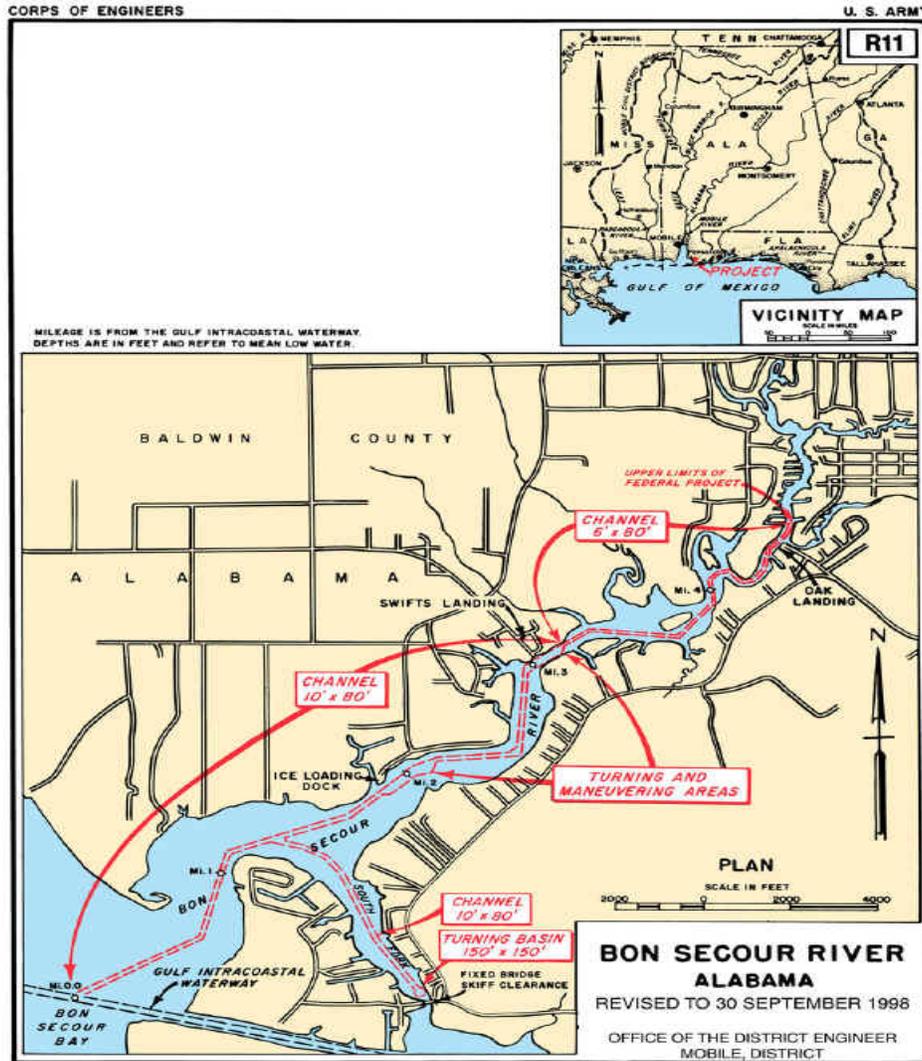


Draft Environmental Assessment

Bon Secour Federal Navigation Project Baldwin County, Alabama



Prepared by

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Draft ENVIRONMENTAL ASSESSMENT

**PROPOSED MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL
FOR THE BON SECOUR RIVER NAVIGATION PROJECT
BALDWIN COUNTY, ALABAMA**

A FEDERALLY-AUTHORIZED NAVIGATION PROJECT

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1.0 INTRODUCTION

This Environmental Assessment (EA) presents the impacts that could potentially result from the continued operations and maintenance (O&M) of the federally authorized dredging and dredged material placement of the Bon Secour River Navigation Project, Gulf of Mexico, Intracoastal Waterway, Bon Secour River, Baldwin County, Alabama. The purpose of this EA is to determine whether or not the proposed action has the potential for creating significant impacts to the environment and would thereby warrant a more detailed study of possible impacts, mitigation, and alternative courses of action.

2.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CONSIDERATION

NEPA of 1969 and Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508 (40 CFR 1500-1508), require Federal agencies to consider the potential environmental consequences of proposed action and alternatives. The NEPA of 1969 excuses or excludes the U.S. Army Corps of Engineers (Corps) from the preparation of any formal environmental analysis with respect to actions that result in minor or no environmental effects, which are known as "categorical exclusions." An intermediate level of analysis, an EA, is prepared for an action that is not clearly categorically excluded, but does not clearly require an Environmental Impact Statement (EIS) [40 CFR §1501.3 (a) and (b)]. Based on the EA, the Corps either prepares an EIS, if one appears warranted, or issues a "Finding of No Significant Impact" (FONSI), which satisfies the NEPA requirement. This EA is prepared according to the Engineer Regulation (ER) 200-2, Procedures for Implementing NEPA, and the Council on Environmental Quality (CEQ) regulations (40 CFR § 1508.27) for Implementing the Procedural Provisions of NEPA (40 CFR § 1500-1508). This draft EA, written by the Corps, Mobile District, has been prepared to address the potential impacts associated with dredging of the federally authorized Bon Secour River Navigation Project. Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality (amended by EO 11991), provides policy directing the Federal government to take leadership in protecting and enhancing the environment.

3.0 DESCRIPTION OF ENTIRE AUTHORIZED PROJECT

The Bon Secour River Navigation Project (**Figure 1**) was federally authorized 16 May 1963 by the Chief of Engineers under authority contained in Section 107 of the

River and Harbor Act of 14 July 1960. The project provides for a channel 10 feet deep and 80 feet wide extending from the Gulf Intracoastal Waterway (GIWW) through Bon Secour Bay to and up the Bon Secour River to the vicinity of Swifts' Landing (lower river section), thence 6 feet deep and 80 feet wide to a point about 600 feet above Oak Landing (upper river section), with two turning and maneuvering areas 150 feet wide and 1,100 to 1,200 feet long opposite Swifts' Landing and the ice loading dock. The overall length of the improvement is approximately 4.7 miles. The project was modified to include a channel 10 feet deep and 80 feet wide extending from the Bon Secour Channel down the South Fork Channel, a distance of approximately 1.14 miles and ending at a 150-foot by 150-foot turning basin. Plane of reference is mean lower low water (MLLW).

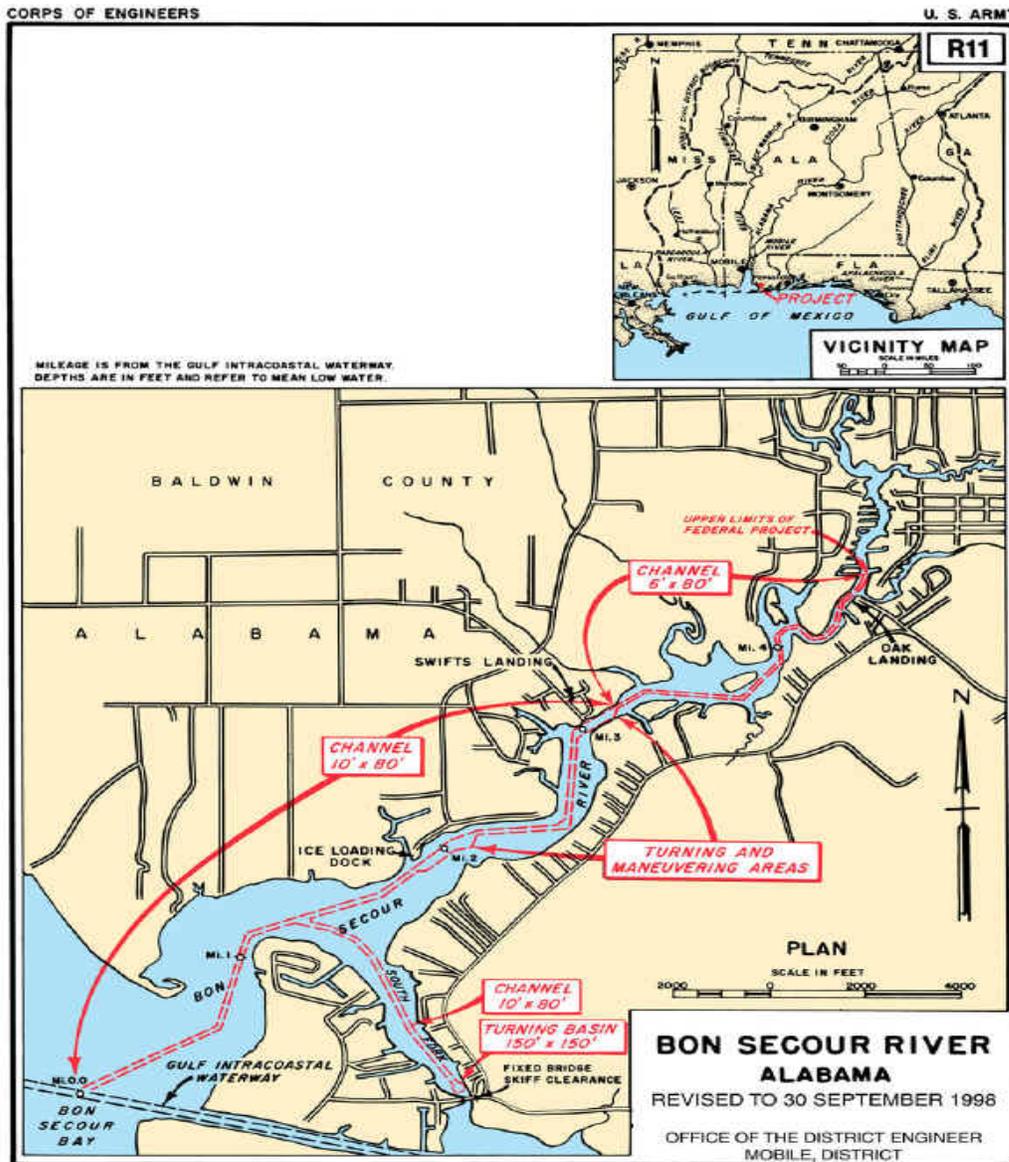


Figure 1: Vicinity Map of the Bon Secour River Navigation Project

4.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The proposed maintenance activities are necessary to maintain navigation of the federally authorized project which provides access to commercial fishery facilities in the Bon Secour area. Such access aids in transport of perishable seafood cargo from oyster reefs and fishing grounds in Mobile and Bon Secour Bays, and the Mississippi Sound.

5.0 DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of the continued maintenance dredging of the Bon Secour River Navigation Project using either a mechanical or hydraulic dredge. The federally authorized project provides for a channel 10 feet deep and 80 feet wide extending from the GIWW through Bon Secour Bay to and up Bon Secour River to the vicinity of Swifts' Landing (lower river section), thence 6 feet deep and 80 feet wide to a point about 600 feet above Oak Landing (upper river section), with two turning and maneuvering areas 150 feet wide and 1,100 to 1,200 feet long opposite Swifts' Landing and the ice loading dock. The overall length of the improvement is approximately 4.7 miles. The project was modified to include a channel 10 feet deep and 80 feet wide extending from the Bon Secour Channel down the South Fork Channel, a distance of approximately 1.14 miles and ending at a 150-foot by 150-foot turning basin. An additional 2 feet of advanced maintenance and 2 feet of overdepth dredging will be added for dredging inconsistencies. The final channel depths would be 14 feet from the GIWW through Bon Secour Bay and up Bon Secour River to the vicinity of Swifts' Landing and 10 feet above Oak Landing. Each dredging cycle (approximately every 3-5 years) will involve removal of approximately 350,000 cubic yards (cy) of dredged material from anywhere within the project limits. The dredged material would be placed into a previously used, certified upland disposal area located north and west of the project (**Figure 2**) via a pipeline. The disposal area is provided by the local sponsor, Baldwin County, Alabama. The site is located south of County Road 49 in Township 8 South, Range 3 East, and Section 26.

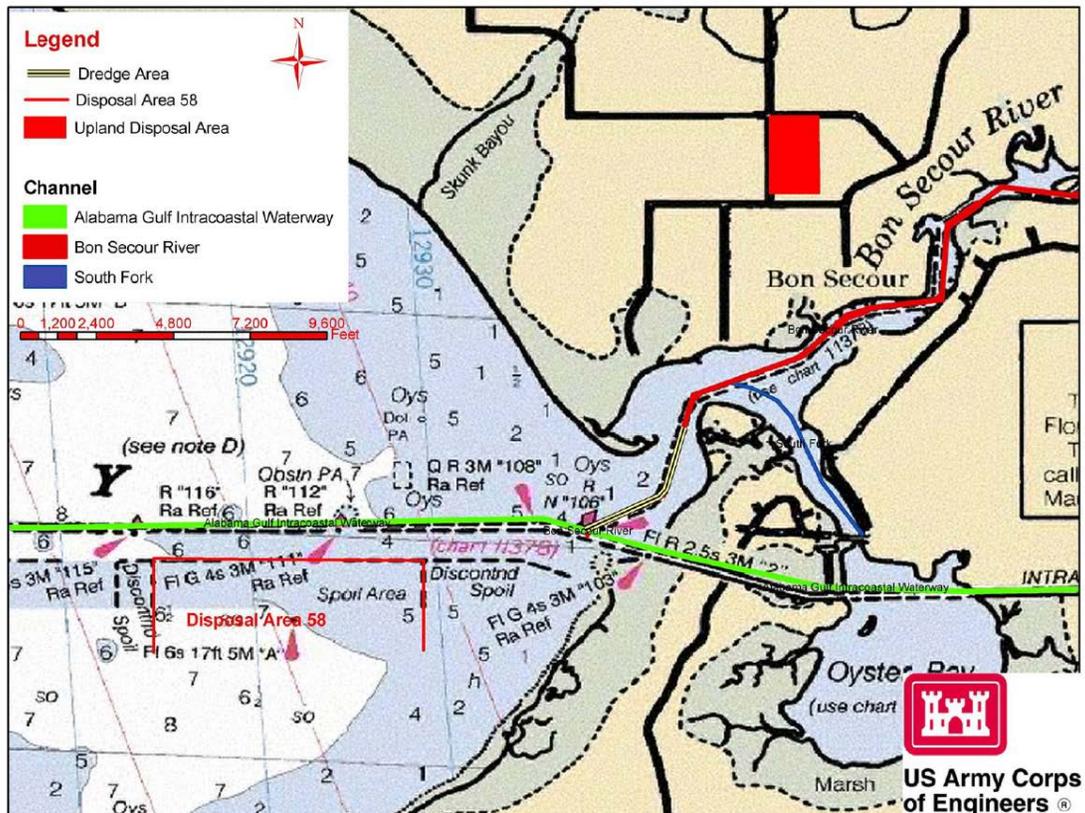


Figure 2: Upland Disposal Area Location

6.0 ALTERNATIVES TO THE PROPOSED ACTION

The only alternative to the proposed action considered was the “no action” alternative. The no action alternative is analyzed under the guidelines laid out by the CEQ. The “no action” alternative would not provide for the dredging needs of the federally authorized project. Non-maintenance would result in continued shoaling of the channel and would affect recreational activities as well as significant numbers of commercial vessels which would have an adverse effect on south Baldwin County’s fishing industries.

7.0 AFFECTED ENVIRONMENT

7.1 Climate. The climate of the project area is humid and nearly subtropical. The summers are long and fairly hot but are somewhat tempered by Gulf breezes. Winters are short and mild. There are occasional short periods, usually during January, of subfreezing temperatures with frost. There are typically about 270 frost-free days per year in the project area, usually between March and November. During the period from April through September, the average temperature is about 76 Fahrenheit (F)° and the monthly precipitation averages about six inches. The remaining period of the year,

October through March, has an average temperature of about 61F° and an average monthly precipitation of about five inches. Annual rainfall is about 65 inches.

7.2 Sediment. The composition of the material dredged from the Bon Secour River consists of approximately 20 percent sand, 51 percent silt and 29 percent clay. The quality of the material removed from the Bon Secour channel was investigated during the preparation of the August 1989 EA. Upon analysis, the Corps determined the material was uncontaminated and suitable for removal and placement in the upland disposal area.

In the Bon Secour River project area, bulk chemical and physical analyses were performed on sediment samples taken from five stations on the river while bacterial analyses and residue analyses for organochlorine and organophosphate pesticides and polychlorinated biphenyls were on performed at on two stations (Corps, 1977). In all cases, sediments were found suitable for placement in the disposal area.

7.3 Benthos, Motile Invertebrates, and Fishes. The benthic community in the project area was classified by Vittor and Associates, Inc. (1982) in a study of Mississippi Sound and selected sites in the Gulf of Mexico. In the Sound, a total of 437 taxa were collected at densities ranging from 1,097 to 35,537 individuals per square meter. Generally, densities increase from fall through the spring months since most of the dominant species exhibit a late winter to early spring peak in production. Species diversity, evenness, and species richness (number of taxa) demonstrate only minor inconsistent temporal fluctuations. Biomass per unit area also increases from fall to spring, primarily as a result of higher densities. Vittor and Associates, Inc. (1982) named several opportunistic species that are ubiquitous in Mississippi Sound and nearshore Gulf of Mexico. These species, though sometimes low to moderate in abundance, occur in a wide range of environmental conditions. They are usually the most successful at early colonization and thus tend to strongly dominate the sediment subsequent to disturbances such as dredging activities. These species include *Mediomastus spp.*, *Paraprionospio pinnata*, *Myriochele oculata*, *Owenia fusiformis*, *Lumbrineris app.*, *Sigambra tentaculata*, the *Linopherus-Paraphinome* complex, and *Magelona cf. phyllisae*. The phoronid, *Phoronis* sp. and the cumacean, *Oxyurostylis smithi*, also fit this category. *M. oculata* and *O. fusiformis* are predominate species in Mississippi Sound. The project site lies within the area categorized as the shallow coastal margin mud habitat. The numerically dominant species *Mediomastus californiensis* and *Paraprionospio pinnata* dominated the samples collected by Vittor and Associates, Inc. (1982). Numerous fish species occur within the project area with the most common including: Atlantic croaker (*Micropogonias undulates*), spot (*Leiostomus xanthurus*), bay anchovy (*Anchoa mitchilli*), and Gulf menhaden (*Brevoortia patronus*) (GCLR, 1978). No oyster reefs exist within the project area.

7.4 Submerged Aquatic Vegetation. Naturally high turbidity levels reduce necessary light at depths within the project area and immediate vicinity, making the area unsuitable for growth of submerged aquatic vegetation.

7.5 Essential Fish Habitat (EFH). EFH is defined in the Magnuson-Stevens Fishery Conservation and Management Act as "those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity." The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. The National Marine Fisheries Service (NMFS) has identified EFH habitats for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. The EFH within the project area include emergent wetlands, mud substrate, and estuarine water columns for species of fish, such as red drum brown shrimp, pink shrimp, and white shrimp. The area also provides habitat for prey species (e.g. Gulf menhaden, shad, croaker and spot) that are consumed by larger commercially important species. In addition, the area provides habitat for spotted seatrout, striped mullet, southern flounder, Atlantic croaker, and Gulf menhaden.

Table 1 provides a list of the species that NMFS manages under the federally Implemented Fishery Management Plan.

Table 1

Fishery Management Plans and Managed Species for the Gulf of Mexico. (NMFS 2010)	
<p>Shrimp Fishery Management Plan brown shrimp - <i>Farfantepenaeus aztecus</i> pink shrimp - <i>F. duorarum</i> royal red shrimp - <i>Pleoticus robustus</i> white shrimp - <i>Litopenaeus setiferus</i></p> <p>Red Drum Fishery Management Plan red drum - <i>Sciaenops ocellatus</i></p> <p>Reef Fish Fishery Management Plan almaco jack – <i>Seriola rivoliana</i> anchor tilefish - <i>Caulolatilus intermedius</i> banded rudderfish – <i>S. zonata</i> blackline tilefish - <i>Caulolatilus cyanops</i> black grouper- <i>Mycteroperca bonaci</i> blueline tilefish – <i>C. microps</i> cubera snapper – <i>L. cyanopterus</i> dog snapper – <i>L. jocu</i> dwarf sand perch - <i>Diplectrum bivittatum</i> gag grouper - <i>M. microlepis</i> goldface tilefish – <i>C. chrysops</i> goliath grouper - <i>Epinephelus itajara</i> gray snapper – <i>L. griseus</i> gray triggerfish - <i>Balistes capriscus</i> greater amberjack – <i>S. dumerili</i> hogfish - <i>Lachnolaimus maximus</i> lane snapper - <i>Lutjanus synagris</i> lesser amberjack - <i>S. fasciata</i> mahogany snapper – <i>L. mahogoni</i></p>	<p>Stone Crab Fishery Management Plan FL stone crab - <i>Menippe mercenaria</i> gulf stone crab – <i>M. adina</i></p> <p>Spiny Lobster Fishery Management Plan spiny lobster - <i>Panulirus argus</i> slipper lobster - <i>Scyllarides nodife</i></p> <p>Coral and Coral Reef Fishery Management Plan varied coral species and coral reef communities comprised of several hundred species</p> <p>Coastal Migratory Pelagic Fishery Management Plan cobia - <i>Rachycentron canadum</i> king mackerel – <i>Scomberomorus cavalla</i> Spanish mackerel - <i>S. maculatus</i></p> <p>Species in the Fishery but Not in the Mgt Unit cero – <i>Scomberomorus regalis</i> little tuny – <i>Euthynnus alletteratus</i> dolphin – <i>Coryphaena hippurus</i> bluefish – <i>Pomatomus saltatrix</i> (<i>Gulf of Mexico only</i>)</p>

<p> marbled grouper – <i>E. inermis</i> misty grouper – <i>E. mystacinus</i> mutton snapper – <i>L. analis</i> Nassau grouper – <i>E. striatus</i> queen snapper - <i>Etelis oculatus</i> red hind - <i>Epinephelus guttatus</i> red grouper – <i>E. morio</i> red snapper - <i>L. campechanus</i> rock hind – <i>E. adscensionis</i> sand perch - <i>Diplectrum formosum</i> scamp grouper - <i>M. phenax</i> schoolmaster – <i>L. apodus</i> silk snapper – <i>L. vivanus</i> snowy grouper – <i>E. niveatus</i> speckled hind - <i>E. drummondhayi</i> tilefish - <i>Lopholatilus chamaeleonticeps</i> vermilion snapper - <i>Rhomboplites aurorubens</i> Warsaw grouper – <i>E. nigritus</i> wenchman - <i>Pristipomoides aquilonaris</i> yellowedge grouper <i>E. lavolimbatus</i> yellowfin grouper – <i>M. venosa</i> yellowmouth grouper – <i>M. interstitialis</i> yellowtail snapper - <i>Ocyurus chrysurus</i> </p>	
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7.6 Esthetics. The project area around Bon Secour is esthetically pleasing with some developed areas. The developed industrialized areas offer little in the way of esthetics.

7.7 Water Quality. Water quality in the area is generally good. Turbidity in the project area, as well as most of the Bay, is a common occurrence due to shallow depths, silts, windy conditions, and storm events. Low dissolved oxygen levels in the project area have been documented during the period of June through September.

7.8 Noise. Noise levels in the area are typical of recreational boating and commercial marine activities. Noise levels fluctuate with the highest levels usually occurring during the spring and summer months due to increased boating activity.

7.9 Navigation. The channel provides access to commercial fishery facilities in the Bon Secour area. In addition, many recreational vessels utilize the navigation channel.

7.10 Air Quality. Baldwin County is in attainment with the National Ambient Air Quality Standards (NAAQS) of the Clean Air Act (CAA).

7.11 Hazardous Material. No known hazardous materials are present within the project area or immediate vicinity.

7.12 Cultural Resources. In compliance with the National Historic Preservation Act, coordination with the Alabama State Historic Preservation Officer (SHPO) will

occur during the public notice process. The National Register of Historic Places has been recently consulted and no properties listed on, being nominated to or that having been determined eligible for the National Register are located in the vicinity of the proposed work. Given the relatively recent maintenance dredging of the project, the potential for submerged cultural resources is low.

7.13 Threatened and Endangered Species. The following federally listed threatened and endangered species are potentially found in Baldwin County:

U.S. Fish and Wildlife

- T - Piping plover (*Charadrius melodus*)
- T - Eastern indigo snake (*Drymarchon corais couperi*)
- E - Alabama red-bellied turtle (*Pseudemys alabamensis*)
- T - Loggerhead sea turtle (*Caretta caretta*)
- E - Kemp's ridley sea turtle (*Lepidochelys kempii*) (P)
- T - Green sea turtle (*Chelonia mydas*) (P)
- E - Hawksbill sea turtle (*Eretmochelys imbricate*)
- E- Leatherback sea turtle (*Dermochelys coriacea*)
- T - Gulf sturgeon (*Acipenser oxyrinchus desotoi*)
- E - Alabama beach mouse (*Peromyscus polionotus ammobates*)
- E - Perdido Key beach mouse (*Peromyscus polionotus trissylepsis*)
- E - West Indian manatee (*Trichechus manatus*)
- E - Wood stork (*Mycteria Americana*)
- E - Alabama sturgeon (*Scaphirhynchus suttkusi*)
- E - Southern Clubshell mussel (*Pleurobema decisum*)
- T - Inflated heelsplitter mussel (*Potamilus inflatus*)
- E - American chaffseed (*Schwalbea americana*)
- E - Gopher Tortoise (*Gopherus polyphemus*)
- BGEPA - Bald eagle (*Haliaeetus leucocephalus*)

National Marine Fisheries Service

- E- Blue whale (*Balaenoptera musculus*)
- E- Finback whale (*Balaenoptera physalus*)
- E- Humpback whale (*Megaptera novaeangliae*)
- E- Sei whale (*Balaenoptera borealis*)
- E- Sperm whale, (*Physeter macrocephalus*)
- T- Green sea turtle (*Chelonia mydas*)
- E- Hawksbill sea turtle (*Eretmochelys imbricate*)
- E- Kemp's ridley sea turtle (*Lepidochelys kempii*)
- E- Leatherback sea turtle (*Dermochelys coriacea*)
- T- Loggerhead sea turtle (*Caretta caretta*)
- T- Gulf sturgeon (*Acipenser oxyrinchus*)

E-Endangered / T-Threatened / (P)-Possible Occurrence / BGEPA-Bald & Golden Eagle Protection Act

The project area is host to wildlife on the State and Federal protected species list. However, the majority of the threatened and endangered species previously listed are not likely to be in the project area. Of particular concern in the proposed project vicinity are sea turtles, Florida manatee, and the Gulf sturgeon. Sea turtles are known to be present within the Mobile Bay and actively nest on adjacent Gulf of Mexico beaches. However, they are not known to use the area in the vicinity of the Bon Secour River.

The Florida manatee is a subspecies of the West Indian Manatee. Between October and April, Florida manatees concentrate in areas of warmer water. During summer months, the species may migrate as far west as the Louisiana coast on the Gulf of Mexico and may occasionally be found along the Alabama coast. Manatees inhabit both salt and fresh water of sufficient depth (about 5 feet to usually less than 18 feet). Florida manatees may be encountered in canals, rivers, estuarine habitats, saltwater bays, and on occasion have been observed as much as 3.7 miles off the Florida Gulf coast. These manatees will consume any aquatic vegetation available to them including sometimes grazing on the shoreline vegetation. Manatee sightings have been documented in Mobile Bay and/or its tributaries for the past several years, during the period May through December.

The Gulf sturgeon is a subspecies of the Atlantic sturgeon. Subadult and adult Gulf Sturgeon spend six to nine months each year in rivers and three to six of the coolest months (September-March) in estuaries and/or the adjacent Gulf of Mexico. It appears that Gulf Sturgeon less than two years old reside in lower reaches of riverine habitats and estuaries throughout the year. In general, subadult and adult Gulf Sturgeon begin to migrate into rivers from the Gulf of Mexico as river temperatures increase to about 16 to 23° C (60.8 to 75.0° F). They continue to immigrate through early May, but most arrive when temperatures reach 21° C. Most Gulf Sturgeon return to estuaries or the Gulf of Mexico by mid-November to early December. Adults migrate up the river and other streams during the period of March through September to spawn. Juvenile Gulf Sturgeon use the bay primarily from September through June, although they may be found in the bay or adjacent estuaries during any month of the year. The proposed project area may be used by Gulf sturgeon for foraging during their migration periods. However, the project area is not within designated Gulf Sturgeon critical habitat.

The Gopher tortoise and Eastern indigo snake may be in the vicinity of the project area but the type of habitat it occupies is not in either the dredging or disposal area. The Alabama red-bellied turtle may be present in the project area. The species will likely avoid the project area during operations. No significant impacts to these species are anticipated.

7.14 Environmental Justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (February 11, 1994) requires that Federal agencies conduct their programs, policies, and activities that substantially affect human health or the environment in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including

populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities because of their race, color, or national origin. On February 11, 1994, the President also issued a memorandum for heads of all departments and agencies, directing that the United States Environmental Protection Agency (USEPA), whenever reviewing environmental effects of proposed actions pursuant to its authority under Section 309 of the CAA, ensure that the involved agency has fully analyzed environmental laws, regulations, and policies.

7.15 Protection of Children. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997), recognizes a growing body of scientific knowledge demonstrates that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because children's bodily systems are not fully developed; because children eat, drink, and breathe more in proportion to their body weight; because their behavior patterns may make them more susceptible to accidents. Based on these factors, the President directed each Federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. The President also directed each Federal agency to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

8.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

8.1 Climate. No climatic changes will occur as a result of this localized project.

8.2 Sediment. The proposed action will result in the relocation of materials dredged from the federally authorized Bon Secour channel and its subsequent disposal in the designated upland disposal area including its return water. No significant levels of contaminants are known to exist within the dredged material (Corps, 1977).

8.3 Benthos, Motile Invertebrates, and Fishes. There would be a short term disruption of the aquatic community within the navigation channel. Non-motile benthic fauna within the project area will be lost due to the proposed operations, but should repopulate within several months upon completion of dredging. 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. No oyster reefs will be impacted by the proposed activity.

8.4 Submerged Aquatic Vegetation. There will be no impacts to submerged aquatic vegetation since none are found in the project area.

8.5 Essential Fish Habitat. The following species are potentially found in the project area:

- Brown Shrimp (*Penaeus azectus*)
- White Shrimp (*P. setiferus*)
- Red Drum (*Sciaenops ocellatus*)
- Greater amberjack (*Seriola dumerili*)
- Red porgy (*Pargrus pargrus*)
- Dolphin (*Coryphaena hippurus*)
- Cobia (*Rachycentron canadum*)
- King mackerel (*Scomberomorus cavalla*)
- Spanish mackerel (*S. maculateus*)
- Sargassum

The proposed action will not fill or destroy habitat considered necessary to sustain these species. Species identified to be present within the project area are motile and will likely exit the area upon initiation of dredging operations. Most organisms in this environment are adapted for existence in an area of considerable substrate movement. As previously mentioned, impacts to these species will be negligible as they will re-colonize the area within a few months. Coordination with the NMFS, Habitat Conservation Division (HDC) in Panama City, Florida will be initiated through the public notice and official correspondence. The proposed project would not adversely affect the present EFH.

8.6 Esthetics. Presence of dredging equipment within the existing navigation channel will have no significant impact to the areas esthetics. The equipment will be there for a relatively short period of time. No permanent visible effects to local estuaries will result from this project.

8.7 Water Quality Certification. Water quality in the immediate vicinity of the dredge sites would be slightly impaired for a short period of time due to a slight increase in turbidity. Best management practices (BMP) would be implemented to reduce disturbance to the area. The dredging and disposal would be controlled and monitored so that no part of these operations would cause an increase in turbidity of more than 50 nephelometric turbidity units (NTU) above background levels outside a 400-foot mixing zone. The proposed action will comply with conditions of the State Water Quality Certification. ADEM has previously issued a state water quality certification for this project. The Corps, Mobile District will request water quality certification from ADEM once the public notice review period is complete and all outstanding issues are addressed.

8.8 Noise. Noise from the dredge equipment and other job-related equipment is expected to increase during the proposed operations in the project vicinity. Noise levels will resume to prior conditions once the dredging and disposal operations are complete. Noise levels will blend with those from adjacent activities and are not significant.

8.9 Navigation. Navigation would be temporarily affected due to associated dredging operation and disposal activities at the dredging site. The restricted maneuverability of the equipment may result in incoming/outgoing vessels waiting for

short periods of time. While the presence of the dredge is expected to be a slight inconvenience, no significant adverse impacts are expected to occur to navigation due to these operations being of a short duration. After completion of the dredging activities, navigation would be improved due to increased navigational depths within the channel.

8.10 Air Quality. The proposed action would have no significant long-term effect on air quality. Air quality in the immediate vicinity of the dredge and other equipment would be slightly affected for a short period of time by the fuel combustion and resulting engine exhausts. The exhaust emissions are considered insignificant in light of prevailing breezes and when compared to the existing exhausts fumes from other vessels using the project. The Bon Secour area is in attainment with NAAQS parameters. These standards would not be violated by the implementation of the proposed action. The proposed action would not affect the attainment status of the project area or region. A SIP conformity determination (42 United States Code 7506(c)) is not required since the project area is in attainment for all criteria pollutants.

8.11 Hazardous Materials. No hazardous materials are associated with the project outside of fuel and oils on the dredging equipment. The contractor would be responsible for proper storage and disposal of any oils and fuels used during the dredging and disposal operation.

8.12 Cultural Resources. In compliance with the National Historic Preservation Act the proposed action will be coordinated with the Alabama SHPO and interested Native American Tribes from the area. No known cultural resources have been identified in the project area from previous surveys.

8.13 Threatened and Endangered Species. No federally protected species would be significantly impacted as a result of the proposed project. Coordination with the USFWS will be conducted regarding this project.

The majority of the threatened and endangered species listed in Section 7.13 are not likely to be in the project area. For example, the red-cockaded woodpecker prefers old-growth pines and pine/hardwood stands. This habitat does not occur in the area. The wood stork is primarily associated with freshwater habitats for nesting, roosting, foraging, and rearing. The Bald eagle is not known to nest or roost in the vicinity of the project. The Mobile District is not aware of any nesting by either species in the project area. The Alabama beach mouse has a very limited range of habitat and are not known to live in the project area. The heavy pigtoe mussel and inflated heelsplitter mussel require a freshwater riverine environment and are not known to inhabit the area. No such habitat occurs in this area. The Eastern indigo snake is largely restricted to the vicinity of sandhill habitats occupied by Gopher tortoises. Alabama red-bellied turtles primarily inhabit backwater areas of the bays that are 3.3 to 6.6 feet in depth. These turtles have a limited range of habitat, which is located between Interstate 10 and U.S. Highway 90. The American chaffseed does not thrive in the riverine shoreline environment and is associated with pine savanna habitat. In summary, the estuarine and riverine open-water setting and upland DA environment are not suitable habitat for the above mentioned species.

It's possible that Gulf sturgeon may use the proposed area for foraging during migration periods even though proposed action area does not fall within designated critical habitat. The Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Alabama. The Corps, Mobile District anticipates that if these measures are implemented, there will be no adverse impact to West Indian manatees. The loggerhead, Kemp's ridley, and green sea turtles could possibly be impacted because they could be found in the area; however, if they are in the vicinity, they would likely avoid the area while operations are in progress. Dredged material would be removed from the federal channel by a hydraulic cutterhead dredge and discharged through a pipeline to the authorized upland disposal area. This dredging method has been documented not to adversely affect marine turtles or Gulf sturgeon as referenced in the Gulf of Mexico Biological Opinion on Hopper Dredging and Borrow Areas dated 2003 and amended in 2005 and 2007. This method is also preferable in terms of turbidity reduction and minimizing the potential impact to wildlife, primarily manatees and sea turtles.

Piping plovers begin arriving on the wintering grounds as early as July, late-nesting birds arriving as late as September. Although the area being considered for maintenance dredging and upland disposal is not within piping plover designated critical habitat, it may contain, or be adjacent to, suitable foraging and roosting habitat for these listed species. The proposed action may temporarily impact the species located near the upland disposal area but this area is not their typical habitat.

Based on this information, the Corps, Mobile District finds that the proposed activity *may affect but not likely to adversely affect* any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the Endangered Species Act, the Corps, Mobile District will request resource agency concurrence for maintenance dredging and disposal activities of the Bon Secour River Navigation channel.

8.14 Environmental Justice. The proposed action is not designed to create a benefit for any group or individual. The dredging and disposal of the overall Bon Secour River project does not create disproportionately high or adverse human health or environmental impacts on minority or low-income populations of the surrounding community. Review and evaluation of the proposed action have not disclosed the existence of identifiable minority or low-income communities that would be adversely affected by the proposed action.

8.15 Protection of Children. No changes in demographics, housing, or public services would occur as a result of the proposed action. The proposed action does not involve activities that would pose any disproportionate environmental health risk or safety risk to children because it will occur away from children.

8.16 Coastal Zone Management. The Corps, Mobile District has determined that the proposed O&M dredging of the Bon Secour River Navigation Project is

consistent with Coastal Zone Consistency (CZC) in the State of Alabama. The ADEM has previously concurred with Mobile District's determination. The Corps, Mobile District will request CZC from ADEM once the public notice review period is complete and all outstanding issues are addressed.

9.0 CUMULATIVE EFFECTS SUMMARY

Cumulative impacts are those impacts on the environment that result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions. This section analyzes the proposed action as well as any connected, cumulative, and similar existing and potential actions occurring in the area surrounding the site. The potential adverse direct environmental and socioeconomic impacts associated with the proposed action are insignificant. In general, the proposed dredging and disposal operations would have no significant adverse secondary or cumulative effects.

The dredging and disposal operations at Bon Secour, past, present and for the reasonably foreseeable future, will not cause changes in the current activities of the vicinity. Recreational and commercial boaters that presently use the navigation project will likely remain unchanged as no channel improvements are planned. Therefore, no significant cumulative impacts are expected from this proposed action.

10.0 CONCLUSION

Although the dredging of the channel will result in some short-term negative impacts, the proposed action would have no significant long-term environmental impacts on the existing environment. No mitigation actions are required for the proposed project. BMPs would be employed during the proposed actions to minimize any identified adverse impacts. The implementation of the proposed action would not have a significant adverse impact on the quality of the environment and an EIS is not required.

11.0 LIST OF AGENCIES, INTERESTED GROUPS AND PUBLIC CONSULTED

Region 4, U.S. Environmental Protection Agency
Field Representative, Fish and Wildlife Service
Regional Director, National Park Service
Regional Director, National Marine Fisheries Service
Commander, Eighth Coast Guard District
Alabama State Historic Preservation Officer
Alabama Department of Environmental Management
Alabama Department of Conservation and Natural Resources
Gulf of Mexico Fishery Management Council
Federal Emergency Management Agency

12.0 REFERENCES

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13.0 LIST OF PREPARERS

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Enclosure 1

to be determined

