

MEMORANDUM FOR DISTRICT ENGINEER

SUBJECT: Statement of Findings - Proposed maintenance dredging and placement activities for the Federal Gulf Intracoastal Waterway Navigation Project, Coastal Mississippi and Louisiana

1. PROBLEM. The proposed activities consist of the continued maintenance dredging, including advanced maintenance and placement of dredged material from the Federal Gulf Intracoastal 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 [Signature] SEE ME _____ OTHER _____

3. BACKGROUND AND DISCUSSION.

a. The proposed activities are necessary to provide adequate depth for safe navigation within the Gulf Intracoastal Waterway navigation 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>[Signature]</u>	()	10/19/10
OP-TN	Concur/non-concur	<u>[Signature]</u>	()	10/20/10
OP	Concur/non-concur	<u>[Signature]</u>	()	10/20/10
OC	Concur/non-concur	<u>[Signature]</u>	()	10/27/10
PD	Concur/non-concur	<u>[Signature]</u>	()	10/28/10
DX	Concur/non-concur	<u>[Signature]</u>	()	10/28/10
DP	Concur/non-concur	<u>[Signature]</u>	()	1 Nov 10
DM	Concur/non-concur	<u>[Signature]</u>	()	1 Nov 10

CESAM-PD-EC

18 October 2010

SUBJECT: Statement of Findings - Proposed maintenance dredging and placement activities for the Federal Gulf Intracoastal Waterway Navigation Project, Coastal Mississippi and Louisiana

6. MOBILE DISTRICT POINT OF CONTACT: Mr. Michael Malsom, (251) 690-2023.



JENNIFER L. JACOBSON
Chief, Coastal Environmental Team

STATEMENT OF FINDINGS

MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL MISSISSIPPI AND LOUISIANA PORTIONS OF THE GULF INTRACOASTAL WATERWAY FEDERALLY AUTHORIZED NAVIGATION PROJECT

HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI AND COASTAL LOUISIANA

Waterway and Location: The federally authorized Gulf Intracoastal Waterway (GIWW) within Mississippi and Louisiana extends from the Alabama-Mississippi state line through Mississippi Sound to Lake Borgne Light No. 29 at the Rigolets in Louisiana (Figure 1 of EA).

As District Engineer, U.S. Army Corps of Engineers (Corps), 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 GIWW is a Federal shallow-draft navigation project that extends approximately 1,115 miles along the Gulf of Mexico coast from northern Florida to the southern tip of Texas. The waterway connects southern ports with the midwest, the east, and the Great Lakes region. The Corps, Mobile District has jurisdiction over that portion of the GIWW from Rigolets, Louisiana to Apalachee Bay, Florida, a total of approximately 380 miles (Figure 1 of EA). The existing project, under auspices of the Corps, Mobile District, provides for a waterway 12 feet deep, 125 feet wide at Mean Low Water (MLW) from Apalachee Bay, Florida to Mobile Bay, Alabama and a channel 12 feet deep, 150 feet wide from Mobile Bay, Alabama to the Rigolets, Louisiana (Lake Borgne Light No. 29).

2. Description of the Proposed Action for Which These Findings Are Made.

The proposed action would involve maintenance dredging and disposal operations for the GIWW in the State of Mississippi and Louisiana. Approximately 300,000 cubic yards (cys) of clay, silt and sand are proposed for removal by hydraulic cutterhead dredge along various sections of the channel on an infrequent basis over the next five years. The material would be placed in previously certified open water disposal sites: 66, 65A, 65B and 65C (Figures 2-6 of EA).

The existing project provides for a waterway 12 feet deep and 125 feet wide at MLW from Apalachee Bay, FL., to Mobile Bay, AL., and 12 feet deep and 150 feet wide from Mobile Bay, AL., to the Rigolets, LA. (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12 foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long. Plane of reference is MLW.

The proposed dredging action would be performed with a tolerance of up to two (2) feet of advance maintenance and 2 feet of paid allowable over-depth dredging. Maintenance dredging of soft-dredged material with a hydraulic cutterhead dredge may disturb the bottom sediments several feet deeper than the target depth due to the inaccuracies of the dredging process. An additional 3 feet of sediment below the 2-foot paid allowable dredging cut may be disturbed in the dredging process with minor amounts of material being removed.

Maintenance dredging and disposal would be performed on an as needed basis. The frequency of channel dredging at any one site and the associated time between the use of any given disposal area ranges on an average once every 3 to 25 years.

3. Results of Coordination.

a) Corps letter dated April 19, 2007 notifying National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), Protected Resource Division (PRD) that in accordance with Section 7 of the Endangered Species Act (ESA) the Biological Assessment (BA) indicates continued operations and maintenance (O&M) of the GIWW is not likely to adversely affect threatened and endangered species or permanently destroy or adversely modify critical habitat (**EA-Enclosure 1**).

b) Corps letters dated April 19, 2007 requesting Section 7 concurrence with U.S. Fish and Wildlife Service (USFWS) Mississippi and Louisiana state field offices for the GIWW (**EA-Enclosure 2**).

c) USFWS Louisiana Field Office (LFO) letter dated May 18, 2007 states they concur that the GIWW project is not likely to adversely affect most of the federally listed species or their critical habitats in Louisiana. However, the Corps, Mobile District should consult with NMFS in St. Petersburg, Florida regarding sea turtles and Gulf sturgeon. The Corps, Mobile District shall implement certain standard manatee construction conditions outlined in the Corps Biological Assessment dated March 22, 2007. In addition the LFO recommends (**EA-Enclosure 3**):

1) The Corps, Mobile District add to the standards that all vessels shall operate at "no wake/idle speeds" within 100 yards of the work area if a manatee is sighted within 100 yards of the active work zone.

2) Any manatee sightings in Louisiana waters need to be reported to the LFO at 337-291-3100 and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program at 225-765-2821.

d) NMFS, PRD letter dated May 21, 2007 requests additional information (RAI) in reference to GIWW project to comply with Section 7 of the ESA (**EA-Enclosure 4**).

e) USFWS Mississippi Field Office letter dated May 30, 2007 states that the GIWW in Mississippi lies within the Gulf Sturgeon Critical Habitat Unit #8 and that NMFS retains primary responsibility for the sturgeon in all marine units (**EA-Enclosure 5**).

f) Corps letter dated July 11, 2007 responding to the NMFS, PRD RAI. (**EA-Enclosure 6**).

g) NMFS, PRD letter dated October 23, 2007 stating concurrence with the Corps Mobile Districts' ESA Section 7 determination that impacts would be temporary, and no long term impacts are anticipated to managed species and their associated habitats (**EA-Enclosure 7**).

h) Public Notice FP08-IW01-14 dated January 28, 2008 for the Mississippi portion of the GIWW (**EA-Enclosure 8**).

i) Public Notice FP08-IW02-14 dated January 28, 2008 for the Louisiana portion of the GIWW (**EA-Enclosure 9**).

j) Corps letters dated March 6, 2008 requesting to initiate formal EFH consultation with NMFS, Habitat Conservation Division (HCD) for Mississippi and Louisiana (**EA-Enclosure 10**).

k) Mississippi Department of Marine Resources (MDMR) letter dated March 10, 2008 granting Coastal Zone Consistency (CZC) for the Mississippi portion of the GIWW provided that the Corps adheres to the following conditions (**EA-Enclosure 11**):

1) An area 150 feet in width shall be dredged to a final depth of 12 feet below MLW as indicated on Figure 1 of the Public Notice. Approximately 3,000,000 cubic yards of material shall be removed;

2) No sinks or sumps shall be created in the dredging process. Dredging depth is limited to that of the controlling navigational depth of the adjacent waters. A minimum 3:1 side slopes shall be maintained in the dredge area;

3) Turbidity shall be minimized at the dredge site;

4) All dredged material shall be placed in an approved disposal area;

5) Vegetated wetlands outside of the 3,000,000 cubic yards of maintenance dredging shall not be impacted;

6) No machinery shall be allowed in unauthorized wetlands.

l) Mississippi Department of Archives and History (MDAH) letter dated March 14, 2008 stating no objection to the proposed project. Should there be additional work in connection with the project, or any changes in the scope of work, notify MDAH (**EA-Enclosure 12**).

m) NMFS, HCD letter from the South East Regional Field Office in St. Petersburg dated March 24, 2008 stating the proposed project will not result in significant long term impacts to Louisiana EFH. However, they are concerned that there appears to be no consideration of beneficial use of this sediment for restoration or creation. NMFS recommends the Mobile District evaluate options to place sediments dredged from the GIWW into degraded marsh habitats north of the GIWW to elevations suitable for marsh restoration (**EA-Enclosure 13**).

n) Mississippi Department of Environmental Quality (DEQ) letter dated March 24, 2008 granting State 401 Water Quality Certification (WQC) for the Mississippi portion of the GIWW. The Corps, Mobile District must comply with the following conditions (**EA-Enclosure 14**):

1) The channel depth shall gradually increase toward open water and shall not exceed the controlling navigational depth. No “sumps” shall be created by proposed dredging;

2) Best management practices shall be used at all times during construction to minimize turbidity at both the dredge and disposal sites;

3) Turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units;

4) No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

Note: This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the Section 401 WQC.

o) NMFS, HCD letter from the South East Regional Field Office in St. Petersburg dated March 31, 2008 stating that the large quantity of fine-grained sediment being placed, unconfined, in the Mississippi Sound would result in adverse impacts to EFH and other estuarine resources. The letter further states that the EFH assessment does not adequately address the temporary, long term, and cumulative disposal impacts on federally managed species of Mississippi Sound. Therefore, to

fully address potential impacts, we recommend that expanded EFH consultation be initiated and that a comprehensive EFH assessment be prepared (**EA-Enclosure 15**).

p) Corps letter dated June 17, 2008 responding to the EFH HCD letter recommending that expanded EFH consultation be initiated and that a comprehensive EFH assessment must be prepared (**EA-Enclosure 16**).

q) Corps e-mail dated April 2, 2009 stating the Corps, Mobile District has completed their consultation requirements, addressed NMFS HCDs initial request of an expanded assessment and considers this consultation complete (**EA-Enclosure 17**).

r) E-mail dated November 1, 2009 from Louisiana Department of Environmental Quality (LDEQ) with notice on how to restart the WQC process. Note: Previous Corps' letter sent to them was not processed (**EA-Enclosure 18**).

s) Proof of Publication dated November 6, 2009 for the Louisiana portion of the GIWW published in *The Advocate* (**EA-Enclosure 19**).

t) Corps letter dated November 13, 2009 to the Louisiana State Historic Preservation Officer (SHPO) requesting concurrence with the Corps finding of no historic properties affected (**EA-Enclosure 20**).

u) LDEQ letter dated November 15, 2009 stating the requirements to obtain WQC (**EA-Enclosure 21**).

v) Corps letter dated November 16, 2009 requesting CZC from the Louisiana Department of Natural Resources (LDNR) (**EA-Enclosure 22**).

w) Proof of Publication dated November 23, 2009 for the Louisiana portion of the GIWW published in *The Times Picayune* (**EA-Enclosure 23**).

x) Corps letter dated December 9, 2009 requesting WQC from LDEQ (**EA-Enclosure 24**).

y) Stamped letter dated December 15, 2009 stating that the Louisiana SHPO determined there are no known historic properties affected by the proposed project. This effect determination could change should new information come to our attention (**EA-Enclosure 25**).

z) Letter dated December 28, 2009 granting WQC from LDEQ. The requirements for WQC have been met in accordance with LAC 33:IX.1507.A-E (**EA-Enclosure 26**).

aa) Letter dated January 27, 2010 granting CZC from LDNR. There is a 5-year life of concurrence with this project. LDNR requires compliance with the following conditions (**EA-Enclosure 27**):

1) Must notify the Office of Coastal Management at least 30 days before dredging is to begin. Point of contact is Brian Marcks at (225) 342-7939 or (800) 267-4019;

2) Must provide a certified copy of the Plans and Specifications;

3) Must provide Shapefile coordinates of the completed project in GIS format, showing as-built limits of dredging and disposal.

bb) Corps Memorandums for Record #1 dated August 5, 2010 and #2 dated October 7, 2010 summarizing oil spill coordination with state resource agencies that issued WQC and CZC for this project(**EA-Enclosure 28**).

cc) Section 404 (b)(1) Evaluation Report for the MS/LA GIWW (**EA-Enclosure 29**).

4. Environmental Effects and Impacts.

a) The environmental effects of the proposed operations and maintenance dredging of the Louisiana and Mississippi GIWW Federal 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 notice, 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.

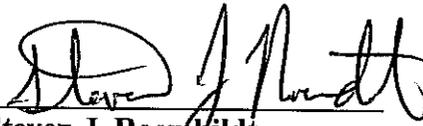
b) There are no significant cumulative environmental impacts on the aquatic ecosystem as a result of the proposed action.

c) The operations and maintenance dredging and disposal 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 operations and maintenance dredging of the federally authorized Louisiana and Mississippi GIWW navigation project 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 maintenance activities comply with all applicable laws and regulations.

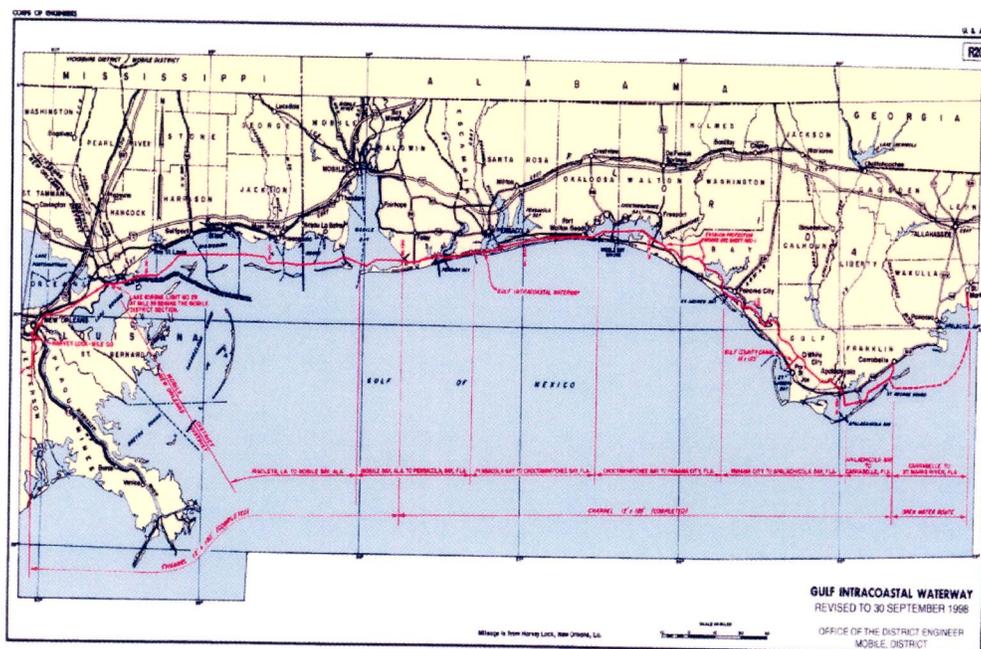
DATE 8 Nov 10


Steven J. Roemhildt
Colonel, Corps of Engineers
District Commander

**Finding of No Significant Impact,
Environmental Assessment,
and
Section 404(b)(1) Evaluation Report
for the
Maintenance Dredging and Disposal of Dredged Material
Mississippi and Louisiana Portions of the
Gulf Intracoastal Waterway
Federally Authorized Navigation Project

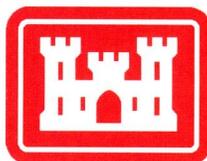
Hancock, Harrison and Jackson Counties,
Mississippi and Coastal Louisiana**

**FINDING OF NO SIGNIFICANT IMPACT,
ENVIRONMENTAL ASSESSMENT
AND
SECTION 404(b)(1) EVALUATION
FOR THE
MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL
MISSISSIPPI AND LOUISIANA PORTIONS OF THE
GULF INTRACOASTAL WATERWAY
FEDERALLY AUTHORIZED NAVIGATION PROJECT
HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI
AND COASTAL LOUISIANA**



Prepared by

**U.S. Army Corps of Engineers, Mobile District
Planning and Environmental Division
Environment and Resources Branch
Coastal Environment Team**



October 2010

FINDING OF NO SIGNIFICANT IMPACT

MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL MISSISSIPPI AND LOUISIANA PORTIONS OF THE GULF INTRACOASTAL WATERWAY FEDERALLY AUTHORIZED NAVIGATION PROJECT

HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI AND COASTAL LOUISIANA

A. DESCRIPTION OF THE PROPOSED ACTION

The proposed action would involve maintenance dredging and disposal operations for the Gulf Intracoastal Waterway (GIWW) in the State of Mississippi and Louisiana (**Figure 1 of EA**). Approximately 300,000 cubic yards (cys) of clay, silt and sand are proposed for removal by hydraulic cutterhead dredge along various sections of the channel on an infrequent basis over the next five years. The material would be placed in previously certified open water disposal sites: 66, 65A, 65B and 65C (**Figures 2-6 of EA**).

The existing project provides for a waterway 12 feet deep and 125 feet wide at mean low water (MLW) from Apalachee Bay, FL., to Mobile Bay, AL., and 12 feet deep and 150 feet wide from Mobile Bay, AL., to the Rigolets, LA. (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12 foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long. Plane of reference is MLW.

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Maintenance dredging and disposal would be performed on an as needed basis. The frequency of channel dredging at any one site and the associated time between the use of any given disposal area ranges on average once every 3 to 25 years.

B. ALTERNATIVE TO THE PROPOSED ACTION

Two alternatives were considered for this project. These alternatives are:

1. No Action / No Maintenance of the GIWW.
2. Continued Operation and Maintenance of the GIWW.

NEPA defines a “no action” as the continuation of existing conditions in the affected environment without the implementation, or in the absence of the proposed action. Inclusion of the “no action” alternative is prescribed by the Council on Environmental Quality (CEQ) regulations as the benchmark against which Federal actions are to be evaluated.

The implementation of the “no action” alternative would result in discontinuing project maintenance dredging to its authorized depths of -12 feet MLW plus 2 feet of advanced maintenance and 2 feet of paid allowable over depth. This alternative would result in a waterway that would eventually fill with sediments and become unsafe and non-navigable for commercial and recreational boats. Shoaling would develop at various times and places. This would forego the benefits of the waterway by eliminating a major link connecting the Gulf Coastal ports with the rest of the United States. Millions of tons of commodities, a large percentage of which are petroleum products or their derivatives, annually would likely have to be shipped via other means at a higher cost. Project abandonment would place an economic stress on the industrial and commercial investments already dependent on the project. Therefore, the "no action" alternative was deemed unacceptable and not considered further.

The proposed project and preferred alternative is the continued operation and maintenance of the GIWW within the States of Mississippi and Louisiana. No modifications are being proposed. Alternatives to the proposed action were evaluated in existing environmental documents. As previous operation and maintenance activities of the project have proven to be effective, evaluation of additional alternatives was deemed not warranted at this time.

C. POTENTIAL ENVIRONMENTAL IMPACTS

The environmental impacts associated with the proposed action are fully described in the Environmental Assessment (EA). The EA identifies the environmental characteristics that may possibly be affected by the proposed action, and determines the significance of the impact to each of the characteristics. The EA concludes that the proposed continued operations and maintenance of the federally authorized Mississippi and Louisiana GIWW Navigation Project would not have a significant adverse impact on the existing environment.

D. COORDINATION

The proposed operations and maintenance (O&M) dredging and placement activities of the Mississippi and Louisiana GIWW Federal Navigation Project were coordinated through Public Notices FP08-IW01-14 and FP08-IW02-14 both dated January 28, 2008. The notice was provided to interested public and local, state, and Federal agencies. The Mississippi Department of Marine Resources (MDMR) issued coastal zone consistency (CZC) on March 10, 2008 for continued O&M of the channel. The Mississippi Department of Environmental Quality (MDEQ) issued water quality certification (WQC) on March 24, 2008 for continued O&M of the channel. The

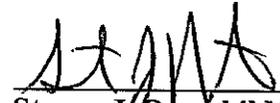
Louisiana Department of Environmental Quality (LDEQ) issued WQC on December 9, 2009. These certifications do not have an expiration date as long as the scope of the project does not change. The Louisiana Department of Natural Resources issued CZC on January 27, 2010. There is a five year concurrence with this project for CZC. Additional details of coordination are provided in the attached Statement of Findings and EA. Coordination in reference to the Deepwater Horizon Oil Spill was also conducted between the state resource agencies that issued CZC and WQC.

E. FINDING OF NO SIGNIFICANT IMPACT (FONSI)

A careful review of the EA shows that the proposed O&M dredging and subsequent placement of material would not have a significant adverse impact on the natural and human environment. The requirements of the National Environmental Policy Act and the Council on Environmental Quality regulations have been satisfied and the preparation of an Environmental Impact Statement is not necessary.

DATE

8 NOV 10



Steven J. Roemhildt
Colonel, Corps of Engineers
District Commander

ENVIRONMENTAL ASSESSMENT

**MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL
MISSISSIPPI AND LOUISIANA PORTIONS OF THE
GULF INTRACOASTAL WATERWAY
FEDERALLY AUTHORIZED NAVIGATION PROJECT**

**HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI
AND COASTAL LOUISIANA**

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List of Enclosures

EA-Enclosure 1 – Corps letter dated April 19, 2007 notifying National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS), Protected Resource Division (PRD) that in accordance with Section 7 of the Endangered Species Act (ESA) the Biological Assessment (BA) indicates continued operations and maintenance (O&M) of the GIWW is not likely to adversely affect threatened and endangered species or permanently destroy or adversely modify critical habitat.

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EA-Enclosure 6 – Corps letter dated July 11, 2007 responding to the NMFS, PRD RAI.

EA-Enclosure 7 – NMFS, PRD letter dated October 23, 2007 stating consultation responsibilities under Section 7 of the ESA are concluded.

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EA-Enclosure 9 – Public Notice FP08-IW02-14 dated January 28, 2008 for the Louisiana portion of the GIWW.

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EA-Enclosure 24 – Corps letter dated December 9, 2009 requesting WQC from LDEQ.

EA-Enclosure 25 – Stamped letter dated December 15, 2009 stating that the Louisiana SHPO determined there are no known historic properties affected by the proposed project.

EA-Enclosure 26 – Letter dated December 28, 2009 granting WQC from LDEQ.

EA-Enclosure 27 – Letter dated January 27, 2010 granting CZC from LDNR.

EA-Enclosure 28 – Corps Memorandums for Record 1 and 2 referencing BP oil spill coordination with the resource agencies granting CZC and WQC.

EA-Enclosure 29 – Section 404 (b)(1) Evaluation Report for the MS/LA GIWW.

ACRONYMS AND ABBREVIATIONS

BA	Biological Assessment
BO	Biological Opinion
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Corps	United States Army Corps of Engineers
cys	Cubic Yards
CZC	Coastal Zone Consistency
EA	Environmental Assessment
EFH	Essential Fish Habitat
EJ	Environmental Justice
EO	Executive Order
ESA	Endangered Species Act
FONSI	Findings of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
GIWW	Gulf Intracoastal Waterway
HCD	Habitat Conservation Division
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
NAAQS	National Ambient Air Quality Standards
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
MLW	Mean Low Water
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLAA	Not Likely to Adversely Affect
NLAM	Not Likely to Adversely Modify
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PRD	Protected Resource Division
Register	National Register of Historic Places
SAV	Submerged Aquatic Vegetation
SHPO	State Historic Preservation Officer
TSS	Total suspended solids
USFWS	United States Fish and Wildlife Service
WQC	Water Quality Certification

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ENVIRONMENTAL ASSESSMENT

MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL MISSISSIPPI AND LOUISIANA PORTIONS OF THE GULF INTRACOASTAL WATERWAY FEDERALLY AUTHORIZED NAVIGATION PROJECT

HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI AND COASTAL LOUISIANA

1.0 INTRODUCTION

1.1 Location. The Gulf Intracoastal Waterway (GIWW) within Mississippi and Louisiana extends from the Alabama-Mississippi state line through Mississippi Sound to Lake Borgne Light No. 29 at the Rigolets in Louisiana (**Figure 1**).

1.2 Description of the Entire Authorized Project. The GIWW is a Federal shallow-draft navigation project that extends approximately 1,115 miles along the Gulf of Mexico coast from northern Florida to the southern tip of Texas. The waterway connects southern ports with the midwest, the east, and the Great Lakes region. The U.S. Army Corps of Engineers (Corps), Mobile District has jurisdiction over that portion of the GIWW from Rigolets, Louisiana to Apalachee Bay, Florida, a total of approximately 380 miles (**Figure 1**). The existing project, under auspices of the Corps, Mobile District, provides for a waterway 12 feet deep, 125 feet wide at Mean Low Water (MLW) from Apalachee Bay, Florida to Mobile Bay, Alabama and a channel 12 feet deep, 150 feet wide from Mobile Bay, Alabama to the Rigolets, Louisiana (Lake Borgne Light No. 29).

1.3 Description of the Proposed Action. The proposed action would involve maintenance dredging and disposal operations for the GIWW in the State of Mississippi and Louisiana. Approximately 300,000 cubic yards (cys) of clay, silt and sand are proposed for removal by hydraulic cutterhead dredge along various sections of the channel on an infrequent basis over the next five years. The material would be placed in previously certified open water disposal sites: 66, 65A, 65B and 65C (**Figures 2-6**). A summary of each disposal site is located in Table 6 at the end of this report located on page 34.

The existing project provides for a waterway 12 feet deep and 125 feet wide at MLW from Apalachee Bay, FL., to Mobile Bay, AL., and 12 feet deep and 150 feet wide from Mobile Bay, AL., to the Rigolets, LA. (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12 foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long. Plane of reference is MLW.

The proposed dredging action would be performed with a tolerance of up to two (2) feet of advance maintenance and 2 feet of paid allowable over-depth dredging. Maintenance dredging of soft-dredged material with a hydraulic cutterhead dredge may disturb the bottom sediments several feet deeper than the target depth due to the inaccuracies of the dredging process. An additional 3 feet of sediment below the 2-foot paid allowable dredging cut may be disturbed in the dredging process with minor amounts of material being removed.

Maintenance dredging and disposal would be performed on an as needed basis. The frequency of channel dredging at any one site and the associated time between the use of any given disposal area ranges on average once every 3 to 25 years.

In emergency conditions a barge mounted dragline or snagboat may be used to remove rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow for immediate passage of vessels until a hydraulic cutterhead dredge could be dispatched to restore project dimensions. Emergency disposal needs are infrequent and usually the result of storm incidents or barge groundings. Past experiences have shown that only a few areas would likely require such emergency action, but such actions may be required at any location along the waterway. In the event of an emergency, all necessary Federal and State agencies would be notified before commencement of work.

1.4 Purpose and Need for the Proposed Action. The purpose and need for the proposed action is to provide barge tows and other small craft that are not well suited for use in the Gulf of Mexico a secure and safe means of navigating the great inland rivers of the country. The GIWW has historically been a vital means for transporting heavy freight and continues to be one today.

Table 1 below shows the waterborne commerce for various reaches of this statement portion of the GIWW from 2003 to 2007.

**Table 1: Waterborne Commerce
Gulf Intracoastal Waterway Pensacola, FL to New Orleans, LA
Traffic (thousand short tons)**

Year	Pensacola Bay, FL to Mobile Bay, AL	Mobile Bay, AL to New Orleans, LA
2003	8,511	20,875
2004	8,289	21,808
2005	7,553	18,597
2006	7,873	18,885
2007	7,187	21,244
TOTAL	33,013	101,409
5 Year Average	7,883	20,281

Source: Waterborne Commerce of the United States: 2003-2007

Without the proposed action, the vessels utilizing the GIWW would be subjected to adverse navigational conditions caused by shoaling along various reaches of the project. This action would in turn eliminate a vital and economical link in a waterway that connects the Gulf coastal ports with the rest of the United States.

1.5 Authority. The existing project was authorized by the 1966 Rivers and Harbors Act (House Document 481, 89th Congress, 2nd Session) as amended and prior acts.

1.6 Environmental History. Pursuant to the National Environmental Policy Act (NEPA), this environmental assessment (EA) was prepared to update the resource description and to evaluate the potential impacts associated with the continued operation and maintenance of the GIWW Federal Navigation Project within the State of Mississippi and Louisiana. Related environmental documents include the following:

Corps, 2008. Operations and Maintenance of the Federal Navigation Projects within the Mississippi Sound Louisiana, Mississippi and Alabama, June 16, 2008.

Corps, 2007. Federally Authorized GIWW Project – Operation and Maintenance Louisiana, Mississippi, Alabama and Florida Biological Assessment (BA).

Corps, 1994. Statement of Findings for GIWW Project, Mississippi Portion, Hancock, Harrison and Jackson Counties, Mississippi, Maintenance Dredging and Placement Activities.

Corps, 1983. Environmental Assessment for Modifications to the Maintenance Plan as Presented in the Final Environmental Statement for Maintenance Dredging of the GIWW from Pearl River, Louisiana-Mississippi to Apalachee Bay, Florida December 1983. FONSI signed February 7, 1984.

Corps, 1976. Environmental Impact Statement for Maintenance Dredging of the GIWW from Pearl River, Louisiana-Mississippi to Apalachee Bay, Florida. Statement of Findings signed December 1, 1976.

These documents are hereby incorporated by reference.

The Rigolets section of the GIWW was last dredged in September-October 1966 according to dredging history records. The channel was dredged from -12 feet to a depth of -15.0 feet. Approximately 430,000 gross cubic yards (288,000 net) of silty-sandy material was removed by hydraulic pipeline dredge from the channel section. The material was placed in an open-water site adjacent to the channel in the State of Louisiana. There is no evidence on file that suggests water quality certification and coastal zone consistency for this portion of the GIWW or the open-water placement area were ever acquired.

2.0 ALTERNATIVES. NEPA defines a “no action” as the continuation of existing conditions in the affected environment without the implementation, or in the absence of the proposed action.

Inclusion of the “no action” alternative is prescribed by the Council on Environmental Quality (CEQ) regulations as the benchmark against which Federal actions are to be evaluated.

The implementation of the “no action” alternative would result in discontinuing project maintenance dredging to its authorized depths of -12 feet MLLW plus 2 feet of advanced maintenance and 2 feet of paid allowable over depth. This alternative would result in a waterway that would eventually fill with sediments and become unsafe and nonnavigable for commercial and recreational boats. Shoaling would develop at various times and places. This would forego the benefits of the waterway by eliminating a major link connecting the Gulf Coastal ports with the rest of the United States. Millions of tons of commodities, a large percentage of which are petroleum products or their derivatives, annually would likely have to be shipped via other means at a higher cost. Project abandonment would place an economic stress on the industrial and commercial investments already dependent on the project. Therefore, the “no action” alternative was deemed unacceptable and not considered further.

The proposed project is the continued operation and maintenance of the GIWW within the State of Mississippi and Louisiana. No modifications are being proposed. Alternatives to the proposed action were evaluated in existing environmental documents. As previous operation and maintenance activities of the project have proven to be effective, evaluation of additional alternatives was deemed not warranted at this time.

3.0 AFFECTED ENVIRONMENT

3.1 Fish and Wildlife Resources

Oyster Reefs. Oyster reefs of commercial importance are subtidal and form aggregates that cover thousands of acres throughout the Mississippi Sound. The oysters inhabit shallow estuarine waters during all life stages. The Mississippi Department of Marine Resources (MDMR) manages 17 natural oyster reefs. The areal extent of oyster reefs in Mississippi is estimated at approximately 10,000 to 12,000 acres, of which approximately 7,400 acres are located in western Mississippi Sound. Approximately 97 percent of the commercially harvested oysters in Mississippi come from the reefs in western Mississippi Sound, primarily from Pas Marianne, Telegraph, and Pass Christian reefs (MDMR 2009). Lake Borgne is particularly important as the site for some of Louisiana’s prime oyster grounds. Oyster reefs are particularly productive biological areas. The animals and plants, which are associated with the oyster reef community, are varied and numerous and include algae, sponges, hydroids, polychaetes, other mollusks, barnacles, bryozoans, tunicates, and a number of species of fish. Note: Many of the oyster reefs located in Mississippi and Louisiana were destroyed or severely damaged by Hurricane Katrina and Rita in 2005. Both States are currently investing a significant amount of resources to rebuild them.

Submerged Aquatic Vegetation. Mississippi Sound encompasses an area of 4,792 km² and contains 12,140 ha of submerged aquatic vegetation (SAV) (USEPA 1999). Seagrass represents the primary component of SAV. Approximately 810 ha of seagrass beds have been identified along coastal Mississippi (MDFWP, 2005). Seven species of seagrass can be found in the Gulf of Mexico. Mississippi coastal waters contain three submergent bed types: barrier island seagrass, widgeon grass, and American wildcelery beds. Widgeon grass beds occur in shallow,

moderate turbidity waters that are low in salinity. These beds occur in bays along bayous, and in mudflats and barrier island ponds. Size and distribution of widgeon grass beds have varied over time due to damage from hurricanes (MDFWP, 2005). SAVs serve as a vital nursery area for fish and shellfish, such as shrimp and crabs and as food for a variety of waterfowl.

Wetlands. Tidal marshes are located along the bay shorelines and the shoreline of the Mississippi Sound and Louisiana coast line. These marshes are typically bordered along the waters edge by a strip of salt marsh grass, *Spartina alterniflora*, with scattered stands of *S. cynosuroides*, *S. patens*, *Distichlis spicata*, and *Phragmites communis*. The majority of the marsh inside of this strip is composed of *Juncus roemerianus* (Swingle, 1971). Tidal marsh is most extensive in the Pascagoula and Pearl River area. They are also found in narrow fringes along bays, isolated bayous and along marsh islands in the sound. Wetlands and tidal marshes are rich in wildlife resources and provide nesting grounds and important stopovers for waterfowl and migratory birds, as well as spawning areas and valuable habitats for commercial and recreational fish.

Sediments. The sediments along the GIWW consist of sand to clays with various mixtures of sand, silt, and clay located throughout the channel. Sediments found along this portion of the GIWW in the Mississippi Sound are primarily composed of a mix of estuarine silty clay. Sediments are an important material affecting the physical, chemical and biological conditions for the environment. The natural sand and mud bottoms of the Mississippi Sound support a benthic infaunal population that contributes directly to the complex estuarine food web and provides important forage, spawning, and nursery areas for a variety of commercially and recreationally important fish and invertebrate species.

3.2 Terrestrial Wildlife. Animals inhabiting the open-waters within terrestrial habitats in the vicinity of the project include reptiles (alligators, turtles and snakes), small mammals (muskrat, nutria, and bats) and birds (Gulls, terns, sandpipers, plovers, stilts, skimmers, oystercatchers herons, egrets and ibises).

3.3 Benthos, Motile Invertebrates, and Fishes. The benthic community in the Mississippi Sound was classified by Vittor and Associates in a study of the Mississippi Sound and selected sites in the Gulf of Mexico (Vittor, 1982). A total of 437 taxa were collected at densities ranging from 1,097 to 35,537 individuals per square meter from the Mississippi Sound. 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. 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 polychaetes *Mediomastus spp.*, *Paraprionospio pinnata*, *Myriochele oculata*, polychaete worm *Owenia fusiformis*, *Lumbrineris spp.*, *Sigambra tentaculata*, the *Linopherus-Paraphinome* complex, and *Magelona cf. phyllisae*. The *phoronid*, *Phoronis sp.* and the *cumacean* *Oxyurostylis* also fit this category. *M. oculata* and *O. fusiformis* are predominate species in the Mississippi Sound. The numerically dominant species collected during the study were polychaete worm *M. californiensis* and *P. pinnata*.

The Mississippi Department of Environmental Quality (MDEQ) conducted yearly benthic invertebrate surveys in Mississippi Sound from 2000 through 2004. The results of these surveys identified 260 species (8,071 individuals) from 18 major classes (12 phyla) of marine benthic invertebrates taken in the areas close to the GIWW (MDEQ, 2006).

The fish community present in the vicinity of the GIWW navigation project represents a wide array of species from both near-shore and off-shore taxa. The majority of the fish species present are estuarine-dependent for part of their lifecycle. Typically, these species spawn in the Gulf of Mexico and the larvae are carried inshore to estuaries to mature (Corps, 1989). These small, immature forms (ichthyoplankton) are susceptible to flow regimes changes around the barrier islands where the surrounding grassbeds provide nursery grounds.

The major fisheries of the area include Gulf menhaden (*Brevoortia patronus*), striped mullet (*Mugil cephalus*), and Atlantic croaker (*Micropogonias undulatus*) (Corps 1989). All of these species are commercially important and the estuaries within the vicinity of the project site play a key role in their lifecycle and survival. Christmas and Waller (1973) reported 138 species of finfish taken from Mississippi Sound. The most abundant species was the bay anchovy (*Anchoa mitchilli*) which serve an important forage fish for many other fish species. The GIWW does not provide the only habitat necessary to maintain the existing population levels of the bay anchovy. Other areas in the Gulf of Mexico also provide the required habitat needed to maintain successful bay anchovy populations.

The most commercially important shellfish found in the area include the brown and white shrimp, blue crab, and American oyster (Swingle, 1971 and Swingle and Bland, 1974). Marine shrimp is by far the most popular seafood in the United States. There are many species of shrimp found in the Gulf of Mexico; however, only those of the family *Penaeidae* are large enough to be considered seafood. Brown shrimp (*Penaeus aztecus*), white shrimp (*P. setiferus*) and pink shrimp (*P. duorarum*) make up the bulk of Mississippi shrimp landings.

The life cycles of brown, white and pink shrimp are similar. They spend part of their life in estuaries, bays and the Gulf of Mexico. Spawning occurs in the Gulf of Mexico. One female shrimp releases 100,000 to 1,000,000 eggs that hatch within 24 hours. The postlarvae shrimp develop through several larval stages as they are carried shoreward by winds and currents. Postlarvae drift or migrate to nursery areas within shallow bays, tidal creeks, and marshes where food and protection necessary for growth and survival are available. There they acquire color and become bottom dwellers. If conditions are favorable in nursery areas, the young shrimp grow rapidly and soon move to the deeper water of the bays. When shrimp reach juvenile and subadult stages (3-5 inches long) they usually migrate from the bays to the Gulf of Mexico where they mature and complete their life cycles. Most shrimp will spend the rest of their life in the Gulf.

3.4 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 estuarine waters; shell, sand, silt and clay substrates; estuarine emergent wetlands; seagrass beds; oyster reefs and artificial fishing reefs. Within the project area EFH has been designated for managed species of red drum, reef fish, coastal migratory pelagics, shrimp, stone crab, and highly migratory species.

The following describes the preferred habitat, life history stages, and relative abundance of each EFH managed species likely to occur within the project area based on information provided by GMFMC (1998, 2004 and 2005) and Fishbase (2007).

Red Drum: Red drum occupy a variety of habitats, ranging from depths of 130 feet offshore to very shallow estuarine waters. Spawning occurs in the Gulf near the mouths of bays and inlets in the fall and winter months. Eggs hatch mainly in the Gulf, and larvae are transported into the estuary where they mature before moving back to the Gulf to spawn. Adult red drum use estuaries but tend to spend most of their time offshore as they age. They are found over a variety of substrates, including sand, mud, and oyster reefs, and can tolerate a wide range of salinities (GMFMC, 1998). Juvenile red drum are most abundant around marshes, preferring quiet, shallow, protected waters with muddy or grassy bottoms (Simmons and Breuer, 1962). Sub-adult and adult red drum prefer shallow bay bottoms and oyster reef substrates (Miles, 1950). Within coastal Mississippi, adult and juvenile red drums are common year-round.

Estuaries are also important to the prey species of red drum. This is essential to larvae, juvenile, and early adult red drum since they spend all of their time in the estuary. Larval red drum feed mainly on shrimp, mysids, and amphipods, while juveniles feed on more fish and crabs (Peters and McMichael, 1988). Adult red drum feed mainly on shrimp, blue crab, striped mullet, and pinfish.

Brown Shrimp: Brown shrimp eggs are demersal and occur offshore. The larvae occur offshore and begin to migrate to estuaries as postlarvae. Postlarvae migrate through passes on flood tides at night mainly from February to April with a minor peak in the fall. In estuaries, brown shrimp postlarvae and juveniles are associated with shallow vegetated habitats but also are found in over silty sand and non-vegetated mud bottoms. The density of late postlarvae and juveniles is highest in marsh edge habitat and submerged vegetation, followed by tidal creeks, inner marsh, shallow open water and oyster reefs; in unvegetated areas, muddy substrates seem to be preferred. Juveniles and sub-adults of brown shrimp occur from secondary estuarine channels out to the continental shelf but prefer shallow estuarine areas, particularly the soft, muddy areas associated with plant-water interfaces. Sub-adults migrate from estuaries at night on ebb tide of the new and full moons. Adult brown shrimp occur in neritic Gulf waters (i.e., marine waters extending from mean low tide to the edge of the continental shelf) and are associated with silt, muddy sand, and sandy substrates (GMFMC, 1998). Brown shrimp are common to highly abundant throughout coastal Mississippi and Louisiana year-round.

Larval shrimp feed on phytoplankton and zooplankton. Postlarvae feed on phytoplankton,

epiphytes, and detritus. Juveniles and adults prey on amphipods, polychaetes, and chironomid larvae in addition to algae and detritus (Pattillo et al., 1997).

White Shrimp: White shrimp are offshore and estuarine dwellers and are pelagic or demersal, depending on life stage. Their eggs are demersal and larval stages planktonic, both occurring in nearshore marine waters. Postlarvae migrate through passes mainly from May to November with peaks in June and September. Migration is in the upper 7 feet of the water column at night and at middepths during the day. Postlarval white shrimp become benthic once they reach the estuary, where they seek shallow water with muddy-sand bottoms high in organic detritus or rich marsh where they develop into juveniles. Postlarvae and juveniles inhabit mostly mud or peat bottoms with large quantities of decaying organic matter or vegetative cover. Densities are usually highest in marsh edges and SAVs, followed by marsh ponds and channels, inner marsh, and oyster reefs. White shrimp juveniles prefer salinities of less than 10 parts per thousand and can be found in tidal rivers and tributaries. As juveniles mature, they move to coastal areas where they mature and spawn. Adult white shrimp move from estuaries to coastal areas, where they are demersal and inhabit soft mud or silt bottoms (GMFMC, 1998). White shrimp are common to abundant throughout coastal Mississippi and Louisiana year-round.

Larval shrimp feed on phytoplankton and zooplankton. Postlarvae feed on phytoplankton, epiphytes, and detritus. Juveniles and adults prey on amphipods, polychaetes, and chironomid larvae but also on algae and detritus (Pattillo et al., 1997).

Gray snapper: Gray snapper are demersal mid-water dwellers inhabiting marine, estuarine, and riverine habitats. Gray snapper prefer SAV beds, mangroves, and coral reefs over rocky, sandy and muddy bottoms. Spawning occurs offshore from June to August around artificial structures and shoals. Eggs are pelagic and larvae are planktonic, both occurring in offshore shelf waters and near coral reefs. Postlarvae migrate into the estuaries and are most abundant over shoalgrass and manatee grass beds. Juveniles seem to prefer turtlegrass beds, SAV meadows, marl bottoms, and mangrove roots within estuaries, bayous, channels, SAV beds, marshes, mangrove swamps, ponds and freshwater creeks (GMFMC, 1998). Juvenile gray snapper are common in coastal Mississippi August to January.

This species is classified as an opportunistic carnivore at all life stages (Pattillo et al., 1997). In the estuary, juvenile gray snapper feed on shrimp, larval fish, amphipods, and copepods. At offshore reefs, adults feed primarily on fish and secondarily on crustaceans; larger gray snapper will eat proportionately more fish (GMFMC, 1998).

Spanish mackerel: Spanish mackerel are pelagic, occurring at depths to 250 feet throughout the coastal zone of the Gulf of Mexico. Adults are usually found along coastal areas, extending out to the edge of the continental shelf; however, they also display seasonal migrations and will inhabit high salinity estuarine areas at times. The occurrence of adults in Gulf estuaries is infrequent and rare. Spawning occurs in offshore waters during May through October. Nursery areas are in estuaries and coastal waters year-round. Larvae are most often found offshore from depths of 30 to 275 feet. Juveniles are found offshore, in the surf area, and sometimes in estuarine habitats. Juveniles prefer marine salinities and are not considered estuarine-dependent. The substrate preference of juveniles is clean sand; the preferences of other life stages are

unknown (GMFMC, 1998). Juvenile Spanish Mackerel are common in the Mississippi Sound February to October.

Estuaries are important habitats for most of the major prey species of Spanish mackerel. They feed throughout the water column on a variety of fishes, especially herrings. Squid, shrimp, and other crustaceans are also eaten. Most of their prey species are estuarine-dependent, spending all or a portion of their lifecycle in estuarine habitat.

Sharks species: 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).

The four most common inshore shark species feed primarily on fish including: menhaden, spot, croaker, speckled trout, and hardhead catfish. In addition, researchers have found crabs in the stomachs of bonnethead shark and stingrays and smaller sharks in the stomachs of blacktip and bull sharks.

Atlantic Sharpnose shark. Common in bays and estuaries often entering rivers. Also found in offshore waters at depths of about 1,500 feet, generally less than 329 feet. Feeds mainly on small bony fishes, including wrasses, but also marine snails, squid and shrimp.

Blacktip shark. An inshore and offshore shark found on or adjacent to continental and insular shelves. Often off river mouths and estuaries, muddy bays, mangrove swamps, lagoons, and coral reef drop-offs. Bottom associated or pelagic. Young are common along beaches. Blacktip sharks have been captured in high turbidity areas and over bottom types dominated by mud/silt/clay (Carlson *et al.*, 2003). Active hunter in mid-water. Feeds mainly on pelagic and benthic fishes, also small sharks and rays, cephalopods and crustaceans.

Finetooth shark. Commonly found close inshore. Finetooth sharks have been captured in high turbidity areas and over bottom types dominated by mud/silt/clay (Carlson *et al.*, 2003). Forms large schools. Feeds on small bony fishes and cephalopods.

Bull shark. Bull sharks are coastal and freshwater sharks inhabiting shallow waters especially in bays, estuaries, rivers, and lakes. Readily penetrates far up rivers and hypersaline bays. Capable of covering great distances (up to 180 kilometers in 24 hours), moving between fresh and brackish water at random. Adults are often found near estuaries and freshwater inflows to the sea. Young enter rivers and may be found hundreds of kilometers from the sea. Bull sharks feed on bony fishes, other sharks, rays, mantis shrimps, crabs, squid, sea snails, sea urchins,

mammalian carrion, sea turtles, and occasionally garbage.

The species managed by the Gulf of Mexico Fishery Management Council are listed in **Table 2**.

Table 2: Fishery Management Plans and Managed Species for the Gulf of Mexico (NMFS 2010).	
<p>Shrimp Fishery Management Plan brown shrimp - <i>Farfantepenaeus aztecus</i> pink shrimp - <i>F. duorarum</i> royal red shrimp - <i>Pleoticus robustus</i> white shrimp - <i>Litopenaeus setiferus</i></p>	<p>Stone Crab Fishery Management Plan FL stone crab - <i>Menippe mercenaria</i> gulf stone crab - <i>M. adina</i></p>
<p>Red Drum Fishery Management Plan red drum - <i>Sciaenops ocellatus</i></p>	<p>Spiny Lobster Fishery Management Plan spiny lobster - <i>Panulirus argus</i> slipper lobster - <i>Scyllarides nodife</i></p>
<p>Reef Fish Fishery Management Plan almaco jack - <i>Seriola rivoliana</i> anchor tilefish - <i>Caulolatilus intermedius</i> banded rudderfish - <i>S. zonata</i> 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 bivittatum</i> gag grouper - <i>M. microlepis</i> goldface tilefish - <i>C. chrysops</i> goliath grouper - <i>Epinephelus itajara</i> gray snapper - <i>L. griseus</i> gray triggerfish - <i>Balistes capriscus</i> greater amberjack - <i>S. dumerili</i> hogfish - <i>Lachnolaimus maximus</i> lane snapper - <i>Lutjanus synagris</i> lesser amberjack - <i>S. fasciata</i> mahogany snapper - <i>L. mahogoni</i> 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> 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. nigrilus</i> wenchman - <i>Pristipomoides aquilonaris</i> yellowedge grouper - <i>E. lavolimbatus</i> yellowfin grouper - <i>M. venenosa</i> yellowmouth grouper - <i>M. interstitialis</i> yellowtail snapper - <i>Ocyurus chrysurus</i></p>	<p>Coral and Coral Reef Fishery Management Plan varied coral species and coral reef communities comprised of several hundred species</p> <p>Coastal Migratory Pelagic Fishery Management Plan cobia - <i>Rachycentron canadum</i> king mackerel - <i>Scomberomorus cavalla</i> Spanish mackerel - <i>S. maculatus</i></p> <p>Species in the Fishery but Not in the Mgt Unit cero - <i>Scomberomorus regalis</i> little tuny - <i>Euthynnus alletteratus</i> dolphin - <i>Coryphaena hippurus</i> bluefish - <i>Pomatomus saltatrix (Gulf of Mexico only)</i></p>

Table 3: Species Managed Species in the Gulf of Mexico under Federally Implemented Fishery Management Plans (NMFS 2010).

Tuna

albacore – *Thunnus alalunga*
 Atlantic bigeye – *T. obesus*
 Atlantic bluefin – *T. thynnus*
 Atlantic yellowfin – *T. albacares*
 skipjack – *Katsuwonus pelamis*

Swordfish

swordfish – *Xiphias gladius*

Billfish

blue marlin – *Makaira nigricans*
 sailfish – *Istiophorus platypterus*
 white marlin – *T. albidus*
 longbill spearfish – *Tetrapturus pfluegeri*

Large Coastal Sharks

basking shark – *Cetorhinus maximus*
 great hammerhead – *Sphyrna mokarran*
 scalloped hammerhead – *S. lewini*
 smooth hammerhead – *S. zygaena*
 white shark – *Carcharodon carcharias*
 nurse shark – *Ginglymostoma cirratum*
 bonnethead shark – *Sphyrna tiburo*
 blacknose shark – *C. acronotus*
 blacktip shark – *C. limbatus*
 bull shark – *C. leucas*
 Caribbean reef shark – *C. perezi*
 dusky shark – *C. obscurus*
 Galapagos shark – *C. galapagensis*
 lemon shark – *Negaprion brevirostris*
 narrowtooth shark – *C. brachyurus*
 night shark – *C. signatus*
 sandbar shark – *C. plumbeus*
 silky shark – *C. falciformis*
 spinner shark – *C. brevipinna*
 tiger shark – *Galeocerdo cuvieri*
 tiger shark – *Galeocerdo cuvieri*
 bigeye sand tiger – *Odontaspis noronhai*
 sand tiger shark – *O. taurus*
 whale shark – *Rhinocodon typus*

Small Coastal Sharks

Atlantic angle shark – *Suatina dumerili*
 bonnethead shark – *Sphyrna tiburo*
 Atlantic sharpnose – *R. terraenovae*
 blacknose shark – *C. acronotus*
 Caribbean sharpnose shark – *R. porosus*
 finetooth shark – *C. isodon*
 smalltail shark – *C. porosus*

Pelagic Sharks

bigeye sixgill shark – *Hexanchus vitulus*
 sevengill shark – *Heptranchias perlo*
 sixgill shark – *H. griseus*
 longfin mako shark – *Isurus paucus*
 porbeagle shark – *Lamna nasus*
 shortfin mako shark – *I. oxyrinchus*
 blue shark – *Prionace glauca*
 oceanic whitetip shark – *C. longimanu*
 bigeye thresher shark – *Alopias superciliosus*
 common thresher shark – *A. vulpinus*

3.5 Threatened and Endangered Species. Several species of threatened and endangered marine mammals, turtles, fish and birds occur in the Gulf of Mexico off the coast of Mississippi and Louisiana. The National Oceanic and Atmospheric Administration (NOAA) lists the following species in **Table 4** as either threatened and/or endangered that may potentially occur within the project area:

Table 4: Threatened and Endangered Species (NOAA 2010)

LISTED SPECIES	SCIENTIFIC NAME	STATUS	DATE LISTED
Marine Mammals			
Blue Whale	<i>Balaenoptera musculus</i>	Endangered	12/2/1970
Finback Whale	<i>Balaenoptera physalus</i>	Endangered	12/2/1970
Humpback Whale	<i>Megaptera novaengliae</i>	Endangered	12/2/1970
Sei Whale	<i>Balaenoptera borealis</i>	Endangered	12/2/1970
Sperm Whale	<i>Physeter macrocephalus</i>	Endangered	12/2/1970
North Atlantic Right Whale	<i>Eubalaena glacialis</i>	Endangered	12/2/1970
West Indian Manatee	<i>Trichechus manatus</i>	Endangered	3/11/1967
Turtles			
Green Sea Turtle	<i>Chelonia mydas</i>	Threatened	7/28/1978
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	Endangered	6/2/1970
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	Endangered	12/2/1970
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	Endangered	6/2/1970
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Threatened	7/28/1978
Fish			
Gulf Sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	9/30/1991

The U.S. Fish and Wildlife Service (USFWS) lists the following species in **Table 5** as either threatened and/or endangered that may occur within Coastal Louisiana, Hancock, Harrison and Jackson County, Mississippi.

:

Table 5: Federally Listed Threatened and Endangered Species in Hancock, Harrison and Jackson County, MS and Coastal Louisiana (USFWS 2010)
T – Louisiana black bear (<i>Ursus a. luteolus</i>)
E – West Indian manatee (<i>Trichechus manatus</i>)
T – Inflated heelsplitter (<i>Potamilus inflatus</i>)
* – Bald Eagle (<i>Haliaeetus leucocephalus</i>)
T – Piping plover (<i>Charadrius melodus</i>)
T – Gopher tortoise (<i>Gopherus polyphemus</i>)
T – Loggerhead sea turtle (<i>Caretta caretta</i>)

E – Kemp's ridley sea turtle (<i>Lepidochelys kempi</i>)
T – Green sea turtle (<i>Chelonia mydas</i>)
TCH – Gulf sturgeon (<i>Acipenser oxyrinchus desotoi</i>)
E – Louisiana quillwort (<i>Isoetes louisianensis</i>)
C – Black pine snake (<i>Pituophis melanoleucus ssp. Lodingi</i>)
E – Red-cockaded woodpecker (<i>Picoides borealis</i>)
E – Mississippi gopher frog (<i>Rana capito sevosa</i>)
E – Alabama red bellied turtle (<i>Psuedemys alabamensis</i>)
T – Eastern indigo snake (<i>Pituophis melanoleucus</i>)
T – Yellow-blotched map turtle (<i>Graptemys flavimaculata</i>)
Key to codes on list: * – Bald Eagle is now delisted but their nest trees are protected by federal law. E – Endangered C – Candidate Species T – Threatened TCH – Listed with Critical Habitat

Detailed species accounts and status are contained in the Corps, Mobile District's Federally Authorized GIWW Navigation Project – Operation and Maintenance Louisiana, Mississippi, Alabama and Florida Biological Assessment (BA) dated March 22, 2007.

3.6 Water Quality. Water quality within Mississippi Sound is influenced by several factors, including the discharge of freshwater from rivers, seasonal climate changes, and variations in tide and currents. The primary driver of water quality is the rivers that feed into the Sound. Freshwater inputs from 172,160 acres of watersheds provide nutrients and sediments that serve to maintain productivity both in the Sound and in the extensive salt marsh habitats bordering the estuaries of the Sound. The salt marsh habitats act to regulate the discharge of nutrients to coastal waters and serve as a sink for pollutants. Suspended sediments enter the Sound from freshwater sources, but are hydraulically restricted due to the barrier islands. The barrier islands, combined with the Sound's shallow depth and mixing from wind, tides and currents, promote re-suspension of sediments. These suspended sediments give Mississippi Sound a characteristic brownish color (MDEQ, 2006b).

Dynamic features such as the Loop Current, eddies, and river plumes create variations in temperature, salinity, and water density. Temperature and Salinity strongly influence chemical, biological, and ecological patterns and processes. Differences in water density affect vertical ocean currents and may also concentrate buoyant material such as detritus and plankton. Greatest stratification in the water column occurs in summer. There is a general trend for increasing salinity with depth. This results from the combination of denser water from outside the Sound moving along the channel toward shore and less dense freshwater overrunning at the surface (Thompson, 1999).

3.7 Hazardous Material. The Corps is obligated under Engineer Regulation 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste contamination in the vicinity of the proposed action. Statewide, both the

Mississippi and Louisiana Departments of Environmental Quality oversee the assessment and remediation of both abandoned and responsible party sites where hazardous and toxic substances have been released to the environment. No known hazardous materials are present within the project area or immediate vicinity.

3.8 Air Quality. Existing air quality in coastal Mississippi and Louisiana counties were 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. The coastal counties in the vicinity of the project are all in attainment for all NAAQS (Environmental Protection Agency, 2008).

3.9 Aesthetics. The coastal region of Mississippi and Louisiana in the vicinity of the project is aesthetically pleasing. The surrounding lands include national, state and county parks, in addition to several urbanized coastal areas.

3.10 Noise. Noise levels in the area are typical of recreational, boating, and fishing activities. Noise levels fluctuate with the highest levels usually occurring during the spring and summer months due to increased recreational activities. Marine shipping activities also produce underwater shipping noise, typically low—frequency sound in the range of 20-500 hertz. Shipping to the ports of Louisiana and Mississippi includes approximately 8,000 to 9,000 foreign cargo vessel trips per year, and shipping traffic throughout the GIWW exceeds 700,000 vessels per year. Low-frequency sound travels farther underwater than high-frequency sound, so underwater shipping noise from traffic in the GIWW extends beyond the immediate vicinity of the channel (CH2MHILL, 2007).

3.11 Cultural Resources. Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and implementing regulations 36 CFR Part 800 requires consultation with other agencies to avoid or minimize adverse effect on historical, architectural, archaeological, and cultural resource. In order to ensure compliance, the National Register of Historic Places (Register) has been consulted and no properties listed on, being nominated to or that have been determined eligible for the Register are located in the vicinity of the proposed work. Since the area has been previously dredged, the potential for submerged cultural resources is low. The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and disposal areas were constructed and operated prior to the enactment of the NHPA. In 1979, the Corps, Mobile District, analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations within 36 Code of Federal Regulation (CFR) 800, in order to ensure compliance with NHPA. This analysis was conducted as part of the aforementioned EIS from 1976. No cultural resources were found within the dredged material disposal areas or channel areas. No sites listed on the Register were located within the project area.

4.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

4.1 Fish and Wildlife Resources.

Oyster Reefs. No significant adverse impacts to oyster reefs from the continued operation and maintenance of the GIWW in Mississippi or Louisiana were identified in this evaluation. The closest oyster reefs are located more than 2,000 feet from any open water placement activities associated with this project with most occurring more than 3,000 feet from discharge (**Figures 2-5**).

Submerged Aquatic Vegetation. No significant impacts to the SAVs were identified in this evaluation. The closest known SAVs are located over a mile from open water placement activities associated with this project and no SAVs are located within the expected 400-foot turbidity mixing zone of channel dredging.

Wetlands. No impacts to wetlands are expected from the continued operation and maintenance of the GIWW in Mississippi or Louisiana. There are no upland dredged material management areas on this portion of the GIWW and the project is too far away from shore to impact any coastal marshlands.

Sediments. The sediment quality and texture of the channel dredged material are expected to be homogenous to that existing in the dredged material management areas, due to their close proximity to the channel and the fact that these areas have historically received dredged material from the adjacent reaches of the GIWW. Placement of a large quantity of fine-grained sediment in Mississippi Sound will temporarily have an adverse impact to EFH and other estuarine resources. However, over a ten-year period it is not expected to have any long-term adverse impacts.

In addition, the Section 404(b)(1) Evaluation Report concluded that the proposed maintenance and dredging action will not jeopardize or adversely impact any oyster reefs, SAVs, wetlands or other critical habitat (**Enclosure 28**).

4.2 Terrestrial Wildlife. As a result of this evaluation, no adverse impacts to the terrestrial wildlife located in the vicinity of project were identified. The proposed work would create disturbance to species utilizing the terrestrial habitats within on-shore equipment staging areas. This would mainly involve short-term disturbance from equipment, vehicles and personnel movements for the duration of work. However, these species are mobile and would generally avoid the area during use.

4.3 Benthos, Motile Invertebrates, and Fishes. There would be temporary disruption of the aquatic community caused by the maintenance dredging and open water placement. Non-motile benthic fauna within the area would be destroyed by dredging and open water placement operations, but should repopulate upon project completion. Some of the motile benthic and pelagic fauna, such as crabs, shrimp, and fishes are able to avoid the disturbed area and should return shortly after the activity is completed. Larval and juvenile stages of these forms may not be able to avoid the activity due to limited mobility.

The materials that will be dredged from the project area are homogenous with those that will remain in the channel and, therefore, no alteration of habitat composition is occurring. If sediment type is not changed as a result of project activities, recolonization can be expected with the similar species returning to the disturbed areas (Stickney, 1984). The area will remain a shallow-water (defined as depths shallower than 46 feet) neritic zone that can support sub-littoral benthic biota. Because similar habitat, in terms of both sediment composition and depth, will be present pre- and post-dredging, it is concluded that the benthic biota in the channel will have the ability to recover and re-colonize.

Rates of benthic community recovery observed after dredged material placement ranged from a few months to several years. The relatively species-poor benthic assemblages associated with low salinity estuarine sediments can recover in periods of time ranging from a few months to approximately one year (Leathem et al., 1973; McCauley et al., 1976 and 1977; Van Dolah et al. 1979 and 1984; Clarke and MillerWay, 1992), while the more diverse communities of high salinity estuarine sediments may require a year or longer (e.g. Jones, 1986; Ray and Clarke, 1999).

Open water placement activities would utilize thin layer disposal methods (< 12 inches) where practicable and feasible to minimize impacts by allowing populations of small, shallow-burrowing infauna with characteristically high reproductive rates and wide dispersal capabilities to recover quickly. Deposition of relatively thin layers of dredged material (<10 centimeter, 4 inches) can minimize impacts by allowing many populations of small, shallow-burrowing infauna with characteristically high reproductive rates and wide dispersal capabilities to recover quickly. Deposits greater than 20-30 cm (8-12 in) generally eliminate all but the largest and most vigorous burrowers (Maurer et al., 1978). The sediment quality and texture of the channel dredged material are expected to be homogenous to that existing in the disposal areas, due to their close proximity to the channel and the fact that these areas have historically received dredged material from the adjacent reaches of the GIWW. Placement of material similar to the ambient sediments (e.g., sand on sand or mud on mud) has been shown to produce less severe, long-term impacts (Maurer et al. 1978, 1986).

Temporary loss of benthic invertebrate populations would occur within the project footprint of the channel and open water disposal areas. These areas combined comprise less than 0.2% of estuarine water bottom of the state within the Mississippi Sound. It should also be noted that dredging and disposal along the entire channel length in Mississippi and Louisiana would not occur within the same dredging cycle (year). Given this and the fact that the average dredging cycle of any one location is 3 years or greater; sufficient time for an area to recover is expected.

Several studies of turbidity from total suspended solids (TSS) associated with dredging operations have concluded that dredging had no substantial effects on nekton (Ritchie, 1970; Stickney, 1972; Wright, 1978); however, other studies have shown that elevated TSS levels and prolonged exposure can suffocate and reduce growth rates of adult and juvenile nekton and reduce viability of eggs (Moore, 1977; Stern and Stickle, 1978). Detrimental effects are generally recognized at TSS concentrations greater than 500 milligrams per liter (mg/L) and for durations of continuous exposure ranging from several hours to a few days. Turbidities exceeding 500 mg/L have been observed around maintenance dredging and placement operations (EH&A,

1978), and such turbidities may affect some aquatic organisms near the active dredges. In a study in Corpus Christi Bay, Schubal et al. (1978) reported TSS values greater than 300 mg/L but only in a relatively small area near the bottom. They also found that TSS from maintenance dredging in Corpus Christi Bay is not greater than that from shrimping and affects the bay for much shorter time periods. In a study of the Laguna Madre, Sheridan (1999) found elevations in turbidity only over the subtidal placement material fluid mud pile. In this study they found that even 16.5 feet from the edge of the placed material, turbidity was not statistically greater than that 1 kilometer or more away. May (1973) found that TSS was reduced by 92 percent within 100 feet of the discharge point, by 98 percent at 200 feet, and that concentrations above 100 mg/L were seldom found beyond 400 feet from the point of placement. Elevated turbidities during construction and maintenance dredging may affect some aquatic organisms near the dredging activity; however, turbidities in open-water habitats can be expected to return to near ambient conditions within a few hours after dredging ceases or moves out of a given area. Schidler (1984) reports similar TSS levels from dredging and storm events. Overall, motile organisms are mobile enough to avoid highly turbid areas (Hirsch et al., 1978). Under most conditions, fish and other motile organisms are only exposed to localized suspended-sediment plumes for short durations (minutes to hours) (Clarke and Wilber, 2000).

Due to the phased nature of the channel maintenance, the small area (percentage wise) of ecosystem that will be affected at a given point in time and the use of thin layer open water disposal methods where practicable and feasible, no significant long-term impacts to the benthos, motile invertebrates, and fishes are expected to occur as a result of the proposed action.

4.4 EFH. Dredging to maintain the GIWW would temporarily adversely affect the EFH in the vicinity of the proposed action. However, there is ample habitat available in the vicinity to accommodate these temporarily displaced animals and any impacts would be minor. EFH for adult and juvenile brown and white shrimp; red drum; as well as adult gray snapper, Spanish mackerel and several species of shark occurs within the vicinity of the project. No estuarine emergent wetlands, oyster reefs, or SAVs would be adversely affected by the proposed action. No mitigation would be required for the temporary disruptions to the EFH, as the fish would move out of the area during dredging activities and would be able to return to the channel area after activities cease. Dredging could cause minor, localized disruptions to seasonal shrimp distributions in the vicinity of the dredge. The loss of organisms would be negligible and could be mitigated by timing dredging operations to avoid peak migration periods. Based on the size of the Mississippi Sound, only a small fraction of this total area would likely be affected during any single routine maintenance dredging event. Initial placement operations would cover benthic organisms with dredged material. However, as detailed in Section 4.3 of this assessment, no significant long-term impact to this resource is expected as result of this action.

Notwithstanding the potential harm to some individual organisms, no significant impacts to managed species of finfish or shellfish populations are anticipated from the maintenance dredging and placement operations. The public notice and the effects determination of the EA were forwarded to the NMFS Habitat Conservation Division (HCD) for review and comment (**Enclosures 8, 9 and 10**). NMFS HCD sent a letter dated March 31, 2008 to the Corps, Mobile District stating that “the large quantity of fine-grained sediment being placed, unconfined, in Mississippi Sound would result in adverse impacts to EFH and other estuarine resources....

species diversity of non-motile benthic species may never fully recover to pre-project levels” (**Enclosure 15**). The Corps, Mobile District believes that due to the phased nature of the channel maintenance and the small area (percentage wise) of ecosystem that would be affected at a given point in time no significant long-term EFH impacts are expected to occur.

4.5 Threatened and Endangered Species. Through consultation with the NMFS, Protected Resource Division (PRD) and the United States Fish and Wildlife Service (USFWS) the Corps, Mobile District has determined that the following threatened and endangered species: Gulf sturgeon; West Indian manatee; and the loggerhead, green and Kemp’s ridley sea turtles may be affected by the continued operation and maintenance of the GIWW within the States of Mississippi and Louisiana. The Corps, Mobile District assessed the potential impacts of the proposed action on threatened and endangered species and known designated critical habitat areas within the action area in a BA dated March 22, 2007. Based on this assessment the Corps, Mobile District determined that no federally-protected species or designated critical habitat were likely to be adversely affected as a result of the proposed project. A letter requesting concurrence with the District’s Not Likely to Adversely Affect (NLAA) and Not Likely to Adversely Modify (NLAM) determination was sent to the NMFS PRD and USFWS on April 19, 2007 (**Enclosures 1 & 2**). The USFWS Louisiana Field Office (LFO) concurred, by letter dated May 18, 2007 that the proposed project would NLAA most of the federally listed species or their critical habitat. However, the LFO recommended two additional West Indian manatee standard conditions to further reduce potential impacts: 1) request that the Corps require vessels to operate at “no wake/idle” speeds within 100 yards of the active work zone if a manatee is sighted within 100 yards of the active work zone; 2) request that the Corps notify the LFO and Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (**Enclosure 3**). The Corps, Mobile District believes that if the Standard Manatee Construction Conditions are implemented during dredging operations, potential impacts to West Indian Manatee would be minimized. The USFWS Mississippi Field Office responded by letter dated May 30, 2007 to the BA expressing concern for the Gulf sturgeon in Mississippi. They stated that the decline of the Gulf sturgeon is primarily due to limited access to migration routes and historic spawning areas, habitat modification, and water quality degradation. The GIWW lies within the Critical Habitat of the Gulf Sturgeon identified as Unit 8. Although the Service is concerned regarding potential impacts to the sturgeon and its designated Critical Habitat, the NMFS retains primary responsibility for the sturgeon in all marine units (**Enclosure 5**). NMFS PRD concurred with the Corps, Mobile District’s determination on a NLAA threatened and endangered species and NLAM designated critical habitat determination, under their purview by letter dated October 23, 2007 (**Enclosure 6**).

To reduce the likelihood of take the Corps, Mobile District has agreed to incorporate the following conditions during operations and maintenance dredging of the GIWW with Mississippi and Louisiana:

- Dredging will be conducted utilizing hydraulic or mechanical methods reducing the potential for entrainment of Gulf sturgeon and sea turtles associated with hopper dredges.
- During active hydraulic dredging operations the cutterhead will be located within the substrate.

- Thin layer disposal will be utilized when practicable and feasible.
- If threatened or endangered species are observed during dredging operations, the operation will be temporarily stopped until the species has left the area.
- Standard Manatee Construction Conditions will be followed during operations.
- If manatees are encountered at the project site in Louisiana, the USFWS Louisiana Field Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries (225/765-2800) will be notified.

4.6 Water Quality. The dredging and disposal operations are expected to create some degree of construction-related turbidity in excess of the natural condition in the proximity of the channel and placement site. Impacts from sediment disturbance during these operations are expected to be temporary, minimal and similar to conditions experienced during past routine operation and maintenance of the GIWW. Suspended particles are expected to settle out within a short time frame (hours), with no long-term measurable effects on water quality. No measurable changes in temperature, salinity, PH, hardness, oxygen content or other chemical characteristics are expected. The Corps, Mobile District requested water quality certification from both MDEQ and Louisiana Department of Environmental Quality (LDEQ). MDEQ issued water quality certification (WQC) on March 24, 2008 (**Enclosure 14**). LDEQ issued WQC on December 28, 2009 (**Enclosure 26**).

In addition, MDEQ granted a 750-foot mixing zone for maintenance dredging operations with an outside turbidity limit of 50 NTUs (**Enclosure 14**). During construction, turbidity levels would be monitored at the dredge and the open water placement sites, to ensure compliance with Best Management Practices (BMPs).

4.7 Hazardous Materials. No hazardous materials are known to exist in the project area. The contractor would be responsible for proper storage and disposal of any hazardous material, such as oils and fuels used during the dredging and disposal operation.

4.8 Air Quality. The proposed action would have no significant long-term affect on air quality. Air quality in the immediate vicinity of the construction 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 area. The proposed action would not affect the attainment status of the project area or region.

4.9 Aesthetics. Only temporary degradation to the aesthetic environment would occur as a result of the proposed action. Impacts would primarily occur as a result of the physical presence of heavy equipment. Some minor increases in turbidity may be noted in the immediate vicinity during dredging operations, but these increases would be minor and short term in nature.

4.10 Noise. Noise impacts from project equipment are expected to increase in the vicinity during maintenance dredging work. These impacts would be short term and restricted to the immediate vicinity of the activity and only for a few days. Sensitive noise receptors (a residential area and school) are located several miles from the proposed action. Mechanical dredging produces between 58 and 70dB for a person located 50 feet from the operation. Hopper dredging ships produce an average of 82 dB. Underwater noise levels range from 160 to 180 dB. The noise is not at levels known to cause any injury, temporary or permanent, to marine life, and would not remain in any single location for longer than a few days (CH2MHILL, 2007).

Past maintenance dredging operations along the GIWW and other areas have occurred at depths and durations similar to those of the proposed action. Marine species in the vicinity of the channel and elsewhere in the Sound have coexisted with ongoing maintenance dredging operations. Therefore, any noise impacts from the proposed action would be temporary and minor. No long-term increase in noise would occur in or around the project area.

4.11 Cultural Resources. In compliance with the NHPA, coordination with both the Mississippi and Louisiana State Historic Preservation Officer (SHPO) was conducted. No cultural resources are known to occur in the open water disposal or channel areas. No sites listed on the Register are located within the project area.

The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and disposal areas were constructed and operated prior to the enactment of the NHPA, which was signed into law in 1966. In 1979, the Corps, Mobile District, analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations within 36 Code of Federal Regulation (CFR) 800, in order to ensure compliance with NHPA. This analysis was conducted as part of the aforementioned EIS from 1976. No cultural resources were found within the upland disposal, open-water disposal or channel areas. No sites listed on the Register were located within the project area. As the lead Federal agency the Corps, Mobile District, determined that the continued operation and maintenance activities would have no effect on historic properties.

The present project includes no new action as defined by the NHPA. The Corps, Mobile District has determined that maintenance dredging operations within existing channels and utilizing existing disposal areas has no potential to cause effects to historic properties as per 32CFR 800.3(a)(1). The Mississippi SHPO concurred with the Corps, Mobile District's findings via letter dated March 14, 2008 (**Enclosure 12**). The Louisiana SHPO concurred with the Corps, Mobile District's findings via letter dated December 15, 2009 (**Enclosure 25**).

5.0 CUMULATIVE EFFECTS SUMMARY. Cumulative effects 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, regardless of what agency (Federal or nonfederal) or person undertakes such other actions. This section analyzes the proposed action as well as any connected, cumulative, and similar existing and potential actions occurring in the area and surrounding the site.

The Corps is required by Congress to maintain the federally authorized GIWW to a depth of -12 feet MLLW plus 2 feet of advanced maintenance and 2 feet of allowable paid over depth to provide for safe navigation by commercial and recreational vessels. The location of a disposal area at or near this site is essential for future dredging events to meet this Congressional mandate. Future development of the surrounding area (on shore) would likely proceed under the “no action” or the “preferred action” plan as development in the immediate area is not specific to the proposed action but connected with existing local attractions and urbanization of the area. Those future plans could be considered through a separate NEPA process at that time. Therefore, dredging of the GIWW is expected to have no significant direct cumulative impacts to biological resources, water chemistry, or oceanographic resources.

6.0 OTHER CONSIDERATIONS

6.1 Coastal Zone Management Act of 1972. The Corps, Mobile District determined that the proposed action is consistent with both the Mississippi and Louisiana Coastal Management Programs to the maximum extent practicable. Mississippi Department of Marine Resources (MDMR) issued Coastal Zone Consistency (CZC) on March 10, 2008 and is referenced in **Enclosure 11**. Louisiana Department of Natural Resources (LDNR) issued CZC on January 27, 2010 and is referenced in **Enclosure 27**.

6.2 Clean Water Act of 1972. No work would occur until each State issued water quality certification for the proposed action. All State water quality standards have been met for this project. Section 401 water quality certification was requested from both MDEQ and LDEQ. MDEQ issued WQC on March 24, 2008 and is referenced in **Enclosure 14**. LDEQ issued WQC on December 28, 2009 and is referenced in **Enclosure 26**. A Section 404(b)(1) evaluation is also included in this report as **Enclosure 28**.

6.3 Rivers and Harbors Act of 1899. The proposed work would not obstruct navigable waters of the United States.

6.4 Marine Mammal Protection Act of 1972, as amended. Incorporation of the safe guards used to protect threatened or endangered species during project implementation will also protect any marine mammals in the area; therefore, the project is in compliance with this Act.

6.5 Fish and Wildlife Coordination Act of 1958, as amended. This project was coordinated with the FWS, and is in full compliance with the act.

6.6 E.O. 11988, Protection of Children. The proposed action complies with Executive Order (EO) 13045, “Protection of Children from Environmental Health Risks and Safety Risks”, and does not represent disproportionately high and adverse environmental health or safety risks to children in the United States. The proposed site is not used disproportionately by children.

6.7 E.O. 11990, 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.

The proposed project is not designed to create a benefit for any group or individual. No changes in demographics, housing, or public services would occur as a result of the proposed project. The dredging of GIWW does not create disproportionately high or adverse human health risks or environmental impacts on minority or low income populations of the surrounding community. Review and evaluation of the proposed project have not disclosed the existence of identifiable minority or low income communities that would be adversely impacted by the proposed project.

6.8 Deepwater Horizon Oil Spill Impacts. On April 20, 2010, while working on an exploratory well approximately 50 miles offshore of Louisiana, the floating semi-submersible mobile offshore drilling unit Deepwater Horizon experienced an explosion and fire. The rig subsequently sank and oil and natural gas began leaking into the Gulf of Mexico. The total amount of oil and natural gas that has escaped into the Gulf of Mexico is unknown, but is currently believed to be between 35,000 and 65,000 barrels per day for an approximate total of 4.9 million barrels. On September 19, the relief well process was successfully completed and the federal government declared the well "effectively dead". The spill has caused extensive damage to marine and wildlife habitats as well as the Gulf's fishing and tourism industries.

This spill has created uncertainty on whether future dredging operations will meet environmental compliance criteria and requirements for ocean disposal. The long term impacts of the oil spill on coastal Mississippi and Louisiana are uncertain at this time. This spill could potentially adversely impact USACE water resources projects and studies within the coastal area. Potential impacts could include factors such as changes to existing or baseline conditions, as well as changes to future-without and future with project conditions. The USACE will continue to monitor and closely coordinate with other Federal and state resource agencies and local sponsors in determining how to best address any potential problems associated with the oil spill that may adversely impact USACE water resources development projects/studies. This could include revisions to proposed actions as well as the generation of supplemental environmental analysis and documentation for specific projects/studies as warranted by changing conditions.

7.0 COORDINATION. The general public was notified of the proposed action via Public Notice on January 28, 2008 for both the Mississippi portion of the GIWW and the Louisiana portion. The public notices were mailed to Federal and state agencies and the interested public and included a 30-day review period. All comments on the action were considered prior to a decision on the action. Legal notices were published in the *The Advocate* and *The Times-Picayune* during the month of November 2009 to meet the State of Louisiana requirements (**Enclosures 19 and 23**).

8.0 CONCLUSION. The proposed action would have no significant environmental impacts on the existing environment. No mitigation actions are required for the proposed project. 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.

9.0 REFERENCES.

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10.0 LIST OF AGENCIES CONSULTED.

Mississippi Department of Marine Resources
Mississippi Department of Environmental Quality
Mississippi State Historic Preservation Officer
Mississippi Department of Wildlife, Fisheries and Parks

Louisiana Department of Natural Resources
Louisiana Department of Environmental Quality
Louisiana State Historic Preservation Officer
Louisiana Department of Wildlife and Fisheries

National Marine Fisheries Service
National Register of Historic Places
U.S. Army Corps of Engineers, Mobile District
U.S. Environmental Protection Agency, Region IV
U.S. Fish and Wildlife Service, Jackson, Mississippi Field Office
U.S. Fish and Wildlife Service, Baton Rouge, Louisiana

11.0 LIST OF PREPARERS

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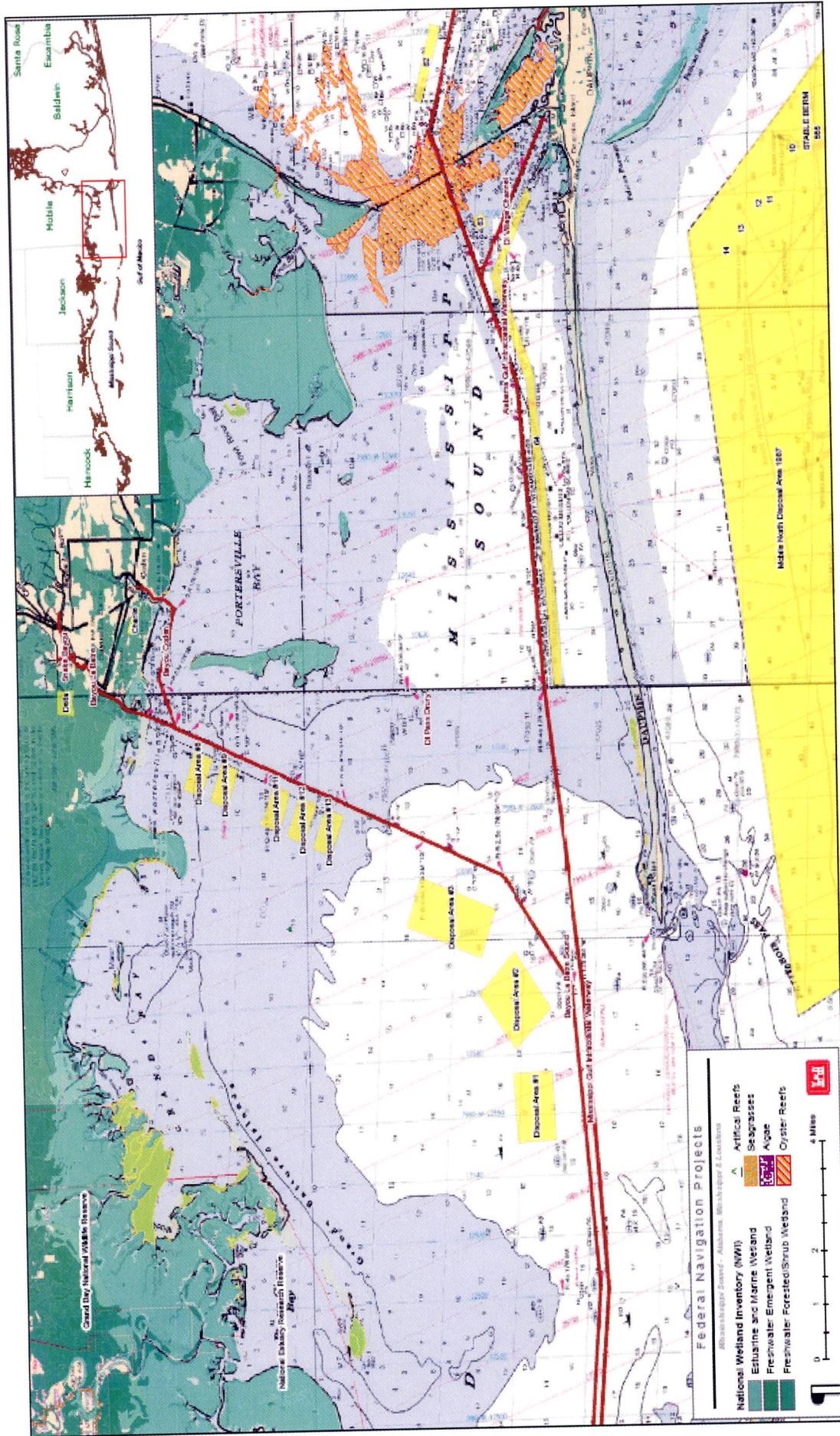


Figure 2: Gulf Intracoastal Waterway, Alabama & Mississippi Information Map 1

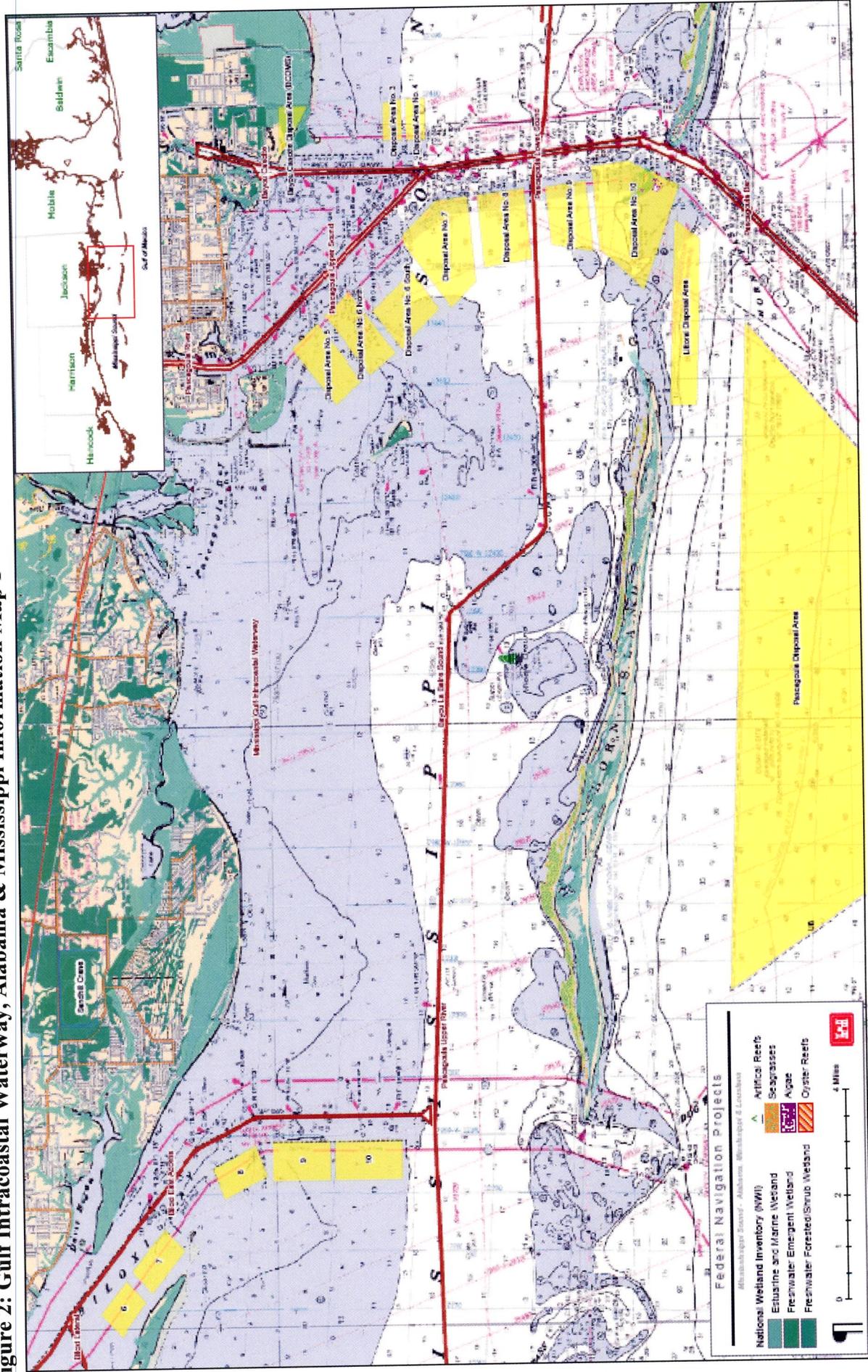


Figure 3: Gulf Intracoastal Waterway, Mississippi Information Map 2

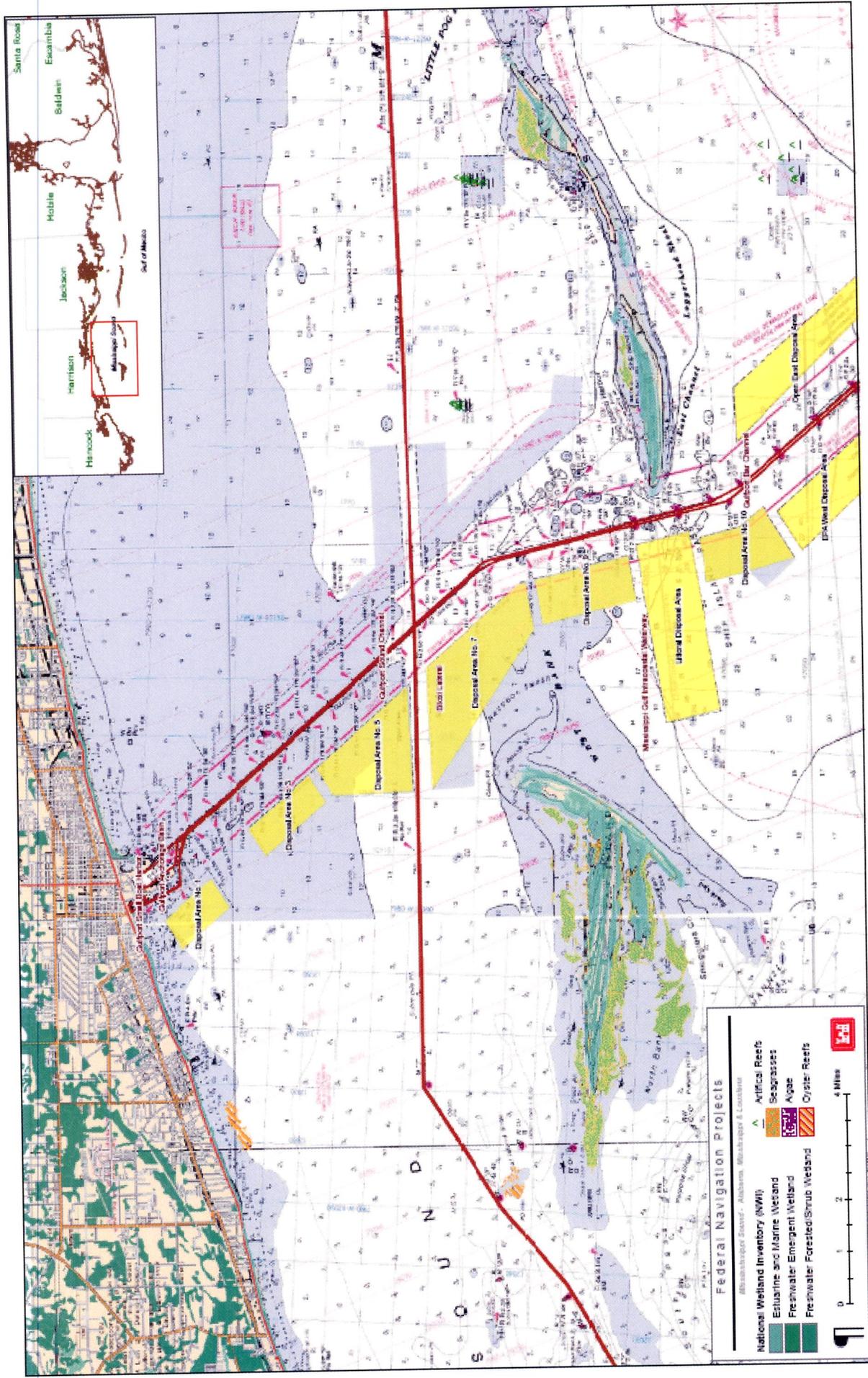


Figure 4: Gulf Intracoastal Waterway, Mississippi Information Map 3

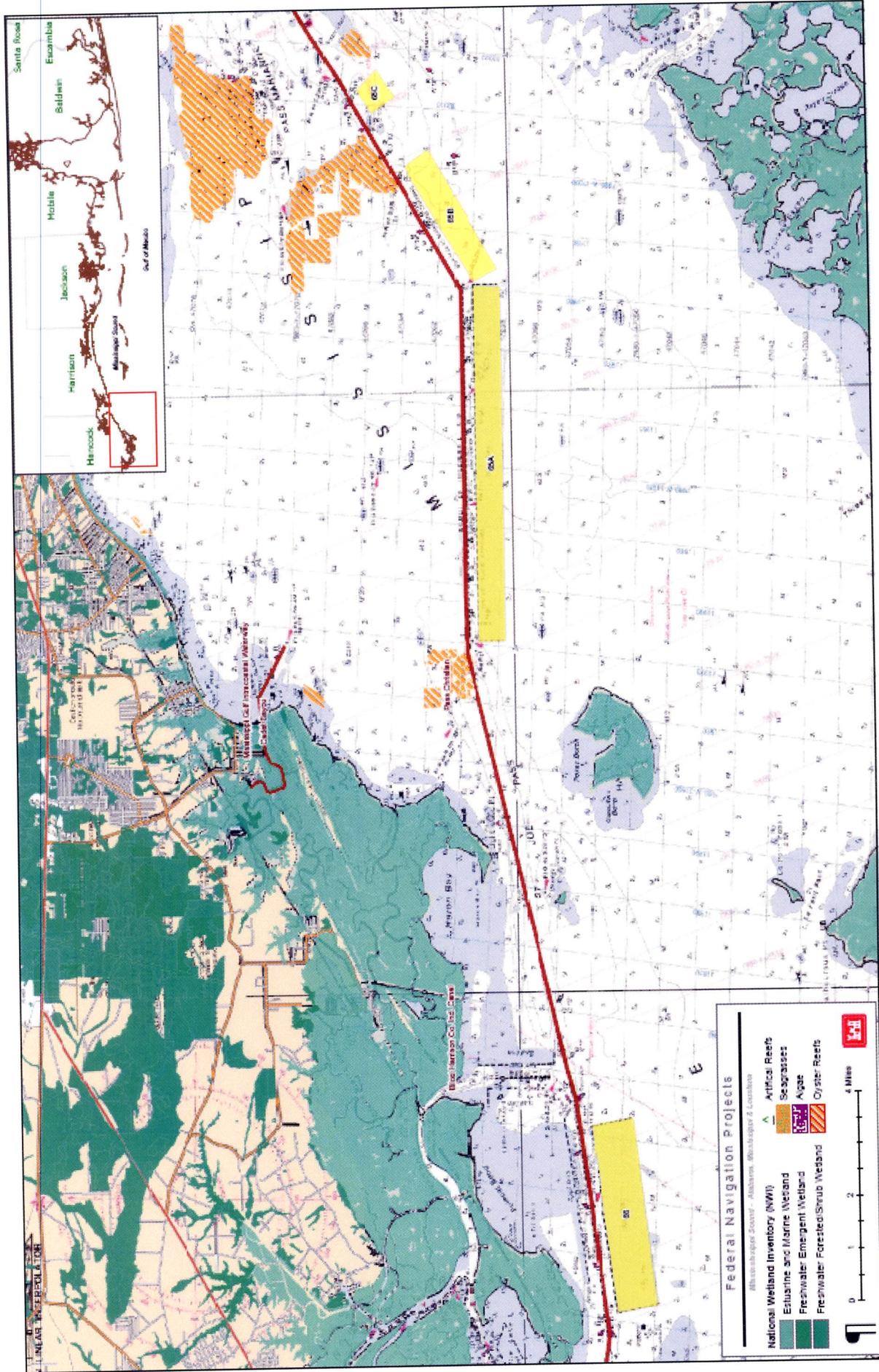


Figure 5: Gulf Intracoastal Waterway, Louisiana and Mississippi Information Map 4

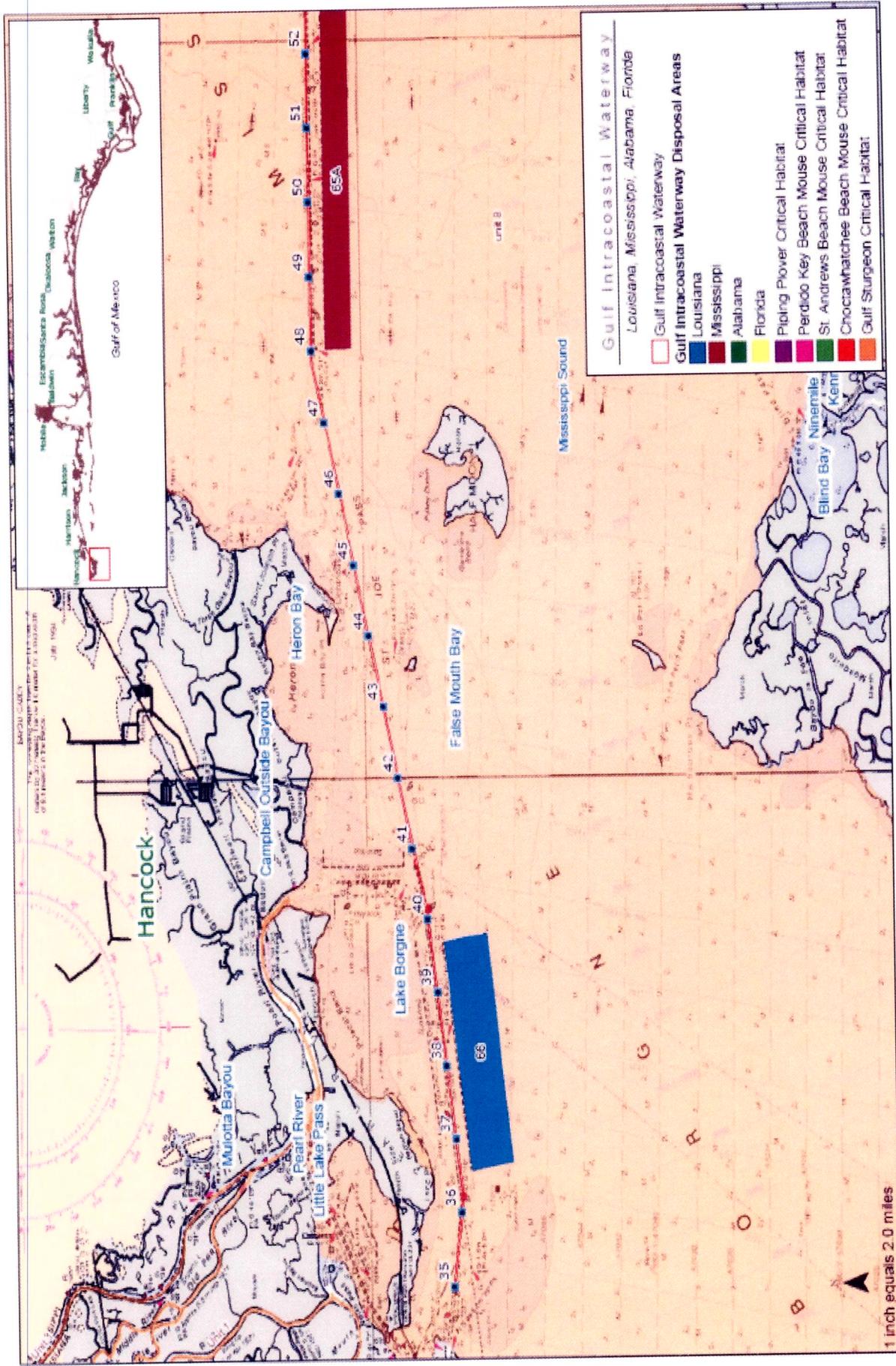


Figure 6: Gulf Intracoastal Waterway, Louisiana and Mississippi Information Map 5

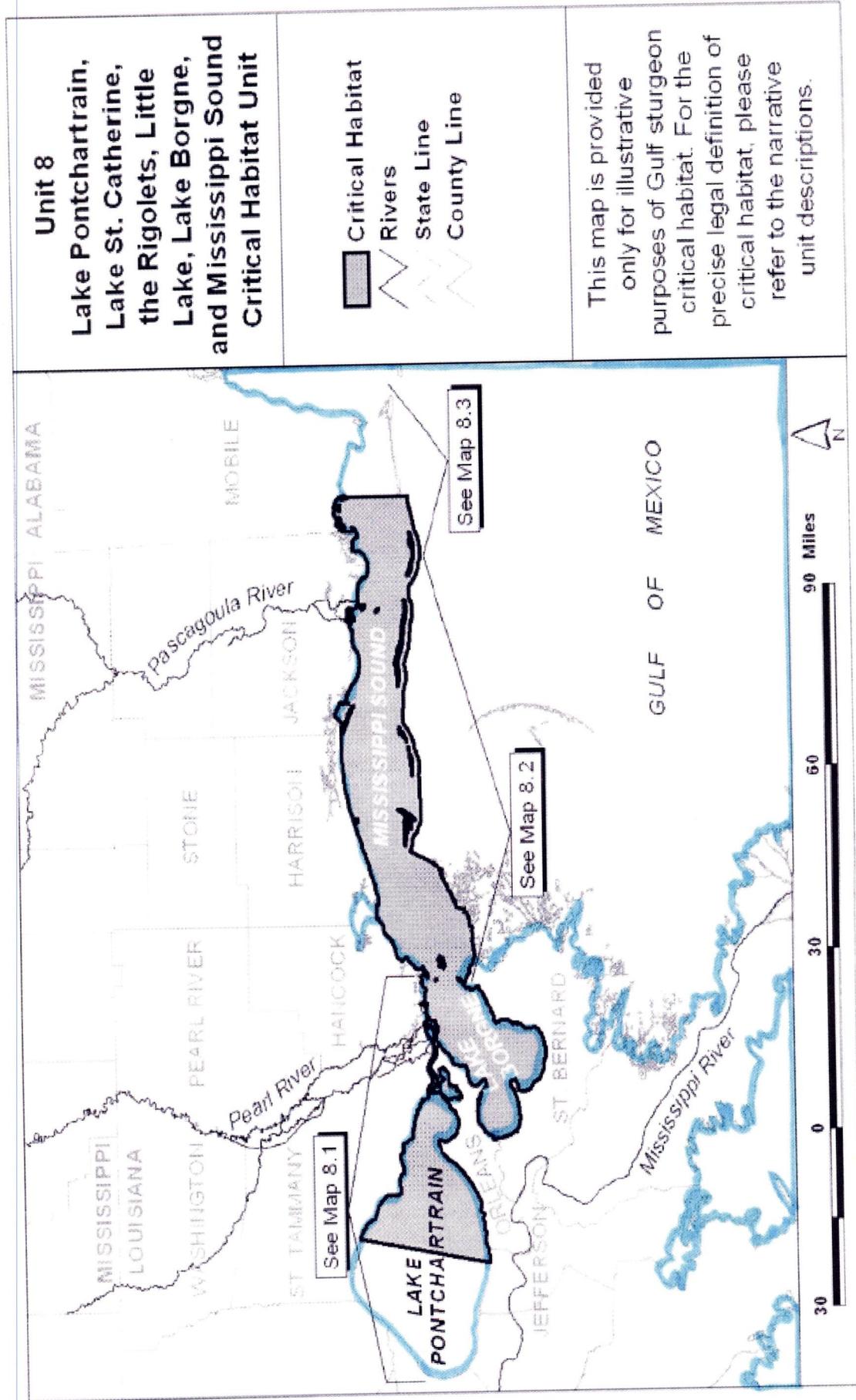


Figure 7: Gulf Sturgeon Critical Habitat Unit 8

DA	GIWW MILE	ACRES	DA TYPE	REMARKS
65C	57.5	176	Open Water Placement	Dredge sediments are predominately silty clays. Closest oyster reefs are located approximately 3,000 feet north east of the easternmost portion of the open-water site.
65B	55	815	Open Water Placement	Dredge sediments are predominately silty clays. Closest oyster reefs are located 2000 feet northeast of eastern most portion of the open- water site.
65A	51	1962	Open Water Placement	Dredge sediments are predominately silty clays. Closest oyster reefs are located approximately 3,000 feet northwest of the western most portion of the open-water site.
66	38	1593	Open Water Placement	Dredge sediments are predominately silty clays.

Table 6. Description of GIWW Mississippi and Louisiana Disposal Areas



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

April 19, 2007

REPLY TO
ATTENTION OF
Coastal Environment Team
Planning and Environmental Division

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

Dear Mr. Bernhart:

This letter constitutes the U.S. Army Corps of Engineer's, Mobile District biological assessment on the continued operation and maintenance (O&M) of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project. The proposed action would involve maintenance dredging and disposal operations as previously certified for the GIWW within the Mobile District's civil works boundaries in the States of Alabama, Florida, Louisiana and Mississippi (Appendix A, Figure 1). This portion of the GIWW provides for a 12 foot deep (plus advanced maintenance and allowable over-depth to a final depth of minus 16 feet mean lower low water) by 125 feet wide channel from Apalachee Bay, Florida to Mobile Bay, Alabama and a 12 feet deep by 150 feet wide channel from Mobile Bay, Alabama to Rigolets, Louisiana (Lake Borgne Light No. 29) (Appendix A, Figure 1). Approximately 7.5 million cubic yards (cy) of clays, silts and poorly graded sand would be removed by hydraulic pipeline dredge on an infrequent basis over the next five years. The material would be placed in previously certified open water, upland and/or estuarine shoreline disposal areas.

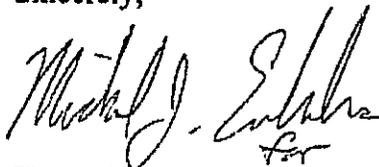
The enclosed assessment analyzes potential impacts from the continued O&M of the GIWW on threatened and endangered species and designated critical habitats occurring in the action area of the project, in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended. The findings of this assessment indicate that the continued O&M is not likely to adversely affect any threatened or endangered species or permanently destroy or adversely modify critical habitat. In addition to your office we are also providing the enclosed assessment to the following United States Fish and Wildlife Service Ecological Field Offices in Daphne, Alabama, Lafayette, Louisiana, Jackson, Mississippi, and Panama City, Florida for species which fall under their purview. We would appreciate your comments, concurrence or recommendations on this matter. Your cooperative support of this activity, in accordance with section 7 of the ESA is appreciated.

EA-Enclosure 1

-2-

If you have any questions or require additional information please contact Ms. Elizabeth S. Godsey at (251) 694-3843, email elizabeth.s.godsey@sam.usace.army.mil.

Sincerely,



Kenneth P. Bradley
Chief, Environment and Resources
Branch

Enclosure

EA-Enclosure 1



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

April 19, 2007

REPLY TO
ATTENTION OF

Coastal Environment Team
Planning and Environmental Division

Mr. Ray Aycock
United States Fish and Wildlife Service
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

Dear Mr. Aycock:

The enclosed document represents the U.S. Army Corps of Engineers' Mobile District biological assessment on the effects of the continued operation and maintenance (O&M) of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project on threatened and endangered species and their critical habitats. The proposed action would involve maintenance dredging and disposal operations as previously certified for the GIWW within the Mobile District's civil works boundaries in the States of Alabama, Florida, Louisiana and Mississippi (Appendix A, Figure 1). This portion of the GIWW provides for a 12-foot deep (plus advanced maintenance and allowable over-depth to a final depth of minus 16 feet mean lower low water) by 125 feet wide channel from Apalachee Bay, Florida to Mobile Bay, Alabama and a 12 feet deep by 150 feet wide channel from Mobile Bay, Alabama to Rigolets, Louisiana (Lake Borgne Light No. 29) (Appendix A, Figure 1). Approximately 7.5 million cubic yards (cy) of clays, silts and poorly graded sand would be removed by hydraulic pipeline dredge on an infrequent basis over the next five years. The material would be placed in previously certified open water, upland and/or estuarine shoreline disposal areas.

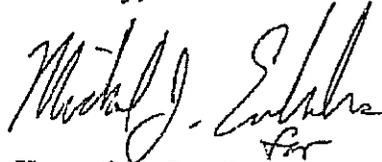
The enclosed assessment analyzes potential impacts from the continued O&M of the GIWW on threatened and endangered species and designated critical habitats occurring in the action area of the project, in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended. The findings of this assessment indicate that the continued O&M is not likely to adversely affect any threatened or endangered species or permanently destroy or adversely modify critical habitat. In addition to your office we are also providing the enclosed assessment to the following United States Fish and Wildlife Service Ecological Field Offices (USFWS) in Daphne, Alabama, Lafayette, Louisiana, and Panama City, Florida and the National Marine Fisheries Service for species which fall under their purview. We would appreciate the USFWS comments, concurrence or recommendations on this matter. Your cooperative support of this activity, in accordance with section 7 of the ESA is appreciated.

EA-Enclosure 2

-2-

If you have any questions or require additional information please contact Ms. Elizabeth S. Godsey at (251) 694-3843, email elizabeth.s.godsey@sam.usace.army.mil.

Sincerely,



Kenneth P. Bradley
Chief, Environment and Resources
Branch

Enclosure



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

April 19, 2007

REPLY TO
ATTENTION OF

Coastal Environment Team
Planning and Environmental Division

Mr. Jim Boggs
United States Fish and Wildlife Service
Lafayette Ecological Services Field Office
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

Dear Mr. Boggs:

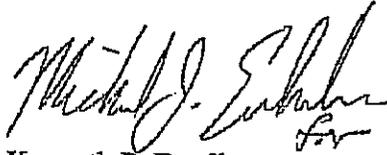
The enclosed document represents the U.S. Army Corps of Engineers', Mobile District biological assessment on the effects of the continued operation and maintenance (O&M) of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project on threatened and endangered species and their critical habitats. The proposed action would involve maintenance dredging and disposal operations as previously certified for the GIWW within the Mobile District's civil works boundaries in the States of Alabama, Florida, Louisiana and Mississippi (Appendix A, Figure 1). This portion of the GIWW provides for a 12-foot deep (plus advanced maintenance and allowable over-depth to a final depth of minus 16 feet mean lower low water) by 125 feet wide channel from Apalachee Bay, Florida to Mobile Bay, Alabama and a 12 feet deep by 150 feet wide channel from Mobile Bay, Alabama to Rigolets, Louisiana (Lake Borgne Light No. 29) (Appendix A, Figure 1). Approximately 7.5 million cubic yards (cy) of clays, silts and poorly graded sand would be removed by hydraulic pipeline dredge on an infrequent basis over the next five years. The material would be placed in previously certified open water, upland and/or estuarine shoreline disposal areas.

The enclosed assessment analyzes potential impacts from the continued O&M of the GIWW on threatened and endangered species and designated critical habitats occurring in the action area of the project, in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended. The findings of this assessment indicate that the continued O&M is not likely to adversely affect any threatened or endangered species or permanently destroy or adversely modify critical habitat. In addition to your office we are also providing the enclosed assessment to the following United States Fish and Wildlife Service Ecological Field Offices (USFWS) in Daphne, Alabama, Jackson, Mississippi, and Panama City, Florida and the National Marine Fisheries Service for species which fall under their purview. We would appreciate the USFWS comments, concurrence or recommendations on this matter. Your cooperative support of this activity, in accordance with section 7 of the ESA is appreciated.

-2-

If you have any questions or require additional information please contact Ms. Elizabeth S. Godsey at (251) 694-3843, email elizabeth.s.godsey@sam.usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth F. Bradley". The signature is stylized and includes a small mark below the name.

Kenneth F. Bradley
Chief, Environment and Resources
Branch

Enclosure

43440-2007-2-2583



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

May 18, 2007

Memorandum

To: Chief, Species and Habitat Assessment, Southeast Region, FWS, Atlanta, GA (ES/SHA)
(attention: Joe Johnston)

From: Acting Field Supervisor, Ecological Services, FWS, Lafayette, LA

Subject: Review of the Biological Assessment for the Gulf Intracoastal Waterway Federal Navigation Project, U.S. Army Corps of Engineers, Mobile District

This memo is in reference to a letter dated April 19, 2007, which transmitted the U.S. Army Corps of Engineers', Mobile District (Corps) biological assessment (BA) on the effects of the continued operation and maintenance of the Gulf Intracoastal Waterway Federal Navigation Project. Based on the findings stated in the BA, the Corps requested U.S. Fish and Wildlife Service (Service) concurrence that the proposed project is not likely to adversely affect any threatened or endangered species and their critical habitats. The Louisiana Ecological Services Field Office (LFO) has reviewed the subject BA and provides the following comments regarding those threatened and endangered species and their critical habitats known to occur in the parishes of Orleans, St. Bernard, and St. Tammany, Louisiana. Comments are submitted pursuant to the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The LFO concurs that the proposed project is not likely to adversely affect the threatened piping plover (*charadrius melodus*) or its critical habitat, the endangered brown pelican (*Pelecanus occidentalis*), the endangered red-cockaded woodpecker (*Picoides borealis*), the threatened bald eagle (*Haliaeetus leucocephalus*), or the threatened gopher tortoise (*Gopherus polyphemus*) in Louisiana because those species are not within the project area and / or the habitats on which they depend will not be adversely affected. Further, the proposed project is not likely to adversely affect the threatened loggerhead sea turtle (*Caretta caretta*), the endangered green sea turtle (*Chelonia mydas*), the endangered leatherback sea turtle (*Dermochelys coriacea*), the endangered Kemp's Ridley sea turtle (*Lepidochelys kempii*), or the endangered hawksbill sea turtle (*Eretmochelys imbricata*) because no shoreline habitat they utilize will be affected in Louisiana.

The National Marine Fisheries Service (NMFS) is the lead agency for consultations regarding sea turtles when they are in estuarine or marine waters. NMFS is also the lead

agency for consultations regarding U.S. Army Corps of Engineers (Corps) projects that may affect the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*) or its critical habitat. The Corps should consult the NMFS in St. Petersburg, Florida (727/824-5312), regarding sea turtles and gulf sturgeon.

As stated on pages 7 and 8 of the BA, the Mobile District shall implement certain standard conditions to reduce potential impacts of the proposed project to the endangered West Indian manatee (*Trichechus manatus*). The LFO recommends the following two additional standard conditions be included in the proposed project to further reduce potential impacts to manatee: (1) for bullet 5, please request that the Corps add that all vessels shall operate at “no wake/idle” speeds within 100 yards of the work area if a manatee is sighted within 100 yards of the active work zone; (2) for bullet 6, please request that the Corps add that any manatee sighting in Louisiana waters should also be immediately reported to the Service’s Louisiana Field Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821).

As the proposed project is currently designed and stated in the BA we cannot, at this time, concur with the Corps’ determination that the proposed project is not likely to adversely affect West Indian manatees. We recommend that the Corps prepare for our review a revised project design with the above modifications. Potential impacts of the proposed project will then be re-evaluated for effects to manatee.

In summary, the LFO concurs that the proposed project is not likely to adversely affect most of the federally listed species or their critical habitats in Louisiana for which the Service is the consultation lead. However, please request that the Corps provide this office with documentation that the proposed project will include the above mentioned modifications that further reduce potential impacts to manatee. Potential impacts of the proposed project will then be re-evaluated for manatees.

We appreciate the opportunity to provide comments regarding the proposed project. Should you have further questions, please contact Rob Smith (337/291-3134) of this office.

/s/
James F. Boggs
Acting Supervisor

cc: FWS, Daphne, AL
FWS, Jackson, MS
FWS, Panama City, FL
NMFS, St. Petersburg, FL
LDWF, Natural Heritage Program, Baton Rouge, LA



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
 263 13th Avenue South
 St. Petersburg, FL 33701
 (727) 824-5312, FAX (727) 824-5309
<http://sero.nmfs.noaa.gov>

MAY 21 2007

F/SER31:KS

Mr. Kenneth P. Bradley *KPB*
 Mobile District Corps of Engineers
 P.O. Box 2288
 Mobile, AL 36628

RE: GIWW Federal Navigation Project

Dear Mr. Bradley:

This responds to your April 19, 2007, letter regarding the Mobile District's continued operation and maintenance of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project from Rigolets, Louisiana, to Apalachee Bay, Florida. Portions of the proposed project are located in Gulf sturgeon critical habitat units 8, 9, 10, 12, and 13. You requested concurrence from the National Marine Fisheries Service (NMFS), pursuant to section 7 of the Endangered Species Act (ESA), with your determinations the project is not likely to adversely affect federally-listed species and is not likely to destroy or adversely modify critical habitat.

The Mobile District is responsible for the operation and maintenance of 380 miles of the GIWW. The biological assessment (BA) submitted with your letter evaluates the potential effects to resources protected by the ESA under the purview of the NMFS associated with maintenance dredging the GIWW with a hydraulic dredge as necessary over the next 5 years. In addition, approximately 7.5 million cubic yards of dredged material would be placed in various upland, open water, and estuarine shoreline placement areas adjacent to the waterway between Louisiana and Florida. The materials submitted detailing the scope of the project and evaluating the possible effects on listed species under our purview are insufficient for us to make a determination about the effects of the project on listed species and Gulf sturgeon critical habitat.

To comply with section 7 regulations (50 CFR 402.14(c)), we specifically request that the following information be provided:

- The segment of the GIWW from Carrabelle to Apalachee Bay, Florida, has been authorized but not constructed. Will this segment be constructed during the 5-year period being evaluated in the BA?
- Disposal Area (DA) 46.1 is located in Gulf sturgeon critical habitat unit 9, but is not listed in Table 4 ("GIWW Disposal Areas in Gulf Sturgeon Critical Habitat"). What is the total acreage of DA 46.1?
- What is the footprint of fill below mean high water (MHW) and the water depth at the toe of fill in estuarine shore placement DAs 39.5 and 46.1?



- Dredged material disposal in DA 2.1/2.1a will result in an additional 22 acres of island creation at the existing 35-acre site in Apalachicola Bay.
 - What is the construction timeframe for completion of the 22-acre island creation?
 - What are the water depths in which the dredged material will be placed?
 - Will armoring (riprap, dikes, etc.) be used to maintain the island?
- Conservation measures for Gulf sturgeon critical habitat state that thin layer disposal will be utilized when practicable.
 - What is the maximum depth of dredge material disposal that is defined as “thin layer”?
 - For which segments of the GIWW will thin layer disposal be practicable?
 - What alternative disposal methods will be used when thin layer disposal is not practicable?
- Are other conservation measures for listed species or critical habitat being implemented (e.g., deployment of turbidity curtains during dredging activities)?

Section 7 allows NMFS up to 90 days to conclude formal consultation with your agency, and an additional 45 days to prepare our biological opinion (unless we mutually agree to an extension). Therefore, if formal consultation is necessary, our anticipated biological opinion completion date is 135 days from the date of our receipt of the information requested above. The ESA requires that, after initiation of formal consultation, the federal action agency must make no irreversible or irretrievable commitment of resources that limits future options. This practice ensures agency actions do not preclude the formulation and implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species, or destroying or modifying their critical habitats. If the information we have requested from the applicant allows us to determine that the section 7 consultation can be accomplished informally, NMFS will respond within 30 calendar days if possible.

If you have any questions, please contact Kelly Shotts, Biologist, at (225) 389-0508 x 209, or by e-mail at kelly.shotts@noaa.gov.

Sincerely,



David M. Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.1.FL
Ref: T/SER/2007/02624



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

May 30, 2007

Colonel Robert B. Keyser
District Engineer
U.S. Army Corps of Engineers
Post Office Box 2288
Mobile, Alabama 36628-0001

Dear Colonel Keyser:

The U.S. Fish and Wildlife Service (Service) has reviewed the information in your biological assessment for the Gulf Intracoastal Waterway Navigation Project (GIWW) dated March 2007. The proposed project would include maintenance dredging and disposal operations for the GIWW within the Mobile District's civil works boundaries in Alabama, Florida, Louisiana, and Mississippi. Our comments address only those impacts anticipated for areas within the State of Mississippi boundaries, and are submitted in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and the Endangered Species Act (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.).

As you are aware, the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*) is found in the Gulf of Mexico, and more specifically, in the Mississippi Sound. The decline of the Gulf sturgeon is primarily due to limited access to migration routes and historic spawning areas, habitat modification, and water quality degradation. Hence, Critical Habitat has been designated along the Mississippi Gulf Coast and in several river systems. The GIWW lies within Gulf Sturgeon Critical Habitat Unit #8.

Although the Service is concerned regarding potential impacts to the sturgeon and its designated Critical Habitat, per 50 CFR Part 226, the National Marine Fisheries Service (NMFS) retains primary responsibility for the sturgeon in all marine units.

However, the Service will coordinate with NMFS throughout the consultation process, and if you

JUN - 4 2007

require additional information, please contact our office, telephone: (601) 321-1132.

Sincerely,

for 
Ray Aycock
Field Supervisor

cc: NMFS, Panama City, FL



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

July 11, 2007

REPLY TO
ATTENTION OF
Coastal Environment Team
Planning and Environmental Division

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

Dear Mr. Bernhart:

This responds to your May 2, 2007, letter requesting additional information regarding the U.S. Army Corps of Engineers, Mobile District's continued operation and maintenance of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project from Rigolets, Louisiana, to Apalachee Bay, Florida (F/SER31:KS). Via letter dated April 19, 2007 the Mobile District requested concurrence, pursuant to section 7 of the Endangered Species Act (ESA), with a not likely to adversely affect federally-listed species and not likely to destroy or adversely modify critical habitat determination. The Biological Assessment (BA) submitted with our April 19, 2007 letter evaluated potential effects to the resources protected by the ESA under the purview of the National Marine Fisheries Service associated with maintenance and dredging of the GIWW with a hydraulic dredge as necessary over the next 5 years. We feel that this BA along with the information enclosed provides sufficient material detailing the scope of the project for evaluating the possible effects on listed species and Gulf sturgeon critical habitat.

We appreciate your cooperation in this matter. If you have any questions, concerns or need additional information, please contact Ms. Elizabeth Godsey at (251) 694-3843, e-mail elizabeth.s.godsey@sam.usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "Jennifer L. Jacobson".

Jennifer L. Jacobson
Leader, Coastal Environment Team

Enclosure

SPECIFIC RESPONSE

1. The segment of the GIWW from Carrabelle to Apalachee Bay, Florida, has been authorized but not constructed. Will this segment be constructed during the 5-year period being evaluated in the BA?

Response: No, there has been no current plans to construct the segment of the GIWW from Carrabelle to Apalachee, Bay Florida.

2. Disposal Area (DA) 46.1 is located in Gulf sturgeon critical habitat unit 9, but is not listed in Table 4 (“GIWW Disposal Areas in Gulf Sturgeon Critical Habitat”). What is the total acreage of DA 46.1?

Response: The total acreage of DA 46.1 is roughly 4.3 acres.

3. What is the footprint of fill below mean high water (MHW) and the water depth at the toe of fill in estuarine shore placement DAs 39.5 and 46.1?

Response: The following provides an approximate of the maximum acreages below MWH and depths for DAs 39.5 and 46.1. The depths and actual acreages placed during each dredging event will vary depending upon the amount of shoaling, the dredging required, and the amount of erosion that has occurred at the disposal site since the last dredging event.

<u>Site</u>	<u>Acreage</u>	<u>Depth</u>
39.5	8.6	3'-4'
46.1	4.3	8'

4. Dredge material disposal in DA 2.1/2.1a will result in an additional 22 acres of island creation at the existing 35-acre site in Apalachicola Bay. What is the construction timeframe for completion of the 22-acre island creation? What are the water depths in which the dredged material will be placed? Will armoring (riprap, dikes, ect.) be used to maintain the island?

Response: It is anticipated that sufficient capacity exists at DA 2.1 for one, possibly two more dredging events. This however, is dependent on the amount of dredging required during these dredging events. Dredging and disposal in DA 2.1 is expected to take place this fall. The next disposal cycle for this site is expected to be in three years. Based on this schedule DA 2.1a would be constructed in the fall of 2011.

The elevations on the Disposal Area 2.2/2.1a range from a maximum elevation of +8 on DA 2.1 to -3 in proposed DA 2.1a.

Earthen dikes would be constructed around DA 2.1, utilizing a marshbuggy and/or a barge mounted crane. The dikes would not be armored with riprap. Past experienced at this site has indicated that armoring to maintain material within the created island site is not necessary.

5. Conservation measures for the Gulf Sturgeon critical habitat state that thin layer disposal will be utilized when practicable. What is the maximum depth of dredge material disposal that is defined as “thin layer”? For which segments of the GIWW will thin layer disposal be practicable? What alternative disposal methods will be used when thin layer disposal is not practicable?

Response: Twelve inches of material is the maximum depth that is defined as “thin layer”. Thin layer disposal is considered practicable for the following segments of the GIWW: DAs within the Apalachicola Bay reach; DA 14 in West Bay; DAs within the Bon Secour Bay reach; DAs within the Mobile Bay reach; DAs within the Mississippi Sound reach and DAs within the Lake Borgne reach. Thin layer disposal has and will continue to be standard practice for these reaches of the GIWW. There are no alternative disposal methods available for these reaches.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701
(727) 824-5312, FAX (727) 824-5309
<http://sero.nmfs.noaa.gov>

F/SER31:KR

OCT 23 2007

Mr. Kenneth P. Bradley
Mobile District Corps of Engineers
P.O. Box 2288
Mobile, AL 36628

RE: GIWW Federal Navigation Project

Dear Mr. Bradley:

This responds to your April 19, 2007, letter regarding the Mobile District's continued operation and maintenance of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project from Rigolets, Louisiana, to Apalachee Bay, Florida. You requested concurrence from the National Marine Fisheries Service (NMFS), pursuant to section 7 of the Endangered Species Act (ESA), with your determinations the project is not likely to adversely affect federally-listed species and is not likely to destroy or adversely modify critical habitat. NMFS requested additional information in a letter dated May 2, 2007, and received a response dated July 11, 2007. NMFS' determinations regarding the effects of the proposed action are based on the description of the action in this informal consultation. You are reminded that any changes to the proposed action may negate the findings of the present consultation and may require reinitiation of consultation with NMFS.

Project activities include the continued operation and maintenance of 380 miles of the GIWW within the Mobile District civil works boundaries in Alabama, Florida, Louisiana, and Mississippi in the dredging reaches shown in table 1. Approximately 7.5 million cubic yards (cy) of clays, silts and poorly graded sand would be removed by hydraulic pipeline dredge on an infrequent basis over the next five years. The material would be placed in previously certified open water, upland and/or estuarine shoreline disposal areas. Maintenance dredging and disposal would be performed on an as needed basis. The frequency of dredging at any one site ranges from once a year to once every 25 years, with average dredging cycles at any given location occurring once every 3 years. The actual time and location of any dredging and disposal event varies considerably due to shoaling rates and may occur at anytime during the year. In emergency conditions, a barge mounted dragline or snagboat may be used to remove rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow for immediate passage of vessels until a hydraulic pipeline dredge could be dispatched to restore project dimensions. Emergency disposal needs are infrequent and usually the result of storm incidents or barge groundings. Past experiences have shown that only a few



areas are likely to require such emergency action but such actions may be required at any location along the waterway. In the event of an emergency, all necessary Federal and State agencies would be notified before commencement of work.

Table 1: GIWW Dredging Reaches

Reach	GIWW Miles	Dredging Interval (years)	Sediment Description
Mississippi Sound	35-58	25	mud and sandy clay
Dauphin Island to Santa Rosa Sound	119-180	2	silty clays, silt and sand
Santa Rosa Sound	200-210	25	sand
Santa Rosa Sound/Choctawhatchee Bay	215-225	5	sand
Choctawhatchee Bay to West Bay	250-275	2	silts and sand
East Bay to Apalachicola Bay	310-350	3	silts and sand
Gulf Co. Canal		2	sand
Apalachicola Bay	350-370	1	silt and silty clays

In addition to Gulf sturgeon, five listed species of sea turtles (loggerhead, Kemp's ridley, green, leatherback, and hawksbill) may occur adjacent to the project sites. These species will likely temporarily avoid the immediate project vicinity during construction due to noise from vessels and machinery. If sea turtles and sturgeon do enter the project site during dredging activities, they are unlikely to be harmed by the hydraulic or dragline dredge. NMFS has previously determined that non-hopper-type dredging activities are not likely to adversely affect sea turtles and Gulf sturgeon. These species may also be affected by dredging operations if they were to be struck by the dredge as it transits the site or by the pipeline as it is being moved to place sand in disposal areas; however, due to their mobility and benthic habits, the likelihood of this occurring is discountable. Therefore, NMFS believes that the project is not likely to adversely affect any listed sea turtles or sturgeon.

Portions of the proposed project are located in Gulf sturgeon critical habitat units 8, 9, 10, 12, and 13 under NMFS' jurisdiction. These units contain four primary constituent elements (PCEs) that may be affected by the proposed disposal of dredged: water quality, migratory pathways, sediment quality, and abundant prey items. Potential impacts on those PCEs are analyzed below.

Impacts on water quality:

Impacts from sediment disturbance as a result of disposal are expected to be temporary and minimal, with suspended particles settling out within a short time frame without measurable effects on water quality (or on listed species directly). No changes in temperature, salinity, pH, hardness, oxygen content, and other chemical characteristics are expected. NMFS expects effects to Gulf sturgeon critical habitat as a result of water quality impacts related to this project will be insignificant.

Migratory Pathway:

Maintenance dredging is dependent on shoaling within the channel; therefore, dredging may occur during periods of Gulf sturgeon migration and winter activities. However, neither the

disposal of dredged materials, nor the operation of the dredging equipment is expected to create barriers to the migration of the species. The GIWW contains areas designated as critical habitat within the Apalachicola Bay, Choctawhatchee Bay, Pensacola Bay, Mississippi Sound, Santa Rosa Sound, and the lower Apalachicola River. All of these systems are large open water bodies with the exception of the Santa Rosa Sound and lower Apalachicola River.

The Apalachicola River landcut portion of the GIWW is located within the lower 5.5 miles of the river. This section of river ranges from 800 to 1,000 feet in width. The dredging width of the channel in this vicinity is 125 feet wide. Depths along the river's edges range from about 5-25 feet. Deeper areas to the north of the channel in this location range from 12 feet to greater than 20 feet. This deeper area forms a natural passage around the channel and estuarine shoreline disposal areas 3.1 and 3.2b. Although somewhat more restricted, the bottom depths surrounding the dredging and disposal areas inside the lower Apalachicola River landcut provide sufficient width and appropriate habitat depth for sturgeon passage and foraging.

Santa Rosa Sound ranges from 1,050 to 11,500 feet in width. The dredging width of the channel in this vicinity is 125 feet wide. Natural depths are fairly uniform throughout the Sound, averaging around 8 feet. Although somewhat more restricted, the bottom depths surrounding the dredging area within the Sound provide sufficient width and appropriate habitat depth for sturgeon passage and foraging around the dredging activities.

Actual working days along these reaches of the GIWW typically average 14 days. This work may be distributed over a 3 to 4 week period depending on weather and other unexpected dredging delays. Similar dredging operations are intermittently shut down approximately one quarter of the time. This provides ample opportunities for Gulf sturgeon to migrate through an area and provides a sufficient amount of unharassed time for the sturgeon living and foraging in the immediate area. Therefore, NMFS concludes the proposed project will have insignificant effects on the ability of critical habitat units 8, 9, 10, 12, and 13 to provide migratory pathways for Gulf sturgeon.

Impacts on sediment quality:

The proposed action will directly impact the benthos by the placement of dredged material into the littoral zone; however, the composition of dredged material removed from the channel is expected to be the same as that remaining. The sediment quality and texture of the channel dredge material are expected to be identical to that existing in the disposal areas, due to their close proximity to the channel and the fact that these areas have historically received dredged material from the adjacent reaches of the GIWW. Therefore, NMFS concludes the proposed project's effects on the sediment quality of critical habitat units 8, 9, 10, 12, and 13 will be insignificant.

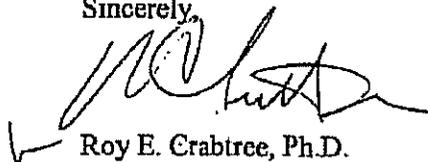
Impacts on Gulf sturgeon prey abundance:

Units 8, 9, 12 and 13 provide foraging habitat for the Gulf sturgeon. Dredging will impact epibenthic crustaceans and infaunal polychaetes within the navigation channel and disposal areas. These impacts are primarily short-term in nature, consisting of a temporary loss of benthic invertebrate populations in the project footprint of the channel and openwater disposal areas. The area comprises less than 0.5 percent total of estuarine area within Units 8, 9, 10, 12, and 13

(7.3, 0.01, 0.19, 0.08, and 0.34 percent in each unit, respectively). Dredging and disposal along the entire channel length would not occur within the same dredging cycle (year); therefore, sufficient time for an area to recover is expected. Recovery of the existing macrobenthic assemblages is expected to be rapid as sediment composition pre- and post-construction at the disposal site will be similar, and littoral zone benthic assemblages are known to recover relatively quickly from physical disturbance. Disposal in the estuarine shoreline placement and bird island disposal areas would result in the conversion of nearshore shallow areas to emergent shoreline in areas filled above mean high water. These areas comprise less than 0.03% of the estuarine area in Unit 13. The conversion of sub-tidal habitat to emergent shoreline at the estuarine shoreline disposal areas is expected to reverse over time as currents continue to erode the material along the edges of the disposal areas and is expected to be a temporary (1-5 years) alteration. Therefore, NMFS concludes the proposed project's effects on the Gulf sturgeon prey abundance of critical habitat units 8, 9, 10, 12, and 13 will be insignificant.

This concludes your consultation responsibilities under section 7 of the ESA for species under NMFS' purview. A new consultation must be initiated if a take occurs or new information reveals effects of the action not previously considered, or the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. We appreciate your continued cooperation in the conservation of listed species and look forward to working with you and your staff in the future. PCTS or consultation related questions or comments should be directed to the attention of Karla Reece at (727) 824-5312 or by e-mail (karla.reece@noaa.gov).

Sincerely,



Roy E. Crabtree, Ph.D.
Regional Administrator

File: 1514-22.F.1.FL
1514-22.F.1 Mobile District
Ref: I/SER/2007/04730



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

REPLY TO
ATTENTION OF

**PUBLIC NOTICE NO. FP08-IW01-14
CESAM-PD-EC**

28 January 2008

**JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT**

**MISSISSIPPI DEPARTMENT OF MARINE RESOURCES AND
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**PROPOSED MAINTENANCE DREDGING AND PLACEMENT ACTIVITIES
GULF INTRACOASTAL WATERWAY NAVIGATION PROJECT
JACKSON, HARRISON AND HANCOCK COUNTIES, MISSISSIPPI**

A FEDERALLY AUTHORIZED PROJECT

Interested persons are hereby notified that the U.S. Army Corps of Engineers (Corps), Mobile District, proposes to conduct maintenance dredging and placement activities in the Gulf Intracoastal Waterway (GIWW), Mississippi.

This Public Notice is issued in accordance with the rules and regulations in the Federal Register on April 26, 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: GIWW within the State of Mississippi.

DESCRIPTION OF THE ENTIRE AUTHORIZED PROJECT: The existing project under the auspices of the Corps, Mobile District provides for a waterway 12 feet deep, 125 feet wide at mean lower low water (MLLW) from Apalachee Bay, Florida to Mobile Bay, Alabama and a channel 12 feet deep and 150 feet wide from Mobile Bay, Alabama to the Rigolets, Louisiana (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12-foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long (**Figure 1**). The existing project was authorized by the 1966 Rivers and Harbors Act, (House Document 481, 89th Congress, 2nd Session) as amended and prior acts.

DESCRIPTION OF THE PROPOSED ACTION: The proposed action for the Mississippi portion of the GIWW would be the maintenance dredging and disposal activities as previously certified in the State of Mississippi. Approximately 3,000,000 cubic yards (CY) of sandy silt are proposed for removal by hydraulic pipeline dredge on an infrequent basis over a ten-year period.

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The proposed action would involve maintenance dredging of the Mississippi portion of the GIWW, which is 65 miles in length, 150 feet in width, and with a maximum depth of -16 feet MLLW (authorized project depth of -12 feet MLLW, plus -2 feet of advanced maintenance and -2 feet of allowable over depth dredging). Maintenance dredging intervals typically occur once every three (3) to five (5) years, and for the current proposed action, the material would be removed by hydraulic pipeline dredge and placed in previously used and authorized open-water disposal areas using a thin layer technique of disposal (**Figure 2**).

In emergency conditions, a barge-mounted dragline or snagboat may be used to remove rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow immediate passage of vessels until a hydraulic pipeline dredge can be dispatched to restore project dimensions.

Emergency disposal needs are infrequent and usually the result of specific incidents such as storm events or barge groundings. Past experience has shown, however, that only a few areas are likely to require such emergency action but such action may be required at any location along the waterway. In the event of emergency all necessary Federal and state agencies would be notified before the commencement of work.

WATER QUALITY CERTIFICATION: Water quality certification will be requested from the State of Mississippi, Department of Environmental Quality (DEQ), Office of Pollution Control for a five (5) year period. Upon completion of the required comment period, a decision relative to certification will be made.

COASTAL ZONE CONSISTENCY: Pursuant to the requirements of the Coastal Zone Management Act (CZMA), consistency will be requested from the State of Mississippi, Department of Marine Resources (DMR). Our review of the CZMA finds that the continued maintenance of the project remains consistent with the program to the maximum extent practicable. A determination relative to coastal zone consistency will be made by DMR after completion of the required comment period.

USE BY OTHERS: The proposed action is not expected to create significant impacts on land use plans. Use of waters within the open water disposal sites; including fishing, shrimping, recreational boating, and the commercial transporting of fuels would be impacted during the actual maintenance activities; however, this action would be temporary and the aforementioned activities would resume to normal upon completion.

NATIONAL ENVIRONMENTAL POLICY ACT CONSIDERATIONS: In accordance with the requirements of the National Environmental Policy Act (NEPA) an Environmental Impact Statement (EIS) for the entire GIWW navigation project from the Pearl River, Louisiana-Mississippi to Apalachee Bay, Florida, was filed with the President's Council on Environmental Quality (CEQ) on December 17, 1976. A current Environmental Assessment (EA) has been prepared and the document is on file at the Mobile District Office of the Corps of Engineers and also on the web at address <http://www.sam.usace.army.mil/>. Appropriate revisions will be incorporated into the EA documentation if information is received during the coordination process that would dictate the need to amend the existing EA.

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SECTION 404(b)(1) EVALUATION REPORT: An evaluation of water quality impacts associated with the proposed action has been prepared in accordance with guidelines promulgated by the Environmental Protection Agency (EPA) under Section 404(b)(1) of the Clean Water Act (CWA). The report is on file and is available for review in the Mobile District Office and at web address <http://www.sam.usace.army.mil/>. Appropriate revisions will be incorporated into the Section 404(b)(1) documentation if information is received during the coordination process that would dictate the need to amend the existing section 404(b)(1) Evaluation Report.

THREATENED AND ENDANGERED SPECIES: The proposed action has been coordinated with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) Fisheries and the U.S. Department of Interior, Fish and Wildlife Service (USFWS). NOAA Fisheries has been consulted with by Biological Assessment (BA) 22 March 2007 and NOAA Fisheries has concurred with our determination, by letter dated 23 October 2007, that the proposed action is not likely to adversely affect threatened and endangered species or their critical habitat. The USFWS has been consulted with by letter dated 19 April 2007 at which time they deferred consultation of Gulf Sturgeon to NOAA Fisheries. The USFWS concurred with our not likely to adversely affect determination by letter dated 30 May 2007. Based on our review of the listings of threatened and endangered species that could occur within the project area, the continued maintenance of the GIWW in the State of Mississippi would not affect any listed species or their critical habitat.

ESSENTIAL FISH HABITATS: Essential Fish Habitat (EFH) is defined in the Magnuson-Stevens Fishery Conservation and Management Act as “those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity.” The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. National Marine Fisheries Service (NMFS) has identified EFH 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. To the extent practicable, this project will not adversely affect EFH. Due to the short duration of the proposed activity, no managed species or their habitat will be significantly impacted and benthic communities in the project area will re-colonize within a few months. NMFS will be consulted regarding the status of EFH compliance via a letter from this office.

CULTURAL RESOURCES CONSIDERATION: In compliance with the National Historic Preservation Act (NHPA), coordination with the Mississippi State Historic Preservation Officer (SHPO) has been conducted. No cultural resources are known to occur in the open-water disposal or channel areas. No sites listed on the *National Register of Historic Places* (Register) are located within the project area.

The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and open water disposal areas were constructed and operated prior to the enactment of the NHPA, which was signed in to law in 1966. In 1979, the Corps, Mobile District, analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations within 36 Code of Federal Regulation (CFR) 800, in order to ensure compliance with NHPA. This analysis was conducted as part of the aforementioned EIS from 1976. No cultural resources were found within the open-water disposal or channel areas. No sites listed on the Register were located within the project area.

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As the lead Federal agency the Corps, Mobile District, determined that the continued operation and maintenance activities would have no effect on historic properties. The effects determination was forwarded to the SHPO for review.

The present project includes no new action as defined by the NHPA. The Corps, Mobile District has determined that maintenance and dredging operations within existing channels and utilizing existing disposal areas has no potential to cause effects to historic properties as per CFR 800.0(1). The proposed recertification plan and subsequent effects determination will be forwarded to the SHPO's for review and comment.

PROTECTION OF CHILDREN: On April 21, 1997, the President issued Executive Order (EO) 13045, *Protection of Children from Environmental Health and Safety Risks*. This EO requires Federal agencies, to the extent permitted by law, and consistent with the agency's mission, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risk to children that result from environmental projects. The maintenance of the proposed action, and subsequent disposal of dredged material in open water sites, do not constitute a disproportionate risk to children.

ENVIRONMENTAL JUSTICE: EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* was issued on February 11, 1994. The order requires that Federal agencies conduct programs, policies, and activities that substantially affect human health or the environment so that there is no disproportionately high and adverse human health or environmental effects on minority and low income populations. This project is not designed to create a benefit for any group or individual, but rather benefits on a region-wide basis. There are no indications that the proposed maintenance dredging would be contrary to the goals of EO 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low income populations of the surrounding communities.

CLEAN AIR ACT: The National Ambient Air Quality Standards (NAAQS), established by the Environmental Protection Agency (EPA), set maximum allowable concentration limits for six criteria air pollutants to protect the public health, safety, and welfare as a result of the Federal Clean Air Act of 1970 (CAA). Areas in which air pollution levels persistently exceed the NAAQS may be designated as "non-attainment." States in which a non-attainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS. 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 CAA, as amended. The project area is in attainment with the NAAQS parameters and the proposed action would not affect the attainment status of the project area or the region. A SIP 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 evaluation of the probable impact including cumulative impacts of the proposed action on overall public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from this proposal must be balanced against its reasonably foreseeable determinants. All factors, which may be relevant to the proposal, will be considered including the

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cumulative effects thereof. 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 people. The proposed action will proceed unless it is found to be contrary to the overall public interest.

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

U.S. Fish and Wildlife Service, Jackson Field Office
National Marine Fisheries Service
Gulf of Mexico Fishery Management Council
National Park Service
United States Coast Guard, District 8
U.S. Environmental Protection Agency, Region 4
Affiliated Indian Tribal Interests
Mississippi Department of Environmental Quality
Mississippi Department of Marine Resources
Mississippi State Historic Preservation Officer
Mississippi Department of Wildlife, Fisheries and Parks
Mississippi Secretary of State Office
U.S. Department of Agriculture, Natural Resources Conservation Service

Other Federal, State, and local organizations, and United States Senators and Representatives of Mississippi are being sent copies of this notice and are invited to participate in coordinating this proposed action. You are requested to communicate the information contained in this notice to any person who may have 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 the public notice should refer to Public Notice Number FP07-IW01-14 and should be directed to the Commander, U.S. Army Corps of Engineers, Mobile District, P.O. Box 2288, Mobile, Alabama 36628-0001. For more information, contact Mr. Matthew J. Lang, at (251) 694-3837, email address: matthew.j.lang@sam.usace.army.mil.


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

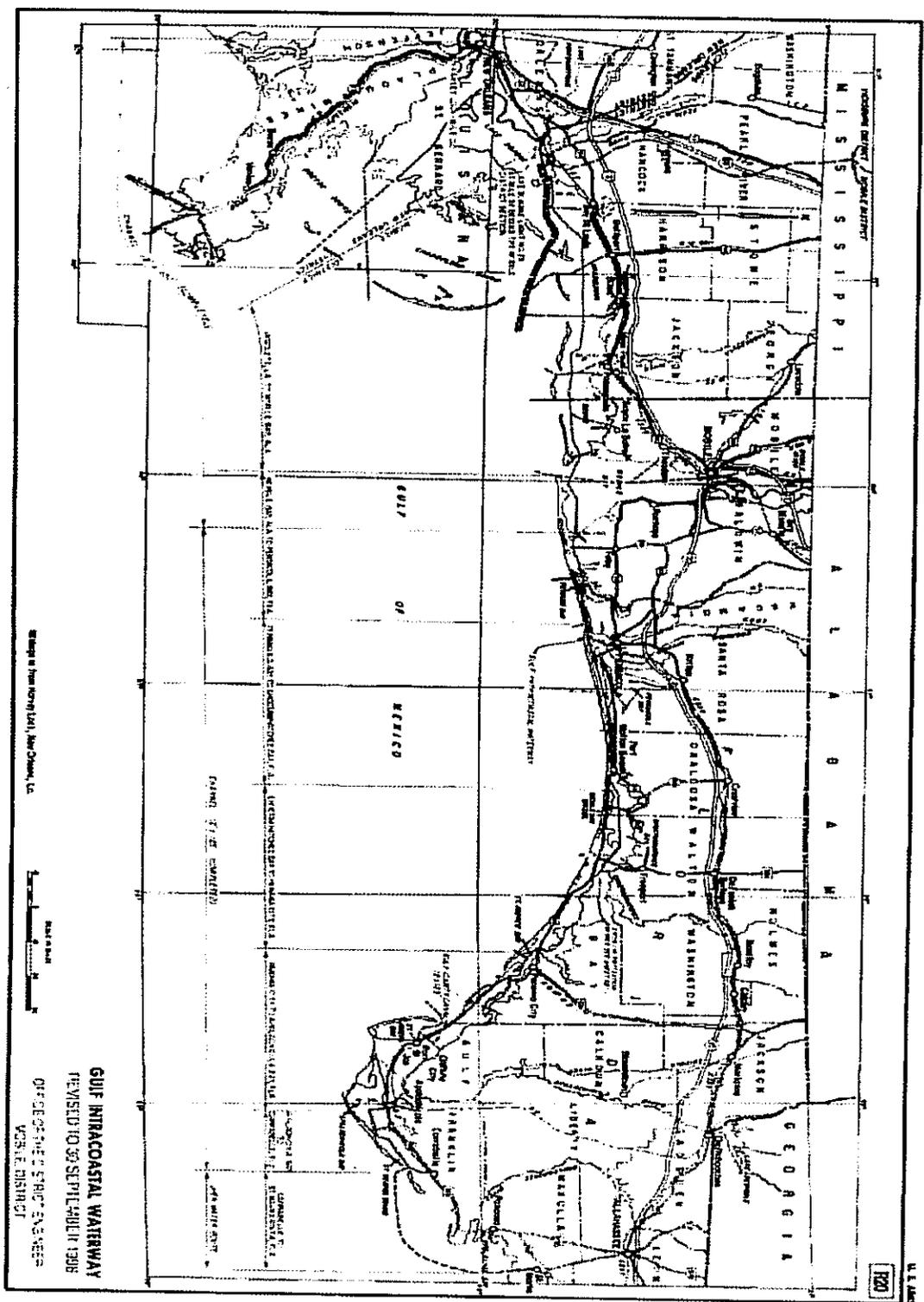


Figure 1: Entire GIWW Authorized Project Map

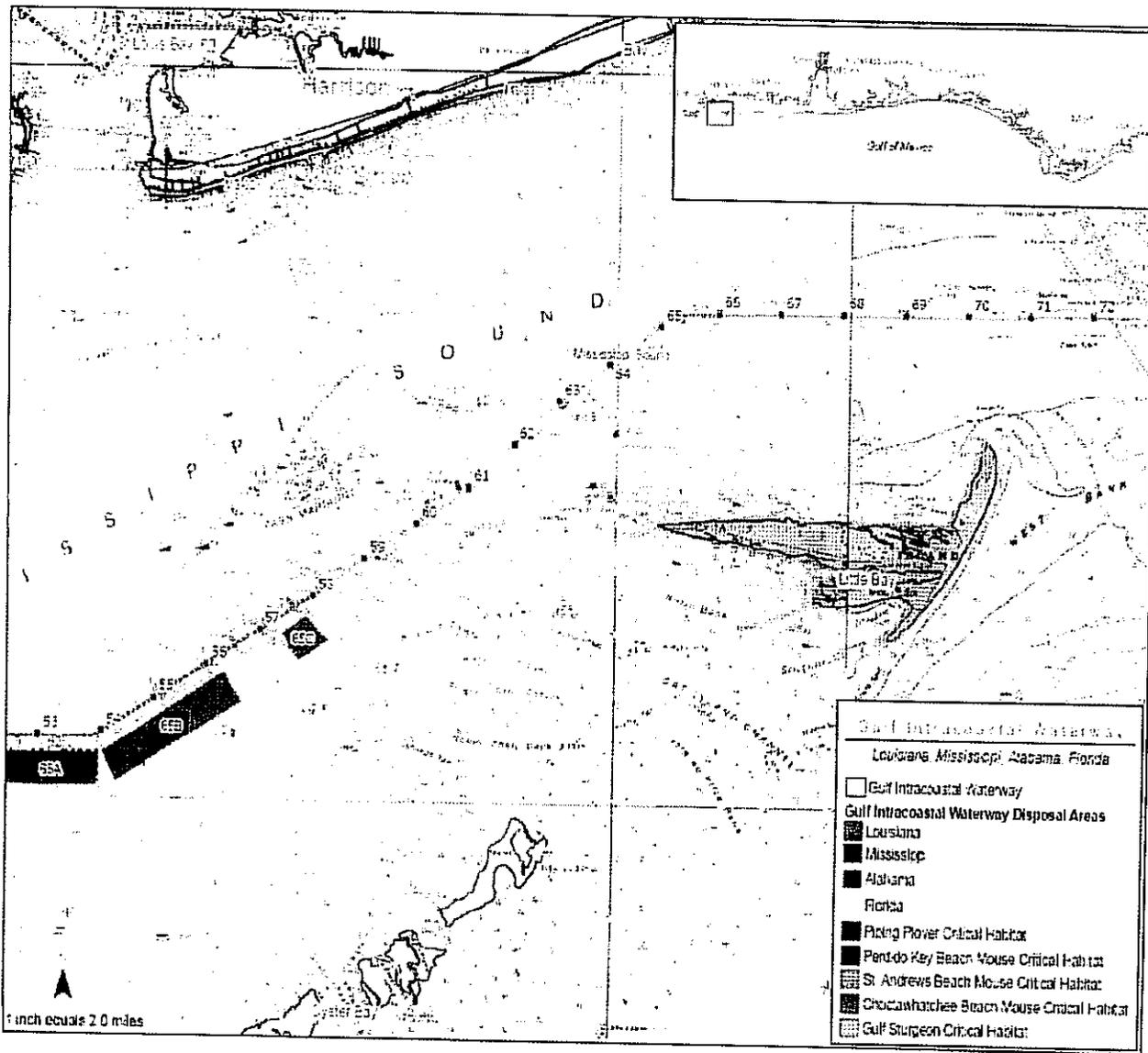


Figure 2: Open Water Disposal Areas 65 A-C



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

REPLY TO
ATTENTION OF

PUBLIC NOTICE NO. FP08-IW02-14
CESAM-PD-EC

28 January 2008

JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
BUREAU OF POLLUTION CONTROL
LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL RESOURCES DIVISION
PROPOSED MAINTENANCE DREDGING AND PLACEMENT ACTIVITIES
GULF INTRACOASTAL WATERWAY NAVIGATION PROJECT
LOUISIANA PORTION
A FEDERALLY AUTHORIZED PROJECT

Interested persons are hereby notified that the U.S. Army Corps of Engineers (Corps), Mobile District, proposes to conduct maintenance dredging and placement activities in the Gulf Intracoastal Waterway (GIWW), Louisiana.

This Public Notice is issued in accordance with the rules and regulations in the Federal Register on April 26, 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: GIWW from Lake Borgne Light No. 29, Louisiana, to the Louisiana-Mississippi state line.

DESCRIPTION OF THE ENTIRE AUTHORIZED PROJECT: The existing project under the auspices of the Corps, Mobile District provides for a waterway 12 feet deep, 125 feet wide at mean lower low water (MLLW) from Apalachee Bay, Florida to Mobile Bay, Alabama and a channel 12 feet deep and 150 feet wide from Mobile Bay, Alabama to the Rigolets, Louisiana (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12-foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long (Figure 1). The existing project was authorized by the 1966 Rivers and Harbors Act, (House Document 481, 89th Congress, 2nd Session) as amended and prior acts.

**PUBLIC NOTICE NO. FP08-IW02-14
CESAM-PD-EC****28 January 2008**

DESCRIPTION OF THE PROPOSED ACTION: The proposed action involves the continued maintenance dredging and placement of dredged material associated with the GIWW in the State of Louisiana. Approximately 250,000 cubic yards (CY) of dredged material would be removed by hydraulic pipeline dredge on an as needed basis over a three (3) to five (5) year timeframe. The dredged material consists predominantly of silts and sandy silts. The material resulting from routine maintenance dredging would be placed in a previously used and permitted open-water disposal area (Figure 2).

The proposed action would involve maintenance dredging of the Louisiana portion of the GIWW, with a maximum depth of -16 feet MLLW (authorized project depth of -12 feet MLLW, plus -2 feet of advanced maintenance and -2 feet of allowable over depth dredging). Maintenance dredging intervals typically occur once every three (3) to five (5) years, and for the current proposed action, the material would be removed by hydraulic pipeline dredge and placed in a previously used and authorized open-water disposal area using a thin-layer technique of disposal (Figure 2).

In emergency conditions, a barge-mounted dragline or snagboat may be used to remove rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow immediate passage of vessels until a hydraulic pipeline dredge can be dispatched to restore project dimensions.

Emergency disposal needs are infrequent and usually the result of specific incidents such as storm events or barge groundings. Past experience has shown, however, that only a few areas are likely to require such emergency action but such action may be required at any location along the waterway. In the event of emergency all necessary Federal and state agencies would be notified before the commencement of work.

WATER QUALITY CERTIFICATION: Water quality certification will be requested from the Louisiana Department of Environmental Quality, Bureau of Pollution Control (BPC) for a five (5) year period. Upon completion of the required comment period, a decision relative to certification will be made.

COASTAL ZONE CONSISTENCY: Pursuant to the requirements of the Coastal Zone Management Act (CZMA), coastal zone consistency will be requested from the State of Louisiana, Department of Natural Resources (DNR), Coastal Resources Division. Our review of the CZMA finds that the continued maintenance of the project remains consistent with the Louisiana Coastal Program to the maximum extent practicable. A determination relative to coastal zone consistency will be made by Louisiana DNR after completion of the required comment period.

USE BY OTHERS: The proposed action is not expected to create significant impacts on land use plans. Use of waters within the open water disposal site; including fishing, shrimping, recreational boating, and the commercial transporting of fuels would be impacted during the actual maintenance activities; however, this action would be temporary and the aforementioned activities would resume to normal upon completion.

NATIONAL ENVIRONMENTAL POLICY ACT CONSIDERATIONS: In accordance with the requirements of the National Environmental Policy Act (NEPA) an Environmental Impact Statement (EIS) for the entire GIWW navigation project from the Pearl River, Louisiana-Mississippi to Apalachee Bay, Florida, was filed with the President's Council on Environmental Quality (CEQ) on December 17,

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1976. A current Draft Environmental Assessment (EA) has been prepared and the document is on file at the Mobile District Office of the Corps and also on the web at address <http://www.sam.usace.army.mil/>. Appropriate revisions will be incorporated into the EA documentation if information is received during the coordination process that would dictate the need to amend the existing EA.

SECTION 404(b)(1) EVALUATION REPORT: An evaluation of water quality impacts associated with the proposed action has been prepared in accordance with guidelines promulgated by the Environmental Protection Agency (EPA) under Section 404(b)(1) of the Clean Water Act (CWA). The report is on file and is available for review in the Mobile District Office and at web address <http://www.sam.usace.army.mil/>. Appropriate revisions will be incorporated into the Section 404(b)(1) documentation if information is received during the coordination process that would dictate the need to amend the existing 404(b)(1) Evaluation Report.

THREATENED AND ENDANGERED SPECIES: The proposed action has been coordinated with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Interior, Fish and Wildlife Service (USFWS). NOAA Fisheries has been consulted with by letter dated 19 April 2007 and NOAA Fisheries has concurred with our determination, by letter dated 23 October 2007, that the proposed action is not likely to adversely affect threatened and endangered species or their critical habitat. Based on our review of the listings of threatened and endangered species that could occur within the project area, the continued maintenance of the GIWW in the State of Louisiana would not affect any listed species or their critical habitat.

ESSENTIAL FISH HABITATS: Essential Fish Habitat (EFH) is defined in the Magnuson-Stevens Fishery Conservation and Management Act as “those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity.” The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. National Marine Fisheries Service (NMFS) has identified EFH 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. To the extent practicable, this project will not adversely affect EFH. Due to the short duration of the proposed activity, no managed species or their habitat will be significantly impacted and benthic communities in the project area will re-colonize within a few months. NMFS will be consulted regarding the status of EFH compliance via a letter from this office.

CULTURAL RESOURCES CONSIDERATION: In compliance with the National Historic Preservation Act (NHPA), coordination with the Louisiana State Historic Preservation Officer (SHPO) will be conducted. No cultural resources are known to occur in the open-water disposal or channel areas. No sites listed on the *National Register of Historic Places* (Register) are located within the project area.

The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and open-water disposal area was constructed and operated prior to the enactment of the NHPA, which was signed into law in 1966. In 1979, the Corps, Mobile District, analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations within 36 Code of Federal Regulation (CFR) 800, in order to ensure compliance with NHPA. This analysis was conducted as part of the aforementioned EIS from 1976. No cultural resources were found within the open-water disposal or channel areas. No sites listed on the Register were located within the project area. As the lead Federal agency the Corps, Mobile District, determined that the continued operation and maintenance

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activities would have no effect on historic properties. The effects determination was forwarded to the SHPO for review.

The present project includes no new action as defined by the NHPA. The Corps, Mobile District, has determined that maintenance dredging operations within existing channels and utilizing the existing disposal area has no potential to cause adverse effects to historic properties as per CFR 800.0(1). The proposed recertification plan and subsequent effects determination will be forwarded to the SHPO's for review and comment.

PROTECTION OF CHILDREN: On April 21, 1997, the President issued Executive Order (EO) 13045, *Protection of Children from Environmental Health and Safety Risks*. This EO requires Federal agencies, to the extent permitted by law, and consistent with the agency's mission, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risk to children that result from environmental projects. The maintenance of the proposed action, and subsequent disposal of dredged material in the previously authorized open-water disposal site, do not constitute a disproportionate risk to children.

ENVIRONMENTAL JUSTICE: EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, was issued on February 11, 1994. This EO requires that Federal agencies conduct programs, policies, and activities that substantially affect human health or the environment so that there is no disproportionately high and adverse human health or environmental effects on minority and low income populations. This project is not designed to create a benefit for any group or individual, but rather benefits on a region-wide basis. There are no indications that the proposed maintenance dredging would be contrary to the goals of EO 12898, or would create disproportionate, adverse human health or environmental impacts on minority or low income populations of the surrounding communities.

CLEAN AIR ACT: The National Ambient Air Quality Standards (NAAQS), established by the EPA, set maximum allowable concentration limits for six criteria air pollutants to protect the public health, safety, and welfare as a result of the Federal Clean Air Act of 1970 (CAA). Areas in which air pollution levels persistently exceed the NAAQS may be designated as "non-attainment." States in which a non-attainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS. 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 fossil fuels. However, these impacts would be minor and temporary in nature. The proposed action is in compliance with the CAA, as amended. The project area is in attainment with the NAAQS parameters and the proposed action would not affect the attainment status of the project area or the region. A SIP 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 evaluation of the probable impact including cumulative impacts of the proposed action on overall public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from this proposal must be balanced against its reasonably foreseeable determinants. All factors, which may be relevant to the proposal, will be considered including the cumulative effects thereof. Among these are conservation, economics, esthetics, general environmental

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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 people. The proposed action will proceed unless it is found to be contrary to the overall public interest.

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

U.S. Fish and Wildlife Service, Lafayette Field Office
National Marine Fisheries Service, Baton Rouge, Louisiana
Gulf of Mexico Fishery Management Council
Regional Director, National Park Service
United States Coast Guard, District 8
U.S. Environmental Protection Agency, Region VI
Affiliated Indian Tribal Interests
Louisiana Department of Environmental Quality
Louisiana Department of Natural Resources, Coastal Resources Division
Louisiana State Historic Preservation Officer
Louisiana Department of Wildlife, Fisheries and Parks
Louisiana Secretary of State Office
U.S. Department of Agriculture, Natural Resources Conservation Service

Other Federal, State, and local organizations, and United States Senators and Representatives of Louisiana are being sent copies of this notice and are invited to participate in coordinating this proposed action. You are requested to communicate the information contained in this notice to any person who may have 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 the public notice should refer to Public Notice Number FP07-IW02-14 and should be directed to the Commander, U.S. Army Corps of Engineers, Mobile District, P.O. Box 2288, Mobile, Alabama 36628-0001. For more information, contact Mr. Matthew J. Lang, at (251) 694-3837, email address: matthew.j.lang@sam.usace.army.mil.


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

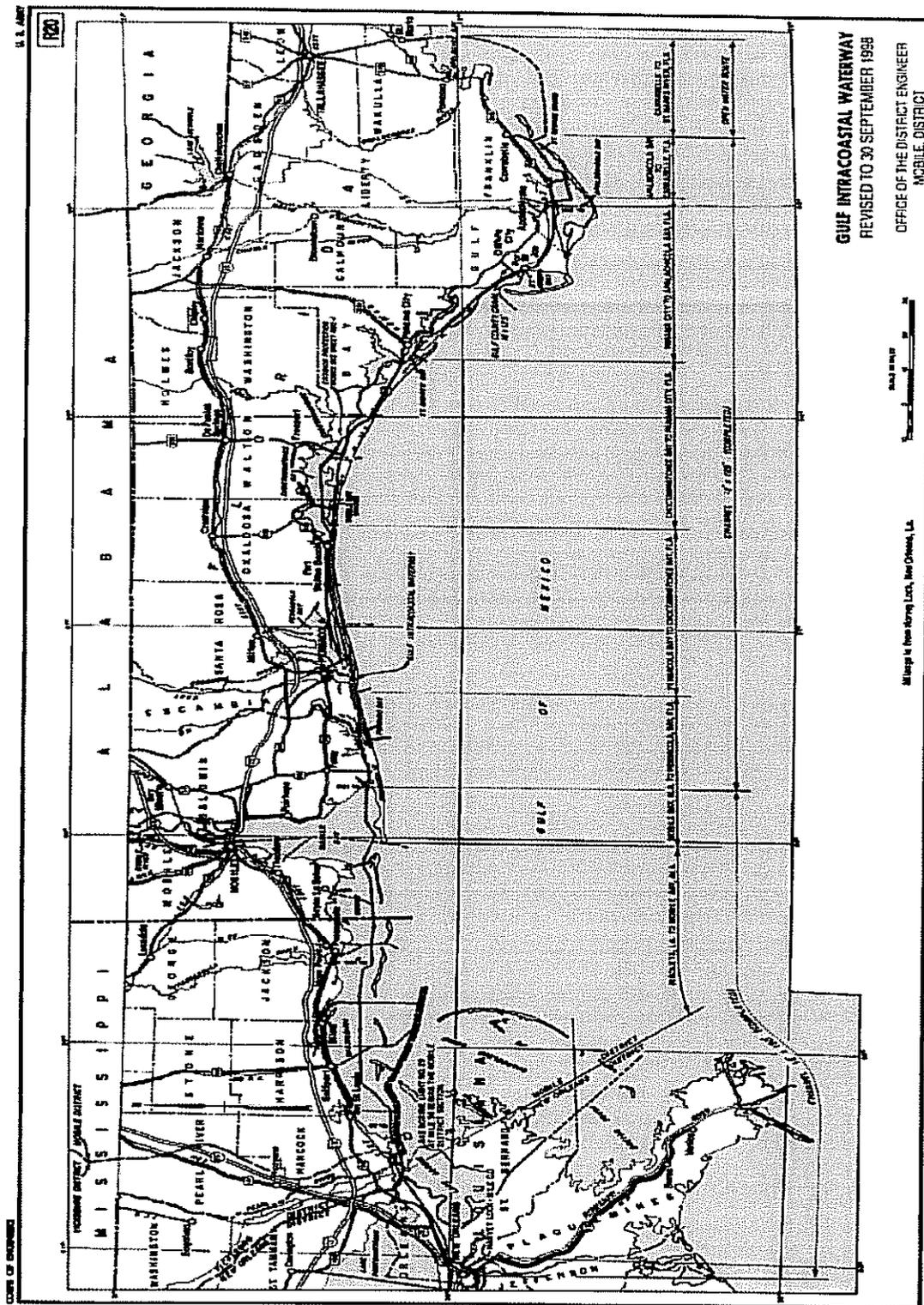


Figure 1: Entire GIWW Authorized Project Map

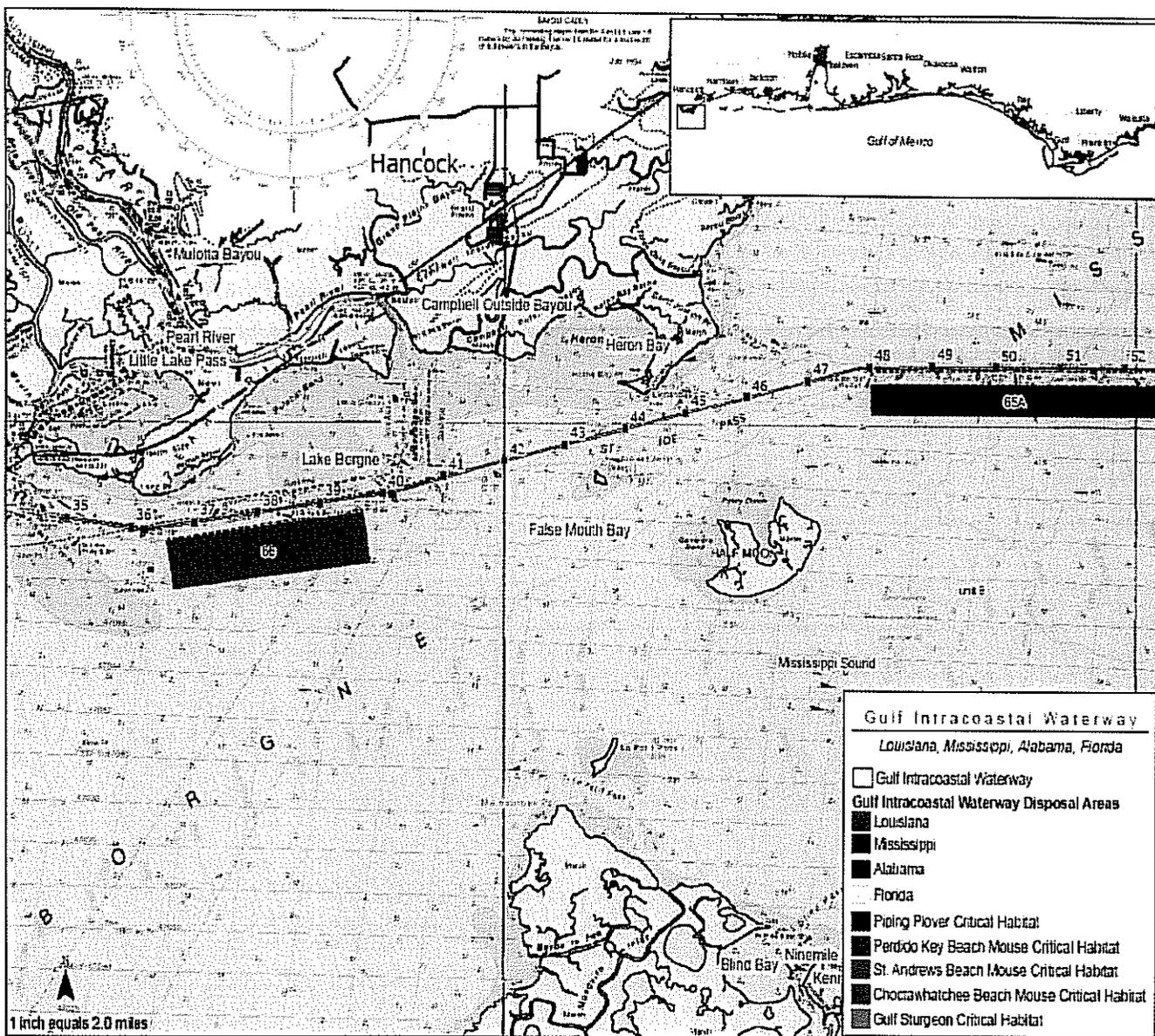


Figure 2: Gulf Intercoastal Waterway and Open Water Disposal Area # 66

March 6, 2008

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 continued operations and maintenance to the federally authorized Gulf Intracoastal Waterway (GIWW) navigation project located within the State of Mississippi under authority issued by the 1966 River and Harbor, and Section 107 River and Harbor Act of 1960. By this letter and its information therein, the Corps, Mobile District is requesting to initiate formal Essential Fish Habitat (EFH) consultation.

Description of the Authorized Project:

The existing project under the auspices of the Corps, Mobile District provides for a waterway 12 feet deep, 125 feet wide at mean lower low water (MLLW) from Apalachee Bay, Florida to Mobile Bay, Alabama and a channel 12 feet deep and 150 feet wide from Mobile Bay, Alabama to the Rigolets, Louisiana (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12-foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long (Figure 1). The existing project was authorized by the 1966 Rivers and Harbors Act, (House Document 481, 89th Congress, 2nd Session) as amended and prior acts.

Description of the Proposed GIWW Maintenance Plan:

The proposed action for the Mississippi portion of the GIWW would be the maintenance dredging and disposal activities as previously certified in the State of Mississippi. The proposed action would involve maintenance dredging of the Mississippi portion of the GIWW, which is 65 miles in length, 150 feet in width, and with a maximum depth of -16 feet mean lower low water

- 2 -

(MLLW) (authorized project depth of -12 feet MLLW, plus -2 feet of advanced maintenance and -2 feet of allowable over depth dredging). Approximately 3,000,000 cubic yards (CY) of sandy silt are proposed for removal by hydraulic pipeline dredge on an infrequent basis over a ten-year period. However, maintenance dredging intervals typically occur once every three (3) to five (5) years, and for the current proposed action, the material would be removed by hydraulic pipeline dredge and placed in previously used and authorized open-water disposal areas using a thin layer technique of disposal (Figure 2).

In emergency conditions, a barge-mounted dragline or snagboat may be used to remove rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow immediate passage of vessels until a hydraulic pipeline dredge can be dispatched to restore project dimensions.

Emergency disposal needs are infrequent and usually the result of specific incidents, such as storm events or barge groundings. Past experience has shown, however, that only a few areas are likely to require such emergency action but such action may be required at any location along the waterway. In the event of emergency all necessary Federal and state agencies would be notified before the commencement of work.

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.

The open-water and the 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*).

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 managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through

- 3 -

dredging and placement operations. As the dredge moves quite slowly, this number is not expected to be significant to species distribution within the GIWW and Mississippi Sound.

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, utilizes thin-layer disposal techniques whenever feasible and adheres to water quality requirements provided by the Mississippi Department of Environmental Quality (MDEQ) to reduce impacts to EFH. These steps also include reducing the amount of material dredged within the GIWW to the minimal amount required to achieve the project objectives. Sediment placed within these open-water sites is similar to what is already found at the sites and the use of these open-water sites have occurred prior to its EFH designation.

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,



Jennifer L. Jacobson *for*
Chief, Coastal Environment Team

Enclosures



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

REPLY TO
ATTENTION OF:

March 6, 2008

Coastal Environment Team
Planning and Environmental Division

Mr. Rick Hartman
National Marine Fisheries Service,
Habitat Conservation Division, C/O LSU
Baton Rouge, Louisiana 70803-7535

Dear Mr. Hartman:

The U.S. Army Corps of Engineers (Corps), Mobile District, is proposing continued operations and maintenance to the federally authorized Gulf Intracoastal Waterway (GIWW) navigation project located within the State of Louisiana under authority issued by the 1966 River and Harbor, and Section 107 River and Harbor Act of 1960. By this letter and its information therein, the Corps, Mobile District is requesting to initiate formal Essential Fish Habitat (EFH) consultation.

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- 2 -

pipeline dredge on an as needed basis over a three (3) to five (5) year timeframe. The dredged material consists predominantly of silts and sandy silts. The material resulting from routine maintenance dredging would be placed in a previously used and permitted open-water disposal area using a thin-layer technique of disposal (**Figure 2**).

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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.

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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 managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through dredging and placement operations. As the dredging and placement activities only occur every 3 to 5 years, this number is not expected to be significant to species distribution within the GIWW and Mississippi Sound.

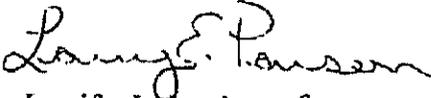
- 3 -

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, utilizes thin-layer disposal techniques whenever feasible and adheres to water quality requirements provided by the Louisiana Department of Environmental Quality (LADEQ) to reduce impacts to EFH. These steps also include reducing the amount of material dredged within the GIWW to the minimal amount required to achieve the project objectives. Sediment placed within the open-water site is similar to what is already found at the sites and the use of the open-water site has occurred prior to its EFH designation.

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,


Jennifer L. Jacobson *for*
Chief, Coastal Environment Team

Enclosures

**STATE OF MISSISSIPPI**Haley Barbour
Governor**MISSISSIPPI DEPARTMENT OF MARINE RESOURCES**

William W. Walker, Ph.D., Executive Director

March 10, 2008

Mr. Jason Steele
Regulatory Division
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, AL 36628

Re: DMR-080543; U.S. Army Corps of Engineers

Dear Mr. Steele:

The Department of Marine Resources in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi. Proposed activities in the coastal area are reviewed to insure that the activities are in compliance with the MCP.

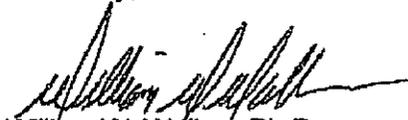
The applicant is proposing to dredge 3,000,000 cubic yards of sandy silt over a ten-year period for maintenance of an existing waterway from Mobile Bay, Alabama to the Rigolets, Louisiana. The above activity has been reviewed based upon provisions of the Mississippi Coastal Program and Section 307 of the Coastal Zone Management Act of 1972 (as amended). The activity has been determined to be consistent to the maximum extent practicable with the Mississippi Coastal Program provided that the applicant adheres to the following conditions:

1. An area 150 feet in width shall be dredged to a final depth of 12 feet below mean low water as indicated on the attached diagram. Approximately 3,000,000 cubic yards of material shall be removed;
2. No sinks or sumps shall be created in the dredging process. Dredging depth is limited to that of the controlling navigational depth of the adjacent waters. A minimum 3:1 (horizontal: vertical) side slope shall be maintained in the dredge area;
3. Turbidity shall be minimized at the dredge site by methods such as using staked filter cloth, staged construction, and/or the use of turbidity screens around the immediate project site;

4. All dredged material shall be placed in an approved disposal area;
5. Vegetated wetlands outside of the 3,000,000 cubic yards of maintenance dredging shall not be impacted;
6. No construction debris or unauthorized fill material shall be allowed to enter coastal wetlands or waters; and,
7. No machinery shall be allowed in unauthorized wetlands.

The above granted consistency certification was based upon the Public Notice presented. If you have any questions regarding this letter, please contact Rebekah Turner with the Bureau of Wetlands Permitting at 228-523-4104.

Sincerely,



William W. Walker, Ph.D.
Executive Director

WWW/rrt

Enclosure

cc: Mr. Robert Seyfarth, OPC
U.S. Army Corps of Engineers



PO Box 571, Jackson, MS 39205-0571
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
H. T. Holmes, Director

*me F ?
copy ?*

March 14, 2008

Commander
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

RE: Proposed maintenance dredging and placement activities, Gulf Intracoastal Waterway Navigation Project, Public Notice No. FP08-IW01-14, MDAH Project Log #02-056-08

Dear Sir:

We have reviewed your request for a cultural resources assessment, received on February 14, 2008, for the above referenced project in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, it is our determination that no known cultural resources will be affected. Therefore, we have no objection with the proposed undertaking.

Should there be additional work in connection with the project, or any changes in the scope of work, please let us know in order that we may provide you with appropriate comments in compliance with the above referenced regulations.

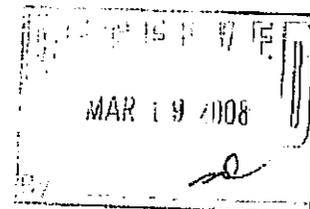
If we can be of further assistance, please do not hesitate to contact us at (601) 576-6940.

Sincerely,


Jim Woodrick
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

c: Clearinghouse for Federal Programs



October 2010



r yem

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE
 Southeast Regional Office
 263 13th Avenue, South
 St. Petersburg, Florida 33701

March 24, 2008 F/SER46/RH:jk
 225/389-0508

Ms. Jennifer L. Jacobson, Chief
 Coastal Environmental Team
 Planning and Environmental Division
 Mobile District, Corps of Engineers
 Post Office Box 2288
 Mobile, Alabama 36628-0001

Dear Ms. Jacobson:

NOAA's National Marine Fisheries Service (NMFS) has received your letter dated March 6, 2008, pertaining to the proposed maintenance dredging of that portion of the Gulf Intracoastal Waterway (GIWW) within both the jurisdiction of the Mobile District and the state of Louisiana. As described in your letter, approximately 250,000 cubic yards of material would be dredged from the GIWW over a 3 to 5 year period. That material is proposed for placement in a thin layer in open water adjacent to the navigation channel. As discussed in your letter, the proposed disposal site has been used previously for this purpose. The Mobile District, under provisions of the Magnuson-Stevens Fishery Conservation and Management Act, has determined that the proposed dredging and sediment disposal effort would not result in significant impacts to essential fish habitat (EFH).

While NMFS concurs that the proposed project would not result in significant long term impacts to EFH, we are concerned that there appears to be no consideration of the beneficial use of this sediment for marsh restoration or creation. Louisiana currently is losing marsh at an estimated rate of approximately 24 square miles annually. As a result of the passage of Hurricanes Katrina and Rita, Louisiana lost more than 100 square miles of wetlands. NMFS believes that every effort should be made to evaluate all alternatives to use sediment dredged from all navigation channels within Louisiana beneficially to restore or create marsh. We believe failure to consider the beneficial use of dredged material just because such use has not previously been evaluated or authorized is not a sufficient justification for not doing so. In this case, NMFS recommends the Mobile District evaluate options to place the sediment dredged from the GIWW into degraded marsh habitats north of the GIWW to elevations suitable for marsh restoration.

We appreciate your consideration of our comments. If you wish to discuss this project further, please contact Richard Hartman at (225) 389-0508, extension 203.

Sincerely,

for Miles M. Croom
 Assistant Regional Administrator
 Habitat Conservation Division

c:
 FWS - Lafayette
 LDNR, Consistency
 F/SER4, Dale
 F/SER46, Swafford
 F/SER4, Thompson
 Files





STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

March 24, 2008

Certified Mail No. 7005 3110 0003 6328 8047

Mr. Matthew J. Lang
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Mr. Lang:

Re: US Army COE, Mobile
District, Gulf Intracoastal
Waterway Navigation Project
Jackson County
COE No. FP08IW0114
WQC No. WQC2008016

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, U.S. Army Corps of Engineers, Mobile District, an applicant for a Federal License or permit to conduct the following activity:

US Army COE, Mobile District, Gulf Intracoastal Waterway Navigation Project: The applicant proposes to perform previously certified maintenance dredging activities in the Mississippi portion of the Gulf Intracoastal Waterway. Approximately 3,000,000 cubic yards of sandy silt would be removed by hydraulic pipeline dredge over a ten-year period. In emergency conditions where unexpected shoals or other hazards appear, a barge-mounted dragline or snagboat may be used. All dredge materials would be placed into previously authorized open-water disposal areas using a thin layer technique of disposal. [FP08IW0114, WQC2008016].

The Office of Pollution Control certifies that the above-described activity will be in compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of

36950 WQC20080001

Mr. Matthew J. Lang
Page 2 of 3
March 24, 2008

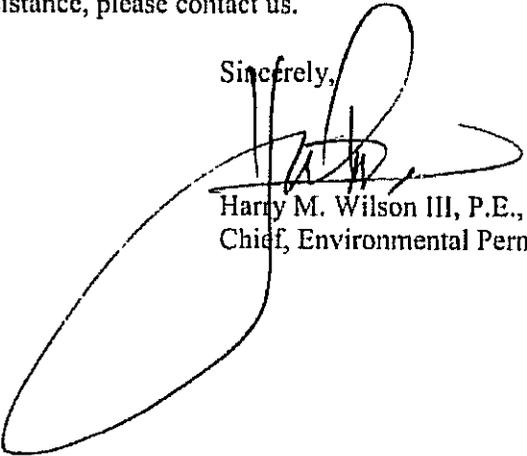
the Federal Water Pollution Control Act and Section 49-17-29 of the Mississippi Code of 1972, if the applicant complies with the following conditions:

1. The channel depth shall gradually increase toward open water and shall not exceed the controlling navigational depth. No "sumps" shall be created by proposed dredging.
2. Best management practices should be used at all times during construction to minimize turbidity at both the dredge and spoil disposal sites. The disposal sites shall be constructed and maintained in a manner that minimizes the discharge of turbid waters into waters of the State. Best management practices should include, but not limited to, the use of staked hay bales; staked filter cloth; sodding, seeding and mulching; staged construction; and the installation of turbidity screens around the immediate project site. Any effluent from the disposal area should be routed through a return swale system and filtered through a series of hay bales and silt fences so as to reduce the turbidity of the effluent.
3. Turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units.
4. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.

The Office of Pollution Control also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If we can be of further assistance, please contact us.
If we can be of further assistance, please contact us.

Sincerely,



Harry M. Wilson III, P.E., DEE
Chief, Environmental Permits Division

HMW: as

36950 WQC20080001

Mr. Matthew J. Lang

Page 3 of 3

March 24, 2008

cc: Ms. Willa Henriksen, Department of Marine Resources
Mr. Paul Necaize, U.S. Fish and Wildlife Service
Mr. Ron Mikulak, Environmental Protection Agency
Ms. Janet Riddell, Office of Budget & Fund Management

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
(727) 824-5317; Fax 824-5300
<http://sero.nmfs.noaa.gov>

March 31, 2008

F/SER46:MT/mt

Colonel Byron G. Jorns
District Engineer, Mobile District
Planning and Environmental Division
Department of the Army, Corps of Engineers
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Colonel Jorns:

NOAA's National Marine Fisheries Service, Habitat Conservation Division (NMFS-HCD) has received your staff's letter dated March 6, 2008, initiating essential fish habitat (EFH) consultation for the continued maintenance dredging and disposal of dredged material associated with the Mississippi portion of the Gulf Intracoastal Waterway. The Corps of Engineers (COE) is requesting concurrence with its determination that the project is not anticipated to have adverse impacts to EFH.

NMFS-HCD has concerns with the proposal and your preliminary conclusion that uncontained open water disposal of approximately three million cubic yards of dredged material on an infrequent basis over a ten-year period is not anticipated to have adverse impacts on EFH in Mississippi Sound. Cumulatively, COE maintenance of federal navigation projects throughout Mississippi Sound, including the Bayou La Batre, Alabama, federal navigation channel, results in an annual average of 2.5 million cubic yards of mostly fine-grained sediments being placed in uncontained open water sites. Open water disposal results in an increase in turbidity and total suspended solids and can decrease dissolved oxygen throughout the water column. The extent of adverse impacts is influenced by many factors such as quantity and quality of the sediments, tidal transport, disposal rate, water depths, the area's biological productivity and water quality conditions, and the time of year of disposal.

The large quantity of fine-grained sediment being placed, unconfined, in Mississippi Sound would result in adverse impacts to EFH and other estuarine resources. Adverse effects from uncontained, open water disposal have been documented (ACOE 1997, Onuf 1994) and, due to the duration and frequency of disposal, species diversity of non-motile benthic species may never

fully recover to preproject levels. However, studies addressing short and long term impacts of continued open water disposal in Mississippi Sound on benthic communities have not been performed.

The natural sand and mud bottoms of the Mississippi Sound support a benthic infaunal population that contributes directly to the complex estuarine food web and provides important forage, spawning, and nursery areas for a variety of commercially and recreationally important fish and invertebrate species. The proposed project is located in an area identified as EFH for postlarval and juvenile red drum, Gulf stone crab, and penaeid shrimp, juvenile Spanish mackerel, and several shark species. Categories of EFH in Mississippi Sound include mud and sand substrates, water column, wetlands and seagrasses. Detailed information on federally managed fisheries and their EFH is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council. The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Other species impacted could include: blue crab, oyster, gulf menhaden, spotted and sand seatrout, croaker, mullet, and flounder. Spanish mackerel, spotted seatrout, red drum, croaker, menhaden, shrimp, and blue crab are species identified pursuant to Section 906(e)(1) of the Water Resources Development Act of 1986 as being of "national economic importance."

The objective of the 1972 Federal Water Pollution Control Act Amendments, reauthorized as the Clean Water Act in 1977, is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The amendments to the Magnuson-Stevens Act set forth a mandate for the NMFS, regional fishery management councils, and other federal agencies to identify and protect important marine and anadromous fish habitat. The EFH provisions of the Magnuson-Stevens Act support one of the nation's overall marine resource management goals – that of maintaining sustainable fisheries. To achieve this goal it is critical that suitable marine fishery habitat quality and quantity be maintained and, where possible, restored. This project would fail to further the goals of either law.

We have addressed this issue and identified potential adverse fishery impacts in previous comments to the federal projects within the Mississippi Sound estuary, and we have not received any specific information that would lead us to conclude that the proposal would not adversely impact EFH and dependent fishery resources. Without convincing evidence that unconfined disposal of dredged material would not adversely impact EFH and economically important fishery resources in Mississippi Sound, we can not agree with your agency's determination that the proposed activity is not anticipated to adversely alter EFH. Also, we find the EFH assessment does not adequately address the temporary, long term, and cumulative disposal impacts on federally managed species of Mississippi Sound. Consistent with §600.920(i) of the Magnuson-Stevens Act, EFH assessments for projects potentially having substantial EFH impacts should include a greater level of detail on life stages, seasonality of occurrence, environmental requirements, etc., of managed and associated fisheries. Similarly, the assessment should include supporting information such as literature reviews, the views of recognized experts on the habitat and species affects, results of studies of the project site, and a detailed analysis of

alternatives to the proposed action. Therefore, to fully address potential project impacts, we recommend that expanded EFH consultation be initiated and that a comprehensive EFH assessment be prepared.

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,

Signed by W. Mark Thompson/for

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

cc:

GMFMC-Tampa
F/SER4
F/SER3

cc: email

EPA-Atlanta
FWS- Jackson
MDMR-Biloxi
MDEQ-Jackson
GSMFC-Ocean Springs

REPLY TO
ATTENTION OFDEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

June 17, 2008

Coastal Environment Team
Planning and Environmental DivisionMr. Mile M. Croom
Assistant Regional Administrator
National Marine Fisheries Service
Southeast Regional Office
Habitat Conservation Division
263 13th Avenue South Street
Saint Petersburg, Florida 33701

Dear Mr. Croom:

This letter is in response to correspondence from your office dated February 13, 2007; March 19, 2007; July 2, 2007; July 23, 2007; August 27, 2007 and March 31, 2008 concerning the proposed construction to authorization of the Pascagoula Harbor Navigation Channel and the continued operation and maintenance of the Pascagoula, Gulfport, Bayou La Batre, Biloxi, and Gulf Intracoastal Waterway Federal Navigation projects (F/SER46:MT/mt). In this correspondence your office stated concerns with "the health of the Mississippi Sound estuary as it is affected by the disposal practice of the Federal navigation projects." Expanded Essential Fish Habitat (EFH) consultation was recommended for the continued operation and maintenance of the Federal navigation projects listed above. In addition, your August 17, 2007 letter also contained specific comments regarding the draft Pascagoula Harbor Navigation Channel Supplemental Environmental Impact Statement (DSEIS). Responses to these specific comments are enclosed for your review (Enclosure 1). The U.S. Army Corps of Engineers (Corps), Mobile District, is in the process of revising the EFH assessment information in the DSEIS. A copy of the Final SEIS, which fully evaluates the impacts of the proposed action on EFH will be provided to your office for review and comment prior to a final determination being made on the proposed action.

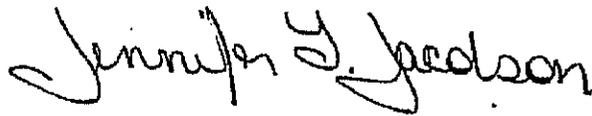
In accordance with your EFH Conservation Recommendations and the Magnuson-Stevens Act, the Corps, Mobile District has prepared a comprehensive EFH assessment, which fully assesses the potential impacts of the continued operation and maintenance of these Federal navigation projects on EFH in the Mississippi Sound system. Since your letters specifically stated concerns about the health of the Mississippi Sound from open water disposal practices of our federally maintained navigation projects, this assessment also evaluated the potential impacts from the continued operation and maintenance dredging of the Bayou Coden Federal Navigation

- 2 -

project. The enclosed EFH assessment analyzes the potential direct, indirect and cumulative effects of operation and maintenance dredging of the Federal navigation projects stated above on EFH and presents the conservation measures, which have and continue to be a standard practice of the Corps, Mobile District for these projects (Enclosure 2). Based on our assessment of the proposed action and incorporated conservation measures, the Corps, Mobile District has determined that the continued operation and maintenance of these federally authorized navigation projects are not likely to adversely affect EFH. We would appreciate your comments, concurrence or recommendations on this matter. Your cooperative support of this activity, in accordance with Magnuson-Stevens Act, is appreciated.

I am forwarding a copy of this letter to Mr. Mark Thompson, Panama City Field Office. If you have any questions or require additional information, please contact me directly at (251) 690-2724, or by e-mail jennifer.l.jacobson@usace.army.mil.

Sincerely,



Jennifer L. Jacobson
Chief, Coastal Environment Team

Enclosures

Table 1: Specific Review Comments and Responses Paragraph 502

Page Number	Review Type/ Paragraph(s)	User Number	Comments	City	Document	Response By	Response
Page 2	App. D, (64)(b)(1) Sec	100	App. D, (64)(b)(1) Sec	Mississippi	Appropriate and specific data was not provided to support actual adverse impacts to the channels in the specific project. The DICE Part 606 Study report should have been submitted to support the proposed DICE Part 606 study. A table should be included in the report to show the number of impacts to support the study of the paragraph and table provided in the DICE Part 606 Study report.	USACE	The Corps, Mobile District, submitted to the State of Louisiana (LA) Department of Environmental Quality, Office of Pollution Control and Safety Council. However, the State was not notified in the DICE Part 606 Study report.

General response to letters from your office dated: February 13, 2007; March 19, 2007; July 2, 2007; July 23, 2007; August 27, 2007 and March 31, 2008

The Corps, Mobile District does not disagree with your statement that past changes in water quality within the Mississippi Sound is a contributing factor that has led to seagrass losses in the system. We do not believe; however, the temporal or spatial extent of such disturbances in the overall system has been documented in sufficient detail to determine the exact causes of the decline. One of the supporting documents referenced in your correspondence concerning open water dredged material impacts on seagrasses is Onuf, 1994. This report stated resuspension and dispersion impacts in seagrass beds 15 months post dredging more than 1 kilometer away. A study of the temporal and spatial effects of shallow open water dredge material placement (< 6.5 feet) in the Laguna Madre by Sheridan (1999) found elevations in turbidity only over the subtidal placement material fluid mud pile. This study found that outside of the Maximum Impact Areas (subtidal dredged material near the center of the placement area); turbidity was not statistically greater than that 1 kilometer or more away. Sheridan (1999) determined that large scale, wind-induced water movements, such as that which might be found during periods of high winds over the entire Laguna Madre, and were more likely to deliver turbid water throughout the study habitats than chronic, low level erosion from the deposits in a microtidal environment. As stated in the enclosed assessment, a review of submerged aquatic vegetation data contained in the Seagrass Status and Trends in the Northern Gulf of Mexico: 1940-2002 report indicates that no seagrasses are located within the navigation channels or the open water dredged material placement sites. The majority of these project areas are within depths greater than those known to support seagrasses (> 9 feet). Based on 1992 submerged aquatic vegetation data digitalized from natural color, 1:24,000-scale aerial photography all seagrasses are known to occur at distances greater than 0.9 kilometers (3,000 feet) of any dredging or dredged material placement activities described in the enclosed assessment. An updated submerged aquatic vegetation survey completed in 1999 from aerial photographs taken for the Gulf Islands National Seashore and photointerpreted by staff at the National Wetlands Research Center also indicated that seagrasses along the barrier islands were located outside the footprint of these projects with distances generally greater than 1.5 kilometers (5,000 feet) of any dredging or open water placement.

As referenced in the enclosed EFH assessment impacts of open-water disposal on benthic communities and fisheries resources have been undertaken nationwide for the last 30 years. The effects of maintenance dredged material deposition on benthic community structure have been studied by Van Dolah and others 1984, Wildish and Thomas 1985, Kleef and others 1992, Rees and others 1992, Roberts and others 1998, Smith and Rule 2001 and many more. Most recently the impacts of thin-layer disposal have been conducted in the Mississippi Sound area, including studies designed and completed by your agency. The outcome of the thin-layer study indicated that (1) the structure of the benthic community was recovering within 1 month and (2) that it was comparable to that of the control area within as little as 5 months but could take up to 10 months to achieve a similar diversity. Pre- and post-monitoring of water quality studies during this time period also found that turbidity and total suspended solids (TSS) were only temporarily affected by disposal operations (Corps, 1999). In addition, TSS were shown to be elevated in bottom waters of disposal areas; however, this limitation to the bottom waters suggests rapid settling rates of the material or low wave and current energy unable to re-suspend sediments. During

maintenance dredging and open water placement in the Mississippi Sound turbidity monitoring is conducted to ensure compliance with State water quality standards. As discussed in the enclosed assessment data collected during maintenance dredging operations in the Mississippi Sound indicate that the suspended solids generated typically settle out in a short amount of time and do not result in significant long term increases in turbidity. Studies on fisheries resources adult, pre-adult and juvenile form indicate that most species are able to avoid the area of disposal or are unaffected. This information has been shared with members of your agency many times in the past and has been incorporated into the enclosed assessment along with supplemental information from literature reviews and studies conducted in other systems.

References:

- Corps. 1999. National Demonstration Program, Thin-Layer Dredged Material Disposal, Gulfport, Mississippi, 1991-1992. Mobile, AL.
- Kleef, H. L., K. Essink, and E. E. Welling. 1992. Het effect van het storten van baggerspie op de bodemfauna in de Oude Westereems in de jaren 1989 en 1990. Report DGW-92.018. Ministerie van Verkeer en Waterstaat, The Netherland.
- Handley, L., Altzman, D., and DeMay, R., eds., 2007, Seagrass Status and Trends in the Northern Gulf of Mexico: 1940-2002: U.S. Geological Survey Scientific Investigations Report 2006-5287 and U.S. Environmental Protection Agency 855-R-04-003, 267 p.
- Onuf, C.P. 1994. Seagrasses, dredging and light in Laguna Madre, Texas, U.S.A. *Estuarine, Coastal and Shelf Science* 39, 75e91.
- Rees, H. L., S. M. Rowlatt, D. S. Limpenny, E. I. S. Rees, and M. S. Rolfe. 1992. Benthic studies at dredged material disposal sites in Liverpool Bay. Aquatic environment monitoring report No. 28. MAFF Directorate of Fisheries Research, Lowestoft, UK, 21 pp.
- Roberts, R. D., M. R. Gregory, and B. A. Fosters. 1998. Developing an efficient macrofauna monitoring index from an impact study—a dredged spoil example. *Marine Pollution Bulletin* 36:231–235.
- Sheridan, P. 1999. Temporal and Spatial Effects of Open-water Dredged Material Disposal on habitat Utilization by Fishery and Forage Organisms in Laguna Madre, Texas. NOAA Fisheries Southeast Fisheries Science Center, Galveston Laboratory.
- Smith, S. D. A., and M. J. Rule. 2001. The effects of dredgespoil dumping on a shallow water soft-sediment community in the Solitary Islands Marine Park, NSW, Australia. *Marine Pollution Bulletin* 42(11):1040–1048.
- Van Dolah, R. F., D. R. Calder, and D. M. Knott. 1984. Effects of dredging and open-water disposal on benthic macroinvertebrates in a South Carolina estuary. *Estuaries* 7:28–37.
- Wildish, D. J., and M. L. H. Thomas. 1985. Effects of dredging and dumping on benthos of Saint John Harbour, Canada. *Marine Environmental Research* 15:45–57.

Response to specific comments from your office dated August 27, 2007:

Please refer to Table 1

**OPERATION AND MAINTENANCE
OF THE
FEDERAL NAVIGATION PROJECTS WITHIN
THE MISSISSIPPI SOUND
LOUISIANA, MISSISSIPPI AND ALABAMA
ESSENTIAL FISH HABITAT ASSESSMENT**

June 16, 2008

1.0 INTRODUCTION

This document presents the assessment of Essential Fish Habitat (EFH) conducted by the United States Army Corps of Engineers (Corps), Mobile District for the continued operation and maintenance of the following federally authorized navigation projects: Gulf Intracoastal Waterway (GIWW), Gulfport Harbor, Biloxi Harbor, Pascagoula Harbor, Bayou La Batre and Bayou Coden, which all occur in the nearshore Gulf of Mexico and/or Mississippi Sound system (Appendix A, Figures A1-A7).

The Magnuson Fisheries Conservation and Management Act (the Act) of 1976 was passed to promote sustainable fish conservation and management. Under this Act, the National Marine Fisheries Service (NMFS) was granted legislative authority for fisheries regulation in the United States within a jurisdictional area located between 3 to 200 miles offshore, Exclusive Economical Zone (EEZ) depending on geographical location. The NMFS was also granted legislative authority to establish eight regional fishery management councils responsible for the proper management and harvest of fish and shellfish resources within these waters. Measures to ensure the proper management and harvest of fish and shellfish resources are outlined in Fisheries Management Plans prepared by the eight councils for their respective geographic regions. The Mississippi Sound system and nearshore Gulf of Mexico is within the management jurisdiction of the Gulf of Mexico Fisheries Management Council (GMFMC).

NMFS recognized that many marine fisheries are dependent on nearshore and estuarine environments for at least part of their life cycles. The Act was reauthorized, and changed extensively via amendments in 1996 (P.L. 104-297), which aimed to stress the importance of habitat protection to healthy fisheries. The authority of the NMFS and their councils was strengthened by the reauthorization to promote more effective habitat management and protection of marine fisheries. Specific marine environments important to marine fisheries are referred to as EFH in the Act and are defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (16 U.S.C. § 1802 (10)). The EFH regulations (at 50 C.F.R. 600 Subpart J) provide additional interpretation of the definition of EFH: “*Waters* include aquatic areas and their associated physical, chemical, and biological properties that are used by fishes and may include areas historically used by fishes. *Substrate* includes sediment, hardbottom, structures underlying the waters, and any associated biological communities. *Necessary* means the habitat required to support a sustainable fishery and the

Malsom, Michael F SAM

From: Jacobson, Jennifer L SAM
Sent: Thursday, April 02, 2009 10:37 AM
To: Mark Thompson
Cc: Godsey, Elizabeth S SAM
Subject: RE: [Fwd: [Fwd: Re: [Fwd: Re: EFH Assessment]]]

Good morning Mark,

Our ftp site is set up to purge documents every 7 days. This is a Corps Management process that is not within our controls. Thus, when we place documents up on the ftp site, there is limited amount of time to access them.

We sent the expanded consultation back on June 7, 2008 to Miles Croom and copied furnished you a letter to let you know that it had been sent. We also provided the assessment twice on the website which Elizabeth asked if you were able to access and you said yes. Thus, this data has been provided three times. In addition, we have not agreed to an extension of consultation beyond the 60 day requirements as noted in your regulations. Even though this has been provided to your agency several times, we are again posting it on the ftp site noted below and again providing another CD which is being placed in the mail this morning. Again, in light of not granting an extension and our findings of no adverse impacts using the best available scientific studies available, we have addressed your initial request of an expanded assessment and consider this consultation complete.

ftp://ftp.sam.usace.army.mil/OUTGOING/EFH/

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: Mark Thompson [mailto:Mark.Thompson@noaa.gov]
Sent: Tuesday, March 31, 2009 3:30 PM
To: Jacobson, Jennifer L SAM; Godsey, Elizabeth S SAM
Subject: [Fwd: [Fwd: Re: [Fwd: Re: EFH Assessment]]]

Still looking for the CDs of the Open Water Disposal EFH assessment.

Please send to me at my Panama City Office at 3500 Delwood Beach Rd Panama City, FL 32408

Tell me again...if you can leave the EIS documents on your web site for extended periods, why you could not leave the EFH assessment for more than 7 days????

Thanks

Mark

Malsom, Michael F SAM

From: Jamie Phillippe [Jamie.Phillippe@LA.GOV]
Sent: Sunday, November 01, 2009 4:18 PM
To: Malsom, Michael F SAM
Subject: RE: WQ Cert Letter for LA GIWW

Attachments: 090330-03.doc

*11-10-09
Draft Letter Complete
Waiting on LES and Notices
Proof of Publication*



090330-03.doc (38 KB)

Mike,

Here's what I've come up with. This project was started back in March, but got hung up during the internal move at DEQ. I could not find anywhere in the attachment a notice stating the proper address to send public comments to DEQ and this will need to be done; please see attachment.

Also, I'll need to know that the spoil material will be clean according to Louisiana criteria. I know the Corps uses the Inland Testing Manual criteria, so if you could please send that to us (and if possible, sediment analysis just for spoils to be placed in LA) I could get DEQ's solid/hazardous waste personnel to analyze it.

Thanks,

Jamie Phillippe

Louisiana Department of Environmental Quality

401 Water Quality Certifications

From: Malsom, Michael F SAM [mailto:Michael.F.Malsom@usace.army.mil]
Sent: Friday, October 30, 2009 10:11 AM
To: Jamie Phillippe
Subject: WQ Cert Letter for LA GIWW

Jamie,

Here is a copy of the letter we sent you back in March 09 requesting WQ certification. It says draft but it is what we sent out. Please let me know what I can do to get WQ cert. Thanks <<DRAFT WQC letter to LADEQ 3-23-09.doc>>

Mike Malsom
Project Manager / Biologist
Mobile District Planning and Environmental Division, Coastal Environmental Team
Phone: (251) 690-2023
Fax: (251) 690-2727

U.S. Army Corps of Engineers- Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Attention: Matthew Lang

RE: Water Quality Certification (WQC 090330-03/AI 163967/CER 20090001)
Gulf Intracoastal Waterway Dredging and Spoil Placement
St. Bernard Parish

Dear Mr. Lang:

We have received notice of your application for a 401 Water Quality Certification to dredge waterbottoms and place spoil material for marine vessel navigation improvements, approximately 69 miles east of Chalmette, Louisiana. Prior to processing the certificate, this office requires:

- 1. A proof of publication of the Public Notice in THE ADVOCATE of Baton Rouge.**
- 2. A proof of publication of the Public Notice in THE TIMES-PICAYUNE of New Orleans.**
- 3. Assurance that any excavated material will be, to the best of your knowledge, free of contaminants and/or will be disposed of in an approved landfill. Please note sediment concentrations should be compared to Louisiana RECAP non-industrial standards, as provided in LAC 33:I.Chapter 13, in order to demonstrate the material is free of contaminants.**

Be sure to include our reference number (WQC 090330-03/AI 163967) on all responses. Please send all correspondence to the Louisiana Department of Environmental Quality to the following address:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Water Quality Certifications

CAPITAL CITY PRESS

**Publisher of
THE ADVOCATE**

PROOF OF PUBLICATION

The hereto attached notice was published in **THE ADVOCATE**, a daily newspaper of general circulation published in Baton Rouge, Louisiana, and the Official Journal of the State of Louisiana, City of Baton Rouge, and Parish of East Baton Rouge, in the following issues:

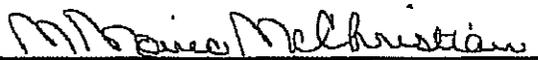
11/06/09



Susan A. Bush, Public Notice Clerk

Sworn and subscribed before me by the person whose signature appears above

November 6, 2009



M. Monic McChristian,
Notary Public ID# 88293
State of Louisiana
My Commission Expires: Indefinite



US ARMY COE - MOBILE	4181801
MICHAEL MALSOM	
109 ST JOSEPH ST	
MOBILE	AL 36602

LEGAL NOTICE OF REQUEST FOR STATE CERTIFICATION OF ACTIVITIES REQUIRING A FEDERAL LICENSE OR PERMIT

THE U.S. ARMY CORPS OF ENGINEERS - MOBILE DISTRICT, hereby gives notice that we have requested State of Louisiana 401 Water Quality Certification and Coastal Zone Consistency from the Louisiana Department of Environmental Quality (LEQ) and the Louisiana Department of Natural Resources (DNR), Coastal Resources Division for the proposed activities associated with maintenance dredging of the Gulf Intracoastal Waterway (GIWW) Federal Navigation Project located in Coastal Louisiana. It is estimated that approximately 250,000 cubic yards of material from the channel will be dredged on an as-needed basis over a three (3) to five (5)-year time frame. The dredged material is composed predominantly of silt and sandy silts.

Dredged material would be removed from the channel by a hydraulic pipeline dredge and discharged through a pipeline to a previously used and permitted open-water disposal area or designated beneficial use site. This disposal method is preferable in terms of turbidity reduction and minimizing the potential impact to wildlife, primarily migratory birds. Details of the proposed actions were discussed in Joint Public Notice No. 2008-1002. A copy of this public notice can be viewed at <http://www.southernarmy.com/ce/er/401/water/401n091106.pdf>.

In compliance with the requirements of the Clean Water Act (33 USC 1251 et seq.) (the Act), the Mobile District has tested and certified from the LEQ that the above-mentioned activity will be in compliance with applicable provisions of Sections 404(b) of the Act (33 USC 1344, 1344) and statutory authority contained in the 33 USC 1344. Comments regarding this application can be filed with the Waste Forms section within 10 days of this notice by referencing WQC 090330-03/1103067 to the following address:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Water Quality Certification
225-219-3001

A copy of the application is available for inspection and review at the LEQ Public Records Office, on the first floor of the Calvez Building, Room 127, 602 North Third Street, Baton Rouge, LA 70802 from 8:00 a.m. to 5:00 p.m.

Pursuant to the requirements of section 307 of the Coastal Zone Management Act of 1972 (16 USC 1621) DNR has also been requested to concur with the Mobile District's determination of consistency with the Louisiana Coastal Management Plan. Any person wishing to make comments on consistency of the action must submit such comments in writing to the U.S. Army Corps of Engineers, Mobile District, P.O. Box 2188, Mobile, Alabama 36688-0001, ATTN: USAM-PD-EC, within the 10-day period of the date of publication of this notice. Please contact Michael Malsom, U.S. Army Corps of Engineers, Mobile District Office, at (251) 964-2023 for e-mail information. Michael Malsom's e-mail address for additional information concerning this proposed project is malsom@usace.army.mil.

October 2010



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0081

November 13, 2009

Coastal Environment Team
Planning and Environmental Division

Ms. Pamela A. Breaux
State Historic Preservation Officer
Department of Culture, Recreation & Tourism
Attention: Mr. Duke Rivet, Section 106 Review and Compliance
Post Office Box 44247
Baton Rouge, Louisiana 70804

Dear Ms. Breaux;

The U.S. Army Corps of Engineers Mobile District is proposing to dredge the existing Gulf Intracoastal Waterway (GIWW) between Apalachee Bay, Florida and Lake Borgne Light No. 29 at the Rigolets, located in Louisiana. The total length of water way targeted for dredging is approximately 380 miles (Enclosure 1). The proposed action involves the continued maintenance dredging and placement of dredged material associated with the GIWW.

The dredging includes approximately 10 miles of channel maintenance located within the state of Louisiana. Approximately 250,000 cubic yards (cy) of dredged material would be removed by hydraulic pipeline dredge on an as needed basis over a three to five year timeframe. The dredged material consists predominantly of silts and sandy silts. The material resulting from routine maintenance dredging would be placed in a previously used and permitted open-water disposal area (DA). A detailed description of the proposed action is presented in the enclosed Public Notice number FPOS-IW02-14 dated January 28, 2008 (Enclosure 1).

The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and open water disposal areas were constructed and operated prior to the enactment of the National Historic Preservation Act (NHPA), which was signed into law in 1966. In 1979, the Mobile District analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations at 36 CFR 800, in order to ensure compliance with NHPA. This analysis was done as part of an Environmental Impact Statement. No cultural resources were found within the open-water disposal or channel areas. No sites listed on or potentially eligible for the National Register of Historic Places (historic properties) were located within the project area. As the lead Federal agency, the Mobile District determined that the continued operation and maintenance activities would have no effect on historic properties. The effects determination was forwarded to your office for review and concurrence.

- 2 -

In 1993, as part of a recertification of the waterway, another analysis of the potential effects of the waterway to environmental and cultural resources was conducted. Again, no cultural resources were identified within the project area. The Mobile District recommended no effect to historic properties and again consulted with your office.

The present project includes no new action as defined by the NHPA. Background research and field investigations in 1979 and 1993 have identified no historic properties within the existing GIWW or within the open-water DA. In addition, the nature of the action, maintenance dredging of existing channel and open-water disposal allows for limited potential to affect cultural resources. Based on the previous reviews and the limited nature of the action, the Mobile District has determined “no historic properties affected” by the proposed maintenance dredging operations within existing channels and utilizing existing disposal areas as per 36 CFR 800.4(d)(1).

The Mobile District asks that you concur with our finding of **no historic properties affected** as per 36 CFR 800.4(d)(1). If you have questions or require further information, please contact Mr. Joe Giliberti at 251-694-4114 or via email at joseph.a.giliberti@usace.army.mil or Mr. Mike Malsom at 251-690-2023 or via email at michael.f.malsom@usace.army.mil.

Sincerely,



Jennifer L. Jacobson
Chief, Coastal Environmental Team

Enclosures

October 2010

BOBBY JINDAL
GOVERNOR



REC'D
Mike
HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

NOV 15 2009

U.S. Army Corps of Engineers- Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Attention: Matthew Lang

RE: Water Quality Certification (WQC 090330-03/AI 163967/CER 20090001)
Gulf Intracoastal Waterway Dredging and Spoil Placement
St. Bernard Parish

Dear Mr. Lang:

We have received notice of your application for a 401 Water Quality Certification to dredge waterbottoms and place spoil material for marine vessel navigation improvements, approximately 69 miles east of Chalmette, Louisiana. Prior to processing the certificate, this office requires:

1. A proof of publication of the Public Notice in **THE ADVOCATE** of Baton Rouge.
2. A proof of publication of the Public Notice in **THE TIMES-PICAYUNE** of New Orleans.
3. Assurance that any excavated material will be, to the best of your knowledge, free of contaminants and/or will be disposed of in an approved landfill. Please note sediment concentrations should be compared to Louisiana RECAP non-industrial standards, as provided in LAC 33:I.Chapter 13, in order to demonstrate the material is free of contaminants.

Be sure to include our reference number (WQC 090330-03/AI 163967) on all responses. Please send all correspondence to the Louisiana Department of Environmental Quality to the following address:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Water Quality Certifications

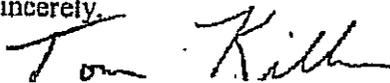
Enclosed are copies of public notices to be published by you one time in the official State Journal, THE ADVOCATE of Baton Rouge and THE TIMES-PICAYUNE of New Orleans. (As provided for by LRS 30:2074 A(3), the cost of this publication is to be at your expense). PLEASE REQUEST THAT THESE NEWSPAPERS FURNISH US WITH PROOFS OF PUBLICATION OF THIS NOTICE TO THE FOLLOWING ADDRESS:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Water Quality Certifications

A ten-day period after the date of publication will allow for public comment. After this ten-day period has expired, a decision as to whether to grant the certificate will be made in accordance with LAC 33:EX.1507.A-E and provisions of Section 401 of the Clean Water Act.

If we haven't received this information within 30 days from the date of this letter, your application will be considered inactive. If you have any questions, please call Jamie Phillippe at 225-219-3003.

Sincerely,



Tom Killeen, Environmental Scientist Manager
Municipal and General Water Permits Section

TK/jjp

November 16, 2009

Coastal Environment Team
Planning and Environmental Division

Mr. Greg DuCote
Louisiana Department of Natural Resources
Office of Coastal Restoration and Management
Post Office Box 44487
Baton Route, Louisiana 70804

Dear Mr. DuCote:

Pursuant to the requirements of the Coastal Zone Management Act, the U.S. Army Corps of Engineers Mobile District requests your concurrence with our determination of coastal zone consistency for a five-year period for the proposed continued maintenance dredging and placement of dredged material associated with the Gulf Intra-coastal Waterway (GIWW) in the State of Louisiana. The existing project provides for a waterway of 12 feet deep and 150 feet wide from the Louisiana-Mississippi state line to Lake Borgne Light No. 29 (**Figure 1**). The project was authorized by the 1966 Rivers and Harbors Act, (House Document 481, 89th Congress, 2nd Session).

Approximately 250,000 cubic yards (cy) of dredged material would be removed by hydraulic pipeline dredge on an as needed basis over a five year period and placed in a previously authorized open-water disposal area (DA) #66 (**Figures 2 & 3**). Center coordinates for the DA are latitude 30.1374° and longitude -89.5601°. A detailed description of the proposed action is presented in the enclosed Joint Public Notice Number FP08-IW02-14 dated January 28, 2008 (**Enclosure 1**).

The project has been coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service pertaining to endangered and/or threatened species (**Enclosures 2 & 3**) and Essential Fish Habitat (**Enclosure 4**), respectively. The agencies have concurred with the project by attached letters and through the aforementioned Public Notice.

As provided for in the June 14, 1995, Memorandum of Understanding between the New Orleans District and the Louisiana Department of Natural Resources, several areas of concern must be addressed as part of the consistency determination for the annual maintenance dredging of the GIWW. These items are addressed in **Enclosure 5**.

In view of the above, we request your concurrence with our determination that the continued maintenance dredging and placement of dredged material associated with the GIWW in the State of Louisiana is in accordance with the State of Louisiana Coastal Zone Management Plan to the maximum extent practicable. If you have any questions or need additional information, please contact Mr. Mike Malsom at phone number (251) 690-2023 or by email address michael.f.malsom@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

ms 11-3
PD-EC/Malsom
ms 11-3
PD-EC/Jacobson
PD-EC/Donnison
PD-E/Bradley
PD/Campbell
PD/Flakes

PD-EC SUBJECT FILE COPY

Enclosures

The Times-Picayune

3800 HOWARD AVENUE, NEW ORLEANS, LOUISIANA 70140-1087

TELEPHONE (504) 826-3201

LEGAL NOTICE OF REQUEST FOR STATE CERTIFICATION OF ACTIVITIES REQUIRING A FEDERAL LICENSE OR PERMIT

THE U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT, hereby gives notice that we have requested State of Louisiana 401 Water Quality Certification and Coastal Zone Consistency from the Louisiana Department of Environmental Quality (DEQ) and the Louisiana Department of Natural Resources (LDNR), Coastal Resources Division for the proposed activities associated with maintenance dredging of the Gulf Intracoastal Waterway (GIWW) Federal navigation project located in coastal Louisiana. It is estimated that approximately 250,000 cubic yards of material from the channel will be dredged on an as needed basis over a three (3) to five (5) year time frame. The dredged material is composed predominantly of silt and sandy fill.

Pursuant to the requirements of Section 307 of the Coastal Zone Management Act of 1972, LDNR has also been requested to concur with the Mobile District's determination of consistency with the Louisiana Coastal Management Plan. Any person wishing to make comments pertinent to this action must submit such comments in writing to the U.S. Army Corps of Engineers, Mobile District, P.O. Box 2250, Mobile, Alabama 36624-0201, ATTN: CESAM-PD-EC, within fifteen (15) days of the date of publication of this notice. Please contact Mr. Michael F. Malsone, U.S. Army Corps of Engineers, Mobile District Office at (251) 654-2023 or email Michael.F.Malsone@usace.army.mil for additional information concerning this proposed project.

Dredged material would be removed from the channel by a hydraulic pipeline dredge and discharged through a pipeline to the previously used and permitted open-water disposal area or designated beneficial use site. This disposal method is preferable in terms of turbidity reduction and minimizing the potential impact to wildlife, primarily marshland. Details of the proposed action were covered by Joint Public Notice No. FP09-WQ2-14. A copy of this public notice can be viewed at http://www.usace.army.mil/pd/P01.htm#Public_Notices.

In compliance with the requirements of the Clean Water Act (33 U.S.C. 1251, 1341) (the Act), the Mobile District has requested certification from the DEQ that the above mentioned activity will be in compliance with applicable provisions of Sections 404(a) of the Act (33 U.S.C. 1341, 1342) and statutory authority contained in the LAC 33:01, 1507-A-E. Comments concerning this application can be filed with the Waste Permits Section within ten days of this notice by referencing WOC 090330-037/A 16397 to the following address:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Water Quality Certifications
225-215-1063

A copy of the application is available for inspection and review at the DEQ Public Records Center, on the first floor of the State Building, Room 127 at 602 North Fifth Street, Baton Rouge, LA 70801 from 8:00 a.m. to 4:30 p.m.

State of Louisiana

Parish of Orleans

City of New Orleans

Personally appeared before me, a Notary in and for the parish of Orleans, Elizabeth C. Darcey who deposes and says that she is an Assistant Controller of The Times-Picayune, L.L.C., a Louisiana Corporation, Publishers of The Times-Picayune, Daily and Sunday, of general circulation; doing business in the City of New Orleans and the State of Louisiana, and that the attached

LEGAL NOTICE

Re: Legal Notice of request for state certification of activities requiring a federal license or permit

Advertisement of US Army Corps of Engineers

P.O. Box 60267
New Orleans, LA 70160

Was published in The Times Picayune

3800 Howard Ave.
New Orleans, LA 70125

On the following dates November 18, 2009

23rd

Sworn to and subscribed before me this
Day of November, 2009

Elizabeth C. Darcey
[Signature]
Notary Public
My Commission Expires 11/18/2011

Notary identification number 23492

I attest that the copy attached hereto as "Exhibit A" is a true and correct copy of the advertisement published in The Times-Picayune on these dates.

December 9, 2009

Coastal Environment Team
Planning and Environmental Division

SUBJECT: WQC 090330-03/AI 163967

Mr. Tom Griggs
Louisiana Department of Environmental Quality
Water Permits Division
Attention: Water Quality Certification
Post. Office Box 4313
Baton Route, Louisiana 70821-4313

Dear Mr. Griggs:

Pursuant to the requirements of the Clean Water Act, the U.S. Army Corps of Engineers (Corps), Mobile District, requests 401 Water Quality Certification for a five-year period for the proposed continued maintenance dredging and placement activities of dredged material associated with the Gulf Intracoastal Waterway (GIWW) in the State of Louisiana (**Figure 1**). The project was authorized by the 1966 Rivers and Harbors Act, (House Document 481, 89th Congress, 2nd Session).

Approximately 250,000 cubic yards of dredged material would be removed by hydraulic pipeline dredge on an as needed basis over a five year period and placed in a previously authorized open-water disposal area (DA) #66 (**Figures 2 & 3**). Center coordinates for the DA are latitude 30.1374° and longitude -89.5601°. A detailed description of the proposed action is presented in the enclosed Joint Public Notice Number FP08-IW02-14 dated January 28, 2008 (**Enclosure 1**).

The project has been coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service pertaining to endangered and/or threatened species (**Enclosure 2 & 3**) and Essential Fish Habitat (**Enclosure 4**), respectively. The project has been concurred with by enclosed letters and through the aforementioned Public Notice. Proof of publication for the legal notices in The Advocate of Baton Rouge and The Times-Picayune of New Orleans are enclosed (**Enclosure 5**).

Current sediment sample results are not available at this time. Mississippi Sound sediments, which include the Louisiana portion of the GIWW, are composed of mostly fine silts and clay, with some areas of fine to medium grained sand. When the project was last dredged in 1966, composition of the sediment was 20% sands and shells and 80% silt. Before dredging operations begin, we will ensure that the sediments are sampled and compared to Louisiana RECAP non-industrial standards as provided in LAC 33:1 Chapter 13, in order to demonstrate the dredged material is free of contaminates.

The Corps, Mobile District does not anticipate water quality problems resulting from the proposed continued maintenance dredging and placement activities for the GIWW in the State of Louisiana. Environmental impacts associated with the proposed action would be minor and short-term. No wetlands would be affected by the proposed action.

In view of the above, the Corps, Mobile District requests State 401 Water Quality Certification for the continued maintenance dredging and placement of material associated with the GIWW in the State of Louisiana. If you have any questions or need additional information, please contact Mr. Mike Malsom at phone number (251) 690-2023 or by email address michael.f.malsom@usace.army.mil.

Sincerely,

Curtis M. Flakes
Chief, Planning and Environmental
Division

Enclosures

mms 12-10
PD/EC/Malsom
PD-EC/Jacobson
PD-EC/Donaldson
PD-E/Bradley
PD/Campbell
PD/Flakes

PD-EC SUBJECT FILE COPY

October 2010

REPLY TO
ATTENTION OF

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

November 13, 2009

Coastal Environment Team
Planning and Environmental Division

Ms. Pamela A. Breaux
State Historic Preservation Officer
Department of Culture, Recreation & Tourism
Attention: Mr. Duke Rivet, Section 106 Review and Compliance
Post Office Box 44247
Baton Rouge, Louisiana 70804

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Scott Hutcheson 12-15-08
Scott Hutcheson Date
State Historic Preservation Officer

Dear Ms. Breaux:

The U.S. Army Corps of Engineers Mobile District is proposing to dredge the existing Gulf Intracoastal Waterway (GIWW) between Apalachee Bay, Florida and Lake Borgne Light No. 29 at the Rigolets, located in Louisiana. The total length of water way targeted for dredging is approximately 380 miles (Enclosure 1). The proposed action involves the continued maintenance dredging and placement of dredged material associated with the GIWW.

The dredging includes approximately 10 miles of channel maintenance located within the state of Louisiana. Approximately 250,000 cubic yards (cy) of dredged material would be removed by hydraulic pipeline dredge on an as needed basis over a three to five year timeframe. The dredged material consists predominantly of silts and sandy silts. The material resulting from routine maintenance dredging would be placed in a previously used and permitted open-water disposal area (DA). A detailed description of the proposed action is presented in the enclosed Public Notice number FP08-IW02-14 dated January 28, 2008 (Enclosure 1).

The GIWW was authorized by Congress and completed more than 50 years ago. The existing channel and open water disposal areas were constructed and operated prior to the enactment of the National Historic Preservation Act (NHPA), which was signed into law in 1966. In 1979, the Mobile District analyzed and considered the effect that continued use and maintenance of the waterway may have on historic properties as per regulations at 36 CFR 800, in order to ensure compliance with NHPA. This analysis was done as part of an Environmental Impact Statement. No cultural resources were found within the open-water disposal or channel areas. No sites listed on or potentially eligible for the National Register of Historic Places (historic properties) were located within the project area. As the lead Federal agency, the Mobile District determined that the continued operation and maintenance activities would have no effect on historic properties. The effects determination was forwarded to your office for review and concurrence.

NOV 16 11 40 AM '09

October 2010

BOBBY JINDAL
GOVERNOR



HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

DEC 28 2009

U.S. Army Corps of Engineers- Mobile District
P.O. Box 2288
Mobile, AL 36628-0001

Attention: Matthew Lang

RE: Water Quality Certification (WQC 090330-03/AJ 163967/CER 20090001)
Gulf Intracoastal Waterway Dredging and Spoil Placement
St. Bernard Parish

Dear Mr. Lang:

The Department has reviewed your application to dredge waterbottoms and place spoil material for marine vessel navigation improvements, approximately 69 miles east of Chalmette, Louisiana.

The requirements for Water Quality Certification have been met in accordance with LAC 33:IX.1507.A-E. Based on the information provided in your application, we have determined that the placement of the fill material will not violate the water quality standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the Department has issued a Water Quality Certification.

Sincerely,


Melvin C. Mitchell, Sr.
Administrator
Water Permits Division

MCM/jjp

BOBBY JINDAL
GOVERNOR



SCOTT A. ANGELLE
SECRETARY

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

27 January 2010

Curtis M. Flakes
Chief, Planning and Environmental Division
Dept. of the Army,
Mobile District Corps of Engineers
P. O. Box 2288
Mobile, AL 36628-0001

RE: C20090205, Coastal Zone Consistency
U. S. Army Corps of Engineers, New Orleans District
Direct Federal Action
Maintenance dredging for a 5-year period for the GIWW Mile 35 to 41, north of Lake Borgne, St. Tammany Parish, Louisiana

Dear Mr. Flakes:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in this application, is consistent with the LCRP.

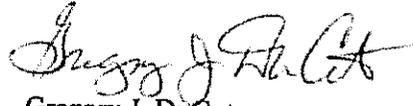
However, because there is a 5-year life of concurrence with this project, we will require the following items: 1. Notification at least 30 days before the dredging contract is awarded, 2. A certified copy of the Plans and Specifications, and 3. Shapefile coordinates of the completed project in Geographic Information System (GIS) format, showing as-built limits of dredging and disposal.

This concurrence is for the specific activities identified in the consistency. If conditions change within the 5-year period on the ground or new techniques are considered, consultation and a new consistency determination may be required. Also, because there may be personnel changes over the 5-year period of concurrence, it is important that new project managers and other responsible Corps personnel familiarize themselves with the specific activities covered in this consistency determination and conduct operations as described therein.

Post Office Box 4487 • Baton Rouge, Louisiana 70804-4487
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802
(225) 342-7591 • Fax (225) 342-9439 • <http://www.dnr.louisiana.gov>
An Equal Opportunity Employer

If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225) 342-7939 or 1-800-267-4019.

Sincerely yours,



Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/bgm

cc: David Butler, LDWF
Tim Killeen, IA/FSD FC
Mike Malson, Mobile District COE

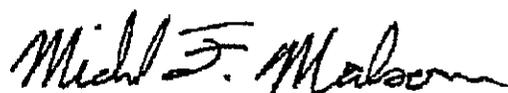
CESAM-PD-EC

8-5-2010

MEMORANDUM FOR RECORD #1

SUBJECT: LA GIWW Oil Spill Response Follow-up with Resource Agencies

1. At the request of Office of Counsel (Michael Creswell), I contacted the two resource agencies in Louisiana responsible for issuing Coastal Zone Consistency (CZC) and Water Quality Certification (WQC) for the GIWW project. The reason for this action was to document that the Corps, Mobile District had followed-up with the resource agencies to ensure that there were no outstanding issues or concerns dealing with the BP Oil Spill.
2. On August 4, 2010, I contacted Brian Marcks (LA DNR) by phone in reference to the Coastal Zone Consistency letter issued to the Corps dated January 27, 2010. Mr. Marcks stated that there were no issues with the oil spill or the CZC letter. He stated that once the letter is issued, CZC is final.
3. On August 4, 2010, I contacted Jamie Phillippe (LA DEQ) by phone in reference to the Water Quality Certification letter issued to the Corps dated December 28, 2009. Mr. Phillippe stated that there were no outstanding issues with the oil spill or the WQC letter issued for the GIWW.
4. POC for this memorandum is Mike Malsom (251) 690-2023.



MICHAEL F. MALSOM
Project Manager/Biologist
Planning and Environmental Division

October 2010

Malsom, Michael F SAM

From: Malsom, Michael F SAM
Sent: Monday, August 09, 2010 10:39 AM
To: Brian Marcks; Jamie Phillippe
Cc: Jacobson, Jennifer L SAM
Subject: LA GIWW Agency Notification MFR
Attachments: LA Agency Notification MFR#1.pdf

Mr. Marcks and Mr. Phillippe,

At the request of our Office of Counsel, I had to contact your two agencies in reference to WQC and CZC for the LA GIWW and the oil spill. Please review the attached MFR documenting our phone conversations from last week.

No response is necessary to this e-mail unless you have an issue with the attached MFR. Thank you for your time in dealing with this issue.

Mike Malsom
Project Manager / Biologist
Mobile District Planning and Environmental Division, Coastal Environmental Team
Phone: (251) 690-2023
Fax: (251) 690-2727

EA-Enclosure 28

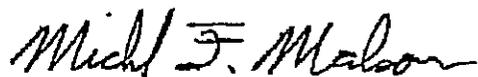
CESAM-PD-EC

10-7-2010

MEMORANDUM FOR RECORD #2

SUBJECT: Mississippi Gulf Intracoastal Waterway (GIWW) Oil Spill Response Follow-up with Resource Agencies

1. At the request of Office of Counsel (Michael Creswell), I contacted the two resource agencies in Mississippi responsible for issuing Coastal Zone Consistency (CZC) and Water Quality Certification (WQC) for the MS/LA GIWW project. The reason for this action was to document that the Corps, Mobile District had followed-up with the resource agencies to ensure that there were no outstanding issues or concerns dealing with the BP Deepwater Horizon Oil Spill.
2. On August 5, 2010, I contacted Rebekah Turner (MS DMR) by phone in reference to the CZC letter issued to the Corps dated March 6, 2008 granting CZC for the Mississippi portion of the GIWW. Ms. Turner stated that MS DMR had no issues with the CZC letter as it relates to the oil spill.
3. On August 5, 2010, I contacted Florance Watson (MS DEQ) by phone in reference to the WQC letter issued to the Corps dated March 24, 2008 granting State 401 WQC for the Mississippi portion of the GIWW. Ms. Watson stated she would forward my concern to their coastal section for further information. For the next two months, I followed up with Ms. Watson via e-mail messages trying to get a response from MS DEQ that there were no outstanding issues with the oil spill or the WQC letter issued for the GIWW. To date, MS DEQ has not responded to our request. We believe that MS DEQ must still be determining a path forward in dealing with the oil spill and has not come to a final decision. Prior to dredging the MS GIWW, we will notify MS DEQ and gain their concurrence. At this time, the Corps, Mobile District will move forward with the certification process for this project.
4. POC for this memorandum is Mike Malsom (251) 690-2023.



MICHAEL F. MALSOM
Project Manager/Biologist
Planning and Environmental Division

October 2010

Malsom, Michael F SAM

From: Malsom, Michael F SAM
Sent: Thursday, October 07, 2010 8:56 AM
To: Rebekah Ray; Florance_Watson@deq.state.ms.us
Cc: Jacobson, Jennifer L SAM
Subject: MS GIWW Agency Notification MFR
Attachments: SCAN4606_000.pdf

Ms. Turner and Ms. Watson,

At the request of our Office of Counsel, I had to contact your two agencies in reference to WQC and CZC for the Mississippi Gulf Intracoastal Waterway and the BP Deepwater Horizon oil spill. Please review the attached MFR documenting our phone conversations.

No response is necessary to this e-mail unless you have an issue with the attached MFR. Thank you for your time in dealing with this issue.

Mike Malsom
Project Manager / Biologist
Mobile District Planning and Environmental Division, Coastal Environmental Team
Phone: (251) 690-2023
Fax: (251) 690-2727

EA-Enclosure 28

EA-Enclosure 29

**Section 404 (b)(1) Evaluation Report
for the
Maintenance Dredging and Disposal of Dredged Material
Mississippi and Louisiana Portions
of the
Gulf Intracoastal Waterway (GIWW)
Federally Authorized Navigation Project
Hancock, Harrison and Jackson Counties, Mississippi
and
Coastal Louisiana**

SECTION 404(B)(1) EVALUATION REPORT

MAINTENANCE DREDGING AND DISPOSAL OF DREDGED MATERIAL MISSISSIPPI AND LOUISIANA PORTIONS OF THE GULF INTRACOASTAL WATERWAY FEDERALLY AUTHORIZED NAVIGATION PROJECT

HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI AND COASTAL LOUISIANA

I. PROJECT DESCRIPTION.

A. Location. The Gulf Intracoastal Waterway (GIWW) within Mississippi and Louisiana extends from the Alabama-Mississippi state line through Mississippi Sound to Lake Borgne Light No. 29 at the Rigolets in Louisiana (**Figure 1 of EA**).

B. General Description of the Proposed Action. The proposed action would involve maintenance dredging and disposal operations for the GIWW in the State of Mississippi and Louisiana. Approximately 300,000 cubic yards (cys) of clay, silt and sand are proposed for removal by hydraulic cutterhead dredge along various sections of the channel on an infrequent basis over the next five years. The material would be placed in previously certified open water disposal sites: 66, 65A, 65B and 65C (**Figures 2-6 of EA**).

The existing project provides for a waterway 12 feet deep and 125 feet wide at mean low water (MLW) from Apalachee Bay, FL., to Mobile Bay, AL., and 12 feet deep and 150 feet wide from Mobile Bay, AL., to the Rigolets, LA. (Lake Borgne Light No. 29), and for a tributary channel (the Gulf County Canal), 12 feet deep, 125 feet wide, and about 6 miles long connecting the waterway at White City, Florida with St. Joseph Bay. The waterway between the 12 foot contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long. Plane of reference is MLW.

The proposed dredging action would be performed with a tolerance of up to two (2) feet of advance maintenance and 2 feet of paid allowable over-depth dredging. Maintenance dredging of soft-dredged material with a hydraulic cutterhead dredge may disturb the bottom sediments several feet deeper than the target depth due to the inaccuracies of the dredging process. An additional 3 feet of sediment below the 2-foot paid allowable dredging cut may be disturbed in the dredging process with minor amounts of material being removed.

Maintenance dredging and disposal would be performed on an as needed basis. The frequency of channel dredging at any one site and the associated time between the use of any given disposal area ranges on average once every 3 to 25 years.

In emergency conditions, a barge mounted dragline or snagboat may be used to remove

rapidly formed or unexpected shoals or other hazards to navigation. This material would be placed to the side of the channel to allow for immediate passage of vessels until a hydraulic cutterhead dredge could be dispatched to restore project dimensions. Emergency disposal needs are infrequent and usually the result of storm incidents or barge groundings. Past experiences have shown that only a few areas would likely require such emergency action, but such actions may be required at any location along the waterway. In the event of an emergency, all necessary Federal and State agencies would be notified before commencement of work.

C. Authority and Purpose. The existing project was authorized by the 1966 Rivers and Harbors Act (House Document 481, 89th Congress, 2nd Session) as amended and prior acts. The purpose is to provide barge tows and other small craft that are not well suited for use in the Gulf of Mexico a secure and safe means of navigating the great inland rivers of the country. The GIWW has historically been a vital means for transporting heavy freight and continues to be one today.

D. General Description of Dredged or Fill Material. The sediments that would be dredged and placed in previously authorized open water and confined upland disposal areas consists of sand to clays with various mixtures of sand, silt, and clay located throughout the channel.

(1) **General Characteristics of Material.** Bottom sediments along the navigation channel consist of sandy silts and clays.

(2) **Quantity of Material.** Approximately 300,000 cubic yards of material will be dredged from the GIWW navigation project over the next five years.

(3) **Source of Material.** The material is being dredged from the GIWW Federal navigation project would be attained by the maintenance dredging activities associated with the coastal Alabama and Louisiana portions of the GIWW. The dredging cycle is dependent upon where shoaling occurs.

E. Description of the Proposed Discharge Site.

(1) **Location.** The designated open-water placement areas are located in Mississippi and Louisiana oriented south of the GIWW channel (**Figures 2-6 of EA**).

(2) **Size.** The open-water disposal sites range in size from 176 to 1962 acres (**Table 6 of EA**).

(3) **Type of Site.** The disposal sites are previously authorized open-water placement areas in the Mississippi Sound that consist of bottoms colonized by similar material as to what is being proposed for removal.

(4) **Type of Habitat.** The open-water area is estuarine habitat that has historically

been used for disposal of dredged material. No submerged aquatic vegetation or oyster reefs are present at these sites.

(5) Timing and Duration of Discharge. Timing and duration of the proposed action are dependent upon where shoaling occurs in the navigation project. The frequency of channel dredging at any one site and the associated time between the use of any given disposal area ranges on average once every 3 to 25 years. Maintenance dredging cycles typically require several months to complete.

F. Description of Disposal Method. The disposal method used will be a thin-layer placement in the previously authorized open-water sites where feasible. The contractor will use a hydraulic pipeline dredge and the dredged material would be pumped via pipeline to the open-water disposal areas. The dredged material will be placed in a thin-layer not to exceed 12 inches where practical and feasible.

II. Factual Determinations.

A. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The preferred alternative would have no adverse impacts on the existing substrate elevation and slope within the project vicinity. The project would result in the removal of substrate as needed to a depth of 12 feet MLLW with two feet of advanced maintenance and two feet of allowable overdepth within the project area. Thin layer technique for the placement of dredged material in open-water sites would be utilized where feasible. Dredged material would not significantly exceed present depths at these sites. Significant mounding is not expected to occur in the open-water sites, as the larger material will flow into deeper areas and seek slopes reflective of existing bottom conditions. Bottom topography within this site is relatively flat.

(2) Sediment Type. Dredged material proposed for disposal consists of sands, silts and clays.

(3) Dredged/Fill Material Movement. Material disposed of at the open-water site would be positioned in such a way to retain movement of sediment mostly within the disposal area. However, after placement some materials may move under storm events outside the designated area.

(4) Physical Effects on Benthos. Disruption of the benthic community is expected to be temporary and minimal. Non-motile benthic fauna within the open-water disposal site may be destroyed by the proposed operations, but should repopulate within several months after completion. Some of the motile benthic and pelagic fauna, such as crabs, shrimp, and fishes, are able to avoid the disturbed area and should return shortly after the activity is completed. Larval and juvenile stages of these forms may not be able to avoid the activity due to limited mobility. The overall impact to these organisms is

expected to be minimal.

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

(6) **Actions Taken to Minimize Impacts.** The thin-layer dredged material disposal is a minimization technique that will be used to lessen impacts caused by the disposal. No other actions to minimize impacts to the physical substrate are deemed appropriate for this project.

B. Water Column Determinations.

(1) Water

(a) **Salinity.** Salinity would not be impacted as a result of the dredging and disposal operations.

(b) **Water Chemistry (pH, etc.).** No effect.

(c) **Clarity.** Minor increases in turbidity may be experienced in the immediate vicinity of the project area during dredging and disposal operations. However, these increases will be temporary and would return to pre-project conditions shortly after completion.

(d) **Color.** No effect.

(e) **Odor.** No effect.

(f) **Taste.** No effect.

(g) **Dissolved Gas Levels.** Temporary decreases in dissolved oxygen will likely result from the operations, but this will only be of a short duration. No significant effect to the water column is anticipated.

(h) **Nutrients.** Slight increases in nutrient concentrations may occur from dredging and disposal operations; however, these concentrations would rapidly disperse. These described increases would have no significant effect to the water column.

(i) **Eutrophication.** No effect.

(2) Current Patterns and Circulation.

(a) **Current Patterns and Flow.** Placement of dredged material into the open water disposal site would have no effect on current patterns and flow in the vicinity of the project area.

(b) **Velocity.** No significant effects.

(c) **Stratification.** No effect.

(d) **Hydrologic effects.** No effect.

(3) **Normal Water Level Fluctuations.** No significant effects.

(4) **Salinity Gradient.** The salinities in the project vicinity are highly variable due to the inflow of freshwater from surrounding rivers and the tidal influence from the Gulf of Mexico. No effect.

C. Suspended Particulate/Turbidity Determination:

(1) **Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Placement Site.** No significant effect.

(2) **Effects on Chemical and Physical Properties of the Water Column.** No effect.

(a) **Light Penetration.** Light penetration through the water column at the open-water disposal site may be temporarily affected but is anticipated to return to previous conditions upon completion of operation and maintenance activities.

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

(c) **Toxic Metals and Organics.** No effect.

(d) **Pathogens.** No effect.

(e) **Esthetics.** No effect.

(3) **Effects on Biota.** No effect.

(a) **Primary Production Photosynthesis.** No significant effects.

(b) **Suspension/Filter Feeders.** No significant effects.

(c) **Sight Feeders.** Shorebirds tend to be attracted to disposal sites and placement activities due to the presence of food items in the dredged material. The impact of dredging and disposal operations at the open-water site on sight feeders is expected to be a beneficial, short-term impact.

(4) **Actions Taken to Minimize Impacts (Subpart H).** No further actions are deemed appropriate.

D. Contaminant Determinations. The materials proposed for placement are naturally occurring materials from the Mississippi Sound. The proposed dredged materials are far removed from potential sources of contamination and have minute probability as a carrier of contaminants. There is no reason to believe that the materials are unsuitable for placement. Therefore, the materials are excluded from testing under Section 404(b)(1)(d).

E. Aquatic Ecosystem and Organism Determinations.

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

(2) **Effects on Benthos.** Temporary disruption of the aquatic community is anticipated at the open-water site. Non-motile benthic fauna within the area may be destroyed by the proposed dredging operations, but should repopulate within several months after completion. Due to the dredging cycle occurring once every 3 to 25 years, repopulation of non-motile benthic fauna should not be adversely impacted. 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 minimal.

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

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

(5) **Effects on Special Aquatic Sites.** No effect.

(a) **Sanctuaries and Refuges.** Not applicable.

(b) **Wetlands.** No effect.

(c) **Mud Flats.** Not applicable.

(d) **Vegetated Shallows.** No significant impacts to the submerged aquatic vegetation (SAV) were identified in this evaluation. The closest known SAVs are located over a mile from open-water placement and no SAVs are located within the expected 400-foot turbidity mixing zone of channel dredging.

(e) **Coral Reefs.** Not applicable.

(f) **Riffle and Pool Complexes.** Not applicable.

(6) **Effects on Threatened and Endangered Species.** The Corps, Mobile District coordinated with the U.S. Fish and Wildlife Service and the National Oceanic

and Atmospheric Administration Fisheries under Section 7 of the Endangered Species Act and the Marine Mammals Protection Act. Concurrence was received from both agencies.

(7) **Effects on Other Wildlife.** No significant effects.

(8) **Actions to Minimize Impacts.** No other actions to minimize impacts on the aquatic ecosystem are deemed appropriate.

F. Proposed Disposal Site Determinations:

(1) **Mixing Zone Determination.** The State of Mississippi specified a mixing zone not to exceed ambient turbidity by more than 50 nephelometric turbidity units at the outer limits of 750-foot for turbidity compliance. The State of Louisiana did not specify a mixing zone. Material placed at the open-water area is anticipated to quickly settle out of the water column. Pre- and post-monitoring of water quality suggests turbidity and total suspended solids are temporarily affected by disposal operations. However, the magnitude of the increases with disposal operations is consistent with those caused by frontal storms. Disposal of material at the open-water sites is not anticipated to exceed the proposed turbidity compliance issued. Thus, no mixing violations are expected.

(a) **Depth of water at the disposal site.** The designated open-water disposal site adjacent to the channel ranges from approximately 7 to 15 feet in depth.

(b) **Current velocity, direction, and variability at the disposal site.** Astronomical tides, winds, and freshwater discharge dominate the circulation patterns within Mississippi Sound. Data collected within the Gulf of Mexico between November 1980 and September 1981 indicate that the progression of the tide through Horn Island Pass segments the Gulf into eastern and western areas dominating circulation within this portion of the Gulf. The eastern area is between Horn Island Pass, Mississippi, and the main pass entering Mobile Bay, Alabama. The western area is between Horn Island Pass and the Chandeleur Islands. As tide propagates from the Gulf into Mississippi Sound, a clockwise movement of water occurs in the eastern area while a counterclockwise movement occurs in the west.

(c) **Degree of turbulence.** No effect.

(d) **Stratification attributable to causes such as obstructions, salinity or density profiles at the disposal site.** No effect.

(e) **Discharge vessel speed and direction, if appropriate.** No effect.

(f) **Rate of discharge.** Rate of discharge will vary according to the particular type of dredge disposing of the material.

(g). **Ambient concentrations of constituents of interest.** Not applicable.

(h). **Dredged material characteristics, particularly concentrations of constituents, amount of material, type of material (sand, silt, clay, etc.) and settling velocities.** Approximately 300,000 cubic yards of material will be dredged from the federally authorized project by a hydraulic dredge. Dredged material along the navigation channel consists of sands, silts and clays. Settling of particles is anticipated due to the dredged material size.

(i). **Number of discharge actions per unit of time.** The number of discharge actions per unit of time will vary depending upon particular disposal activity.

(2) **Determination of Compliance with Applicable Water Quality Standards.** The proposed activity has been determined to be in compliance with all applicable water quality standards.

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

(a) **Municipal and Private Water Supply.** No applicable.

(b) **Recreational and Commercial Fisheries.** No effect.

(c) **Water Related Recreation.** No effect.

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

(e) **Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves.** Not applicable.

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

H. Determination of Secondary Effects of the Aquatic Ecosystem. The proposed action is not expected to have any significant secondary adverse effects on the aquatic ecosystem.

III. Finding of Compliance With the Restrictions on Discharge.

A. No significant adaptations of the Section 404(b)(1) guidelines were made relative to this evaluation.

B. The proposed discharge represents the least environmentally damaging practicable alternative.

C. The planned placement of dredged materials would not violate any applicable State

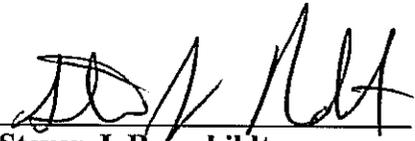
Water Quality standards; nor will it violate the Toxic Effluent Standard of Section 307 of the Clean Water Act.

D. Use of the proposed disposal sites will not jeopardize the continued existence of any federally listed endangered or threatened species or their critical habitat.

E. The proposed placement of material will not contribute to significant degradation of waters of the United States. Nor will it result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing; life stages of organisms dependent upon the aquatic ecosystem; ecosystem diversity, productivity and stability; or recreational, aesthetic or economic values.

F. Appropriate and practicable steps will be taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

DATE 8 Nov 10



Steven J. Roemhildt
Colonel, Corps of Engineers
District Commander