impact on large marine wildlife of the explosive pretreatment of sub-aquiferous rock during the construction of a floating dry dock facility. This Plan addresses the concerns of relating to the potential impacts of the activities to manatees, other marine mammals and sea turtles. This plan is intended for use during the non-migratory season for manatees in north Florida, December 1 through February 28. Changes to this plan will require written concurrence by the U.S. Fish & Wildlife Service.

1. No less than thirty (30) days prior to the first detonation event, the following information will be provided to the U.S. Fish and Wildlife Service (USFWS) for review and approval:

- (a) Proposed observer list with individuals' qualifications/experience.
- (b) Detailed survey procedures and aerial survey route with map.
- (c) Detonation schedule.
- (d) Communications plan and procedures.
- (e) Sample log sheets.

2. A formal Plan Coordination Meeting will be held no later than three days before the first detonation event to review the above listed items, to discuss the responsibilities of all parties, and to review and approve the schedule of events. Attendees will include the US Army Corps of Engineers, Area Engineer, the Dredging contractors representative, the entire Marine Wildlife Safety Observer team, the Blasting Consultant (CDB), the U.S. Fish & Wildlife Service (USFWS), the Florida Department of Environmental Protection (FDEP), the U.S. Coast Guard (USCG), and other interested parties such as the Florida Marine Patrol. The agenda will be coordinated by Corps with CDB, the USFWS, and the FDEP. It will include the latest information about the possible presence of manatee, other marine mammals, and sea turtles during

the operation, the logistics of the detonation schedule, the communications plan and the responsibilities of all parties involved.

3. The Marine Wildlife Safety Observer team will consist of five members. A Chief Observer, who will be the aerial observer in a helicopter, and four stationary ground or waterborne observers. The Manatee observers will have no other duties. The Chief Observer will have prior survey experience. Inexperienced observers will be trained in methods of surveillance, and this training will be documented. Training records will be kept until the completion of the operations covered by this plan.

4. Observers shall follow the protocol established for the Plan and shall conduct the survey in good faith and to the best of their ability. Detonation events will be conducted during daylight, on or about slack tide (high or low water) to maximize the ability to observe manatees, other marine mammals and sea turtles. Weather conditions such as high winds, precipitation, fog and any other situation in which any one of the observers cannot conduct an effective search will be taken into account. The Chief Observer will make the determination as to whether acceptable observation conditions exist to allow the survey to be initiated before the detonation event.

5. The perimeter of the safety zone will be marked with brightly colored buoys, and a 1000 ft. radius perimeter will be marked with white buoys for aerial reference. The ground observers will be positioned to maximize observations of the Safety Zone, with at least two observers at the 3400 ft. radius. The observer locations will be submitted for approval to the FDEP prior to the Plan Coordination Meeting.

6. The aerial survey of the safety zone will be conducted by helicopter beginning one hour prior to each detonation event and will continue for 30 minutes following each detonation event.

7. The aerial safety survey plan will be submitted prior to the Plan Coordination Meeting. It will generally include surveillance within a 1.5 mile-radius (upstream and downstream) of the project site for one hour prior to the detonation event with emphasis on the safety zone. During the final 30 minutes before each detonation, the Chief Observer will concentrate on the area within the 3400 ft.

radius. At the 15 minute notice to blast, aerial concentration will be within the 1500 ft. radius. The aerial survey plan must comply with all FAA and military air restrictions. The brightly colored buoys marking the perimeter of the safety zone must be clearly visible from the air.

8. All observers will be equipped with a two-way radio that will be dedicated exclusively to the Safety Watch. The Chief Observer will be equipped with a both a two-way radio and a marine band radio to ensure back-up communication. Observers will be equipped with polarized sunglasses, binoculars, and a sighting log with a map to record sightings in the Safety Zone. Each observer will also have two brightly colored flags, one to indicate all clear and a second color for mammals present. These flags will be used in the event of loss of radio contact.

9. The Marine Wildlife Safety Observer team will be in close communication with the Blaster in Charge in order to halt the detonation in the event that a manatee, marine mammal or sea turtle is spotted within, or approaching the Safety Zone around the blast site. The blasting countdown will be immediately halted by the chief observer upon the request of any of the observers. The blast countdown will not resume until the animal moves away from the area of its own volition. Manatees, other marine mammals and sea turtles must not be herded away or harassed into leaving. If the animal is not sighted a second time, the event will not resume until 30 minutes after the sighting.

10. All communications will be in accordance with the approved communications plan. Radio checks will be periodic to ensure that communications links are maintained. At the 5 and 1-minute to Blast an All Clear must be received from all observers in order for the countdown to continue.

11. After detonation, the Chief Observer shall continue to survey the Safety Zone for 30 minutes before departing. If an injured or dead manatee, or other marine mammal, or sea turtle is sighted after the detonation event, the observers will contact the FDEP through the Manatee Hotline 1-800-DIAL-FMP (342-5367) and the Florida Marine Research Institute NE Field Station (904-448-4300 Ext. 229).

12. Any problems encountered during blasting events shall be evaluated by the observers and contractors and logistical solutions shall be presented to the USFWS and DNR. Corrections to the WP shall be made prior to the next blasting event.

13. If an injured or dead manatee, marine mammal or sea turtle is rescued/recovered within the Safety Zone during the detonation period, operations shall be ceased until the Florida DEP or USFWS determines that the cause of injuries or mortality was not likely a result of the detonation event. If injuries are documented to be caused by detonation events occurring at the project site, all detonation events will cease until a review of the circumstances are completed and the Florida DEP and USFWS authorizes operations to resume.

14. Within two weeks after completion of all the detonation events, the Chief Observer will submit a summary report to the Florida DEP and to the USFWS. This report will forward the observers' logs, provide the names of the observers and their positions during the event, the number and location of manatee, other marine mammals or sea turtles sighted and the actions that were taken when the animals were observed.

#### GROUND OBSERVER PROTOCOL

- 1) Observers will be at their observation site at least one-hour prior to the blast event and be equipped with the previously mentioned materials.
- 2) Observers will look for manatees, marine turtles & bottle nosed dolphin. Observers will keep continual watch over their entire safety area using polarized sunglasses and will periodically scan the area with binoculars.
- 3) Observers will be located in areas that optimize both visual accuracy and coverage of ingress/egress points. A map showing observer locations is attached to this document.
- 4) The observer will spot any animals in the area and alert the aerial team as to their location. This includes any animals in their visual range even if they are outside the blast safety zones.

3) Observers will remain on watch at all times unless there is a long delay, if that is the case, we will then need to re-establish the one hour prior watch before the next blast will take place.

6) Observers will have a 15-minute interval check in with the aerial observers via radio. In the case of radio failure, green and red signal flags will be used to indicate clear/not clear status of the observers' position.

7) Observers will keep their green signal flag in a position that can be easily seen from the helicopter thus establishing a visual reference for the aerial crew during the aerial observations.

8) If an animal is spotted in the area, the observer will alert the helicopter via radio and give directions to the helicopter until the aerial crew confirms the sighting. If the radio is not working, the observer will have a red signal flag to wave indicating to the helicopter that an animal is in the area. The observer will visually direct the aerial crew to the location of the animal and radio communication will be re-established.

9) Immediately prior to blast (1 minute), a radio check for all observers will be done to establish an "all clear" status.

8) Data Sheets and Maps:

All observers will have maps and aerial photos with safety circles at 3400 ft and 100 ft. drawn in to give a visual reference on where the danger zone is for animals. Any animal spotted will be recorded on the map using the common name of the animal (M= Manatee, T= Turtle, D= Dolphin), the number of animals in the group, the direction the animals were traveling and all the subsequent spottings of that group.

Additionally, written data sheets will be used to record all spotting information and weather & blasting data. One set of data sheets will be used for each blast event. There are comment sheets at the back of the clipboard to write any information important to the observers' watch. Observations will be written down every 15-min, even if no animals are seen. Weather conditions will be recorded at the beginning of the watch and every hour thereafter.

9) Observers will remain on site and observe for one-half hour after the last blast to make sure there are no animals that need help.

10) At the end of each watch, all maps, aerials, comment forms etc will be attached to the data sheets and turned into the aerial observer at the site trailer. The aerial observer will review all data packets and clarify any questions before retiring the observers.

11) If an animal is spotted inside the safety circle after a blast, we need to follow it to determine its condition. The observer will be put in a boat, operations will be halted and the animal will be tracked, with the help of the aerial crew until it is determined that the animal is fine, injured and needs rescue or dead. The observer will fill out an incident report for any of those three scenarios.

#### AERIAL OBSERVATION PROTOCOL

1) The primary observer will first coordinate all ground observers and be sure the entire watch team is prepared for the blasting event.

2) The aerial team will begin its watch one-hour prior to the blasting event.

3) The primary observer will be seated in the front of a "bubble-type" helicopter with doors affixed.

4) The observer will first visually confirm the locations of all ground observers and check to make sure they are all in the correct place. A radio check to all observers will be made and the time recorded as the official start time of the watch.

5) The aerial survey will be done in progressively smaller circles up to the point of the blast event where the survey will be conducted in the smallest possible radius outside the danger zone of the blast. The outermost survey circle will reach from the inlet to the Dames Point Bridge. All waters will be surveyed to establish the presence and size of a general "population" in the area. Within 30 minutes of the blast time, the survey area will be reduced to in and around the 3400' safety radius.

6) The aerial ground observers will track animals near or inside the 3400' radius until the animals are in confirmed safety zones. These animals will be subsequently tracked during the normal survey until they move out of the survey area.



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
6620 Southpoint Drive South  
Suite 310  
Jacksonville, Florida 32216-0958

IN REPLY REFER TO:  
FWS/R4/ES-JAFL

February 21, 2002

Mr. James C. Duck  
Chief, Planning Division  
Jacksonville District Corps of Engineers  
P.O. Box 4970  
Jacksonville, Florida 32232

Dear Mr. Duck:

This is in response to your letter of January 2, 2002 regarding the reinitiation of consultation under Section 7 of the Endangered Species Act for construction of the Port Sutton Terminal Channel Project. Your letter indicated that blasting will be necessary to complete the project, which was not discussed in the earlier consultation. A Marine Wildlife Safety Plan was attached to the letter which, when implemented during construction, would provide mechanisms to minimize impacts associated with the project's construction. The plan that was provided is one that has been developed by the Service and the State of Florida, and with changes necessary for implementation on the Port Sutton Terminal Project and the inclusion of the figures identified in the plan, will provide protective measures to manatees and other marine wildlife.

Changes required to the submitted plan include the following:

In the introductory paragraph of the "Manatee, Marine Mammal, and Sea Turtle Survey Watch Plan" it is stated that the plan is intended for use from December 1 through February 28. The Port Sutton Terminal Channel Project is located immediately adjacent to the proposed Port Sutton Manatee Sanctuary, a winter congregation area for manatees. Because of the high use of this area by manatees during cold weather, no blasting will be permitted from November 1 through March 31. The plan would be implemented for any blasting activities occurring from April 1 through October 31.

In paragraph 5 of the "Aerial Observation Protocol" the second sentence ("The outermost survey circle...") should be deleted.

Paragraph 9 ("Observers will be required to park...") of the "Manatee, Marine Mammal, Sea Turtle Survey Watch Standard Operating Procedure" should be deleted.

Although this does not represent a biological opinion as described in section 7 of the Act, it does fulfill the requirements of the Act and no further action is required. If modifications are made in a project or additional information becomes available on listed species, reinitiation of consultation may be required.

If you have any questions regarding the comments above please contact Bryan Pridgeon at 727-570-5398, extension 13.

Sincerely,

A handwritten signature in cursive script that reads "Dan Palmer".

for Peter M. Benjamin  
Assistant Field Supervisor

cc:  
Robin Trindell, FWC

# APPENDIX II

## PUBLIC COORDINATION

Planning Division  
Environmental Branch

TO WHOM IT MAY CONCERN:

We are coordinating a Revised Environmental Assessment for the Tampa Harbor - Port Sutton Navigation Channel Expansion in accordance with the National Environmental Policy Act and to obtain concurrence from the State of Florida in our Coastal Zone Management Plan Consistency Determination. We are re-evaluating the impacts of the project since the previous assessment was done in 2000. This was necessary since we formulated 2 new alternatives i.e., MacKay Bay Hole Restoration Site and Port Sutton Upland Placement Area. Based on the impacts of this proposal, we have preliminarily determined that an Environmental Impact Statement is not required.

The document is contained on the enclosed compact disk (CD). If you have a computer, place the document in the CD drive. It is in pdf format but is self-extracting (loads automatically). If you do not have a computer, you can take it to your local library for assistance. The document can also be viewed at our Internet site at URL <http://www.saj.usace.army.mil/pd/env-doc.htm>.

We are circulating this document for a 30-day period from the date of this letter. If you have any questions or comments, please write to Mr. Bill Fonferek at the above address and reference this project. He can also be reached at 904-232-2803.

Sincerely,

Dennis W. Barnett, P.E.  
Acting Chief, Planning Division

Enclosure

Fonferek/CESAJ/PD-EG/2803  
Dugger/CESAJ/PD-EG  
Mason/CESAJ/PD-E  
Schwichtenberg/CESAJ/PD-P  
Murphy/CESAJ/DP-I  
Barnett/CESAJ/PD

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Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Colleen M. Castille  
Secretary

July 29, 2005

Mr. Dennis W. Barnett, P.E., Acting Chief  
Planning Division, Jacksonville District  
U. S. Army Corps of Engineers  
Post Office Box 4970  
Jacksonville, Florida 32232-0019

RE: Department of the Army, Jacksonville District Corps of Engineers – Revised  
Environmental Assessment for the Tampa Harbor-Port Sutton Navigation  
Channel Expansion – Hillsborough County, Florida.  
SAI # FL200504270754C

Dear Mr. Barnett:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4231, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced revised environmental assessment (EA).

The Florida Department of Environmental Protection (DEP), designated as the state's lead coastal agency pursuant to § 306 of the federal Coastal Zone Management Act, 16 U.S.C. § 1456(c), and § 380.22, *Florida Statutes (F.S.)*, hereby notifies the U.S. Army Corps of Engineers (USACE) that the State of Florida does not object to the two alternative dredged material disposal sites evaluated in the revised EA – the Port Sutton Upland Dredged Material Management Area and the MacKay Bay Hole Placement Area. However, please note that the State of Florida has expressed concerns in the past and continues to express concerns regarding the measures proposed by the USACE to protect manatees during channel dredging activities.

The current National Environmental Policy Act document does not include the December 22, 2000, Florida State Clearinghouse letter and agency comments, and reiterates positions concerning endangered species protection that were considered inadequate by the state. The state requests that the EA be amended or supplemented prior to finalization.

The Florida Fish and Wildlife Conservation Commission (FWC) advises that the standard manatee protection conditions proposed by the USACE are still considered inadequate

"More Protection, Less Process"

Printed on recycled paper.

Mr. Dennis W. Barnett, P.E.  
July 29, 2005  
Page 2 of 3

to protect manatees utilizing Port Sutton's power plant outfall area during winter months. Concerns regarding the proposed manatee monitoring plan, utilization of blasting to remove rock material within the channel, and timing of dredging activities remain. Of particular concern is the USACE's reliance on manatee observation to prevent dredging impacts in the winter months – the lack of water clarity, number of manatees typically present in the area, and manatee behavior in warm water refuges make observation much more difficult. The FWC concurs with the U.S. Fish and Wildlife Service's recommendation that formal consultation on the Port Sutton Channel project be re-initiated. Additional protection measures should be considered. Staff looks forward to working with USACE, USFWS, and DEP to ensure that the project will be conducted in a manner consistent with the provisions of Chapter 370, *F.S.*, protecting marine turtles, manatees, and porpoises. Please refer to the enclosed FWC comments for additional details and recommendations.

The DEP Bureau of Beaches and Coastal Systems issued an Environmental Resource Permit/Water Quality Certification (No. 0213036-001-EI) for the Port Sutton Channel Maintenance and Expansion project on July 26, 2004. DEP is currently reviewing an application from the USACE to modify this permit to include restoration of the McKay Bay dredge hole as a practical dredged material management alternative. The USACE should continue to coordinate with the DEP Bureau of Beaches and Coastal Systems and FWC on the subject permit modification to facilitate the resolution of all outstanding dredged material management and wildlife/fisheries protection issues. The USACE is advised to coordinate any proposed Blasting Plan at the earliest stage possible with the FWC Imperiled Species Management Section and Division of Marine Fisheries Management. For additional information on the proposed permit modification and state permitting requirements, please contact Mr. Martin Seeling at (850) 487-4471, ext. 104.

Tampa Bay Regional Planning Council (TBRPC) staff notes that the Habitat Restoration Subcommittee of the TBRPC's Agency on Bay Management has reviewed the proposed project and voted to support the use of the McKay Bay dredge hole as the primary dredged material disposal site for the Port Sutton Channel Expansion project. The committee also encourages the USACE to explore the feasibility of placing any excess material, particularly rock and clean sand, on the shores of Bird/Sunken Island as depicted in the revised EA. Please refer to the enclosed TBRPC comments or contact Ms. Suzanne Cooper at (727) 570-5151, ext. 32, for further information.

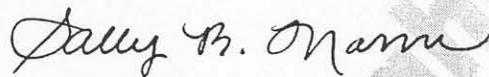
Based on the information contained in the revised EA and the enclosed state agency comments, the state has determined that, at this stage, there is insufficient information to complete the state's review for consistency with the Florida Coastal Management Program (FCMP). The applicant is requested to address the concerns identified by the FWC and DEP during the consultation with the USFWS and the ongoing state permit process. The state's

Mr. Dennis W. Barnett, P.E.  
July 29, 2005  
Page 3 of 3

concurrence of the project's consistency with the FCMP will be based, in part, on the adequate resolution of issues identified during this and subsequent environmental permitting reviews.

Thank you for the opportunity to review the revised EA. If you have any questions regarding this letter, please contact Ms. Lauren P. Milligan at (850) 245-2170.

Sincerely,



Sally B. Mann, Director  
Office of Intergovernmental Programs

SBM/lm

Enclosures

cc: Bill Fonferk, USACE, Jacksonville  
Mary Ann Poole, FWC, OPSC  
Mary Duncan, FWC, ISMS  
Lisa Gregg, FWC, DMFM  
Roxane Dow, DEP, BBCS  
Marty Seeling, DEP, BBCS  
John Meyer, TBRPC

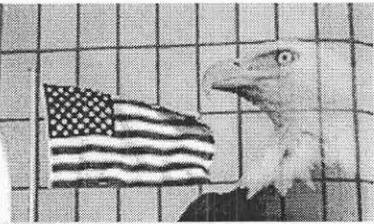
Florida State Clearing



# Florida

Department of Environmental Protection

"More Protection, Less Process"



Categories

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Project Information	
<b>Project:</b>	FL200504270754C
<b>Comments Due:</b>	05/27/2005
<b>Letter Due:</b>	07/29/2005
<b>Description:</b>	DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - REVISED ENVIRONMENTAL ASSESSMENT FOR THE TAMPA HARBOR - PORT SUTTON NAVIGATION CHANNEL EXPANSION - HILLSBOROUGH COUNTY, FLORIDA.
<b>Keywords:</b>	ACOE - REVISED EA, TAMPA HARBOR-PORT SUTTON CHANNEL EXPANSION - HILLSBOROUGH CO.
<b>CFDA #:</b>	12.107
Agency Comments:	
<b>TAMPA BAY RPC - TAMPA BAY REGIONAL PLANNING COUNCIL</b>	
The Habitat Restoration Subcommittee of the TBRPC's Agency on Bay Management has reviewed the proposed project and voted to support the use of the McKay Bay hole as the primary dredged material disposal site for the Port Sutton Channel Expansion project. The committee also encourages the USACE to explore the feasibility of placing any excess material, particularly rock and clean sand, on the shores of Bird/Sunken Island as depicted in the Revised EA. For further information, please contact Ms. Suzanne Cooper at (727) 570-5151, ext. 32.	
<b>HILLSBOROUGH - HILLSBOROUGH COUNTY</b>	
No Comment	
<b>ENVIRONMENTAL POLICY UNIT - OFFICE OF POLICY AND BUDGET, ENVIRONMENTAL POLICY UNIT</b>	
No Comment	
<b>COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS</b>	
<b>FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION</b>	
The FWC advises that the standard manatee protection conditions proposed by the USACE are still considered inadequate to protect manatees utilizing Port Sutton's power plant outfall area during winter months. Concerns regarding the proposed manatee monitoring plan, utilization of blasting to remove rock material within the channel, and timing of dredging activities remain. Of particular concern is the USACE's reliance on manatee observation to prevent dredging impacts in the winter months - the lack of water clarity, number of manatees typically present in the area, and manatee behavior in warm water refuges make observation much more difficult. The FWC concurs with the U.S. Fish and Wildlife Service's recommendation that formal consultation on the Port Sutton Channel project be re-initiated. Additional protection measures should be considered. Staff looks forward to working with USACE, USFWS, and DEP to ensure that the project will be conducted in a manner consistent with the provisions of Chapter 370, F.S., protecting marine turtles, manatees, and porpoises.	
<b>STATE - FLORIDA DEPARTMENT OF STATE</b>	
No Comment/Consistent	
<b>TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION</b>	
No Comment/Consistent	

**ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

The DEP Bureau of Beaches and Coastal Systems issued an Environmental Resource Permit/Water Quality Certification (No. 0213036-001-EI) for the Port Sutton Channel Maintenance and Expansion project on July 26, 2004. DEP is currently reviewing an application from the USACE to modify this permit to include restoration of the McKay Bay dredge hole as a practical dredged material management alternative. Please continue to coordinate with DEP Bureau of Beaches and Coastal Systems and FWC staff on the subject permit modification to facilitate the resolution of all outstanding dredged material management and wildlife/fisheries protection issues. The USACE is advised to coordinate any proposed Blasting Plan at the earliest stage possible with the FWC Imperiled Species Management Section and Division of Marine Fisheries Management. For additional information on the proposed permit modification and state permitting requirements, please contact Mr. Martin Seeling at (850) 487-4471, ext. 104.

**SOUTHWEST FLORIDA WMD - SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**

No Comment

For more information please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD MS-47  
TALLAHASSEE, FLORIDA 32399-3000  
TELEPHONE: (850) 245-2161  
FAX: (850) 245-2190

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# FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



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MARY ANN POOLE, DIRECTOR  
OFFICE OF POLICY AND STAKEHOLDER COORDINATION  
(850)488-6661 TDD (850)488-9542  
FAX (850)922-5679

July 28, 2005

Ms. Lauren Milligan, Environmental Consultant  
Florida State Clearinghouse  
Department of Environmental Protection  
3900 Commonwealth Boulevard, Mail Station 47  
Tallahassee, Florida 32399-3000

Re: FL200504270754C, Hillsborough  
County, U.S. Army Corps of  
Engineers, Revised Environmental  
Assessment for the Tampa Harbor –  
Port Sutton Navigation Channel  
Expansion

Dear Ms. Milligan:

The Division of Habitat and Species Conservation, Imperiled Species Management Section, has coordinated review of the referenced proposal with the Division of Marine Fisheries Management, both of the Florida Fish and Wildlife Conservation Commission (FWC), and are providing both a consistency determination in accordance with the Coastal Zone Management Act/Florida Coastal Management Program and a review of the Environmental Assessment under the National Environmental Policy Act. We provide the following comments and recommendations regarding the Revised Environmental Assessment (EA) for the Tampa Harbor-Port Sutton Navigation Expansion.

The project was originally coordinated in the spring of 2000, and consisted of dredging a channel with a 200-foot bottom width, project depth of 43 feet, and a length of 6,000 feet. The selected plan is a 3,930-foot-long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot-long channel with a bottom width of 260 feet and a project depth of 39 feet MLLW. This submittal represents a revision to the earlier EA for this project. The purpose of the revision is to add two new alternatives for the placement of spoil: the MacKay Bay Hole Placement Area and the Port Sutton Upland Dredged Material Management Area.

In reviewing the revised EA currently submitted, it has become evident that outstanding consistency issues are still pending with the original project, independent of the proposed modifications. The original EA is dated September 2000, and subsequent comment letters from

Ms. Lauren Milligan  
July 28, 2005  
Page 2

state agencies were not incorporated into this revised draft, dated April 2005. One of the crucial letters that is missing is the December 22, 2000, letter from the Clearinghouse. This letter included comments from the FWC, stating that the outlined measures are insufficient to protect manatees. At the time, an interagency Endangered Species Working Group was attempting to resolve these issues and as such, the Clearinghouse letter stated the project as consistent with the Florida Coastal Management Program (FCMP) at that time. It also stated that the project's continued consistency will be based, in part, on the adequate resolution of the issues identified.

The FWC expressed concerns with the proposed West Indian manatee monitoring plan, and blasting activities, and recommended changes in the monitoring and time of dredging activities. Specifically, manatees use of this area has been well documented during winter months (see enclosed maps), when they are attracted to the relatively warm waters of Port Sutton. Our specific concern was that observation efforts to detect the presence of manatees during this time would not be sufficient because the lack of clarity would preclude adequate viewing individuals and because manatees often bottom rest at warm water refuges (pers. comm. FWRI). Since this Clearinghouse review, the Department of Environmental Protection's Water Quality Certification (WQC) permit has been issued. Manatee protection concerns, however, are still outstanding due to the lack of detail in the WQC and the Army Corp of Engineers' (Corps) plans and specifications. The revised 2005 EA now reiterates the original positions concerning endangered species protection, which was considered inadequate by the state in the 2000 letter referenced above.

The revised EA includes the U.S. Fish and Wildlife Service's (Service) June 8, 1999, Fish and Wildlife Coordination Act Report (CAR) based on information in a 1998 public notice. The biological opinion (BO) included in that CAR does not appear to consider the possibility of blasting. In addition, the Corps seems to maintain that the Service recommendations are discretionary, and the revised EA states that many of the recommendations for dredging in the 1999 opinion cannot be implemented. However, we believe that manatee protection measures in addition to those that are standard are needed. Such conditions have been required and implemented for similar projects around the state, including similar projects at Port Sutton.

In January 2002, the FWC received a copy of a letter from the Corps to the Service re-initiating consultation due to additional impacts that should be considered, including blasting. This letter included an attachment for "special blasting conditions," but, these specific conditions were for a blasting project that occurred in Jacksonville. While the construction time window in the conditions is appropriate for Jacksonville, it is not appropriate for Port Sutton. Additional review is required to determine whether or not recommendations (including a construction window) made in 1999 are still pertinent, or need to be revised. It is not known whether or not this correspondence was sent to the Service; staff of neither the Corps nor the Service could locate a copy of this letter. In any case, it is apparent that the specific conditions included as an attachment to this letter were not adequately incorporated as part of the revised EA or the project's plans and specifications as referenced by the WQC.

Ms. Lauren Milligan  
July 28, 2005  
Page 3

As stated earlier, an interagency Endangered Species Working Group tried to deal with many of these issues for several federal projects, including Port Sutton, in the early part of this decade. It is evident that many of these issues remain unresolved. A working group report by the Corps concerning issues at Port Sutton concludes that it is "the Corp's basic assertion...that the standard manatee construction conditions afford adequate protection no matter the site condition or type of equipment used. This is supported by the Service. If this is in error, then the Service should be requested to re-consult with the Corps in accordance with the Endangered Species Act.

On July 22, 2005, the Service recommended that the Corps request re-initiation of formal consultation with the Service on the Port Sutton Channel project. We concur with this recommendation, and would like to work with the Corps and the Service to ensure that this consultation resolves our concerns. In addition, we recommend that the outstanding issues be addressed concurrently in the state permitting process while the permit is undergoing modification review for the additional spoil sites. We believe these reviews are necessary to clarify what conditions are required in order for this project to be consistent with Florida Statutes 370.12(1) Protection of Marine Turtles, Chapter 370.12(2) Protection of Manatee or Sea Cows, and Chapter 370.12(3) Protection of Mammalian Dolphins (Porpoises).

It is our understanding that the Corps is willing to collect carcasses of fish that may occur as a result of the blasting activities, and coordinate the results with our Division of Marine Fisheries Management so that they may monitor the effect that the proposed project may have on fishes that we have introduced as stock. We appreciate their cooperation in this effort. We look forward to continuing to work with the Corps and other relevant agencies in accordance with the Coastal Zone Management Act/Florida Coastal Management Program and to ensure that this project proceeds in a fashion that minimized impacts to fish and wildlife resources. Please call me at 850-488-6661 or email me at [MaryAnn.Poole@MyFWC.com](mailto:MaryAnn.Poole@MyFWC.com) if you would like to coordinate further discussion of these issues; I will be glad to facilitate any such efforts. If there are any technical questions about the manatee issues presented in this letter, these questions should be directed to Mary Duncan ([Mary.Duncan@MyFWC.com](mailto:Mary.Duncan@MyFWC.com) at 850-922-4330. Similarly, if there are any technical questions about fish collection, they should be directed to Lisa Gregg ([Lisa.Gregg@MyFWC.com](mailto:Lisa.Gregg@MyFWC.com)) at 850-488-6158, extension 210.

Sincerely,



*for* Mary Ann Poole, Director  
Office of Policy and Stakeholder Coord.

map/jwb/mpd  
ENV 1-3-2  
u:\traci.wallace\sai 0754c port Sutton

Enclosures

cc: Mr. Ron Williams, DEP-Beaches and Coastal Systems, Tallahassee  
Ms. Linda Smith, USFWS-St. Petersburg

Ms. Lauren Milligan  
July 28, 2005  
Page 4

Mr. David Hankla, USFWS-Jacksonville  
Ms. Mary Duncan, ISMS-HSC, Tallahassee  
Ms. Lisa Gregg, DMF-FWC, Tallahassee  
Mr. Jim Beever, HSC-FWC, Punta Gorda  
Mr. Michael Payne, NMFS-Silver Spring, Maryland

Mr. Dennis W. Barnett, P.E.  
Acting Chief, Planning Division  
Department of the Army  
Jacksonville District Corps of Engineers  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

# FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



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BUREAU OF PROTECTED SPECIES MANAGEMENT  
DAVID W. ARNOLD, CHIEF  
(850)922-4330  
FAX (850)922-4338

December 19, 2000

Ms. Cherie Trainor  
Department of Community Affairs  
255 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100

Re: SAI# FL199805110198CR  
Port Sutton Channel, Hillsborough County;  
General Re-evaluation Report with  
Environmental Assessment; U.S. Army  
Corps of Engineers

Dear Ms. Trainor:

The Office of Environmental Services of the Florida Fish and Wildlife Conservation Commission has reviewed this report, and provides the following comments. The applicant proposes to dredge in Port Sutton proper, extending the channel from 3,700 feet to a length of 3,930 feet, and widening the channel from a bottom width of 200 feet to 290 feet. The proposed depth will be 42 feet. Appendix A states that blasting may be necessary for the removal of hard rock.

We concur with the recommendations in the June 8, 1999 Fish and Wildlife Coordination Act Section 2(b) Report by the U.S. Fish and Wildlife Service (USFWS), included in Appendix I. However, it does not appear that this report considered the possibility of blasting. We are also concerned that the U.S. Army Corps of Engineers (COE) is refusing to adopt several essential manatee conservation measures outlined in this report for the dredging operations. In Appendix VI, the COE states that it will not accept the following USFWS recommendations:

- 1) **Hydraulic Dredge:** A hydraulic dredge be used for all dredging in the Port Sutton Channel based on the presence of manatees at the discharge canal during the winter months.
- 2) **No-Dredge Window:** If a clamshell dredge is used, a no-dredge window from January 1 - February 1 be implemented at the Port Sutton site and surrounding channel waters to adequately protect wintering manatees.

- 3) **No Night Dredging:** If a clamshell dredge is used, no night dredging should occur in the Port Sutton Channel from November 15 - March 1 due to the decreased visibility and observation capabilities. Tasks requiring small watercraft or barge movement should be conducted during daylight hours only, or such vessels should be outfitted with propeller guards.

We would like to provide additional data to support these conservation measures and to provide our assessment of the project as proposed in this General Re-evaluation Report. The COE continues to believe that only the standard manatee protection construction conditions are required to offset any potential impacts to manatees. We believe that additional measures are necessary when in-water work is being performed in or near manatee aggregation areas. The COE states that it has increased protection by offering to videotape clamshell dredging operations. We do not believe that documenting injuries that may occur provides any protection to manatees. While we do not object to the videotaping, we do not believe that it provides any particular benefit.

### **Hydraulic Dredge**

While the COE states that use of a hydraulic dredge is most likely, it also states that because of contracting restrictions, they cannot dictate the use of any particular type of dredge. Because of this contracting restriction, the USFWS and our office have advocated additional restrictions on other types of dredges to allow their consideration in the bidding process while minimizing adverse impacts. If additional restrictions are required for a particular type of equipment to meet environmental requirements, those specifications can be written into the contract.

Because a clamshell dredge travels through the water column (unlike a hydraulic dredge), the potential for adverse impacts to manatees is greater. Unpublished reports from manatee researchers have indicated that manatees may actually be attracted to clamshell operations, due to water draining from clamshell buckets when lifted out of the water. It is believed that the animals think this falling water may be a fresh water source. At least one incident has been recorded where manatees have gathered underneath clamshell operations. Researchers have also reported an incident where a tagged manatee was followed through a construction zone using clamshell dredges, and the operators did not see the animal. It is believed that the turbidity caused by clamshell operations makes it more difficult to see manatees, increasing the probability of injury.

### **No-Dredge Window**

Because clamshell dredging presents a greater risk to manatees, restricting the one month when the most manatees are expected to be present is not unreasonable. We encourage the COE to consider this restriction during this planning phase. Please see the enclosed map indicating manatee aerial survey data during the winter months.

### **No Night Dredging**

Manatee observers are not effective at night. It is difficult, if not impossible, to comply with the standard manatee construction condition requirement to shut down equipment if a manatee comes within 50 feet. Satellite telemetry data shows the use of Port Sutton by six tagged animals, with 19 instances of satellite "hits". Fourteen of these 19 "hits" have been recorded at night, when air temperatures become colder. The animals are more likely to be attracted to the warm water in Port Sutton at night than during the day.

It is important to note that the COE has been aware of no-dredging windows in the wintertime at Port Sutton since 1987, when the Department of Natural Resources first commented on deepening the Port at that time. The Department of Environmental Protection reiterated this concern in the scoping letter for this project, and in other dredging projects in the immediate vicinity of the Port. State-issued permits to the Tampa Port Authority for dredging berths in Port Sutton have included restrictions on night time dredging. In fact, the regulatory arm of the COE conditioned a permit for one project in this area to disallow night time dredging.

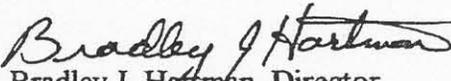
### **Blasting**

It appears that the Biological Opinion does not address the potential for blasting for this project. We believe that blasting, without adequate protection measures, will likely result in injury or death to manatee(s) that may be in the area. The probability of adverse impacts is highest in the colder months of the year, when manatees are most likely to be in the vicinity of the Port. Depending upon the amount of explosives used, a radius should be calculated to determine safety of manatees and marine turtles from the pressure wave of the blast. A watch program should also be implemented to assure that no marine species are in this safety radius at the time of the blast. Specific blasting conditions for this project should be developed in coordination with our office.

Ms. Cherie Trainor  
December 19, 2000  
Page 4

It is our conclusion, therefore, that the measures outlined to protect manatees in this General Re-evaluation Report are insufficient. The standard manatee construction conditions alone are inadequate to protect manatees in aggregation areas during the wintertime, and during night time operations. These standard conditions are also grossly inadequate to offset expected impacts with blasting activities. We are looking into this as a possible Coastal Zone Consistency issue. Please do not hesitate to call me, or Ms. Mary Duncan of my staff at (850) 922-4330, if you have any questions.

Sincerely,

  
Bradley J. Hartman, Director  
Office of Environmental Services

BJH/MPD  
ENV 7-2

cc: David Hankla, USFWS-Jacksonville  
Mr. Michael Corrigan, DEP Beaches and Coastal Systems  
Mr. Kent Edwards, DEP Southwest District

# Seasonal Manatee Aerial Survey Results in the Port Sutton Vicinity

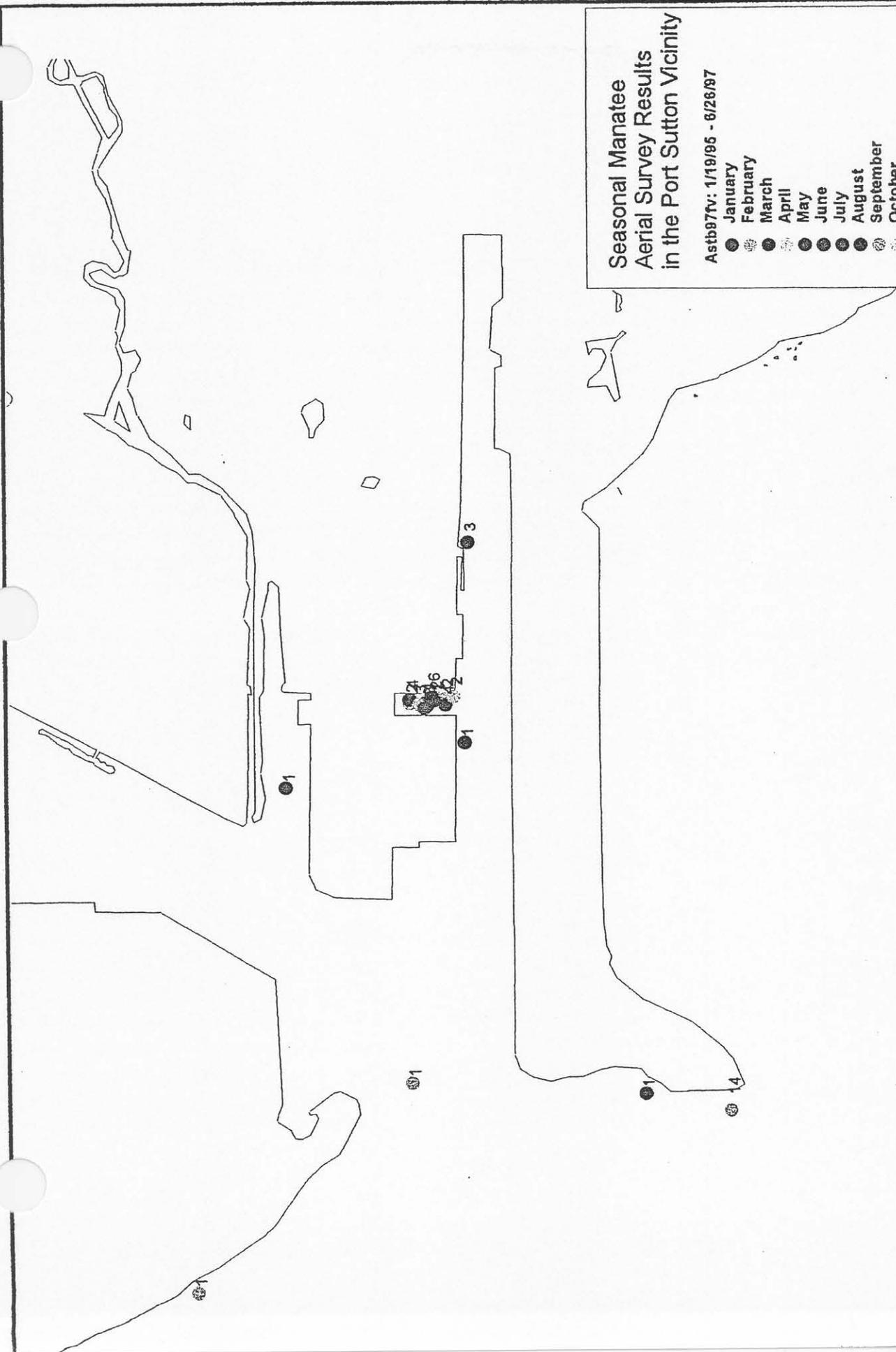
Astb87fv: 1/19/86 - 8/26/87

- January
- February
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- September
- October
- November
- December

Fla.shp  
 LAND  
 WATER



1.2 Miles



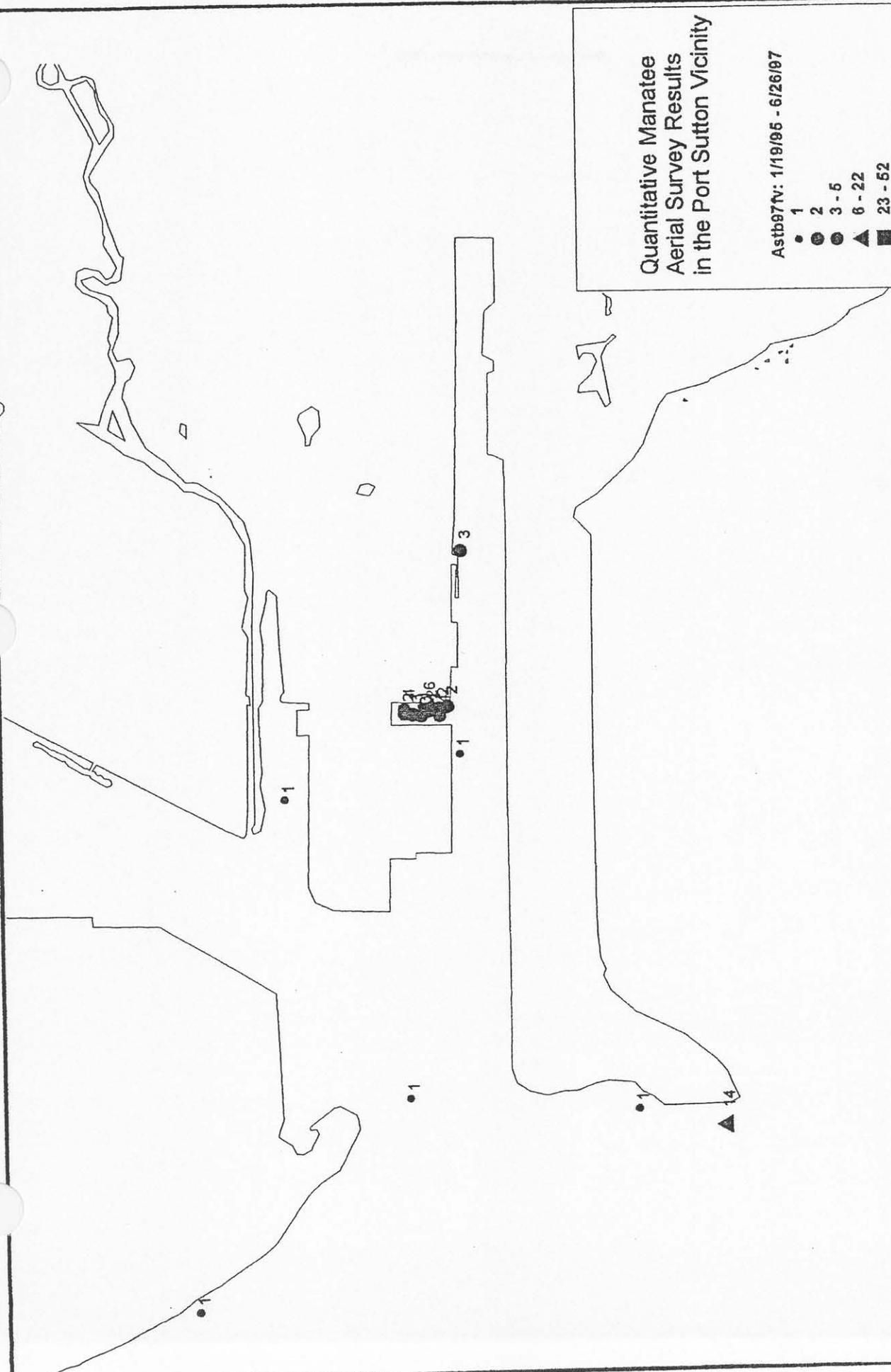
Quantitative Manatee  
Aerial Survey Results  
in the Port Sutton Vicinity

Astb97W: 1/19/95 - 6/26/97

- 1
- 2
- 3 - 5
- ▲ 6 - 22
- 23 - 52
- Fla.shp
- LAND
- WATER



1.2 Miles





STATE OF FLORIDA  
**DEPARTMENT OF COMMUNITY AFFAIRS**

*"Dedicated to making Florida a better place to call home"*

JEB BUSH  
Governor

STEVEN M. SEIBERT  
Secretary

December 22, 2000

Mr. Robert McIntyre  
Department of the Army  
Headquarters  
U.S. Army Corps of Engineers, Jacksonville  
441 G Street, NW  
Washington, DC 20314-1000

RE: Department of the Army - General Re-Evaluation Report with Final  
Environmental Assessment and Finding of No Significant Impact - Port Sutton  
Channel - Tampa Harbor - Hillsborough County, Florida  
SAI: FL199805110198CR

Dear Mr. McIntyre:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the above-referenced project.

The Department of Environmental Protection (DEP) notes that the Army Corps of Engineers has addressed the majority of the comments provided previously by DEP; however, several comments are provided by DEP's Office of Beaches and Coastal Systems for future reference. In addition, DEP recommends continued coordination with the Florida Fish and Wildlife Conservation Commission through the interagency Endangered Species Working Group to resolve issues, such as blasting, no-dredge windows, nighttime dredging, concerning the protection of manatees during project construction. Please refer to the enclosed DEP comments.

The Florida Fish and Wildlife Conservation Commission (FWC) offers comments and concludes that the measures outlined to protect manatees in this General Re-Evaluation Report are insufficient. The standard manatee construction conditions alone are inadequate to protect manatees in aggregation areas during the wintertime and during nighttime operations. These standard conditions are also inadequate to offset expected impacts with blasting activities. FWC is looking into this as a possible Coastal Zone Consistency issue. Please refer to the enclosed FWC comments.

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100  
Phone: 850.488.8466/Suncom 278.8466 FAX: 850.921.0781/Suncom 291.0781  
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(850) 413-9969

HOUSING & COMMUNITY DEVELOPMENT  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
(850) 488-7956

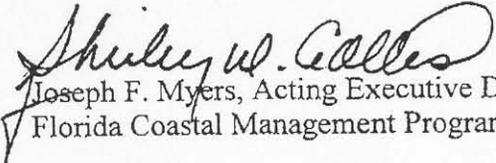
Mr. Robert McIntyre  
December 22, 2000  
Page Two

Based on the information contained in the general re-evaluation report with final environmental assessment and finding of no significant impact and the enclosed comments provided by our reviewing agencies, the state has determined that, at this stage, the above-referenced project is consistent with the Florida Coastal Management Program (FCMP). All subsequent environmental documents prepared for this project must be reviewed to determine the project's continued consistency with the FCMP. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews.

In addition, the Tampa Bay Regional Planning Council (TBRPC) has identified the policies and goals of its Strategic Regional Policy Plan which may apply to the proposed activity. The comments provided by the TBRPC are enclosed for your review and consideration.

If you have any questions regarding this letter, please contact Ms. Cherie Trainor, Clearinghouse Coordinator, at (850) 414-5495.

Sincerely,

  
Joseph F. Myers, Acting Executive Director  
Florida Coastal Management Program

JFM/cc

Enclosures

cc: Lauren Milligan, Department of Environmental Protection  
Bradley Hartman, Fish and Wildlife Conservation Commission  
Angela Hurley, Tampa Bay Regional Planning Council



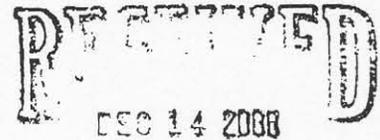
Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

December 13, 2000



Ms. Cherie Trainor  
Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

State of Florida Clearinghouse

RE: USACOE/General Re-Evaluation Report with Final EA and FONSI, Port Sutton  
Channel, Tampa Harbor, Hillsborough County, Florida  
SAI # FL199805110198CRQ

Dear Ms. Trainor:

The Department has reviewed the U. S. Army Corps of Engineers' (USACOE) General Re-Evaluation Report and Final Environmental Assessment for the proposal to expand a 3,930-ft. section of the Port Sutton Channel to a depth of 42 ft. MLLW and bottom width of 290 ft., and place the dredged material in Dredged Material Management Area CMDA-2D. The USACOE has addressed the majority of the comments provided previously by the Department; however, the following comments are provided by the Department's Office of Beaches and Coastal Systems for future reference:

Previous comments included recommendations to test for the possibility of contamination of the sediments due to the industrial nature of the surrounding area. The USACOE conducted a Tier 1 evaluation of water and sediment samples in May of 1998. They have concluded that the material is suitable for disposal without restriction in CMDA-2D (See Appendix VIII). However, the raw data, description of sampling points, and other information necessary to determine the appropriateness of this statement have not been included. It is stated that all state water quality standards will be met, and that any additional water quality testing necessary for state approval will be conducted in conjunction with the state permit application. We request that this be coordinated and accomplished during the Environmental Assessment process. If contaminated sediments are detected that could lead to resuspension concentrations sufficient to exceed water quality standards during dredging, additional costs and mitigation would have to be considered, or the project abandoned. The inclusion of complete chemical and geotechnical evaluations are requested to provide a basis for the evaluation of potential impacts. These items should also be acknowledged in the Cost Feature Uncertainty discussion of the General Re-Evaluation Report.

"More Protection, Less Process"

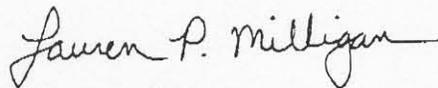
Printed on recycled paper.

Ms. Cherie Trainor  
SAI # FL199805110198CR2  
Page 2

In addition, the Department recommends continued coordination with the Florida Fish and Wildlife Conservation Commission through the interagency Endangered Species Working Group to resolve issues (i.e., blasting, no-dredge windows, nighttime dredging) concerning the protection of manatees during project construction.

We appreciate the opportunity to review the Final Environmental Assessment. Please feel free to call me at (850) 487-2231 if you have any questions regarding our comments.

Sincerely,



Lauren P. Milligan  
Environmental Specialist  
Office of Intergovernmental Programs

/lpm

cc: Roxane Dow, FDEP, Office of Beaches and Coastal Systems

# FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



LLAN L. EGBERT, Ph.D., Executive Director  
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JOHN D. ROOD  
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BUREAU OF PROTECTED SPECIES MANAGEMENT  
DAVID W. ARNOLD, CHIEF  
(850)922-4330  
FAX (850)922-4331

December 19, 2000

Ms. Cherie Trainor  
Department of Community Affairs  
255 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100

Re: SAI# FL199805110198CR  
Port Sutton Channel, Hillsborough County;  
General Re-evaluation Report with  
Environmental Assessment; U.S. Army  
Corps of Engineers

Dear Ms. Trainor:

The Office of Environmental Services of the Florida Fish and Wildlife Conservation Commission has reviewed this report, and provides the following comments. The applicant proposes to dredge in Port Sutton proper, extending the channel from 3,700 feet to a length of 3,930 feet, and widening the channel from a bottom width of 200 feet to 290 feet. The proposed depth will be 42 feet. Appendix A states that blasting may be necessary for the removal of hard rock.

We concur with the recommendations in the June 8, 1999 Fish and Wildlife Coordination Act Section 2(b) Report by the U.S. Fish and Wildlife Service (USFWS), included in Appendix I. However, it does not appear that this report considered the possibility of blasting. We are also concerned that the U.S. Army Corps of Engineers (COE) is refusing to adopt several essential manatee conservation measures outlined in this report for the dredging operations. In Appendix VI, the COE states that it will not accept the following USFWS recommendations:

- 1) **Hydraulic Dredge:** A hydraulic dredge be used for all dredging in the Port Sutton Channel based on the presence of manatees at the discharge canal during the winter months.
- 2) **No-Dredge Window:** If a clamshell dredge is used, a no-dredge window from January 1 - February 1 be implemented at the Port Sutton site and surrounding channel waters to adequately protect wintering manatees.

Ms. Cherie Trainor  
December 19, 2000  
Page 2

- 3) **No Night Dredging:** If a clamshell dredge is used, no night dredging should occur in the Port Sutton Channel from November 15 - March 1 due to the decreased visibility and observation capabilities. Tasks requiring small watercraft or barge movement should be conducted during daylight hours only, or such vessels should be outfitted with propeller guards.

We would like to provide additional data to support these conservation measures and to provide our assessment of the project as proposed in this General Re-evaluation Report. The COE continues to believe that only the standard manatee protection construction conditions are required to offset any potential impacts to manatees. We believe that additional measures are necessary when in-water work is being performed in or near manatee aggregation areas. The COE states that it has increased protection by offering to videotape clamshell dredging operations. We do not believe that documenting injuries that may occur provides any protection to manatees. While we do not object to the videotaping, we do not believe that it provides any particular benefit.

#### Hydraulic Dredge

While the COE states that use of a hydraulic dredge is most likely, it also states that because of contracting restrictions, they cannot dictate the use of any particular type of dredge. Because of this contracting restriction, the USFWS and our office have advocated additional restrictions on other types of dredges to allow their consideration in the bidding process while minimizing adverse impacts. If additional restrictions are required for a particular type of equipment to meet environmental requirements, those specifications can be written into the contract.

Because a clamshell dredge travels through the water column (unlike a hydraulic dredge), the potential for adverse impacts to manatees is greater. Unpublished reports from manatee researchers have indicated that manatees may actually be attracted to clamshell operations, due to water draining from clamshell buckets when lifted out of the water. It is believed that the animals think this falling water may be a fresh water source. At least one incident has been recorded where manatees have gathered underneath clamshell operations. Researchers have also reported an incident where a tagged manatee was followed through a construction zone using clamshell dredges, and the operators did not see the animal. It is believed that the turbidity caused by clamshell operations makes it more difficult to see manatees, increasing the probability of injury.

Ms. Cherie Trainor  
December 19, 2000  
Page 3

### **No-Dredge Window**

Because clamshell dredging presents a greater risk to manatees, restricting the one month when the most manatees are expected to be present is not unreasonable. We encourage the COE to consider this restriction during this planning phase. Please see the enclosed map indicating manatee aerial survey data during the winter months.

### **No Night Dredging**

Manatee observers are not effective at night. It is difficult, if not impossible, to comply with the standard manatee construction condition requirement to shut down equipment if a manatee comes within 50 feet. Satellite telemetry data shows the use of Port Sutton by six tagged animals, with 19 instances of satellite "hits". Fourteen of these 19 "hits" have been recorded at night, when air temperatures become colder. The animals are more likely to be attracted to the warm water in Port Sutton at night than during the day.

It is important to note that the COE has been aware of no-dredging windows in the wintertime at Port Sutton since 1987, when the Department of Natural Resources first commented on deepening the Port at that time. The Department of Environmental Protection reiterated this concern in the scoping letter for this project, and in other dredging projects in the immediate vicinity of the Port. State-issued permits to the Tampa Port Authority for dredging berths in Port Sutton have included restrictions on night time dredging. In fact, the regulatory arm of the COE conditioned a permit for one project in this area to disallow night time dredging.

### **Blasting**

It appears that the Biological Opinion does not address the potential for blasting for this project. We believe that blasting, without adequate protection measures, will likely result in injury or death to manatee(s) that may be in the area. The probability of adverse impacts is highest in the colder months of the year, when manatees are most likely to be in the vicinity of the Port. Depending upon the amount of explosives used, a radius should be calculated to determine safety of manatees and marine turtles from the pressure wave of the blast. A watch program should also be implemented to assure that no marine species are in this safety radius at the time of the blast. Specific blasting conditions for this project should be developed in coordination with our office.



**Legend**

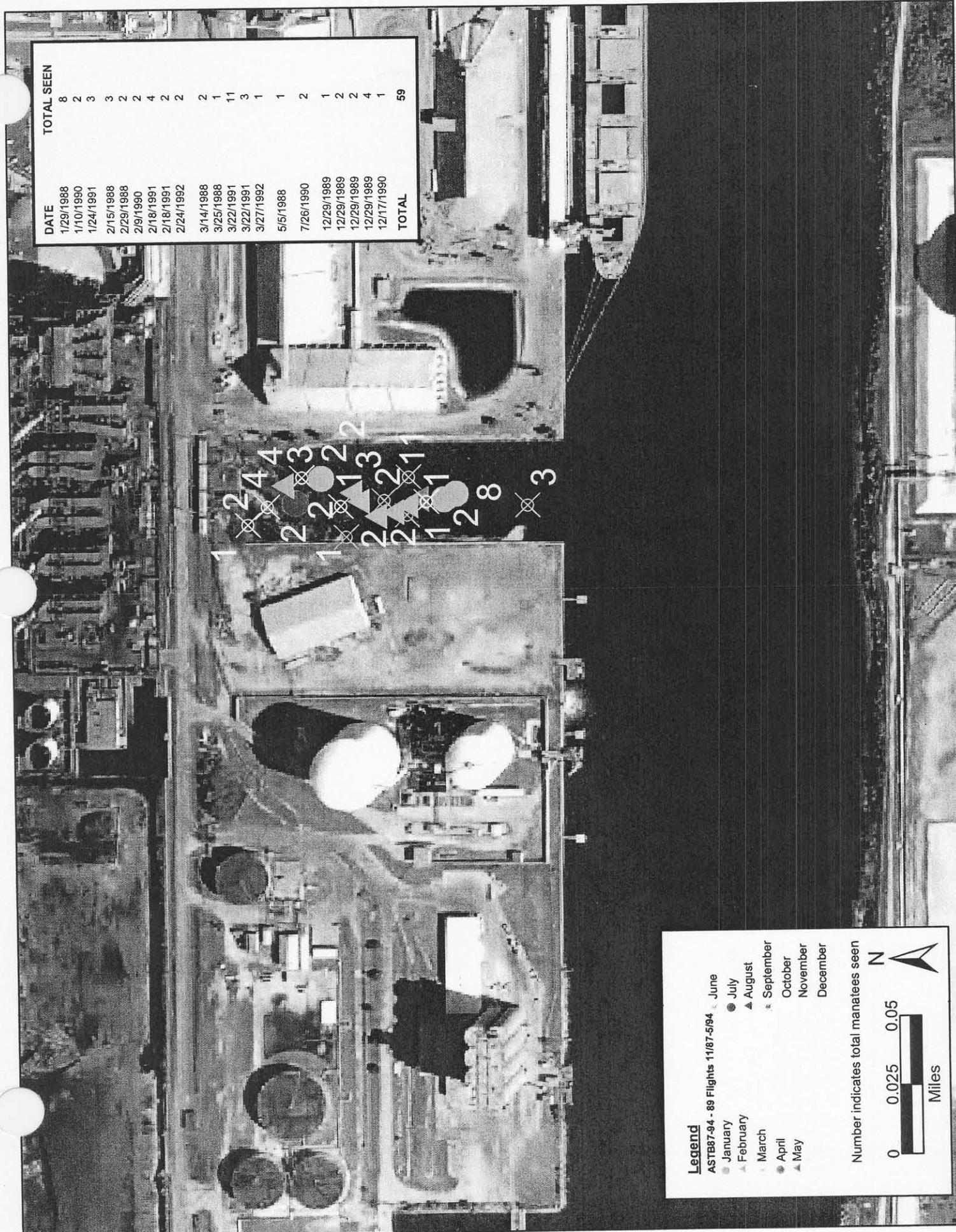
ASTBFV - 89 Flights 11/87-5/94

- January
- ▲ February
- × March
- April
- ▲ May
- × June
- July
- ▲ August
- × September
- October
- November
- December



Number indicates total manatees seen





DATE	TOTAL SEEN
1/29/1988	8
1/10/1990	2
1/24/1991	3
2/15/1988	3
2/29/1988	2
2/9/1990	2
2/18/1991	4
2/24/1992	2
3/14/1988	2
3/25/1988	1
3/22/1991	11
3/22/1991	3
3/27/1992	1
5/5/1988	1
7/26/1990	2
12/29/1989	1
12/29/1989	2
12/29/1989	2
12/29/1989	4
12/17/1990	1
<b>TOTAL</b>	<b>59</b>

**Legend**  
 ASTB87-94 - 89 Flights 11/87-5/94 June

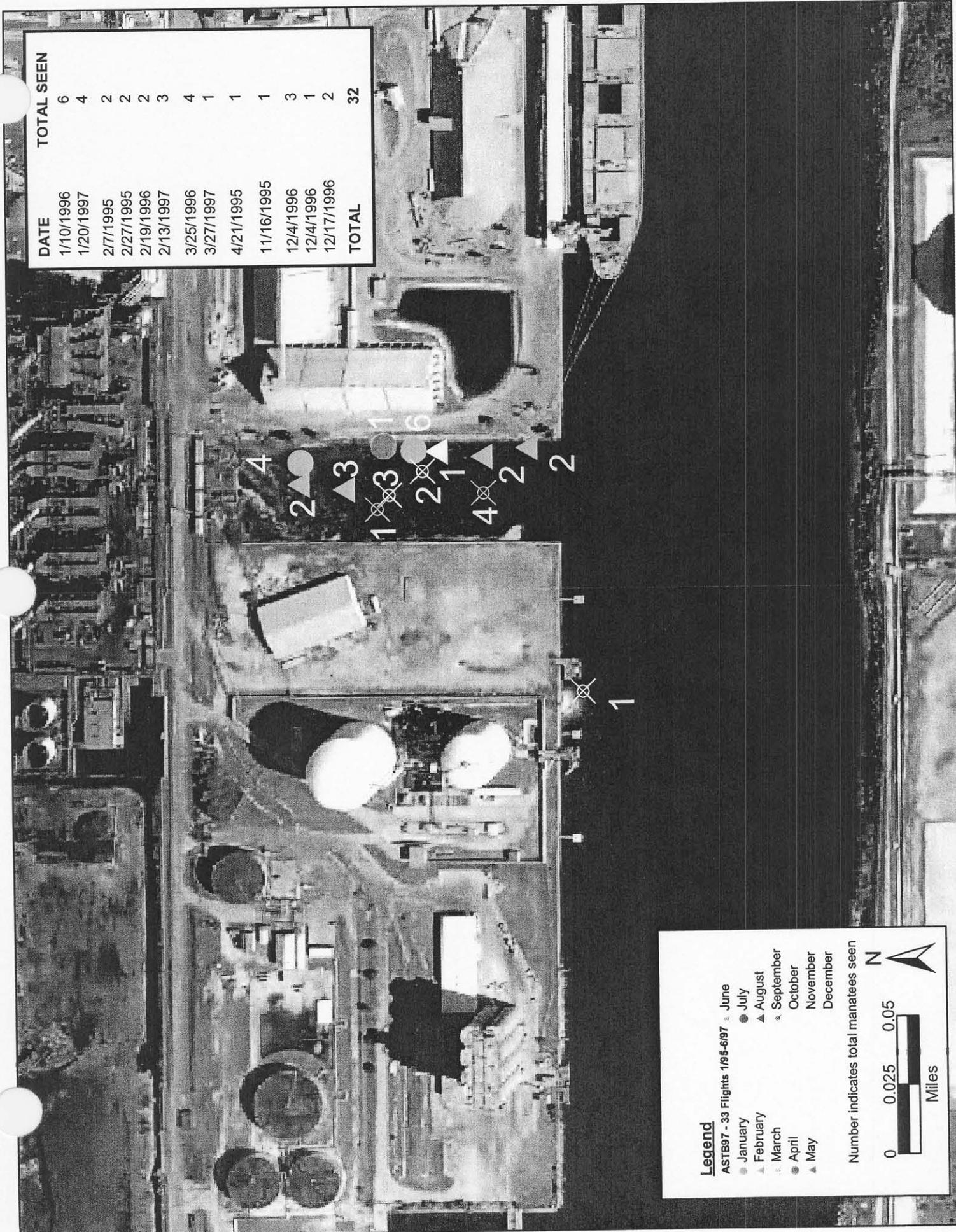
- January
- ▲ February
- March
- April
- ▲ May
- July
- ▲ August
- ⊗ September
- October
- November
- December

Number indicates total manatees seen

0 0.025 0.05 Miles

N





DATE	TOTAL SEEN
1/10/1996	6
1/20/1997	4
2/7/1995	2
2/27/1995	2
2/19/1996	2
2/13/1997	3
3/25/1996	4
3/27/1997	1
4/21/1995	1
11/16/1995	1
12/4/1996	3
12/4/1996	1
12/17/1996	2
<b>TOTAL</b>	<b>32</b>

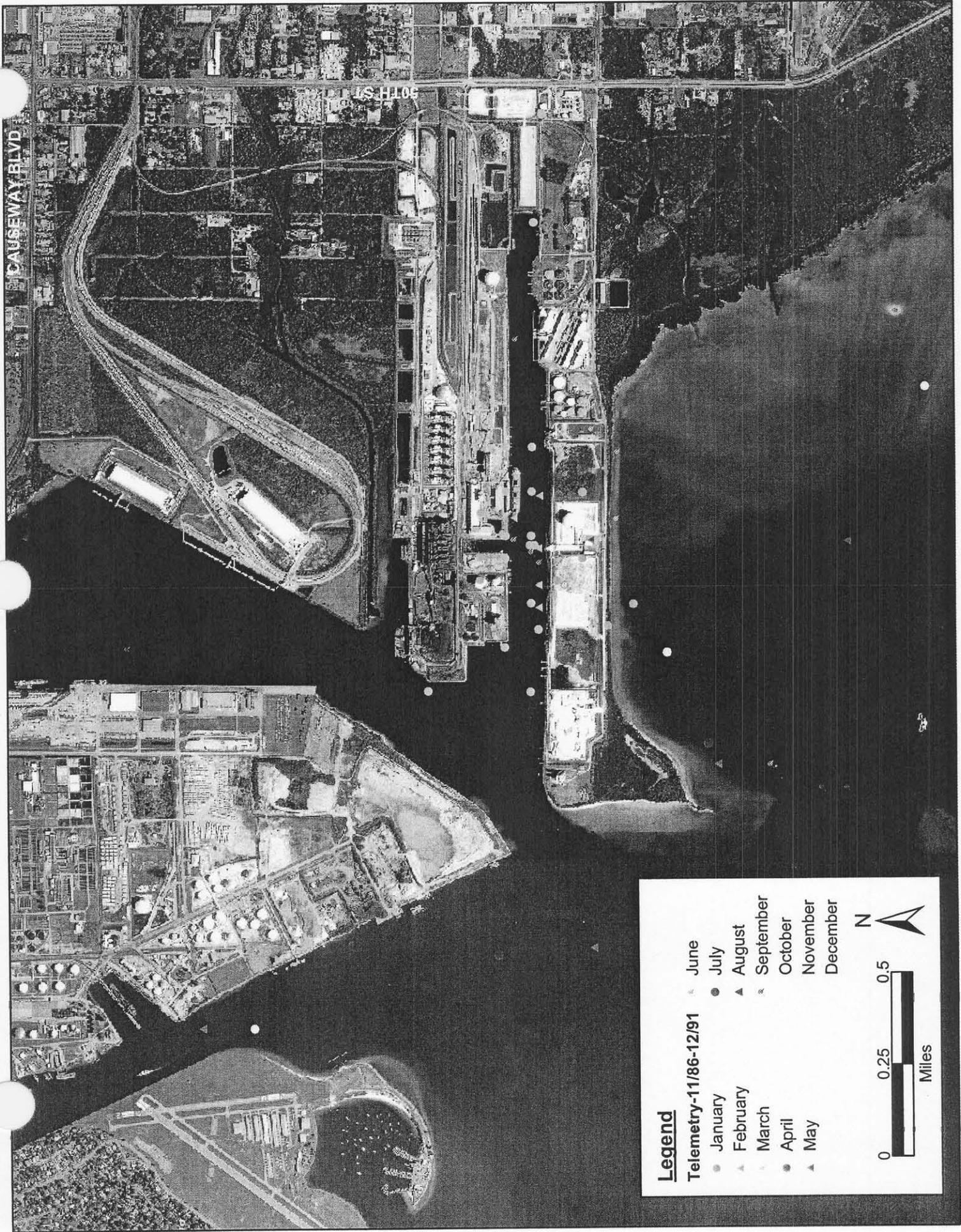
**Legend**  
 ASTB97 - 33 Flights 1985-6/97 & June

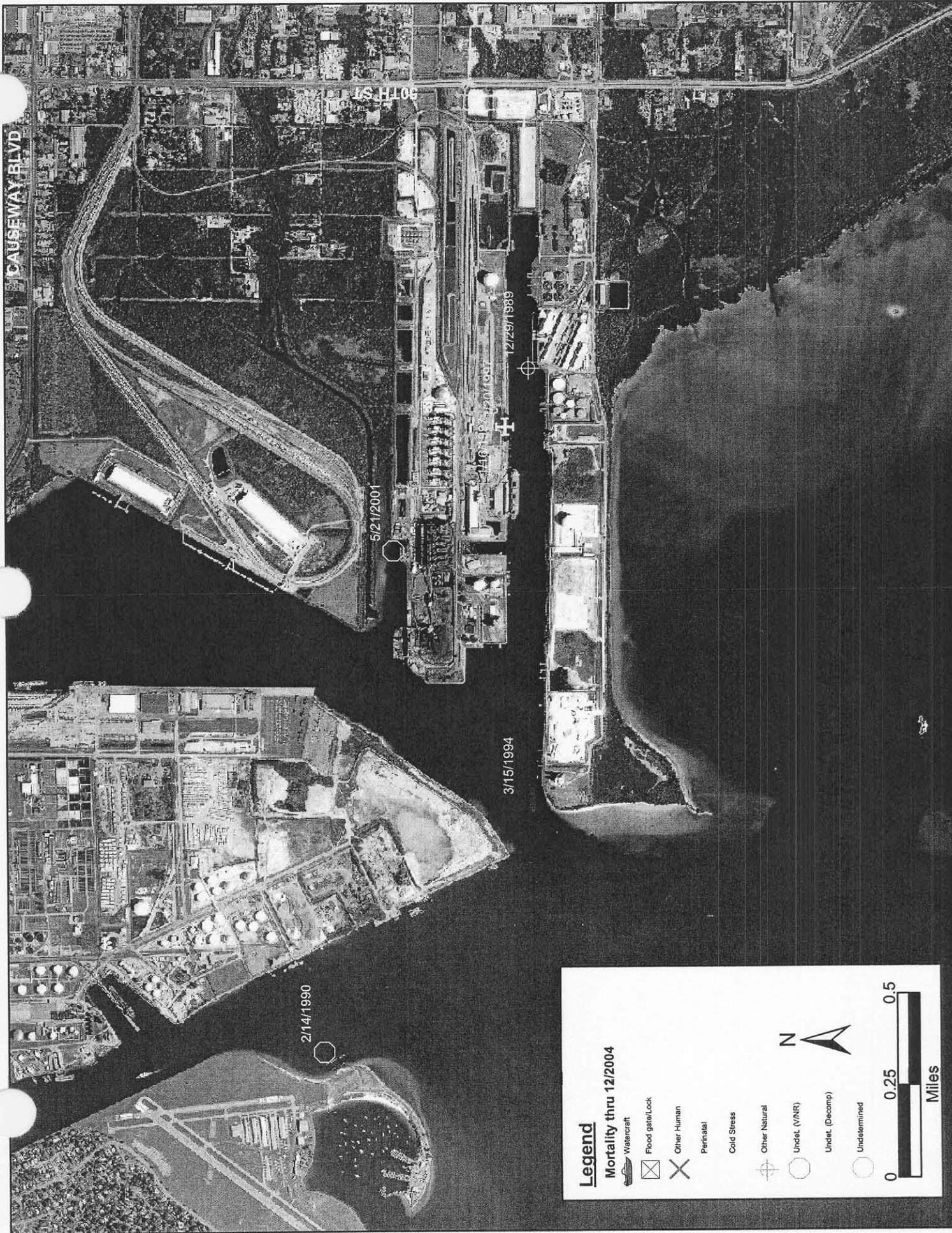
- January
- ▲ February
- ⊗ March
- April
- ▲ May
- July
- ▲ August
- ⊗ September
- October
- ▲ November
- December

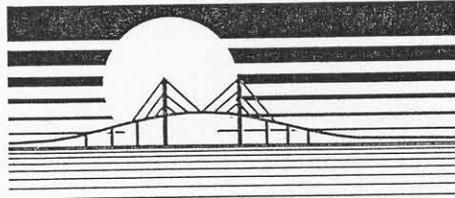
Number indicates total manatees seen

0 0.025 0.05 Miles

N







Tampa Bay Regional Planning Council

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Vice-Chair

Robert Kersteen

Secretary/Treasurer

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Executive Director

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July 11, 2005

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Ms. Lauren P. Milligan, Coordinator  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard  
Tallahassee, FL 32399

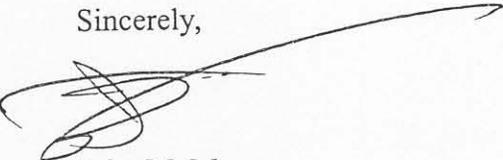
**Subject:** *IC&R #177-05, Tampa Harbor - Port Sutton Navigation Channel Expansion Revised Environmental Assessment, FSC SAI #FL200504270754C, Hillsborough County*

Dear Ms. Milligan:

The aforementioned project was reviewed for consistency with the Tampa Bay Regional Planning Council's *Strategic Regional Policy Plan*. The attached report was approved by the Council at its July 11, 2005 meeting and summarizes the Council staff's findings.

Please contact me if further information regarding this item is desired.

Sincerely,

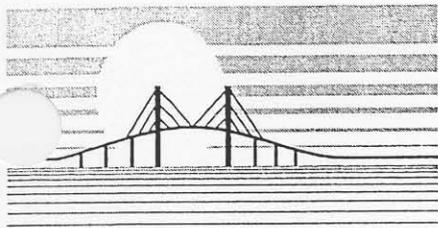


John M. Meyer  
IC&R Coordinator

JMM/bj

Enclosure

cc: Mr. Bill Fonferek, U.S. Army Corps of Engineers



Tampa Bay Regional Planning Council

# IC&R

**Intergovernmental Coordination and Review**  
 4000 Gateway Centre Blvd., Suite 100, Pinellas Park, FL 33782  
 Phone (727) 570-5151 Suncom 513-5066 FAX (727) 570-5118  
 www.tbrpc.org

**IC&R #177-05 - TAMPA HARBOR - PORT SUTTON NAVIGATION CHANNEL EXPANSION, REVISED ENVIRONMENTAL ASSESSMENT, FSC SAI# FL200504270754C, HILLSBOROUGH COUNTY**

At the request of the Florida State Clearinghouse, the project has been reviewed for consistency with the *Future of the Region, a Strategic Regional Policy Plan for the Tampa Bay Region*.

<p><b>General Description</b></p>	<p>The Environmental Assessment for the Port Sutton Navigation Channel project has been revised to include two additional spoil disposal options: the dredge hole in McKay Bay in northeastern Hillsborough Bay, and an upland disposal area on Port Sutton. These sites are compared to the already-identified sites: Spoil Area 2D in Hillsborough Bay, the Ocean Dredged Material Disposal site in the Gulf of Mexico, shallow waters adjacent to Spoil Area 2D, and adjacent to Bird/Sunken Island at the mouth of the Alafia River. An estimated 900,000 cubic yards of material will be generated by the expansion of the Port Sutton Channel.</p>
<p><b>Regional Significance</b></p>	<p>Disposal of dredged material is a continual challenge in Tampa Bay. Beneficial uses for the material are not always readily available or cost-effective, and deserve special attention whenever the opportunity arises.</p>
<p><b>Regional Comments</b></p>	<p>The Council's Agency on Bay Management has reviewed the project and recommends that the US Army Corps of Engineers use the McKay Bay dredge hole as the primary disposal site for dredged material from the Port Sutton project. The McKay Bay dredge hole has poor water quality and contaminated sediments. Filling the hole will restore potential habitat for seagrass growth. About 891,580 cubic yards of material would create a 3-foot contour. The Agency also recommends that the US Army Corps of Engineers explore the feasibility of placing any excess material, especially rock and clean sand, on the shores of Bird/Sunken Island to help stabilize the shoreline and add wading bird habitat.</p>
<p><b>Applicable SRPP Policies</b></p>	<p>4.1.6, 4.5.1, 4.6.6, Goal 4.7, 4.7.2</p>
<p><b>Consistency with SRPP</b></p>	<p>Consistent with the <i>Future of the Region, A Strategic Regional Policy Plan for the Tampa Bay Region</i>.</p>

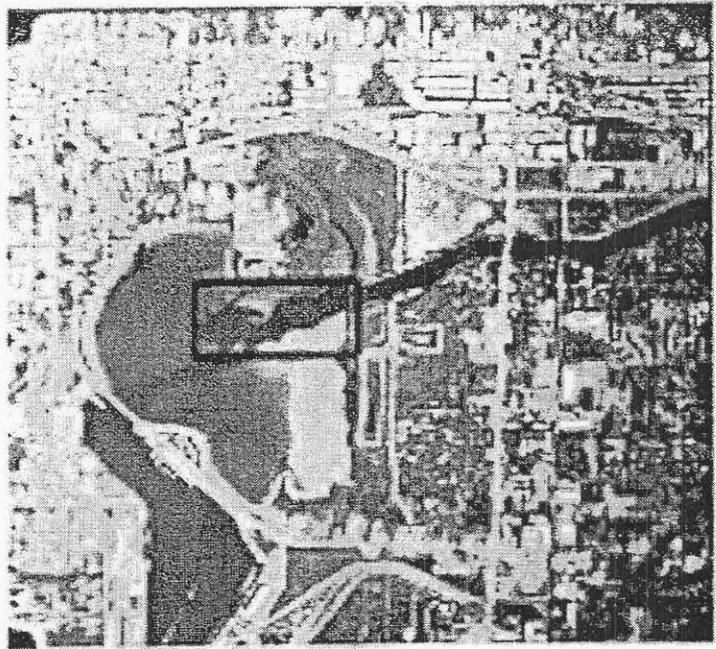
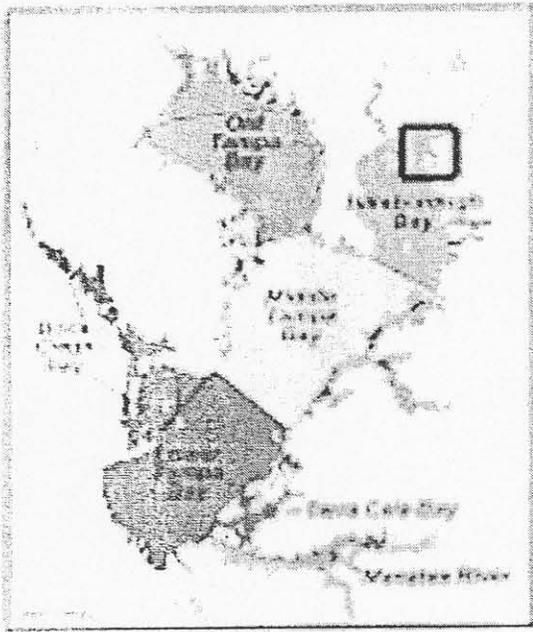


Figure 5. Mackay Bay hole. (Courtesy Tacoma Estuary Program)

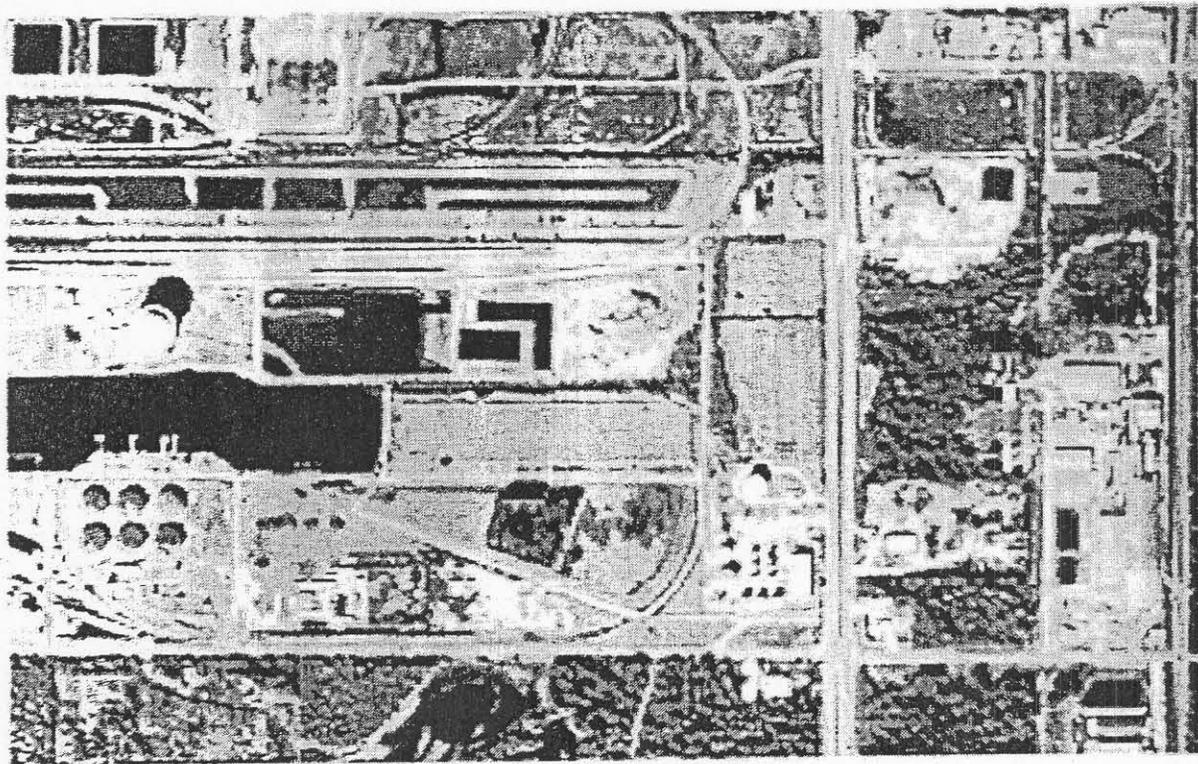
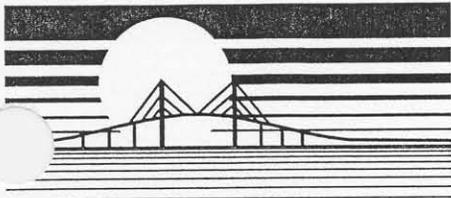


Figure 6. Port Sutton Terminal Disposal Area  
 Figure 6. Port Sutton Terminal Disposal Area



*Tampa Bay Regional Planning Council*  
**Agency on Bay Management**

4000 Gateway Centre Blvd., #100  
 Pinellas Park, FL 33782  
 (727) 570-5151 FAX (727) 570-5118  
 SunCom 513-5066  
 www.tbprc.org

**An Alliance of Agencies,  
 Organizations and  
 Interest Groups for the  
 Management of Tampa Bay**

- Tampa Bay Regional Planning Council
- Florida Senate
- Florida House of Representatives
- FL Department of Environmental Protection
- FL Department of Transportation
- FL Fish and Wildlife Conservation Comm.
- Fish & Wildlife Research Institute
- Tampa Bay Estuary Program
- Southwest FL Water Management District
- Environmental Protection Commission  
of Hillsborough County
- Hillsborough County Planning Commission
- State Health Department/Pinellas County
- IFAS / Florida SeaGrant
- Audubon of Florida
- TBEP Community Advisory Committee
- Sierra Club
- Tampa Bay Watch
- The Ocean Conservancy
- Tampa Bay Builders Association
- Florida Petroleum Council
- Coastal Conservation Assn. of Florida
- Clearwater Marine Aquarium
- Egmont Key Alliance
- Tampa Bay Pilots
- Commercial Fishermen
- Recreational Interests
- The Region-at-Large
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Mosaic Company
- Progress Energy
- Tampa Electric Company
- Florida Power & Light Company
- Manatee Port Authority
- Port of St. Petersburg
- Tampa Port Authority
- Hillsborough County
- Manatee County
- Pasco County
- Pinellas County
- City of Clearwater
- City of St. Petersburg
- City of Tampa
- Eckerd College
- Hillsborough Community College
- Univ. South FL Marine Science / PORTS

June 13, 2005

Ms. Lauren P. Milligan, Coordinator  
 Florida State Clearinghouse  
 Florida Department of Environmental Protection  
 3900 Commonwealth Boulevard  
 Tallahassee, FL 32399

Re: SAI# FL200504270754C - DEPARTMENT OF THE ARMY,  
 JACKSONVILLE DISTRICT CORPS OF ENGINEERS - REVISED  
 ENVIRONMENTAL ASSESSMENT FOR THE TAMPA HARBOR -  
 PORT SUTTON NAVIGATION CHANNEL EXPANSION,  
 HILLSBOROUGH COUNTY

Dear Ms. Milligan:

The Habitat Restoration Subcommittee of the Tampa Bay Regional Planning Council's Agency on Bay Management met on June 9, 2005 and received a presentation on the above-referenced document and project from staff of the US Army Corps of Engineers. The following comments resulted from the committee's discussion, and are provided for your consideration.

The Port Sutton Navigation Channel Expansion project would result in a 3,930-foot long channel that is 43 feet deep and 290 feet wide (bottom width), transitioning to a 2,265-foot long channel that is 39 feet deep and 260 feet wide (bottom width). Approximately 900,000 cubic yards of sand, silt and rock, including two feet required over-depth over rock and one foot allowable over-dredge, would be generated by the project. This project was reviewed in 2000 with the preferred spoil disposal location at the Existing Upland Dredged Material Management Area CMDA-2D and alternative spoil placement in the Ocean Dredged Material Disposal site; in shallow water adjacent to CMDA-2A to create 107 acres of intertidal habitat; and adjacent to Bird/Sunken Island to reinforce the north side and to create intertidal habitat on the south side.

The Revised Environmental Assessment incorporates two additional spoil disposal alternatives: Placement of the material in the large dredged hole in McKay Bay at the northern end of Hillsborough Bay as a beneficial use; and Placement of the material in an upland Dredged Material Management Area on Port Sutton Terminal.

The large dredged hole in McKay Bay has been identified in the Tampa Bay Dredged Hole Habitat Assessment Project report (April 2005) as having low dissolved oxygen levels and contaminated soils, and being highly stratified. The management recommendation of the report is to fill

the dredged hole to the depth of the surrounding area. In that report it is estimated that 891,580 cubic yards of material would fill the hole to the 3-foot contour.

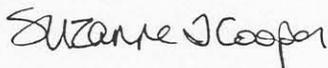
The Committee voted unanimously (with one abstention):

- To support the use of the McKay Bay hole as the primary dredged material disposal site for the Port Sutton Channel Expansion project; and
- To encourage the US Army Corps of Engineers to explore the feasibility of placing any excess material, particularly rock and clean sand, on the shores of Bird/Sunken Island as depicted in the Revised Environmental Assessment.

It should be noted that seagrasses have been mapped in McKay Bay and are increasing in the vicinity of Archic Creek in upper Hillsborough Bay.

Thank you for the opportunity to comment on this project. Please contact me (727-570-5151 x 32) if you have any questions about the Agency on Bay Management or this letter.

Sincerely,



Suzanne T. Cooper, AICP  
Principal Planner  
ABM Staff

cc: Mr. William Fonferek



An Equal Opportunity Employer

# Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899  
(352) 796-7211 or 1-800-423-1476 (FL only)  
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)  
On the Internet at: WaterMatters.org

**Bartow Service Office**  
170 Century Boulevard  
Bartow, Florida 33830-7700  
(863) 534-1448 or  
1-800-492-7862 (FL only)  
SUNCOM 572-6200  
June 20, 2005

**Lecanto Service Office**  
3600 West Sovereign Path  
Suite 226  
Lecanto, Florida 34461-8070  
(352) 527-8131  
SUNCOM 667-3271

**Sarasota Service Office**  
6750 Fruitville Road  
Sarasota, Florida 34240-9711  
(941) 377-3722 or  
1-800-320-3503 (FL only)  
SUNCOM 531-6900

**Tampa Service Office**  
7601 Highway 301 North  
Tampa, Florida 33637-6759  
(813) 985-7481 or  
1-800-836-0797 (FL only)  
SUNCOM 578-2070

- Watson L. Haynes II**  
Chair, Pinellas
- Heidi B. McCree**  
Vice Chair, Hillsborough
- Judith C. Whitehead**  
Secretary, Hernando
- Talmadge G. "Jerry" Rice**  
Treasurer, Pasco
- Edward W. Chance**  
Manatee
- Jennifer E. Closshey**  
Hillsborough
- Neil Combee**  
Polk
- Thomas G. Dabney**  
Sarasota
- Janet D. Kovach**  
Hillsborough
- Todd Pressman**  
Pinellas
- Patsy C. Symons**  
DeSoto

Ms. Lauren Millagin  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard, Mail Station 47  
Tallahassee, Florida 32399-3000

Subject: **Department of the Army, Jacksonville District Corps of Engineers-Revised Environmental Assessment for the Tampa Harbor-Port Sutton Navigation Channel Expansion-Hillsborough County, Florida; SAI#: FL200504270754C**

Dear Ms. Millagin:

The staff of the Southwest Florida Water Management District (District) has conducted a consistency evaluation for the referenced project. Consistency findings are divided into four categories and are based solely on the information provided in the subject application.

FINDING	CATEGORY
X	Consistent/No Comment
	Consistent/Comments Attached
	Inconsistent/Comments Attached
	Consistency Cannot be Determined Without an Environmental Assessment Report/Comments Attached

- David L. Moore**  
Executive Director
- Gene A. Heath**  
Assistant Executive Director
- William S. Bilenky**  
General Counsel

The District appreciates the opportunity to participate in the review of this application. Please be advised that our review does not constitute permit approval under Chapter 373, Florida Statutes, or any rules promulgated thereunder, nor does it stand in lieu of normal permitting procedures in accordance with Florida Statutes and District rules.

If you have any questions or if I can be of further assistance, please contact me in the District's Planning Department.

Sincerely,  
  
Trisha Neasman, AICP  
Government Planning Coordinator

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JUN 23 2005  
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COUNTY: HILLSBOROUGH

SCH-COAPS  
2005-04609

DATE: 4/19/2005

COMMENTS DUE DATE: 5/27/2005

CLEARANCE DUE DATE: 6/18/2005

SAI#: FL200504270754C

REFER TO: FL199805110198CR2

MESSAGE:

<b>STATE AGENCIES</b>	<b>WATER MNGMNT. DISTRICTS</b>	<b>OPB POLICY UNIT</b>	<b>RPCS &amp; LOC GOVS</b>
COMMUNITY AFFAIRS	SOUTHWEST FLORIDA WMD	ENVIRONMENTAL POLICY UNIT	
ENVIRONMENTAL PROTECTION			RECEIVED
FISH and WILDLIFE COMMISSION			JUN 30 2005
X STATE			OIP / OLGA
TRANSPORTATION			

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

Project Description:

DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - REVISED ENVIRONMENTAL ASSESSMENT FOR THE TAMPA HARBOR - PORT SUTTON NAVIGATION CHANNEL EXPANSION - HILLSBOROUGH COUNTY, FLORIDA.

To: Florida State Clearinghouse

AGENCY CONTACT AND COORDINATOR (SCH)  
3900 COMMONWEALTH BOULEVARD MS-47  
TALLAHASSEE, FLORIDA 32399-3000  
TELEPHONE: (850) 245-2161  
FAX: (850) 245-2190

EO. 12372/NEPA Federal Consistency

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> No Comment | <input checked="" type="checkbox"/> No Comment/Consistent |
| <input type="checkbox"/> Comment Attached      | <input type="checkbox"/> Consistent/Comments Attached     |
| <input type="checkbox"/> Not Applicable        | <input type="checkbox"/> Inconsistent/Comments Attached   |
|  | <input type="checkbox"/> Not Applicable                   |

From:

Division Bureau: ~~Division of Historical Resources~~  
~~Bureau of Historic Preservation~~

Reviewer: Jamie Moddox Laura L. Kammerer

Date: 6/22/05 Deputy SHPO  
6.23.2005

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2005 MAY -3 A 10:43

**APPENDIX III**

**FLORIDA COASTAL ZONE MANAGEMENT PROGRAM  
CONSISTENCY DETERMINATION**

# **FLORIDA COASTAL ZONE MANAGEMENT PROGRAM FEDERAL CONSISTENCY EVALUATION PROCEDURES**

## **1. Chapter 161, Beach and Shore Preservation.**

The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Response: The proposed project is not located in a beach area. Therefore, the project would not apply to this chapter.

## **2. Chapters 186 and 187, State and Regional Planning.**

These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.

Response: This project will be coordinated with the Tampa Bay Regional Planning Council and the State Clearinghouse. Therefore, this project would comply with the intent of this Chapter.

## **3. Chapter 252, Disaster Preparation, Response and Mitigation.**

This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health and safety; and to preserve the lives and property of the people of Florida.

Response: The dredging and placement would be consistent with the intent of this Chapter.

## **4. Chapter 253, State Lands.**

This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The dredging and placements would not affect state lands. The proposal would comply with the intent of this chapter.

**5. Chapters 253, 259, 260, and 375, Land Acquisition.**

This chapter authorizes the state to acquire land to protect environmentally sensitive areas.

Response: Since the affected property already is in public ownership, this chapter would not apply.

**6. Chapter 258, State Parks and Aquatic Preserves.**

This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management or operations.

Response: The proposed work would not affect any parks or preserves, and would, therefore, be consistent with this chapter.

**7. Chapter 267, Historic Preservation.**

This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Response: The construction of the new navigation channel has been coordinated with the Florida State Historic Preservation Officer. Procedures will be implemented to avoid affects on unidentified historic properties, which may be located within the affected areas. Remote sensing surveys will be completed to identify historic properties, which may be eligible for inclusion in the National Register of Historic Places, in the navigation channel and in the proposed disposal areas. Therefore, the work will be consistent with the goals of this chapter.

**8. Chapter 288, Economic Development and Tourism.**

This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

Response: The expansion of the channel encourages the development Tampa Harbor and economic growth of the area. Therefore, the work would be consistent with the goals of this chapter.

**9. Chapters 334 and 339, Public Transportation.**

This chapter authorizes the planning and development of a safe balanced and efficient transportation system.

Response: The expansion of the channel promotes recreational and commercial navigation within Tampa Harbor. Therefore, the work would comply with the goals of this chapter.

**10. Chapter 370, Saltwater Living Resources.**

This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fisherman and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.

Response: The work would not affect salt-water living resources, therefore, the work is consistent with the goals of this chapter.

**11. Chapter 372, Living Land and Freshwater Resources.**

This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions that provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: The placement of material in the channel would not affect any resources covered by this Chapter. Therefore, the work would comply with the goals of this chapter.

**12. Chapter 373, Water Resources.**

This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.

Response: This work does not involve water resources as described by this chapter.

**13. Chapter 376, Pollutant Spill Prevention and Control.**

This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

Response: This work does not involve the transportation or discharging of pollutants.

**14. Chapter 377, Oil and Gas Exploration and Production.**

This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.

Response: This work does not involve the exploration, drilling or production of gas, oil or

petroleum product and therefore, does not apply.

**15. Chapter 380, Environmental Land and Water Management.**

This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.

Response: The construction dredging and placement has been coordinated with the local regional planning commission. Therefore, the work would be consistent with the goals of this chapter.

**16. Chapter 388, Arthropod Control.**

This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.

Response: The work would not further the propagation of mosquitoes or other pest arthropods.

**17. Chapter 403, Environmental Control.**

This chapter authorizes the regulation of pollution of the air and waters of the state by the DEP.

Response: A permit application is being prepared for the project. Final compliance would come with the permit modification. Therefore, the work is complying with the intent of this chapter.

**18. Chapter 582, Soil and Water Conservation.**

This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the work. Particular attention will be given to work on or near agricultural lands.

Response: The proposed work is not located near or on agricultural lands and would therefore, this chapter would not apply.

# APPENDIX IV

## ESSENTIAL FISH HABITAT DETERMINATION

**ESSENTIAL FISH HABITAT ASSESSMENT  
TAMPA HARBOR-PORT SUTTON NAVIGATION PROJECT**

1. A study has been authorized under Section 933 of the Water Resources Development Act of 1990. The description of the project and its impacts are in the Draft Environmental Assessment forwarded to your office and available on the web at <http://www.saj.usace.army.mil/pd/env-doc.htm>.
2. The Port Sutton Navigation Channel expansion would not have any significant impact on habitat as identified as EFH. Impacts to the aquatic environment are identified in Section 4, Environmental Consequences of the Environmental Assessment. We consider these impacts to be minimal on an individual project and cumulative affects basis.
3. Beneficial Uses of Dredged Material.
  - a. Bird Island Expansion: Dredged material would be used to create approximately 52 acres of wetland and upland habitat for bird foraging and nesting. There would be a loss of shallow-water habitat but this loss would be offset by the creation of saltmarsh habitat used as nursery habitat for fish.
  - b. CMDA-2D Wetland Creation: Dredged material would be used to create approximately 107 acres of wetland habitat for bird foraging and nesting, water quality improvement in Hillsborough Bay and fish habitat. There would be a loss of shallow-water habitat but this loss would be offset by the creation of saltmarsh habitat used as nursery habitat for fish.
  - c. MacKay Bay Hole: Approximately 891,000 cubic yards of dredged material excavated from the navigation entrance channel would be placed in the hole. The placement would cover contaminated sediments that exist in the hole. There is poor water quality and by placing material in the hole, anoxic conditions would be alleviated.

**APPENDIX V**

**SECTION 404(B)(1) EVALUATION**

# **MACKAY BAY RESTORATION SITE SECTION 404(b)(1) EVALUATION DREDGED MATERIAL**

## **I. Project Description**

- a. **Location.** Tampa Harbor-Port Sutton Navigation Channel, Hillsborough County, Florida.
- b. **General Description.** The Corps is proposing to place dredged material from the construction of the Port Sutton Navigation Channel in a former borrow area located north of Port Sutton in MacKay Bay in Tampa Bay.
- c. **Authority and Purpose.** This study is authorized by Water Resources Development Act 1992. Pursuant to Section 204 of the Water Resources Development Act of 1996, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment. This proposal was presented to the Corps for consideration by the Habitat Restoration Committee of the Agency on Bay Management, Tampa Bay Regional Planning Council and the Tampa Estuary Program.
- d. **General Description of Dredged or Fill Material**
  - (1) **General Characteristics of Material.** . Port Sutton has fines ranging between 5 to 45 percent. Preliminary findings indicate the high percentage of fines in the dredged material may not be problematic for a beneficial use plan.
  - (2) **Quantity of Material.** Approximately 891,000 cubic yards of dredged material excavated from the navigation entrance channel will be placed in the hole.
  - (3) **Source of Material.** The material will be excavated from selected sites within the Tampa Harbor navigation channel.
- e. **Description of the Proposed Discharge Site.**
  - (1) **Size and Location.** The placement area is located in the middle of MacKay Bay in the upper Hillsborough section of Tampa bay. It can hold approximately 891,000 cubic yards of material.
  - (2) **Type of Site.** The site is a former borrow area. The hole is located in a littoral area. The bottom of the hole collects silty sediments. The hole has a maximum depth of 16.2 feet.

(3) Type of Habitat. It is habitat for some species of fish that use the edge of the hole as habitat. The center of the hole has low dissolved oxygen and is less likely used by the fisheries.

(2) Timing and Duration of Discharge. The hole would be filled in conjunction with the construction of the new navigation channel.

f. Description of Disposal Method. The dredging would be conducted by a hydraulic dredge, clamshell with barge or hopper with pump-out capabilities. The outfall would likely have a diffuser at the terminal end. The contractor could employ a flocculent to reduce turbidity and increase settling.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. .

(2) Sediment Type. Sediment analysis of the disposal site indicates that the bottom is composed of a layer of silt and fine grained sand. A site investigation was conducted by divers to verify that the habitat was a silty substrate.

(3) Dredged/Fill Material Movement. The dredged material is not likely to movement because it is a low energy area and the hole acts as a sediment trap for silty material.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement site. These communities will reestablish quickly upon completion of work. Disruption of marine life at the placement area will be short term.

(5) Other Effects. Fisheries at or near the disposal area should not experience substantive adverse effects. Standard manatee construction conditions will be required of all contractors. The work as proposed will not jeopardize protected species. No known historical properties will be affected by this project. The proposed work will result in some temporary disruption of normal vessel traffic in the harbor, but it's completion will have a favorable impact on the operation of the port with a resulting beneficial effect on the local and regional economy. Temporary degradation in water quality at the dredging and disposal sites will also occur.

(6) Actions Taken to Minimize Impacts. The standard manatee protection

conditions would also be employed to reduce potential for impacts as well as no wake operation in the manatee sanctuary.

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

(a) Salinity. No impacts to salinity at disposal site.

(b) Water Chemistry. There will be no changes in water chemistry at the site.

(c) Clarity. There will be a temporary increase in turbidity level at the disposal site and immediately adjacent to the disposal area during the disposal operations.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics and would not be exposed to the air.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There would be improved water quality at the site from the increased dissolved oxygen levels.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. Not applicable.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be operated to maintain state water quality standards.

d. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects.

(b) Dissolved Oxygen. There would be no reduction in dissolved oxygen levels from the discharge of the sandy dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment at the disposal site.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. No photosynthesis occurs at this site.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Little or no impact is expected.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

- (1) Effects on Plankton. No significant effects.
- (2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.
- (3) Effects on Nekton. None are anticipated.
- (4) Effects on Aquatic Food Web. None are anticipated.
- (5) Effects on Special Aquatic Sites. No special aquatic sites are located within the disposal site.
  - (a) Sanctuaries and Refuges. Not applicable.
  - (b) Wetlands. Not applicable.
  - (c) Mud Flats. Not applicable.
  - (d) Vegetated Shallows. None would be affected.
  - (e) Coral Reefs. Not applicable.
  - (f) Riffle and Pool Complexes. Not applicable.
- (6) Threatened and Endangered Species. None would be affected.
- (7) Other Wildlife. Not applicable.
- (8) Actions to Minimize Impacts. No actions are necessary.

f. Proposed Disposal Site Determinations

- (1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.
- (2) Determination of Compliance with Applicable Water Quality Standards. Water quality certification has been applied for. Monitoring of the discharge site will be conducted to insure State standards met.
- (3) Potential Effects on Human Use Characteristic

- (a) Municipal and Private Water Supply. Not applicable.
  - (b) Recreational and Commercial Fisheries. There would be a long-term change in the species composition of fish at the site.
  - (c) Water Related Recreation. Not applicable.
  - (d) Aesthetics. The proposed discharge would increase noise and scenic degradation along the ocean front during disposal operations.
  - (e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.
- g. Determination of Cumulative Effects on the Aquatic Ecosystem. Since the bottom substrate is silty, the placement of an irregular sandy substrate would provide additional diversity to the area.
- h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

**CMDA-2D WETLAND CREATION SITE  
SECTION 404(b)(1) EVALUATION  
DREDGED MATERIAL**

I. Project Description

- a. Location. Tampa Harbor-Port Sutton Navigation Channel, Hillsborough County, Florida.
- b. General Description. The Corps is proposing to place dredged material from the construction of the Port Sutton Navigation Channel adjacent to Dredged Material Management Area CMDA-2D in Tampa Bay.
- c. Authority and Purpose. This study is authorized by Water Resources Development Act 1992. Pursuant to Section 204 of the Water Resources Development Act of 1996, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment.
- d. General Description of Dredged or Fill Material
  - (1) General Characteristics of Material. The excavated material to be placed would consist of newly excavated bottom sediments.
  - (2) Quantity of Material. Approximately 1,540,000 cubic yards of dredged material excavated from the navigation entrance channel will be placed.
  - (3) Source of Material. The material will be excavated from the Port Sutton Navigation Channel.
- e. Description of the Proposed Discharge Site.
  - (1) Size and Location. The 107-acre site is located adjacent to CMDA-2D located north of the Alafia River Navigation Channel.
  - (2) Type of Site. The site is a sandy bottom open-water area.
  - (3) Type of Habitat. The area is mostly open-water habitat with a small island located on the south east corner of the site..
  - (4) Timing and Duration of Discharge. The area would be filled in conjunction with the construction of the navigation channel expansion.
- f. Description of Disposal Method. The material would be mechanically placed.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The average depth of the site is approximately 5 feet..

(2) Sediment Type. Sediment analysis of the disposal site indicates that the bottom is composed of a layer of silt and fine grained sand. A site investigation was conducted by divers to verify that the habitat was a silty substrate.

(3) Dredged/Fill Material Movement. The dredged material is not likely to movement because it is a low energy area and the area is protected from wind and wave action by the DMMA.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement site. These communities will reestablish quickly upon completion of work. Disruption of marine life at the placement area will be short term.

(5) Other Effects. Fisheries at or near the disposal area should not experience substantive adverse effects. Standard manatee construction conditions will be required of all contractors. The work as proposed will not jeopardize protected species. No known historical properties will be affected by this project. The proposed work will result in some temporary disruption of normal vessel traffic in the harbor, but it's completion will have a favorable impact on the operation of the port with a resulting beneficial effect on the local and regional economy. Temporary degradation in water quality at the dredging and disposal sites will also occur. The work will create 107 acres of estuarine habitat.

(6) Actions Taken to Minimize Impacts. Turbidity curtains could be employed to reduce impacts on seagrass beds. The standard manatee protection conditions would also be employed to reduce potential for impacts. .

### b. Water Circulation, Fluctuation and Salinity Determinations

#### (1) Water

(a) Salinity. No impacts to salinity at disposal site.

(b) Water Chemistry. There will be no changes in water chemistry at the site.

(c) Clarity. There will be a temporary increase in turbidity level at the disposal site and immediately adjacent to the disposal area during the disposal operations.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics and would not be exposed to the air.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There would be improved water quality at the site from the increased dissolved oxygen levels.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. Not applicable.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be operated to maintain state water quality standards.

d. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects.

(b) Dissolved Oxygen. There would be no reduction in dissolved oxygen levels from the discharge of the sandy dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment at the disposal site.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. No photosynthesis occurs at this site.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Little or no impact is expected.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.

(3) Effects on Nekton. None are anticipated.

(4) Effects on Aquatic Food Web. None are anticipated.

(5) Effects on Special Aquatic Sites. No special aquatic sites are located within

the disposal site.

(a) Sanctuaries and Refuges. Not applicable.

(b) Wetlands. The work would create 107 acres of wetlands..

(c) Mud Flats. Not applicable.

(d) Vegetated Shallows. None would be affected.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. None would be affected.

(7) Other Wildlife. Not applicable.

(8) Actions to Minimize Impacts. The standard manatee protection conditions would be implemented. In addition, a special manatee observer with video equipment would be used to document impacts

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.

(2) Determination of Compliance with Applicable Water Quality Standards. Water quality certification has been issued by the State. Monitoring of the discharge site will be conducted to insure State standards met.

(3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. There would be an increase in spawning and nursery areas for fish.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The proposed discharge would increase noise and scenic degradation along the ocean front during disposal operations.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. Since the bottom substrate is silty, the placement of an irregular sandy substrate would provide additional diversity to the area.

h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

**SUNKEN ISLAND/BIRD ISLAND EXPANSION  
SECTION 404(b)(1) EVALUATION  
DREDGED MATERIAL**

I. Project Description

- a. Location. Tampa Harbor-Port Sutton Navigation Channel, Hillsborough County, Florida.
- b. General Description. The Corps is proposing to place dredged material from the construction of the Port Sutton Navigation Channel adjacent to Sunken Island/Bird Island to create bird habitat.
- c. Authority and Purpose. This study is authorized by Water Resources Development Act 1992. Pursuant to Section 204 of the Water Resources Development Act of 1996, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment. This proposal was presented to the Corps for consideration by the Habitat Restoration Committee of the Agency on Bay Management, Tampa Bay Regional Planning Council.
- d. General Description of Dredged or Fill Material
  - (1) General Characteristics of Material. Port Sutton has fines ranging between 5 to 45 percent. Preliminary findings indicate the high percentage of fines in the dredged material may not be problematic for a beneficial use plan.
  - (2) Quantity of Material. Approximately 900,000 cubic yards of dredged material excavated from the navigation entrance channel will be used to construct the island.
  - (3) Source of Material. The material will be excavated from selected sites within the Port Sutton Navigation Channel.
- e. Description of the Proposed Discharge Site.
  - (1) Size and Location. A 52-acre open-water site adjacent to Sunken/Bird Island located south of the Alafia River Navigation Channel.
  - (2) Type of Site. The Islands are upland habitat, well-vegetated and support bird nesting in the mangroves. The discharge site is open-water sandy bottom.
  - (3) Type of Habitat. The site is open-water sandy bottom used by fish.

(4) Timing and Duration of Discharge. The island would be expanded in conjunction with the construction of the new navigation channel.

f. Description of Disposal Method. The dredged material would be mechanically placed.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. This would be a flat open-water area approximately 7 feet deep.

(2) Sediment Type. The bottom sediments in this area are sandy.

(3) Dredged/Fill Material Movement. The material would be contained within a diked area to control settling and turbidity.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement site. These communities will reestablish quickly upon completion of work. Disruption of marine life at the placement area will be short term.

(5) Other Effects. Fisheries at or near the disposal area should not experience substantive adverse effects. Standard manatee construction conditions will be required of all contractors. The work as proposed will not jeopardize protected species. No known historical properties will be affected by this project. The proposed work will result in some temporary disruption of normal vessel traffic in the harbor, but its completion will have a favorable impact on the operation of the port with a resulting beneficial effect on the local and regional economy. Temporary degradation in water quality at the dredging and disposal sites will also occur.

(6) Actions Taken to Minimize Impacts. The standard manatee protection conditions would also be employed to reduce potential for impacts.

### b. Water Circulation, Fluctuation and Salinity Determinations

#### (1) Water

(a) Salinity. No impacts to salinity at disposal site.

(b) Water Chemistry. There will be no changes in water chemistry at the

site.

(c) Clarity. There will be a temporary increase in turbidity level at the disposal site and immediately adjacent to the disposal area during the disposal operations.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics and would not be exposed to the air.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. Not applicable.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. Not applicable.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be operated to maintain state water quality standards.

d. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects.

(b) Dissolved Oxygen. There would be no reduction in dissolved oxygen levels from the discharge of the sandy dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment at the disposal site.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. No photosynthesis occurs at this site.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Little or no impact is expected.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.

(3) Effects on Nekton. None are anticipated.

(4) Effects on Aquatic Food Web. None are anticipated.

(5) Effects on Special Aquatic Sites. No special aquatic sites are located within

the disposal site.

(a) Sanctuaries and Refuges. Not applicable.

(b) Wetlands. Not applicable.

(c) Mud Flats. Not applicable.

(d) Vegetated Shallows. None would be affected.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. None would be affected.

(7) Other Wildlife. Not applicable.

(8) Actions to Minimize Impacts. The standard manatee protection conditions would be implemented. In addition, a special manatee observer with video equipment would be used to document impacts.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.

(2) Determination of Compliance with Applicable Water Quality Standards. Water quality certification has been issued by the State. Monitoring of the discharge site will be conducted to insure State standards met.

(3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. There would be a short-term impact on recreational fishing during construction. In the long-term the creation of 67 acres of wetlands would be beneficial to fish nurseries.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The proposed discharge would increase noise and scenic

degradation along the ocean front during disposal operations.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. There would be a cumulative increase in wetland habitat in Tampa Bay.

h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

**MACDILL SEAGRASS RESTORATION SITE  
SECTION 404(b)(1) EVALUATION  
DREDGED MATERIAL**

I. Project Description

a. Location. Tampa Harbor-Port Sutton Navigation Channel, Hillsborough County, Florida.

b. General Description. The Corps is proposing to place dredged material from the construction of the Port Sutton Navigation Channel in a former borrow area located southwest of the runway at MacDill Air Force Base in Tampa Bay.

c. Authority and Purpose. This study is authorized by Water Resources Development Act 1992. Pursuant to Section 204 of the Water Resources Development Act of 1996, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment. This proposal was presented to the Corps for consideration by the Habitat Restoration Committee of the Agency on Bay Management, Tampa Bay Regional Planning Council.

d. General Description of Dredged or Fill Material

(1) General Characteristics of Material. . Alafia has fines ranging between 5 to 45 percent. Preliminary findings indicate the high percentage of fines in the dredged material may not be problematic for a beneficial use plan.

(2) Quantity of Material. Approximately 300,000 cubic yards of dredged material excavated from the navigation entrance channel will be placed in the hole.

(3) Source of Material. The material will be excavated from selected sites within the Tampa Harbor navigation channel.

e. Description of the Proposed Discharge Site.

(1) Size and Location. The placement area is located southwest of the runway of MacDill AFB. It can hold approximately 300,000 cubic yards of material.

(2) Type of Site. The site is a former borrow area. The material was used for the MacDill AFB runway extension. The hole is located in a littoral area surrounded by patchy seagrass beds. The bottom of the hole collects silty sediments. The edges of the hole are sandy material. The hole has a maximum depth of 12 feet.

(3) Type of Habitat. The hole is a cold water refugia for large fish. It is habitat for a large number of species of fish that use the edge of the hole as habitat. The center of the hole has low dissolved oxygen and is less likely used by the fisheries. Smaller species and juvenile fish use the adjacent seagrass beds.

(4) Timing and Duration of Discharge. The hole would be filled in conjunction with the construction of the new navigation channel.

f. Description of Disposal Method. The dredging would be conducted by a hydraulic dredge or hopper with pump-out capabilities. The outfall would likely have a diffuser at the terminal end. The contractor could employ a flocculant to reduce turbidity and increase settling.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The hole is slightly sloped toward an adjacent tidal trough in the Bay. The hole is approximately 12-feet deep with elevations of 1-foot, 3-foot and 8-foot surrounding the hole.

(2) Sediment Type. Sediment analysis of the disposal site indicates that the bottom is composed of a layer of silt and fine grained sand. A site investigation was conducted by divers to verify that the habitat was a silty substrate.

(3) Dredged/Fill Material Movement. The dredged material is not likely to movement because it is a low energy area and the hole acts as a sediment trap for silty material.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement site. These communities will reestablish quickly upon completion of work. Disruption of marine life at the placement area will be short term.

(5) Other Effects. Fisheries at or near the disposal area should not experience substantive adverse effects. Standard manatee construction conditions will be required of all contractors. The work as proposed will not jeopardize protected species. No known historical properties will be affected by this project. The proposed work will result in some temporary disruption of normal vessel traffic in the harbor, but it's completion will have a favorable impact on the operation of the port with a resulting beneficial effect on the local and regional economy. Temporary degradation in water quality at the dredging and disposal sites will

also occur. Turbidity would be controlled to not impact adjacent seagrass beds. The long-term filling of the hole would offer the expansion of seagrass beds in the area.

(6) Actions Taken to Minimize Impacts. Turbidity curtains or flocculents could be employed to reduce impacts on seagrass beds. The standard manatee protection conditions would also be employed to reduce potential for impacts. .

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

(a) Salinity. No impacts to salinity at disposal site.

(b) Water Chemistry. There will be no changes in water chemistry at the site.

(c) Clarity. There will be a temporary increase in turbidity level at the disposal site and immediately adjacent to the disposal area during the disposal operations.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics and would not be exposed to the air.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There would be improved water quality at the site from the increased dissolved oxygen levels.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. Not applicable.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be operated to maintain state water quality standards.

d. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects.

(b) Dissolved Oxygen. There would be no reduction in dissolved oxygen levels from the discharge of the sandy dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment at the disposal site.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. No photosynthesis occurs at this site.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Little or no impact is expected.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.

(3) Effects on Nekton. None are anticipated.

(4) Effects on Aquatic Food Web. None are anticipated.

(5) Effects on Special Aquatic Sites. No special aquatic sites are located within the disposal site.

(a) Sanctuaries and Refuges. Not applicable.

(b) Wetlands. Not applicable.

(c) Mud Flats. Not applicable.

(d) Vegetated Shallows. None would be affected.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. None would be affected.

(7) Other Wildlife. Not applicable.

(8) Actions to Minimize Impacts. No actions are necessary.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.

(2) Determination of Compliance with Applicable Water Quality Standards.

Water quality certification has been issued by the State. Monitoring of the discharge site will be conducted to insure State standards met.

(3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. There would be a long-term change in the species composition of fish at the site. There would be a edged maintained for 20 years as the hole is continually filled. At the completion of the project, there would likely be some relief for fish but the cold weather refugia would be eliminated.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The proposed discharge would increase noise and scenic degradation along the ocean front during disposal operations.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. Since the bottom substrate is silty, the placement of an irregular sandy substrate would provide additional diversity to the area. It would also create potential substrate for seagrass bed colonization.

h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

**WHISKEY STUMP KEY SEAGRASS RESTORATION SITE  
SECTION 404(b)(1) EVALUATION  
DREDGED MATERIAL**

I. Project Description

- a. Location. Tampa Harbor-Port Sutton Navigation Channel, Hillsborough County, Florida.
- b. General Description. The Corps is proposing to place dredged material from the construction of the Port Sutton Navigation Channel in a former borrow area located adjacent to Whiskey Stump Key near the Tampa Big Bend Navigation Project in Tampa Bay.
- c. Authority and Purpose. This study is authorized by Water Resources Development Act 1992. Pursuant to Section 204 of the Water Resources Development Act of 1996, the US Army Corps of Engineers was delegated the authority to look for opportunities for using dredged material in a way beneficial to the aquatic environment. This proposal was presented to the Corps for consideration by the Habitat Restoration Committee of the Agency on Bay Management, Tampa Bay Regional Planning Council.
- d. General Description of Dredged or Fill Material
  - (1) General Characteristics of Material. . Port Sutton has fines ranging between 5 to 45 percent. Preliminary findings indicate the high percentage of fines in the dredged material may not be problematic for a beneficial use plan.
  - (2) Quantity of Material. Approximately 950,000 cubic yards of dredged material excavated from the navigation entrance channel will be placed in the hole.
  - (3) Source of Material. The material will be excavated from selected sites within the Tampa Harbor navigation channel.
- e. Description of the Proposed Discharge Site.
  - (1) Size and Location. It is a 53-acre site located north of Tampa Harbor Big Bend Navigation Project.
  - (2) Type of Site. The site is a sedimentation basin used in the construction of Port Redwing.
  - (3) Type of Habitat. The hole is a cold water refugia for large fish. It is habitat

for a large number of species of fish that use the edge of the hole as habitat. The center of the hole has low dissolved oxygen and is less likely used by the fisheries. Smaller species and juvenile fish use the adjacent seagrass beds.

(4) Timing and Duration of Discharge. The hole would be filled in conjunction with the construction of the new navigation channel.

f. Description of Disposal Method. The dredging would be conducted by a hydraulic dredge or hopper with pump-out capabilities. The outfall would likely have a diffuser at the terminal end. The contractor could employ a flocculant to reduce turbidity and increase settling.

## II. Factual Determinations

### a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The hole is slightly sloped toward an adjacent tidal trough in the Bay. The hole is approximately 12-feet deep.

(2) Sediment Type. Sediment analysis of the disposal site indicates that the bottom is composed of a layer of silt and fine grained sand. A site investigation was conducted by divers to verify that the habitat was a silty substrate.

(3) Dredged/Fill Material Movement. The dredged material is not likely to movement because it is a low energy area and the hole acts as a sediment trap for silty material.

(4) Physical Effects on Benthos. Placement will result in the loss of benthic organisms at the placement site. These communities will reestablish quickly upon completion of work. Disruption of marine life at the placement area will be short term.

(5) Other Effects. Fisheries at or near the disposal area should not experience substantive adverse effects. Standard manatee construction conditions will be required of all contractors. The work as proposed will not jeopardize protected species. No known historical properties will be affected by this project. The proposed work will result in some temporary disruption of normal vessel traffic in the harbor, but its completion will have a favorable impact on the operation of the port with a resulting beneficial effect on the local and regional economy. Temporary degradation in water quality at the dredging and disposal sites will also occur. Turbidity would be controlled to not impact adjacent seagrass beds. The long-term filling of the hole would offer the expansion of seagrass beds in the area.

(6) Actions Taken to Minimize Impacts. Turbidity curtains or flocculent could be employed to reduce impacts on seagrass beds. The standard manatee protection conditions would also be employed to reduce potential for impacts. .

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

(a) Salinity. No impacts to salinity at disposal site.

(b) Water Chemistry. There will be no changes in water chemistry at the site.

(c) Clarity. There will be a temporary increase in turbidity level at the disposal site and immediately adjacent to the disposal area during the disposal operations.

(d) Color. Due to the minor silt content, there will be a brown turbidity plume associated with the discharge operations.

(e) Odor. There would be no odor problems associated with the dredged material since the material contains few organics and would not be exposed to the air.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There would be improved water quality at the site from the increased dissolved oxygen levels.

(h) Nutrients. The material to be discharged is mainly sand with shell fragment, therefore no nutrients would be bound in the material and no release of nutrients would be anticipated.

(i) Eutrophication. No eutrophication is anticipated.

(2) Current Patterns and Circulation. Not applicable.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. The disposal site will be

operated to maintain state water quality standards.

d. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. No changes are anticipated because the dredged material is sandy material containing few fines.

(2) Effects (degree and duration) on Chemical and Physical values

(a) Light penetration. Light penetration would be reduced during disposal operations. This would be short-term in duration and would not cause any significant adverse effects.

(b) Dissolved Oxygen. There would be no reduction in dissolved oxygen levels from the discharge of the sandy dredged material.

(c) Toxic Metals and Organics. No toxic materials are anticipated to be encountered.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There will be an increase in noise levels and aesthetic degradation from the presence and operation of dredging equipment at the disposal site.

(f) Others as Appropriate. None.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate)

(a) Primary Production, Photosynthesis. No photosynthesis occurs at this site.

(b) Suspension/Filter Feeders. Little or no impact is expected.

(c) Sight Feeders. Little or no impact is expected.

(4) Actions taken to Minimize Impacts. None required.

d. Contaminant Determinations. No contaminants have been previously encountered and therefore none are anticipated.

e. Aquatic Ecosystem and Organism Determinations

- (1) Effects on Plankton. No significant effects.
- (2) Effects on Benthos. No significant benthic populations are located in the disposal site and therefore no significant adverse impacts are anticipated.
- (3) Effects on Nekton. None are anticipated.
- (4) Effects on Aquatic Food Web. None are anticipated.
- (5) Effects on Special Aquatic Sites. No special aquatic sites are located within the disposal site.
  - (a) Sanctuaries and Refuges. Not applicable.
  - (b) Wetlands. Not applicable.
  - (c) Mud Flats. Not applicable.
  - (d) Vegetated Shallows. None would be affected.
  - (e) Coral Reefs. Not applicable.
  - (f) Riffle and Pool Complexes. Not applicable.
- (6) Threatened and Endangered Species. None would be affected.
  - (7) Other Wildlife. Not applicable.
  - (8) Actions to Minimize Impacts. No actions are necessary.

f. Proposed Disposal Site Determinations

- (1) Mixing Zone Determination. No mixing will likely occur due to the sandy nature of the dredged material, the shallow water and the small quantity of fines associated with the material.
- (2) Determination of Compliance with Applicable Water Quality Standards. Water quality certification has been issued by the State. Monitoring of the discharge site will be conducted to insure State standards met.

(3) Potential Effects on Human Use Characteristic

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. There would be a long-term change in the species composition of fish at the site. There would be a edged maintained for 20 years as the hole is continually filled. At the completion of the project, there would likely be some relief for fish but the cold weather refugia would be eliminated.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The proposed discharge would increase noise and scenic degradation along the ocean front during disposal operations.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. Not applicable.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. Since the bottom substrate is silty, the placement of an irregular sandy substrate would provide additional diversity to the area. It would also create potential substrate for seagrass bed colonization.

h. Determination of Secondary Effects on the Aquatic Ecosystem. Not applicable.

# APPENDIX VI

## COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

## COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS.

1. **National Environmental Policy Act of 1969, as amended.** Environmental information on the project has been compiled in the Final Environmental Assessment (EA). Comments about the proposed work were initially gathered as a result of a Scoping Letter dated May 8, 1998 sent to the public at large. The Draft EA was coordinated by letter dated May 8, 2000, with the public for 45 days. Comments and responses are included in Section 6 of the EA. After the comments were received, the design of this channel was finalized. The project coordinated in the Spring of 2000 had a 200-foot bottom width, project depth of 43 feet, and a length of 6,000 feet. The selected plan is a 3,930-foot long channel with a bottom width of 290 feet and a project depth of 42 feet (Mean Lower Low Water [MLLW]) transitioning to a 2,265-foot long channel with a bottom width of 260 feet and a project depth of 39 feet, MLLW.

Either project would impact shallow bay bottom on the north bank, over a length of about 2,800 feet. The impacts have not changed between the plan coordinated in the Spring and the selected plan. Two additional alternatives have been considered and therefore a revised Draft EA was prepared and coordinated by letter dated April 18, 2005. Responses to the coordination are summarized in the EA and included in the Public Coordination Appendix. No further coordination is required. This public coordination and environmental impact assessment complies with the intent of NEPA. The process will fully comply with the Act once the Findings of No Significant Impact has been signed by the District Commander.

2. **Endangered Species Act of 1973, as amended and Fish and Wildlife Coordination Act of 1958, as amended.** Consultation with the US Fish and Wildlife Service under Section of the Endangered Species Act was conducted in conjunction with the preparation of the Coordination Act Report and Biological Opinion for the construction of The Tampa Harbor – Ybor Channel and Port Sutton Navigation Channel (Appendix I). The USFWS provided these documents by Final CAR dated June 1999. The USFWS concluded that the work would not likely jeopardize the continued existence of the manatee, if the Standard manatee protection conditions are implemented. The Ybor Channel Turning Basin and Port Sutton Terminal Channel projects are situated in the most industrialized, modified segment of Tampa Bay and are adjacent to existing dredged deep water channels. In spite of the altered, stressful environmental conditions of the project sites there are fish and wildlife resources that require consideration. In order to minimize project-related adverse impacts to fish and wildlife resources the Service provides the following recommendations:

- avoid dredging-related impacts to the existing mitigation site on northeast side of Harbour Island;
- RESPONSE: This was done for the Ybor Project; therefore, it is not applicable.
  
- salvage existing oyster beds on the shelf extending from Harbour Island for relocation;
- RESPONSE: This was done for the Ybor Project; therefore, it is not applicable.
  
- conduct bulk chemical analyses, bioassay and bio-accumulation tests with sediments

- from dredge sites;
- RESPONSE: Water quality testing has been done in accordance with EPA's Inland Testing Manual and the State of Florida requirements will be met during the Water Quality Certification process.
- if contaminants are found in dredge site sediments, take measures to prevent their dispersal during dredging and spoil disposal operations;
- RESPONSE: State standards will be adhered to.
- monitor pipelines to prevent accidental spills;
- RESPONSE: This is normal best management practices.
- create 0.5 to 0.7 acres of oyster bed to mitigate the dredging of 25 to 35 acres of relatively shallow bay bottom;
- RESPONSE: The CAR recommends mitigation for immediate loss of the benthic community in the dredging footprint (total footprint for Ybor and Port Sutton) and for the lost community functions during recovery. This loss is due to changing relatively shallow habitats to deep-water habitats. The combined footprint, Ybor and Port Sutton (6,000 foot length) is about 35 acres. Using Bahr and Lanier's (1981) information that oyster reefs provide 50 times the surface area that bare bottoms do, oyster bed creation of 0.5 to 0.7 acres would mitigate the impacts of the dredging at a 1:1 ratio. Assuming a definition of shallow water habitat as being in the photic zone, 10 feet MLLW in depth or shallower, there would be no adverse impact. (This definition is very conservative since Port Sutton is an industrial area and the photic zone is more likely less than 3 feet deep.)
- implement the “Final Migratory Bird Protection Policy” to protect nesting birds on 2D and 3D;
- RESPONSE: This will be made a part of the project.
- evaluate changes to hydrology and water quality from Garrison Channel and open bay disposal options; and,
- RESPONSE: This was a part of the Ybor Project and open-water disposal is not part of this project; therefore, it is not applicable.
- seek beneficial use projects, such as described above, for use of dredged material.
- RESPONSE: No beneficial uses of dredged material were available but were considered.

The following Conservation Recommendations were contained in the Endangered Species Act portion of the CAR.

- The standard manatee conditions be implemented at both project sites.
- RESPONSE: These will be made part of the plan

- A hydraulic dredge be used for all dredging in the Port Sutton Channel based on the presence of manatees at the discharge canal during winter months.
- RESPONSE: We cannot dictate the use of any particular type of dredge because of contracting restrictions. However, it is anticipated that a hydraulic dredge will likely be the type of dredging equipment used.
- If a clamshell dredge is used, a no-dredge window from January 1-February 1 be implemented at the Port Sutton site and surrounding channel waters to adequately protect wintering manatees.
- RESPONSE: We cannot accept this because the construction would take about 2 years to complete. In recent discussions with your agency we have increased our protection of manatees by implementing a dedicated manatee observer on all clamshell dredging operations with a video camera to document impacts. Also the standard conditions implemented during this timeframe should insure that manatees are not impacted.
- If a clamshell dredge is used, no night dredging should occur in the Port Sutton channel from November 15-March 1 due to decreased visibility and observation capabilities. Tasks requiring small watercraft or barge movement should be conducted during daylight hours only, or such vessels should be outfitted with propeller guards.
- RESPONSE: We cannot accept this because the construction would take about 2 years to complete. In recent discussions with your agency we have increased our protection of manatees by implementing a dedicated manatee observer on all clamshell dredging operations with a video camera to document impacts. Also the standard conditions implemented during this timeframe should insure that manatees are not impacted.
- If a clamshell dredge is used, a designated observer should be used in areas around the discharge canal.
- RESPONSE: This has been incorporated into our standard operating procedures for protecting manatees.

Blasting was not originally considered in the consultation. By letter dated January 2, 2002, we requested consultation regarding the impacts on blasting on manatees and included a plan for their protection. By letter dated February 21, 2002, the USFWS concluded that these conditions were sufficient. This project was fully coordinated under the Endangered Species Act; therefore, this project is in full compliance with the Act. The USFWS has prepared a Final CAR for the project and stated the work will not have significant long-term effects on fish and wildlife resources and therefore, does not object to this action. Therefore, the project is in compliance with the Act.

**3. National Historic Preservation Act of 1966, as amended (PL 89-665).** An archival and literature review, including review of the current National Register of Historic Places listing, and consultation with the Florida State Historic Preservation Officer (SHPO) has been conducted to determine if significant cultural resources are located within the area of impact for the proposed

project. The District has determined that there will be no adverse impacts to any significant cultural resources in the Port Sutton Channel. The SHPO responded by letter dated June 10, 2005, concurring in that determination. Coordination through Section 106 of the NHPA complies with this Act and with the Archeological and Historic Preservation Act.

#### 4. **Clean Water Act of 1972, as amended.**

- 4.1. Section 401. (Water Quality) A Florida Department of Environmental Protection (DEP) Water Quality Certificate (WQC) has been issued for the maintenance dredging of this area. Application for a new WQC will be made to the FDEP prior to construction. State water quality standards will be adhered to during construction. The project will cause temporary increases in turbidity where dredging is taking place and at the disposal site. The Florida water quality regulations require that water quality standards not be violated during dredging operations. The standards state that turbidity outside the designated mixing zone shall not exceed 29 NTU's above background. Various protective measures and monitoring programs will be conducted during construction to ensure compliance with State water quality standards.
- 4.2. Section 404 (b)(1). The purpose of Section 404(b)(1) of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States through the control of discharges of dredged or fill material. Controls are established through restrictions placed on the discharges in Guidelines published in 40 CFR 230. An evaluation of the dredged material was conducted (Appendix VI). The impacts are addressed in the Environmental Assessment and are primarily related to a minor increases in turbidity levels adjacent to the placement area.
- 4.3. **Tier I Evaluation.** Based on the probable impacts addressed in the environmental assessment, the 404(b)(1) evaluation and Inland Testing Manual requirements concerning the dredged material to be used, the proposed work would comply with the Guidelines and the intent of Section 404(b)(1) of the Clean Water Act.
5. **Clean Air Act of 1972, as amended.** No air quality permits will be required for this project. Therefore, this Act would not be applicable.
6. **Coastal Zone Management Act of 1972, as amended.** The project has been evaluated in accordance with Section 307 of the Coastal Zone Management Act. It has been determined that the project would have no unacceptable impacts and would be consistent with the Florida Coastal Zone Management Plan (Appendix V). The Clearinghouse had determined that the project was in compliance with the Act. During the coordination of the revised EA, they were unable to make that determination and were waiting until the issuance of the water quality certification application to concur. Final state concurrence is issued concurrently with the issuance of the Water Quality Certification.
7. **Farmland Protection Policy Act of 1981.** No prime or unique farmland will be impacted

by implementation of this project. This act is not applicable.

8. **Wild and Scenic River Act of 1968, as amended.** No designated Wild and Scenic river reaches will be affected by project related activities. This act is not applicable.
9. **Marine Mammal Protection Act of 1972, as amended.** Incorporation of the safe guards used to protect manatees during dredging and disposal operations will be implemented during construction. An application for a harassment was submitted to the NMFS for impacts to bottlenose dolphins and manatees from blasting. We are anticipating receipt of this permit., therefore, this project is in compliance with the Act.
10. **Estuary Protection Act of 1968.** Tampa bay is an estuary. However, no estuary habitat will be affected by project activities. This act is not applicable.
11. **Federal Water Project Recreation Act, as amended.** There is no recreational development proposed for maintenance dredging or disposal. Therefore, this Act does not apply.
12. **Resource Conservation and Recovery Act of 1976, (PL 94-580; 7 U.S.C. 100, et seq.** This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.
13. **Toxic Substances Control Act of 1976, (PL 94-469; U.S.C. 2601, et seq.** This law has been determined not to apply as there are no items regulated under this act being disposed of or affected by this project.
14. **E.O. 11990, Protection of Wetlands.** No wetlands will be affected by project activities. This project is in compliance with the goals of this Executive Order.
15. **E.O. 11988, Floodplain Management.** No activities associated with this project will take place within a floodplain, therefore this project is in compliance with the goals of this Executive Order.
16. **E.O. 12898, Environmental Justice.** This project has been evaluated in accordance with the subject E.O. The project would not result in adverse human health or environmental effects. There would be no impacts on subsistence consumption of fish or wildlife from this project. Therefore, the work would comply with this E.O.
17. **Essential Fish Habitat, Magnuson-Stevens Fishery Conservation and Management Act.** The affects of the existing federal navigation project have been identified in the Environmental Assessment. The effects on EFH have been coordinated with the NMFS through the NEPA process. Adverse comments received were about the selection of alternatives associated with Bird/Sunken Island and CMDA-2D. These recommendations will be adhered to for this project.

# APPENDIX VII

## HTRW ASSESSMENT

PN

CESAJ-PD-EE (1110-2-1150b)

8 July 1999

MEMORANDUM FOR Chief, *JMS* Plan Formulation Branch *JMS*

SUBJECT: Hazardous, Toxic and Radioactive Waste (HTRW) Assessment of Ybor Turning Basin, Port Sutton and the Proposed Dredged Material Disposal Sites, Hillsborough County, Florida.

1. Reference a 12 November 1998 email requesting a HTRW evaluation of the Ybor Turning Basin, Port Sutton and the Proposed Dredged Material Disposal Sites.
2. Enclosed is the final HTRW Assessment for Ybor Turning Basin and Port Sutton Maintenance Dredging. The port and turning basin are located in a dense light and heavy industrial part of Tampa Bay. The proposed dredged material disposal sites have limited access and were formerly used for dredge material disposal. The probability of uncovering hazardous or toxic waste at these dredged material disposal sites is low. The probability of discovering contaminated sediments in the Ybor Turning Basin and Port Sutton is relatively high. This contamination may be due to stormwater run-off over a period of many years.
3. For questions concerning this submission, please contact Mr. Peter Besrutschko at 904-232-2298.

Encl

*Hanley K. Smith*  
 HANLEY K. SMITH  
 Chief, Environmental Branch

JUNE 1999

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# **Hazardous, Toxic and Radioactive Waste (HTRW) Assessment**

**YBOR TURNING BASIN and PORT SUTTON  
MAINTENANCE DREDGING PROJECT  
Hillsborough County,  
Florida**



**U.S. Army Corps  
of Engineers  
Jacksonville District**

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## **1.1 SUMMARY**

A Hazardous, Toxic and Radiological Waste (HTRW) site assessment was conducted on the Ybor Channel Turning Basin, Port Sutton and the proposed dredged material disposal sites. The hazardous and toxic waste evaluation revealed that the Ybor Turning Basin and Port Sutton are used for navigation. The property surrounding these navigation channels consists of heavy industrial port facilities and a petrochemical terminal. The site appears to be free of hazardous and toxic waste concerns. The hazardous and toxic waste (HTRW) review of the proposed sites did not reveal evidence of HTRW contamination.

## **1.2 INTRODUCTION**

### **1.2.1 Purpose**

The goal of this site investigation is to identify recognized environmental conditions. The investigation indicates the presence or likely presence of any hazardous substances or petroleum products. The assessment attempts to reveal conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products on the properties or into the ground, groundwater, or surface water of the properties.

### **1.2.2 Special Terms and Conditions**

The recognized environmental conditions that were considered throughout this investigation included hazardous substances or petroleum products in compliance with laws. The term environmental contamination is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

### **1.2.3 Limitations and Exceptions of Assessment**

This Phase I Environmental Site Assessment is composed of the following five components: 1) Records Review, 2) Aerial Photography Study, 3) Site Reconnaissance, 4) Interviews, 5) Report. The record review, aerial

photography study, site reconnaissance, and interviews are used in concert with each other.

#### **1.2.4 Limiting Conditions and Methodology Used**

There were no limitations imposed by physical obstructions, however, the dredged material disposal sites have limited access. The site visit conducted 27 January 1999 revealed that the disposal sites are all located at very remote locations. The sites have limited access, surrounded by light industrial activity.

### **1.3 SITE DESCRIPTION**

#### **1.3.1 Vegetation**

A site reconnaissance and review revealed that the land located around the Ybor Harbor Turning Basin and Port Sutton consist of industrial port activities. The land located around the proposed disposal sites is very developed and very little vegetation was observed. The project channel has no vegetation located on the shore because these are prime port facilities.

#### **1.3.2 Soils**

The disposal sites consist of sandy soil typical to Hillsborough County. The property along the project channel is developed and covered with structures.

#### **1.3.3 Location and Legal Description**

The facilities are located in Hillsborough County, Florida as shown on the maps in figures 1, 2, A1 and A2.

**1.3.4 Descriptions of Structures, Roads, other improvements on the Site (including heating and cooling system, sewage disposal, potable water source)**

The four proposed Dredged Material Disposal Sites are located in remote areas as shown in figures A1, and A2. There are no structures, roads or other improvements located on the proposed disposal sites. The project area consists of navigation channels. The aerial photography shows the proposed dredged material disposal areas. See aerial photographs in appendix A5, and A6.

**1.3.5 Information (if any) Reported by Auditor  
Regarding Environmental Liens or Specialized  
Knowledge or Experience**

No specialized knowledge is available for these sites.

**1.3.6 Current Uses of the Property**

The project area is used as a navigation channel. The photograph, figure A7 shows the typical features of the area. Both the disposal and the dredge maintenance project is located within the larger Tampa Bay which has extensive harbor facilities, industrial activity and petrochemical terminal operations. Figures 1, 2, A1, A2, A3, A4, A5, A6 and A7 show an overview of the Tampa Bay as related to these proposed project areas.

**1.3.7 Past Uses of the Property (to the extent identified)**

The proposed project area was used as a navigation channel for more than forty years. The proposed dredged material disposal sites appear to have been previously used as dredged material disposal areas.

**1.3.8 Current and Past Uses of Adjoining Properties (to the extent identified)**

By all indications observed throughout the site investigation, the adjoining properties of the project area are harbor facilities, and light to heavy industry, while the dredged material disposal sites are undeveloped. See figures 1, 2, A2, A3, A4, A5, and A6.

**1.3.9 Site Rendering, Map, or Site Plan**

See figures 1, 2, A1 and A2.

## **1.4 RECORDS REVIEW**

### **1.4.1 Standard Environmental Records Sources, Federal, State, and/or Local.**

Several database searches were performed. The results were plotted on to the proposed area project maps. Figures A3 and A4 shows potential sources of contamination. The following databases were included in the review: National and State Priority Listed Sites, landfills, Federal and State Conservation Environmental Restoration Comprehensive Liability Act (CERCLA) listed sites, listed violators, underground storage tanks (UST's) and leaking underground storage tanks (LUST), Treatment Storage and Disposal facilities (TSD's), listed spills, Small (SQG) and Large Quantity Generators (LQG), Transporters and aboveground storage tanks (AST's). As shown in figure A3 and A4 contaminants and activities prone to contamination are not on or immediately adjacent to the proposed dredged material disposal sites.

### **1.4.2 Physical Setting Source(s)**

The quadrangle map A1, A2 and aerial photographs A3, A4 and A5 indicate that the dredged material disposal sites have limited access. The dredge maintenance project area is located in Tampa Bay, surrounded by light and heavy industry.

### **1.4.3 Historical Use Information**

The dredge maintenance project areas have been used for navigation for more than forty years. The dredged material disposal sites are undeveloped.

### **1.4.4 Additional Record Sources**

None

## **1.5 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS**

Mr. Peter Besrutschko, Jacksonville District, US Army Corps of Engineers (Corps) performed the site investigation on 27 January 1999. Access to the sites is limited. The sites are surrounded by industrial facilities.

### **1.5.1 Hazardous Substances in Connection with Identified Uses (including storage, handling, disposal)**

There is no evidence that the adjacent properties of the Ybor Turning Basin and Port Sutton have contaminated the project area. The hazardous and/or toxic waste database plotted in figure A4 and A5 shows that potential contaminants are located in close vicinity of the project area. Although the potential contamination sources exist, there is no evidence that the channel was contaminated by specific sources. Our dredged sediment analysis program has shown that large harbors occasionally retain contaminants over many years, due to stormwater runoff.

### **1.5.2 Hazardous Substance Containers and Unidentified Substance Containers (including storage, handling, disposal)**

No hazardous substance containers and unidentified substance containers were observed.

### **1.5.3 Storage Tanks (including contents and assessment of leakage or potential for leakage)**

No storage tanks were observed on the sites.

### **1.5.4 Indications of PCBs (including how contained**

**and assessment of leakage or potential for leakage)**

Not applicable.

#### **1.5.5 Indications of Solid Waste Disposal**

No recorded or physical data yielded any indications that the disposal of sanitary solid waste has occurred at the sites at any time.

#### **1.5.6 Physical Setting Analysis, if migrating Hazardous Substances are an issue**

Migration of hazardous substances from properties adjacent to Ybor Turning Basin and Port Sutton adjacent may be possible. However, that contamination risk is relatively low.

#### **1.5.7 Any Other Conditions of Concern**

No other conditions of concern.

### **1.6 FINDINGS AND CONCLUSIONS**

A Phase I Environmental Site Assessment was conducted in conformance with the scope and limitations of ASTM Practice E 1527; of the proposed dredged material disposal sites and Ybor Turning Basin and Port Sutton located in Hillsborough County, Florida. The site visit, conducted 27 January 1999, found that dredged material disposal sites are free of hazardous and toxic materials and waste. Although the potential contamination sources exist, there is no evidence that the channel was contaminated by specific sources. Our sediment analysis history has shown that large harbors occasionally retain contaminants over many years, due to stormwater runoff. In summary, the proposed dredged material disposal sites have a low probability of hazardous or toxic waste contamination.

**PRELIMINARY ASSESSMENT SCREENING (PAS)  
STATEMENT OF FINDINGS**

**REAL PROPERTY TRANSACTION:** Preliminary site assessments were conducted on the proposed dredged material disposal sites. These sites may be used to disposed dredged materials taken from Ybor Turning Basin or Port Sutton.

**SUMMARY:**

**COMPREHENSIVE RECORD SEARCH:** Several database searches were performed and the results were plotted to the proposed area project maps. Figures A1 and A2 shows these potential contaminated sites. The following databases were included in the review: National and State Priority Listed Sites, landfills, Federal and State Conservation Environmental Restoration Comprehensive Liability Act (CERCLA) listed sites, listed violators, underground storage tanks (UST's) and leaking underground storage tanks (LUST), Treatment Storage and Disposal facilities (TSD's), listed spills, Small (SQG) and Large Quantity Generators (LQG), Transporters and aboveground storage tanks (AST's). As shown in figure A3 and A4 contaminants and activities prone to contamination are not on or immediately adjacent to the proposed dredged material disposal sites.

**SITE INVESTIGATION:** Mr. Peter Besrutschko, Jacksonville District, US Army Corps of Engineers (Corps) performed the site investigation on 27 January 1998. Access to the site is limited because there is no direct road access. The site investigation revealed no evidence of hazardous and/or toxic materials release. Although the potential contamination sources exist, there is no evidence that the channel was contaminated by specific sources. Our dredge maintenance sediment analysis history has shown that large harbors occasionally become contaminated over many years, due to stormwater runoff.

In summary, the proposed dredged material disposal sites have a low probability of hazardous or toxic waste contamination.

Signed:

*P. H. Besrutschko*

Date: 15 June 99

Prepared by: P. H. Besrutschko  
Environmental Engineer, US Army Corps of Engineers

Signed:

*J. J. McAdams*

Date: 22 June 99

Reviewed by: J. J. McAdams, P.E.  
Chief, Env. Quality Section, US Army Corps of Engineers

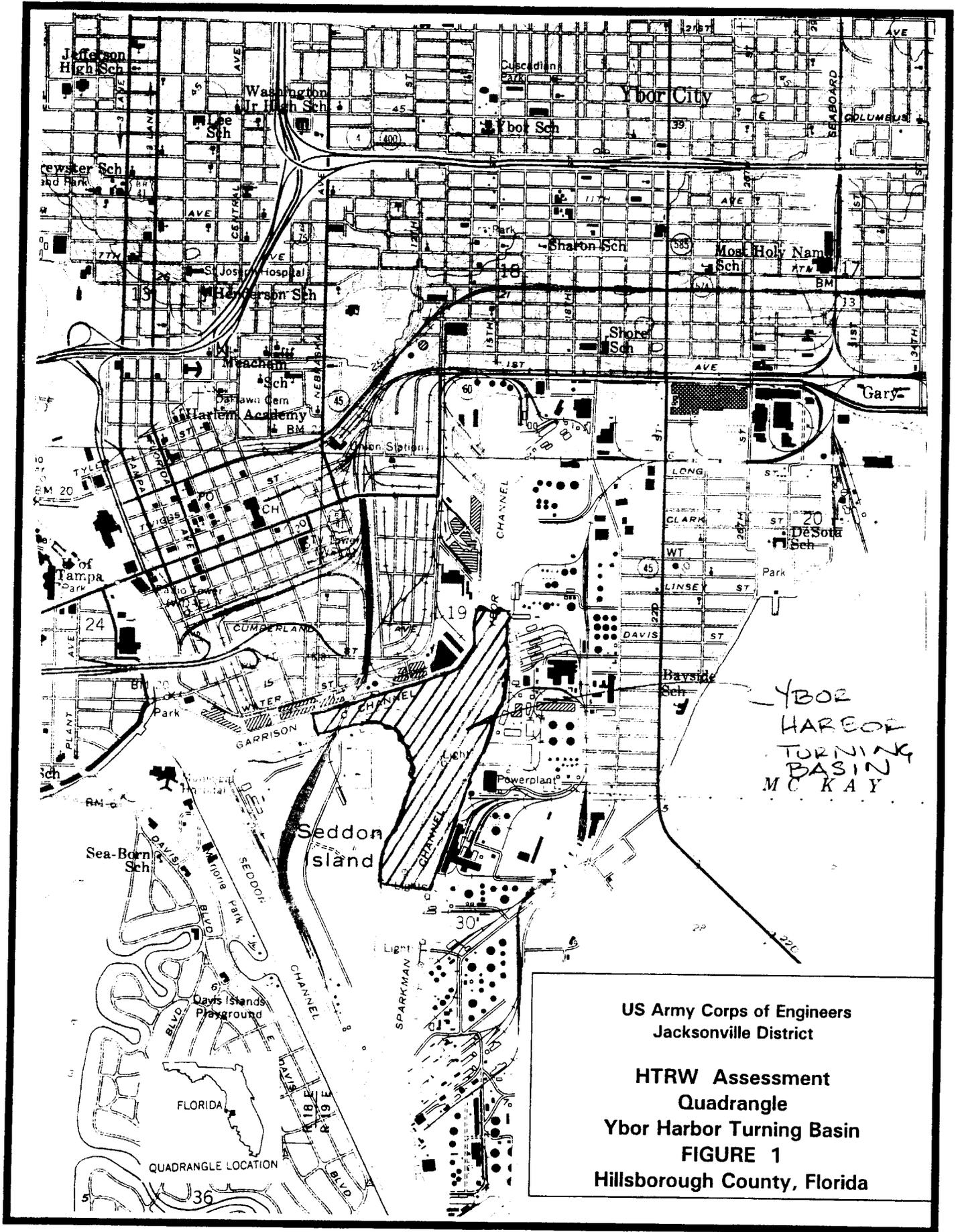
Signed:

*James McAdams*

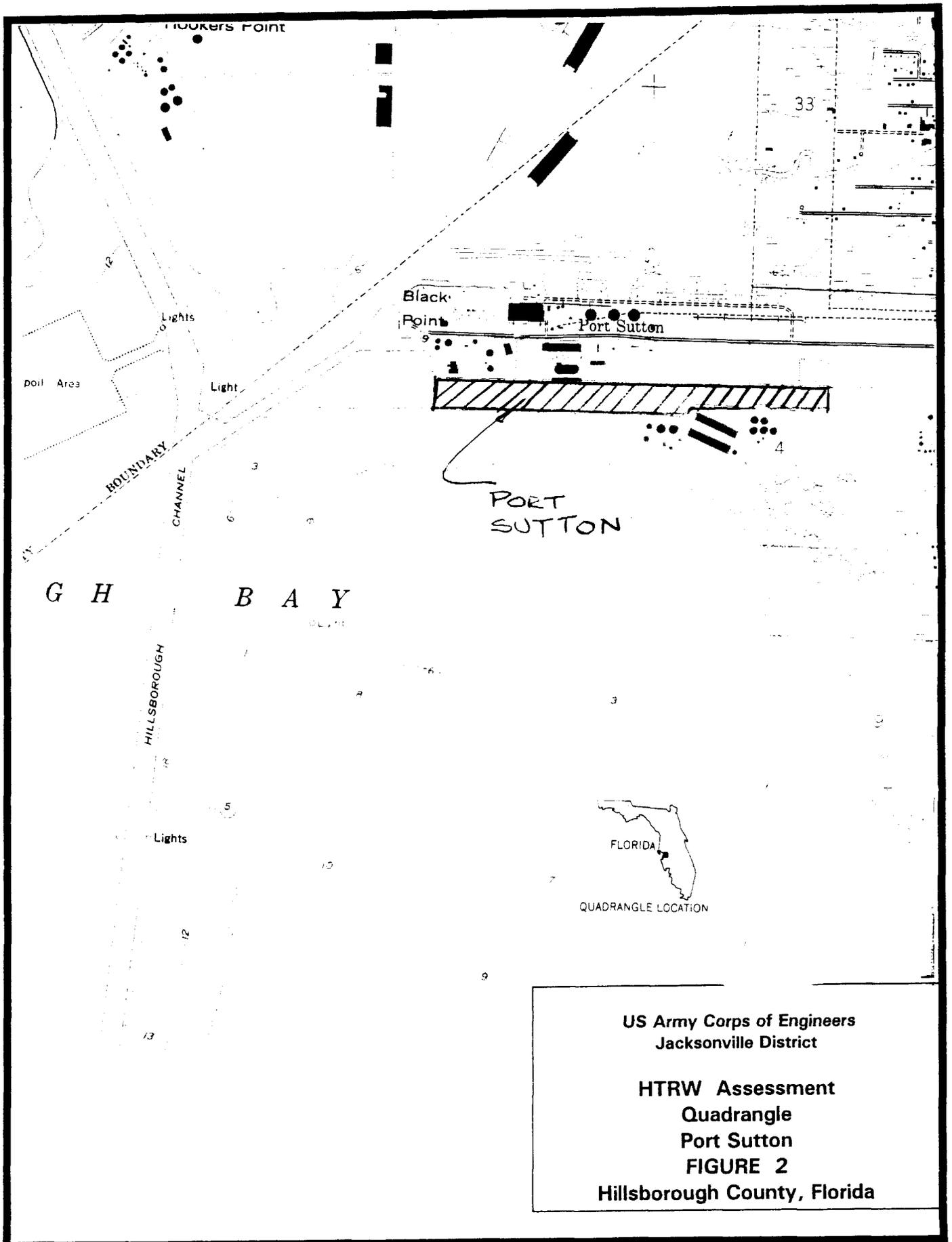
Date: 9 July 99

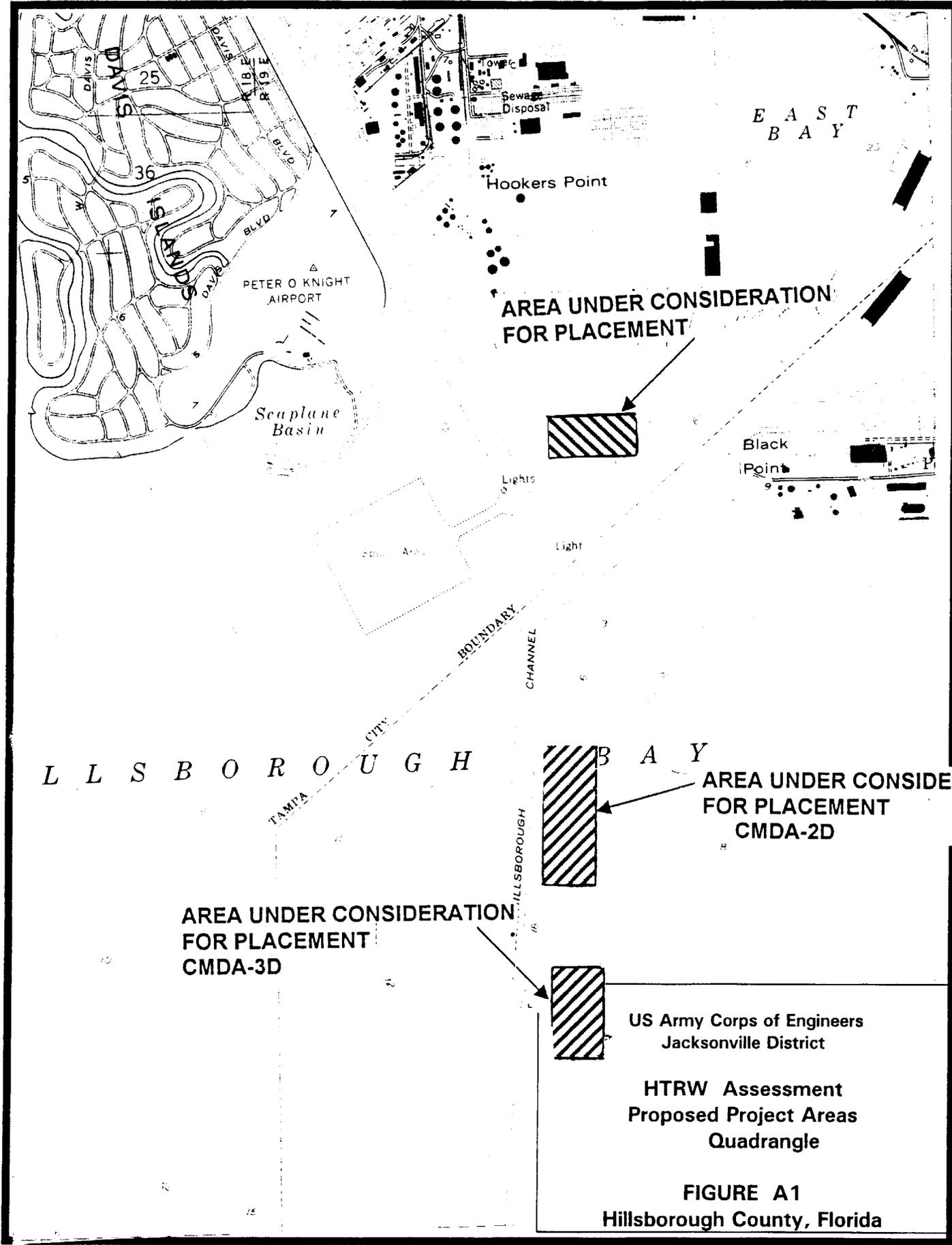
Approved by: H.K. Smith  
Chief, Env. Resources Branch, US Army Corps of Engineers

## 1.7 APPENDICES



US Army Corps of Engineers  
 Jacksonville District  
  
 HTRW Assessment  
 Quadrangle  
 Ybor Harbor Turning Basin  
 FIGURE 1  
 Hillsborough County, Florida





US Army Corps of Engineers  
Jacksonville District

HTRW Assessment  
Proposed Project Areas  
Quadrangle

**FIGURE A1**  
Hillsborough County, Florida



# Ybor Harbor Project Area



- Reads**
- Underground Storage Tank Ut12000m.shp
  - Treatment Storage and Disposal Facility Ts12000m.shp
  - RCRA Transporter Tr12000m.shp
  - Tc12000m.shp
  - ▲ Landfills Sw12000m.shp
  - ★ Spills Ss12000m.shp
  - State Priority List Sp12000m.shp
  - Sc12000m.shp
  - Np12000m.shp
  - Lt12000m.shp
  - Ge12000m.shp
  - Gt12000m.shp
  - Cr12000m.shp
  - Co12000m.shp
  - At12000m.shp
- Hydro**
- Bays, estuaries, gulfs, oceans, or seas
  - Ditch or canal
  - Fish hatchery or farm
  - Lake or pond
  - Mangrove area
  - Marsh, wetland, swamp, or bog
  - Outside area
  - Stream or River
  - Tailings pond or settling basin
  - Void or non-feature

Hazardous & Toxic Waste /Material  
Database Review

HILLSBOROUGH COUNTY

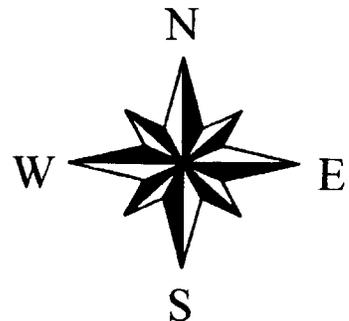
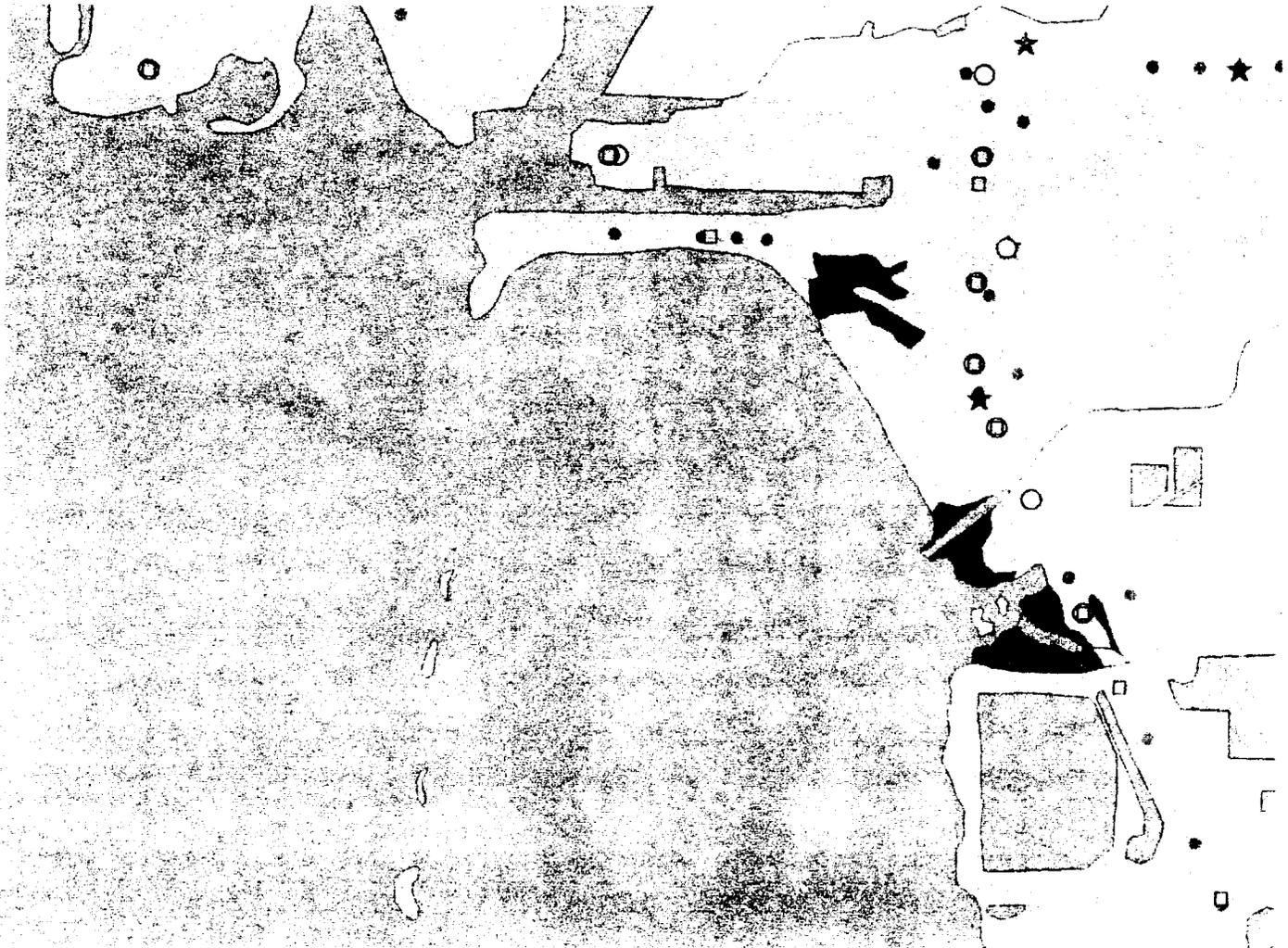


FIGURE A3

# Ybor Harbor Turning Basin and Port Sutton Hazardous, Toxic and Radioactive Database Review



- Ust\_leak.shp
- Ust.shp
- ☆ Nat\_prior.shp
- ★ Cercla\_lst.shp
- Abovgrnd.shp
- Large\_gener.shp
- Smal\_gener.shp
- Spills.shp
- ★ Stat\_cercla\_lst.shp
- ★ Stat\_prior\_lst.shp
- Transporter.shp
- Tsd\_fac.shp

**Hydro**

- land
- ▨ water
- wetland

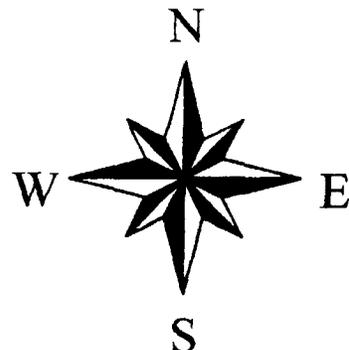
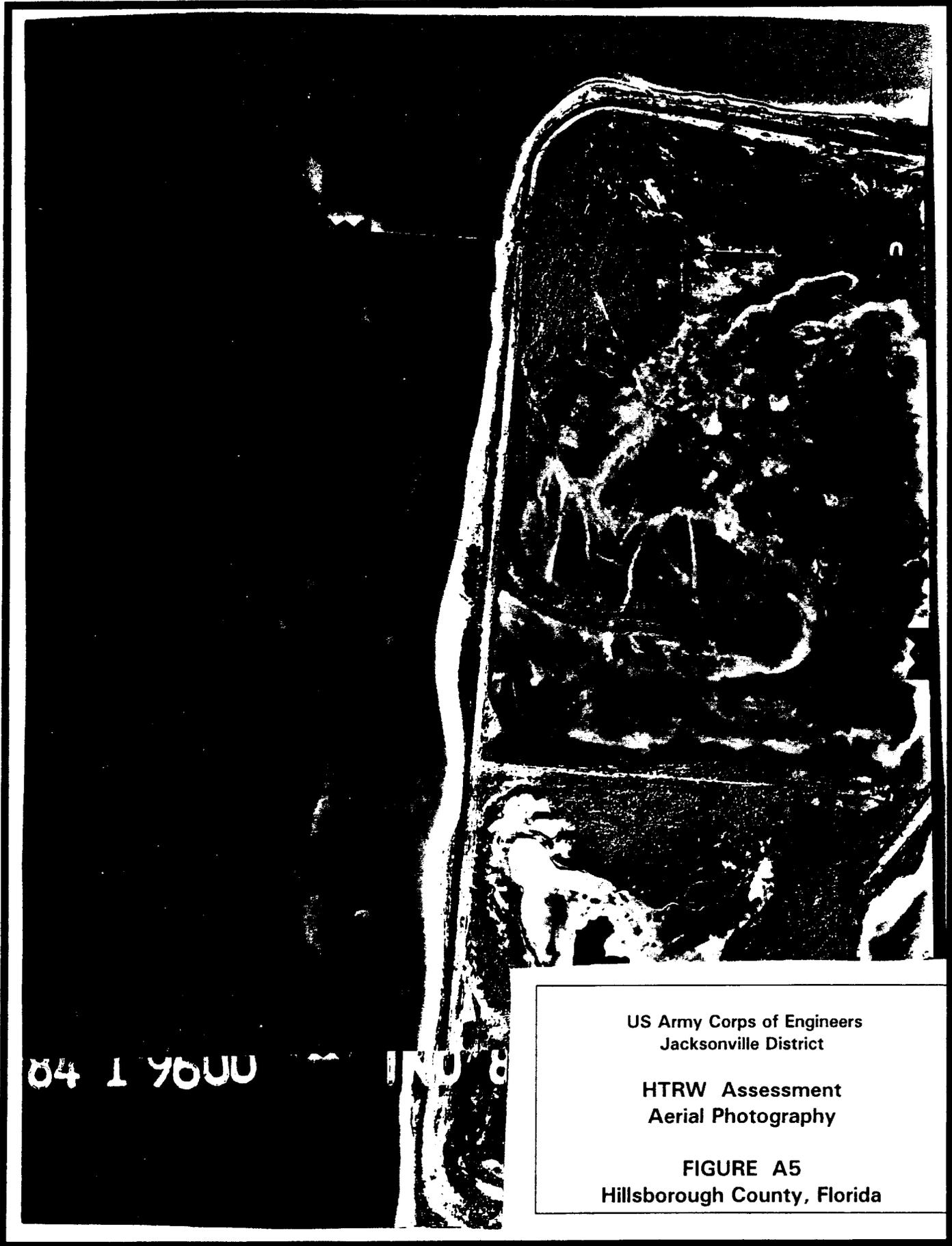


FIGURE A4

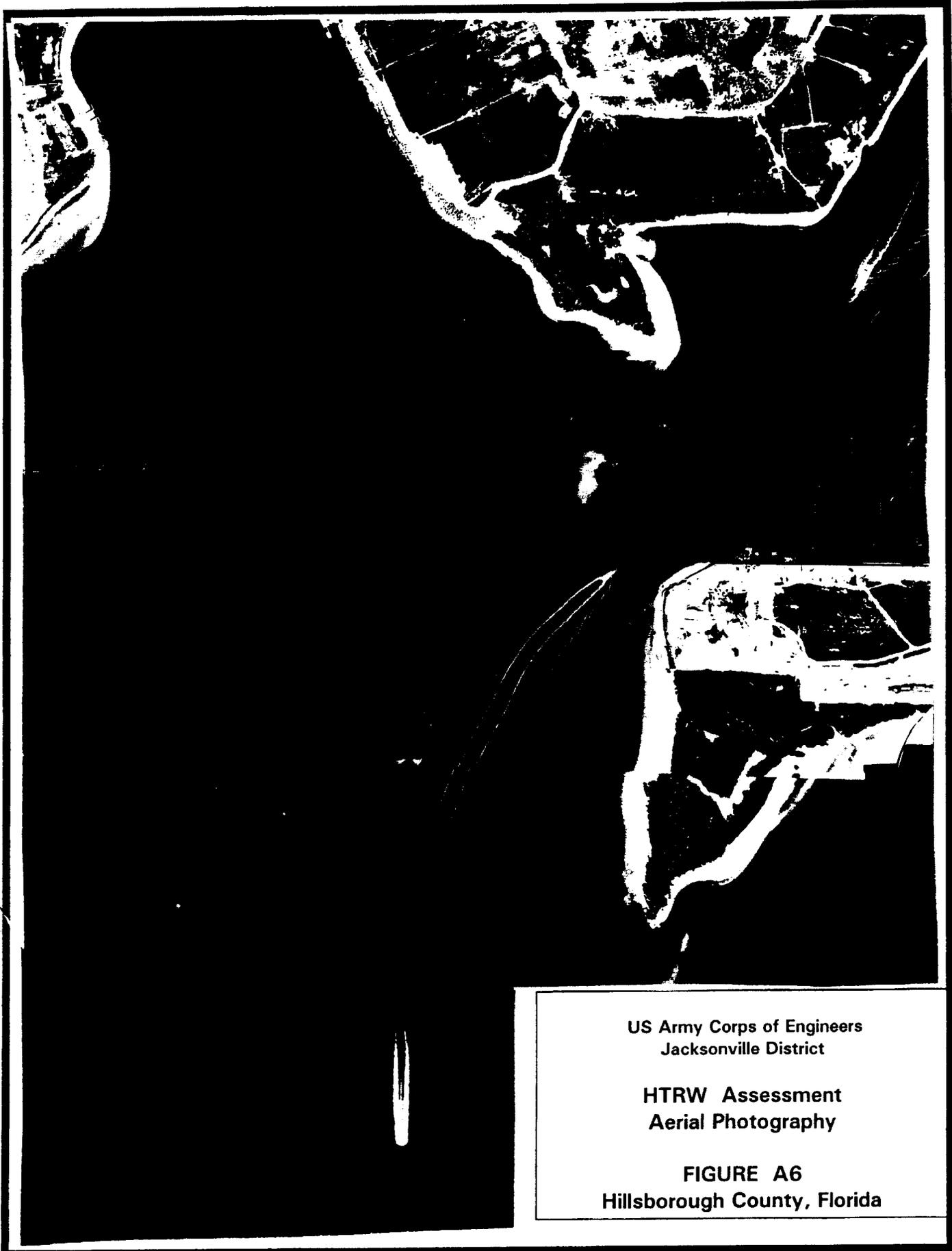


04 1 9600

US Army Corps of Engineers  
Jacksonville District

HTRW Assessment  
Aerial Photography

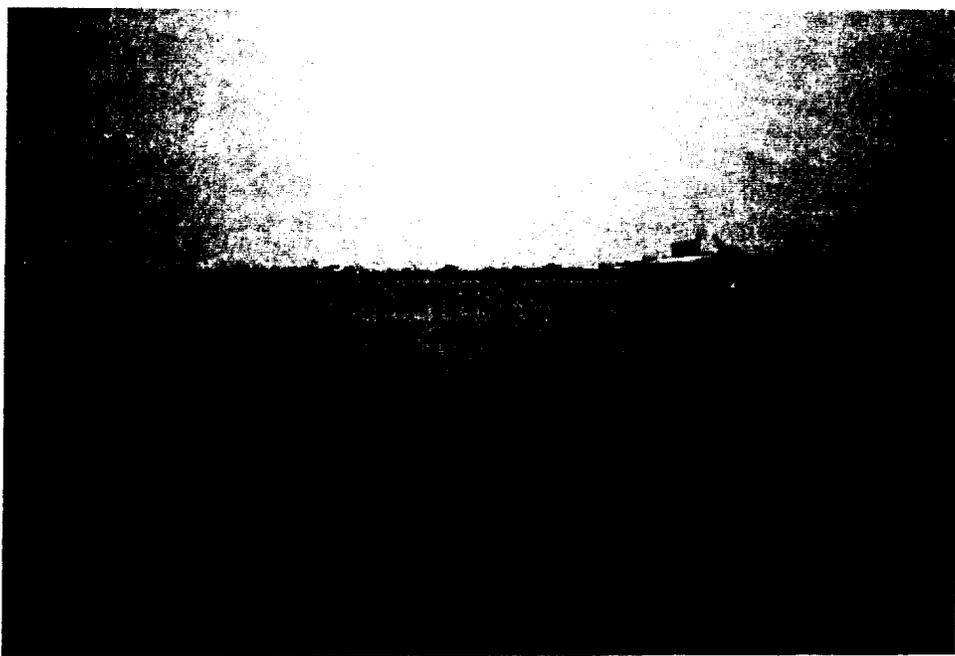
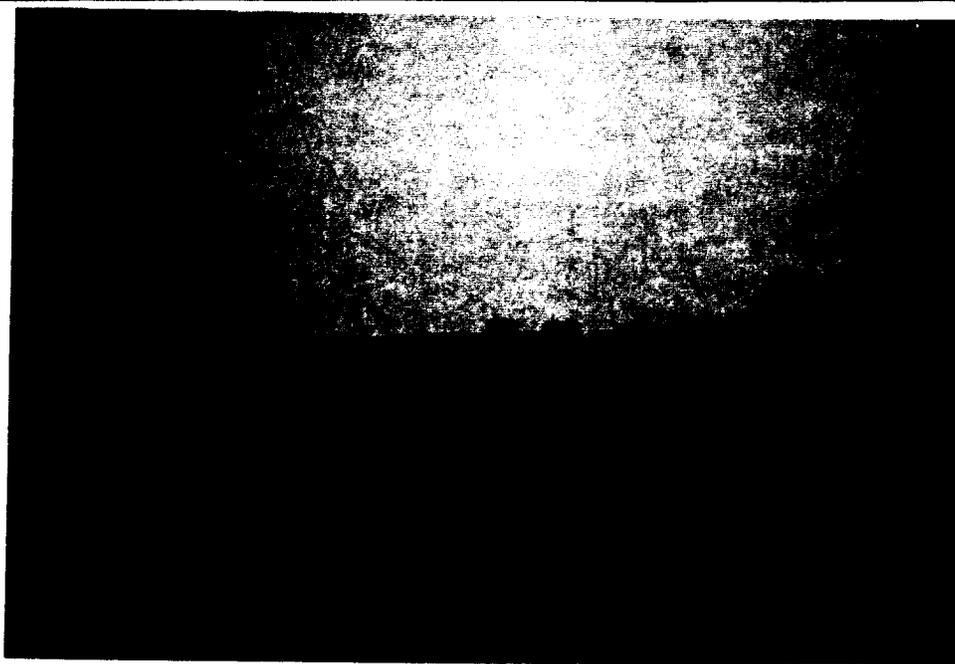
FIGURE A5  
Hillsborough County, Florida



**US Army Corps of Engineers  
Jacksonville District**

**HTRW Assessment  
Aerial Photography**

**FIGURE A6  
Hillsborough County, Florida**



**US Army Corps of Engineers  
Jacksonville District**

**HTRW Assessment  
Proposed Site Photography**

**FIGURE A7  
Hillsborough County, Florida**

# APPENDIX VIII

## WATER QUALITY TESTING

## **PORT SUTTON - 2000 TIER I EVALUATION OF DREDGED MATERIAL**

### **Introduction**

The Port Sutton Terminal Channel is located on the northeast side of Hillsborough Bay, Tampa, Florida. The 2000 evaluation of Port Sutton will consider dredged material (DM) from maintenance and new work. The project proposes to use the dredge disposal island 2D and beneficial use for disposal of dredged material.

### **Project Description**

The authorized project for Port Sutton Terminal Channel, Tampa Harbor project, is a deep-draft navigation channel 43 feet in depth with a bottom width of 200 feet over a length of 3,700 feet, beginning at the eastern edge of the Port Sutton Turning Basin. Port Sutton is a component of the Tampa Harbor project.

### **Geography and Surrounding Area**

The major geographical features are a large, rather low energy estuary with a constricted opening to the Gulf of Mexico. Runoff of surface water and sediment is largely restricted to the eastern margin of the bay where the Hillsborough, Palm, Alafia, Little Manatee and Manatee Rivers enter the bay. Tides in the entire area are in the microtidal range with spring tides generally less than .8 meters. Such conditions do not result in tidal flats but salt marshes and mangrove swamps are widespread. The size of Tampa Bay and its single constricted entrance produces a large tidal prism with swift currents at the entrance to the bay.

The shoreline of the Tampa Bay estuary spans a complete spectrum from the pristine areas of southern Hillsborough County such as Cockroach Bay to totally developed industrial areas along the northern part of Hillsborough Bay including Port Sutton. Virtually all types of development are included: municipal utilities, residential, military, heavy industry including deep draft harbors, and recreational areas. The distribution is uneven in that most development is concentrated along the Pinellas County shore and the interbay peninsula and the related areas of metropolitan Tampa. The northern end of Old Tampa Bay and much of the shore in southeastern Hillsborough County is relatively undeveloped but with locally intense development in some

areas. Included in the latter would be Alafia Harbor, the port of Manatee and the Big Bend power station. Seawalls, groins, breakwaters and other coastal structures are prevalent and typically are associated with areas of development.

With the exception of the channel system and anchorages, most of Tampa Bay is shallow averaging 12 feet deep.

#### Pollution Sources

Port Sutton is a major terminal handling large volumes of cement, anhydrous ammonia, bulk fertilizer, phosphate rock, asphalt, dry bulk fertilizers, salt, sulfuric acid, #2 diesel fuel, #6 bunker fuel, liquid (molten) sulfur, liquefied petroleum gas, coal, and dry bulk gypsum. The following sources were consulted for information on spills of hazardous materials in Port Sutton: the CERCLIS database, the Toxic Release Inventory System (TRIS), and the Emergency Response Notification System (ERNS). The data obtained from CERCISIS, TRIS and ERNS sources indicated that no spills of hazardous material had occurred in Port Sutton within the past 10 years. All of the HTW confinement areas are sufficient to contain any spills. Port Sutton is part of Tampa Bay and is located at the south end of East Bay. The area is hydraulically linked to the Gulf of Tampa Bay. The area is heavily developed.

#### Previous Testing

This project was been tested for ocean disposal in accordance with **Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual**, also known as the "Green Book", and the **EPA Region IV/COE South Atlantic Division Regional Implementation Manual** (RIM). Water and sediment samples were taken on May 7, 1998 and tested for heavy metals, pesticides, PCBs, Polyaromatic Hydrocarbons (PAHs), Total Organic Carbon (TOC), ammonia, cyanide, organic tin and oil and grease. Aluminum and iron were present in the sediments at much higher concentrations than other heavy metals, which were either undetectable or present at low to moderate levels. No PCBs, pesticides, PAHs or organotin compounds were detected in any sediment. Chemical testing of elutriates of sediments showed low levels of metals, TOC, and ammonia. No pesticides, PCBs, PAHs, organotin compounds, or cyanide were detected in the elutriates.

### Disposal Site

The proposed disposal site is the existing disposal island CMDA-2D. This D/A was constructed in the late '60s and is located approximately 1.5 miles south of the project site. The island is 7000 feet long and 3500 wide with a total area of 570 acres. There are no restrictions on the use of this site other than migratory bird nesting during certain times of the year. The proposed project will place approximately 250,000 cubic yards of dredged material in the D/A.

The material to be dredged was described as silt and clay with some sand. The material underlying the silt, clay and sand was identified as rock, consisting of siltstone, sandstone, and limestone.

### Conclusion

The material from this area of Port Sutton is suitable for disposal in CMDA-2D without restriction. This conclusion is based on the following: No spills of hazardous materials that would render the dredged material unsuitable for ocean disposal have occurred since 1990 and no active CERCLA sites were found in the vicinity of the port. Although industrial facilities exist in the area that may have a potential for release of toxic materials the materials most likely to be discharged are sulfur, sulfuric acid, asphalt, phosphate fertilizers, ammonia, and fuel oil. Spills of these materials may have significant short-term impacts on the immediate environment but would not cause a long-term degradation of the sediments severe enough to eliminate CMDA-2D as an option. In addition testing of sediments and elutriates of sediments indicates heavy metal and organic chemical contamination is low to moderate through out the project area. There is no reason to believe significant adverse environmental impacts will result from disposing of this material at CMDA-2D.