

US Army Corps of Engineers
 Jacksonville District

LOCATION MAP

Maintenance Dredging
 Naples to Gordon Pass
 Naples, Florida

FIGURE 1

**BIOLOGICAL ASSESSMENT
MAINTENANCE DREDGING
NAPLES TO GORDON PASS
COLLIER COUNTY, FLORIDA**

- 1. PROJECT DESCRIPTION:** The project involves the maintenance dredging of approximately 60,000 cubic yards of material from the Federal navigation channel, Naples to Gordon Pass, Cut 1 through Cut 7 (approximately 13,500 feet). The material could be placed on two approved beach disposal areas, one located to the north of Gordon Pass on the City of Naples Beach, the other to the south on Keewaydin Island (Figure 1).
- 2. EXISTING SETTING:** The federal channel connects the Gulf of Mexico with Dollar Bay of the Gordon River. Gordon Pass is approximately 1.65 miles long. Geotechnical studies indicate that the shoaled material within the Pass is beach quality. Since its initial construction, the channel and Pass have been excavated numerous times. Much of the material was pumped into adjacent mangrove areas. According to Dr. Jon Staiger, City of Naples Natural Resources Manager, the Pass was completely dredged from shoreline to shoreline with the material placed upland for development of residential housing along the newly formed waterway. The Pass is devoid of seagrasses due to the dredging and subsequent municipal and industrial pollution of this area. Since there would be no seagrasses for feeding by sea turtles and manatees it is not likely they would be found in the Pass, even though this area is considered Critical Habitat for manatees. Turtle nesting densities along this area are relatively low (USFWS, 1985). According to the USFWS, the Florida DNR surveyed 8.0 kilometers and recorded 5.9 loggerhead nests per kilometer for the Naples area. David Addison, The Conservancy, Inc., reported 68 nests and 63 false crawls for 1990 from an 11 mile area between Gordon Pass to Clam Pass. In 1991, this same area yielded 61 loggerhead nests and 57 false crawls. In 1990, the City of Naples Beach itself only had 36 records of activity for loggerheads with 16 nests. The City of Naples Beach, generally, is not very wide and has many riprap and bulkhead shore protection structures along what would be above the high tide mark preventing most sea turtle nesting efforts. The beach disposal area to the south on Keewaydin Island is well formed with upland areas suitable as nesting habitat for sea turtles. The nesting densities are likely greater but not well documented because of the private ownership of the island. Gopher tortoises are located on Keewaydin Island. As part of the development plans for the island, Mr. John Remington has obtained a permit from the State of Florida to relocate tortoises from the housing development area to a parcel of land designated as a Gopher Tortoise Preserve. This area is located on the scrub upland areas of the island. A mangrove wetland fringe is located along the federal channel inland of the Gulf. Behind this fringe Australian pine are growing in previously disturbed areas.

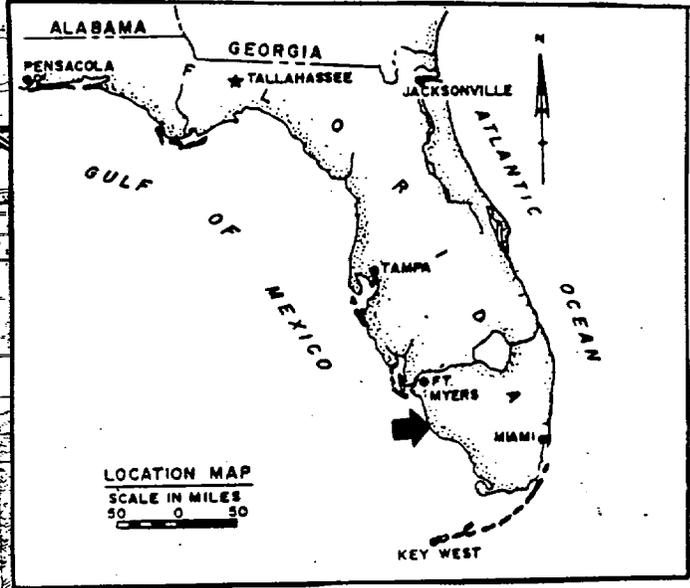
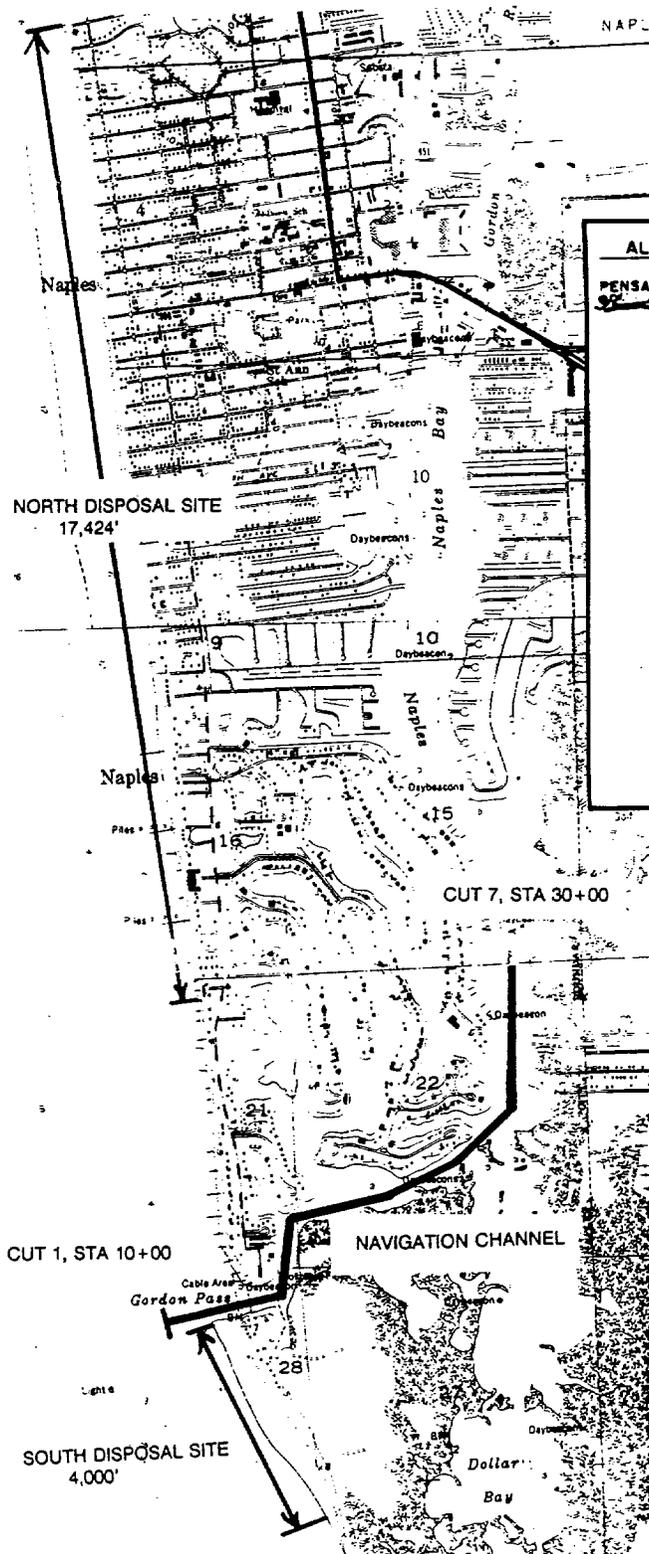
3. ENDANGERED SPECIES: By letter dated December 20, 1984, a Biological Assessment of the project was sent to the US Fish and Wildlife Service and the National Marine Fisheries Service pursuant to Section 7 of the Endangered Species Act concluding that the proposed project would not affect the listed species. By letters dated January 7, 1985, (FWS Log No. 4-1-85-064), and December 27, 1984, the USFWS and the NMFS responded stating concurrence with this finding. The following listed species pursuant to Section 7 of the Endangered Species Act could be in the project area:

green sea turtle	.....	<i>Chelonia mydas</i>
hawksbill sea turtle	.....	<i>Eretmochelys imbricata</i>
Kemp's Ridley sea turtle	.....	<i>Lepidochelys kempii</i>
leatherback sea turtle	.....	<i>Dermochelys doriacea</i>
loggerhead sea turtle	.....	<i>Caretta caretta</i>
West Indian manatee	.....	<i>Trichechus manatus</i>

4. IMPACTS ON LISTED SPECIES:

4.1. Manatees. Since there are no sea grass beds within the affected area and the operation of a pipeline dredge for the project is likely, we have determined that there would be no affects to manatees. To completely insure this, special manatee protection conditions will be placed in the contract specifications.

4.2. Sea turtles. Since there would be no feeding areas within Gordon Pass, it is highly unlikely that sea turtles would be affected by the dredging. However, the placement on the beach could affect sea turtle nesting. On the City of Naples beach it would likely provide more habitat for nesting. On Keewaydin Island, it might adversely impact existing nesting if the work is conducted within the turtle nesting season.



US Army Corps of Engineers
 Jacksonville District

LOCATION MAP

Maintenance Dredging
 Naples to Gordon Pass
 Naples, Florida

FIGURE 1



United States Department of the Interior

FISH AND WILDLIFE SERVICE

P.O. BOX 2676

VERO BEACH, FLORIDA 32961-2676

October 24, 1991

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

Attn: Planning Division, Bill Fonferek

Project: Gordon River & Pass
Letter Dated: October 15, 1991
County: Collier

Dear Colonel Salt:

This responds to the above referenced letter, pursuant to the Fish and Wildlife Coordination Act and Section 7 of the Endangered Species Act of 1973, as amended.

The Corps of Engineers has determined this action "will not affect" the manatee, but "may affect" the loggerhead sea turtle or its critical habitat. Based upon our preliminary review, we concur with these determinations, and note that the Kemp's Ridley and leatherback sea turtles, also occasionally nest along the South Florida Gulf coast. We are, therefore, initiating consultation under Section 7 of the Endangered Species Act, relative to the above stated turtle species, on this date and will complete the consultation process within 90 days. A Biological Opinion will be issued shortly after the conclusion of the consultation period. Please be advised these are our regulatory time frames, and the vast majority of consultations are completed in a much shorter period.

We have assigned consultation Log No. 4-1-92-205 to this project.

If you have further questions on this matter, please contact Bill Hoelt, of my staff (407-562-3909).

Sincerely yours,

C. W. (Bill) Hoelt
Acting Field Supervisor

cc:

EPA, Atlanta, GA

NMFS, St. Petersburg, FL

NMFS, Panama City, FL

FG&FWFC, Tallahassee, FL

FG&FWFC, Vero Beach, FL

FG&FWFC, Punta Gorda, FL

DER, Tallahassee, FL

FWS, Jacksonville, FL

CE, Miami, FL



United States Department of the Interior

FISH AND WILDLIFE SERVICE

P.O. BOX 2676

VERO BEACH, FLORIDA 32961-2676

November 18, 1991

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

Attn: Planning Division (Bill Fonferek)

FWS Log No. 4-1-92-205

Dear Colonel Salt:

This responds to a letter, dated October 9, 1991, from the Chief of your Planning Division, in which the Corps of Engineers determined the proposed maintenance dredging and disposal of dredged materials on Keewaydin Island, City of Naples, Florida, may affect loggerhead sea turtle nesting. The Service concurs with that determination. This report is submitted in accordance with the consultation requirements of Section 7 of the Endangered Species Act of 1973, as amended.

Project Description

According to information contained in your Biological Assessment, the project involves maintenance dredging of about 60,000 cubic yards of material in the Federal navigation channel "Naples to Gordon Pass, Cut 1 through Cut 7 (approximately 13,500 feet)". As currently proposed, the material could be placed on two approved beach disposal areas, one located to the north of Gordon Pass in the City of Naples Beach (about 17,424 feet long), and the other to the south on Keewaydin Island (about 4,000 feet long).

Consultation History

By letter dated October 9, 1991, the Chief of the Corps' Planning Division provided this office with a Biological Assessment, finding that the proposed project "may affect" the threatened loggerhead sea turtle, but was not likely to affect the endangered West Indian manatee. Your Biological Assessment included a statement that standard construction precautions for protection of the manatee would be included in contract specifications. On October 24, 1991, the Service concurred with both of those determinations. However, if for any reason the contractor is unable to comply with the standard precautions to protect manatees, then consultation should be re-initiated. In concurring with your "may affect" determination for nesting sea turtles, the Service initiated formal consultation on October 24, 1991, and is providing the following Biological Opinion. We have assigned Log No. 4-1-92-205 to this consultation.

Biological Opinion

This represents the Biological Opinion of the Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act. An administrative record of this consultation is on file in the Vero Beach, Florida, Field Office.

Four species of sea turtles are known to nest in Florida: the loggerhead (Caretta caretta), green (Chelonia mydas), leatherback (Dermochelys coriacea), and hawksbill (Eretmochelys imbricata). Only the loggerhead turtle has been confirmed as nesting on Keewaydin Island. The Service finds it so unlikely that leatherback or hawksbill turtles would nest on this portion of the coast of Florida, that they are not considered in this consultation. Although the green turtle has not been recorded as nesting on beaches in the vicinity of Keewaydin Island, it is known to nest along the Florida panhandle and in the Florida Keys. As the project site lies between these two known nesting areas, there is a slight chance that a green turtle nest could occur in the project area, and the Service finds it appropriate to include the green turtle in this consultation.

The loggerhead sea turtle (Caretta caretta) was listed as threatened on July 28, 1978. The nesting population of loggerheads in the United States is one of the two most significant nesting populations in the world, representing up to 30 percent of the worldwide loggerhead nesting population (Ross, 1982). This is in contrast to all other species of sea turtles, which nest primarily outside the U.S. Within the United States, it nests primarily on beaches from North Carolina to Florida. Approximately 90 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 U. Lloyd State Recreation Area in Broward County (Conley and Hoffman, 1986). Nesting densities vary from one nest per kilometer (km) on the average for some beaches in the northeast, southeast, and panhandle of Florida to 660 nests per km on some stretches of beach in southern Brevard County (Conley and Hoffman, 1986; Ehrhart and Witherington, 1986). The most recent estimates for total annual nesting effort for the southeastern U.S. is 50,000 nests for 1989 and 68,000 in 1990 (Florida DNR, unpublished data; Georgia DNR, unpublished data; South Carolina WMRC, unpublished data; North Carolina WC, unpublished data).

The loggerhead nesting season is from late April to August or early September, with most nesting occurring in June and July, and occasional nesting during September. The incubation period is temperature-dependent, and most nests hatch within 60 days, although 70 days may be required for some nests, particularly in the northern periphery of the nesting range.

Green sea turtle (Chelonia mydas) nesting within the U.S. occurs principally along the east-central and southeast 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 13-22 nests per km on high density green turtle nesting beaches in southern Brevard County and south Jupiter Island in Palm Beach County (Conley and Hoffman, 1986; Ehrhart and Witherington, 1986; Florida DNR, unpublished data). Overall green turtle nesting in Florida has shown an increasing trend, with the highest recorded total of 2182 nests in 1990 (Florida DNR, unpublished data). Nesting occurs from May to September, with the peak nesting occurring in July and August. The hatching period is similar to that of the loggerhead.

Keewaydin Island is one of the "index" nesting beaches, where sea turtle nesting effort statistics are compiled by the Florida DNR. In 1990, 136 loggerhead nests and 207 loggerhead non-nesting emergences, "false crawls", were reported for Keewaydin Island. As the length of the surveyed beach is 7.2 km, the 1990 nesting density was 18.9 nests/km. This is the highest density among the three "index" beaches on Florida's Gulf Coast, but is a relatively low density when compared with Florida's central Atlantic Coast beaches.

We are concerned with the timing of the nourishment activities and compaction of the beach, which may often be related to the suitability of the grain size of the deposited material.

We believe that if beach nourishment is undertaken during the nesting season, even with a relocation program, some nests will most likely remain undetected and subsequently buried by the nourishment material or crushed by heavy equipment. In spite of the best intentions and efforts by persons relocating nests; wind, rain, and tides can quickly obscure tracks and prevent workers from finding nests. In addition, turtle activities can often obscure nest locations, making interpretation of the site difficult, and depending on the experience and motivation of workers, some nests will remain undetected.

Although the material to be dredged from Gordon Pass appears generally suitable for disposal on the beach, some silt laden material could be deposited or accumulate in certain areas of the beach resulting in compaction problems. Therefore, the beach must be tested for compaction after deposit of the material, and may need to be tilled and/or re-contoured in accordance with the Terms and Conditions provided below.

It is the Service's Biological Opinion that the project is not likely to jeopardize the continued existence of the threatened loggerhead turtle or the endangered green turtle. We do believe, however, that adverse impacts to sea turtles could result, particularly when viewed cumulatively in the context of other nourishment projects planned on sea turtle nesting beaches in Florida this year. The Reasonable and Prudent Measures provided with the Incidental Take Statement will reduce these possible impacts.

Incidental Take

Section 9 of the Endangered Species Act prohibits the taking of listed species without a special exemption. Taking is defined to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Taking can only be authorized through special provisions.

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 taking of some individuals of the listed species, incidental to the action, the Service will issue a statement that specifies the impact (amount or extent) of such incidental taking. It also states that reasonable and prudent measures, coupled with terms and conditions to implement these measures, be provided to minimize such impacts. The Service must also specify procedures to be used to handle or dispose of any individual specimens taken. Reasonable and prudent measures are requirements of the action agency.

We have reviewed the biological information and other 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 project boundary. This is inclusive of the direct impacts of nest burial and crushing and the indirect impacts of aberrant nests and broken eggs which may result from sand compaction in nesting seasons subsequent to nourishment activities.

Reasonable and Prudent Measures

The Service considers the following reasonable and prudent measures necessary and appropriate to minimize the take:

1. During periods of nesting activity, relocation of nests will be required.
2. Nourished beaches will be tilled if compaction or escarpment occurs.

Terms and Conditions

Section 9 of the Endangered Species Act prohibits the taking of listed species without a special exemption. In order to be exempt from the prohibitions of Section 9 of the Act, the following terms and conditions, which implement the reasonable and prudent measures described above, must be complied with:

1. For any nourishment activity in the spring, nest survey and relocation activities must begin 65 days prior to the beginning of beach construction activities or by May 1, whichever is later. In the fall, nest surveys and relocation must begin 65 days prior to the initiation of beach construction and continue until September 15.
2. Nest surveys and relocations will be conducted by personnel with prior experience and training in nest survey and relocation procedures, and with a valid Florida Department of Natural Resources permit. This is essential to reduce the number of undetected nests.
3. Nests shall be relocated between sunrise and 10 a.m. each day and the relocation will be to a nearby self-release beach hatchery in a secure setting where artificial lighting will not conflict with hatchling orientation.
4. Nourished beaches will be plowed to a depth of at least 36 inches immediately following completion of beach nourishment if sand compaction measures greater than 500 cone penetrometer index units (cpu). Sand compaction measurements will be taken in February for at least two consecutive years, and tilling will be repeated if compaction exceeds 500 cpu.
5. Escarpments in excess of 18 inches extending more than 100 feet in length and exceeding 500 cpu will be mechanically leveled to the natural beach contour prior to May 1. If leveling is needed, nest relocation procedures will be followed as stated in paragraphs 1-3 above. If escarpments in excess of these criteria re-form in the two subsequent nesting seasons, they will be leveled to the natural beach contour as described above.

6. A report describing the actions taken to implement the terms and conditions will be submitted to this office within 60 days of completion of the proposed work for each year when activity has occurred. This report will include dates of actual construction activities names and qualifications of personnel involved in nest surveys and relocation activities, description and location of hatcheries, nest survey and relocation results and hatching success of nests.
7. The contractor will notify the Service office issuing this Biological Opinion 30 days prior to commencing the project.

Conservation Recommendations

The following Conservation Recommendations are provided to further reduce the potential for adverse impact to nesting sea turtles.

1. Beach renourishment should be planned for and conducted outside the period of May 15 to October 15, whenever possible.
2. When located off the nesting beach, the dredge should minimize lighting by eliminating, screening, or shielding lights where possible. Low pressure sodium lights (shielded) are recommended for those lights which cannot be eliminated.
3. Sea oats or other appropriate dune vegetation should be planted on nourished beaches to enhance dune restoration. The Florida Department of Natural Resources, Division of Beaches and Shores, can provide technical assistance in the design and implementation.

This concludes consultation under Section 7 of the Act, as amended. If there are modifications made in the project, or if additional information becomes available relating to threatened and endangered species, re-initiation of consultation may be necessary.

If you have further questions on this matter, please contact Bill Hoefl, of my staff (407-562-3909).

Sincerely yours,


David L. Ferrell
Field Supervisor

cc:

EPA, Atlanta, GA

NMFS, St. Petersburg, FL

NMFS, Panama City, FL

DER, Tallahassee, FL

FWS, Jacksonville, FL (Earl Possardt)

DNR, Stuart, FL (Barbara Schroeder)

DNR, St. Petersburg, FL (Alan Huff)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
9450 Koger Boulevard
St. Petersburg, FL 33702

November 25, 1991 F/SEO13:JEB

Mr. A. J. Salem
Chief, Planning Division
Jacksonville District
U.S. Army Corps of Engineers
P. O. Box 4970
Jacksonville, FL 32232-0019

Dear Mr. Salem:

This responds to your October 9, 1991 letter requesting Section 7 consultation on the proposed maintenance dredging of the navigation channel from Naples to Gordon Pass, Florida. A Biological Assessment (BA) was submitted pursuant to Section 7 of the Endangered Species Act of 1973 (ESA) in accordance with 50 CFR 402.12(g).

We have reviewed the BA and concur with your determination that populations of endangered/threatened species under our purview would not be adversely affected by the proposed action if the dredging action is to be accomplished by the use of a pipeline dredge. However, if a hopper dredge is to be used we would consider that a "may affect" situation and the Corps of Engineers would need to reconult on this project.

This concludes consultation responsibilities under Section 7 of the Endangered Species Act. However, consultation should be reinitiated if new information reveals impacts of the identified activity that may affect listed species or their critical habitat, a new species is listed, the identified activity is subsequently modified, or critical habitat determined that may be affected by the proposed activity.

If you have any questions, please contact Jeffrey Brown, Fishery Biologist, at (813) 893-3366.

Sincerely,

Charles A. Oravetz

Charles Oravetz, Chief
Protected Species Management
Branch

cc: F/PR



APPENDIX II

**FLORIDA COASTAL ZONE MANAGEMENT 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 plans and information will be submitted to the state for a permit in compliance with 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 project has been coordinated with the state and no adverse comments were received.

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 proposed maintenance dredging and beach disposal 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 proposed maintenance dredging and beach disposal

would create increased recreational beach and turtle nesting habitat. Therefore, 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 project would not impact any state parks. Therefore, the project would 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 project has been coordinated with the State Historic Preservation Officer. No archeological or historic sites are located within project boundaries. Therefore, the project 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 proposed beach nourishment would provide more space for recreational beach and the protection of recreational facilities along the beach which would increase tourism for this area. The navigation channel which generally provides access for recreational boat traffic will be maintained. Therefore, the project 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: No public transportation systems would be impacted by this project.

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 proposed maintenance dredging and beach disposal will not have any long term affects on saltwater living resources. Based on the overall impacts of the project, the project 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: The maintenance dredging and disposal has been coordinated with the Florida DER, the US Fish and Wildlife Service and the National Marine Fisheries Service. Two species of turtles listed by the USFWS as endangered use this segment of beach for nesting. However, the proposed beach disposal will increase the amount of habitat available for nesting. The impacts to nesting will be minimized to the extent possible by the implementation of a nest relocation program during construction.

13. Chapter 373, Water Resources.

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

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

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 project 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 of proposed large-scale development.

Response: The maintenance dredging and beach disposal have been coordinated with the local sponsor, the City of Naples. Therefore, the project 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 project 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 DER.

Response: The DER has been notified. A water quality certification for the project has been issued. Therefore, the project 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 project. Particular attention will be given to projects on or near agricultural lands.

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

APPENDIX III

SECTION 404(B) (1) EVALUATION

SECTION 404(b)(1) EVALUATION DREDGED MATERIAL

I. Project Description

- a. **Location.** Naples to Gordon Pass, Collier County, Florida
- b. **General Description.** The project consists of the maintenance dredging of 60,000 cubic yards of sandy material from Cut 1 through 7. The material could be placed along the beach either south of the Gordon Pass entrance on Keewaydin Island or north of the pass entrance on Naples Beach.
- c. **Authority and Purpose.** The project was authorized by House Document 183/86/1 dated 14 July 1960. As part of the overall project the Corps is authorized to maintain the channel when navigation would be adversely affected. Topographic surveys have indicated shoaling within the channel limiting the navigable capacity. The purpose of the maintenance would be to restore the federal channel to its authorized depths.
- d. **General Description of Dredged or Fill Material**
 - (1) **General Characteristics of Material.** Material is described as sandy material suitable for beach nourishment.
 - (2) **Quantity of Material.** 60,000 cubic yards.
 - (3) **Source of Material.** The material would be excavated from Cuts 1 through 7.
- e. **Description of the Proposed Discharge Site.**
 - (1) **Size and Location.** The north discharge site is located along 3.3 linear miles of beach and the south discharge site is located along 4000 linear feet of beach.
 - (2) **Type of Site.** The site is considered upland, bermed with the return water entering the surf zone.
 - (3) **Type of Habitat.** The habitat is dune, washed beach and surf zone.
 - (4) **Timing and Duration of Discharge.** The discharge would be conducted between September and December.
- f. **Description of Disposal Method.** The dredging and disposal would be conducted using a pipeline suction dredged.

II. Factual Determinations

a. Physical Substrate Determinations.

- (1) Substrate Elevation and Slope. The material would be placed upland of the mean tide line with the return water entering the surf zone. The beach generally slopes toward the ocean.
- (2) Sediment Type. Beach quality sand.
- (3) Dredged/Fill Material Movement. Not applicable
- (4) Physical Effects on Benthos. No adverse effects.
- (5) Other Effects. None.
- (6) Actions Taken to Minimize Impacts. None required.

b. Water Circulation, Fluctuation and Salinity Determinations

(1) Water

- (a) Salinity. No effects.
- (b) Water Chemistry. No effects.
- (c) Clarity. Temporary increased turbidity near dredging operation. No long term adverse impacts.
- (d) Color. No effects.
- (e) Odor. No effects.
- (f) Taste. Not applicable
- (g) Dissolved Gas Levels. No adverse effects.
- (h) Nutrients. No adverse effects.
- (i) Eutrophication. No applicable.

(2) Current Patterns and Circulation. No effects.

(3) Normal Water Level Fluctuations. No effects.

(4) Salinity Gradients. No effects.

(5) Actions That Will Be Taken to Minimize Impacts. Only performance requirements needed to meet Florida water quality requirements.

c. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Disposal Site. Temporary turbidity confined to nearshore and surf zone. No adverse impacts expected.

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

(a) Light penetration. Temporary turbidity will cause short term decrease in light penetration. No adverse effects are expected.

(b) Dissolved Oxygen. No adverse effects.

(c) Toxic Metals and Organics. No significant impacts expected.

(d) Pathogens. None.

(e) Aesthetics. None.

(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. None.

(c) Sight Feeders. Temporary reduction in local visibility will have local impact on site feeding predators.

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

d. Contaminant Determinations. No significant contaminant effects are expected. Sandy material does not readily retain contaminants and therefore contaminants in dredged material and suspended phase and the water column should be insignificant.

e. Aquatic Ecosystem and Organism Determinations

(1) Effects on Plankton. Since the return water only affects the surf zone

no adverse effects on plankton are anticipated.

(2) Effects on Benthos. There would be negligible impacts on the benthic organisms within the surf zone.

(3) Effects on Nekton. No effects.

(4) Effects on Aquatic Food Web. No effects.

(5) Effects on Special Aquatic Sites.

(a) Sanctuaries and Refuges. No effects.

(b) Wetlands. No effects.

(c) Mud Flats. No effects.

(d) Vegetated Shallows. No effects.

(e) Coral Reefs. No effects.

(f) Riffle and Pool Complexes. No effects.

(6) Threatened and Endangered Species. The project would not affect manatees, standard precautions to avoid impacts have been incorporated into the design of the project. However, the proposed work may affect sea turtle nesting during disposal. Consultation with the US Fish and Wildlife Service and the National Marine Fisheries Service was initiated by letter dated 9 October 1991. The USFWS responded by letter dated 18 November 1991, with a Biological Opinion stating the proposed work would not jeopardize the continued existence of these species contingent upon certain reasonable and prudent measures being incorporated into the project. In the long-term, the additional sand placed on the beach would provide additional nesting habitat for the sea turtles. The NMFS concurred in our No Effect Determination concerning species under their jurisdiction by letter dated 25 November 1991.

(7) Other Wildlife. No effects.

(8) Actions to Minimize Impacts. No additional precautions will be necessary other than those described above.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination. A 150 meter radius around the disposal area is considered the mixing zone in accordance with the State water

quality certification.

(2) **Determination of Compliance with Applicable Water Quality Standards.** Twice daily turbidity measurements are required during beach disposal in accordance with the State water quality certificate.

(3) **Potential Effects on Human Use Characteristics.**

(a) **Municipal and Private Water Supply.** None.

(b) **Recreational and Commercial Fisheries.** None.

(c) **Water Related Recreation.** The dredging operation would temporarily hamper recreational navigation along this part of the channel. The placement of sand along the beach would also temporarily disrupt the serene beach setting from the presence and operation of heavy equipment and the discharge pipeline. However, in the long-term the additional sand placed along the beach would provide additional recreational opportunities.

(d) **Aesthetics.** Refer to (c), above.

(e) **Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves.** The discharge would temporarily disrupt recreation and aesthetics along the City of Naples Beach. However, in the long-term, the discharge would provide additional recreational opportunities.

g. **Determination of Cumulative Effects on the Aquatic Ecosystem.** There would be no cumulative impacts from the continual maintenance dredging or disposal of the sand material along the beach.

h. **Determination of Secondary Effects on the Aquatic Ecosystem.** There would be no secondary adverse impacts associated with the project.

III. Findings of Compliance or Non-Compliance With the Restrictions on Discharge.

a. 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 return water discharge is subject to evaluation pursuant to this Section.

b. 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