

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.

3.3. Relevant Evaluation Factors.

3.3.1. Physical

a. Water quality. The St. Johns River, in the vicinity of the dredging, has been classified by the Florida Department of Environmental Regulation as a Class III state water. According to this classification, the waters are suitable for recreation, and propagation and management of fish and wildlife. This reach of the river is tidally influenced with a saltwater wedge occurring in the river up to mile 28.0 (Fuller-Warren Bridge). The tidal flows are between 4.3 feet per second (fps) at the mouth to 3.4 fps in Jacksonville. The river is used for industrial purposes such as boiler feed and coolant applications, and for various flushing and washing processes for paper and pulp mills. The river also receives numerous municipal wastewater effluents and stormwater runoff.

3.3.2. Biological

a. Sea Turtles. No turtles have been observed during previous maintenance dredging activities. During pre-dredge turtle surveys conducted in 1992 no turtles were found. In addition, no documented mortalities have occurred from previous dredging from pipeline or hopper dredging. No turtles are thought to frequent the area due to the cooler water temperatures, the swift currents (4.3 to 3.4 feet/second) and lack of desirable habitat (seagrasses) within the estuary. Leatherback sea turtles (*Dermochelys coriacea*) frequently are spotted migrating northward past the Duval County coast during the winter months. As none of the 87 nests recorded along 167.7 kilometers of Florida beach occurred in Duval County in 1985 (Conley and Hoffman 1986), the project will not present any adverse impact to nesting leatherback sea turtles (*D. coriacea*). As reported by Conley and Hoffman (1986), between 1982-1985, an average of 5 nests were successfully dug each year in the vicinity of Kathryn A. Hanna State Park. The National Marine Fisheries Service reported that in 1992, 11 successful nests were dug by loggerhead sea turtles (*Caretta caretta*) in the Atlantic-Jacksonville Beach area. Because seagrass and hardbottom habitats that are required for foraging are lacking, it is unlikely that sea turtles spend significant portions of their life cycle in the nearshore waters off of Duval County.

b. Manatees. The St. Johns River, including Mill Cove area, are designated critical habitat for the manatee. Manatees are found in the Harbor until the cooler winter months when they migrate south to warmer waters. However, during the winter months, some manatees congregate near the warm-water outfalls located in the industrial areas of Jacksonville Harbor at the terminal end of the project. No manatee mortalities or encounters with dredging have occurred during previous maintenance dredging. Based on manatee monitoring reports from previous dredging episodes within the navigation channel,

we have determined that there would be no effects on this species provided special conditions are included within the plans and specifications.

c. Migratory birds. The Bartram Island disposal area is used by migratory birds for feeding, loafing and nesting (Bremer, 1989). The species recorded using these areas include least terns, black skimmers, gull-billed terns and Wilson's plovers. Other migratory birds were also observed on the island but were not confirmed as nesting there. During the winter of 1992-1993, the Bartram Island disposal area was rehabilitated with the dikes rebuilt eliminating some nesting. Dredged material is placed at Buck Island when the material is of a quality that it could be used for road construction. Least terns use this site for nesting because of the desirability for nesting.

3.3.3. Social

a. Cultural resources. There are no known cultural resources located within the navigation channel or the various disposal sites.

b. The Timucuan Ecological and Historical Preserve. Legislation introduced by Congressman Charles Bennett established the Timucuan Ecological & Historic Preserve on February 16, 1988. The National Park Service (NPS) has the responsibility for resource management within the preserve. The majority of the 46,000-acre Duval County preserve is comprised of St. Johns River wetlands but also contains eight identified cultural resource sites. The NPS envisions a dynamic natural/cultural park system where the visitor would experience, via land and water resources, a better understanding of the ecology of wetlands and their past and present human use. The NPS desires to protect, preserve, and/or interpret the cultural, ecological, and recreational resources of the St. Johns and Nassau Rivers and estuarine systems within the preserve.

c. Aesthetics.

(1). Bartram Island Disposal Site is State-owned land which the US Army Corps of Engineers has permission to use as a dredge disposal site for the Jacksonville Transportation Authority (JTA). A 1988 University of Florida, Department of Landscape Architecture study group has identified Maritime Forest, Coastal Scrub, and Marsh Tidal Flat vegetative groups on the island. Supports for the Dames Point Bridge, a construction dock, and a weir have been built on the island when it was used as a construction staging area for the bridge. Buck Island Disposal Site is a Department of Natural Resources (DNR) and Jacksonville Port Authority (JPA) owned land which the US Army Corps of Engineers uses to deposit dredged material. A recent field reconnaissance revealed the island was composed of sandy-based material with some maritime vegetative cover along its perimeter. A 7.1 acre saltwater marsh mitigation project on the east side of the island is an aesthetic asset as viewed from the Fort Caroline National Memorial.

(2). Atlantic Beach and Seminole Beach. Atlantic Beach and Seminole Beach is located in the Town of Atlantic Beach and Seminole Beach. Most of the properties located along the beach are residential except for the southern end of Atlantic Beach and Seminole Beach where numerous hotels, motels and restaurants cater to tourism. The residential setting is more serene setting than beaches catering to tourism and recreational pursuits.

(3). St Johns River. The St. Johns River is typical of a deepwater port having commercial and recreational boat traffic. The serenity of the river is broken by the movement of freighters, barges hauling fuel and coal to the electric generation plants and other plant facilities, shrimp trawlers fishing for shrimp, US Navy vessels entering Mayport Naval Station, and fisherman scurrying along the shoreline to reach their favorite fishing spot. The frequent movement is a curiosity to most of the residential and commercial inhabitants along the river.

d. Recreation. Bartram Island and Buck Island are used primarily by fisherman to stop and rest, camp or fish from the shoreline. Atlantic Beach is located in front of residential properties but has numerous public access points. Seminole Beach is located along residential properties and Kathryn A. Hanna Park is owned by the Duval County Metropolitan Government. Numerous parking lots and beach access crossovers are located within the park. The Mayport Naval Station has beach located adjacent to the south jetty of Jacksonville Harbor. The beach is located in front of numerous base facilities including the Officers Club and the Bachelor Officers Quarters. Several recreational access points are also located on the base for military personnel. Normal beach activities include fishing, sunbathing, swimming, and surfing.

3.3.4. Economic

Navigation. The Jacksonville Harbor is a deep draft port which in 1986 provided for the movement of 12.4 million tons of cargo. Petroleum products were the largest commodity entering the port (Waterborne Commerce Statistics, 1986). The Port of Jacksonville also exports bulk material such as phosphate rock, chemicals, fertilizers, pulp, paper products, and general cargo. The major exports include coffee, petroleum products, lumber, building cement, motor vehicles, and general cargo. Because of the port facilities, the area is a major railroad and truck transportation center. The river channel is also used by the commercial, especially shrimping, and sport fishing industry. Recreational boating is also a major component of the local traffic. The navigation channel allows transportation of international and domestic cargo to and from the Port of Jacksonville. This provides long-term economic stimulus to the economy of Jacksonville metropolitan area and the generation of revenues from the sale of goods and services to public.

4.0 ENVIRONMENTAL CONSEQUENCES.

4.1. Introduction. 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. Water quality. There would be no impact on water quality if no dredging or disposal occurs.

4.2.2. Biological.

a. Sea Turtles. There would be no impact on sea turtles if dredging and disposal does not occur.

b. Manatees. There would be no impact if dredging and disposal does not occur.

c. Migratory birds. There would be a long-term minor reduction in the nesting habitat of birds such as least terns and snowy plovers that use sandy areas such as that created by placing material in disposal areas. These sandy areas revegetate and succeed to scrub/shrub. In some locations the succession allows different migratory birds such as laughing gulls and pelicans to use the new and different habitat for nesting.

4.2.3. Social

a. Cultural resources. There would be no impact on cultural resources.

b. Timucuan Ecological and Historic Preserve. There would be a long-term minor benefit within the preserve. This would occur at the Fort Caroline National Monument. A vista is located within the boundaries of the facility which overlooks the river. As part of the view, Buck Island is within close proximity. Dredging and disposal activities can be seen. If disposal operations were to cease, aesthetic benefits would be derived.

c. Aesthetics. (see b.)

d. Recreation. There would be a long-term minor reduction in recreational activities along Atlantic Beach and Seminole Beach from the reduction in beach area due to the continual erosion occurring along the shoreline.

4.2.4. Economic.

a. Navigation. There would be a long-term major adverse impact on the navigable capacity of the harbor channel. Ships would likely have increased safety risks from entering the channel.

b. Economics. There would be a major regional impact on the economy from the

loss of shipping traffic entering the harbor due to the reduction in the navigable capacity.

4.2.5. Cumulative effects. There would be reduced shipping and loss of economic growth of the area. The beach would continue to erode over the long-term until the shoreline reaches the harden bulkhead.

4.2.6. Unavoidable effects. The unavoidable effects would be the same as the cumulative effects.

4.2.7. Irreversible and Irretrievable Resource Commitments. There would be no irreversible and irretrievable resource commitments.

4.3. Alternative A - Dredging and Beach Disposal

4.3.1. Physical. Water quality. There would be a short-term minor increase in turbidity at the dredge site and at the surf zone where the return water would enter.

4.3.2. Biological.

a. Sea turtles. There would no impact on sea turtles from dredging if the conditions within the NMFS Regional Biological Opinion are adhered to. If a hopper dredge is to be used it is restricted below Mile 6.0 during the winter (December through 15 April) turtle window established by the National Marine Fisheries Service in its Regional Biological Opinion (BO) for dredging activities along the southeastern United States (NMFS, 1995). A pre-requisite condition of the BO to the dredging is turtle surveys. Previous attempts to conduct the standard trawling have failed due to debris in the channel. Visual surveys will be substituted where trawling is not feasible. In order to protect nesting sea turtles disposal operations should only occur between 30 October and 1 May. Should dredging operation occur after 1 March through 30 October, beach monitoring for turtle nesting activities and nest relocation will be initiated and conducted by personnel permitted by the Florida Department of Natural Resources. If beach compaction exceeds 500 cone penetrometer units after disposal operations, then, the beach will be tilled to a 36-inch depth to facilitate unimpeded turtle nesting.

b. Manatees. There would be no impacts on manatees if the standard conditions for construction are adhered to. This includes contractor awareness, monitoring, auxiliary boat slow speeds, equipment shut-down should manatees be present within 50 feet of the dredging and reporting criteria.

c. Migratory birds. There would be no impact on migratory birds from dredging and placement on the beach.

4.3.3. Social

- a. Cultural resources. There would be no impact on cultural resources.
- b. Timucuan Ecological and Historic Preserve. There would be no impact on the preserve from dredging as disposal would occur outside the preserve boundaries.
- c. Aesthetics. There would be a short-term minor disruption to aesthetics from the presence and operation of the dredge on the river. However, there would be a short-term major disruption to the visual and auditory aesthetics on the beach environment from the presence and operation of the pipeline and the heavy equipment.
- d. Recreation. There would be a short-term major impact on recreation on the beach. The placement material on the beach would slow the erosion rate and would have a long-term minor benefit to recreation by maintaining the beach environment.

4.3.4. Economic.

- a. Navigation. There would be a short-term minor impact from the disruption of navigation caused by the presence and operation of the dredge and disposal equipment along the navigation channel. There would be a long-term major benefit to navigation by maintaining adequate depths for large ocean going vessels to use the port.
- b. Economics. There would be a minor short-term stimulus to the local economy from the sale of goods and services in support of the construction activities. There would be a major long-term benefit to the regional economy from maintaining the harbor and the beach.

4.3.5. Cumulative effects. Placing the dredged material on the beach would cumulatively help retard erosion along this segment and segments of beach south of this area.

4.3.6. Unavoidable effects. There would be an increase in turbidity at the dredge site and in the surf zone from the return water during beach placement.

4.3.7. Irreversible and Irretrievable Resource Commitments. There would be no irreversible and irretrievable resource commitments.

4.4. Alternative B - Dredging and Disposal on Bartram Island

4.4.1. Physical.

- a. Water quality. There would be a short-term minor increase in turbidity at the dredge site.

4.4.2. Biological.

a. Sea turtles. There would no impact on sea turtles from dredging if the conditions within the NMFS Regional Biological Opinion are adhered to. If a hopper dredge is to be used it is restricted below MLE 6.0 during the winter (December through 15 April) turtle window established by the National Marine Fisheries Service in its Regional Biological Opinion (BO) for dredging activities along the southeastern United States (NMFS, 1995). A pre-requisite condition of the BO to the dredging is turtle surveys. Previous attempts to conduct the standard trawling have failed due to debris in the channel. Visual surveys will be substituted where trawling is not feasible.

b. Manatees. There would be no impacts on manatees if the standard conditions for construction are adhered to. This includes contractor awareness, monitoring, auxiliary boat slow speeds, equipment shut-down should manatees be present within 50 feet of the dredging and reporting criteria.

c. Migratory birds. There would be no impact on nesting migratory birds if the special conditions for migratory bird protection contained in the Plans and Specifications are implemented (Appendix III). Specific criteria includes awareness of legal and environmental issues, site monitoring, buffer zones around known nests, access to the nesting sites, nesting seasons, techniques for making construction sites undesirable for nesting, qualifications of the bird monitor, and reporting.

4.4.3. Social.

a. Cultural resources. There would be no impact on cultural resources.

b. Timucuan Ecological and Historic Preserve. There would be no effects on the preserve from the dredging as the disposal area is outside the preserve boundaries.

c. Aesthetics. There would be no impacts on aesthetics from the dredging and disposal because the sites are relatively removed from populated areas.

d. Recreation. There would be no impacts on recreation from the dredging and disposal activities.

4.4.4. Economic.

a. Navigation. There would be a minor short-term impact on commercial navigation from the presence and operation of the dredging equipment within the navigation channel. There would be a major long-term benefit from the maintenance of the navigation channel depths to allow commercial shipping to continue.

b. Economics. There would be a minor stimulus to the local economy from the sale of goods and services in support of the construction equipment and work force. There would be a major regional benefit by maintaining the harbor in its current capacity allowing

continual economic growth.

4.4.5. Cumulative effects. There would be no cumulative effects from this alternative.

4.4.6. Unavoidable effects. There would be increased turbidity in the vicinity of the dredging site.

4.4.7. Irreversible and Irretrievable Resource Commitments. There would be no irreversible and irretrievable resource commitments.

4.5. Alternative C - Dredging and Disposal on Buck Island

4.5.1. Physical.

a. Water quality. There would be a short-term minor increase in turbidity at the dredge site.

4.5.2. Biological.

a. Sea turtles. There would no impact on sea turtles from dredging if the conditions within the NMFS Regional Biological Opinion are adhered to. If a hopper dredge is to be used it is restricted below Mile 6.0 during the winter (December through 15 April) turtle window established by the National Marine Fisheries Service in its Regional Biological Opinion (BO) for dredging activities along the southeastern United States (NMFS, 1995). A pre-requisite condition of the BO to the dredging is turtle surveys. Previous attempts to conduct the standard trawling have failed due to debris in the channel. Visual surveys will be substituted where trawling is not feasible.

b. Manatees. There would be no impacts on manatees if the standard conditions for construction are adhered to. This includes contractor awareness, monitoring, auxiliary boat slow speeds, equipment shut-down should manatees be present within 50 feet of the dredging and reporting criteria.

c. Migratory birds. There would be no impact on nesting migratory birds if the special conditions for migratory bird protection contained in the Plans and Specifications are implemented (Appendix III). Specific criteria includes awareness of legal and environmental issues, site monitoring, buffer zones around known nests, access to the nesting sites, nesting seasons, techniques for making construction sites undesirable for nesting, qualifications of the bird monitor, and reporting.

4.5.3. Social.

a. Cultural resources. There would be no impact on cultural resources.

b. Timucuan Ecological and Historic Preserve. There would be a short-term minor impact on aesthetics due to disposing of the dredged material on Buck Island. Buck Island is located below the scenic vista at the Fort Caroline National Monument which is located within the preserve.

c. Aesthetics. Same as b. above.

d. Recreation. There would be no impact on recreation from the maintenance dredging and use of Buck Island as a disposal area.

4.5.4. Economic.

a. Navigation. There would be a minor short-term impact on navigation from the disruption to commercial shipping during construction. However, there would be long-term major benefit to commercial shipping due to maintaining the navigation channel depths.

b. Economics. There would be a minor stimulus to the local economy from the sale of goods and services in support of the construction equipment and work force. There would be a major regional benefit by maintaining the harbor in its current capacity allowing continual economic growth.

4.5.5. Cumulative effects. There would be no cumulative effects from this alternative.

4.5.6. Unavoidable effects. There would be increased turbidity in the vicinity of the dredging site.

4.5.7. Irreversible and Irrecoverable Resource Commitments. There would be no irreversible and irretrievable resource commitments.

4.6. Alternative D - Dredging and Disposal at Jacksonville Electric Authority Site.

4.6.1. Physical.

a. Water quality. There would be a short-term minor increase in turbidity at the dredge site.

4.6.2. Biological.

a. Sea turtles. There would be no impact on sea turtles from dredging if the conditions within the NMFS Regional Biological Opinion are adhered to. If a hopper dredge is to be used it is restricted below Mile 6.0 during the winter (December through March) turtle window established by the National Marine Fisheries Service in its Regional Biological Opinion (BO) for dredging activities along the southeastern United States (NMFS, 1995).

A pre-requisite condition of the BO to the dredging is turtle surveys. Previous attempts to conduct the standard trawling have failed due to debris in the channel. Visual surveys will be substituted where trawling is not feasible.

b. Manatees. There would be no impacts on manatees if the standard conditions for construction are adhered to. This includes contractor awareness, monitoring, auxiliary boat slow speeds, equipment shut-down should manatees be present within 50 feet of the dredging and reporting criteria.

c. Migratory birds. There would be no impact on nesting migratory birds if the special conditions for migratory bird protection contained in the Plans and Specifications are implemented (Appendix III). Specific criteria includes awareness of legal and environmental issues, site monitoring, buffer zones around known nests, access to the nesting sites, nesting seasons, techniques for making construction sites undesirable for nesting, qualifications of the bird monitor, and reporting.

4.6.3. Social.

a. Cultural resources. There would be no impact on cultural resources.

b. Timucuan Ecological and Historic Preserve. There would be no effects on the preserve from the dredging as the disposal area is outside the preserve boundaries.

c. Aesthetics. There would be no impacts on aesthetics from the dredging and disposal because the sites are relatively removed from populated areas.

d. Recreation. There would be no impacts on recreation from the dredging and disposal activities.

4.6.4. Economic.

a. Navigation. There would be a minor short-term impact on commercial navigation from the presence and operation of the dredging equipment within the navigation channel. There would be a major long-term benefit from the maintenance of the navigation channel depths to allow commercial shipping to continue.

b. Economics. There would be a minor stimulus to the local economy from the sale of goods and services in support of the construction equipment and work force. There would be a major regional benefit by maintaining the harbor in its current capacity allowing continual economic growth.

4.6.5. Cumulative effects. There would be no cumulative effects from this alternative.

4.6.6. Unavoidable effects. There would be increased turbidity in the vicinity of the

dredging site.

4.6.7. Irreversible and Irretrievable Resource Commitments. There would be no irreversible and irretrievable resource commitments.

5.0 CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS.

Public notices JH-125 was issued for the maintenance dredging and disposal on 13 March 1985 (Appendix VI). No adverse comments were received.

6.0. LIST OF PREPARERS

<u>NAME</u>	<u>DISCIPLINE</u>	<u>EXPERIENCE</u>	<u>ROLE IN PREPARING EA</u>
William J. Fonferek	Biologist	13 years environmental impacts assessment	O&M NEPA Coordinator, Biological Impact Assessment, Endangered Species Coordination
Janice Adams	Archeologist	7 years experience NEPA documentation,	Cultural Resources Analysis
Paul C. Stevenson	Landscape Architect	6 years landscape architect, field and design work	Aesthetic and Recreational Resource Analysis
Robert J. Pennington	Biologist	15 years professional biologist	Water Quality Impacts
Robert J. Brock	Biologist	4 years professional experience	Biological Information

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APPENDIX I

ENDANGERED SPECIES CONSULTATION



United States Department of the Interior

FISH AND WILDLIFE SERVICE

6620 Southpoint Drive, South
Suite 310
Jacksonville, Florida 32216-0912

NOV 09 1993

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

FWS Log No: 4-1-93-522D

Dear Mr. Salem:

This represents the Biological Opinion of the U.S. Fish and Wildlife Service (Service) in accordance with Section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.). This Biological Opinion satisfies the consultation requirements of Section 7 (a)(2) of the Act. It does not address the requirements of other environmental statutes, such as the National Environmental Policy Act. A complete administrative record of this consultation is on file in this office.

PROJECT DESCRIPTION

The Corps proposes to maintenance dredge Cuts 49 through 53 in the St. Johns River, Duval County, and place beach quality material on Mayport Naval Station and Hanna Park (2.5 miles); and the remaining material in the Bartram Island Disposal Area. The Corps intends to open bids for the project in late October and work should commence sometime in December.

At the request of the City of Jacksonville, the Corps proposes to place 250,000 cubic yards of material along 4000 feet of shoreline of the St. Johns River at Huguenot Park for erosion purposes. The placement of beach quality sand is a "one time" occurrence.

CONSULTATION HISTORY

On August 12, 1993, the Corps notified our office that this project would not affect the loggerhead turtle or manatee, based on previous correspondence from this office (June 28, 1989). Since 1989, the Service, in cooperation with Florida Department of Environmental Protection (DEP) has developed new guidelines with reference to nourished beaches. The Service, therefore, does not concur with the Corps determination of no effect for nesting turtles.

The Corps stated in their August 12 letter that the standard manatee construction precautions would be made a condition of the permit. The Service concurs with the Corps' determination of no effect for the manatee. On October 7, 1993, the Corps amended their Section 7 consultation request to include the new disposal site on Huguenot Park. The Corps determined a no effect for the above listed species. The Service disagrees with this determination as the federally threatened piping plover overwinters on this park.

BIOLOGICAL BACKGROUND

The loggerhead sea turtle is the most common nesting sea turtle in Florida. There are approximately 49,000 nests each year in Florida. Primary nesting sites on Florida's east coast can be found from Brevard County south.

Leatherback turtles nest in low numbers in Florida. There have been no documented nests on Hanna Park.

Green sea turtles are more common nesters on Florida beaches than leatherback sea turtles. The majority of green sea turtle nests are found from Brevard County south. Based on 1992 nesting data from Hanna Park, no green turtle nests were recorded.

Hanna Park conducts annual turtle nests surveys for the county park and the Navy station. Based on nesting surveys from 1989, excluding 1990 (data unavailable), through August of 1993, the average number of loggerhead sea turtle nests/mile in 1989 was 0.8; 1991, 1.6; 1992, 2.8 and 1993 (through August), 1.2. This section of beach in northeast Florida is not considered a high density nesting beach as compared to beaches in south Florida, such as Brevard County.

The piping plover is a Nearartic shorebird. This species nest along the Atlantic Coast above the high tide line, on sand flats at the ends of sandspits and barrier islands, gently sloping foredunes, blowout areas behind primary dunes and washover areas between dunes. They may also nest on dredge spoils. No nesting has been documented in Huguenot Park.

Piping plover migration patterns are poorly understood. Both spring and fall migration routes are believed to follow a narrow strip along the Atlantic Coast. Huguenot Park has documented piping plovers during the winter months, but not within the disposal site. This park is one of a few over-wintering sites in Florida.

As a result of the Service's concern with the use of Huguenot Park as a disposal site, the Service met with representatives of the City, Corps and National Park Service (adjacent land owners) to discuss the placement of this material on the park. The Service responded on October 29, 1993, (see enclosed copy) to the Corps public notice (PN-JH-180) to use Huguenot Park as a new disposal site, and stated that we had no objections because of previous commitments made by the City (Oct. 5, 1993; see enclosed copy) and the Corps (Oct. 27, 1993; see enclosed copy).

BIOLOGICAL OPINION

After review of the best available scientific and commercial information, it is our Biological Opinion that the project is not likely to jeopardize the continued existence of loggerhead sea turtle and piping plover.

The density of loggerhead nests along the beach at Hanna Park and Mayport Naval Station is low as compared to south Florida beaches. The Corps will initiate a turtle nest relocation program to remove nests in the project site.

The City of Jacksonville and the Corps have made commitments to the Service regarding Huguenot Park, which will provide additional protection for the piping plover. The shoreline along the project site is severely eroded, and there has been no documented piping plover use along this reach of beach.

INCIDENTAL TAKE

PIPING PLOVER

In meeting the provisions for incidental take in Section 7(b)(4) of the Act, the Service has reviewed the Biological Opinion and available information relevant to this action. Based on our review, incidental take is not authorized or anticipated for the piping plover during implementation of this project. If an incident involving the piping plover occurs, all work shall cease and our office notified (904-232-2580).

LOGGERHEAD SEA TURTLE

Section 9 of the Endangered Species Act, as amended (Act), prohibits the taking of listed species without a special exemption. Taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." "Harm" and "harass" are further defined in Service regulations (50 CFR 17.3). "Harass" is defined as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding or sheltering. "Harm" is defined as an act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

"Taking" can only be authorized through special provisions. Under the terms of Section 7(b)(4) and Section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered taking within the meaning of the Act, provided that such taking is in compliance with the terms and conditions of the Biological Opinion.

The Service has reviewed the biological information for this species, information presented by the applicant's consultants, and other available information relevant to this action. Based on our review, incidental take is anticipated for all turtle nests that are missed by a nest relocation program within the project boundary, and for failed nesting attempts as a result of the potential formation of an escarpment or sand compaction. When providing an incidental take statement the Service is required to give reasonable and prudent measures it considers necessary or appropriate to minimize the take along with terms and conditions that must be complied with to implement the reasonable and prudent measures. Furthermore, the Service must also specify procedures to be used to handle or dispose of any individuals taken. The Service believes the following reasonable and prudent measures are necessary and appropriate to reduce take:

1. If the project commences during the turtle nesting season (May 1 through October 30), the applicant will initiate a sea turtle nest relocation program within the project area.
2. Nourished beaches will be tilled if sand compaction occurs.
3. Corrective action on the beach will be initiated if an escarpment develops which inhibits turtles from nesting.
4. Only beach quality sand which is suitable for sea turtle nesting, successful incubation and hatchling emergence shall be used on the project site.

To implement the above reasonable and prudent measures, the Service has outlined the following terms and conditions for incidental take. In accordance with the Interagency Cooperation Regulation (50 CFR 402), these terms and conditions must be complied with to implement the reasonable and prudent measures for incidental take:

1. The applicant will initiate a sea turtle nest relocation program within the project area. Only those nests which will be affected by construction activities are required to be relocated. Turtle monitoring activities shall include performance of daily visual inspections of the beach at sunrise by personnel with prior experience and training in nest survey and relocation and procedures, pursuant to Rule 16R-1, F.A.C., permitted by the Florida Department of Environmental Protection (DEP). Any nests discovered shall be relocated between sunrise and 0900 hours each day to a nearby self-release beach site, in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocation site(s) shall be approved by DEP prior to use, and may include a non-beach hatchery if appropriate. If necessary, self releasing screen or aboveground individual cages shall be used on relocated nests to exclude predators. Nest relocation activity will cease upon completion of the beach nourishment activity.

2. Nourished beaches will be tilled if compaction occurs. Compaction will be monitored immediately prior to the sea turtle nesting season (May 1) A minimum of 30 compaction measurement stations will be established along the nesting area of the beach, above mean high water to the base of the primary dune. At each measurement station, sand compaction measurements will be taken at 6, 12, and 18 inches depths. Measurement stations will be systematically distributed along the beach to provide coverage for the nourished beach. If the average of the 30 measurement stations for one or more of the depth profiles exceeds 500 cone penetrometer units (cpu), the beach will be tilled to a depth of 36 inches before the onset of the sea turtle nesting season. Compaction will be monitored for three years after project completion. The Jacksonville Field Office shall be provided with an annual report of the beach compaction testing.
3. During the marine turtle nesting season (May 1 to October 30), construction pipes which are placed on the beach shall be placed perpendicular to the shoreline. Temporary storage of pipes and equipment shall be off the beach to the maximum extent possible or as far landward as possible without compromising the integrity of the dune system if temporary storage on the beach is necessary.
4. During the sea turtle nesting season (May 1 to October 30), all lighting associated with the project shall be limited to the immediate area of active construction only. Such lighting shall be the minimal lighting necessary to comply with safety requirements, and shall incorporate reduced wattage, downlight, special fixtures and screens to minimize illumination of the nesting beach and nearshore waters. Lighting on offshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to avoid excessive illumination of the water, while meeting Coast Guard requirements. Shielded low pressure sodium vapor lights are highly recommended for all lights on the beach or on offshore equipment that cannot be eliminated.
5. The applicant shall monitor the nourished beach in order to detect if an escarpment is forming for three years after project completion. If an escarpment forms, the applicant shall take corrective action to remove the escarpment. An annual report shall be submitted to the Service on October 1 for each of the three years.

If an escarpment greater than 12 inches high, longer than 30 yards, and with an average compaction exceeding 500 cpu forms prior to the sea turtle nesting season, the applicant shall level the escarpment prior to the nesting season. Alternatively, the applicant may arrange for the Service to visit the project site immediately prior to the nesting season. If the Service determines that the

escarpment may hinder nesting turtles, the applicant will level the escarpment immediately.

If an escarpment develops during the turtle nesting season, corrective action will take place only during daylight hours. The applicant should contact the Jacksonville Field Office (904/232-2580) for further coordination prior to work in order to avoid impacting turtle nests.

6. The material disposed on the project site must meet Florida Department of Environmental Protection standards for beach quality sand which is suitable for sea turtle nesting, successful incubation and hatchling emergence.
7. The applicant shall arrange a meeting with the contractor, the Service and the Florida Department of Natural Resources, 90 days prior to beginning work on this project. This will allow agencies to explain the turtle protection measures to the contractor.
8. 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, descriptions and location of hatcheries, nest survey and relocation results and hatching success of nests.
9. In the event a turtle nest is dug up during beach construction activities, the Florida Department of Natural Resources permitted individual responsible for nest relocation on the project should be notified for removal of the nest to the beach hatchery.

CONSERVATION RECOMMENDATIONS

Conservation recommendations are suggestions of the Service regarding discretionary measures to reduce or avoid adverse effects of a proposed action on listed species. Conservation recommendations may also include suggestions on ways for the Federal agency to meet its responsibility to conserve listed species under Section 7 (a)(1) of the Act.

1. Sea oats or other appropriate dune vegetation should be planted on nourished beaches to enhance dune restoration. The DEP, Division of Beaches and Shores, can provide technical assistance on the specifications for design and implementation.
2. We recommend that a three-year study be implemented to assess impacts on nesting and hatching success. The design of the study should be coordinated with the Service and DEP.

This concludes Section 7 consultation, in accordance with the Act. If modifications are made in the project, or if new information becomes available on listed species, reinitiation of consultation may be necessary.

Sincerely yours,

A handwritten signature in black ink that reads "Michael M. Bentzien". The signature is written in a cursive style with a distinct dot above the letter 'i' in "Bentzien".

Michael M. Bentzien
Assistant Field Supervisor

cc:

Timucuan Ecological and Historic Preserve

Surname	
Don	10/29
Terrence	10/29

OCT 29 1993

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

Application No: PN-JH-180
 Dated: October 1, 1993
 Applicant: Army Corps of Engineers
 County: Duval

Attn: Regulatory Division

Dear Colonel Salt:

The U.S. Fish and Wildlife Service has reviewed the project plans for the above referenced Public Notice. Our comments are submitted in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Corps proposes to discharge 160,000 cubic yards of dredged material from the St. Johns River on Huguenot Park, a new disposal site. The City of Jacksonville has requested this material in order to prevent the loss of a public access road and parking area on the park as a result of extensive erosion.

The disposal site is on Army Corps of Engineers' property and leased to the City as part of Huguenot Park. The Fish and Wildlife Service and National Park Service have been concerned about the extent of public use on the Federal portion of the park because of the presence of federally threatened species and a significant nesting area for migratory shorebirds.. Huguenot Park is one of the few identified wintering areas in Florida for the piping plover, and loggerhead sea turtles nest on the Atlantic Ocean side of the park. The park is used extensively for recreation, including fishing, camping, walking, and four-wheel drive and other motorized vehicles. These activities may be having a significant impact on wildlife, including federally listed species. As a result of our concerns, we have requested the Corps to prepare a management plan for the Federal portion of the park.

On September 27, 1993, the Service met with representatives from the Corps, the City and the National Park Service to discuss using Huguenot Park as a disposal site. We stated that placing the material on the park without a management plan would not be prudent, as the action may foreclose management alternatives in the future. At the meeting, we learned that the Corps had not allocated the resources for the preparation of the management plan for FY 94. We stated that in our opinion, a may affect situation existed for the threatened piping plover and loggerhead sea turtle, and that the management plan was essential in resolving this situation. We further indicated that without a commitment from the Corps to prepare the plan during FY 94, placing material on Huguenot Park would further exacerbate the problem.

The City of Jacksonville stated in a letter dated October 5, 1993, that they would prohibit vehicular access to any portion of the renourished area and would extend the no vehicular access zone west from the renourished area to the no vehicular access zone on state property. On October 27, 1993, the Corps notified the Service that the Corps would prepare a management plan for the Federal lands leased to the City in FY 94. The Corps committed to prepare the draft plan by April, 1994 and a final plan by July, 1994. On October 29, 1993, the National Park Service notified the Service that, based on the commitments from the City and Corps, they had no objection to placement of spoil material on Huguenot Park. The Fish and Wildlife Service also has no objections to using Huguenot Park as a disposal site.

The above findings and recommendations constitute the report of the Department of the Interior, in accordance with the procedural requirements of the 1992 404(q) MOA, Part IV.3(a).

Sincerely yours,

Michael M. Bentzien
Assistant Field Supervisor

cc
Timucuan Ecological and Historic Preserve

jh180/dp/410.29.93.ets

DEPARTMENT OF PARKS, RECREATION AND ENTERTAINMENT

Office of the Director



October 5, 1993

Mr. Clyde Aston
U.S. Army Corps of Engineers
Jacksonville District
400 West Bay Street
Jacksonville, FL 32232-0019

Re: Ward's Bank Renourishment Area
September 27, 1993 Meeting

Dear Mr. Aston:

The purpose of this writing is to present the City's commitment as to the use of said portion of public lands known as Ward's Bank renourishment area. As agreed to on September 27, 1993, the City of Jacksonville, as stewards/lessee of Ward's Bank, will continue to operate the renourished shoreline as a public park with no vehicular access directly to any portion of the renourished area. Furthermore, the City will extend the no vehicular access zone westerly of the renourished area to the no vehicular access zone on the State of Florida property. Additionally, the area to be renourished will not be used for camping.

The City's imposed use constraints as outlined above have been agreed to for the renourishment of Ward's Bank under the U. S. Army Corps of Engineers current Jacksonville Harbor Maintenance Dredging Project.

On behalf of the City of Jacksonville and our recreating public, the renourishment of Ward's Bank is greatly appreciated.

Sincerely,

Laura D'Alisera
Director

LAD/ef

cc: Mr. Don Palmer
U. S. Fish and Wildlife Service

Ms. Suzanne Lewis
National Park Service



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

REPLY TO
ATTENTION OF

October 27, 1993

Planning Division
Environmental Branch

Mr. David Wesley
U.S. Fish & Wildlife Service
3100 University Blvd., South
Suite 120
Jacksonville, Florida 32216

Dear Mr. Wesley:

As discussed in our meeting of September 27, 1993, concerning Jacksonville Harbor dredging operations, the U. S. Army Corps of Engineers will produce a management plan for the Federal lands leased to the City of Jacksonville known as Huguenot Park (see enclosure).

A draft report will be completed by April 1994. A final report will be prepared based on draft comments by July 1994.

Sincerely,


Richard E. Bonner, P.E.
Deputy District Engineer
for Project Management

Enclosure