

MEMORANDUM FOR DISTRICT ENGINEER

SUBJECT: Statement of Findings - Proposed maintenance dredging and placement activities for the Bayou Coden Federal Navigation Project, Mobile County, Alabama

1. PROBLEM. The proposed activities consist of the continued maintenance dredging, including advanced maintenance and placement of dredged material from the Bayou Coden Federal Navigation Project.

2. RECOMMENDATION. It is recommended that the District Engineer (DE) sign the enclosed Statement of Findings (SOF), Finding of No Significant Impact (FONSI)/Environmental Assessment (EA), and Section 404(b)(1) Evaluation Report.

APPROVED Ac7 SEE ME _____ OTHER _____

3. BACKGROUND AND DISCUSSION.

a. The proposed activities are necessary to provide adequate depth for safe navigation within the Bayou Coden channel. A description of the activities is on page 1 of the SOF.

b. The proposed action is in compliance with applicable laws, executive orders, and regulations regarding the protection of water and air resources, cultural resources, and fish and wildlife resources.

c. The cumulative effects of the proposed action upon the environment were considered and found to be insignificant.

d. The enclosed SOF summarizes the environmental documentation and compliance process and concludes that the proposed activities should proceed.

4. IMPACTS. Without the DE's signature, the project will be in non-compliance with the National Environmental Policy Act, the Clean Water Act, and the U.S. Army Corps of Engineers' regulations.

5. COORDINATION.

PD-E	Concur/ non-concur	<u>Kent B. Dudley</u>	()	<u>3/29/10</u>
OP-TN	Concur/ non-concur	<u>Stu H. Haskins</u>	()	<u>4/16/10</u>
OP	Concur/ non-concur	<u>[Signature]</u>	()	<u>4/6/10</u>
OC	Concur/ non-concur	<u>[Signature]</u>	()	<u>4/7/10</u>
PD	Concur/ non-concur	<u>[Signature]</u>	()	<u>4/8/10</u>
DX	Concur/ non-concur	<u>[Signature]</u>	()	<u>4/13/10</u>
DPM	Concur/ non-concur	<u>D. Turner</u>	()	<u>14 Apr 10</u>

SUBJECT: Statement of Findings - Proposed maintenance dredging and placement activities for the Bayou Coden Federal Navigation Project, Mobile County, Alabama

6. MOBILE DISTRICT POINT OF CONTACT: Ms. Lekesha Reynolds, (251) 690-3260.


JENNIFER L. JACOBSON *for*
Chief, Coastal Environmental Team

STATEMENT OF FINDINGS

MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL FOR THE BAYOU CODEN NAVIGATION PROJECT MOBILE COUNTY, ALABAMA

A FEDERALLY-AUTHORIZED NAVIGATION PROJECT

Waterway and Location: Bayou Coden is located on Mississippi Sound in Mobile County, Alabama.

As District Engineer, U.S. Army Corps of Engineers (USACE), Mobile District, it is my duty in the role of responsible Federal Officer to review and evaluate, in light of public interest, the stated views of other interested agencies and the concerned public, the environmental effects of this proposed action.

My evaluation and findings are as follows:

- 1. Description of the Authorized Project.** The existing project at Bayou Coden was authorized on 2 June 1969, under the authority of Section 107, River and Harbor Act of 1960 and the River and Harbor Act of March 2, 1945 (H. Doc. 824, 77th Cong., 2nd sess.).
- 2. Description of the Proposed Action for Which These Findings Are Made.** The proposed action is to continue maintenance dredging and placement activities associated with the navigation project at Bayou Coden. The project provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the Bayou Coden channel about 500 feet south of the La Belle Avenue bridge. Dredging would involve the excavation of approximately 305,000 cubic yards of silts and sands over a five (5) year period. The channel will be dredged an additional 2 feet for advanced maintenance and an additional 2 feet of overdepth to allow for dredging inaccuracies for a total depth (over the authorized 8 feet) of 12 feet. It must also be considered that the dredging process will result in some degree of disturbance in the sediments immediately below the actual dredged depth. Dredging will be performed by a hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, and 13 are located west of the Bayou La Batre Channel in the Mississippi Sound. The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site Charlie. The specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging, except for the bayou portion of the channel, which involves the use of the upland site. An overlap zone is required for the channel area located approximately 400 feet on the bayou side or landward side of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed

from the approximate 400-foot long overlap zone portion of the channel would be placed either in the upland disposal area “Charlie” or the open-water disposal sites, based upon where shoaling occurs.

3. Results of Coordination.

a) An Environmental Assessment (EA), Finding of No Significant Impact (FONSI) and a 404(b)(1) evaluation has been prepared and is included with this report.

b) Letter dated July 13, 2004 – The Alabama Historical Commission concurred that no archaeological features would be impacted during the project (**EA Enclosure 1**). It was concluded in 2004 by the State Historic Preservation Officer (SHPO) that unless the scope of work changes, no further consultation with their office is required. Coordination with the SHPO was made via the public notice in July 2009. No comments were received from the SHPO. No further coordination with SHPO is needed for the continual maintenance of the project and no known cultural resources have been identified in the project area.

c) Letter July 15, 2009 – The National Marine Fisheries Service-Protected Resources Division concurred with the Corps determination of no adverse impacts to any endangered or threatened species as a result of the continued maintenance project. No further consultation with NOAA Fisheries is required (**EA Enclosure 2**).

d) Public Notice No. FP09-BC01-14 was coordinated with Federal, state and local agencies and interested public on July 21, 2009, for 30 days (**EA Enclosure 3**).

e) Letter dated July 30, 2009 – Concurrence of no significant impact on federally listed species from the US Fish and Wildlife Service (USFWS) was received on July 30, 2009 (**EA Enclosure 4**). The USFWS requested in 2004 to be notified if any gopher tortoises, eastern indigo snakes, or black pine snakes are identified during operations. The Service also requested the Corps consult the National Marine Fisheries-Protected Resources Division to provide the appropriate level of protection for the Gulf sturgeon, and also proposed the Corps implement the Alabama “Standard Manatee Construction Conditions” of April 2003 to prevent adverse impacts to the species.

f) Letter dated November 9, 2009 – The National Marine Fisheries Service-Habitat Conservation Department recommended that the Corps of Engineers develop a beneficial use plan for the Bayou Coden Navigation Project that can restore or create wetlands and reduce or eliminate the need for unconfined, open-water disposal (**EA Enclosure 5**). The Corps has discussed this recommendation with NFMS both in previous coordination and recent conversations and has stated that currently there are no opportunities for beneficial use of material in the area, but the Corps will continue to seek opportunities and funding mechanisms. No further comments were received from this agency.

g) Letter dated January 4, 2010 – The Alabama Department of Environmental Management (ADEM) issued a Water Quality Certification and Coastal Consistency for the Bayou Coden Federal Navigation Project for a period of 5 years. The conditions of the permit are included in the letter from ADEM (**EA Enclosure 6**).

h) Bayou Coden Section 404(b)(1) evaluation for the proposed maintenance of the Bayou Coden Navigation Project (EA Enclosure 7).

4. Environmental Effects and Impacts.

a) The environmental effects of the proposed dredging and placement activities for the Bayou Coden Channel have been addressed in an EA and Section 404(b)(1) Evaluation Report. Impacts to the environment were determined not to be significant.

b) The proposed action is in compliance with applicable laws, executive orders, and regulations regarding the protection of water and air resources, cultural resources, and fish and wildlife resources.

c) The cumulative effects of the proposed action upon the environment were considered and found to be insignificant.

5. Determination. Based upon my evaluation of the EA, Section 404(b)(1) Evaluation Report, and comments received in response to the public and legal notices, I have made the following determinations:

a) Feasible alternatives to the proposed activities have been considered and none that are practicable will have less adverse impacts on the aquatic ecosystem.

b) There are no significant cumulative environmental impacts on the aquatic ecosystem as a result of the proposed action.

c) The operation and maintenance dredging activities will be accomplished under conditions that would minimize, to the extent practicable, adverse environmental effects on the aquatic ecosystem.

6. Findings and Conclusions.

I, therefore, find that the operation and maintenance dredging of the federally authorized Bayou Coden Navigation Channel, Mobile County, Alabama described herein have been specified through the application of the Section 404(b)(1) Guidelines and all other applicable laws and regulations regarding the protection of water and air resources, cultural resources, and fish and wildlife resources. After weighing all factors involved and considering the cumulative effects of the proposed action upon the environment, I have concluded that the proposed construction activities comply with all applicable laws and regulations.

DATE 19 Apr '10


Byron G. Jorns
Colonel, Corps of Engineers
District Engineer

FINDING OF NO SIGNIFICANT IMPACT

**MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL
FOR THE BAYOU CODEN NAVIGATION PROJECT
MOBILE COUNTY, ALABAMA**

FINDING OF NO SIGNIFICANT IMPACT

MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL FOR THE BAYOU CODEN NAVIGATION PROJECT MOBILE COUNTY, ALABAMA

A FEDERALLY-AUTHORIZED NAVIGATION PROJECT

A. PURPOSE

The purpose of the proposed action is to reestablish the authorized depth of the federally authorized Bayou Coden Navigation Project which is located in the Mississippi Sound in Mobile County, Alabama. Maintenance dredging of the channel is needed to provide for safe navigation by commercial and private vessels into Bayou Coden.

B. DESCRIPTION OF PROPOSED ACTION

The proposed action would involve maintenance dredging and placement activities associated with the navigation project at Bayou Coden. The project provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the Bayou Coden channel about 500 feet south of the La Belle Avenue bridge. Dredging would involve the excavation of approximately 305,000 cubic yards of silts and sands over a five (5) year period. Dredging will be performed by a hydraulic pipeline dredge. The channel will be dredged an additional 2 feet for advanced maintenance and an additional 2 feet of overdepth to allow for dredging inaccuracies for a total depth (over the authorized 8 feet) of 12 feet. It must also be considered that the dredging process will result in some degree of disturbance in the sediments immediately below the actual dredged depth. Due to inaccuracies of the dredging equipment, the channel would be dredged an additional 2 feet over the authorized depth (8 feet) for advanced maintenance, and two feet of allowable over depth. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, and 13 are located west of the Bayou La Batre Channel in the Mississippi Sound. The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site Charlie. The specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging, except for the bayou portion of the channel, which involves the use of the upland site. An overlap zone is required for the channel area located approximately 400 feet on the bayou side or landward side of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed from the approximate 400-foot long overlap zone

portion of the channel would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

C. NO ACTION ALTERNATIVE

The implementation of the "no action" alternative would result in the federally authorized Bayou Coden Navigation 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. POTENTIAL ENVIRONMENTAL IMPACTS

The environmental impacts associated with the proposed action are fully described in the Environmental Assessment (EA). The assessment identifies the environmental characteristics that may possibly be affected by the proposed action, and determines the significance of the impact to each of these characteristics. The EA concludes that the proposed action identified would not have a significant adverse impact on the existing environment.

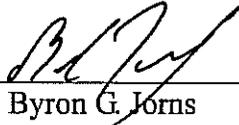
E. REVIEW AND COMMENT

The EA and Finding of No Significant Impact (FONSI) are available for public review at the U.S. Army Corps of Engineers (USACE) Mobile District Planning and Environmental Division, 109 St. Joseph St., Mobile, Alabama 36602.

F. FINDING OF NO SIGNIFICANT IMPACT

The attached EA was prepared pursuant to the Council on Environmental Quality (CEQ) regulations (Title 40 of the Code of Federal Regulations, Parts 1500-1508 [40 CFR 1500-1508]) for implementing the procedural requirements of the National Environmental Policy Act (NEPA). A careful review of the EA shows that the proposed action would not have a significant impact on the natural and human environment. The requirements of the NEPA have been satisfied and the preparation of an Environmental Impact Statement (EIS) is not necessary.

19 Apr '10
Date


Byron G. Jorns
Colonel, Corps of Engineers
District Engineer

ENVIRONMENTAL ASSESSMENT

**MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL
FOR THE BAYOU CODEN NAVIGATION PROJECT
MOBILE COUNTY, ALABAMA**

A FEDERALLY-AUTHORIZED NAVIGATION PROJECT

US ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

March 2010



ENVIRONMENTAL ASSESSMENT

**MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL
FOR THE BAYOU CODEN NAVIGATION PROJECT
MOBILE COUNTY, ALABAMA**

A FEDERALLY-AUTHORIZED NAVIGATION PROJECT

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- Enclosure 6- Alabama Dept Environmental Management WQ/CZC permit
- Enclosure 7- 404b1 Evaluation Bayou Coden

ACRONYMS AND ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
ADCNR	Alabama Department of Conservation and Natural Resources
BMP	Best Management Practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
USACE	United States Army Corps of Engineers
CZC	Coastal Zone Consistency
DA	Disposal Area
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
ER	Engineering Regulation
ESA	Endangered Species Act
FONSI	Findings of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
GIWW	Gulf Intracoastal Waterway
ITS	Incidental Take Statement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
ODMS	Ocean Dredged Material Disposal Site
O&M	Operations and Maintenance
RBO	Regional Biological Opinion
SAV	Submerged Aquatic Vegetation
SHPO	State Historic Preservation Officer
TSS	Total Suspended Solids
USFWS	United States Fish and Wildlife Service
WRDA	Water Resources Development Act
WQC	Water Quality Certification

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ENVIRONMENTAL ASSESSMENT

MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL FOR THE BAYOU CODEN NAVIGATION PROJECT MOBILE COUNTY, ALABAMA

A FEDERALLY AUTHORIZED NAVIGATION PROJECT

1.0 INTRODUCTION

This Environmental Assessment (EA) presents the impacts that could potentially result from the dredging and dredged material placement of the federally authorized Bayou Coden Navigation Project. The Bayou Coden channel is located in Mobile County, Alabama, north of the Mississippi Sound and it connects to the Bayou La Batre Channel at Portersville Bay (Figure 1). 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 on possible impacts, mitigation, and alternative courses of action.

2.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CONSIDERATION

A draft EA, written by the U.S. Army Corps of Engineers (USACE), has been prepared to address the potential impacts associated with dredging of the Bayou Coden Navigation Project. NEPA of 1969 and Title 40 of the Code of Federal Regulations, Parts 1500-1508 (40 CFR 1500-1508) require Federal agencies to consider the potential environmental consequences of proposed actions and alternatives. The 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 PROJECT AUTHORIZATION

The existing project at Bayou Coden was authorized on 2 June 1969, under the authority of Section 107, River and Harbor Act of 1960 and the River and Harbor Act of March 2, 1945 (H. Doc. 824, 77th Cong., 2nd sess.).

4.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action is to reestablish the authorized depth of the federally authorized Bayou Coden Navigation Project. The channel is needed to provide for safe navigation by commercial and private vessels into Bayou Coden.

5.0 DESCRIPTION OF THE PROPOSED ACTION

The proposed action is to continue maintenance dredging and placement activities associated with the authorized Federal navigation project at Bayou Coden, which is located in Mobile County, Alabama. The project provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay,

thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the Bayou Coden channel about 500 feet south of the La Belle Avenue bridge. Dredging would involve the excavation of approximately 305,000 cubic yards of silts and sands over a five (5) year period. The channel will be dredged an additional 2 feet for advanced maintenance and an additional 2 feet of overdepth to allow for dredging inaccuracies for a total depth (over the authorized 8 feet) of 12 feet. It must also be considered that the dredging process will result in some degree of disturbance in the sediments immediately below the actual dredged depth. The primary method of dredging will be hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, and 13 are located west of the Bayou La Batre channel in the Mississippi Sound (Figure 2). The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site Charlie. The specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging, except for the bayou portion of the channel, which involves the use of the upland site. An overlap zone is required for the channel area located approximately 400 feet on the bayou side or landward side of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed from the approximate 400-foot long overlap zone portion of the channel would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

6.0 ALTERNATIVES TO THE PROPOSED ACTION

The implementation of the "no action" alternative would result in the Bayou Coden 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.

7.0 AFFECTED ENVIRONMENT

7.1 Climate. The project area is located in a humid subtropical climate region, characterized by temperate winters; long, hot summers; and rainfall that is fairly evenly distributed throughout the year. Prevailing southerly winds provide moisture for high humidity from May through September. Annual temperatures range from below freezing to over 100 degrees Fahrenheit, with a normal mean annual temperature of 68 degrees Fahrenheit along the coast. Normal precipitation ranges from about 50 to 65 inches per year.

7.2 Sediment. Sediment within Mississippi Sound consists of inorganic clays of high plasticity, poorly graded sands, sand-clay mixtures, sand-silt mixtures, and inorganic clays of low to medium plasticity. Sandy material begins to show up in the sediment profile in the area just south of the Gulf Intracoastal Waterway (GIWW) and becomes dominant through the tidal pass into the Gulf of Mexico. The area below project elevation in the bayou consists of inorganic clays of high plasticity, poorly-graded sands, sand-silt mixtures and sandy clay mixtures. The

material to be dredged is predominantly silty, organic material deposited since the previous maintenance cycle.

7.3 Benthos, Motile Invertebrates, and Fishes. The benthic community in the project area was classified by Vittor and Associates (1982) in a study of the Mississippi Sound and selected sites in the Gulf of Mexico. In the Mississippi 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 (1982) named several opportunistic species that are ubiquitous in the 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 spp.*, *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 the 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 Sound with the most common including: Atlantic croaker (*Micropogonias undulatus*), spot (*Leiostomus xanthurus*), bay anchovy (*Anchoa mitchilli*), and Gulf menhaden (*Brevoortia patronus*) (GCLR, 1978). There are no oyster reefs within the immediate vicinity of the Bayou Coden channel or within the disposal areas along the Bayou La Batre Channel (personal comm. John Mareska, ADCNR).

7.4 Submerged Aquatic Vegetation. There is no submerged aquatic vegetation (SAV) located in the project area. 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. Congress defines Essential Fish Habitat (EFH) 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 Gulf of Mexico Fishery Management Council (GMFMC) and National Marine Fisheries Service (NMFS) have identified EFHs for the Gulf of Mexico in its Fishery Management Plan Amendments. These habitats include estuarine areas, such as estuarine emergent wetlands, seagrass beds, algal flats, and mud, sand, shell, and rock substrates. In addition, marine areas, such as the water column, vegetated and non-vegetated bottoms, artificial and coral reefs, geologic features and continental shelf features have also been identified. The habitat within the vicinity of the project consists of open-water marine environment with a sandy bottom and subject to high wave action and currents.

Open-water and estuarine marshes provide habitat for various species of invertebrates and vertebrates. Epibenthic crustaceans and infaunal polychaetes dominate the diets of higher

trophic levels, such as flounder, catfish, croaker, porgy, and drum. The fish species composition of the estuarine and offshore area along the northern Gulf of Mexico is of a high diversity due to the variety of environmental conditions, which exist within the area. The major fisheries landed along the Mississippi and Alabama Gulf coast are Spanish mackerel (*Scomberomorus maculatus*), king mackerel (*Scomberomorus cavalla*), cobia (*Rachycentron canadum*), bluefish (*Pomatomus saltatrix*), pompano (*Trachinotus carolinus*), little tunny (*Euthynnus alletteratus*), spotted sea trout (*Cynoscion nebulosus*), red drum (*Sciaenops ocellatus*), and several shark species. In addition, numerous species of less interest may be taken, including ladyfish (*Elops saurus*), crevalle jack (*Caranx hippos*), blue runner (*Caranx crysos*), and black drum (*Pogonias cromis*). Trawlers work the area primarily for brown and white shrimp (*Peneus aztecus* and *P. setiferous*), but occasional trawlers seeking finfish species, including menhaden (*Brevoortia patronus*) and croaker (*Micropogonias undulatus*), as well as other industrial species may trawl this bottom (GMFMC-1998, 2004 and 2005, and Fishbase 2007).

The Mississippi Sound and adjacent waters have been identified as important nursery areas for nine sharks, primarily Atlantic sharpnose, blacktip, finetooth, and bull sharks. Less prevalent species are the spinner, blacknose, sandbar, bonnethead, and scalloped hammerhead. Typically sharks migrate inshore in the early spring around March and April, remain inshore during the summer months and then migrate offshore during the late fall around October. Most shark species in the Mississippi waters give birth during late spring and early summer, with young sharks spending just a few months of their life's in shallow coastal waters. Most shark species are abundant around barrier islands, with adult sharks commonly located south of the barrier islands (Carlson *et al.*, 2003).

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 2008)	
<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>Stone Crab Fishery Management Plan FL stone crab - <i>Menippe mercenaria</i> gulf stone crab - <i>M. adina</i></p>
<p>Reef Fish Fishery Management Plan almaco jack - <i>Seriola rivoliana</i> anchor tilefish - <i>Caulolatilus ntermedius</i> banded rudderfish - <i>S. zonata</i> blackfin snapper - <i>Lutjanus buccanella</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 ivittatum</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>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>Red Drum Fishery Management Plan red drum - <i>Sciaenops ocellatus</i></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>
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Within the project area, EFH has been designated for managed species of Gulf of Mexico dolphin, wahoo, red drum, blue marlin, sharks (11 species), coastal migratory pelagics (3 species), reef fish (43 species), stone crab (2 species) and shrimp (4 species). No habitat areas of particular concern were identified for this area. Table 2 contains the Query Results for the managed species located within the project area.

Table 2. Essential Fish Habitat in Project Area		
Species	Life Stage found	FMP
Scalloped Hammerhead Shark	Neonate	HMS
Spinner Shark	Juvenile	HMS
Tiger Shark	Juvenile	HMS
Finetooth Shark	All	HMS
Atlantic Sharpnose Shark	All	HMS
Blacknose Shark	All	HMS
Sandbar Shark	Neonate	HMS
Bull Shark	Juvenile	HMS
Bonnehead Shark	Neonate, Juvenile	HMS
Blue Marlin	Neonate	HMS
Red Drum	All	Red Drum
Shrimp (4 species)	All	Shrimp
Coastal Migratory Pelagic (3 species)	All	Coastal Migratory Pelagic
Stone Crab (2 species)	All	Stone Crab
Reef Fish (43 species)	All	Reef Fish

7.6 Esthetics. The project area around Bayou Coden is esthetically pleasing outside of the developed areas. The developed industrialized areas offer little in the way of esthetics.

7.7 Water Quality. Bayou Coden is a small tidal stream, two miles in length, located in south Mobile County, Alabama, about 24 miles southwest of Mobile. The bayou empties into Portersville Bay, a relatively open embayment north of Mississippi Sound. Bayou Coden has been classified by the Alabama Department of Environmental Management (ADEM) for Fish and Wildlife. During periods of rainfall, natural flow in the bayou comes from runoff while during periods of drought the stream functions as a tidal system and the primary source of water is Portersville Bay. Water movement in the bayou is influenced by wind and tidal action and at times becomes stagnant. Dissolved oxygen concentrations are depressed most of the time (USACE, 1971). The Coden area lacks a central waste treatment facility and the primary method of treatment is septic tanks and tile fields. There are no existing treatment facilities for any of the seafood processing plants.

Bayou Coden is a part of the Bayou La Batre watershed. The Bayou Coden channel connects to the Bayou La Batre channel in Portersville Bay. Bayou La Batre is located in the Escatawpa River Basin and forms in southern Mobile County, within the city limits of Bayou La Batre. Bayou La Batre is considered coastal waters and is tidally influenced. The total length of Bayou La Batre is 5.46 miles, all of which is on the §303(d) list. The total drainage area of Bayou La Batre is 30.17 square miles. Bayou La Batre has a use classification of Fish & Wildlife (F&W) (ADEM, 2009). Portersville Bay, the waterbody that connects the bayou to the Gulf of Mexico, is classified for swimming, shellfish harvesting and fish and wildlife uses except those portions of the bay at Bayou Coden and Bayou La Batre.

ADEM has collected monthly water quality data for Bayou La Batre at station BLB-1 since 1978. Data collected in 1995 and 1996 were highlighted by EPA as having violations of the single sample maximum criterion and geometric mean criterion. These violations resulted in EPA placing Bayou La Batre on the 1998 §303(d) list.

Bayou La Batre is currently on the §303(d) list for pathogens (enterococci) from Portersville Bay to its source. In 2006 and 2007, a §303(d) sampling study was performed by ADEM on Bayou La Batre for additional water quality assessment. ADEM collected 68 samples from Bayou La Batre as a part of this general water quality and intensive enterococci study. The 2006 and 2007 data confirmed that Bayou La Batre was still not meeting the pathogen criterion applicable to its use classification of Fish and Wildlife. Therefore, a TMDL will be developed for pathogens on the listed reach (ADEM, 2009).

The State of Alabama has identified the 5.46 miles of Bayou La Batre as impaired for pathogens. The §303(d) listing was originally reported on Alabama's 1998 List of Impaired Waters based on 1995 and 1996 data.

From review of ADEM files it was determined that numerous sanitary sewer overflows have occurred in the Bayou La Batre watershed. From 2003 to the present, Bayou La Batre has reported multiple overflows. These overflows typically occur from manholes located in the City of Bayou La Batre (ADEM, 2009).

There are no continuous NPDES discharges located in the Bayou La Batre watershed. The municipal and industrial facilities located in the Bayou La Batre watershed all discharge to Portersville Bay. Nonpoint sources appear to be a significant source of enterococci bacteria in the Bayou La Batre watershed. Land use in this watershed is characterized mostly by forested, agriculture, and developed land uses (ADEM, 2009).

Bayou la Batre was delisted from the 303(d) list for Dissolved Oxygen in 2006 and is allowed a lower range of 5mg/l to 4mg/l. However dissolved oxygen was observed in the sub-estuary to less than 4mg/l (ADEM, 2008).

ADEM collected water quality data on Bayou La Batre in 2006 and 2007 as part of ADEM's §303(d) Monitoring Program at Stations BLBM-1, BLBM-2, BLB-1, BLBM-3, and BLBM-4. Of the five ADEM sampling locations evaluated, two stations (BLBM-2 and BLBM-4) were "Supporting" their use classification. The other three, (BLBM-1, BLB-1, and BLBM-3) were "Non-Supporting" and failed to meet Alabama Department of Environmental Management (ADEM) water quality criteria. Based on National Coastal Assessment water quality index, the lower half of the Bayou la Batre Sub-Estuary is rated "Fair" with one tributary rated "Fair" (Snake Bayou, BBM-6) and one tributary (unnamed, BBM-5) rated "Poor". The upper half is rated "Poor" and one tributary also rated "Poor" (Carl's Creek, BLBM-3) (ADEM, 2008).

Both Bayou Coden and Bayou La Batre are in need of treatment facilities for handling seafood processing and domestic wastes. The untreated waste is carried into Portersville Bay and there are records of fish kills in the area resulting from raw wastes being discharged directly to Bayou La Batre from seafood processing plants along the Bayou. As of September 2008, the City of Bayou La Batre is planning to build a new wastewater treatment plant. The new plant, which is slated to be built off Railroad Street, would have the capacity to treat 3 million gallons per day - three times the capacity of the city's existing plant. The design calls for a three-step process to treat sewage, discharging effluent about 5,000 feet offshore in Portersville Bay and the Mississippi Sound. The proposed plant will take about two years to build. The existing plant, constructed in 1974 on Shell Belt Road, releases treated wastewater into Portersville Bay about 500 feet offshore.

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 serves as the only deep-water access route into Bayou Coden.

7.10 Air Quality. Existing air quality in coastal Mobile and Baldwin counties was assessed in terms of types of sources contributing to emissions that are regulated by National Ambient Air Quality Standards (NAAQS). NAAQS have been developed for oxides of nitrogen, hydrocarbons, particulate matter, carbon monoxide, sulfur dioxide, lead, volatile organic compounds and other hazardous air pollutants. Sources of air pollution in the project area are mainly from non-point sources such as boat motors and vehicular traffic emissions. No major sources of air pollution were found within the vicinity of the project area. Mobile and Baldwin counties are in attainment for all NAAQS (Environmental Protection Agency, 2009).

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) concerning the proposed action was completed in July 2004 via the public notice. The Alabama Historical Commission concurred in 2004 that no archaeological features would be impacted during the project. No further action is required. The National Register of Historic Places has been 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 Mobile County:

U.S. Fish and Wildlife

- E – West Indian Manatee *Trichechus manatus*
- T - Piping plover *Charadrius melodus*
- E - Red-cockaded woodpecker *Picoides borealis*
- E - Least tern *Sterna antillarum*
- T - Eastern indigo snake *Drymarchon corais couperi*
- T - Gopher tortoise *Gopherus polyphemus*
- 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)
- T - Gulf sturgeon *Acipenser oxyrinchus desotoi*
- T - Flatwoods salamander *Ambystoma cingulatum* (P)
- E - Louisiana quillwort *Isoetes louisianensis* (P)
- C - Black pine snake *Pituophis melanoleucus lodingi*

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 imbricata*
- 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*

Federally protected species such as the Louisiana quillwort, red-cockaded woodpecker, flatwoods salamander, and black pine snake would not be affected because these species are not likely to be found in or near the project area. The gopher tortoise, Eastern indigo snake, Alabama red-bellied turtle, hawksbill sea turtle, leatherback sea turtle, least tern, and piping plover are anticipated to avoid the area during disposal operations as they are mobile. The blue whale, finback whale, humpback whale, Sei whale, and sperm whale would not be affected because they are not likely to be found in or near the project area due to the shallow conditions of the area.

Of the listed species, the species that are most likely to be found in the project area include the West Indian manatee, gulf sturgeon, and the Kemp's, green and loggerhead sea turtles.

The Florida manatee is a subspecies of the West Indian Manatee. Between October and April, the Florida manatee concentrates 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. The Florida manatee inhabits both saltwater and freshwater of sufficient depth (about 5 feet to usually less than 18 feet). The Florida manatee may be encountered in canals, rivers, estuarine habitats, saltwater bays, and on occasion has been observed as much as 3.7 miles off the Florida Gulf coast. The species will consume any aquatic vegetation available to it including sometimes grazing on the shoreline vegetation. The Florida manatee could possibly be found in the proposed maintenance area during operations due to the species' southern migration.

The Gulf sturgeon is a subspecies of the Atlantic sturgeon. In early spring, subadult and adult fish migrate into rivers from the Gulf of Mexico and continue until early May. In late September or October, subadult and adult sturgeons begin downstream migrations. Adult fish spend 8 to 9 months each year in rivers and 3 to 4 of the coolest months in estuarine or Gulf waters. The Gulf sturgeon is a bottom-feeder which apparently only feeds during its stay in marine waters; food items are rarely found in the stomachs of specimens sampled from rivers. However, although the gulf sturgeon could be found in the vicinity, the project area is not listed as critical habitat for the gulf sturgeon (Figure 3).

The Kemp's ridley sea turtles are usually found in water with low salinity, high turbidity, high organic content, and where shrimp are abundant. This species of sea turtle is the most commonly found species along the Mississippi coast. The continual influx of freshwater and high organic content associated with the northern Gulf of Mexico provides ideal foraging habitat for this species. Loggerhead sea turtles inhabit continental shelves, bays, estuaries, and lagoons in temperate, subtropical, and tropical waters. In the Atlantic, loggerhead sea turtles' range extends from Newfoundland to as far south as Argentina. During summer, sea turtles nest in the lower latitudes. Primary Atlantic nesting sites are along the east coast of Florida, with additional sites in Georgia, the Carolinas, and along the Gulf coast. In the Gulf of Mexico, principal foraging areas for the green sea turtle are located in the upper west coast of Florida. Nocturnal resting sites may be a considerable distance from feeding areas, and distribution of the species is generally correlated with grassbed distribution, location of resting beaches, and possibly ocean currents. Major nesting areas for green sea turtles in the Atlantic include Surinam, Guyana, French Guyana, Costa Rica, the Leeward Islands, and Ascension Island in the mid-Atlantic.

Historically in the U.S., green turtles have been known to nest in the Florida Keys and Dry Tortugas.

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 Environmental Protection Agency, 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 and 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 material from the channel to the designated disposal areas. This action is not likely to result in significant impacts to the benthic environment, as the dredged material is similar in composition to that found in the open water disposal areas. The material removed from the bayou portion of the channel will be placed into the upland disposal area "Charlie." No significant levels of contaminants are known to exist within the dredged material.

8.3 Benthos, Motile Invertebrates, and Fishes. 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 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 is no submerged aquatic vegetation in the project area; therefore, no impacts are anticipated.

8.5 Essential Fish Habitat. Species identified to be present within the project area are motile and will likely exit the area upon initiation of dredging and disposal operations. The exception is non-motile benthic invertebrates that will be impacted by the project. The dredged material will bury some benthic organisms however; 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. The proposed project would not adversely alter the present EFH. The NMFS-HCD recommended by letter on November 9, 2009 that a beneficial use plan for the Bayou Coden Navigation Project be developed that can restore or create wetlands to reduce or eliminate the need for unconfined, open-water disposal (EA Enclosure 5).

8.6 Esthetics. Presence of dredge equipment within the existing navigation channel will have no significant impact to the area 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. Water quality in the immediate vicinity of the dredge and open-water disposal placement 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 above background levels outside a 400 foot mixing zone. The proposed action will comply with conditions of the State Water Quality Certification.

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 the construction 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 exhaust fumes from other vessels using the project. The Bayou Coden area is in attainment with National Ambient Air Quality Standard (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 State Implementation Plan 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 was coordinated with the Alabama State Historic Preservation Officer (SHPO) in July 21, 2009 via the public notice (EA Enclosure 3). No comments were received. The previous concurrence from SHPO was received in 2004 (EA Enclosure 1), and no further coordination is needed since the project has not changed. No known cultural resources have been identified in the project area.

8.13 Threatened and Endangered Species. No Federally protected species would be significantly impacted as a result of the proposed project. Manatees may be occasionally found in the shallow waters of the project area during the warmer months of the year. Given their slow-moving and low visibility nature, it is possible that manatees could wander into close proximity of the dredging and placement operations. To minimize contact and potential injury to manatees, the Manatee Construction Conservation Measures as specified by the U.S. Fish and Wildlife Service will be strictly observed. The loggerhead sea turtle, Kemp's ridley sea turtle, and green sea turtles would also not be impacted, as the proposed action will be conducted manually or via a hydraulic dredge. Neither of these methods has been documented to effect marine turtles. Since the project is located outside of critical habitat for gulf sturgeon, it is unlikely that adverse effects to gulf sturgeon habitat would occur. (Figure 3). However, in the unlikely event a gulf sturgeon is in the area, the proposed action would not adversely affect the species because these species are highly motile and would relocate outside of the project area due to construction noises. Coordination with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) was conducted regarding this project in July 2009. The Mobile District received concurrence from the USFWS on July 13, 2009 (EA Enclosure 4) and from the NMFS-PRD on July 15, 2009 (EA Enclosure 2), that the proposed action is not likely to adversely affect listed species. In addition, the USFWS requested to be notified if any gopher tortoises, eastern indigo snakes, or black pine snakes are identified during operations. The Service also requested the Corps consult the National Marine Fisheries-Protected Resources Division to provide the appropriate level of protection for the Gulf sturgeon, and also proposed the Corps implement the "Standard Manatee Construction Conditions" to prevent adverse impacts to the species (EA Enclosure 4).

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 Bayou Coden 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 has 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.

9.0 CUMULATIVE IMPACTS 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 actions as well as any connected, cumulative, and similar existing and potential actions occurring in the area surrounding the site. In general, the proposed dredging and disposal operations would have no significant adverse or cumulative impacts.

The dredging and disposal operations at Bayou Coden, 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

The proposed action would have no significant environmental impacts on the existing environment. No mitigation actions are required for the proposed project. Best Management Practices 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 environmental impact statement 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

Alabama Department of Environmental Management (ADEM), Steven G. Summersell, *Mobile Bay National Estuary Program, Mobile Bay Sub-Estuary Monitoring Program Report, Bayou La Batre, Sub Estuary, December 2008.*

Alabama Department of Environmental Management (ADEM), Water Quality Branch, Water Division, *Final Total Maximum Daily Load (TMDL) for Bayou La Batre Assessment Unit ID # AL03170009-0102-100 Pathogens (Enterococci)*, September 2009

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13.0 LIST OF PREPARERS

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Figures

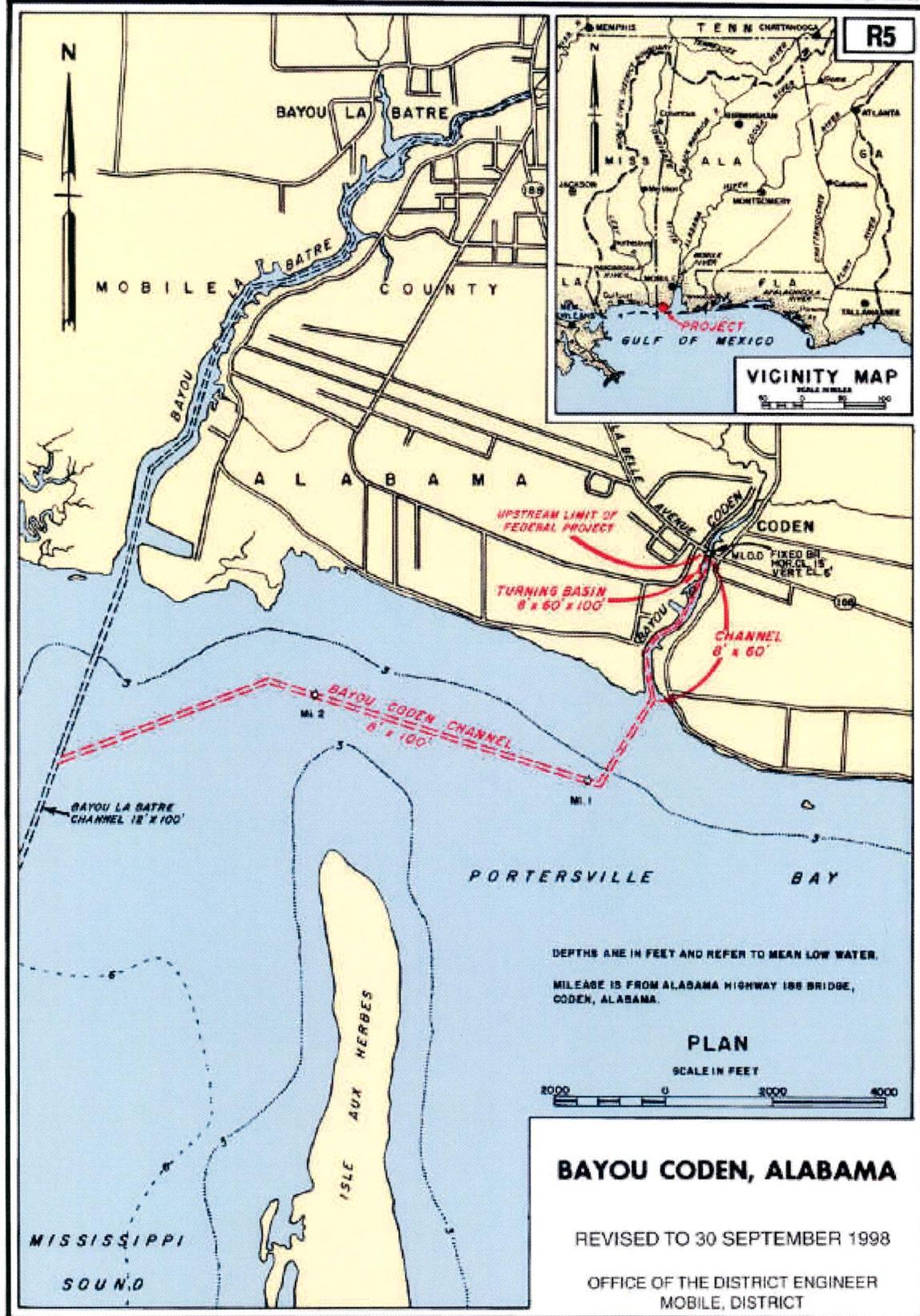


Figure 1 – Project Map

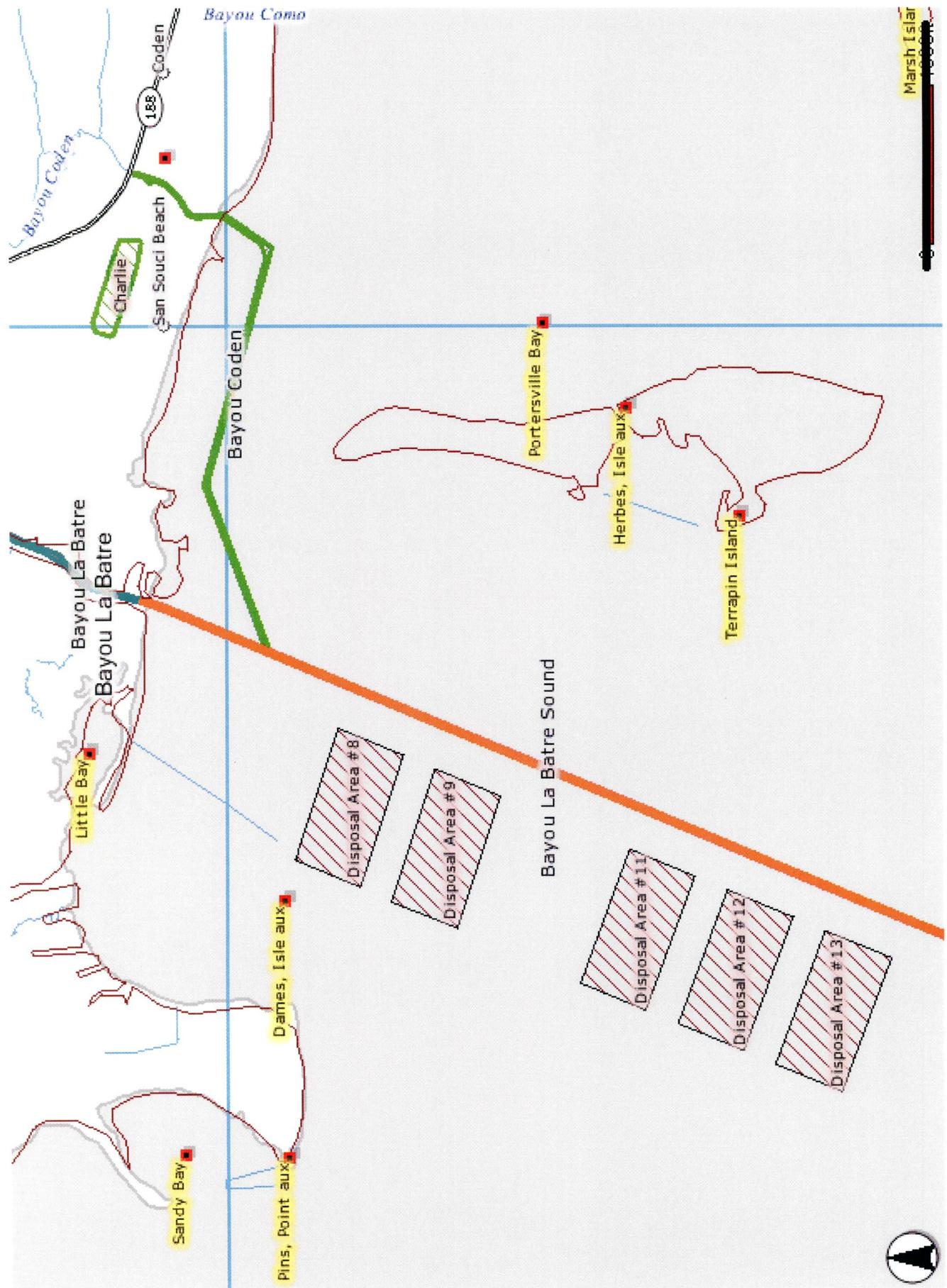


Figure 2 – Disposal Areas

July 13, 2004

Mr. Curtis M. Flakes
Mobile District, COE
P. O. Box 2288
Mobile, AL 36628

LEE H. WARNER
Executive Director

468 South Perry Street
Montgomery, Alabama
36130-0900

tel 334 242-3184
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Re: AHC 04-0988
FP04-BC05-02
Maintenance & Disposal of Dredge Material
Bayou Coden Navigation Project
Mobile County, AL

Dear Mr. Flakes:

Upon review of the above referenced project, the Alabama Historical Commission has determined that we previously concurred. We continue to concur with project activities. However, should the scope of work change, further consultation with our office will be necessary.

Should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicated disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. **This stipulation shall be placed on the construction plans to insure contractors are aware of it.**

We appreciate your commitment to helping us preserve Alabama's non-renewable resources. Should you have any questions, please contact Amanda McBride of this office and include the AHC tracking number referenced above.

Very truly yours,



for: Elizabeth Ann Brown
Deputy State Historic Preservation Officer

June 19, 2009

Coastal Environment Team
Planning and Environmental Division

Mr. David Bernhart
National Marine Fisheries Service
Southeast Regional Office
Protected Resources Division
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhart:

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing continued maintenance dredging and placement activities associated with the federally authorized Bayou Coden navigation project, Mobile County, Alabama (**Figure 1**). The Mobile District maintains this Federal navigation channel under the authority of Section 107, River and Harbors Act of 1960.

The proposed action is to continue maintenance dredging and placement activities associated with the project, which provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue Bridge. Due to inaccuracies of the dredging equipment, the channel would be dredged an additional 2 feet of advanced maintenance, plus 2 feet of allowable overdepth, plus an additional 3 feet of possible sediment disturbance. Dredging typically involves the excavation of approximately 305,000 cubic yards (cy) of silts and sands over a five (5) year period. The primary method of dredging will be via a hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, 13, with each of the five open-water site acreages being approximately 160 acres each, located west of the Bayou La Batre channel in Mississippi Sound (**Figure 2**). The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site "Charlie". Except for the bayou portion of the channel, which involves the use of the upland site, the specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging. An overlap zone is required for the channel area located approximately 400 feet on the bayou side, or landward side, of the point of intersection to allow for

inaccuracies associated with dredging methodology and processes. The material removed from the approximately 400-foot long overlap zone portion of the channel would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

Under Section 7 coordination of the Endangered Species Act (ESA), the Corps, Mobile District requests your concurrence with the federally authorized Bayou Coden navigation project. The National Oceanic and Atmospheric Administration Fisheries Service lists the following species as either threatened and/or endangered that may occur within the waters off the coast of Alabama: blue whale (*Balaenoptera musculus*), finback whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaengliae*), sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*), green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricate*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), loggerhead sea turtle (*Caretta caretta*), and the Gulf sturgeon (*Acipenser oxyrinchus desotoi*).

Bayou Coden is located along the western side of Mobile Bay approximately 20 miles north of the Gulf of Mexico. Mobile Bay is a relatively wide and very shallow estuary with an average depth of 10 feet. No adverse impacts would occur to whales because they are not found in Mobile Bay or the surrounding river and tributary systems. In addition, no adverse impacts are anticipated to occur to green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles as a result of maintenance operations because these species are not indigenous to Bayou Coden. Furthermore, if one of these species of sea turtles does happen to be in the vicinity of the dredging operations, it is anticipated that it would avoid this area.

Data available from the U.S. Fish and Wildlife Service does not provide sufficient information to support that Mobile Bay is essential to the conservation of the Gulf sturgeon. Thus, Mobile Bay and Bayou Coden are not designated as critical habitat for the Gulf sturgeon (**Figure 3**). Although some Gulf sturgeon from the seven sub-populations may occasionally use Mobile Bay for winter feeding, there is insufficient data to support it provides regular winter use or importance. Bayou Coden is typically hydraulically maintenance dredged only every five years. Gulf sturgeon are motile species that would be able to avoid the dredging and disposal operations. Thus, the Corps, Mobile District, does not anticipate any adverse impacts to occur to the Gulf sturgeon as a result of the proposed maintenance project.

We do not anticipate any adverse impacts to any endangered and/or threatened species as a result of the proposed maintenance project. It is our determination, therefore, that the proposed action is not likely to adversely affect any protected species under your purview. Should you require further assistance, please call Mr. Matthew J. Lang at (251) 694-3837 or by email address matthew.j.lang@usace.army.mil.

Sincerely,

Jennifer L. Jacobson
Chief, Coastal Environment Team

Enclosures

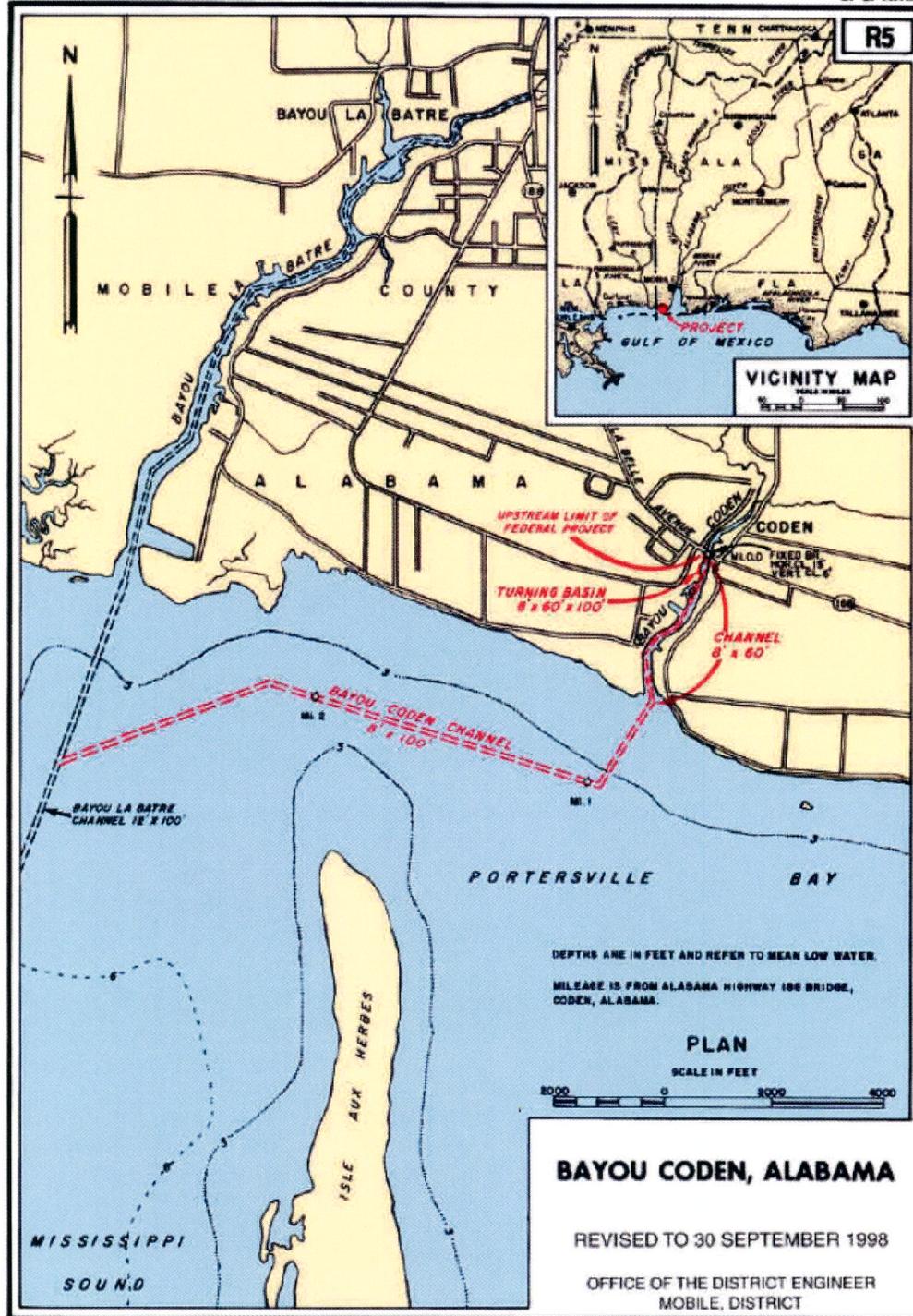


Figure 1 – Project Map

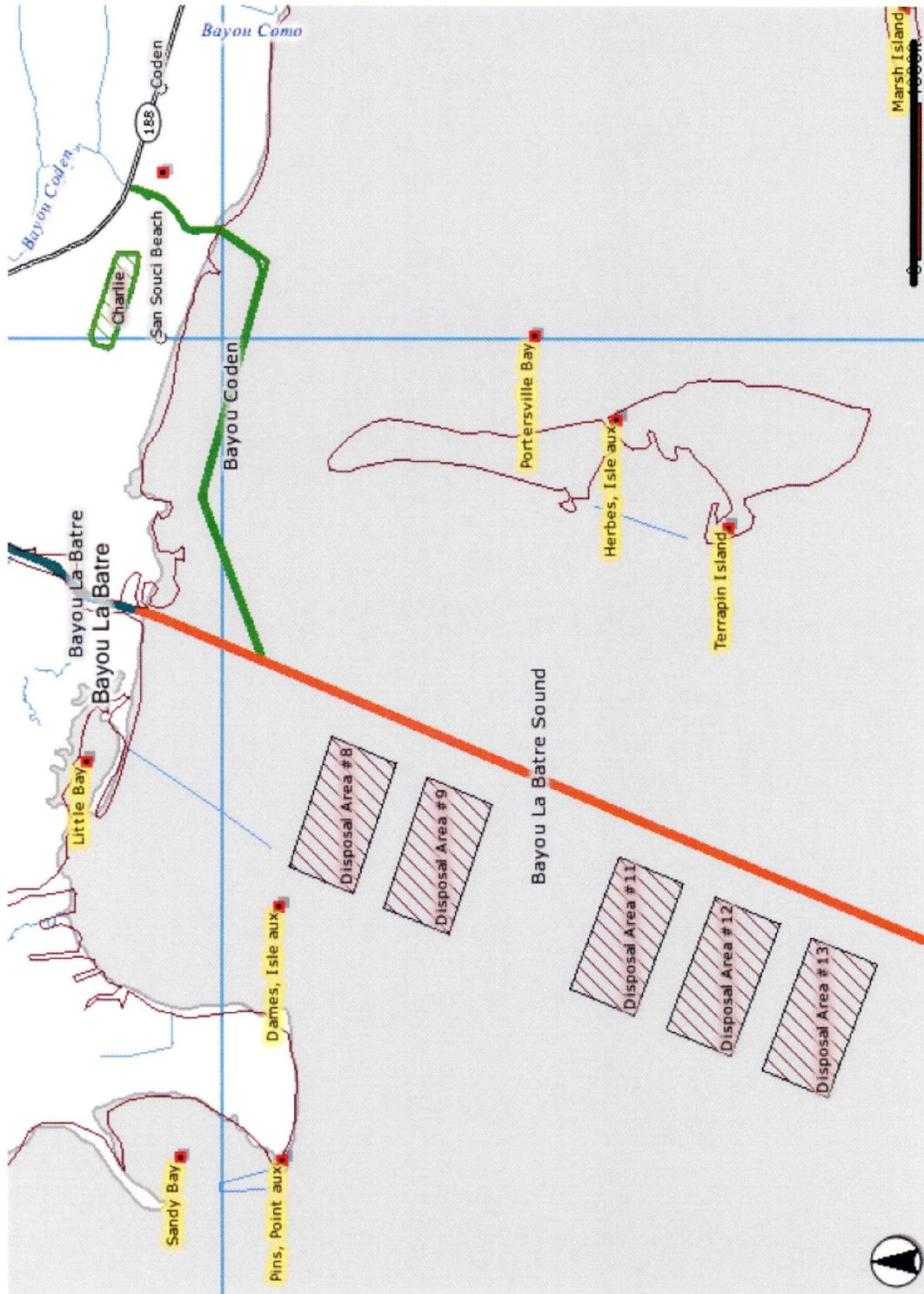


Figure 2 – Disposal Areas

Reynolds, Lekesha W. SAM

From: Jacobson, Jennifer L SAM
Sent: Wednesday, July 15, 2009 12:25 PM
To: Lang, Matthew J SAM
Subject: FW: Bayou Coden dredging

Attachments: eric_hawk.vcf



eric_hawk.vcf

Fyi... Please include in the file for their response.

Jenny Jacobson
Coastal Team Leader
U.S. Army Corps of Engineers, Mobile District Planning and Environmental Division, Coastal
Environment Team
109 St. Joseph Street
Mobile, Alabama 36602
Phone: (251)690-2724
Fax: (251)690-2727
Email: Jennifer.L.Jacobson@sam.usace.army.mil

-----Original Message-----

From: Eric G. Hawk [mailto:Eric.Hawk@noaa.gov]
Sent: Wednesday, July 15, 2009 8:57 AM
To: Jacobson, Jennifer L SAM
Subject: Bayou Coden dredging

Hi Jennie:

We received a letter today (Matthew Lang, Project Manager), which stated that, for the Bayou Coden dredging project, thee Coprs, Mobile District, "does not anticipate any adverse impacts to any endangered and/or threatened species as a result of the proposed maintenance project." and "It is our determination, therefore, that the proposed action is not likely to adversely affect any protected species under your (NMFS') purview." Two things: Sounds like you are making a no effect determination, but then restating it as a NLAA determination. But you are not requesting our concurrence on the NLAA (Letter says: Should you require further assistance, please call...), so we are treating this as a NE. We won't be responding.

Actually, that's they way it should be , except that you don't even need to notify us if you are making a NE determination, only if you are requesting concurrence with a NLAA determination.. By regulations you are required to request the Services concurrence with NLAA determinations.

In addition, the GOM RBO on hopper dredging concluded that other types of dredging were NLAA, with the exception of dredging projects that take place in Gulf sturgeon critical habitat, or deposit dredged materials in GS CH. We don't really need to see requests for consultation for those types of dredging projects, whether by hopper dredge or any other kind of dredge, as that's what the GOM RBO is for.

Thanks!

ERic



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

CESAM-PD-EC
PUBLIC NOTICE NO. FP09-BC01-14

21 July 2009

JOINT PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
AND
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
FOR
PROPOSED MAINTENANCE AND DISPOSAL OF DREDGED MATERIAL
FOR THE BAYOU CODEN NAVIGATION PROJECT
MOBILE COUNTY, ALABAMA**

A FEDERALLY AUTHORIZED NAVIGATION PROJECT

Interested persons are hereby notified that the U.S. Army Corps of Engineers (Corps), Mobile District proposes to continue maintenance dredging of the federally authorized Bayou Coden navigation project, Mobile County, Alabama.

This public notice is issued in accordance with the rules and regulations published in the Federal Register on 26 April 1988. These regulations provide for the review of the dredging programs for federally authorized projects. These laws are applicable whenever dredged or fill material may enter navigable waters. The recipient of this notice is requested specifically to review the proposed action as it may impact water quality, relative to the requirements of Section 404(b)(1) of the Clean Water Act. We also request comments on any other potential impacts.

WATERWAY AND LOCATION: Bayou Coden, Mobile County, Alabama

DESCRIPTION OF THE AUTHORIZED PROJECT: The existing project at Bayou Coden was authorized on 2 June 1969, under the authority of Section 107, River and Harbor Act of 1960 and the River and Harbor Act of 2 March 1945 (H. Doc. 824, 77th Cong., 2nd sess.). The project provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue Bridge. Vertical plane of reference is mean lower low water (**Figure 1**).

DESCRIPTION OF THE PROPOSED ACTION: The proposed action is to continue maintenance dredging and placement activities associated with the project, which provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue Bridge. Due to inaccuracies of the dredging equipment, the channel would be dredged an additional 2 feet of advanced maintenance, plus 2 feet of allowable overdepth, plus an additional 3 feet. Dredging typically involves the excavation of approximately 305,000 cubic yards (cy) of silts and sands over a five (5) year period. The primary method of dredging will be via a hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, 13, with each of the five open-water site acreages being approximately 160 acres each, located west of the Bayou La Batre channel in Mississippi Sound (**Figure 2**). The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site "Charlie." Except for the bayou portion of the channel, which involves the use of the upland site, the specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging. An overlap zone is required for the channel area located approximately 400 feet on the bayou side, or landward side, of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed from the approximately 400-foot long overlap zone portion of the channel would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act (CWA), state water quality certification is required for the proposed operations and maintenance action described above. Water quality certification for a five-year period will be requested from the Alabama Department of Environmental Management (ADEM), Coastal Programs. Upon completion of the required 30-day comment period, a decision relative to water quality certification will be made by ADEM.

COASTAL ZONE CONSISTENCY: Pursuant to the Coastal Zone Management Act (CZMA), the proposed action is consistent with the Alabama Coastal Program to the maximum extent practicable. Concurrence with this determination will be requested from ADEM. Upon completion of the required 30-day comment period, a decision relative to coastal zone consistency will be made by ADEM.

USE BY OTHERS: The proposed action is not expected to create significant impacts on land and water use plans in the vicinity. Use of the waters in the vicinity of the project area includes fishing and recreational boating.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CONSIDERATIONS: 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 actions and alternatives. 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. In accordance with the requirements of NEPA, an Environmental Impact Statement (EIS) for the entire Bayou Coden navigation project was filed with the President's Council on Environmental Quality on 17 March 1971. The EIS was coordinated with all applicable Federal, state and local agencies and the interested public. A draft Environmental Assessment (EA), written by the Corps, Mobile District, has been prepared to address the potential impacts associated with the dredging of the federally authorized Bayou Coden navigation project and its subsequent disposal of that dredged material. These documents are on file and available for review in the Corps, Mobile District Office or on our website at address <http://www.sam.usace.army.mil/pd/Pd1.htm>.

SECTION 404 (B)(1) EVALUATION REPORT: Water quality impacts associated with the proposed action have been identified in an evaluation report prepared in accordance with Public Law 92-500, Section 404 (b)(1) Guidelines promulgated by the U. S. Environmental Protection Agency (EPA) under the CWA. The Section 404 (b)(1) Evaluation Report is on file in the Corps, Mobile District office and on the district website at <http://www.sam.usace.army.mil/pd/Pd1.htm>. The Section 404 (b)(1) Evaluation Report is available for review upon request. The report concludes that only minor and short-term turbidity impacts would result from the implementation of the proposed action.

ENDANGERED/THREATENED SPECIES: Pursuant to Section 7 of the Endangered Species Act (ESA), the proposed Federal action at the Bayou Coden navigation project is being coordinated with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration Fisheries.

Federally protected species, Louisiana quillwort, red-cockaded woodpecker, flatwoods salamander, and black pine snake would not be affected because these species are not likely to be found in or near the project area. The gopher tortoise, Eastern indigo snake, bald eagle, least tern, and piping plover are anticipated to avoid the area during disposal operations as they are mobile. The American bald eagle was recently delisted, however, remains on the Federal list for protection under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The loggerhead, Kemp's ridley, and green sea turtles would also not be impacted, as the proposed action will be conducted via a hydraulic dredge, which has not been documented to affect marine turtles. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely that adverse effects to the species' habitat would result (**Figure 3**). In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species. A concurrence from the USFWS is anticipated. West Indian manatee could be found within the project vicinity. If individuals were to be found, the Corps, Mobile District, would implement the "Standard Manatee Conditions" issued by the USFWS.

21 July 2009

CULTURAL RESOURCES CONSIDERATION: In compliance with the National Historic Preservation Act (NHPA), coordination with the Alabama State Historic Preservation Officer (SHPO) was completed on 19 April 1989. The National Register of Historic Places has been 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.

ESSENTIAL FISH HABITAT ASSESSMENT: The Gulf of Mexico Fishery Management Council, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (PL 94-265), has developed management plans for the following fisheries: shrimp, red drum, reef fish, stone crab, spiny lobster, coral and coral reef and coastal migratory pelagic. The maintenance dredging and placement of the dredged material will not significantly affect coastal habitat identified as Essential Fish Habitat (EFH) in the federally authorized Bayou Coden navigation project area. Based on the extent of this habitat in the general vicinity of the project and the small size of the project, the overall impact to fisheries resources is considered negligible. The Corps, Mobile District has determined a no impact to EFH as a result of this dredging project. The Gulf of Mexico Fishery Management Plans (1999) identifies EFH in the project area to be intertidal wetlands, submerged aquatic vegetation, non-vegetated bottoms, shell reefs, and the estuarine water column. Habitat Areas of Particular Concern have not been identified for the project area.

CLEAN AIR ACT: Air quality in the vicinity of the proposed action would not be significantly affected by the proposed action. The equipment and machinery would generate some air pollution during construction activities, such as increased particulate levels from the burning of fossil fuels. However, these impacts would be minor and temporary in nature. The proposed action is in compliance with the Clean Air Act, as amended. The project area is in attainment with the National Ambient Air Quality Standards parameters. The proposed action would not affect the attainment status of the project area or the region. A State Implementation Plan conformity determination (42 United States Code 7506(c)) is not required since the project area is in attainment for all critical pollutants.

EVALUATION: The decision whether to proceed with the proposed action will be based on an evaluation of the overall public interest. That decision would reflect the national concerns for both protection and utilization of important resources. The benefits that may be expected to accrue from this proposal must be balanced against its reasonably foreseeable detriments. The decision whether to proceed and the conditions under which the activity would occur would be determined by the outcome of this general balancing process. All factors that may be relevant to the proposal would be considered. Among these are conservation, economics, esthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the public. The proposed action would proceed unless it is found to be contrary to the overall public interest. Inasmuch as the proposed work would involve the discharge of materials into navigable waters,

21 July 2009

specification of the proposed disposal sites associated with this Federal project is being made through the application of guidelines promulgated by the Administrator of the EPA in conjunction with the Secretary of the Army. If these guidelines alone prohibit the specification of any proposed disposal site, any potential impairment of the maintenance of navigation, including any economic impacts on navigation and anchorage that would result from the failure to use this site would also be considered.

COORDINATION: Among the agencies receiving copies of this public notice are:

Region 4, U.S. Environmental Protection Agency
U.S. Department of the Interior, Fish and Wildlife Service, Daphne, Alabama
Regional Director, National Park Service
U.S. Department of Commerce, National Marine Fisheries Service, Panama City, Florida
U.S. Department of Commerce, National Marine Fisheries Service, St. Petersburg,
Florida
Commander, Eighth Coast Guard District
Alabama Department of Conservation and Natural Resources
Alabama State Historic Preservation Officer
Alabama Department of Environmental Management
Gulf of Mexico Fishery Management Council
U.S. Department of Agriculture, Natural Resources Conservation Service
Appropriate federally recognized Indian Tribes

Other Federal, state and local organizations, U.S. Senators and Representatives of the State of Alabama are provided copies of this notice and are invited to participate in coordinating the proposed action. The Corps, Mobile District request the information contained in this notice be communicated to any other parties who may have an interest in the proposed action.

CORRESPONDENCE: Any person who has an interest that may be affected by this proposed activity may request a public hearing. Any comments or requests for a public hearing must be submitted in writing to the District Engineer within 30 days of the date on this public notice. A request for a hearing must clearly set forth the interest, which may be affected, and the manner in which the interest may be affected. Correspondence concerning this public notice should refer to Public Notice No. FP09-BC01-14 and should be directed to the Commander, U.S. Army Engineer District Mobile, Post Office Box 2288, Mobile, Alabama 36628-0001, ATTN: CESAM-PD-EC. For additional information please contact Mr. Matthew J. Lang at (251) 694-3837, or at email address matthew.j.lang@usace.army.mil.



CURTIS M. FLAKES
U.S. Army Corps of Engineers
Mobile District

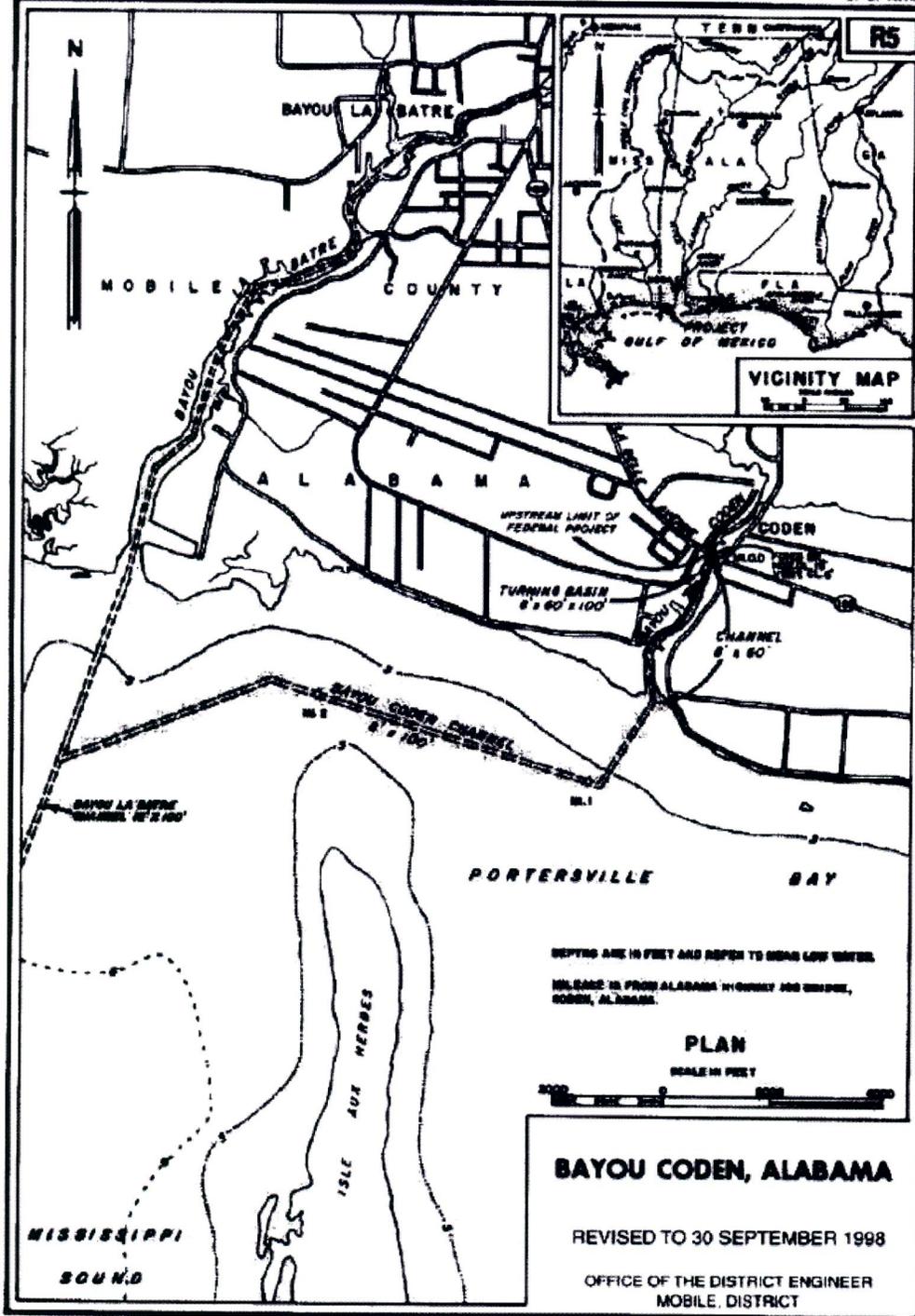


Figure 1 – Project Map

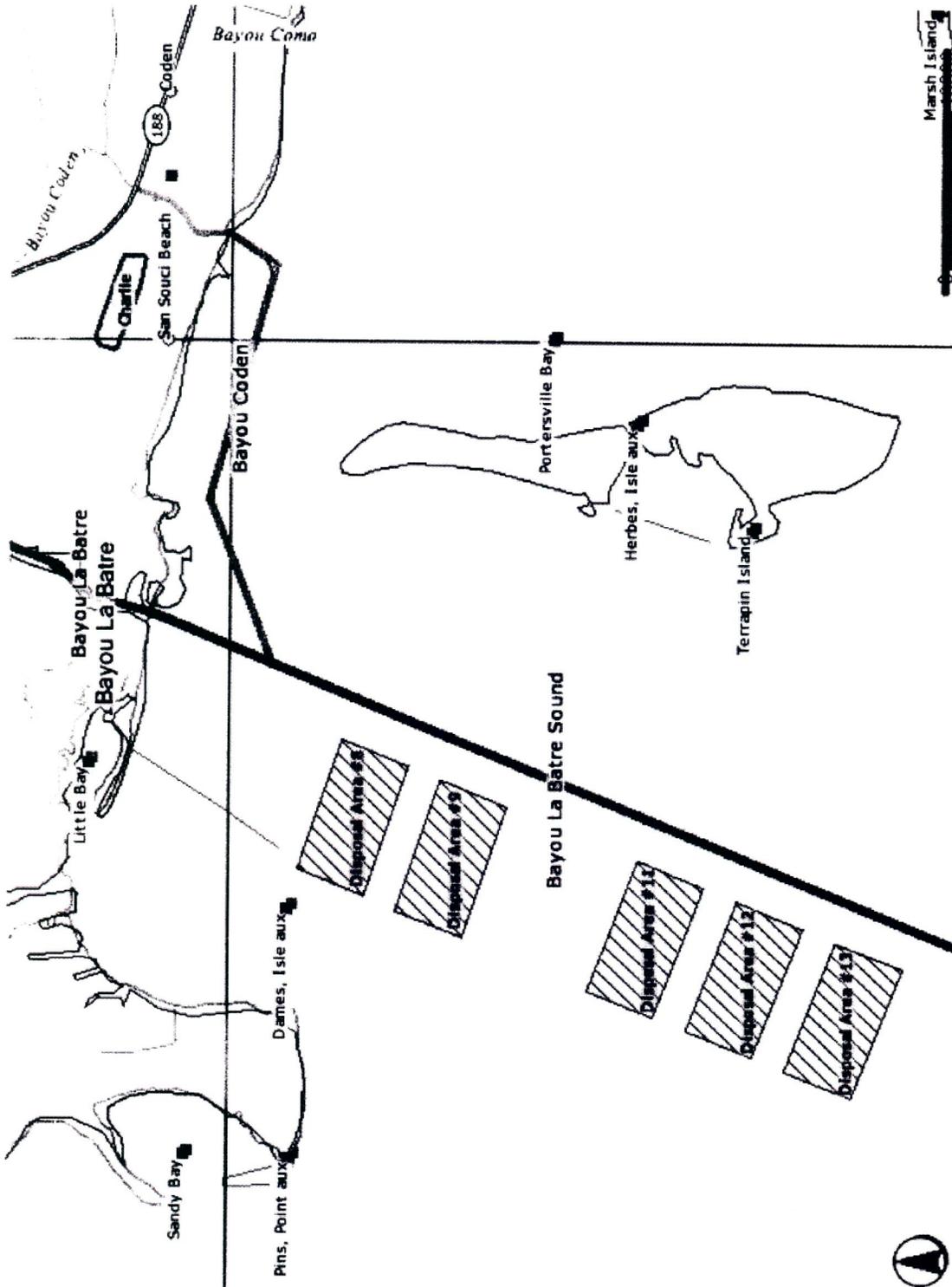


Figure 2 – Disposal Areas

Bayou Coden Navigation Channel

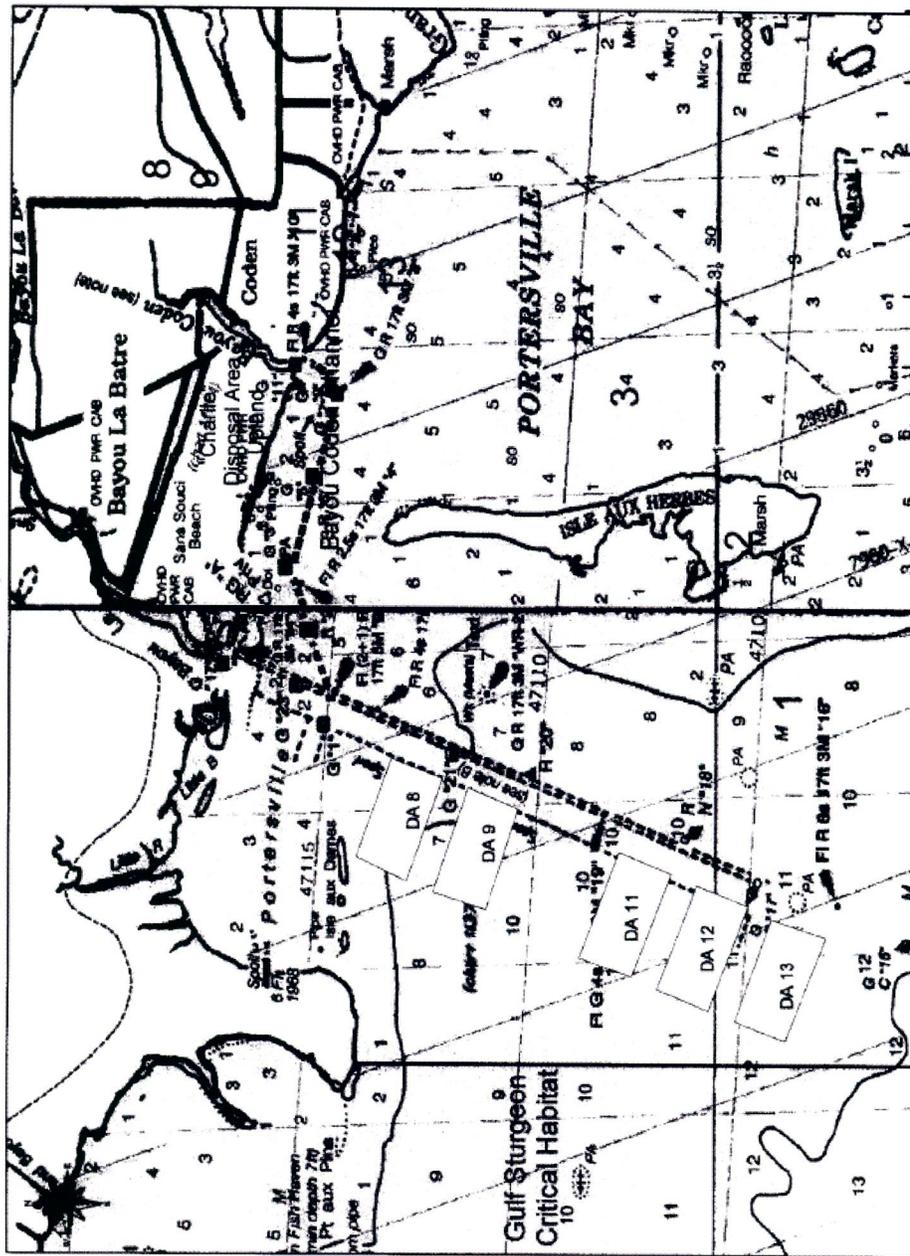


Figure 3 – Gulf Sturgeon Critical Habitat

June 19, 2009

Coastal Environment Team
Planning and Environmental Division

Mr. William Pearson
U.S. Fish and Wildlife Service
1208-B Main Street
Daphne, Alabama 36526

Dear Mr. Pearson,

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing continued maintenance dredging and placement activities associated with the federally authorized Bayou Coden navigation project, Mobile County, Alabama (**Figure 1**). The Mobile District maintains this Federal navigation channel under the authority of Section 107, River and Harbors Act of 1960.

The proposed action is to continue maintenance dredging and placement activities associated with the project, which provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue Bridge. Due to inaccuracies of the dredging equipment, the channel would be dredged an additional 2 feet of advanced maintenance, plus 2 feet of allowable overdepth, plus an additional 3 feet of possible sediment disturbance. Dredging typically involves the excavation of approximately 305,000 cubic yards (cy) of silts and sands over a five (5) year period. The primary method of dredging will be via a hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site (Charlie) divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, 13, with each of the five open-water site acreages being approximately 160 acres each, located west of the Bayou La Batre channel in Mississippi Sound (**Figure 2**). The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound portion of the channel would be placed in any of the five open-water placement sites described above or in upland site "Charlie." Except for the bayou portion of the channel, which involves the use of the upland site, the specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging. An overlap zone is required for the channel area located approximately 400 feet on the bayou side, or landward side, of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed from the approximately 400-foot long overlap zone portion of the channel

would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

Under Section 7 coordination of the Endangered Species Act (ESA), the Corps, Mobile District requests your concurrence with the continued maintenance of the federally authorized Bayou Coden navigation project. The U.S. Fish and Wildlife Service (USFWS) lists the following species as either threatened and/or endangered that may occur within Mobile County, Alabama: piping plover (*Charadrius melodus*), least tern (*Sterna antillarum*), flatwoods salamander (*Ambystoma cingulatum*), red-cockaded woodpecker (*Picoides borealis*), gopher tortoise (*Gopherus polyphemus*), Gulf sturgeon (*Acipenser oxyrinchus desotoi*), Alabama red-bellied turtle (*Pseudemys alabamensis*), eastern indigo snake (*Drymarchon corais couperi*), Louisiana quillwort (*Isoetes louisianensis*), West Indian manatee (*Trichechus manatus*), loggerhead (*Caretta caretta*), green (*Chelonia mydas*), and Kemp's ridley sea turtle (*Lepidochelys kempii*). In addition, a candidate species is the black pine snake (*Pituophis melanoleucus lodgini*). The recently delisted bald eagle (*Haliaeetus leucocephalus*) is currently being protected by the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act.

Federally protected species, such as Louisiana quillwort, red-cockaded woodpecker, flatwoods salamander, and black pine snake would not be affected because these species are not likely to be found in or near the project area. The gopher tortoise, eastern indigo snake, bald eagle, least tern, and piping plover are anticipated to avoid the area during disposal operations as they are mobile. The loggerhead, Kemp's ridley, and green sea turtles would also not be impacted, as the proposed action will be conducted via a hydraulic dredge, which has not been documented to affect marine turtles. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely that adverse effects to the species' habitat would result (**Figure 3**). In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species. The Corps, Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Alabama. The Corps believes that if these measures are implemented there will be no adverse impact to West Indian manatees.

Based on this information, the Mobile District finds that the proposed activity is not likely to adversely affect any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the ESA, the Corps, Mobile District requests your concurrence with the determination for maintenance dredging and disposal activities of the federally authorized Bayou Coden navigation channel.

Should you require any further assistance, please call Mr. Matthew J. Lang at (251) 694-3837 or by email address matthew.j.lang@usaec.army.mil.

Sincerely,

Jennifer L. Jacobson
Chief, Coastal Environment Team

Enclosures

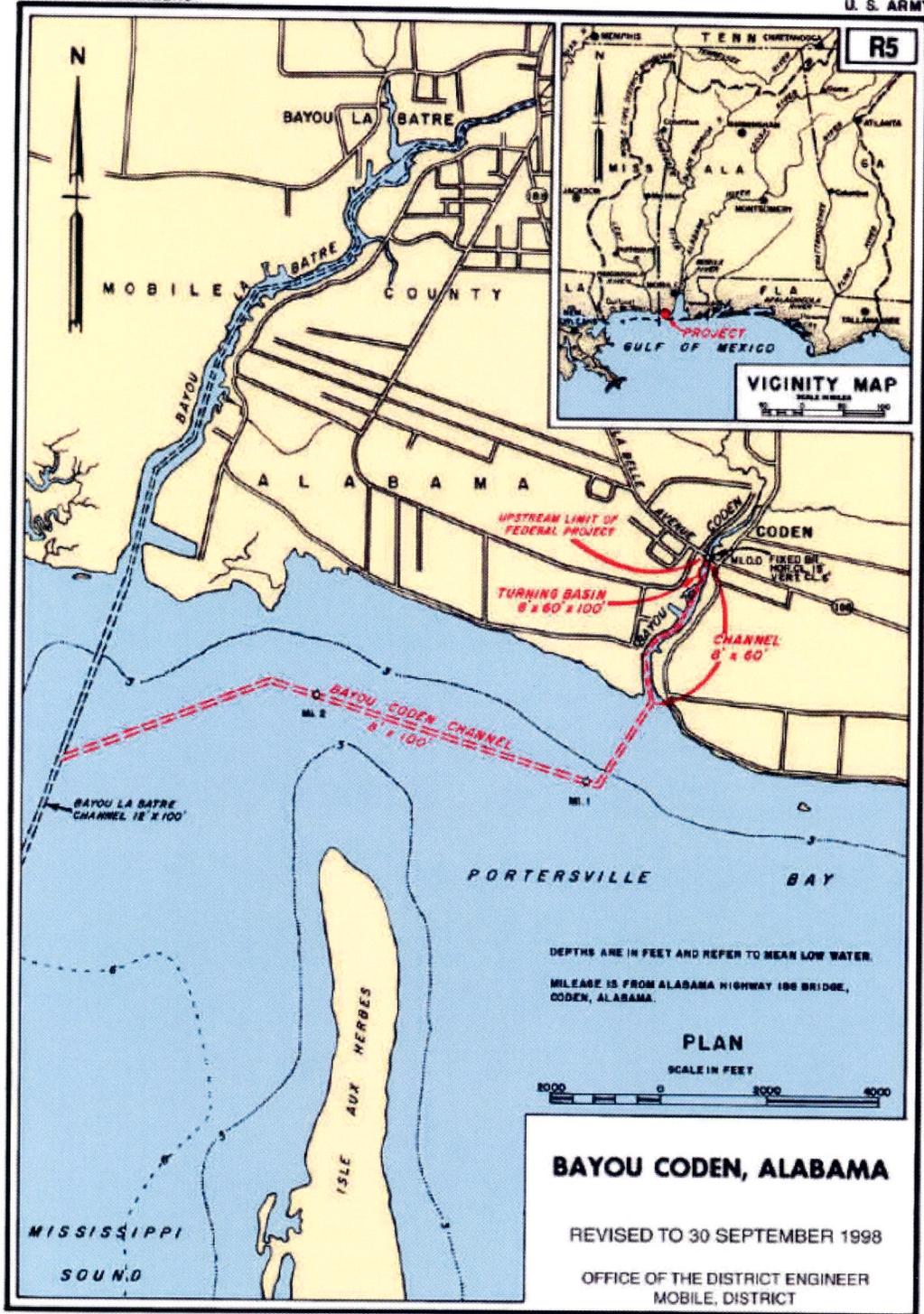


Figure 1 – Project Map

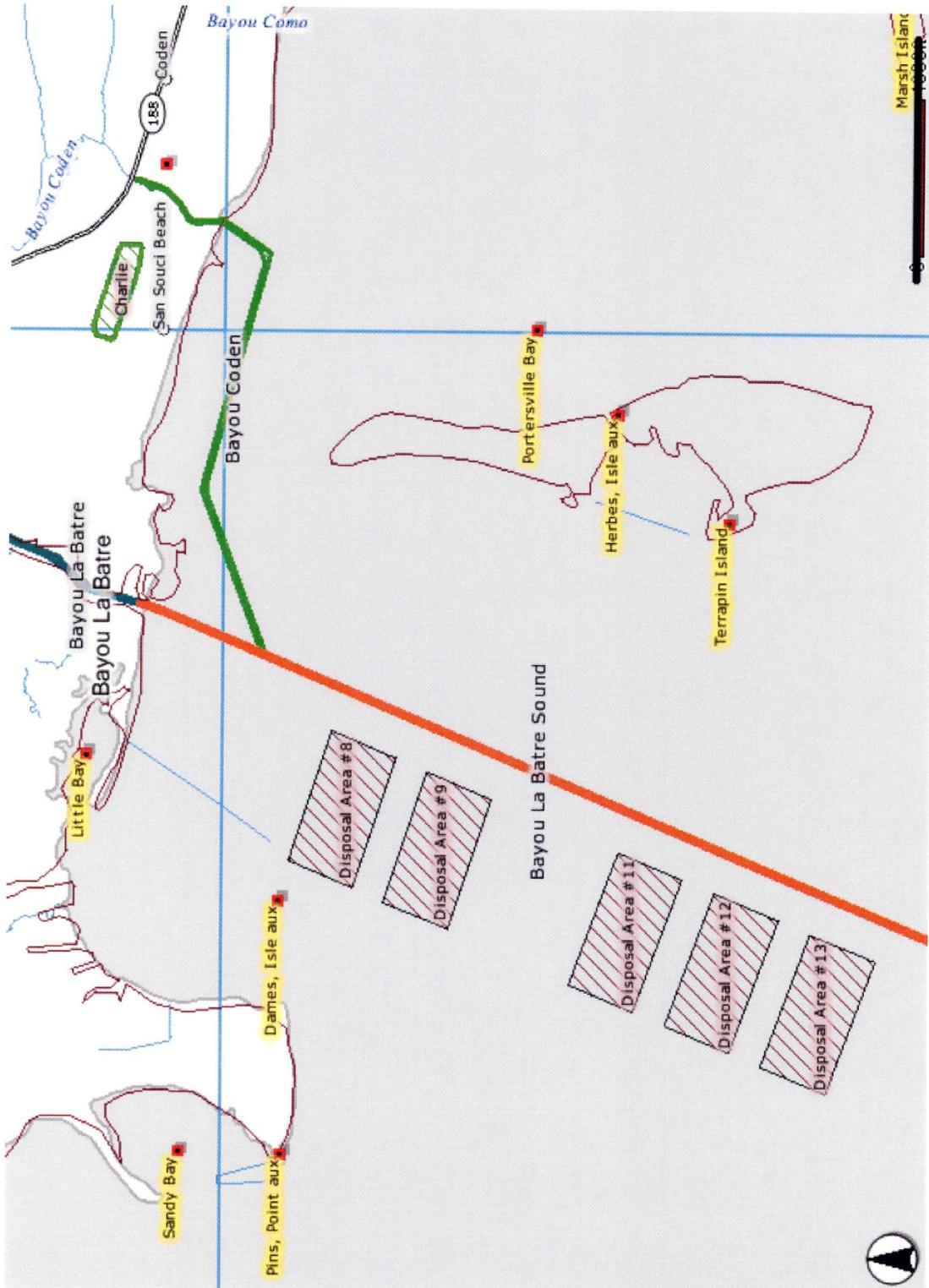


Figure 2 – Disposal Areas

Bayou Coden Navigation Channel

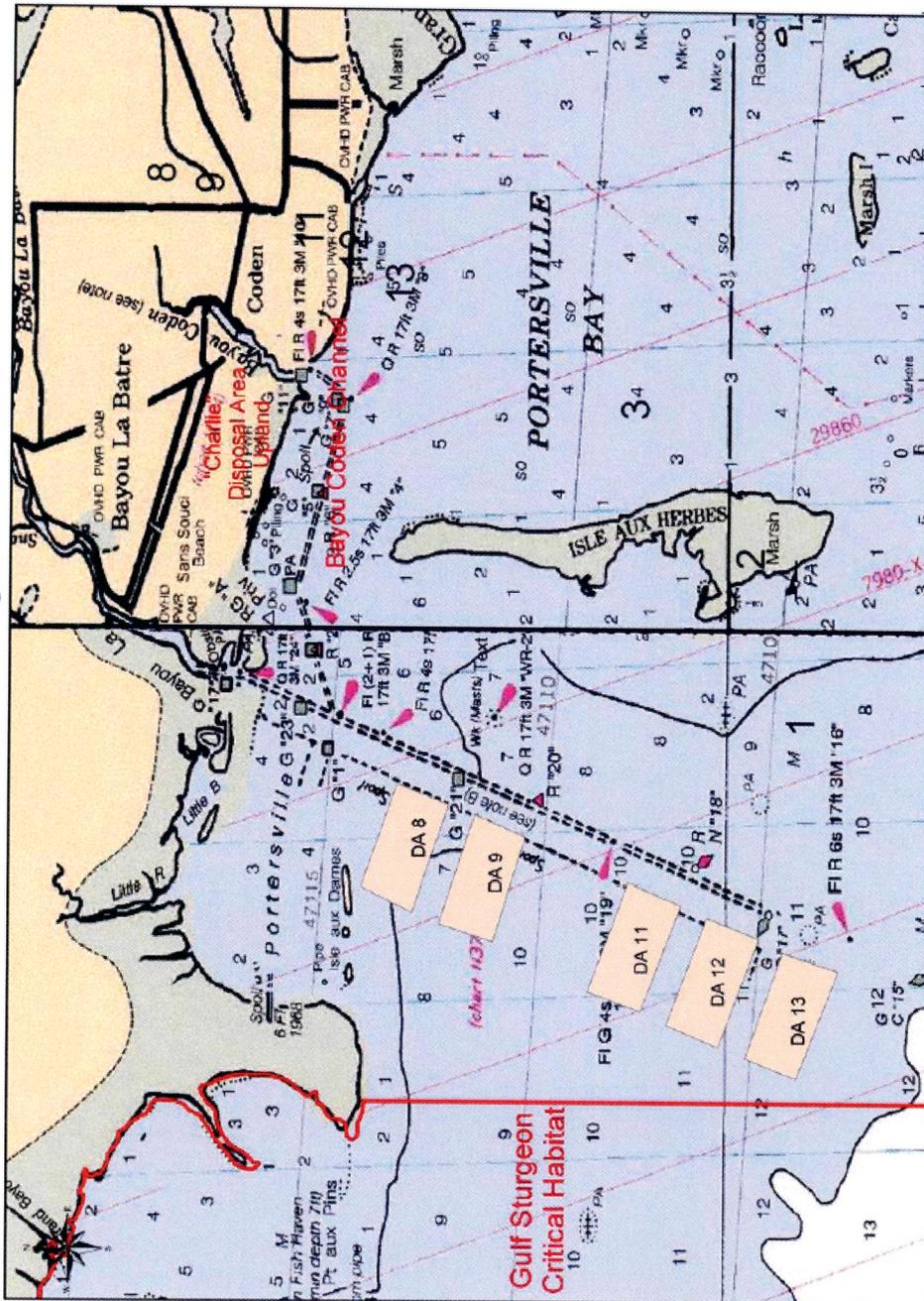


Figure 3 – Gulf Sturgeon Critical Habitat

Reynolds, Lekesha W. SAM

From: Patric_Harper@fws.gov
Sent: Thursday, July 30, 2009 2:36 PM
To: Lang, Matthew J SAM
Subject: Bayou Coden nav. project

Matt,
The U. S. Fish and Wildlife Service has reviewed your letter of June 19, 2009 concerning the proposed continued maintenance dredging of the Bayou Coden navigation project in Mobile County, Alabama. We concur with your listed species determination and agreement to implement the standard manatee construction conditions. Therefore, no significant adverse effects on fish and wildlife resources are expected to result from this project and we have no objections to it's continuance. Our comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). Thank you.

2009-FA-0204

Patric Harper
USFWS
1208-B Main St.
Daphne, AL 36526
(251) 441-5857
fax -6222
www.daphne.fws.gov

June 22, 2009

Coastal Environment Team
Planning and Environmental Division

Mr. Mark Thompson
National Marine Fisheries Service,
Habitat Conservation Division
Panama City Office
3500 Delwood Beach Road
Panama City, Florida 32404

Dear Mr. Thompson:

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing the continued maintenance dredging and disposal of the federally authorized Bayou Coden navigation channel in Mobile County, Alabama (**Figure 1**) under authority of Section 107, Rivers and Harbors Act of 1960. By this letter and its information therein, the Corps, Mobile District is requesting to initiate Essential Fish Habitat (EFH) consultation.

Description of the Proposed Bayou Coden Navigation Project Plan:

In order to maintain channel dimensions of the federally authorized Bayou Coden navigation channel, the following action is proposed:

The proposed action is to continue maintenance dredging and placement activities associated with the project, which provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue Bridge. Due to inaccuracies of the dredging equipment, the channel would be dredged an additional 2 feet of advanced maintenance, plus 2 feet of allowable overdepth, plus an additional 3 feet of possible sediment disturbance. Dredging typically involves the excavation of approximately 305,000 cubic yards (cy) of silts and sands over a five year period. The primary method of dredging will be via a hydraulic pipeline dredge. The previously approved placement sites for this project are: a) a 70-acre upland site "Charlie" divided into a 55-acre cell and a 15-acre cell; and b) five open-water sites 8, 9, 11, 12, 13, with each of the five open-water site acreages being approximately 160 acres each, located west of the Bayou La Batre channel in Mississippi Sound (**Figure 2**). The materials dredged from the 60-foot wide bayou section would be placed in the upland site "Charlie." The material extracted from the Mississippi Sound

portion of the channel would be placed in any of the five open-water placement sites described above or in upland site "Charlie." Except for the bayou portion of the channel, which involves the use of the upland site, the specific placement site(s) used would be contingent upon which section of the Bayou Coden project requires dredging. An overlap zone is required for the channel area located approximately 400 feet on the bayou side, or landward side, of the point of intersection to allow for inaccuracies associated with dredging methodology and processes. The material removed from the approximately 400-foot long overlap zone portion of the channel would be placed either in the upland disposal area "Charlie" or the open-water disposal sites, based upon where shoaling occurs.

The previously authorized upland disposal area "Charlie" provided by Mobile County, the local sponsor, for the Bayou Coden navigation project is an approximately 70 acre site and is located to the north and west of the Bayou Coden navigation project in south Mobile County, Alabama (Figure 2). The site is diked and drains to the southwest into Bayou Coden. The open-water disposal sites proposed for use are the previously certified open-water sites located to the west of the Bayou La Batre channel in Mississippi Sound. The limits of the open-water disposal sites encompass an approximately 160 acres each.

Analysis of Effects:

Congress defines EFH 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 areas, such as estuarine emergent wetlands, seagrass beds, algal flats, mud, sand, shell, and rock substrates, and the estuarine water column. In addition, marine areas, such as the water column, vegetated and non-vegetated bottoms, artificial and coral reefs, geologic features, continental shelf features, and the Mississippi shelf, have also been identified. Table 1 lists the species managed by the Gulf of Mexico Fishery Management Council.

Open-water and estuarine marshes provide habitat for various species of invertebrates and vertebrates. Epibenthic crustaceans and infaunal polychaetes dominate the diets of higher trophic levels, such as flounder, catfish, croaker, porgy, and drum. The fish species composition of the estuarine and offshore area along the northern Gulf of Mexico is of a high diversity due to the variety of environmental conditions, which exist within the area. The major fisheries landed along the Mississippi and Alabama Gulf coast are menhaden (*Brevoortia patronus*), mullet (*Mugil cephalus*), croaker (*Micropogonias undulates* and *Leiostomus xanthurus*), shrimp (*Penaeus aztecus*, *P. setiferus*, and *P. duorarum*), blue crab (*Callinectes sapidus*), and oyster (*Crassostrea virginica*).

During the dredging and subsequent open-water placement activities, most of the motile benthic and pelagic fauna, such as crab, shrimp, and fish, should be able to avoid the disturbed area and should return shortly after the activity is completed. No long-term direct impacts to

PD-EC SUBJECT FILE COPY

managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through dredging and open-water disposal operations. The Corps, Mobile District anticipates recovery of these non-motile and motile invertebrate species from adjacent areas within a few months and this number is not expected to be significant to species distribution within Bayou Coden, Mississippi Sound, or Mobile Bay.

The Corps, Mobile District has taken extensive steps to reduce and avoid potential impacts to EFH as well as other significant area resources. The Corps, Mobile District will be utilizing two sets of previously authorized disposal areas, one upland and five in open-water (Figure 2), and adheres to water quality requirements provided by the Alabama Department of Environmental Management to further reduce impacts to EFH. The return water from the upland disposal area would not adversely affect EFH in the project area. These steps also include reducing the amount of material dredged within Bayou Coden navigation project to the minimal amount required to achieve the project objectives.

Based on the above assessment of the project in relation to impacts to fisheries resources, the overall impact to identified species is considered negligible. Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (PL 94-265) we request your concurrence with our assertion that the project will not result in significant impacts to EFH.

If we can be of any further assistance to you, please call Mr. Matthew J. Lang at (251) 694-3837 or e-mail him at matthew.j.lang@usace.army.mil.

Sincerely,

Kenneth P. Bradley
Chief, Environment and Resources
Branch

PD-EC/Lane 

PD-EC/Jacobson 

PD-EC/Donaldson 

PD-E/Bradley 

PD/Campbell 

PD/Flakes 

Reynolds, Lekesha W. SAM

Subject: FW: Bayou Coden EFH inquiry

-----Original Message-----

From: Mark Thompson [mailto:Mark.Thompson@noaa.gov]
Sent: Monday, November 09, 2009 3:38 PM
To: Reynolds, Lekesha W. SAM
Cc: Jacobson, Jennifer L SAM; Bill Kline
Subject: Re: Bayou Coden EFH inquiry

The National Marine Fisheries Service, Habitat Conservation Division (NMFS-HCD), has reviewed your request for essential fish habitat (EFH) consultation regarding the continued maintenance dredging and disposal for the federally authorized Bayou Coden navigation channel in Mobile County, Alabama. As stated in previous response letters regarding uncontained open water disposal of maintenance dredged material into estuarine habitats in Mississippi and Alabama, the NMFS-HCD has concerns with such practice and believe that it does result in an adverse impact to EFH.. Therefore, in consideration of the direct and indirect impacts to estuarine habitat, and to ensure the conservation of EFH and fishery resources, the NOAA Fisheries recommends that the final action on the proposed project should require the following:

***EFH Conservation Recommendation**

For the next dredging cycle following this one, the COE, in coordination with federal and state resource agencies, shall develop a beneficial use plan for the Bayou Coden Navigation Project that can restore/create wetlands and reduce or eliminate the need for unconfined, open-water disposal.*

Please be advised that the Magnuson-Stevens Act and the regulation to implement the EFH provisions (50 CFR Section 600.920) require your office to provide a written response to these comments. That response must be provided within 30 days and at least 10 days prior to final agency action. A preliminary response is acceptable if final action cannot be completed within 30 days. Your final response must include a description of measures to be required to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH Conservation Recommendation, you must provide an explanation of the reasons for not implementing those recommendations.

We appreciate the opportunity to review and comment on your request and are available to continue consultation on the issues identified herein. If you have questions regarding these comments, please contact Mark Thompson at our Panama City office at (850) 234-5061.

Sincerely,

W.Mark Thompson
Team Leader
Panama City Office.

Reynolds, Lekesha W. SAM wrote:

>
> Mr. Thompson,
>
> We have not received your response to the letter (attached) we sent to
> you on June 22, 2009, regarding EFH consultation to continue
> maintenance dredging and disposal of the federally authorized Bayou
> Coden navigation channel. We need your prompt response in order to
> continue our recertification efforts in a timely manner.
>
> We appreciate your prompt attention to this matter. If you have any
> questions, please contact me or Jenny Jacobson.
>

> Thanks,
> Lekesha Reynolds
> /Biologis/t
> */US Army Corps of Engineers/*
> /Planning and Environmental Division/
> /Coastal Environment Team/
> /109 St. Joseph St/
> /Mobile, AL 36602/
> /ph: 251-690-3260/
> /lekesha.w.reynolds2@usace.army.mil/
>
> <<itr_NMFS_2009.pdf>>
>

--

Mark Thompson, Team Leader
Habitat Conservation Division
Florida Gulf Coast, Alabama, Mississippi Panama City Office 850-234-5061 Fax 850-234-2492

December 15, 2009

Coastal Environment Team
Planning and Environmental Division

PD-EC SUBJECT FILE COPY

Mr. Scott Brown
Alabama Department of Environmental Management
4171 Commander's Drive
Mobile, Alabama 36615

Dear Mr. Brown:

The water quality and coastal zone consistency certification for the Bayou Coden Federal Navigation Project expires December 9, 2009. Pursuant to the requirements of the Clean Water Act and Coastal Zone Management Act and consistent with Public Notice No. FP09-BC01-14 (Enclosure 1), the U.S. Army Corps of Engineers (Corps), Mobile District requests water quality and coastal zone consistency certification from the State of Alabama for a period of five years. The proposed action as described in Public Notice No. FP09-BC01-14 involves the continued maintenance dredging and disposal activities for the federally authorized Bayou Coden Navigation Project, located in Mobile County, Alabama. The Corps, Mobile District published the Public Notice on July 21, 2009, and the required legal notice on July 31, 2009 in the Mobile Press Register, Mobile, Alabama. Proof of publication for the legal notice is enclosed along with copies of all water quality related comment letters received for your consideration in making the final determination for certification (Enclosures 2 through 5).

Based on a review of the Alabama Coastal Zone Management Program, we find that the proposed action is consistent with the program to the maximum extent practicable. If you have any questions concerning the proposed actions, please contact Ms. Lekesha Reynolds at 251-690-3260.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental Division

RL
PD-EC/Reynolds

PD-EC/Jacobsen *J*

PD-EC/Gouldson *G*

PD-E/Bradley *BB*

PD/Jumpell *J*

PD/Flakes

Enclosures

John P. Hagood
~~XXXXXXXXXXXX~~
DIRECTOR



Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2059 • Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700
FAX (334) 271-7950

BOB RILEY
GOVERNOR

January 4, 2010

MR. CURTIS FLAKES
U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

RE: CWA Section 401 (a) Water Quality Certification and Coastal Consistency
ADEM Tracking Code: COEP-09-005-JCR [FP09-BC01-14]
Bayou Coden Federal Navigation Project
Mobile County

Dear Mr. Flakes:

The Alabama Department of Environmental Management (ADEM) has completed its review of the above referenced joint public notice and all associated materials related to the proposal by the U.S. Army Corps of Engineers (USACOE) to conduct maintenance dredging activities in Bayou Coden and Portersville Bay in Mobile County, Alabama. Maintenance dredging will occur in a channel 8 feet deep and 60 feet wide extending from La Belle Avenue Bridge south approximately 3,000 feet through Bayou Coden to Portersville Bay, thence 8 feet deep by 100 feet wide extending approximately 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, including a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the Bayou Coden channel approximately 500 feet south of La Belle Avenue Bridge. Dredging of approximately 305,000 yds³ of silts and sands will occur primarily via a hydraulic pipeline dredge.

Disposal Areas: The dredged material placement sites for this project include: a) a 70-acre upland site (Charlie) which is divided into a 55-acre cell and a 15-acre cell and, b) open-water sites 8, 9, 11, 12, and 13, each being approximately 160 acres and located west of the Bayou La Batre channel in the Mississippi Sound.

The USACOE advertisement of this project by joint public notice with ADEM has been completed. On the basis of a review of all materials submitted and associated with the proposal, it is the opinion of the ADEM that a decision relative to water quality certification is appropriate.

Action pertinent to water quality and coastal management certification is required by Section 401(a) (1) of the Clean Water Act, 33 U.S.C. §1251, et. seq., and the Alabama Coastal Area Management Program. If conducted in accordance with the conditions prescribed herein, ADEM hereby issues official certification for a period not to exceed five (5) years from the date of issuance that there is reasonable assurance that the discharge resulting from the proposed activities as submitted will not violate applicable water quality standards established under Section 303 of the Clean Water Act and §22-22-9(g), Code of Alabama (1975). Furthermore, ADEM hereby agrees with the USACOE's determination of consistency with the Alabama Coastal Area Management Program conditional upon continued compliance with the management program and conditions prescribed herein.

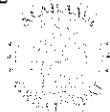
The ADEM certifies that there are no applicable effluent limitations under Sections 301 and 302 nor applicable standards under Sections 306 and 307 of the Clean Water Act in regard to the activities specified. However, regulations promulgated by the EPA requiring discharge permits for storm water runoff from individual and commercial facilities may be applicable. This certification does not address the requirements of those regulations.

To minimize impacts to Alabama's state waters and coastal resources, the following conditions must be incorporated as part of FP09-BC01-14.

1. The ADEM must be notified of the starting date and expected completion date prior to project implementation.

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35203-4702
(205) 942-6168
(205) 941-1602 (Fax)

Decatur Branch
7715 Sardis Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (Fax)



Mobile Branch
2504 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (Fax)

Mobile - Coastal
4171 Carrannden Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (Fax)

2. The USACOE and/or its assigns shall allow any duly authorized employee of the ADEM or its contractors, or Attorney General or District Attorney to enter upon the premises associated with the project authorized by this permit for the purposes of ascertaining compliance with the terms and conditions of the permit and with the rules and regulations of the ADEM.
3. The USACOE and/or its assigns must implement appropriate, effective Best Management Practices (BMPs) for prevention and control of nonpoint sources of pollutants, during and after project implementation. The USACOE and/or its assigns, at a minimum, must implement applicable effective BMPs as provided in the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas, published by the Alabama State Soil and water Conservation Committee, 2003. The document may be accessed online at http://swcc.alabama.gov/pdf/Handbooks&Guides/ASWCC_June_2003_Alabama_Handbook_Construction_E&S_Control.pdf.
4. The USACOE and/or its assigns shall conduct daily inspections of the filling activities during the life of the project to ensure that in-stream turbidity resulting from active dredging or return water from a disposal area will not cause the discharge of sediment into wetlands, substantial visible contrast with the receiving waters greater than 400 feet from the activity or result in an increase of 50 NTUs above background turbidity levels in the receiving waters. The USACOE and/or its assigns must suspend operations should downstream turbidity exceed upstream turbidity by 50 NTUs. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage.
5. The USACOE and/or its assigns shall be responsible for the condition of the spoil disposal areas for the life of the dredging and disposal activity and until the disposal areas are reclaimed or adequately stabilized, and for pumping and discharge rates, to ensure settling of suspended solids within the confines of the spoil disposal areas sufficient to ensure that turbidity in the return water will not cause substantial visible contrast within the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving waters.
6. Upon the loss or failure of any treatment facility, BMP, or other management measure as identified by responsible on-site staff during day to day operations or as identified by ADEM technical staff during facility inspections, the USACOE and/or its assigns shall, where necessary to maintain compliance with this certification, suspend, cease, reduce, or otherwise control work/activity and all discharges until effective treatment is restored. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage.
7. If the open-water disposal sites (8, 9, 11, 12, and 13) are utilized by the USACOE and/or its assigns, surveys of each of the open-water disposal sites before and after maintenance dredging material placement should be submitted to the ADEM Coastal/Facility Section, Attn: Jennifer Robinson, 4171 Commanders Drive, Mobile, AL 36615.
8. This authorization is limited to the dredging of not more than 305,000 cubic yards of material.
9. The USACOE and/or its assigns shall provide written notice to the ADEM of any proposed modifications to the approved maintenance dredging and placement of maintenance material plan, including but not limited to use of alternative disposal sites not specified in the proposal. The approved maintenance dredging and placement of maintenance material plan for the USACOE Bayou Coden Navigation Project was received by the ADEM Coastal/Facility Section July 21, 2009 (copy enclosed). Modifications may not be implemented without prior written notice and approval from the ADEM. Upon such notice, the Director may require the submission of additional information and/or a new permit application, and additional fees may be required.

10. Unauthorized deviations from the maintenance dredging proposal, implementation of additional impacts exceeding the scope of the proposal authorized herein, or failure to abide by all the conditions and requirements herein may constitute a violation of this certification, resulting in invalidation of this CWA 401 (a) water quality certification and coastal consistency determination.
11. This certification is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information and/or a new permit application, and additional fees may be required.

In recognition that projects are site specific in nature and conditions can change during project implementation, the ADEM reserves the right to require the submission of additional information or require additional management measures to be implemented, as necessary on a case-by-case basis, in order to ensure the protection of water quality and coastal resources.

Liability and responsibility for compliance with this certification are not delegable by contract or otherwise. The USACOE shall ensure that any agent, contractor, subcontractor, or other person employed by, under contract, or paid a salary by the USACOE complies with this certification. Any violations resulting from the actions of such person shall be considered violations of this certification and may result in an enforcement action.

This certification does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, and in no way purports to vest in the USACOE title to lands now owned by the State of Alabama nor shall it be construed as acquiescence by the State of Alabama of lands owned by the State that may be in the USACOE's possession.

Please call or write anytime with questions. The ADEM contact for this project is Jennifer Robinson: (251) 432-6533 or jrobinson@adem.state.al.us. Always include the referenced ADEM tracking code in any future correspondence relative to this project.

Sincerely,



Steven O. Jenkins, Chief
Field Operations Division

SOJ/ger File: CZCERT/XXX

Enclosure (3 pages)

E-copy: Matthew J. Lang, U.S. Army Corps of Engineers
Duncan Powell, USEPA Region IV, Atlanta
Patric Harper, USFWS, Daphne
Mark Thompson, NMFS, St. Petersburg
Carl Ferraro, ADCNR, Spanish Fort

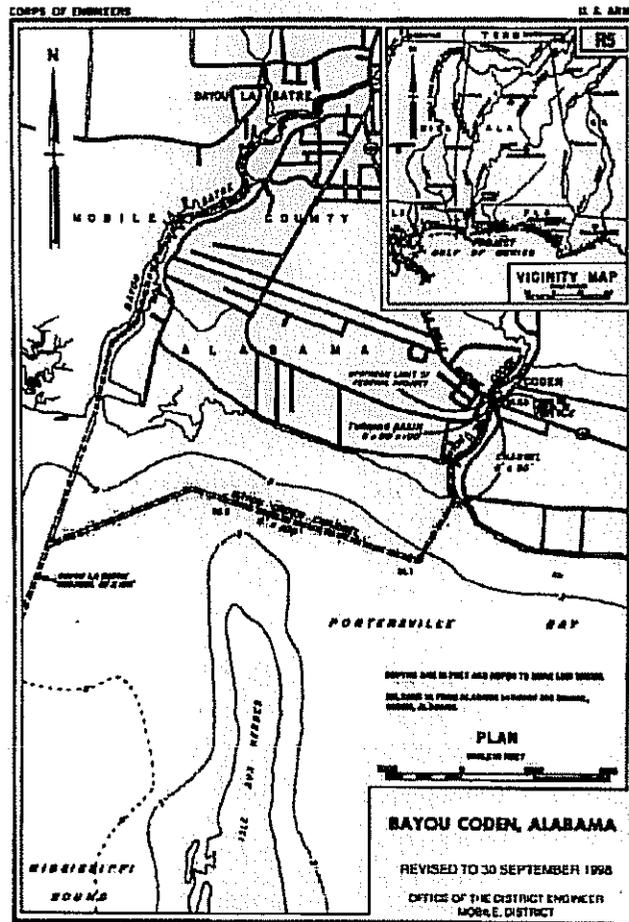


Figure 1 - Project Map

Enclosure 1: Public Notice

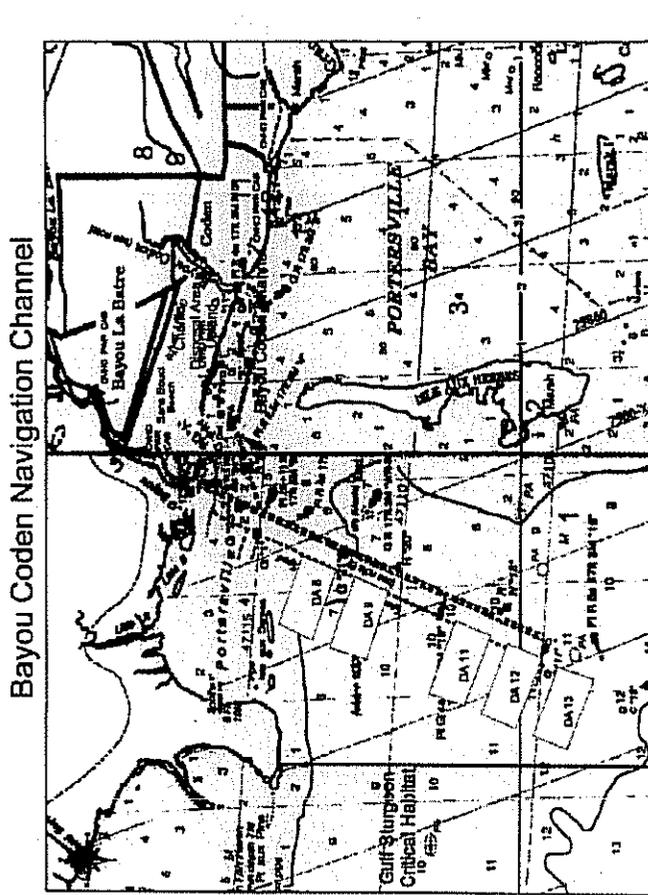


Figure 3 – Gulf Sturgeon Critical Habitat

Enclosure 1: Public Notice

SECTION 404 (b) (1) EVALUATION REPORT

**BAYOU CODEN
MOBILE COUNTY, ALABAMA**

SECTION 404 (b) (1) EVALUATION REPORT

BAYOU CODEN MOBILE COUNTY, ALABAMA

I. Project Description:

a. Location. Bayou Coden, Mobile County, Alabama and Mississippi Sound.

b. General Description. The proposed action involves the continued maintenance dredging and placement of maintenance material from the Federally authorized channel at Bayou Coden, Mobile County, Alabama.

c. Authority and Purpose. The existing project at Bayou Coden was authorized on 2 June 1969, under the authority of Section 107, River and Harbor Act of 1960 and the River and Harbor Act of March 2, 1945 (H. Doc. 824, 77th Cong., 2nd sess.). The Project provides for a channel 8 feet deep and 60 feet wide extending from La Belle Avenue bridge south about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre Channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of La Belle Avenue bridge. Vertical plane of reference is mean lower low water.

d. General Description of the Dredged Fill Material. The fill material that would be placed in the Mississippi Sound open water disposal sites consists predominately of silty, organic material deposited since the previous maintenance cycle.

e. Description of the Proposed Discharge Site(s). Five open water sites 8, 9, 11, 12, 13. One upland disposal site, Charlie (70-acres).

1) Location - The open water sites are located on the west of the Bayou La Batre Channel in the Mississippi Sound. Upland disposal site "Charlie" is located south of Hwy. 188.

2) Size - The upland discharge site is 70-acres and the 5 open water sites 8, 9, 11, 12, 13 located west of the Bayou La Batre Channel in the Mississippi Sound.

3) Type of site - Open water and upland disposal sites.

4) Type(s) of Habitat - The upland sites contains some vegetation and previously dredged materials; the open water sites are non-vegetated shallow water bottoms composed of inorganic clays with clay-sand mixtures.

5) Timing and duration of Discharge - The project is expected to take 90 to 120 days to complete.

f. Description of disposal Method. The materials described above will be placed within the authorized disposal areas by hydraulic cutterhead/pipeline dredge.

II. Factual Determinations.

a. Physical Substrate Determinations.

- (1) Substrate elevation and slope. The open water disposal sites are approximately -12 feet MLLW for the Mississippi Sound sites.
- (2) Fill type. Sediment within Mississippi Sound consists of inorganic clays of high plasticity, poorly graded sands, sand-clay mixtures, sand-silt mixtures, and inorganic clays of low to medium plasticity.
- (3) Dredged/fill material movement. The Mississippi Sound sites are approximately 2500 feet from the channel. Material is not likely to re-enter the channel and will likely stay in the disposal areas. The upland disposal site contains dikes to restrict sediment movement outside the containment site.
- (4) Physical effect on benthos. Benthic communities in the open water sites would not be significantly impacted by the proposed action. After project operations are over, repopulation of the area will occur within 12 to 18 months. Utilization of thin-layer disposal where practicable will further reduce impacts on the benthos.
- (5) Other effect. Not applicable.
- (6) Actions taken to minimize impacts. Thin layer disposal methods are employed whenever feasible to minimize impacts to benthic populations. Also, no change in bottom sediment type will occur.

b. Water Circulation/Fluctuation, and Salinity Determination.

- (1) Water. Ambient conditions in Bayou Coden are generally turbid.
 - (a) Salinity. No change in salinity will occur as this is maintenance of an existing channel.
 - (b) Water chemistry. Increases in dissolved and total organic carbon, dissolved ammonia, nitrates and total Kjeldahl nitrogen levels would be associated with open water disposal and return water from upland disposal, however, these increases are expected to be short-term in nature and no significant impacts are expected to result.
 - (c) Clarity. Minor increases in turbidity, due to the placement of dredged material, may be experienced in the immediate vicinity of the project during dredging and disposal activities due to turbidity plumes. These increases would be temporary and would return to pre-project conditions shortly after completion of construction.
 - (d) Color. Color would be affected during disposal with the water appearing darker due to presence of turbidity from the discharge of silt and clay material.
 - (e) Odor. Odors near upland site "Charlie" will occur due to the release of various inert gases from the dredged material. No significant populations exist near "Charlie". Therefore, no significant effects will result.
 - (f) Taste. No significant effect.

(g) Dissolved gases. No significant effect.

(h) Nutrients. No significant effect.

(i) Eutrophication. No significant effect.

(2) Current Patterns and Circulation.

(a) Current patterns and flows. Circulation patterns within the area are controlled by astronomical tides, winds, and to a lesser degree, freshwater discharge. The project would have no effect on circulation patterns.

(b) Velocity. No effect.

(c) Stratification. No effect.

(d) Hydrologic effect. No effect.

(3) Normal Water Level Fluctuations. There will be no change in normal water level fluctuation as a result of use of the open water disposal sites or the use of return water from the upland sites.

(4) Salinity Gradients. Salinity gradients are not expected to change from either open water disposal or return water from upland sites.

(5) Actions that will be taken to Minimize Impacts. Turbidity will be monitored for compliance with State water quality standards.

c. Suspended Particulate/Turbidity Determinations.

(1) Expected changes in suspended particulate and turbidity levels in the vicinity of the disposal sites will be temporary. Turbidity during construction will not violate state water quality standards.

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

(a) Light penetration. During dredging and disposal activities, the degree of light penetration would be locally reduced temporarily.

(b) Dissolved oxygen. Dissolved oxygen would be locally reduced and temporary.

(c) Toxic metals and organics. No significant effect.

(d) Pathogens. No effect.

(e) Esthetics. Presence of dredge equipment within the existing navigation channel will have no significant impact to the area 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.

(f) Others as appropriate. None appropriate.

(3) Effect on biota. The biota of the open water disposal sites would not be significantly affected. This area is adapted to periodic increases of suspended material due to storm related events and annual high freshwater inflows from Mobile Bay.

(a) Primary production, photosynthesis. The reduction in light penetration during dredging and disposal activities would temporarily affect phytoplankton in the vicinity.

(b) Suspension/filter feeders. Non-motile and immobile filter feeders would be affected by the amount of suspended materials in the vicinity. No significant effects to these resources are anticipated.

(c) Sight feeders. No significant effect.

(4) Actions taken to minimize impacts. The project will be in compliance with the state water quality certification.

d. Contaminant Determination. Previous sediment testing from within the bayou and in Mississippi Sound indicated highly variable concentrations of nutrients, heavy metals, high molecular weight hydrocarbons, and pesticides. Mercury, arsenic, copper, zinc, cadmium, and lead were found to occur in concentrations greater than crustal abundance. Residues of selected chlorinated hydrocarbon pesticides or PCBs were not detected in sediments and animal tissue before or after exposure. Materials with elevated levels of contaminants will be placed in the upland disposal are "Charlie." All material placed in open water sites are primarily free of contaminants and are suitable for open water disposal.

e. Aquatic Ecosystem and Organism Determinations. No significant effects.

(1) Effect on plankton. Disposal into the open water disposal sites would destroy some phytoplankton and zooplankton, and would reduce light penetration that may tend to affect primary production by the phytoplankton. This condition would be short-term and localized.

(2) Effect on benthos. Some benthic organisms would be destroyed during the dredging process. This condition would be short-term and localized. Repopulation would occur in a few months.

(3) Effect on nekton. Highly motile nekters in and around the open water disposal areas would probably vacate the area, at least until conditions become more favorable. Less mobile may be affected but no significant effects would occur.

(4) Effect on aquatic food web. No significant effect.

(5) Effect on special aquatic sites.

(a) Sanctuaries and refuges. The disposal of dredged material or return water from upland disposal sites would not significantly affect any of the fish and wildlife resources that are designed for preservation or general use in the Coastal Area Management Program of the State of Alabama.

(b) Wetlands. No effect.

(c) Mud Flats. No effect.

(d) Vegetated shallows. No effect.

(e) Coral reefs. Not applicable.

(f) Riffle and pool complexes. Not applicable.

(7) Threatened and endangered species. The proposed action will not significantly impact threatened or endangered species or their critical habitat.

(8) Other wildlife. No significant effects.

(9) Actions to minimize impacts. Compliance with the Water Quality Certification and the utilization of thin-layer disposal.

f. Proposed Disposal Site Determinations.

(1) Mixing zone determinations. The State of Alabama, Department of Environmental Management (ADEM) requested a mixing zone no greater than 400 feet from the dredging or outer limits of the open water disposal sites. The proposed action will be in compliance with this mixing zone requirement.

(2) Determination of compliance with applicable water quality standards. The proposed action will be in compliance with all applicable water quality standards. The use of the proposed sites would not alter constituent concentrations established for this use and would be in compliance with applicable water quality standards.

(3) Potential effect on human use characteristics.

(a) Municipal and private water supplies. No effect.

(b) Recreational and commercial fisheries. Minimal impacts on the fish and wildlife resources could occur during dredging and disposal activities.

(c) Water-related recreation. No significant effect.

(d) Esthetics. The esthetic environment would be temporarily impacts primarily as a result of the physical presence of heavy equipment during construction causing a temporary degradation of the esthetics quality.

(e) Parks, national and historic monuments, national seashores wilderness areas, research sites, and similar preserves. No significant effect.

g. Determination of Cumulative Effect on the Aquatic Ecosystem. The proposed action is not expected to have significant cumulative adverse impacts.

h. Determination of Secondary Effect on the Aquatic Ecosystem. The proposed action is not expected to have significant secondary effect on the aquatic ecosystem.

III. FINDING OF COMPLIANCE.

a. No significant adaptations to the Section 404(b)(1) Guidelines were made relative to this evaluation.

b. No practicable alternatives could be identified that would result in less water quality impact than the proposed action.

c. Pursuant to the Clean Water Act (CWA), Section 401, State Water Quality Certification (WQC) and Coastal Zone Consistency (CZM) was issued by the ADEM on January 4, 2010.

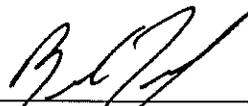
d. The proposed action has been coordinated under Section 7 of the Endangered Species Act of 1973, as amended. The proposed action will not significantly affect endangered or threatened species or their critical habitats.

e. The proposed action will not result in any significant adverse effect on: 1) human health or welfare, including municipal or private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites; 2) the life stages of aquatic life and other wildlife dependent on aquatic ecosystems; 3) the aquatic ecosystems diversity, productivity and stability; and 4) recreational, aesthetic, and economic values. Appropriate and practicable steps will be taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

f. The demonstration project is specified as complying to the requirements of the Coastal Zone Management Act of 1972 the maximum extent practicable.

g. No wetlands in the vicinity of the project will be lost due to the project activities.

DATE 19 April '10



Byron G. Jorns
Colonel, Corps of Engineers
District Engineer



Florida Gas Transmission Company

A Southern Union/El Paso Affiliate

2405 Lucien Way
Suite 200
Maitland, FL 32751

May 5, 2010

P.O. Box 945100
Maitland, FL 32794-5100
Tel: 407.838.7000
Fax: 407.838.7001

Department of The Army
Mobile District
Corps of Engineers
P.O. BOX 2288
Mobile, AL 36628-0001

To Whom It May Concern:

RE: Project: DOTA - CESAM-PD-EC
County: Mobile, AL
Description: BAYYOU CODEN, MOBILE AL
Public Notice: FP09-BC01-14

Please be advised that Florida Gas Transmission Company (FGT) does not have facilities located within the limits of the above referenced project. Although we do not expect any conflicts with the proposed construction, we would like to attend any meetings you may hold concerning this project.

Sincerely,

Joseph E. Sanchez
Sr. Technical Specialist

JS/jjw

CC: Riley Jackson
Mt. Vernon Team w/attachments



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ADJUSTMENTS OF UTILITIES
STATE STATUTES CHAPTER 337.401 & 337.403

RE: PROJECT# DOTA - CESAM-PD-EC
COUNTY MOBILE, AL
STATE ROAD

DESCRIPTION: BAYYOU CODEN, MOBILE AL
Public Notice: FP09-BC01-14

I HERBY CERTIFY THAT FLORIDA GAS TRANSMISSION HAS FACILITIES LOCATED WITHIN THE ABOVE PROJECT LIMITS.

I HAVE REVIEWED FLORIDA GAS TRANSMISSION COMPANY'S RECORDS AND BASED ON CONSTRUCTION PLANS RECIEVED 8/1/2009, IT HAS BEEN DETERMINED THAT NO RELOCATION OR ADJUSTMENTS TO OUR FACILITIES WILL BE NECESSARY FOR THIS CONSTRUCTION. WE HAVE NO CONFLICTS ON THIS PROJECT.

by
J. Williams



SIGNED

May 5, 2010
DATE

Joseph E. Sanchez
NAME

SR. TECHNICAL SPECIALIST
TITLE