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

REPLY TO
ATTENTION OF

MAINTENANCE DREDGING
ST LUCIE INLET
MARTIN COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. 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 will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. There will be no adverse impacts to endangered or threatened species, if the work is conducted in accordance with the Biological Opinion issued by the US Fish and Wildlife Service.

2. In coordination with the State Historic Preservation Officer, it was determined there would be no impacts on sites of cultural or historical significance.

3. State water quality standards will be met.

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

5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. The proposed project has been evaluated pursuant to the Migratory Bird Treaty Act. The Migratory Bird Protection Policy for the Jacksonville District will be implemented for this project.

7. Benefits to the public will be maintenance of the navigation channel, continued local economic stimulus, and increased suitable migratory bird and sea turtle nesting habitat should the material be placed on the beach.

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

12 Sept. 94
Date

for TERRY L. RICE
COL, Corps of Engineers
Commanding

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_____
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_____
TERRY L. RICE
COL, Corps of Engineers
Commanding

SEPTEMBER 1994

MAINTENANCE DREDGING

ST LUCIE INLET
MARTIN COUNTY, FLORIDA

ENVIRONMENTAL ASSESSMENT

US Army Corps
of Engineers
Jacksonville District
South Atlantic Division

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1.0 PURPOSE OF AND NEED FOR ACTION

1.1. INTRODUCTION. The U.S. Army Corps of Engineers proposes to dredge the St. Lucie Inlet entrance channel and impoundment basin in order to maintain safe navigation in the channel. The work would consist of routine maintenance dredging of an estimated 400,000 cubic yards of sand from portions of the entrance channel and impoundment basin as needed. The channel is 300 feet wide and 18 feet deep, tapering to 150 feet wide and 12 feet deep and then to 100 feet wide and 9 feet deep. The approximate length of the project is 9200 feet. The impoundment basin is 450 feet by 2500 feet and will be dredged to a required depth of 13 feet. Shoal material will be placed either in a newly proposed 10,000-foot nearshore disposal area located approximately 10 miles south of St. Lucie Inlet between State Monuments R-89 and R-99 or in a previously used beach disposal area located 4,000 feet south of the inlet and extending for 10,000 feet further south.

1.2. AUTHORITY. Authorization for this project is provided by the Harbor and River Act of 31 May 1974, House Document 294/93/1.

1.3. DECISION TO BE MADE. It is to be decided which disposal area will be used, depending on the season during which the dredging and disposal activity is to take place, in order to avoid impacts to endangered and threatened species (ie. manatees, sea turtles, sea grasses, etc.).

1.4. RELEVANT ISSUES

a. Manatees

b. Sea Turtles

c. Seagrass Beds

d. Hard Bottom Communities

e. Navigation

f. Recreation

g. Historic Properties

h. Aesthetics

1.5. PERMITS, LICENSES, AND OTHER REQUIREMENTS. The project has been evaluated for Florida Coastal Zone Management Consistency Approval (Appendix II) and was determined to be in consistent with the goals and intent of the appropriate state

statutes. In accordance with Section 401 of the Clean Water Act of 1977 a request for permits for this Federal project has been sent to the State of Florida Department of Environmental Protection. This project is being evaluated and coordinated pursuant to 33 CFR 335-338.

1.6. METHODOLOGY. An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the environmental effects, and to write the environmental assessment. This included literature searches, coordination with agencies and private groups having expertise in particular areas, and field investigations.

2.0 ALTERNATIVES.

2.1. INTRODUCTION. This section is the heart of the Environmental Assessment. This section is based on concerns for resources and impacts on resources expressed Section 3.0, The Affected Environment, and Section 4.0, The Environmental Consequences. The key to this section is the alternative comparison chart, Figure 2.1, page 3. This section has five parts:

a. A description of the process used to formulate alternatives.

b. A description of alternatives that were considered but were eliminated from detailed consideration.

c. A description of each alternative.

d. A comparison of the alternatives.

e. The identification of the preferred alternative.

2.2. HISTORY OF ALTERNATIVE FORMULATION

2.2.1. Alternative A: Beach Disposal. Past maintenance projects have utilized this disposal area.

2.2.2. Alternative B: Nearshore disposal. This is a newly proposed disposal area which would be ideal for dredged material disposal during the sea turtle nesting season.

2.3. ELIMINATED ALTERNATIVES. Taking No Action would avoid any possible adverse impacts from proposed remedial plans but would result in continuation of, and potentially expanding, shoaling activity in the navigable waters of the St. Lucie Inlet. Therefore, this alternative has been determined to be unacceptable and has been eliminated.

2.4. DESCRIPTION OF ALTERNATIVES

2.4.1. Alternative A: Beach Disposal. This alternative would provide for the deposition of spoil material dredged from the St. Lucie Inlet on the beach beginning 4,000 feet south of the inlet and extending for 10,000 feet further south. This encompasses St. Lucie Inlet State Park (SLISP) and the northern 0.5 mile of the Hobe Sound National Wildlife Refuge (HSNWR). St. Lucie Inlet material is fine to coarse calcareous and quartz sand having a grain size range from 0.07 to 10mm. The amount of fine material for the inlet is less than five percent. This beach disposal area has been used for past maintenance dredging of the inlet.

2.4.2. Alternative B: Nearshore Disposal. This alternative proposes to place shoal material in a nearshore disposal area located approximately 10 miles south of St. Lucie Inlet offshore from the SLISP and HSNWR. The fill area would extend from the Mean Low Water (MLW) line to -20 feet below MLW and from State Monument R-89 to R-99 off Hobe Sound. This alternative would be used primarily during the summer months.

2.5. ALTERNATIVE COMPARISON

Resource	No Action Alternative	Beach Disposal Alternative	Nearshore Disposal Alternative
West Indian Manatee	Medium Impact: Manatees utilize the St. Lucie Inlet to access overwintering areas. Shoaling and potential closure of the inlet would result from this alternative, and Manatees would be impacted.	Low Impact: Manatees may be present during dredging.	Low Impact: Manatees may be present during dredging.
Sea Turtles	No Impact	Medium Impact: Monitoring and Relocation if deposited during nesting season (May 1 - October 31)	No Impact
Seagrasses	No Impact	No Impact	Low Impact: Temporary turbidity would not cause long-term adverse effects to seagrasses.
Hard Bottom Communities	No Impact	No Impact	Low Impact: Temporary turbidity would not cause long- term adverse effects to hard bottom communities.
Migratory Bird Nesting	No Impact	Low short-term impact during nesting season. High long term benefit by creating additional nesting areas.	No Impact.

Resource	No Action Alternative	Beach Disposal Alternative	Nearshore Disposal Alternative
Navigation	High Impact: Loss of navigable waters essential to recreation and commerce.	High Impact: Continued Maintenance Dredging is essential in order to keep the channel open to commercial and recreational vessel traffic.	High Impact: Continued Maintenance Dredging is essential in order to keep the channel open to commercial and recreational vessel traffic.
Recreation	High Impact: Failure to dredge the entrance channel would greatly restrict recreational activity due to loss of navigable waters. Failure to re-nourish the State beach would reduce recreation areas.	Low Impact: Boat traffic and beach use would be temporarily interrupted due to dredging and disposal activity. Supplement beach sand budget in littoral drift zone.	Low Impact: Boat traffic would be temporarily interrupted due to dredging and disposal activity. Supplement beach sand budget in littoral drift zone.
Water Quality	No Impact	Low Impact: Temporary turbidity from dredged material runoff water. No long-term adverse impacts to water quality.	Low Impact: Temporary turbidity from dredged material disposal would result in no long-term adverse impacts to water quality.
Historic Properties	No Impact	No Impact	No Impact
Aesthetics	No Impact	Low Impact: Some temporary construction noise would result. Heavy equipment would be used during beach disposal and would be "unsightly".	Low Impact: Some temporary construction noise would result.

2.6. PREFERRED ALTERNATIVE. The Preferred Alternative would combine the Beach Disposal Alternative and the Nearshore Disposal Alternative. This would allow the disposal area choice to depend on the season during which disposal would occur. For example, if disposal were to take place during the sea turtle nesting season (May 1 - October 31), the nearshore disposal area would be preferable.

3.0. AFFECTED ENVIRONMENT.

3.1. ENVIRONMENTAL ISSUES. The environmental issues that are relevant to the decision to be made are the following:

a. Manatees.

b. Sea Turtles.

c. Seagrass Beds.

d. Hard Bottom Communities.

e. Migratory bird nesting

f. Navigation.

g. Recreation.

h. Historic Properties.

i. Aesthetics.

3.2. DESCRIPTION OF THE AREA. The natural resources of the surrounding area of the St. Lucie Inlet include beach and dune, upland/terrestrial, wetlands/estuary, and nearshore zones.

3.2.1. The beach and dune systems surrounding the St. Lucie Inlet form a natural barrier between the ocean, the developed properties, and the roadway landward. Stabilized beach and dune systems provide storm protection against high tide levels and wave runup, and supply the sand to offshore sand bars, thereby reducing large waves during the active storm period.

3.2.2. The Hobe Sound National Wildlife Refuge and the State Park on the south side of the inlet include several unique upland habitats and are the only area within the vicinity of the inlet that is formally designated for conservation. These islands serve as unique habitats for the county as nesting sites for many wading and diving birds. Snowy egrets (special status species) and tricolored herons together comprise a large percentage of breeding pairs. Upland areas of these islands were colonized primarily by the introduced Australian Pines. The islands also provide shallow-water habitat for growth of mangroves, seagrasses and upland hardwoods trial plantings.

3.2.3. The Indian River is a wide, shallow tidal lagoon which lies between the inlet and the St. Lucie River estuary. The Indian River extends northward to Ft. Pierce Inlet, 22 miles away. Located between the inlet and the St. Lucie River estuary, the water quality of the River is influenced by the physical processes of these boundaries. At the Indian River and Inlet interphase, water flowing at ebb and flood tidal phases will generally slow down and deposit heavier sediments it may be carrying onto the shoals just west of sailfish point, just inside the inlet. Further within the inlet where the channel from the inlet intersects the ICWW is considered the southern end of the Indian River Lagoon. The ICWW is dredged as necessary to maintain project depth. In this area, dredging usually takes place every four to five years. If the dredged material is acceptable, it is deposited on the beaches nearby.

3.2.4. Mangroves. Four species of mangrove trees, the Red mangrove (*Rhizophora manble*), Black mangrove (*Avicennia germinans*), White mangrove (*Laguncularia racemosa*), and Buttonwood (*Conocarpus erectus*) represent the dominant vegetation of

the estuarine waters. The Red mangrove is dominant, both in and near the water at low tide. The Black mangrove is generally upland of and mixed with the Red. The White mangrove is generally upland of and mixed with the Blacks, while Buttonwood is usually found upland of and mixed with Whites. All four species appear along the fringe of the various water bodies in the area in grouped and mixed communities.

3.2.5. Wetlands. Only a small percentage of the original saltmarsh acreage remains open today due to habitat conversion to mosquito impoundments in the 1950's and 1960's. Saltmarsh vegetation typically grows in transitional areas between mangroves and freshwater marshes with typical species of this habitat form including: smooth cordgrass, saltwart, glasswort, salt grass, and sea ox-eye. Mangroves, cabbage palms, and exotics frequently mix with these species and a small portion of saltmarsh remains in the HSNWR just south of St. Lucie Inlet.

3.2.6. Extensive seagrass communities exist within the Indian River Lagoon with the most dense grass beds near inlets, in a band along the western shoreline, and in scattered patches on the eastern shoreline. Flood tidal shoal growth west of Sailfish Point may be covering portions of seagrass beds.

3.2.7. Hardbottom Communities. A limestone rock outcrop reef extends along the full length of Martin County with an especially large community just north of the inlet which has become known as the Bathtub Reef. The reefs continue past the inlet (Where it has been cut through for the channel) and southward along Jupiter Island. The reef lies approximately 500 ft to 1,500 ft off of Jupiter Island. One section intersects the shoreline at the Hobe Sound Public Beach and the other area of nearshore outcrops intersects the shoreline just north of Coral Cove Park where it forms the intertidal feature known as Blowing Rocks.

3.3. PHYSICAL, BIOLOGICAL, SOCIAL, AND ECONOMIC FACTORS

3.3.1. Manatees. The West Indian Manatee (*Trichechus manatus*) is known to frequent St. Lucie Inlet using it for access to overwintering areas. Manatee overwintering areas designated by the Florida Department of Natural Resources (FDNR) include all of the waters between St. Lucie Inlet and Jupiter Inlet. Manatees are often sighted around the inlet both inside and in the ocean indicating that frequent passage through the inlet is common.

3.3.2. Sea turtles. Three sea turtle species nest regularly on beaches of the southeastern U.S.. Within the United States the Loggerhead (*Caretta caretta*) nests primarily on beaches from North Carolina to Florida with Approximately ninety percent occurring in Florida. The highest density nesting beaches in Florida occur from Canaveral National Seashore, Volusia County south to John V. Lloyd State Recreation Area in Broward County. The Loggerhead nesting season encompasses late April - August with most nesting occurring in June and July and occasionally in September.

Green Sea Turtle (*Chelonia mydas*) nesting within the U.S. occurs principally along east central Florida beaches with the majority of nesting occurring in south Brevard County and south Jupiter Island in Palm Beach County. Nesting occurs from May - September with the peak nesting occurring in July - August.

The Leatherback (*Dermochelys coriacea*) nests in the U.S. primarily in Puerto Rico and the Virgin Islands. However, eighty-nine leatherback nests were recorded on Florida east coast beaches in 1985. Much of the Florida nesting effort is centered in Palm Beach County. Nesting begins as early as late February
and terminates by late July.

3.3.3. Seagrasses. The many shallow water areas in the St. Lucie Inlet/Indian River Lagoon area are dominated by productive seagrass communities. Approximately 2,480 acres have been identified in Martin County. Two dominant seagrasses; Cuban shoal grass (*Halodule wrightii*) and manatee grass (*Syringodium filliforme*) proliferate to provide an increase in bottom surface area by 15 to 20 times as a result of leaf surfaces. In addition to the two species listed above, these five species occur in the St. Lucie Inlet, Indian River Lagoon area: Johnson's seagrass (*Halophila johnsonii*); turtle grass (*Thalassia testydinum*); paddle grass (*Halophila decipens*); star grass (*Halophila englemanii*); and widgeon grass (*Ruppia maritima*). Johnson's seagrass is a proposed threatened species and critical habitat for this species has been proposed for the portion of the Indian River Lagoon adjacent to the St. Lucie Inlet by the National Marine Fisheries Service (NMFS).

3.3.4. Hardbottom Communities. Lying parallel to the shoreline of Martin County is an extensive system of limestone outcrops which often provide a suitable substrata for saballeriid worm (*Phragmatapoma lapidosa*) colonization. These worms construct a tube-like reef structure over submerged rocks by cementing sand and platy shell fragments together with a protein-based secretion. A total of approximately 1,150 acres of hardbottom habitat exists in the St. Lucie Inlet and offshore Jupiter Island. These hardbottom habitats are characterized by limestone, worm rock, and limestone/worm rock mix reefs.

3.3.5. Migratory birds. The Least tern (*Sterna albifrons*) is known to nest on former sandy disposal material along the shoreline of the St. Lucie State Park. Approximately 20 pairs of terns have been recorded at this site. This beach area is also used by killdeer,

3.3.6. Navigation. The St. Lucie Inlet provides an outlet from the Intracoastal waterway for recreational and commercial boat traffic. Prior to construction of the inlet, large draft vessels of or more could not use the inlet and smaller vessel navigation was perilous due to extensive shoaling.

3.3.7. Recreation. The St. Lucie Inlet State Park provides miles of beaches and marshes

and other habitats for recreation and wildlife viewing.

3.3.8. Historic Properties. Since this is a man-made channel there would be no properties of a cultural or historic nature within the dredging area. The beach and nearshore areas are relatively dynamic with shifting sand eroding, accreting and moving along the shoreline. Unknown cultural or historic properties could be located in these areas. The State Historic Preservation Officer has not recorded any known properties within these areas.

3.3.9. Aesthetics. The St. Lucie Inlet is a picturesque waterway which connects the Intracoastal Waterway to the Atlantic Ocean. This Inlet is used by small vessels. The breakers at the entrance to the Inlet protects these vessels from the ocean generated wave action which can be severe at times. The nearshore disposal area is located south of Hobe Sound Park along a residential housing area. The beach disposal area is located within the rustic St. Lucie State Park and Hobe Sound National Wildlife Refuge.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1. INTRODUCTION. This section is the "scientific and analytic basis for the comparison" of the alternatives. This section describes the probable consequences of implementing each alternative on selected environmental resources. These resources are directly linked to the relevant issues listed in Section 1.4 that have driven and focus the environmental analysis.

4.2. NO ACTION ALTERNATIVE.

4.2.1. Physical: Without maintenance dredging, the navigation channel would fill in with shoal material and become unnavigable. This would have a high impact on navigation, both commercial and recreational, and the cumulative effects would spread out from there.

4.2.2. Biological: No Impact.

4.2.3. Social: No Impact.

4.2.4. Economic: No Impact.

4.2.5. Historic Properties.

4.2.6. Cumulative effects: There would be no cumulative impacts from selection of this alternative.

4.2.7. Unavoidable effects: None.

4.2.8. Irreversible and Irretrievable Resource Commitments: There would be no utilization of resources if this alternative were implemented. Therefore, there would be no irreversible or irretrievable resource commitments.

4.3. ALTERNATIVE A: BEACH DISPOSAL

4.3.1. Physical. The dredging might result in some temporary turbidity in the inlet but would cause no long-term water quality impacts. Spoil material would be deposited on the beach and some temporary turbidity might result from runoff water. No nearshore rock outcrops would be covered and there would be no significant long term water quality impacts. Safe and efficient navigable capacity would be restored to the Inlet. There would be a short-term impact on the shoreline aesthetics at the St. Lucie inlet State Park and the Hobe Sound National Wildlife Refuge from the presence and operation of the heavy equipment and the pipeline used to place the material as well as the berms and turbidity plumes generated from material placement along the beach.

4.3.2. Biological.

Turbidity. The temporary turbidity that would result from the maintenance dredging would not cause long-term adverse impacts to the seagrass beds in the area and the temporary turbidity that would result from the beach disposal runoff water would not cause long-term adverse impacts to the biota of the nearshore habitat.

Manatees. Manatees could be located in the work area. Therefore, standard manatee protection measures would be enforced in order to avoid impacts to this Endangered Species.

Sea turtles. Sea turtles regularly nest on the project beach. Therefore, beach disposal would be used primarily during the winter months to avoid impacts to these threatened and endangered species. Beach placement would not be allowed during the summer nesting window 30 May through 30 September to avoid impacting nesting.

Hardbottom Communities. There would be no impact on hardbottom communities since those located within the area are not located within the construction impact area.

Migratory birds. There would be no long-term adverse impact on nesting. Construction would be scheduled to avoid the nesting season (1 April - 31 August). If this time frame could not be avoided special conditions would be implemented to avoid impacting this area including isolating the nesting area and monitoring nesting activities. There would be a long-term benefit to bird nesting be creating additional suitable areas for nesting.

4.3.3. Social. Recreation in the St. Lucie Inlet State Park and the Hobe Sound National Wildlife Refuge would be effected during beach disposal. Disruptions would occur when the spoil material would be deposited on the beach. However, this would be temporary

and beach renourishment would be of benefit by increasing the recreational resource.

4.3.4. Historic Properties. There would be no impacts on any cultural or historic properties.

4.3.5. Economic. By maintaining the navigation channel and renourishing the beach the City of Stuart and other surrounding areas will benefit from continuing and potentially increasing tourism and commerce.

4.3.6. Cumulative effects. There would be no cumulative impacts from the selection of this alternative.

4.3.7. Unavoidable effects. Some temporary turbidity would possibly result from the maintenance dredging and beach disposal. This effect would have no long-term adverse effects on the resources of the project area.

4.3.8. Irreversible and Irretrievable Resource Commitments. The maintenance dredging would occur in the man-made navigation channel where previous maintenance dredging has occurred and spoil deposition would occur on the section of beach where previous renourishment has occurred. Therefore, there would be no irreversible or irretrievable resource commitments.

4.4. ALTERNATIVE B: NEARSHORE DISPOSAL

4.4.1. Physical. Dredging activity might cause some temporary turbidity in the inlet but would not result in any long-term adverse impacts to water quality. Dredged material would be deposited in a nearshore disposal area and might result in some temporary turbidity. No nearshore rock outcrops would be covered by this disposal nor would there be any long-term adverse impacts to the outcrops or water quality from the resulting temporary turbidity. The placement of the dredged material would occur in the littoral drift zone. Over the long-term this would supplement the beach material accreting south of the placement area. Safe and efficient navigable capacity would be restored to the Inlet. There would be a minor disruption to the aesthetics along the nearshore area from the occasional presence of either the barge or dredge hauling and placing material in the disposal area.

4.4.2. Biological. The temporary turbidity that might result from the maintenance dredging would not have any long-term adverse impacts on the seagrass beds around the inlet. The resulting temporary turbidity from the nearshore disposal would not cause any long-term adverse impacts to the biota of the nearshore habitat. Manatees may be located in the work area. Therefore, standard manatee protection measures would be implemented during construction to avoid impacts to this species. There would be no impacts on hardbottoms since none are located within the disposal area.

4.4.3. Social. There would be no adverse social impacts from dredging and disposal in the nearshore area.

4.4.4. Historic Properties. There would be no impacts on any cultural or historic properties.

4.4.5. Economic. By maintaining the navigation channel the City of Stuart and surrounding areas will benefit from continuing and potentially expanding tourism and commerce.

4.4.6. Cumulative effects. There would be no cumulative impacts from the selection of this alternative.

4.4.7. Unavoidable effects. Some temporary turbidity would possibly result from the maintenance dredging and nearshore disposal. However, no long-term adverse impacts to the resources of the project area would result.

4.4.8. Irreversible and Irretrievable Resource Commitments. Maintenance dredging would occur in the manmade navigation channel where previous maintenance dredging has occurred. The nearshore disposal would occur on a sandy bottom area away from any rock outcrops in order to avoid impacts or seagrass beds in order to avoid impacts to these resources. Therefore, there would be no irreversible or irretrievable resource commitments.

5.0. LIST OF PREPARERS

NAME	DISCIPLINE	EXPERIENCE	ROLE IN PREPARING EA
William J. Fonferek	Biologist	14 years environmental impacts assessment	O&M NEPA Coordinator, Environmental Impact Assessment, Endangered Species Coordination
Janice E. Adams	Archeologist	8 years experience NEPA documentation,	Cultural Resources Analysis
Paul C. Stevenson	Landscape Architect	7 years landscape architect, field and design work	Aestheticand Recreational Resource Analysis
Glen Schuster	Environmental Engineer	15 years professional engineer	Water Quality Impacts
Paul Demarco	Biologist	1 month assisting	NEPA Documentation

6.0 CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS

6.1 PUBLIC NOTICE. A Public Notice was on the proposed maintenance dredging was circulated July 21, 1994. The comment letters appear in Appendix III.

6.2 COORDINATION. The public notice was sent to, and coordinated with, the following agencies:

FEDERAL AGENCIES:
Commander, Seventh Coast Guard District, Miami, FL
Director, Atlantic Marine Cnt., NOAA, Norfolk, VA
FDA, Regional Shellfish Specialist, Atlanta, GA
Director, National Park Ser., Southeast Region, Atlanta, GA
Regional Director, National Park Ser., SE Region, Atlanta, GA
Regional Director, Fish & Wildlife Service, Atlanta, GA
Field Supervisor, Fish & Wildlife Service, Jacksonville, FL
Field Supervisor, Fish & Wildlife Service, Vero Beach, FL
Regional Hydrologist, U.S. Geological Survey, Atlanta, GA
District Chief, U.S. Geological Survey, WRD, Tallahassee, FL
Regional Hydrologist, NOAA, National Weather Ser., Fort Worth, TX Southeast River Forecast Cnt., NOAA, National Weather Service, Atlanta, GA
Environmental Protection Agency, Office of Federal Activities, Washington, D.C.
Environmental Protection Agency, Region IV, Atlanta, GA
Federal Energy Regulatory Commission, Atlanta, GA
National Marine Fisheries Service, EA Branch, Panama City, FL
National Marine Fisheries Service, EA Branch, St. Petersburg, FL
Federal Maritime Commission, Office of Environmental Impact, Washington, D.C.
USDA, Soil Conservation Service, Gainesville, FL
Federal Highway Administration, Tallahassee, FL
Water Resource Coordinator, National Marine Fisheries Service, Tallahassee, FL

STATE AGENCIES:
Executive Director, DEP, Tallahassee, FL
DEP, Division of Beaches and Shores, Tallahassee, FL
Florida Game & Fresh Water Fish Commission, Lakeland, FL
Secretary, Dept of Environmental Protection, Tallahassee, FL
Department of Agriculture, Bureau of Soil & Water Conservation, Gainesville, FL
Director, Div of Archives, History & Records Management, Tallahassee, FL

Secretary, Department of Transportation, Tallahassee, FL
State Clearinghouse, Office of Planning & Budgeting,
Tallahassee, FL
South FLorida Water Management District, West Palm Beach, FL

ENVIRONMENTAL ORGANIZATIONS:
Executive Director, Florida Audubon Society, Maitland, FL
Executive Director, Florida Wildlife Federation,
West Palm Beach, FL
National Estuary Program, St. Petersburg, FL

APPENDIX I

COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS.

6.1 National Environmental Policy Act of 1969, as amended. Environmental information on the project has been compiled and the draft Environmental Assessment, was made available for public review through public notice in compliance with 33 CFR Parts 335-338. These regulations govern the Operations and Maintenance of US Army Corps of Engineers Civil Works Projects involving the Discharge of Dredged or Fill Material into Waters of the US or Ocean Waters. 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.

6.2 Endangered Species Act of 1973, as amended. Consultation with the USFWS was completed for dredging and beach placement by USFWS Biological Opinion dated 10 February 1987 (Log No. 4-1-87-024). The dredging and placement of material in the nearshore disposal area was evaluated. A No Effects determination was made and submitted by letter dated 20 June 1994 requesting concurrence in a No Effects determination for impacts on manatees and sea turtles. The USFWS concurred in that determination by letter dated 28 July 1994. This project was fully coordinated under the Endangered Species Act; therefore, this project is in full compliance with the Act.

6.3 Fish and Wildlife Coordination Act of 1958, as amended. The project has been coordinated with the USFWS during the public notice period. The National Marine Fisheries Service and the USFWS responded with concerns for nearshore hardbottoms. A review of the aerial photographs for the St. Lucie Inlet Management Plan revealed that no hardbottoms are located within the nearshore disposal area. The NMFS and the USFWS were notified of this information. Therefore, coordination has occurred and therefore, the project is in compliance with the Act.

6.4 National Historic Preservation Act of 1966, as amended (PL 89-665). An archival and literature review, including a review of the current National Register of Historic Places listing and consultation with the Florida State Historic Preservation Officer (SHPO), was conducted to determine if significant cultural resources are present in the project area. No significant archeological sites or historic properties are recorded in the project area, and the area is judged to have little potential for containing significant cultural resources. No response from the SHPO was received during the public notice period. Therefore, the project would be in compliance.

6.5 Clean Water Act of 1972, as amended.

6.5.1. Section 401. A Water Quality Certification was issued by the Florida Department of Environmental Protection by Permit No. 430753659. On February 16, 1994 the WQC was modified to extend the permit from 10 August 1994 to 30 September 1995. A new permit (No. 432477899) was issued for the nearshore disposal area dated 12 September

1994.

6.5.2. Section 404. 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. The discharge of dredged material is subject to evaluation pursuant this Section.

6.5.1. Restrictions on the Discharge: Section 230.10 requires that the discharge meet certain restrictions in order to be authorized. The project is to be evaluated and comply with the following restrictions: (a) there would be no other practicable alternatives to the proposal that would have less adverse impacts on the aquatic environment, (b) that the discharge would not adversely impact water quality, violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of a threatened or endangered species as identified under the Endangered Species Act, (c) the discharge would not cause or contribute to the significant degradation of waters of the United States, or (d) the project would be designed in such a manner as to minimize to the extent possible the adverse impacts on the aquatic environment.

6.5.2. Initial Evaluation: An evaluation of the dredged material was conducted in accordance with Part 230.61 (Appendix III). The impacts are addressed above and are primarily related to a minor increases in turbidity levels adjacent to the disposal area from the return water in the surf zone. Since there would be no other practicable alternatives to the proposal, the adverse impacts have been minimized to the extent possible, and no other restrictions have been violated, and, consequently, the proposed work would comply with the restrictions in Section 230.10. In addition, there is no indication that the return water from the dredged material to be used for the project would be contaminated above background levels. Therefore, the dredged material is designated as a Category 1 discharge and, in accordance with Part 230.63(a), no testing of chemical-biological interactive affects is required.

6.5.3 Factual Determination: Based on the probable impacts addressed above, compliance with the restrictions, and all other information concerning the fill materials to be used, the proposed work would comply with the Guidelines and the intent of Section 404(b)(1) of the Clean Water Act.

6.6 Clean Air Act of 1972, as amended. Since the project area is within an attainment area, the EPA rules for conformity determination do not apply. No air quality permits will be required for this project. Therefore, this project is in compliance with the Act.

6.7 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 Management Plan (Appendix III). In accordance with the 1979 Memorandum of Understanding and the 1983 Addendum to the Memorandum concerning acquisition of water quality certifications and other State of Florida authorizations, the preliminary Environmental Assessment and Section 404(b)(1) Evaluation have been submitted to the State in lieu of a summary of environmental impacts to show consistency with the Florida Coastal Zone Management Plan.

6.8 Farmland Protection Policy Act of 1981. No prime or unique farmland will be impacted by implementation of this project. This act is not applicable.

6.9 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.

6.10 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, therefore, this project is in compliance with the Act.

6.11 Estuary Protection Act of 1968. No designated estuary will be affected by project activities. This act is not applicable.

6.12 Federal Water Project Recreation Act, as amended. There is no recreational development proposed for maintenance dredging or disposal. Therefore, this Act does not apply.

6.13 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.

6.14 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.

6.15 Migratory Bird Treaty Act. The work has been evaluated pursuant to the Migratory Bird Treaty Act. A Migratory Bird Protection Policy has been prepared to address protecting migratory bird nesting. This Plan has been coordinated with the US Fish and Wildlife Service, the Florida Inland Navigation District, the Audubon Society and the Florida Game and Freshwater Fish Commission. As part of the Policy, conditions will be incorporated into the Plans and Specifications to protect the birds during the nesting season. This plan would insure no adverse impacts on nesting migratory birds in compliance with the Act.

6.16 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.

6.16 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.

6.17 E.O. 11593, Protection and Enhancement of the Cultural Environment. An archival and literature review, including a review of the current National Register of Historic Places listing and consultation with the Florida State Historic Preservation Officer (SHPO), was conducted to determine if significant cultural resources are present in the project area. No significant archeological sites or historic properties are recorded in the project area, and the area is judged to have little potential for containing significant cultural resources. Therefore, the work would comply with this Act.

APPENDIX II

ENDANGERED SPECIES CONSULTATION

United States Department of the Interior
FISH AND WILDLIFE SERVICE
ENDANGERED SPECIES FIELD STATION
2747 ART MUSEUM DRIVE
JACKSONVILLE, FLORIDA 32207

February 10, 1987

Mr. A.J. Salem
Chief, Planning Division
Environmental Resources Branch
Jacksonville District
Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232

Dear Mr. Salem:

This report represents the Biological Opinion of the Fish and Wildlife Service in accordance with Section 7 of the Endangered Species Act of 1973, as amended, regarding the proposed dredging of Ponce de Leon Inlet, Volusia County, Florida and St. Lucie Inlet, Martin County, Florida (FWS Log Numbers 4-1-87-023 and 4-1-87-024). This opinion addresses only the consultation requirements of Section 7(a)(2) of the Endangered Species Act of 1973, as amended, and does not address the requirements of other environmental statutes such as the National Environmental Policy Act or the Fish and Wildlife Coordination Act. An official record of this consultation is on file in this office.

PROJECT DESCRIPTION

Approximately 500,000 cubic yards of sand will be dredged at Ponce de Leon Inlet and deposited either offshore or on the beach extending 12,000 feet north from the inlet. Previous core boring data indicate the material is fine to medium quartz sand and having a grain size range from 0.07 to 0.84 mm. Work is planned for April 1987.

Approximately 200,00 cubic yards of dredged material from St. Lucie Inlet will be deposited on the beach beginning 4,000 feet south of the inlet extending for 10,000 feet south. This encompasses St. Lucie State Park and the northern .5 mile of the Hobe Sound National Wildlife Refuge. St. Lucie Inlet material is fine to coarse calcareous and quartz sand having a grain size range from 0.07 to 10 mm. The amount of fine material for both inlets is less than five percent.

Standard manatee protection measures will be implemented during dredging operations and standard sea turtle nest relocation measures are proposed if deposition of dredged material occurs during the nesting season (May 1 - October 31).

CONSULTATION HISTORY

In an October 2, 1986 letter to the FWS the COE determined the proposed dredging of Ponce de Leon Inlet and St. Lucie Inlet would not effect federally listed species. The Service responded with a letter on October 30, 1986 indicating we did not concur with the COE determination relative to sea turtles. The Service further stated a Biological Opinion would be provided within 90 days.

BIOLOGICAL OPINION

Three sea turtle species nest regularly on beaches of the southeastern U.S. The loggerhead (Caretta caretta) listed as threatened on July 28, 1978. Within the United State it nests primarily on beaches from North Carolina to Florida. Approximately ninety percent of loggerhead nesting within the U.S. occurs in Florida (Murphy and Hopkins 1984). The highest density nesting beaches in Florida occur from Canaveral National Seashore, Volusia County south to John V. Lloyd State Recreation Area in Broward County (Conley and Hoffman 1986). Nesting densities vary from less than one nest per km on the average for some beaches in northeast, southeast, and the panhandle of Florida to over 600 nests per km on some stretches of beach in south Brevard County (Ehrhart and Witherington 1986). The most recent estimate for total annual nesting effort for the southeastern U.S. is 58,000 nests based on aerial surveys conducted in 1983 (Murphy and Hopkins 1984). The U.S. loggerhead nesting population, one of the two most significant nesting populations in the world, may represent up to 30 percent of the worldwide loggerhead nesting population (Ross 1982). This is in contrast to all other sea turtle species where nesting occurs largely outside the U.S. The loggerhead nesting season encompasses late April - August with most nesting occurring in June and July and occasional nesting occurring in September. Incubation period is temperature dependent and most nests hatch within 60 days although up to 70 days may be required for some nests in the northern periphery of the nesting range. Primary threats to loggerheads within the U.S. include; 1) accidental drowning of sub-adult and adult turtles by commercial shrimping activities, 2) degradation of nesting habitat by human activities from beach front developments and the resulting artificial lighting, rip-rap, bulkheads, seawalls, and human disturbance and 3) excessive nest predation by raccoons or hogs on some major nesting beaches which is also associated with human alteration of the coastal environment.

Green turtle (Chelonia mydas) nesting within the U.S. occurs principally along east central Florida beaches. Nesting densities are much lower than for the loggerhead and range from 1-5 nests per km on

most beaches within its major nesting range to 13-20 nest per km on high density green turtle nesting beaches in south Brevard County and south Jupiter Island in Palm Beach County (Conley and Hoffman 1986; Ehrhart and Witherington 1986). Overall green turtle nesting in Florida has shown an increasing trend with the highest recorded nesting of 746 occurring in 1985 (Dodd 1981, Conley and Hoffman 1986). Nesting occurs from May - September with the peak nesting occurring in July - August. Hatching period is similar to the loggerhead. The green turtle was listed on July 28, 1978 as endangered in Florida and the west coast of Mexico and threatened elsewhere. Major threats to the green turtle within the U.S. are identical to those for the loggerhead. Green turtles however appear to be more sensitive to human disturbance and artificial lighting.

The leatherback (Dermochelys coriacea) was listed as endangered throughout its range on June 2, 1970. Nesting within the U.S. occurs primarily in Puerto Rico and the Virgin Islands. Eighty-nine leatherback nests however were recorded on Florida east coast beaches in 1985. (Conley and Hoffman 1986). Nesting begins as early as late February and terminates by late July. Much of the nesting effort is centered in Palm Beach County but scattered nesting has been recorded on almost all Florida east coast county beaches with the most northerly record from Blackbeard Island, Georgia (Conley and Hoffman 1986; Seyle 1985). The primary threat to this species in Florida is degradation of nesting habitat by human activities from beach front developments as with the loggerhead and green sea turtle.

The hawksbill (Eretmochelys imbricata), listed as endangered on June 2, 1970, is a rare nester on southeastern U.S. beaches with only 1-2 nests recorded annually on Florida beaches (Lund 1985, McMurtray and Richardson 1985; Conley and Hoffman 1986). Nesting has been recorded for the months of June, July, August, and October and from Volusia, Martin and Dade Counties (McMurtray and Richardson 1985; Lund 1985; Dalyrymple et al 1985).

Impacts to sea turtles can occur directly or indirectly as a result of depositing dredged material on turtle nesting beaches. Depending on the quality of the material the newly nourished beach may be too compact for turtles to dig nests and therefore result in increased false crawls, aberrant nests and broken eggs (Raymond 1984). The relocation of nests on high density nesting beaches will not result in 100 percent nest protection since even under the best of circumstances some nests will be missed and therefore may be subsequently buried by dredging material or crushed by construction equipment (Sally Murphy pers. comm.; Paul Raymond pers. comm.). The relocation of nests to hatcheries could result in reduced hatching success if not properly

conducted (Limpus et al 1979) and could also result in altering hatchling sex ratios if incubation temperatures vary from temperatures on natural beach locations (Mrosovsky and Yntema 1980; Morreale et al 1982). The significance of these impacts is dependent on the number of nests relocated.

Sea turtle nesting on the beaches north of Ponce de Leon Inlet is low and averaged 2-4 loggerhead nests per km in recent years (Conley and Hoffman 1986). Consequently it is anticipated that 7-15 nests would be impacted by the proposed Ponce de Leon project. Relocation of this low number of nests would have a minimal impact on sea turtles even if beach nourishment is conducted during the nesting season. Compaction of the beaches for 1 - 2 years after nourishment could result in negative impacts to subsequent nesting activities as described above (Raymond 1984).

Nest surveys have not been conducted routinely at St. Lucie State Park. The most recent complete survey was conducted in 1981 and resulted in a count of 161 loggerhead nests (47/km) for the 3.4 km beach. This is considered lower than most years because 1981 was a year of low statewide loggerhead nesting relative to subsequent years. Further, nesting on Hobe Sound NWR adjacent to and immediately south of the state park averages 225 loggerhead nests per km over its 5.6 km of beaches. Based on the level of nesting on the refuge therefore it is likely that approximately 200 nests are deposited on St. Lucie State Park in an average year and may attain over 400 in peak years (Stuart Marcos pers. comm.). Clearly the state park and northern .5 mile of the refuge in the project area provide a significant contribution to overall loggerhead nesting in the U.S. We believe that beach nourishment undertaken during the nesting season on this beach even with a relocation program would result in some nests being missed and subsequently buried by the nourishment material or crushed by heavy equipment. In spite of the best intentions or efforts by persons relocating nests, wind, rain and tides can quickly obscure tracks and prevent workers from finding nests. Turtle activities themselves can often obscure nest locations making interpretation difficult and depending on the experience and motivation of workers result in missed nests. The higher the nesting density the greater the likelihood of nests being buried. Additionally, the relocation of 350-550 nests to hatcheries from the project area could result in reduced hatching success if not properly conducted and could also result in altering hatchling sex ratios if incubation temperatures vary from temperatures on natural beach locations. Compaction of the nesting beach after nourishment and resulting negative impacts such as increased false crawls, aberrant nests and broken eggs could occur (Raymond 1984).

The impacts outlined above could affect as much as one percent of the total annual nesting for the loggerhead. We anticipate, based on the density of nesting which occurs at the St. Lucie State Park beaches some nests would actually be destroyed even if nest relocation activities were implemented. Possible impacts to hatchling sex ratios and hatching success are less predictable with current available data but careful selection of a beach hatchery site and prompt (within 12 hours of deposition) and careful handling of eggs will greatly reduce potential adverse impacts. Therefore, it is my Biological Opinion therefore that the projects as proposed are not likely to jeopardize the continued existence of listed sea turtles.

INCIDENTAL TAKE

Section 7(b)(4) of the Act requires that when a proposed agency action is found to be consistent with Section 7(a)(2) of the Act and the proposed action is likely to result in the take of some individuals of the listed species incidental to the action, the FWS will issue a statement that specifies the impact (amount or extent) of such incidental taking. It also states that reasonable and prudent measures be provided that are necessary to minimize such impacts. Reasonable and prudent measures are requirements of the action agency and are separate from conservation recommendations.

We have reviewed the biological information and other available information relevant to this action and based on our review incidental take is authorized for all nests missed by a nest relocation program within the area included in the project boundaries. This is inclusive of the direct impacts of nest burial or crushing and aberrant nests and broken eggs which result from sand compaction in the nesting season following nourishment.

Reasonable and prudent measures to minimize these impacts are as follows:

1. Beach nourishment must occur prior to May 30 or after September 30 to minimize the need for nest relocation and therefore reduce the possibility of nest burial or crushing because of missed nests. This applies only at the St. Lucie Inlet project.

2. Nourished beaches at both projects will be disced or plowed to a depth of at least 36 inches immediately following completion of beach nourishment.

3. Nest relocation activities must begin 65 days prior to nourishment activities which occur within the nesting season or March 1 whichever is less.

4. Nests will be relocated by personnel with prior experience and training in nest relocation procedures and with a valid Florida Department of Natural Resource permit. This is essential to reduce the number of missed nests.

5. Nest shall be relocated between sunrise and 10 a.m. each day and relocated to a nearby self-release beach hatchery located in a manner such that artificial lighting will not conflict with hatchling orientation.

   A report describing the actions taken to implement the Reasonable and Prudent Measures will be submitted to this office within 60 days of completion of the proposed projects. This report will include dates of actual nourishment activities, names and qualification of personnel involved in nest surveys and relocation activities, description and location of hatcheries, nest survey and relocation results and hatching success of nests.

In the event a turtle nest is dug up by beach construction activities the following procedures should be followed:

1. Immediately notify the Florida Department of Natural Resources permitted individual responsible for nest relocation on the project area for removal of the nest to the beach hatchery.

CONSERVATION MEASURES

In addition to the requirements above we recommend the following measures to further minimize impacts of the nourishment projects.

1. Turtle nesting surveys should be conducted on the St. Lucie State Park for two years after nourishment to gather better information on nesting density and nest success subsequent to future nourishment. Daytime surveys should be conducted a minimum of 5 days/week and at least 15 percent of nests should be marked to determine the fate of nests. A sample of these nest should also be analyzed to determine hatching and emergence success.

2. Consideration should be given to barging St. Lucie dredged sand to the proposed Jupiter Island project where beaches are severely eroded and offshore material available for nourishment is of

poorer quality. The St. Lucie State Park beach has been recently nourished and is in good condition.

This completes consultation under Section 7 of the Act. If there are any further modifications made in this project or if additional information becomes available relating to endangered species, reinitiation of consultation may be necessary. We also remind you that any nourishment activities planned for the Hobe Sound National Wildlife Refuge must be coordinated with the Refuge Manager and will require a refuge special use permit.

Sincerely yours,

David J. Wesley
Field Supervisor

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file

June 20, 1994

Planning Division
Environmental Branch

Mr. David L. Ferrell
Field Supervisor
U.S. Fish and Wildlife Service
P.O. Box 2676
Vero Beach, Florida 32961-2676

Dear Mr. Ferrell:

This is in reference to the maintenance dredging of the St. Lucie Inlet, Martin County, Florida (see Project Map enclosure 1). In addition to the previously used beach placement areas, we are proposing to place sandy material in a nearshore area located south of Hobe Sound Wildlife Refuge (see Nearshore Disposal Area Map, enclosure 2). This area would typically be used during the summer months.

We would like to incorporate by reference the previous Biological Opinion dated Feb 10, 1987 (FWS Log 4-1-87-024). The area to be dredged has not changed. We do not anticipate any impacts on the West Indian manatee from the dredging operation since the standard State manatee protection conditions will be incorporated into the Plans and Specifications.

The nearshore placement area has been evaluated and no species listed by the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act would be affected by the placement of sandy dredged material.

Therefore, pursuant to Section 7 of the Endangered Species Act, we are asking for your concurrence in this No Effects determination.

Sincerely,

A. J. Salem
Chief, Planning Division

Enclosure

bcc:
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CESAJ-DP

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~~Smith/CESAJ~~-PD-E 6/20
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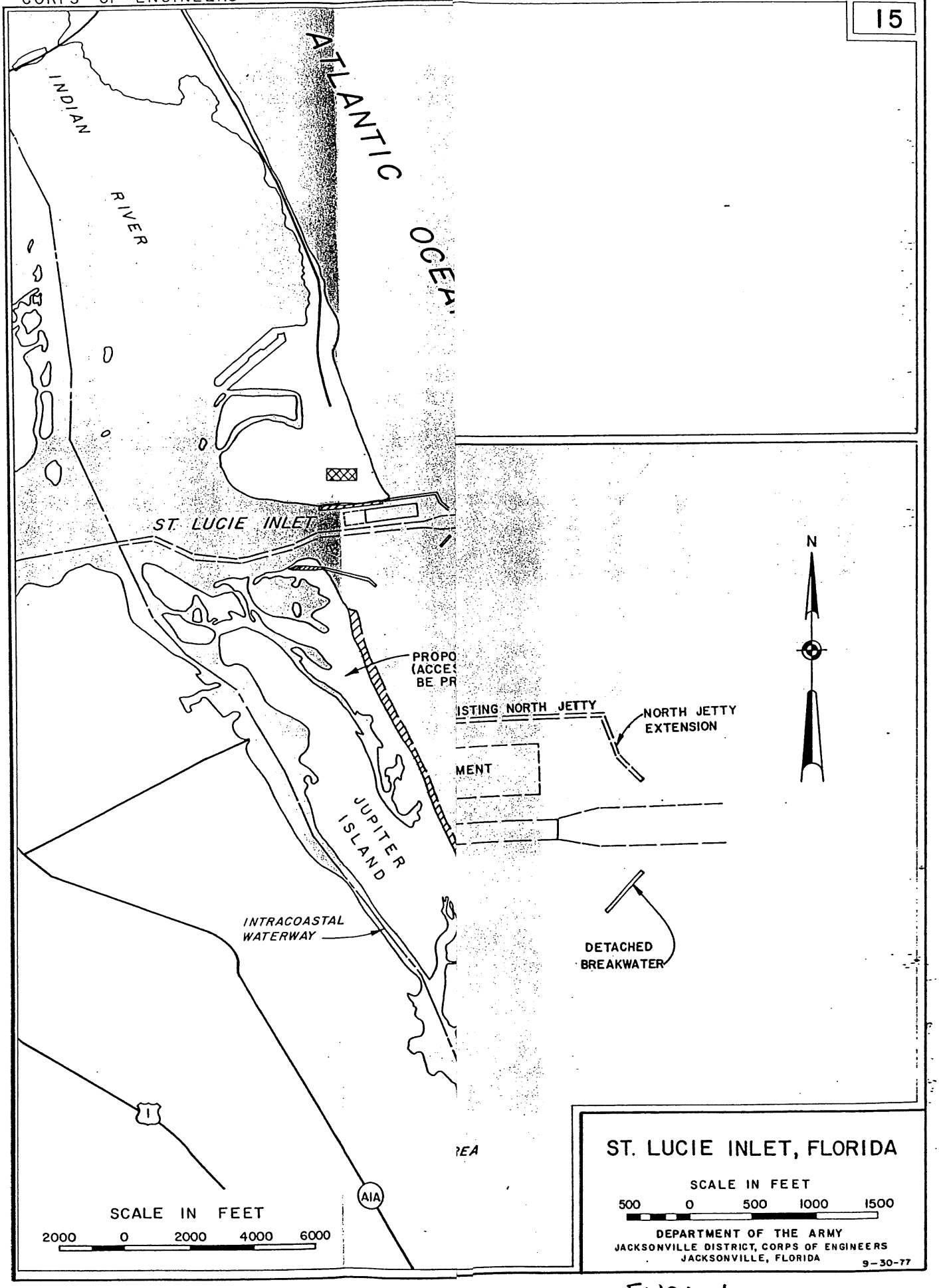
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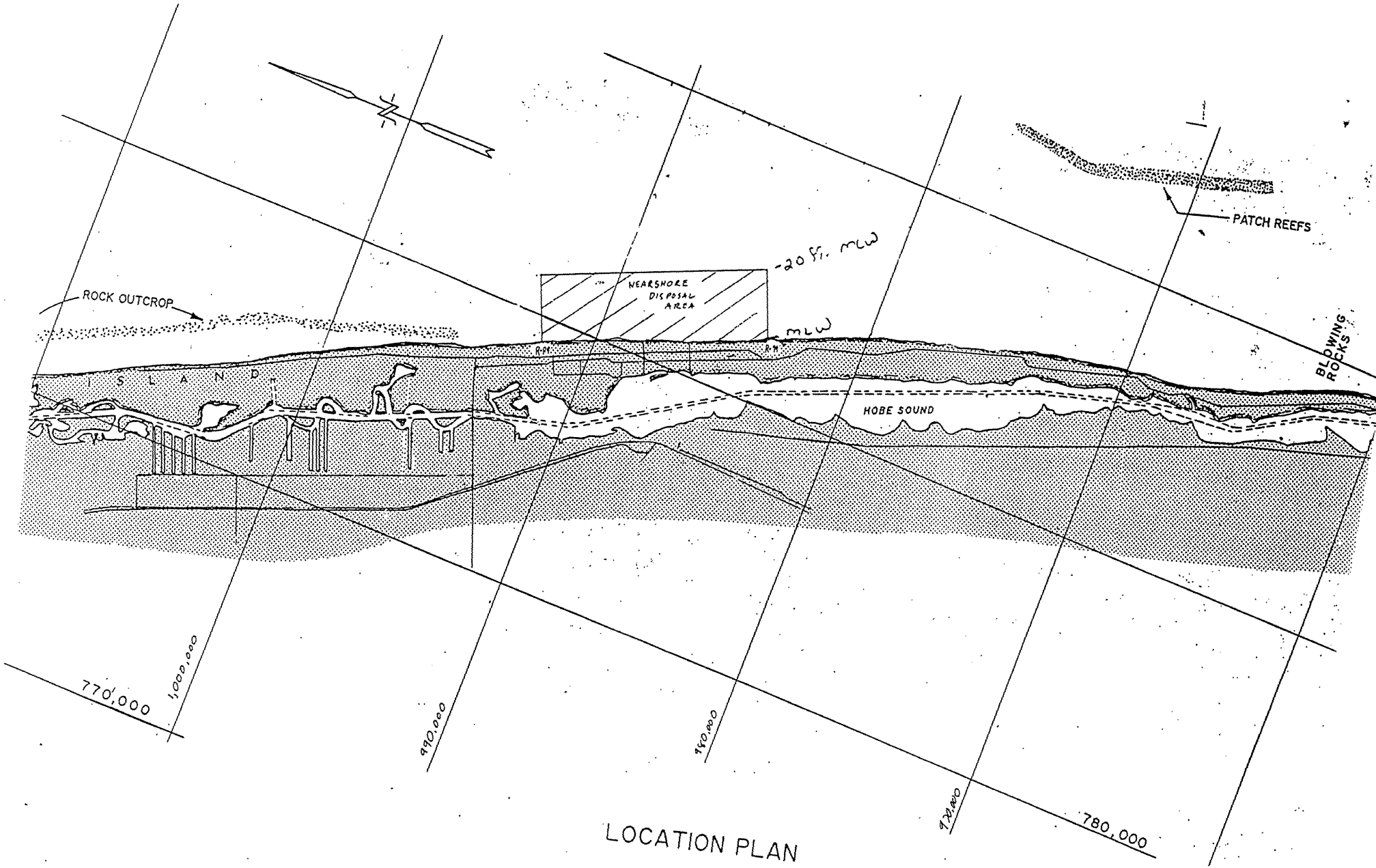

LOCATION PLAN

SCALE 1 : 40,000

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STATUTE MILES

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
P.O. BOX 2676
VERO BEACH, FLORIDA 32961-2676

July 28, 1994

Colonel Terrence Salt
District Engineer
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Attn: Planning Division FWS Log No. : 4-1-94-416

Dear Colonel Salt:

The Fish and Wildlife Service (Service) has received your letter of June 20, 1994 requesting our concurrence with your determination that placement of sand at a nearshore disposal area south of St. Lucie Inlet, Martin County, Florida is not likely to affect threatened or endangered sea turtles. The project manager at the Corps of Engineers has informed us that the material, obtained from maintenance dredging St. Lucie Inlet, would not be placed on the beach. This being the case, the Service concurs with your determination that the project is not likely to adversely affect threatened and endangered sea turtles.

Although this does not constitute a Biological Opinion described under Section 7 of the Endangered Species Act, it does fulfill the requirements of the Act and no further action is required.

The fill area is shown to extend to the 20 footage depth contour or approximately one half mile from shore. A brief review of aerial photographs suggests that there may be rock outcrops within the proposed fill area. The Service is concerned that reefs could be buried by the fill or severely impacted by associated turbidity and sedimentation. Accordingly, the Service should be funded to conduct a field investigation at the site in accordance with the Fish and Wildlife Coordination Act.

If modifications are made in the project or if additional information involving potential impacts on fish and wildlife habitat or listed species becomes available, please notify Chuck Sultzman at our office (407-562-3909).

Sincerely yours,

Kalani D. Cairns

Kalani D. Cairns
Acting Field Supervisor

cc:
EPA, Atlanta, GA
NMFS, Panama City, FL
FG&FWFC, Tallahassee, FL
FG&FWFC, Vero Beach, FL
DEP Tallahassee, FL
FWS, Jacksonville, FL

APPENDIX III

COASTAL ZONE 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 work project would supplement the sand beach budget by placing the dredged material either in the littoral drift zone or on beach. This would comply with the intent of 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. It's 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: The proposed work has been coordinated with the State without objection.

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 will protect the navigation channel which could be used in emergency situations for transportation purposes. Placing the material on the beach will help protect the adjacent properties during storm surges. Therefore, this work would be consistent with the efforts of Division of Emergency Management.

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 maintenance dredging the St. Lucie Inlet and use of Hobe Sound State Park Beach as a disposal site have been previously accomplished. The use of these State lands has been approved by the State. 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 beach placement would be help preserve the eroding shorelines along the Hobe Sound National Wildlife Refuge and the St. Lucie Inlet State Park. Therefore, this work would comply with this Chapter.

7. Chapter 267, Historic Preservation.

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

Response: The maintenance of existing navigation channels and use of the disposal areas has been coordinated with the State Historic Preservation Officer. Procedures will be implemented to avoid impacts on unknown archeological resources within the navigation channel. 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 maintenance dredging of the navigation channel encourages development and economic growth of the area. The additional material placed

on the beach helps preserve recreational uses of the beach for tourism. 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 maintenance dredging of the navigation channel promotes safe commercial navigation.

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 fishermen 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 maintenance dredging of this area would not adversely affect saltwater living resources. Based on the overall impacts of the work, the work is consistent with the goals of this chapter.

12. 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 which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: No living land or freshwater resources would be impacted by the maintenance dredging. Therefore, the work would comply with the goals of this chapter.

13. 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.

14. 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. Condition will be placed in the contract to handle any inadvertent spill of pollutants. Therefore, the project would comply with this Act.

15. 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.

16. 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 maintenance dredging of the navigation channel has been coordinated with the local regional planning commission. Therefore, the work would be consistent with the goals of this chapter.

17. 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.

18. Chapter 403, Environmental Control.

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

Response: The DEP issued a water quality certification for the project. No air pollution permits are necessary for the project. Effects of the operation of construction equipment on air quality would be minor. Therefore, the work is complying with the intent of this chapter.

19. 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. Conditions will be placed in the contract to control erosion of uplands. Therefore, the project would comply with this chapter.

APPENDIX IV

SECTION 404(B)(1) EVALUATION

SECTION 404(b)(1) EVALUATION
DREDGED MATERIAL
NEARSHORE PLACEMENT

I. Project Description

a. Location. St. Lucie Inlet

b. General Description. The work would consist of routine maintenance dredging of an estimated 400,000 cubic yards of sand from portions of the entrance channel and impoundment basin as needed. The channel is 300 feet wide and 18 feet deep, tapering to 150 feet wide and 12 feet deep and then to 100 feet wide and 9 feet deep. The approximate length of the project is 9200 feet. The impoundment basin is 450 feet by 2500 feet and will be dredged to a required depth of 13 feet. Shoal material will be placed in the nearshore disposal area located between State Monuments R-89 and R-99 within the 20-foot bottom contour off Hobe Sound.

c. Authority and Purpose. Authorization for this project is provided by the Harbor and River Act of 31 May 1974, House Document 294/93/1. Since the initial maintenance, sand and sediments have periodically accumulated in the channel reducing the navigable capacity of the project. The channel depths are reduced by sedimentation. In order to maintain the Federal standard, the channel must be dredged.

d. General Description of Dredged or Fill Material

(1) General Characteristics of Material. The material is primarily composed of sand and shell fragments. Nearer the Intracoastal Waterway, the composition changes to that containing more silt.

(2) Quantity of Material. Approximately 400,000 cubic yards of material would be dredged.

(3) Source of Material. The material would be excavated from the St. Lucie Inlet navigation channel.

e. Description of the Proposed Discharge Site.

(1) Size and Location. The nearshore disposal area would be located south of Hobe Sound Park between State Monuments R-89 and R-99 and within the 20-foot bottom contour.

(2) Type of Site. The site is a sandy littoral drift zone along the shoreline.

(3) Type of Habitat. The bottom habitat is a shifting sandy environment.

(4) Timing and Duration of Discharge. The dredging would take approximately 3 months. The dredging cycle is approximately every 2 years.

f. Description of Disposal Method. The material would be dumped from either a hopper dredge or a bottom opening barge.

II. Factual Determinations

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The disposal area would be located within the 20-foot bottom contour.

(2) Sediment Type. Sand.

(3) Dredged/Fill Material Movement. The dredged material would move within the littoral drift zone. This would supplement the sand budget of the area causing a net increase in the accretion of sand on the beach south of the disposal area.

(4) Physical Effects on Benthos. None.

(5) Other Effects. None.

(6) Actions Taken to Minimize Impacts. None.

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

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

(b) Water Chemistry. No impacts

(c) Clarity. None.

(d) Color. There would be a short-term turbidity plume created until the sand rapidly settles out of the water column.

(e) Odor. none.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. None.

(h) Nutrients. None.

(i) Eutrophication. None.

(2) Current Patterns and Circulation. The placement od dredged material at this site would not affect current patterns.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. None.

c. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. Levels should not exceed state standards.

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

(a) Light penetration. Short-term light penetration reduction will be temporarily experienced at the disposal site during dumping.

(b) Dissolved Oxygen. No impact.

(c) Toxic Metals and Organics. No impact.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There would be a turbidity plume created at the dumping site. The plumes would be short-term duration.

(f) Others as Appropriate. None.

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

(a) Primary Production, Photosynthesis. None.

(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. Turbidity would meet State standards.

d. Contaminant Determinations. No sources of pollution have been identified in the project area, therefore, no contaminants are expected to be encountered.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. There would be no significant impacts on benthos in the area.

(3) Effects on Nekton. There would be no significant impact on the nekton community in the area from this dredging and disposal occurrence.

(4) Effects on Aquatic Food Web. There would be no significant impact on the aquatic food web in the area from this dredging and disposal occurrence.

(5) Effects on Special Aquatic Sites.

(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. None would be affected.

(f) Riffle and Pool Complexes. Not applicable.

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

(7) Other Wildlife. None would be affected.

(8) Actions to Minimize Impacts. Precautions will also be taken to avoid impacting manatees within the dredging area.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. Not applicable.

(2) Determination of Compliance with Applicable Water Quality Standards. The discharge must comply with State water quality standards.

(3) Potential Effects on Human Use Characteristic

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

(b) Recreational and Commercial Fisheries. Immediate impacts to commercial fisheries resources will be insignificant.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. The turbidity plume would be visible to the residents along the coastal shoreline. However, the disposal site is not immediately adjacent to the residential properties.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. The discharge site is located south of the Hobe Sound Park and should not affect recreation at this park.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. There would be no adverse impacts on the aquatic ecosystem at this site.

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

SECTION 404(b)(1) EVALUATION
DREDGED MATERIAL
BEACH PLACEMENT

I. Project Description

a. Location. St. Lucie Inlet

b. General Description. The work would consist of routine maintenance dredging of an estimated 400,000 cubic yards of sand from portions of the entrance channel and impoundment basin as needed. The channel is 300 feet wide and 18 feet deep, tapering to 150 feet wide and 12 feet deep and then to 100 feet wide and 9 feet deep. The approximate length of the project is 9200 feet. The impoundment basin is 450 feet by 2500 feet and will be dredged to a required depth of 13 feet. Shoal material will be placed in the beach disposal area located 4000 feet south of the Inlet and extend south for approximately 10,0000 feet. This area is located at the Hobe Sound National Wildlife Refuge and the St lucie Inlet State Park.

c. Authority and Purpose. Authorization for this project is provided by the Harbor and River Act of 31 May 1974, House Document 294/93/1. Since the initial maintenance, sand and sediments have periodically accumulated in the channel reducing the navigable capacity of the project. The channel depths are reduced by sedimentation. In order to maintain the Federal standard, the channel must be dredged.

d. General Description of Dredged or Fill Material

(1) General Characteristics of Material. St. Lucie Inlet material is fine to coarse calcareous and quartz sand having a grain size range from 0.07 to 10mm. The amount of fine material for the inlet is less than five percent.

(2) Quantity of Material. Approximately 400,000 cubic yards of material would be dredged.

(3) Source of Material. The material would be excavated from the St. Lucie Inlet navigation channel.

e. Description of the Proposed Discharge Site.

(1) Size and Location. The site is a previously used beach disposal area located 4,000 feet south of the inlet and extending for 10,000 feet further south.

(2) Type of Site. The site is a sandy beach environment with typical dunes and vegetation.

(3) Type of Habitat. It is a typical beach environment used by shorebirds for feeding, migratory birds for nesting, and sea turtles for nesting.

(4) Timing and Duration of Discharge. The dredging would take approximately 3 months. The dredging cycle is approximately every 2 years.

f. Description of Disposal Method. The material would be pumped to the site in a slurry. A berm would be created along the shoreline to contain the material and as the material settles out and fills in the area a new berm is created in the new area to be filled.

II. Factual Determinations

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The disposal area would be located below the mean high water mark along the beach.

(2) Sediment Type. Sand.

(3) Dredged/Fill Material Movement. The dredged material would move within the littoral drift zone. This would supplement the sand budget of the area causing a net increase in the accretion of sand on the beach south of the disposal area.

(4) Physical Effects on Benthos. None.

(5) Other Effects. None.

(6) Actions Taken to Minimize Impacts. None.

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

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

(b) Water Chemistry. No impacts

(c) Clarity. None.

(d) Color. There would be a short-term turbidity plume created until the sand rapidly settles out of the water column.

(e) Odor. none.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. None.

(h) Nutrients. None.

(i) Eutrophication. None.

(2) Current Patterns and Circulation. The placement od dredged material at this site would not affect current patterns.

(3) Normal Water Level Fluctuations. Not applicable.

(4) Salinity Gradients. Not applicable.

(5) Actions That Will Be Taken to Minimize Impacts. None.

c. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulate and Turbidity Levels in Vicinity of Disposal Site. Levels should not exceed state standards.

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

(a) Light penetration. Short-term light penetration reduction will be temporarily experienced in the surf zone.

(b) Dissolved Oxygen. No impact.

(c) Toxic Metals and Organics. No impact.

(d) Pathogens. Not Applicable.

(e) Aesthetics. There would be a turbidity plume within the surf zone. The plumes would be short-term duration.

(f) Others as Appropriate. None.

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

(a) Primary Production, Photosynthesis. None.

(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. Turbidity would meet State standards.

d. Contaminant Determinations. No sources of pollution have been identified in the project area, therefore, no contaminants are expected to be encountered.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. No significant effects.

(2) Effects on Benthos. There would be no significant impacts on benthos in the area.

(3) Effects on Nekton. There would be no significant impact on the nekton community in the area from this dredging and disposal occurrence.

(4) Effects on Aquatic Food Web. There would be no significant impact on the aquatic food web in the area from this dredging and disposal occurrence.

(5) Effects on Special Aquatic Sites.

(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. None would be affected.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. The placement along the beach may affect nesting sea turtles. A window of protection has been established between 30 May and 30 September where no beach disposal is allowed. Other measures include beach monitoring and relocation of nests within the construction area during a period between 1 March and the beginning of construction.

(7) Other Wildlife. Migratory bird nesting could be affected by the placement of material on the beach between 1 April and 30 August. The nesting areas would be avoided during this time.

(8) Actions to Minimize Impacts. Precautions will also be taken to avoid impacting manatees within the dredging area.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. Not applicable.

(2) Determination of Compliance with Applicable Water Quality Standards. The discharge must comply with State water quality standards.

(3) Potential Effects on Human Use Characteristic

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

(b) Recreational and Commercial Fisheries. Immediate impacts to commercial fisheries resources will be insignificant.

(c) Water Related Recreation. Not applicable.

(d) Aesthetics. There would be noise and visual impacts from the presence and operation of the heavy equipment and the pipeline along the shoreline.

(e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves. The discharge site is located south of the Hobe Sound National Wildlife Refuge and St. Lucie Inlet State Park. There would be short-term disruption of recreation at these sites during construction.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. There would be no adverse impacts on the aquatic ecosystem at this site.

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

APPENDIX V

COORDINATION

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Drive
St. Petersburg, Florida 33702

September 1, 1994

Colonel Terry Rice
District Engineer, Jacksonville District
Department of the Army, Corps of Engineers
Construction-Operations Division
P.O. Box 4970
Jacksonville, Florida 32232-0019

Dear Colonel Rice:

The National Marine Fisheries Service has reviewed the public notice number PN-SLI-191 dated July 21, 1994, regarding the Jacksonville District's request to the State of Florida Department of Environmental Protection pursuant to Section 401 of the Clean Water Act for maintenance dredging of the St. Lucie Inlet with nearshore disposal. The notice was not received in our Panama City Branch Office until August 31, 1994.

We understand that personnel from the U.S. Fish and Wildlife Service plan to perform an assessment of the disposal site. We have requested that we be provided this assessment when available. Therefore, we request that your final determination on the project be held in abeyance until we have received this information and provided you with comments.

If we can be of further assistance, please contact Mr. Mark Thompson of our Panama City Branch Office at 904/234-5061.

Sincerely,

Edwin J. Kapsner

Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

cc:
EPA,ATL
SAFMC,CHAS
DEP,TALL
GFWFC,TALL
FWS,VERO
F/SEO2
F/SEO23-MIAMI

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Drive
St. Petersburg, Florida 33702

August 19, 1994

904/234-5061

Colonel Terry Rice
District Engineer, Jacksonville District
Department of the Army, Corps of Engineers
Construction-Operations Division
P.O. Box 4970
Jacksonville, Florida 32232-0019

Dear Colonel Rice:

We have reviewed the project plans as advertised in the following public notice(s).

In our assessment of the project(s), coordinated with the U.S. Fish and Wildlife Service (FWS), we have concluded that the work could adversely impact fishery resources for which the National Marine Fisheries Service (NMFS) is responsible. Therefore, comments and recommendations submitted to you by the FWS also represent those of the NMFS.

Should there be subsequent changes in the plans, please notify us directly so that we may reconsider our position on these matters.

NOTICE NO.	COUNTY	APPLICANT	NOTICE DATE	DUE DATE
PN-SLI-191	Martin	COE	7/21/94	8/19/94

Sincerely,

Edwin J Keppner

for Andreas Mager, Jr.
Assistant Regional Director
Habitat Conservation Division

cc:
F/SEO2
F/SEO23-MIAMI

file

MAINTENANCE DREDGING
ST LUCIE INLET
MARTIN COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. 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 will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. There will be no adverse impacts to endangered or threatened species, if the work is conducted in accordance with the Biological Opinion issued by the US Fish and Wildlife Service.

2. In coordination with the State Historic Preservation Officer, it was determined there would be no impacts on sites of cultural or historical significance.

3. State water quality standards will be met.

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

5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. The proposed project has been evaluated pursuant to the Migratory Bird Treaty Act. The Migratory Bird Protection Policy for the Jacksonville District will be implemented for this project.

7. Benefits to the public will be maintenance of the navigation channel, continued local economic stimulus, and increased suitable migratory bird and sea turtle nesting habitat should the material be placed on the beach.

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

9/12/94
Date

TERRY L. RICE
COL, Corps of Engineers
Commanding

Fonferek/CESAJ-PD-ES/1690/km
Kurzbach/CESAJ-PD-ES
Smith/CESAJ-PD-E
Davis/CESAJ-PD-A
Salem/CESAJ-PD
Burns/CESAJ-DX
Connell/CESAJ-DD
Rice/CESAJ-DE

Branch

MAINTENANCE DREDGING
ST LUCIE INLET
MARTIN COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. 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 will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. There will be no adverse impacts to endangered or threatened species, if the work is conducted in accordance with the Biological Opinion issued by the US Fish and Wildlife Service.

2. In coordination with the State Historic Preservation Officer, it was determined there would be no impacts on sites of cultural or historical significance.

3. State water quality standards will be met.

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

5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. The proposed project has been evaluated pursuant to the Migratory Bird Treaty Act. The Migratory Bird Protection Policy for the Jacksonville District will be implemented for this project.

7. Benefits to the public will be maintenance of the navigation channel, continued local economic stimulus, and increased suitable migratory bird and sea turtle nesting habitat should the material be placed on the beach.

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

Date

TERRY L. RICE
COL, Corps of Engineers
Commanding

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Burns/CESAJ-DX
Connell/CESAJ-DD
Rice/CESAJ-DE

MAINTENANCE DREDGING
ST LUCIE INLET
MARTIN COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. 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 will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. There will be no adverse impacts to endangered or threatened species, if the work is conducted in accordance with the Biological Opinion issued by the US Fish and Wildlife Service.

2. In coordination with the State Historic Preservation Officer, it was determined there would be no impacts on sites of cultural or historical significance.

3. State water quality standards will be met.

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

5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. The proposed project has been evaluated pursuant to the Migratory Bird Treaty Act. The Migratory Bird Protection Policy for the Jacksonville District will be implemented for this project.

7. Benefits to the public will be maintenance of the navigation channel, continued local economic stimulus, and increased suitable migratory bird and sea turtle nesting habitat should the material be placed on the beach.

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

Date

TERRY L. RICE
COL, Corps of Engineers
Commanding

Fonferek/CESAJ-PD-ES/1690/km
Kurzbach/CESAJ-PD-ES
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Rice/CESAJ-DE