

**SECTION 404 (b)(1) EVALUATION REPORT
ST. GEORGE ISLAND CHANNEL
FEDERALLY AUTHORIZED NAVIGATION PROJECT
APALACHICOLA BAY FRANKLIN COUNTY, FLORIDA**

1. DESCRIPTION OF AUTHORIZED FEDERAL PROJECT.

The St. George Island Channel, locally known as Bob Sikes Cut, is located within the Apalachicola Bay Aquatic Preserve, near the city of Apalachicola, Franklin County, Florida. The Apalachicola Bay is a shallow coastal plain lagoon-estuary system that encompasses an area of approximately 160 square miles. The St. George Island Channel separates St. George Island into two islands named St. George Island and Little St. George Island. The U.S. Army Corps of Engineers (USACE), Mobile District completed the existing project in April 1957 with the construction of two jetties on the Gulf and a channel dredged to a depth of 10 feet. The north end of the channel is within class II waters conditionally approved for shellfish harvesting and the south end is within class III waters. The St. George Island Channel Navigation Project is a part of the federally authorized Apalachicola Bay Project. This part of the overall authorized project is described as a channel 100 feet wide from the 10-foot depth contour in Apalachicola Bay, across St. George Island, to within 300 feet of the Gulf shoreline, thence increasing uniformly in width to 200 feet at the shore and continuing with that width to a 10-foot depth contour in the Gulf of Mexico with twin jetties extending from dune line to outer (southern) end of the channel. The existing project was authorized by the River and Harbor Acts of September 3, 1954 (H. Doc. 557, 82nd Congress, 2nd Session), July 3, 1958, and prior acts.

a. **Location.** St. George Island is located within Apalachicola Bay, near the city of Apalachicola in Franklin County, Florida, Township 10 South, Range 7 West.

b. **Description of the Proposed Action.** The proposed action consists of providing an additional material placement area for the maintenance dredging of the federally authorized St. George Island Channel. Dredging will extend to a total depth of 14 feet mean lower low water (MLLW), which includes 2 feet of advanced maintenance and 2 feet allowable over depth. The method of placement for this action involves dredging with a hydraulic pipeline dredge. Floating pipelines will be used to transport approximately 150,000 cubic yards of dredged material to two previously used placement sites and the proposed placement area that is along the shoreline. Temporary berms will be constructed on the beach to direct the dredged material away from sensitive areas or to manage the placement of material within the site. The proposed disposal area would extend from approximately 0 MLLW to +6 feet MLLW or the existing vegetation line, whichever is lower, and tie into the existing sand dunes. Riprap may at times, be replenished and/or repositioned to maintain the effectiveness of the jetties. Approximately 150,000 thousand cubic yards of sand will be dredged on a three to five-year cycle depending upon weather conditions, availability of funding, and behavior of subsequently. The principal sediment types associated with St. George Island Channel are generally in the category of fine to medium-grained sand.

c. Authority and Purpose. The Federal navigation project for the St. George Island Channel was authorized by the River and Harbor Acts of September 3, 1954 (H. Doc. 557, 82nd Congress, 2nd Session), July 3, 1958, and prior acts. The authorization provides for a channel 100 feet wide from the 10-foot depth in Apalachicola Bay, across St. George Island, to within 300 feet of the Gulf shoreline, thence increasing uniformly in width to 200 feet at the shore and continuing with that width to a 10-foot depth in the Gulf of Mexico with twin jetties extending from dune line to outer (southern) end of the channel. The purpose of the proposed action is to provide an additional placement area at the project site of the St. George Island Channel to minimize shoaling to facilitate navigation into and out of Apalachicola Bay.

d. General Description of Dredged or Fill Material.

(1) **General Characteristics of Material.** The material proposed for discharge is generally of a sandy nature. The principal sediment type found on the island is fine to medium grained sand. Sand size analysis of the Apalachicola Bay indicated that the median diameter of the sampled sand is approximately 0.23 mm. This estimated size is the same as the median diameter of the sand at MLW within the St. George Island Channel. Sampling of sand in the jetty section indicated that the coarsest sand at approximately 0.29 mm was found in the middle of the channel.

(2) **Quantity of Material.** The quantity of material proposed for placement in the beach nourishment sites is approximately 150,000 cubic yards.

(3) **Source of Material.** The source of material is the St. George Island navigation channel.

e. General Description of the Discharge Site.

(1) **Location.** Previously used and new placement beach nourishment sites on St. George Island along the shoreline in the vicinity of the project. The new placement area is an additional 1,500 feet along the west side of the shoreline.

(2) **Size.** Material placed along the beach on the Gulf side is 500 feet along the shore east of the east jetty, 2,000 feet along the shore west of the west jetty. The bay side is 1500 feet along the west side of the inlet shoreline.

(3) **Type of Discharge Site.** The disposal site type utilized for maintenance of the project are sites used for beach nourishment and bank stabilization.

(4) **Types of Habitats.** The site consists of an estuarine bay habitat.

(5) **Timing and Duration of Discharge.** Unless storms cause unexpected shoaling within the channel, the maintenance dredging is expected to occur during winter months between December 1 and March 31 to minimize effects of the project and would require several weeks to complete.

(6) **Description of Disposal Methods.** The method of placement for this action involves dredging with a hydraulic pipeline dredge. Floating pipelines will be used to transport approximately 150,000 cubic yards of dredged material from the dredge in the channel to two previously used and one additional nourishment sites along the shoreline.

2. FACTUAL DETERMINATIONS.

a. Physical Substrate Determinations.

(1) **Substrate elevation and slope.** The beach nourishment disposal areas would extend from 0 MLLW to +6 feet MLLW or the existing vegetation line, whichever is lower, and tie into the existing sand dunes.

(2) **Sediment type.** Previous testing within the channel indicates dredged material would be fine to medium-grained sand. The median diameter of sediment sampled was 0.23 mm.

(3) **Dredged/fill material movement.** The dredged material would be placed into the disposal sites by hydraulic pipeline. The material would be subject to movement by wave, wind, and currents. Erosion would occur under these conditions but should not cause serious adverse effects. Material would likely erode into the channel and be dispersed inside the bay and along the Gulf beach of St. George Island.

(4) **Physical effects on benthos.** There would be temporary disruption of the aquatic community. Non-motile benthic fauna within the project area will be lost due to proposed operations but should repopulate within several months after dredging completion. Some of the motile benthic and pelagic fauna, such as crabs, shrimp, and fishes are able to avoid the disturbed area and should return shortly after the activity is completed. Larval and juvenile stages of these forms may not be able to avoid the activity due to limited mobility. Beach nourishment disposal would be followed by natural sediment dispersal methods via wind, waves, and currents, should aid in returning the habitat to conditions comparable to that which occurred prior to disposal. The overall impact to these organisms is expected to be temporary and insignificant.

(5) **Other effects.** No other effects are anticipated.

(6) **Actions taken to minimize impacts.** No actions would be taken to further minimize impacts due to placement of dredged material in the proposed disposal areas.

b. Water Circulation/Fluctuation, and Salinity Determination.

(1) **Water.** The dredged material placement site would have no significant impact on salinity, water chemistry, clarity, color, odor, taste, dissolved gas levels, nutrients, or eutrophication characteristics of the adjacent areas. There may be

some temporary increase in nutrient concentrations or decreases in dissolved oxygen, but these would be rapidly dispersed due to tidal activity and flushing within the channel and Apalachicola Bay.

(2) **Current patterns and circulation.** The proposed action would restore the current patterns and flow to project conditions. Tidal movements of saline waters in and out of Apalachicola Bay would be restored.

(3) **Normal water level fluctuations.** No significant effects.

(4) **Salinity gradients.** No significant effects anticipated.

(5) **Actions that will be taken to minimize impacts.** No actions regarding the disposal of dredged material would be conducted that would further minimize the impacts on current patterns, circulation, and salinity in the project area.

c. **Suspended Particulate/Turbidity Determinations.**

(1) **Expected changes in suspended particulate and turbidity levels in the vicinity of the disposal site.** State water quality certification has been obtained by letter on November 29, 2023. Turbidity monitoring will ensure state water quality standards are maintained.

(2) **Effects on the chemical and physical properties of the water column.**

(a) **Light penetration.** Light penetration would be decreased during the actual disposal of dredged material but would be temporary and would only occur during disposal.

(b) **Dissolved oxygen.** No significant effects.

(c) **Toxic metals and organics.** Sediment samples were taken in 1993 to determine the contaminants in the bay, including pesticides, herbicides, polyaromatic hydrocarbons, and excess nutrients in the sediments. Sediments from eight stations in Apalachicola Bay including St. George Island, were tested for forty-seven USEPA priority pollutants. In all cases the values of all parameters were below detectable limits. Organic contaminant levels were minimal, and overall sediment quality was good. Small amounts of inorganic nitrogen and total phosphorus were found, indicating that the source of these nutrients is natural.

St. George Sound sediment is primarily sand with some clayey sand found in the western regions. Therefore, sediment material is unlikely to be a “carrier of contamination.”

(d) **Pathogens.** No significant effects.

(e) **Esthetics.** No long-term esthetic changes will result from the proposed action.

(f) **Others as appropriate.** None.

(3) **Effects on biota.**

(a) **Primary production, photosynthesis.** Primary production and photosynthesis would not be significantly impacted.

(b) **Suspension/filter feeders.** No significant impacts.

(c) **Sight feeders.** There would be no adverse effect on any listed threatened or endangered species, or their critical habitat and the proposed project would not adversely alter the present essential fish habitat. The bald eagle and piping plover are anticipated to avoid the area during disposal operations. No federally-protected species would be impacted. No listed species would experience a reduction in suitable forage area within Apalachicola Bay. Due to availability of adjacent suitable habitat no significant impacts to these species are anticipated.

(4) **Actions taken to minimize impacts.** Control measures, permitting monitoring requirements, and standard conditions will be implemented throughout the duration of the project.

(5) **Contaminant Determination.** No significant effects.

d. **Aquatic Ecosystem and Organism Determinations.**

(1) **Effects on plankton.** No significant effects.

(2) **Effects on benthos.** There would be temporary disruption of the aquatic community. Non-motile benthic fauna within the project area will be lost due to the proposed operations, but should repopulate within several months after dredging completion. Some of the motile benthic and pelagic fauna, such as crabs, shrimp, and fishes are able to avoid the disturbed area and should return shortly after the activity is completed. Larval and juvenile stages of these forms may not be able to avoid the activity due to limited mobility. The overall impact to these organisms is expected to be temporary and insignificant.

(3) **Effects on nekton.** No significant effects.

(4) **Effects on aquatic food web.** No significant effects.

(5) **Effects on special aquatic sites.** No seagrass or oyster reefs are found within the project area.

(a) **Sanctuaries and refuges.** The action is to take place within the Apalachicola Bay Aquatic Preserve. The effects of the proposed action on the preserve would not be significant.

(b) **Wetlands.** No wetlands would be impacted during the proposed activity.

(c) **Mud flats.** No significant effects.

(d) **Vegetated shallows.** No significant effects.

(e) **Coral reefs.** Not applicable to this area.

(f) **Riffle and pool complexes.** Not applicable to this area.

(6) **Threatened and endangered species.** Under Section 7 coordination of the Endangered Species Act and the Marine Mammal Protection Act, USACE, Mobile District is in coordination with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) on the proposed threatened and endangered species in the project vicinity.

(7) **Other wildlife.** No significant effects.

(8) **Actions to minimize impact.** No other actions to minimize impacts on the aquatic ecosystem is deemed appropriate.

e. Proposed Disposal Site Determinations.

(1) **Mixing zone determinations.** Turbidity will be monitored and will not exceed state standards. The material to be disposed at St. George Island Channel is predominantly sand and disposal of this material would not pose any threat to the water quality of Apalachicola Bay.

(2) **Determination of compliance with applicable water quality standards.** State water quality certification was issued on November 29, 2023. All conditions of that certification will be followed.

(3) Potential effects on human use characteristics.

(a) **Municipal and private water supply.** No significant effects.

(b) **Recreational and commercial fisheries.** No significant effects.

(c) **Water-related recreation.** No significant effects.

(d) **Esthetics.** The area would be restored to the pre-shoaling conditions and as a result the esthetic quality of the area, which existed prior to shoaling, would be restored.

(e) **Parks, national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves.** The project would not pose significant adverse effects on the human use characteristics of this preserve.

(f) **Determination of Cumulative Effects on the Aquatic Ecosystem.** All data and information presented suggests the dredged material placement area would have no significant cumulative adverse effects on the aquatic ecosystem.

(g) **Determination of Secondary Effects on the Aquatic Ecosystem.** No significant secondary effects on the aquatic ecosystem are expected.

3. **FINDING OF COMPLIANCE.**

a. No significant adaptation to the guidelines was made relative to this evaluation.

b. No significant cumulative impacts are expected from this proposed action. The implementation of the proposed action would not have a significant adverse impact on the quality of the environment.

c. One of the alternatives to the proposed method of accomplishing the action is available. This alternative is the "no action" alternative. The implementation of the "no action" alternative would result in the St. George Island Channel not being dredged to project depth. This alternative would not provide the necessary conditions for safe navigation of commercial and recreational boats through the channel. Therefore, the "no action" alternative was deemed unacceptable and not considered further.

d. The proposed action would not violate any applicable state water quality standards. Water quality certification has been received.

e. The proposed action would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

f. As required by the Coastal Zone Management Act, the proposed action is consistent with the Florida Coastal Program to the maximum extent practicable. The State of Florida, Department of Environmental Protection was contacted and concurs with our determination that the proposed action is consistent with the Florida Coastal Program the maximum extent practicable.

g. No federally protected species or their critical habitat would be impacted by the proposed action. The services concur with our finding of "no effect" to listed species.

h. The proposed activity would not result in any significant adverse effects on human health or welfare, including municipal or private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values would not occur.

i. On the basis of the guidelines, the proposed activities are specified as complying with the requirement of these guidelines with the inclusion of appropriate and practical conditions to minimize adverse effects to the aquatic ecosystem.

DATE _____

Jeremy J. Chapman, P.E.
Colonel, U.S. Army
District Commander

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