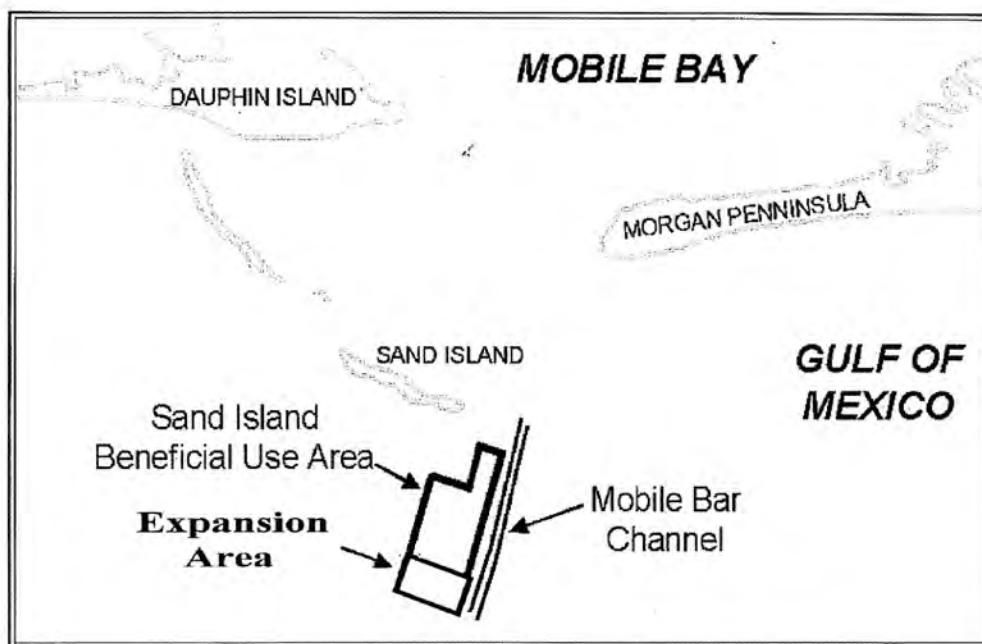


**Statement of Findings,  
Finding of No Significant Impact,  
Environmental Assessment  
and  
Section 404(b)(1) Evaluation Report  
for  
Expansion of Sand Island Beneficial Use Area**

**Environmental Recertification Package  
Mobile Harbor Federal Navigation Project  
Mobile, Alabama**

**Federally Authorized**



**Prepared by**

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



**January 2010**

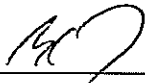
13 January 2010

## MEMORANDUM FOR DISTRICT COMMANDER

SUBJECT: Statement of Findings - Proposed expansion of the Sand Island Beneficial Use Area (SIBUA) an additional 2000 x 4500 feet southward for the disposal of maintenance material dredged from the federally authorized Mobile Harbor navigation project, Baldwin and Mobile Counties, Alabama.

1. PROBLEM. The proposed action is to extend the southern end of the SIBUA. The SIBUA site is currently used by the U.S. Army Corps of Engineers (Corps), Mobile District for dredged material disposal. Expansion of the SIBUA site is needed to provide a disposal area of adequate depth and size for the hopper dredge and to keep valuable sand removed from the bar channel within the littoral system.

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  SEE ME \_\_\_\_\_ OTHER \_\_\_\_\_

3. BACKGROUND AND DISCUSSION.

a. The proposed activities are necessary to provide adequate depth for safe hopper dredge disposal operations of sediment from the Mobile Harbor 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.


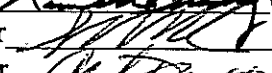
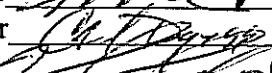
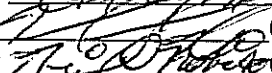

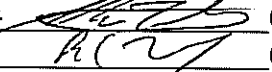

d. The enclosed SOF summarizes the environmental documentation and compliance process and concludes that the proposed activities should proceed.

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

13 January 2010

SUBJECT: Statement of Findings - Proposed expansion of the Sand Island Beneficial Use Area (SIBUA) an additional 2000 x 4500 feet southward for the disposal of maintenance material dredged from the federally authorized Mobile Harbor navigation project, Baldwin and Mobile Counties, Alabama.

5. COORDINATION.

PD-E	Concur/ <del>non-concur</del>		( )	<u>1/15/2010</u>
OP-TN	Concur/ <del>non-concur</del>		( )	<u>1/21/2010</u>
OP	Concur/ <del>non-concur</del>		( )	<u>1/21/2010</u>
OC	Concur/ <del>non-concur</del>		( )	<u>2/3/2010</u>
PD	Concur/ <del>non-concur</del>		( )	<u>2/3/2010</u>
DX	Concur/ <del>non-concur</del>		( )	<u>02/03/2010</u>
DC	Concur/ <del>non-concur</del>		( )	<u>3 Feb '10</u>

6. MOBILE DISTRICT POC. Mr. Michael Malsom, 251-690-2023.



JENNIFER L. JACOBSON  
Chief, Coastal Environment Team

# **STATEMENT OF FINDINGS**

## **EXPANSION OF SAND ISLAND BENEFICIAL USE AREA**

### **MOBILE HARBOR FEDERAL NAVIGATION PROJECT MOBILE, ALABAMA**

#### **FEDERALLY AUTHORIZED**

**Waterway and Location:** Mobile Bay and the Mobile Bar Channel. The expansion area is located southeast of Sand Island along the west side of the Mobile Bar Channel and adjacent to the Sand Island Lighthouse in the Gulf of Mexico, Mobile County, Alabama.

As District Engineer, Mobile District, U.S. Army Corps of Engineers, 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 navigation channel dredging in Mobile Bay and Mobile River began in 1826 with enactment of the River and Harbor Act of 1826. During the period 1826 to 1857, a channel 10 feet deep was dredged through the shoals in Mobile Bay up to the city of Mobile. Subsequently, further modifications to the channel were authorized and the original Federal project was enlarged by the addition of the Arlington, Garrows Bend, and Hollingers Island channels within the bay, and a channel into Chickasaw Creek from the Mobile River. Section 104 of the River and Harbor Act of 1954 authorized a 40-foot depth channel with a 400-foot width in Mobile Bay to the mouth of the Mobile River and a 40-foot depth in the Mobile River to the Cochran Bridge with the width varying from 400 to 775 feet. The Senate Public Works Committee on 16 July 1970 and the House Public Works Committee on 15 December 1970, under the provisions of Section 201 of the 1965 Flood Control Act, authorized a 40-foot by 400-foot channel, branching from the main ship channel and extending through a land cut to the Theodore Industrial Park. The Theodore Ship Channel was reauthorized in the Water Resources Development Act of 1976.

Further improvements to the existing Federal project were initially authorized in the 1985 Energy and Water Resources Appropriation Act (PL 99-88, Ninety-ninth Congress, First Session). The improvements were reauthorized in Section 201 of the Water Resources Development Act of 1986 (PL 99 – 662, Ninety-ninth Congress, Second Session), which was approved 17 November 1986, and subsequently amended by Section 302 of the Water Resources Development Act of 1996. The report referenced by this authorization recommended the following improvements to the Federal project: deepening and widening the Gulf entrance channel to 57 by 700 feet; deepening and widening the main ship channel to 55 by 550 feet in

Mobile Bay, except for the upper 3.6 miles which require a width of 650 feet; deepening the Mobile River channel to 55 feet to a point about 1 mile below the Interstate 10 highway tunnels; and, provide a 55-foot deep anchorage area and turning basin in the vicinity of Little Sand Island.

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

The U.S. Army Corps of Engineers (Corps) conducts maintenance dredging and disposal activities in the Mobile Bar Channel on a one to two year cycle. The primary disposal area for the material removed from the bar channel includes an area known as the Sand Island Beneficial Use Area (SIBUA) and described in Public Notice number FP08-MH14-05. The SIBUA is located southeast of Sand Island, west of the navigation channel and adjacent to the Sand Island Lighthouse. It is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse which is a valuable cultural resource site listed on the National Register of Historic Places. Placement of sandy material around the lighthouse's rubble foundation provided additional protection to the historic structure.

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the Corps requested further expansion of the SIBUA in 2008. The expansion consists of extending the southern boundary of the beneficial use area an additional 4,500 feet wide by 2,000 feet long. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

The sandy sediments placed in the SIBUA have been deemed compatible with sediments in the SIBUA from a biological and physical standpoint according to guidelines established by the Corps and the U.S. Environmental Protection Agency. Placement activities are typically accomplished using hopper dredges; however hopper barges or hydraulic pipeline dredges may be used as necessary. The quality of the sediment being placed in the SIBUA from the bar channel is fine to medium quality quartz sand. Material from the Mobile Harbor Turning Basin is poorly graded sand with 4 to 5% fines.

## **3. Results of Coordination:**

The original Project EIS, *Mobile Harbor Channel Improvements, Mobile County, Alabama* was completed in October, 1980. The EIS resulted in the authorization in the Water Resources Development Act of 1986 (PL 99-662), which was approved on 17 November 1986, and provides for development to deepen and widen the channel and construction of the turning basin in the vicinity of Little Sand Island. A supplemental EIS for the Ocean Dredged Material Disposal Site (ODMDS) was completed in November 1985. Since the completion of the original EIS, there have been some changes in listed species and critical habitat, therefore an EA was prepared to update resource description and impacts. Subsequent coordination for this effort is summarized below:

a) Public Notice No. FP08-MH14-05 was coordinated with Federal, state and local agencies and the interested public for 15 days beginning on December 5, 2008 (**Enclosure 1**).

b) Letter dated December 19, 2008 – The Town of Dauphin Island responds to the Public Notice expressing concern with the southern expansion of the beneficial use area and requested the Corps to consider placing sand closer to their island (**Enclosure 2**).

c) Letter dated December 19, 2008 – The Dauphin Island Property Owners Association responds to the Public Notice expressing concern with the southern expansion of the beneficial use area and requested the Corps to consider expanding the beneficial use area to the north and west (**Enclosure 3**).

d) Letter dated July 24, 2009 – The Corps, Mobile District requested Section 7 concurrence from the U.S. Fish and Wildlife Service (USFWS) for the proposed expansion of the SIBUA by extending the southern end of the disposal area approximately 2000 x 4500 feet (**Enclosure 4**).

e) Letter dated July 24, 2009 – The Corps, Mobile District requested to initiate formal Essential Fish Habitat (EFH) consultation with the National Marine Fisheries Service (NMFS), Habitat Conservation Division (HCD) for the proposed expansion of the SIBUA by extending the southern end of the disposal area approximately 2000 x 4500 feet (**Enclosure 5**).

f) Letter dated July 24, 2009 – The Corps, Mobile District requested Section 7 concurrence from NMFS, Protected Resource Division (PRD) for the proposed expansion of the SIBUA by extending the southern end of the disposal area approximately 2000 x 4500 feet (**Enclosure 6**).

g) E-mail dated July 27, 2009 – The NMFS, HDC responded to the Corps letter and concurs that the use and expansion of the SIBUA will have no additional adverse impacts on Essential Fish Habitat (EFH) fish and wildlife resources. They have no objections to the project (**Enclosure 7**).

h) E-mail dated July 31, 2009 – The USFWS responded to our letter and concurs with the Corps' not likely to adversely affect determination for the use and expansion of the SIBUA. The project will have no additional adverse impacts on fish and wildlife resources and the USFWS has no objections to the project (**Enclosure 8**).

i) Legal Notice dated August 19, 2009 – The Corps, Mobile District coordinated with Federal, state and local agencies, and interested public for 1-day in the Mobile Press-Register newspaper (**Enclosure 9**).

j) Letter dated August 25, 2009 – The Corps, Mobile District responded to the Town of Dauphin Island stating a Corps' engineering evaluation determined that the area to the north and west of the disposal area is too shallow for hopper dredge operations and will continue to pursue the southern expansion for disposal operations (**Enclosure 10**).

k) Letter dated August 25, 2009 – The Corps, Mobile District responded to the Dauphin Island Property Owners Association stating a Corps' engineering evaluation determined that the area to the north and west of the disposal area is too shallow for hopper dredge operations and will continue to pursue the southern expansion for disposal operations (**Enclosure 11**).

l) Letter dated August 28, 2009 – The Corps, Mobile District requests water quality certification and coastal zone consistency for a period of five years for the proposed expansion of the SIBUA from Alabama Department of Environmental Management (ADEM) (**Enclosure 12**).

m) Letter dated September 1, 2009 – The ADEM completed its review of the public notice and Corps letter requesting water quality certification and coastal zone consistency. ADEM concurred with the Corps' determination and granted water quality certification and coastal zone consistency for a period not to exceed 5 years (**Enclosure 13**). Expansion and use of the SIBUA is conditional upon continued compliance with the management program and the following conditions:

- 1) The ADEM must be notified of the starting date and expected completion date prior to project implementation.
- 2) The Corps and/or its assigns shall allow any authorized employee of the ADEM or its contractors, or Attorney General or District Attorney to enter upon the premises associated with the project authorized by this permit for the purposes of ascertaining compliance with the terms and conditions of the permit and with the rules and regulations of the ADEM.
- 3) The Corps and/or its assigns must implement appropriate, effective Best Management Practices (BMPs) for prevention and control of nonpoint sources of pollutants, during and after project implementation. At a minimum, must implement applicable effective BMPs as provided in the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas, published by the Alabama State Soil and Water Conservation Committee, 2003.
- 4) The Corps and/or its assigns must conduct daily turbidity inspections during the life of the project. Turbidity generated by the activity must not cause substantial visible contrast nor result in an increase of more than 50 NTUs (above background) in surface waters more than 400 feet from the activity. If turbidity generated from the project exceeds acceptable levels, the Corps must cease operations until turbidity is restored to acceptable levels. The ADEM Coastal/Facility Section at (251) 432-6533 must be notified of resultant work stoppage as soon as possible. Daily inspections shall be conducted by a qualified credentialed professional (QCP) or qualified personnel under the direct supervision of a QCP.
- 5) Upon loss or failure of any treatment facility, BMP, or other management measure as identified by responsible on-site staff during day to day operations or

as identified by ADEM technical staff during facility inspections, the Corps and/or its assigns, where necessary to maintain compliance with this certification, suspend, cease, reduce, or otherwise control work/activity and all discharges until effective treatment is restored. The ADEM Coastal/Facility Section at (251) 432-6533 must be notified of resultant work stoppage.

- 6) The Corps and/or its assigns shall provide written notice to the ADEM of any proposed modifications to the approved maintenance dredging disposal area expansion plan, including but not limited to expansion beyond the authorized extension of the 4,500 foot wide southern boundary approximately 2,000 feet to the south or use of alternative disposal sites not specified in the proposal. Modifications may not be implemented without prior written notice and approval from the ADEM. Upon such notice, the Director may require the submission of additional information and/or a new permit application, and additional fees may be required.
- 7) Unauthorized deviations from the maintenance dredging proposal, implementation of additional impacts exceeding the scope of the proposal authorized herein, or failure to abide by all the conditions and requirements herein may constitute a violation of this certification, resulting in invalidation of this CWA 401(a) water quality certification and coastal consistency determination.
- 8) This certification is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information and/or a new permit application, and additional fees are required.
- 9) Notifications, modifications, and submissions of requested documents as required by the conditions above and other correspondence related to this project should be submitted to the ADEM Coastal/Facility Section, Attn: Jennifer Robinson, 4171 Commanders Drive, Mobile, AL 36615. Conditions Nos. 4 and 5 require immediate telephone notification in addition to a written report.

n) Letter dated September 2, 2009 – The NMFS, PRD responded to the Corps letter requesting concurrence with our determination pursuant to Section 7 of the Endangered Species Act (ESA). The letter stated: “We believe the proposed expansion of the SIBUA disposal site and the future placement of sand in the SIBUA is not likely to adversely affect sea turtles and Gulf sturgeon protected by the ESA under NMFS” (**Enclosure 14**).

o) Survey report dated September 14, 2009 – The Corps, Mobile District conducted a marine remote sensing survey utilizing both magnetometer and side-scan sonar data to search for sunken vessels and other submerged cultural resources over the entire proposed project area. No targets with potential cultural resources were identified during the three day survey which was concluded on August 19, 2009. As a result of the negative findings, the summary report states this project will pose no effect to cultural resources within the project area. These findings and recommendations have been forwarded to the Alabama State Historical Commission for concurrence (**Enclosure 15**).



p) Letter dated October 27, 2009 – The Alabama Historical Commission determined that the proposed activities involved with the expansion of the SIBUA will not have an effect on any known cultural resources listed provided that all activities occur within the previously surveyed area. However, should any archaeological cultural resources be encountered during project activities, work shall cease and the SHPO shall be consulted immediately (**Enclosure 16**).

q) Finding of No Significant Impact, the Environmental Assessment for the SIBUA, and the Section 404 (b)(1) Evaluation Report (**Enclosure 17**).

#### **4. Environmental Effects and Impacts:**

a) The environmental effects of the proposed expansion and placement activities for the SIBUA as part of the Mobile Harbor Federal Navigation Project have been addressed in an EA and a Section 404(b)(1) Evaluation Report. Impacts to the environment were determined to be temporary in nature and insignificant.

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 impact 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 proposed maintenance dredging and placement activities for the SIBUA extension 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 proposed expansion and disposal activities associated with the federally authorized SIBUA, Mobile County, Alabama described herein have been specified through the application of the Section 404(b)(1) Guidelines and all other applicable laws and regulations regarding the protection of water and air resources, cultural resources, and fish and wildlife resources. After weighing all factors involved and considering the cumulative effects of

the proposed action upon the environment, I have concluded that the proposed expansion and disposal activities comply with all applicable laws and regulations.

Date: 3 Feb 2010

  
\_\_\_\_\_  
**Byron G. Jorns**  
**Colonel, Corps of Engineers**  
**District Commander**



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

REPLY TO  
ATTENTION OF:

CESAM-PD-EC  
PUBLIC NOTICE NO. FP08-MH14-05

5 December 2008

15-DAY  
JOINT PUBLIC NOTICE  
U.S. ARMY CORPS OF ENGINEERS  
AND  
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
  
MAINTENANCE DREDGING AND PLACEMENT ACTIVITIES  
MOBILE HARBOR NAVIGATION PROJECT  
MOBILE COUNTY, ALABAMA  
  
EXPANSION OF THE SAND ISLAND BENEFICIAL USE AREA

Interested persons are hereby notified that the U.S. Army Corps of Engineers (Corps), Mobile District, proposes to expand the Sand Island Beneficial Use Area (SIBUA) disposal site by extending the southern end of the disposal area approximately 2,000 feet southward. Placement of sandy material in this area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

This public notice is issued in accordance with rules and regulations published in the Federal Register on 26 April 1988. These regulations provide for the review of the dredging programs for federally authorized projects. These laws are applicable whenever dredged or fill material may enter navigable waters. The recipient of this notice is requested specifically to review the proposed action as it may impact on 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:** Mobile Bar Channel and the Gulf of Mexico, Mobile County, Alabama.

**DESCRIPTION OF THE ENTIRE EXISTING PROJECT:** The existing Mobile Harbor, Alabama navigation project (**Figure 1**) consists of the following:

- (a) a 47-foot by 600-foot channel about 1.5 miles long across Mobile Bar;
- (b) a 45-foot by 400-foot channel in Mobile Bay to mouth of Mobile River;
- (c) a 40-foot channel in Mobile River to highway bridge, varying from 500 to 775 feet wide;

Enclosure 1

**CESAM-PD-EC  
PUBLIC NOTICE NO. FP08-MH14-05**

**5 December 2008**

(d) a 25-foot channel from highway bridge to and up Chickasaw Creek to a point 400 feet south of mouth of Shell Bayou, widths being 500 feet in Mobile River and 250 feet in Chickasaw Creek;

(e) a turning basin 40 feet deep, 2,500 feet long, and 800 to 1,000 feet wide, opposite Alabama State Docks;

(f) a turning basin 40 feet deep, 1,000 feet wide, and 1,600 feet long opposite Magazine Point;

(g) a 27-foot by 150-foot channel from Mobile Bay Channel along Arlington Pier to a turning basin 800 feet long and 600 feet wide opposite Brookley Complex ocean terminal, and continuing thence to a turning basin 250 feet wide and 800 feet long in Garrows Bend, thence a 22-foot by 150-foot channel to the causeway linking McDuffie Island to the mainland;

(h) a channel serving the Theodore Industrial Park 40 feet deep and 400 feet wide from the main ship channel in Mobile Bay and extending northwesterly for about 5.3 miles to the shore of Mobile Bay, including an anchorage basin near the shoreline, thence a land cut 40 feet deep, 300 feet wide and 1.9 miles long to and including a 42 acre trapezoid turning basin 40 feet deep, and a barge channel 12- by 100 feet, extending 6500 feet and terminating in a 300-by 300-foot turning basin; and

(i) maintenance of Three Mile Creek by snagging, from its intersection with Industrial Canal to Mobile River. The project provides also for an anchorage area 32 feet deep, 100 feet wide, and 2,000 feet long opposite site formerly occupied by the U.S. Quarantine Station at McDuffie (Sand) Island.

Prior to widening the Mobile Bay Channel as authorized in 1954, the Quarantine Station anchorage area was maintained to a project width of 200 feet. Construction by local interests of a solid-fill causeway across Garrows Bend Channel between McDuffie Island and the mainland is also provided for under existing project. Total length of the bay and river channels is about 41.7 miles. Plane of reference is mean lower low water. Further authorization in 1986 provides for future development to deepen and widen entrance channel over the bar to 57 feet by 700 feet about 7.4 miles long, deepen and widen bay channel to 55 feet by 550 feet about 27.0 miles long, deepen and widen an additional 3.6 miles of bay channel to 55 feet by 650 feet and provide 55-foot deep anchorage area and turning basin in vicinity of Little Sand Island. Although the authorized project is for the construction of a 55-foot by 550-foot channel, Phase I construction completed in 1990 consisted of deepening the entrance channel from 42 feet to 47 feet for a distance of 6.1 miles from the Gulf of Mexico to Mobile Bay; and deepening the bay channel from 40 feet to 45 feet from the mouth of the bay north for a distance of 31.2 miles to the McDuffie Coal Terminal.

The existing project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts).

**CESAM-PD-EC****PUBLIC NOTICE NO. FP08-MH14-05****5 December 2008**

Controlling Depth: Maintained to authorized depths: As of 1 June 1990: outer Bar Channel, 47.0 feet; Bay Channel, 45.0 feet; Chickasaw Creek Channel, 25.0 feet; Arlington Channel, 27.0 feet; Turning Basin to Highway Bridge, 40.0 feet.

**DESCRIPTION OF PROPOSED ACTION:** The Corps conducts maintenance dredging and disposal activities in the Mobile Bar Channel on a one to two year cycle. The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in **Figure 2**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 3**), which is a valuable cultural resource listed on the National Register of Historic Places. This action was coordinated with and approved by the Alabama State Historic Preservation Officer. Placement of sandy material around the lighthouse's rubble foundation is intended to provide protection to the historic structure.

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the Corps is requesting further expansion of the SIBUA due to the site depths changing. The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 feet to the south as illustrated in **Figure 4**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

The sandy sediments placed in the SIBUA have been deemed compatible with sediments in the SIBUA from a biological and physical standpoint according to guidelines established by the Corps and the U.S. Environmental Protection Agency. Placement activities are typically accomplished using hopper dredges; however, hopper barges or hydraulic pipeline dredges may be used as necessary. The quality of the sediment being placed in the SIBUA ranges from sand to silty sandy material.

**WATER QUALITY CERTIFICATION:** Pursuant to the requirements of the Clean Water Act, a modification to the existing state water quality certification is requested from the Alabama Department of Environmental Management (ADEM) to cover the activities associated with the proposed placement of suitable dredged material from the bar channel in the SIBUA. A decision relative to water quality certification will be made by ADEM upon completion of the required 15-day comment period for this public notice.

**COASTAL ZONE CONSISTENCY:** Pursuant to the Coastal Zone Management Act, the proposed action is consistent with the Alabama Coastal Management Program to the maximum extent practicable. Upon completion of the required 15-day comment period, a decision relative to coastal zone consistency will be made by ADEM.

**CESAM-PD-EC****PUBLIC NOTICE NO. FP08-MH14-05****5 December 2008**

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

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CONSIDERATIONS:**

In accordance with the requirements of the NEPA, impacts associated with navigation improvements for the Mobile Harbor navigation project were addressed in an Environmental Impact Statement (EIS) dated October 1980. In addition, a Supplemental EIS dated December 13, 1985, was prepared to address impacts associated with the offshore placement (Gulf Disposal Area) of dredged material from construction of navigation improvements and channel maintenance activities, and for the designation of an offshore placement sites(s). The Record of Decision implementing the harbor improvements was signed January 8, 1987. The EIS and Supplemental EIS were coordinated with all applicable Federal, State and local agencies and interested public. A final environmental assessment (EA) was prepared to address impacts associated with the placement activities in the beneficial use area dated March 1997, and a Finding of No Significant Impact (FONSI) signed on March 1997. A Supplemental EA is currently being prepared and comments received from this Public Notice will be incorporated into the final document.

**SECTION 404 (B)(1) EVALUATION REPORT:** Water quality impacts associated with the proposed action have been identified in an evaluation report prepared in the original SIBUA designation under Public Notice Number FP97-MH08-02 and in accordance with Public Law 92-500, Section 404(b)(1) Guidelines promulgated by the U.S. Environmental Protection Agency under the Clean Water Act. Impacts discussed in the section 404(b)(1) evaluation report identified temporary increases in turbidity and suspended solids concentrations near the disposal area, short-term elimination of benthic organisms, and localized short-term degradation of esthetics near the disposal area. Recent sediment quality investigations performed in the channel show the material to be substantially free of contaminants of concern and suitable for open-water disposal following the guidelines of the Inland Testing Manual. A Section 404(b)(1) Evaluation Report is currently being prepared and comments received from this Public Notice will be incorporated into the final document.

**ENDANGERED/THREATENED SPECIES:** The proposed action is being coordinated with the U.S. Department of the Interior, Fish and Wildlife Service (FWS), and the U.S. Department of Commerce, National Marine Fisheries Service (NMFS) by this public notice. Some species listed by the FWS and NMFS as endangered or threatened are occasional visitors to the vicinity of the project area. Impacts to Gulf sturgeon have been evaluated by NMFS in the Regional Biological Opinion for Hopper Dredging in the Gulf of Mexico. Based on our determination, no endangered or threatened species or their critical habitats will be adversely impacted by the proposed expansion of the SIBUA and placement of sediment in this area.

**CESAM-PD-EC**  
**PUBLIC NOTICE NO. FP08-MH14-05**

**5 December 2008**

**ESSENTIAL FISH HABITAT:** 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 seek to minimize adverse effects on habitat caused by fishing and non-fishing activities.

The 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. The habitat in the project area, which is located just outside the mouth of Mobile Bay, consists of Gulf of Mexico waters and sandy substrate consistent with sediment along the northern Gulf of Mexico. The NMFS has management plans for brown shrimp (*Penaeus aztecus*), red drum (*Sciaenops ocellatus*), white shrimp (*P. setiferus*), and Spanish mackerel (*S. maculatus*) within the project area. Based on the time that it would take to complete the dredging and disposal, and the size of the proposed placement areas in relation to the total available acreage of similar habitat within the Gulf of Mexico, we do not anticipate that the proposed action would result in long-term adverse effects to EFH.

**CULTURAL RESOURCES CONSIDERATION:** In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse, which is a valuable cultural resource listed on the National Register of Historic Places. This action was coordinated with and approved by the Alabama State Historic Preservation Officer (SHPO). Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure. Similarly, continued placement of sandy material within the existing SIBUA and the proposed expanded area would supply a continued source of sand to the local system and provide protection to the historic resource. A letter is being sent to Alabama SHPO for their concurrence with our determination.

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

**CESAM-PD-EC****PUBLIC NOTICE NO. FP08-MH14-05****5 December 2008**

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

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

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

Other Federal, State, and local organizations, affiliated Indian Tribe interests, and U.S. Senators and Representatives of the State of Alabama are being sent copies of the notice and are being asked to participate in coordinating this proposed work.

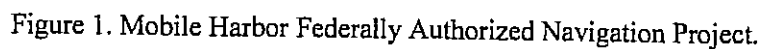
**CORRESPONDENCE:** Any person who has an interest that may be affected by the proposed activity may request a public hearing. Any comments or requests for a public hearing must be submitted in writing to the District Engineer within 15 days of the date of this public notice. A request for a hearing must clearly set forth the interest that may be affected and the manner in which the interest may be affected. You are requested to communicate the information contained in this notice to any other parties who may have an interest in the proposed activities. Correspondence concerning the public notice should refer to Public Notice No. FP08-MH14-05 and should be directed to the Commander, U.S. Army Engineer District Mobile, P.O. Box 2288, Mobile, Alabama 36628-0001, ATTN: CESAM-PD-EC. For additional information please contact Mr. Larry Parson at (251) 690-3139 or Mr. Michael Malsom at 251-690-2023.

  
**CURTIS M. FLAKES**

U.S. Army Corps of Engineers  
Mobile District



**5 December 2008**



PUBLIC NOTICE NO. FP08-MH14-05  
CESAM-PD-EC

5 December 2008

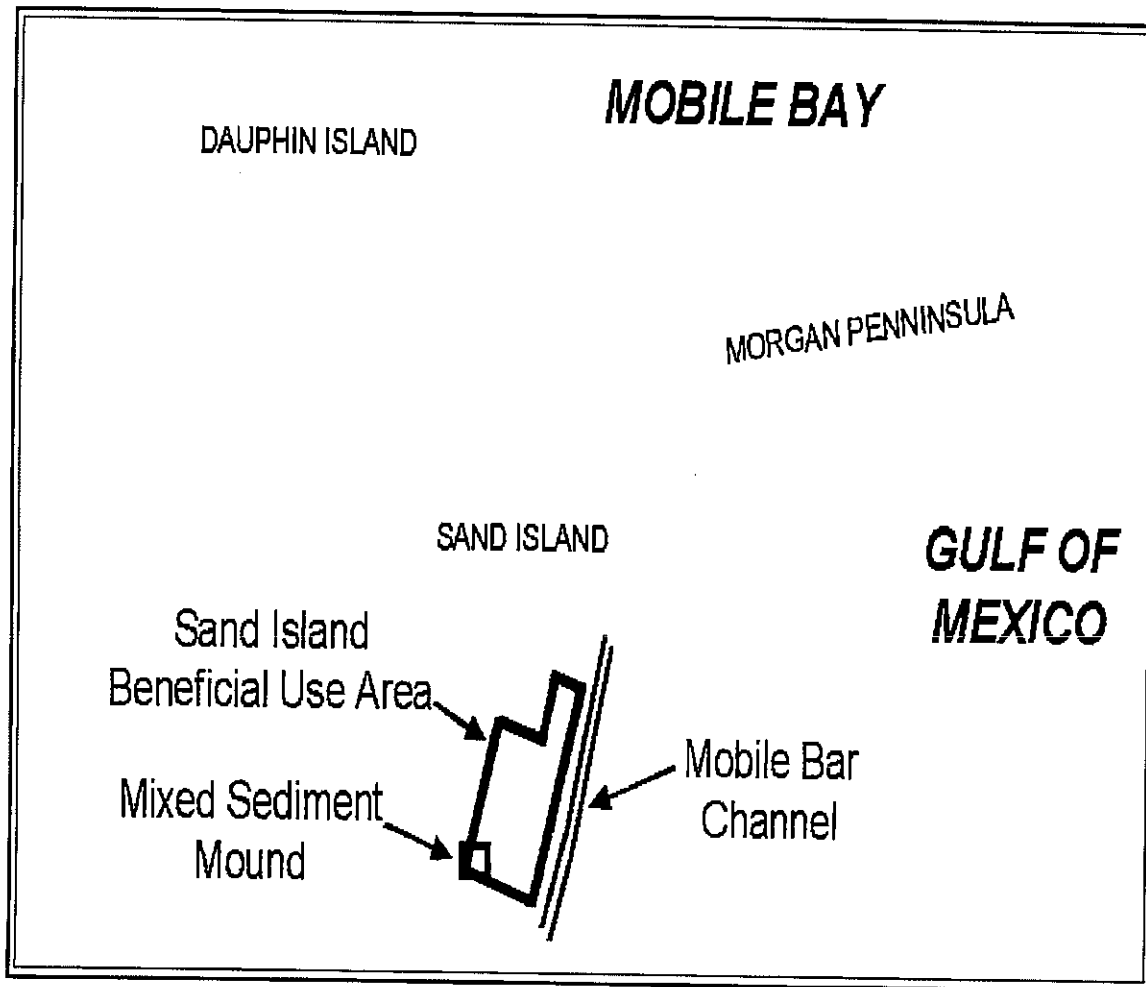


Figure 2. Location of the Mobile Bar Channel and Sand Island Beneficial Use Area (SIBUA)

Enclosure 1

PUBLIC NOTICE NO. FP08-MH14-05  
CESAM-PD-EC

5 December 2008

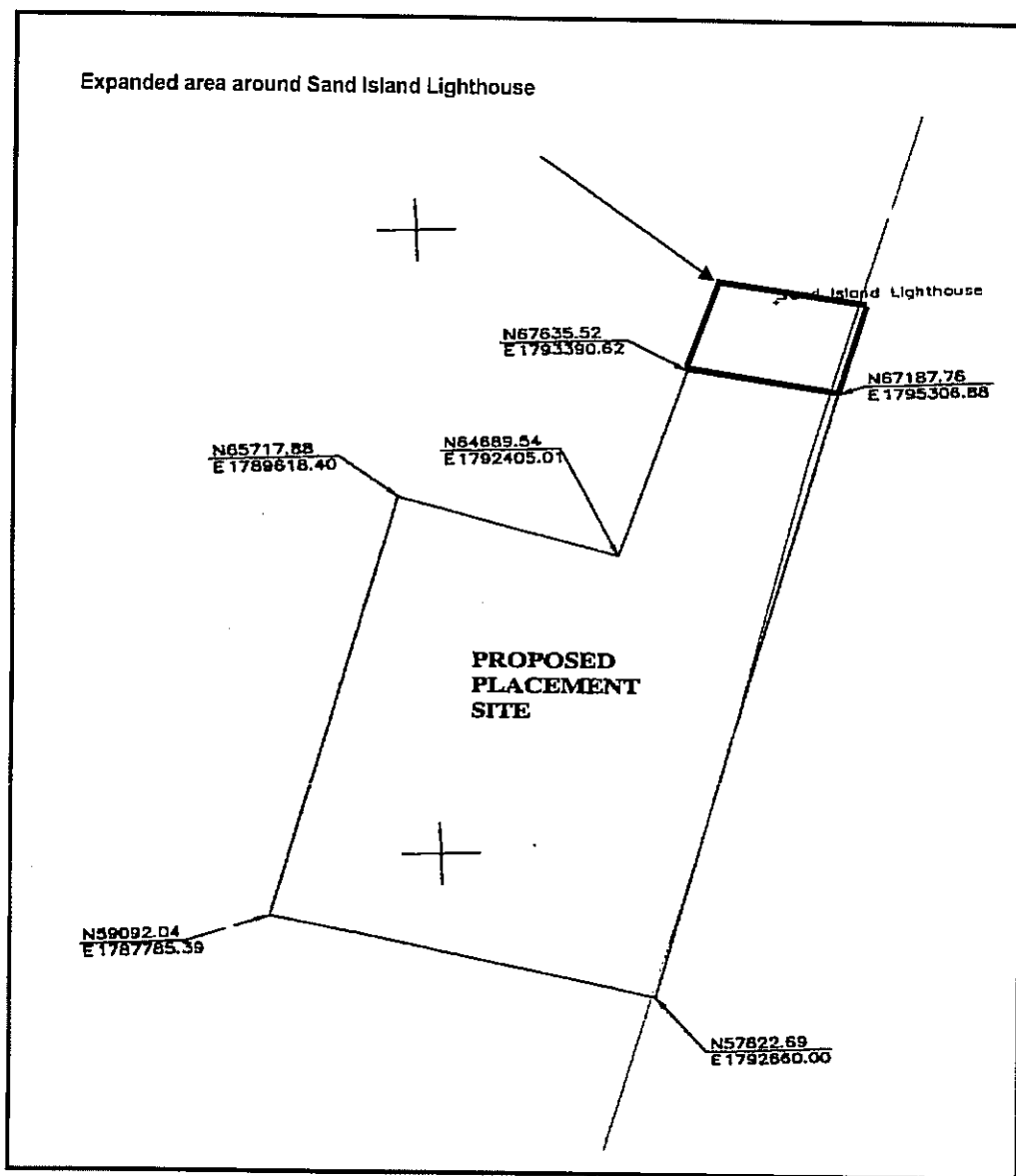
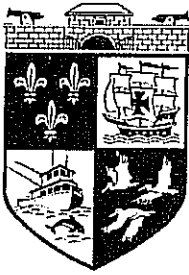


Figure 3. Previous expansion of SIBUA to include the area around Sand Island Lighthouse

Enclosure 1

**5 December 2008**





# *Town of Dauphin Island*

1011 Bienville Blvd. • Dauphin Island, Alabama 36528

Phone: (251) 861-5525 • Fax: (251) 861-2154 • Email: [dialgovmt@townofdauphinisland.org](mailto:dialgovmt@townofdauphinisland.org)

December 18, 2008

**Town Council**

**Mayor**  
Jeff Collier

**Council Members**  
Stephen Denmark  
Mary Thompson  
Lisa Hansen  
Sherry Carney  
Clinton Collier

**Town Clerk**  
Nannette Davidson

Department of the Army  
Mobile District, Corps of Engineers  
P.O. Box 2288  
Mobile, Alabama 36628-0001

Dear Sirs,

As Mayor of the Town of Dauphin Island and on behalf of the Town Council, I write in reference to Public Notice No. FP08-MH14-05 which proposes a 2000 foot southward extension of the Sand Island Beneficial Use Area (SIBUA). Recognizing that our barrier island community is situated "down drift" of the existing SIBUA and is closest in proximity to the site than any other community in Mobile County, I appreciate the opportunity to express our thoughts and concerns regarding the proposed changes to the SIBUA.

Dauphin Island has experienced decades of erosion along the entire southern shoreline. Today, we find ourselves in a critical situation where Gulf waters threaten critical infrastructure, critical habitats and public and private lands. Without some type of shoreline stabilization project in the very near future the island, along with its many cultural, recreational, environmental and historical resources, will be lost.

The proposal to deposit beach-quality dredge material further south seems counterproductive to the needs of an island that is literally washing away. While I admit I have not had an opportunity to review any data the Corps may have that would indicate material dumped in this new location will in fact benefit Dauphin Island, it would seem our chances of success would be greatly increased if the material was placed in closer proximity to the intended target.

What is the primary reason for moving outside of the existing SIBUA? Is the area completely filled? Is the water too shallow to afford access by

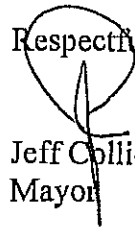
1011 Bienville Blvd.  
Dauphin Island, Alabama 36528  
Phone: (251) 861-5525 Fax (251) 861-2154  
Email: [dialgovmt@townofdauphinisland.org](mailto:dialgovmt@townofdauphinisland.org)

Enclosure 2

hopper dredge? Is it possible to extend the site north and/or west versus southward? Has the Corps researched the implementation of a by-pass dredge program? These are just a few of the questions we have about the proposed SIBUA expansion.

On behalf of our entire community, I respectfully request a public hearing be held on Dauphin Island to allow citizen input regarding this important matter. Thank you in advance for your favorable response.

Respectfully Submitted,



Jeff Collier  
Mayor

Enclosure 2

# Dauphin Island

## PROPERTY OWNERS ASSOCIATION

P. O. BOX 39  
DAUPHIN ISLAND, AL 36528



251-861-4228  
251-861-4229 FAX  
dipoa@earthlink.net

December 19, 2008

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

Attn: CESAM-PD-EC

Re: Public Notice No. FP08-MH14-05

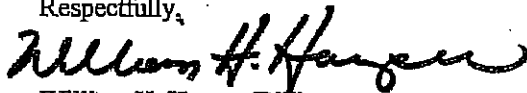
Dear Sirs,

Representing the Dauphin Island Property Owners Association, I would like to request a public bearing on the proposed expansion of the Sand Island Beneficial Use Area (SIBUA) disposal site southward from it's present location.

While the present site seems to be aiding Dauphin Island, but this is completely a subjective theory with no studies being done to confirm or deny the benefit of this present location? There are many unanswered questions, thus the request for a hearing.

Our common sense suggestion would be to create a disposal site westward and northward of the present site which would seem to continue a literal drift of sand that seems to be aiding Sand Island/Pelican Island, as well as Dauphin Island!

Respectfully,



William H. Harper (Bill)  
President

Enclosure 3

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

July 24, 2009

Coastal Environmental Team  
Planning and Environmental DivisionMr. William Pearson  
U.S. Fish and Wildlife Service  
1208-B Main Street  
Daphne, Alabama 36526

Dear Mr. Pearson,

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (**Figure 1**). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. Under the requirements of Section 7 of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the not likely to adversely affect determination for the extension of the SIBUA.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in **Figure 2**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in **Figure 3**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 4**) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure.

Enclosure 4



Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

The U.S. Fish and Wildlife Service lists the following species as either threatened and/or endangered that may occur within the area:

**Mobile County:**

- T - Piping plover (*Charadrius melodus*)
- E - Red-cockaded woodpecker (*Picoides borealis*)
- E - Least tern (*Sterna antillarum*)
- T - Eastern indigo snake (*Drymarchon corais couperi*)
- T - Gopher Tortoise (*Gopherus polyphemus*)
- E - Alabama red-bellied turtle (*Pseudemys alabamensis*)
- T - Loggerhead sea turtle (*Caretta caretta*)
- E - Kemp's ridley sea turtle (*Lepidochelys kempi*) (P)
- T - Green sea turtle (*Chelonia mydas*) (P)
- T - Gulf sturgeon (*Acipenser oxyrinchus desotoi*)
- T - Flatwoods salamander (*Ambystoma cingulatum*) (P)
- E - Louisiana quillwort (*Isoetes louisianensis*) (P)
- C - Black pine snake (*Pituophis melanoleucus lodingi*)
- E - West Indian manatee (*Trichechus manatus*)
- BGEPA - Bald Eagle (*Haliaeetus leucocephalus*)

**Analysis of Effects:**

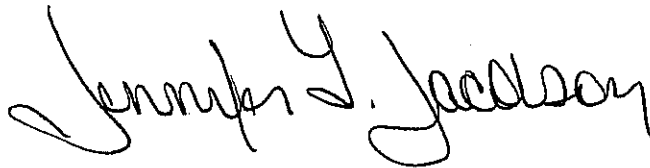
The Corps, Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Alabama. The Corps believes that if these measures are implemented there will be no adverse impact to West Indian manatees. The loggerhead sea turtle, Kemp's ridley sea turtle, and green sea turtle could possibly be impacted because they could be found in the area; however, if they are in the vicinity, it is believed that they will avoid the area while disposal operations are in progress. We plan to adhere to the 2003 Regional Biological Opinion on hopper dredging in the Gulf of Mexico. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely that adverse effects to the species' habitat would result. In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species due to the mobile species likely avoiding the project area during disposal operations. No significant impacts to these species are anticipated.

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 disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

Based on this information, the Mobile District finds that the proposed activity is not likely to adversely affect any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the determination for extension of the SIBUA.

Should you require any further assistance, please call Mr. Michael F. Malsom at (251) 690-2023 or by email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, reading "Jennifer L. Jacobson". The signature is fluid and cursive, with the first name being the most prominent.

Jennifer L. Jacobson  
Leader, Coastal Environment Team

Enclosure 4

REPLY TO  
ATTENTION OFDEPARTMENT OF THE ARMY  
MOBILE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 2281  
MOBILE, AL 36628-0001

July 24, 2009

Coastal Environment Team  
Planning and Environmental DivisionMr. 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 an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (**Figure 1**). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. By this letter and its information therein, the Mobile District is requesting to initiate formal Essential Fish Habitat (EFH) consultation.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in **Figure 2**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in **Figure 3**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 4**) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure.

Enclosure 5

Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

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

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

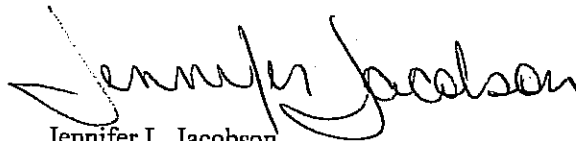
Most of the motile benthic and pelagic fauna, such as crab, shrimp, and fish, should be able to avoid the disturbed area and should return shortly after the activity is completed. No long-term direct impacts to managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

The Corps, Mobile District has taken extensive steps to reduce and avoid potential impacts to EFH as well as other significant area resources. The Corps, Mobile District will be utilizing a previously authorized disposal area, and adheres to water quality requirements provided by the Alabama Department of Environmental Management to further reduce impacts to EFH. These steps also include reducing the amount of material dredged within the bar channel to the minimal amount required to achieve the project objectives.

Based on the above assessment of the project in relation to impacts to fisheries resources, the overall impact to identified species is considered negligible given the relatively small area. 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. Michael F. Malsom at (251) 690-2023 or e-mail him at [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, reading "Jennifer L. Jacobson". The signature is fluid and cursive, with the first name "Jennifer" and last name "Jacobson" clearly legible.

Jennifer L. Jacobson  
Chief, Coastal Environmental Team

July 24, 2009

Coastal Environmental Team  
Planning and Environmental Division

Mr. David Bernhart  
National Oceanographic and Atmospheric  
Administration Fisheries  
Southeast Regional Office  
Protected Resources Division  
St. Petersburg, Florida 33701

Dear Mr. Bernhart,

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (**Figure 1**). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. Under the requirements of Section 7 of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the not likely to adversely affect determination for the extension of the SIBUA.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in **Figure 2**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the (SIBUA) as illustrated in **Figure 3**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 4**) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure.

Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

The National Oceanic and Atmospheric Administration lists the following species as either threatened and/or endangered that may occur within the area:

<b>Alabama</b>			
<b>Listed Species</b>	<b>Scientific Name</b>	<b>Status</b>	<b>Date Listed</b>
<b>Marine Mammals</b>			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaengliae</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
<b>Turtles</b>			
green sea turtle	<i>Chelonia mydas</i>	Threatened	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
<b>Fish</b>			
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	09/30/91

#### **Analysis of Effects:**

No adverse impacts would occur to whales because they are not typically found in the vicinity of the project site. The Corps, Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Alabama. The Corps believes that if these measures are implemented there will be no adverse impact to West Indian manatees. The loggerhead sea turtle, Kemp's ridley sea turtle, and green sea turtle could possibly be impacted because they could be found in the area; however, if they are in the vicinity, it is believed that they will avoid the area while disposal operations are in progress. We plan to adhere to the 2003 Regional Biological Opinion on hopper dredging in the Gulf of Mexico. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely

that adverse effects to the species habitat would result. In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species due to the mobile species likely avoiding the project area during operations. The species will likely avoid the project area during operations. No significant impacts to these species are anticipated.

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 disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

Based on this information, the Mobile District finds that the proposed activity is not likely to adversely affect any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the determination for extension of the SIBUA.

Should you require any further assistance, please call Mr. Michael F. Malsom at (251) 690-2023 or by email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

Jennifer L. Jacobson  
Chief, Coastal Environment Team

PD-EC/ Malsom <sup>MF</sup> 7-23

PD-EC/Jacobson

PD-EC/Donaldson

PD-E/Bradley <sup>JB</sup>

PD/Campbell

PD/Flakes

Enclosures



**Malsom, Michael F SAM**

**From:** Parson, Larry E SAM  
**Sent:** Monday, July 27, 2009 3:58 PM  
**To:** Malsom, Michael F SAM  
**Subject:** FW: Sand Island Beneficial Use Area (SIBUA) Expansion

FYI

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

**From:** Mark Thompson [mailto:Mark.Thompson@noaa.gov]  
**Sent:** Monday, July 27, 2009 3:50 PM  
**To:** Parson, Larry E SAM; Jacobson, Jennifer L SAM  
**Cc:** Patric Harper; Ferraro, Carl; Powell.Dunoon@epamail.epa.gov; Kelly Shotts; Kevin Anson  
**Subject:** Re: Sand Island Beneficial Use Area (SIBUA) Expansion

In accordance with the provisions of the Magnuson-Stevens Fishery Conservation and Management Act, the National Marine Fisheries Service (NMFS), Habitat Conservation Division (HCD), has reviewed the Corps of Engineers, Mobile District's letter dated July 24, 2009, initiating essential fish habitat (EFH) consultation for the proposed expansion of the Sand Island Beneficial Use Area (SIBUA) in the Gulf of Mexico, south of Dauphin Island, Alabama. Based on the information provided and our previous review of the project's public notice, the NMFS HCD has no objections to or EFH Conservation Recommendations to provide regarding the proposed expansion of the SIBUA.

We appreciate your effort in addressing EFH. If you have any questions, please contact me at this email address or at 850/234-5061.

Sincerely,

Mark Thompson

Parson, Larry E SAM wrote:

>  
 > Hello Mark,  
 >  
 > The Corps is moving forward with plans to expand the SIBUA.  
 > Attached is a letter to your agency requesting  
 > consultation/concurrence pertaining to EFH. An official hardcopy is  
 > in the mail. Also attached is the Public Notice that we sent out back  
 > in December. There is a dredge in the area that is available to do  
 > work in the bar channel which will utilize the SIBUA, so anything you  
 > could do to move this along expeditiously would be appreciated. Give  
 > me a call if you have any questions on this. Thanks!  
 >  
 >  
 > Lp  
 >  
 > \_\_\_\_\_  
 > Larry E. Parson  
 > U.S. Army Corps of Engineers, Mobile District Coastal Environment Team  
 > (251) 690-3139  
 >  
 >  
 > <<ltr to NMFS-EFH.pdf>> <<SIBUA FN - Dec. 2008-final.pdf>>  
 >

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

Enclosure 7

**Malsom, Michael F SAM**

---

**From:** Patric\_Harper@fws.gov  
**Sent:** Friday, July 31, 2009 1:09 PM  
**To:** Malsom, Michael F SAM  
**Subject:** SIBUA expansion

Michael,  
The U. S. Fish and Wildlife Service has reviewed your July 24, 2009 letter requesting concurrence for a NLAA determination for the extension of the Sand Island Beneficial Use Area (SIBUA) in southern Mobile County, Alabama. No significant adverse effects on fish and wildlife resources are expected to result from this project. Therefore, we have no objections to this proposal. Our comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

FWS Log # 2009-FA-0238

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

Enclosure 8

Name: U.S. ARMY CORP

**Sale Rep: Christine Evelyn**

Enlign Inquiries Please Call: (251) 210-5424

U.S. ARMY CORP  
P.O. BOX 2288  
MOBILE, AL 36628

- Press - Regler  
Lock Box 1712  
Mobile, AL 36533-1712

START DATE	END DATE	INVOICE NO	P.O. NUMBER / DESCRIPTION	BAU SIZE	BILLED UNITS	TIMES RUN	AMOUNT
08/18	08/18	101035077-08102000	LEGAL NOTICE OF REQUEST FOR STATE CERTIF	330 Words	330	1	116.57
TOTAL:							116.57

Media Carlson being sworn, says that she is bookkeeper of Press-Register which publishes a daily newspaper in the City and County of Mobile, State of Alabama; and attached notice appeared in the issue of

Press-Register 01/9/2009

LEGAL ATTORNEY  
OF RECORD FOR STATE CERTIFI-  
CATION OF ACTIVITIES REQUI-  
RING A FEDERAL LICENSE OR PERMIT

2023 at 10:00 AM. The meeting will be held in the main hall of the hotel. For additional information, please contact the project manager at 123-456-7890. Meeting agenda: August 19, 2023.

Press Release  
 AUG 19 2023

[illegible][illegible]

Sworn to and subscribed before me this 19th day of August 2009

Maria Carlson  
Brandi W. Cook  
 NOTARY PUBLIC

FOR QUESTIONS CONCERNING THIS AFFIDAVIT,  
PLEASE CALL MEDIA CARLSON AT (251) 219-6418.  
YOU CAN PLACE A LEGAL NOTICE BY EMAIL OR FAX:  
LEGALS@PRESS-REGISTER.COM OR FAX# (251) 219-5037



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY

MOBILE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 2280  
MOBILE, ALABAMA 36620-0001

August 25, 2009

Coastal Environment Team  
Planning and Environmental Division

Honorable Jeff Collier  
Town of Dauphin Island  
1011 Bienville Boulevard  
Dauphin Island, Alabama 36528-0001

Dear Mayor Collier:

This letter is written as a follow-up to the letter we sent to your office on February 18, 2009 in reference to the proposed southern expansion of the Sand Island Beneficial Use Area (SIBUA) as specified in Public Notice No. FP08-MH14-05. The U.S. Army Corps of Engineers (Corps), Mobile District considered your request to expand the SIBUA dredged material disposal area to the north and west as referenced in your letter dated December 18, 2008. However, our engineering evaluation has indicated that these areas are too shallow to allow for hopper dredge disposal operations.

The use of the SIBUA is restricted according to the depths required by the dredging equipment used to place the material within the site. A hopper dredge working in that area needs a depth of approximately 25 feet to safely dispose its dredge material. At this time, the expansion areas to the north and west of the SIBUA are not suitable as effective placement options. Depths in those areas range from 9 to 15 feet which makes it too shallow for hopper dredge disposal. The Corps is therefore continuing to pursue the proposed southern expansion for disposal operations where the area is more suitable for disposal operations.

I appreciate your interest in responding to this Public Notice. Should you require any further assistance, please contact Mr. Larry Parson at (251) 690-3139, email [larry.e.parson@usace.army.mil](mailto:larry.e.parson@usace.army.mil) or Mr. Mike Malsom at (251) 690-2023, email [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, appearing to be "B. Jorns".

Byron G. Jorns  
Colonel, Corps of Engineers  
District Commander

Enclosure 10



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY

MOBILE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 2208  
MOBILE, ALABAMA 36620-0001

August 25, 2009

Coastal Environment Team  
Planning and Environmental Division

Mr. William H. Harper  
Dauphin Island Property Owners Association  
Post Office Box 2288  
Dauphin Island, Alabama 36528-0001

Dear Mr. Harper:

This letter is written as a follow-up to the letter we sent to your office on February 18, 2009 in reference to the proposed southern expansion of the Sand Island Beneficial Use Area (SIBUA) as specified in Public Notice No. FP08-MH14-05. The U.S. Army Corps of Engineers (Corps), Mobile District considered your request to expand the SIBUA dredged material disposal area to the north and west as referenced in your letter dated December 19, 2008. However, our engineering evaluation has indicated that these areas are too shallow to allow for hopper dredge disposal operations.

The use of the SIBUA is restricted according to the depths required by the dredging equipment used to place the material within the site. A hopper dredge working in that area needs a depth of approximately 25 feet to safely dispose its dredge material. At this time, the expansion areas to the north and west of the SIBUA are not suitable as effective placement options. Depths in those areas range from 9 to 15 feet which makes it too shallow for hopper dredge disposal. The Corps is therefore continuing to pursue the proposed southern expansion for disposal operations where the area is more suitable for disposal operations.

I appreciate your interest in responding to this Public Notice. Should you require any further assistance, please contact Mr. Larry Parson at (251) 690-3139, email [larry.e.parson@usace.army.mil](mailto:larry.e.parson@usace.army.mil) or Mr. Mike Malsom at (251) 690-2023, email [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, appearing to read "B. Joms".

Byron G. Joms  
Colonel, Corps of Engineers  
District Commander

Enclosure 11



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

REPLY TO  
ATTENTION OF

August 28, 2009

Coastal Environment Team  
Planning and Environmental Division

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

Dear Mr. Brown:

Pursuant to the requirements of the Clean Water Act and Coastal Zone Management Act, water quality certification and coastal zone consistency is requested for a five year period for the proposed expansion of the Sand Island Beneficial Use Area (SIBUA). Expansion of the SIBUA extends the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a Federal navigation project in southern Mobile County, Alabama. The SIBUA was last granted water quality certification and coastal zone consistency from the Alabama Department of Environmental Management as described in Public Notice FP97-MH08-02 dated March 17, 1997. A detailed description of the current proposed action is described in the enclosed Public Notice No. FP08-MH14-05 (**Enclosure 1**). Although there are changes to the disposal area dimensions, there are no changes to the disposal techniques from those that have been coordinated and approved by your office in the past. Based on a review of the Alabama Coastal Management Program, we find that the proposed action is consistent with the program to the maximum extent practicable.

The project has been coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service through normal agency correspondence pertaining to endangered and/or threatened species and Essential Fish Habitat, respectively. Those agencies concurred with the project in the enclosed e-mail notifications (**Enclosures 2 and 3**). The Dauphin Island Property Owners Association and Town of Dauphin responded to the Public Notice. A copy of those letters and our responses are located in **Enclosures 4 and 5**. We received a comment letter from the Chairman of the Sand Island Lighthouse Committee. No other comments were received from the general public in response to our Public Notice.

The required legal notice was published in the Mobile Press Register, Mobile, Alabama on August 19, 2009. Proof of publication for the required legal notice is enclosed (**Enclosure 6**).

The Mobile District Cultural Resources Team completed a three day remote sensing survey at the proposed expansion location on August 19, 2009. The survey was assisted by the Operations survey team and technicians from the Irvington field office. The survey included magnetometer and side scan sonar investigations of the area in search of sunken vessels or other submerged cultural resources. No cultural resources were discovered that will impede the expansion of the SIBUA.

Enclosure 12

Based on a review of the Alabama Coastal Zone Management Program, we find that the proposed action is consistent with the program to the maximum extent practicable. If you have any questions concerning the proposed action, please contact Mr. Michael F. Malsom at (251) 690-2023 or at email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

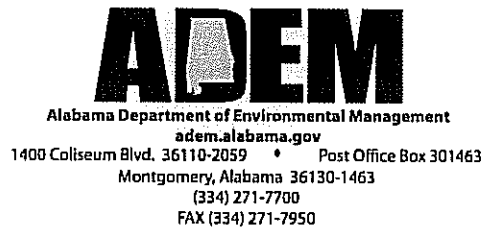
A handwritten signature in black ink, appearing to read "Curtis M. Flakes". The signature is fluid and cursive, with the first name "Curtis" being more prominent.

Curtis M. Flakes  
Chief, Planning and Environmental  
Division

Enclosure 12

January 2010

ONIS "TREY" GLENN, III  
DIRECTOR



BOB RILEY  
GOVERNOR

September 1, 2009

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

RE: CWA Section 401 (a) Water Quality Certification and Coastal Consistency  
FP08-MH14-05/COEP-09-001-JCR  
Mobile Harbor Federal Navigation Project  
Expansion of the Sand Island Beneficial Use Area  
Mobile County

Dear Mr. Flakes:

The Alabama Department of Environmental Management (ADEM) has completed its review of the above referenced joint public notice and all associated materials submitted related to the proposal by the U.S. Army Corps of Engineers (USACOE) to conduct maintenance dredging disposal area expansion activities of the Sand Island Beneficial Use Area (SIBUA) along the Mobile Bar Channel. The ADEM understands the USACOE proposes to conduct the expansion of the SIBUA disposal area located near Dauphin Island, Mobile County, Alabama. The expansion consists of extending the 4,500 foot wide southern boundary of the SIBUA approximately 2,000 feet to the south. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to allow for the placement of maintenance dredging material from the Mobile Bar Channel in a manner that returns this material to the local littoral system. Placement activities are typically accomplished using hopper dredges; however, hopper barges or hydraulic pipeline dredges may be used as necessary.

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

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

To minimize impacts to Alabama's state waters and coastal resources, the following conditions must be incorporated as part of FP08-MH14-05.

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

Birmingham Branch  
110 Vulcan Road  
Birmingham, AL 35209-1702  
(205) 942-6168  
(205) 941-1603 (Fax)

Decatur Branch  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (Fax)



Mobile Branch  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (Fax)

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

Enclosure 13



September 1, 2009  
U.S. Army Corps of Engineers  
FP08-MH14-05/COEP-09-001-JCR  
Page 2 of 3

2. The USACOE and/or its assigns shall allow any duly authorized employee of the ADEM or its contractors, or Attorney General or District Attorney to enter upon the premises associated with the project authorized by this permit for the purposes of ascertaining compliance with the terms and conditions of the permit and with the rules and regulations of the ADEM.
3. The USACOE and/or its assigns must implement appropriate, effective Best Management Practices (BMPs) for prevention and control of nonpoint sources of pollutants, during and after project implementation. The USACOE and/or its assigns, at a minimum, must implement applicable effective BMPs as provided in the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas, published by the Alabama State Soil and Water Conservation Committee, 2003.
4. The USACOE and/or its assigns shall conduct daily inspections of the filling activities during the life of the project to ensure that in-stream turbidity resulting from active dredging or return water from a disposal area will not cause the discharge of sediment into wetlands, substantial visible contrast with the receiving waters greater than 400 feet from the activity or result in an increase of 50 NTUs above background turbidity levels in the receiving waters. The USACOE and/or its assigns must suspend operations should downstream turbidity exceed upstream turbidity by 50 NTUs. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage. The daily inspections shall be conducted by a qualified credentialed professional (QCP) or qualified personnel under the direct supervision of a QCP.
5. The USACOE and/or its assigns shall be responsible for the condition of the spoil disposal areas for the life of the dredging and disposal activity and until the disposal areas are reclaimed or adequately stabilized, and for pumping and discharge rates, to ensure settling of suspended solids within the confines of the spoil disposal areas sufficient to ensure that turbidity in the return water will not cause substantial visible contrast within the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving waters.
6. Upon the loss or failure of any treatment facility, BMP, or other management measures as identified by responsible on-site staff during day to day operations or as identified by ADEM technical staff during facility inspections, the USACOE and/or its assigns shall, where necessary to maintain compliance with this certification, suspend, cease, reduce, or otherwise control work/activity and all discharges until effective treatment is restored. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage.
7. The USACOE and/or its assigns shall provide written notice to the ADEM of any proposed modifications to the approved maintenance dredging disposal area expansion plan, including but not limited to expansion beyond the authorized extension of the 4,500 foot wide southern boundary approximately 2,000 feet to the south or use of alternative disposal sites not specified in the proposal. The approved maintenance dredging disposal area expansion plan for the USACOE Mobile Harbor Navigation Project was received by the ADEM Coastal/Facility Section December 5, 2008 (copy enclosed). Modifications may not be implemented without prior written notice and approval from the ADEM. Upon such notice, the Director may require the submission of additional information and/or a new permit application, and additional fees may be required.
8. Unauthorized deviations from the maintenance dredging proposal, implementation of additional impacts exceeding the scope of the proposal authorized herein, or failure to abide by all the

Enclosure 13

September 1, 2009  
U.S. Army Corps of Engineers  
FP08-MH14-05/COEP-09-001-JCR  
Page 3 of 3

conditions and requirements herein may constitute a violation of this certification, resulting in invalidation of this CWA 401 (a) water quality certification and coastal consistency determination.

9. This certification is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information and/or a new permit application, and additional fees may be required.
10. Notifications, modifications, and submissions of requested documents as required by the conditions above and other correspondence related to this project should be submitted to the ADEM Coastal/Facility Section, Attn: Jennifer Robinson, 4171 Commanders Drive, Mobile, AL 36615. Condition Nos. 4 and 6 require immediate telephone notification in addition to a written report.

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

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

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

Please call or write anytime with questions. The ADEM contact for this project is Jennifer Robinson: (251) 432-6533 or jrobinson@adem.state.al.us. Always include ADEM tracking No.: COEP-09-001-JCR in any future correspondence relative to this project.

Sincerely,



Steven O. Jenkins, Chief  
Field Operations Division

SOJ/jcr File: CZCERT/XXX

Enclosure (1 page)

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

Enclosure 13



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, FL 33701-5505  
(727) 824-5317 FAX 824-5309  
<http://sero.nmfs.noaa.gov>

SEP - 2 2009

SER31:SEH

Ms. Jennifer L. Jacobson  
Mobile District Corps of Engineers  
P.O. Box 2288  
Mobile, AL 36628-0001

Re: Proposed Expansion of the Sand Island Beneficial Use Area (SIBUA)

Dear Ms. Jacobson:

This responds to your letter dated July 24, 2009, requesting National Marine Fisheries Service (NMFS) concurrence with your determinations pursuant to section 7 of the Endangered Species Act (ESA) for the Army Corps of Engineers (COE) Mobile District's proposed expansion of the Sand Island Beneficial Use Area (SIBUA) disposal site. You determined the project may affect, but is not likely to adversely affect, blue, finback, humpback, sei, or sperm whales; swimming sea turtles; and Gulf sturgeon or its designated critical habitat. NMFS requested additional information via e-mail on August 11, 2009, and a response was received from the applicant's consultant via e-mail on August 18, 2009. NMFS' determinations regarding the effects of the proposed actions are based on the description of the actions in this informal consultation. You are reminded that any changes to the proposed actions may negate the findings of the present consultation and may require reinitiation of consultation with NMFS.

The project area is located in the Gulf of Mexico at latitude 30.155969611°N, longitude 88.073634258°W (southwestern corner) and latitude 30.152354130°N, longitude 88.059579807°W (southeastern corner) (NAD83), west of the Mobile Bar Channel, south of the Dauphin Island-Mobile Port entrance, and adjacent to the Sand Island Lighthouse, Mobile County, Alabama. The project area consists of sandy substrate consistent with sediment along the northern Gulf of Mexico. The SIBUA serves as a disposal area primarily for sandy material dredged from the Mobile Bar Channel, which is part of the Mobile Harbor federal navigation project. The COE proposes to expand the SIBUA disposal site to the south by 212 acres. Site depths in the existing SIBUA have changed, and the proposed expansion is intended to provide sufficient depths for dredge equipment access while continuing to place material from the Mobile Bar Channel in a manner that returns this material to the local littoral system. The water depths in the proposed expansion area range from 23-46 feet with an average depth approximately 35 feet. Expansion of the SIBUA to areas to the north and west of the SIBUA is not feasible because these areas are too shallow for hopper dredge access. Previously, in September 2004, the SIBUA was expanded to include the Sand Island Lighthouse. Maintenance dredging and disposal of any portion of the Mobile Bar Channel will be performed on an as needed basis, with an overall average dredging cycle occurring approximately every one to two years. The actual time between dredging cycles and use of the SIBUA disposal area may vary however, due to the variable rates of shoaling. Dredging of Mobile Bar Channel and placement of materials in the SIBUA disposal area could occur at any time of the year. Placement activities typically are accomplished using hopper dredges; however, hopper barges or hydraulic pipelines may be used as necessary. The type of sediment being placed in the SIBUA disposal area ranges from sand to silty sandy material.



Enclosure 14

Five species of sea turtles (loggerhead, green, hawksbill, Kemp's ridley, and leatherback), and Gulf sturgeon protected by the ESA can be found in or near the action area and may be affected by the project. The project is not located within designated critical habitat for any listed species.

Activities associated with the removal of materials from the Mobile Bar Channel by hopper dredge have already been analyzed in the November 2003 Regional Biological Opinion (RBO) titled "Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by Corps of Engineers (COE) Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287)," as amended and modified on June 24, 2005, and January 7, 2009.

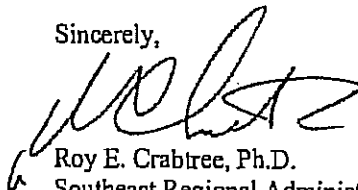
Potential impacts on the five species of listed sea turtles (leatherback, hawksbill, loggerhead, green, and Kemp's ridley) and Gulf sturgeon from hopper dredging activities were assessed in the 2003 RBO. In that opinion, NMFS concluded that sea turtles and Gulf sturgeon can be adversely affected by hopper dredges and included an Incidental Take Statement (ITS), pursuant to section 7 of the ESA. The ITS in the 2003 RBO contains reasonable and prudent measures with implementing terms and conditions to help minimize the impacts of take; therefore any sea turtle or Gulf sturgeon take resulting from future maintenance dredging in Mobile Bar Channel will be assessed against the annual ITS in the RBO.

We believe the proposed expansion of the SIBUA disposal site and the future placement of sand in the SIBUA is not likely to adversely affect sea turtles and Gulf sturgeon protected by the ESA under NMFS' purview. These species will likely temporarily avoid the immediate project vicinity during sand placement due to noise from vessels and machinery; however these effects will be insignificant. Sea turtles and Gulf sturgeon may also be affected by dredging and disposal operations if they were to be struck by the dredge as it transits the site or by the movement of hydraulic pipelines; however, due to their mobility, the likelihood of this occurring is discountable. For this reason, it is also not likely that sea turtles or Gulf sturgeon would be harmed by the proposed expansion of the SIBUA disposal site and the future placement of sand in the SIBUA.

This concludes your consultation responsibilities under the ESA for species under NMFS' purview. Consultation must be reinitiated 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 have enclosed additional information on other statutory requirements that may apply to this action, and on NMFS' Public Consultation Tracking System to allow you to track the status of ESA consultations. If you have any questions, please contact Sarah Heberling at (727) 824-5312 or by e-mail at Sarah.Heberling@noaa.gov. Thank you for your continued cooperation in the conservation of listed species.

Sincerely,

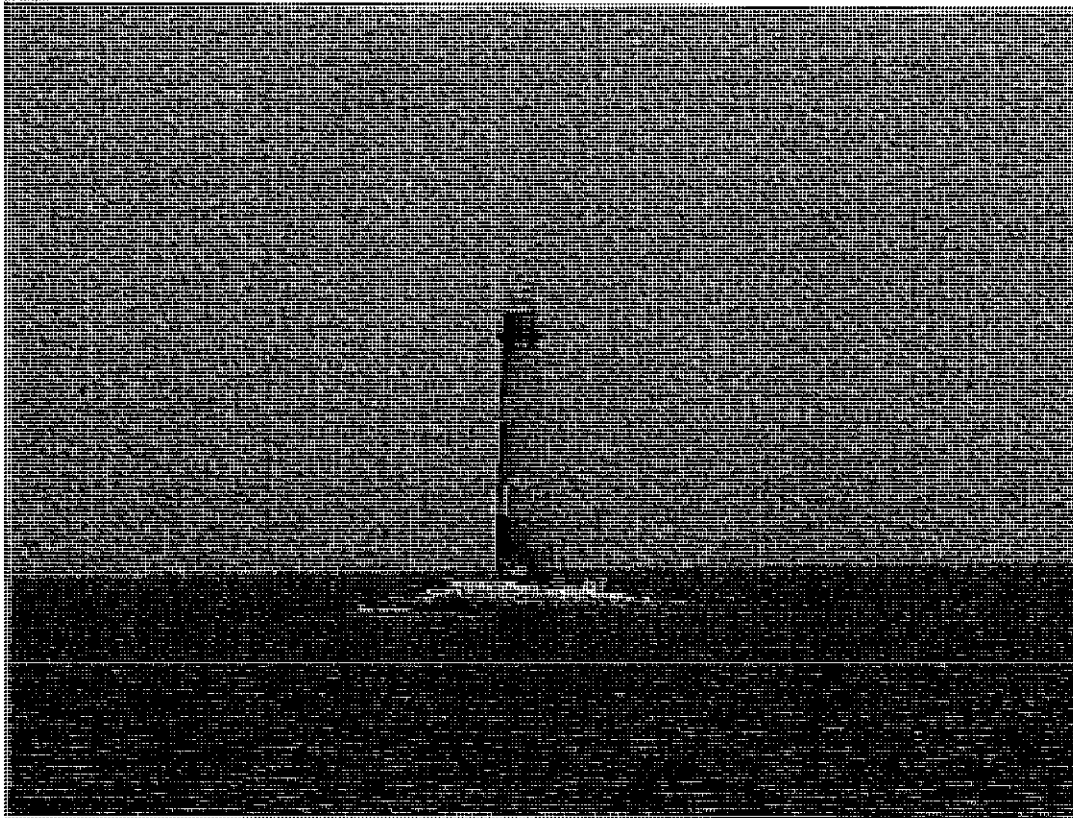


Roy E. Crabtree, Ph.D.  
Southeast Regional Administrator

Enclosure

File: 1514-22.F.1.AL  
Ref: I/SER/2009/04326

**Cultural Resources Remote Sensing Survey  
Sand Island Beneficial Use Disposal Area  
Proposed Southern Expansion Site**



Report by  
U.S. Army Corps of Engineers  
Mobile District  
Joseph Giliberti and Tommy Birchett  
Principal Investigators

Draft

September 14, 2009

Enclosure 15

## ***I. Introduction***

On July 9 and 10, and August 19, 2009, a remote sensing survey was conducted by the U.S. Army, Corps of Engineers, Mobile District (COE) of a proposed expansion of the Sand Island Beneficial Use Area (SIBU) (Figure 1). In addition, resurvey was conducted of portions of the previously surveyed SIBU. The surveys were done in order to identify possible cultural resources sites (most notably shipwreck sites) within the disposal area boundaries.

The cultural resources survey work was conducted as part of the COE's responsibilities as outlined in Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that the potential effects of any Federal action on historic properties, defined as cultural resources that meet the requirements for inclusion on the National Register of Historic Places (NRHP), be considered prior to initiation of the action. In addition, the effect determination by the Lead Federal agency must be coordinated with the State Historic Preservation Officer (SHPO) as well as other interested parties. The COE is the lead Federal agency for the proposed expansion of the SIBU.

Initial coordination included release of a public notice for the proposed expansion (Public Notice #FPO8-MH14-05). In addition, the action was discussed directly with the Alabama SHPO review staff and with the Maritime Advisory Commission via the winter quarterly meeting. Based on the initial discussions, a two pronged strategy was recommended for assessing resources within the area. First, the Alabama SHPO underwater specialist, Stacye Hathorn, requested a resurvey of the identified anomalies within the original SIBU area. This was to give an update as to the status of possible wreck sites. The resurvey could also help eliminate some anomalies as sites, due to movement, etc. The second request was for a remote sensing survey of the proposed expansion area. Methodologies were discussed, including transect interval, survey coverage, and type of equipment to employ during the study.

## ***II. Previous Research***

The entire SIBU was covered by a detailed historic context and background study funded by the COE (Pecorelli and Poplin 1997). This document covered an area well beyond the SIBU but focused on the disposal area. The context and results of that study are available and have been consulted on with the SHPO. Briefly, the study found that at least nine previously conducted remote sensing surveys had taken place within the SIBU general area. Most of these studies were the results of NHPA section 106 requirements related to the oil and gas industry projects permitted by the Mineral Management Service. These studies and the literature review conducted by the COE revealed numerous shipwrecks and identified anomalies within the general area. Most are located north of the Sand



Island Light House. They include vessels of the French and Spanish periods, historic American period, Civil War, all the way up to modern era freighters. None of the known wreck sites or identified anomalies is located within the proposed southern expansion area. The reader is referred to the previous study for further details (Pecorelli and Poplin 1997).

### *III. Project Description*

The entire SIBU southern expansion area is considered to be the Area of Potential Effect (APE) of this action (see Figure 1). The proposed action is the deposition by Hopper dredge of material excavated from the Mobile Ship Channel. A Hopper dredge is a self propelled floating plant which is capable of dredging material, storing it onboard, transporting it to the disposal area, and dumping it. Hopper dredges perform the largest and most dangerous jobs – clearing channels and offshore sandbars from the mouths of major rivers. Hopper dredges move like a normal ship. When dredging, they move very slowly. When the dredge's hopper is loaded, the dredge maneuvers both in and out of the channel to reach the relocation site. Direct pump out is a common method of removing dredged material from hopper dredges but some dredges empty their hoppers by splitting the two halves of their hulls on giant hinges. Either way, a hopper dredge fills its hoppers as it dredges the bottom. Hoses connected to a pipeline extending are attached to the hopper dredge discharge manifold. The dredge mixes the dredged material with water to form a slurry and pumps the slurry from its discharge manifold through the hoses and pipeline to a designated discharge location.

The most commonly used hopper dredge for the Mobile Ship Channel is the Columbia (Figure 2). The Columbia originally saw service during WWII as a U.S. Navy LST. Converted to a trailing arm hopper dredge, Columbia has been employed exclusively in the service of the COE in the waters of the U.S. Gulf, Atlantic Coast and Great Lakes. She has a crew of 16 and can dig steadily 24 hrs per day, 7 days per week. Propulsion is through a pair of EMD 12 cylinder diesel engines. The main dredge pump is powered by an EMD 16 cylinder diesel engine.

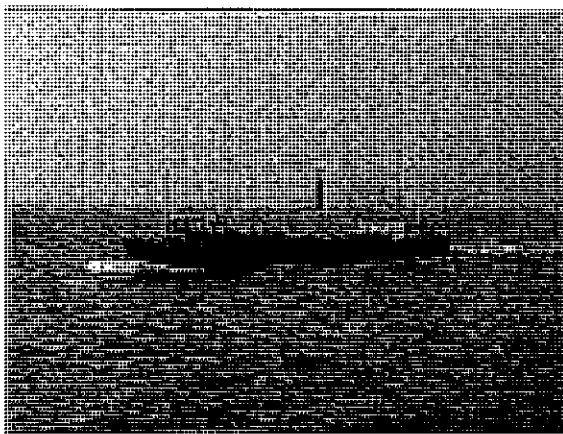


Figure 2. View of the hopper dredge Columbia south of Sand Island Light House.



Dredging of the Mobile Ship Channel has been coordinated and cleared separately and is not discussed in this report. The APE is located approximately one nautical mile south of the Sand Island Light House, adjacent to and west of the ship channel (see Figure 1). Effects of the disposal of material on historic properties are considered beneficial. The COE believes the material would protect possible wreck sites from vandalism and help protect them from natural predation and disturbance from storm and tidal action.

#### *IV. Methodology*

The survey was carried out by COE archaeologists Tommy Birchett and Joseph Giliberti, with the support of the marine cadastral survey team from the Irvington field office. The survey team included survey technicians, a boat captain, and a first mate (Figure 3). The survey platform for the work was the COE vessel Irvington. The Irvington is a 54 foot long by 20 foot wide cat-hulled aluminum custom built survey ship constructed by Krichak Shipbuilding in Seattle, Washington (Figure 4). The Irvington is propelled by twin Detroit diesel foil engines.

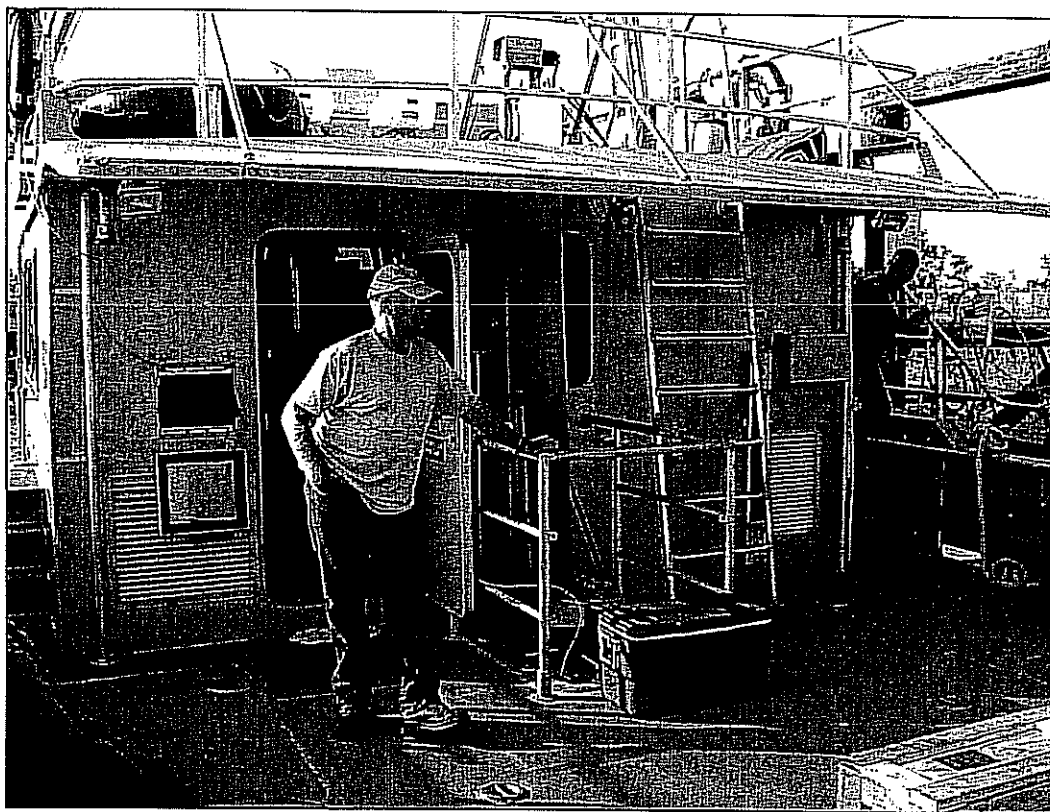


Figure 3. View showing crew on Irvington.



**Figure 4.** Irvington docked at Coast Guard base, Brookley Field, Mobile.

The survey equipment employed included a Geometrics G-881 magnetometer and a Klein System 3000 side-scan sonar array (Figures 5). Locational data was provided by a Starlink survey grade Global Positioning System with a Trimble Hypa-POS-MIV survey grade receiver. Data received was processed via several software systems in tandem. These included the Geometrics MagLog, MagPick, and Hypack systems. Incoming data was monitored at all times by one of the archaeologists and was recorded via on-board lap top computers located within the main cabin (Figure 6). Survey transect intervals were 30 meters for initial survey coverage. In areas where anomalies were located or previous hits were identified, tighter intervals were run. When anomalies were identified, the side scan sonar was also employed.

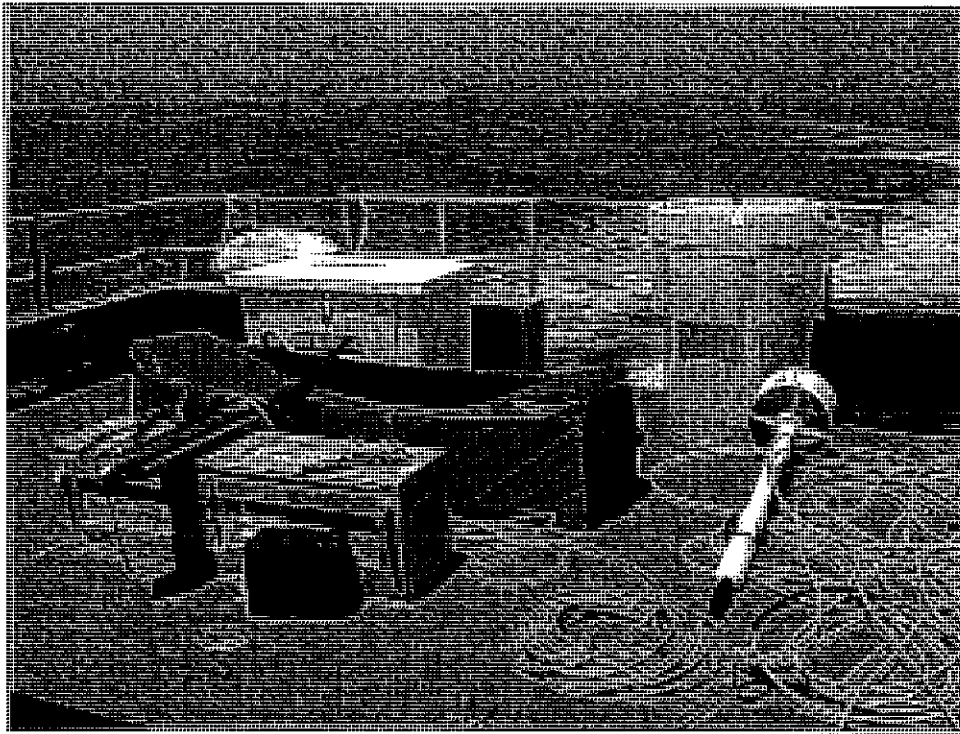


Figure 5. Survey equipment on stern of Irvington.

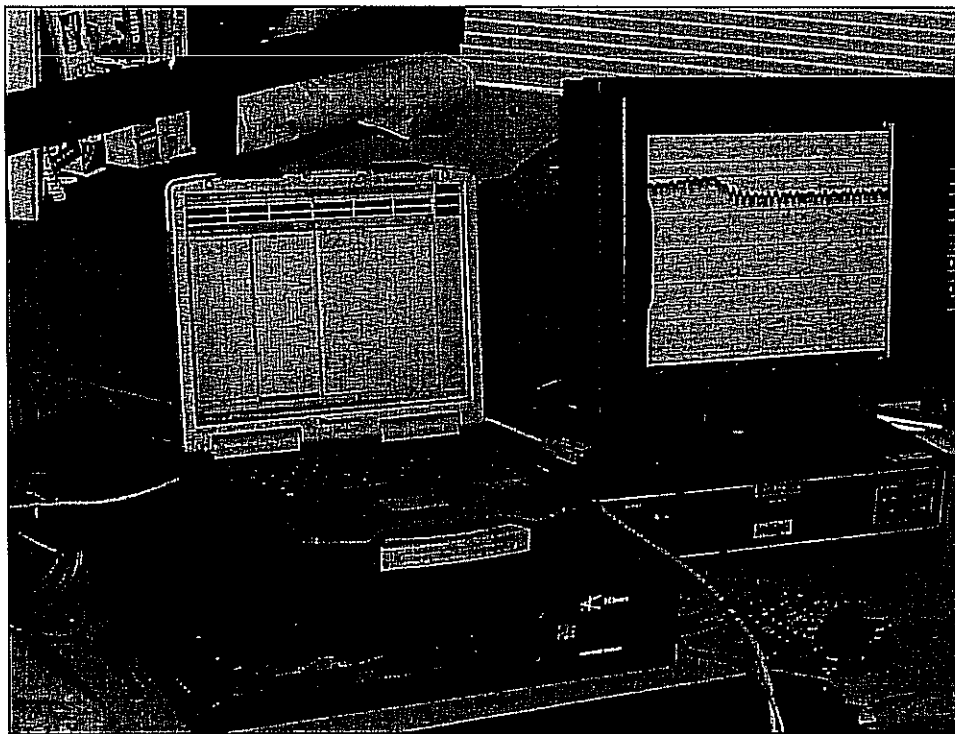


Figure 6. View of processing and monitoring set-up in vessel cabin area.

## *V. Results*

Field conditions during the first two days of survey were considered almost ideal. The seas were calm and there was very little wind. An ebb tide was the only negative condition. Conditions during the third day of work were rougher, with moderate seas and winds variable from 10-15 knots. Boat traffic was moderate on both days.

Initial work consisted of resurvey of the existing SIBU area focusing on known anomaly locations. This allowed for tweaking of toe-fish positioning as well as boat speed, all to maximize efficiency and reduce magnetic interference and turbulence. A boat speed of between 6.5 and 7.5 knots was found to be the most efficient, depending on boat orientation, survey direction and tidal flow. In addition, shutting down the engine located on the side of the vessel from which the magnetometer was suspended, greatly reduced interference from turbulence.

Resurvey of the existing SIBU was conducted on July 9, 2009. Magnetic anomalies consistent with those previously reported were found (Pecorelli and Poplin 1997). Locational data was slightly off, but was within 10 meters of originally recorded positions. Differences in location may be due to drift of material or, may be due to use of different datums and projection systems. At the time of report writing, the question of datums used by the original surveyors had yet to be resolved. Regardless of the minor positional differences, the current survey essentially confirmed the previous results. Side scan sonar inspection found a single ballast field, which was located on the eastern edge of the most prominent anomaly grouping. Figure 7 shows example of side scan sonar display of anomalies in existing SIBU.

Survey of the proposed expansion area proceeded on July 10, 2009. A total of 20 survey lines were crisscrossed, roughly east to west across the expansion area. The first four survey lines run had mixed results. Interference and inconsistent signal strength were considered too great for the data to be accepted. Therefore, the data from those lines was discarded post-survey. However, the remaining 17 lines were recorded smoothly. Two anomalies were located during the survey. Anomaly #1 was found in the first line, near the ship channel. Anomaly #1 consisted of a broad area of magnetic spikes varying in intensity from five gammas to 25 gammas. The spikes were not good bipolar readings, and thus were considered questionable. In addition, as previously mentioned, line one and those nearby were not considered usable. Anomaly #2 was found on the southeast corner of the expansion area. Anomaly #2 consisted of a well defined, bipolar spike with an intensity of 45 gammas. Although small, the spike was considered worthy of further investigation. Figure 8 shows display of the magnetic field data, contour interval five gammas.

Due to the difficulties in the first four lines, and the two recorded anomalies, the survey team returned to the area for further work on August 19, 2009. The first five survey lines were resurveyed. No anomalies were recorded and anomaly #1 was not relocated despite additional survey runs. Tight interval survey was also conducted over the small target located in the southeastern portion of the area recorded as anomaly #2. The target could not be relocated. Figure 9 shows display of magnetic data from resurvey of first five survey lines.

The final results of the survey found no anomalies within the expansion area that could be interpreted as a possible ship wreck or cultural resources site.

## ***VI. Recommendations***

Survey of the proposed SIBU expansion area demonstrated with a high level of confidence that there are no shipwrecks present. It is the conclusion of this research that the proposed dredge disposal will have no affect on cultural resources. No further study is recommended for the expansion area.

The existing beneficial use area includes several clusters of anomalies believed to be shipwrecks. Resurvey confirmed earlier study results. The shallow nature of the areas containing the anomalies makes them unusable by the existing dredging operations and the hopper dredge. Therefore, the continued use of the SIBU will have no affect on those resources as previously concluded. Should the proposed action be changed or new action be proposed that may impact those areas, a continuation of the previously agreed upon avoidance area is recommended.

## ***VII. References Cited***

Pecorelli III, Harry and Eric C. Poplin.

1997 Literature Search, Sand Island Beneficial Use Area, Mobile Harbor, Alabama.  
Report Prepared for the U.S. Army Corps of Engineers, Mobile District.

January 2010



STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION  
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EXECUTIVE DIRECTOR

October 27, 2009

TEL: 334-242-3184  
FAX: 334-240-3477

Kenneth P. Bradley  
USACE Mobile District  
P.O. Box 2288  
Mobile, Alabama 36628-0001

Re: AHC 10-0034  
Expansion of Sand Island Beneficial Use Area (SIBUA)  
Gulf of Mexico

Dear Mr. Bradley:

Upon review of the information forwarded by your office, we have determined that we agree with your findings of no effect in the expansion area. Continue use of the existing SIBUA will have no effect provided that project activities continue to avoid known clusters of anomalies thought to be shipwrecks.

We appreciate your efforts on this project. Should you have any questions, please contact Stacye Hathorn at (334) 230-2649. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown  
Deputy State Historic Preservation Officer

EAB/SHG/gcr

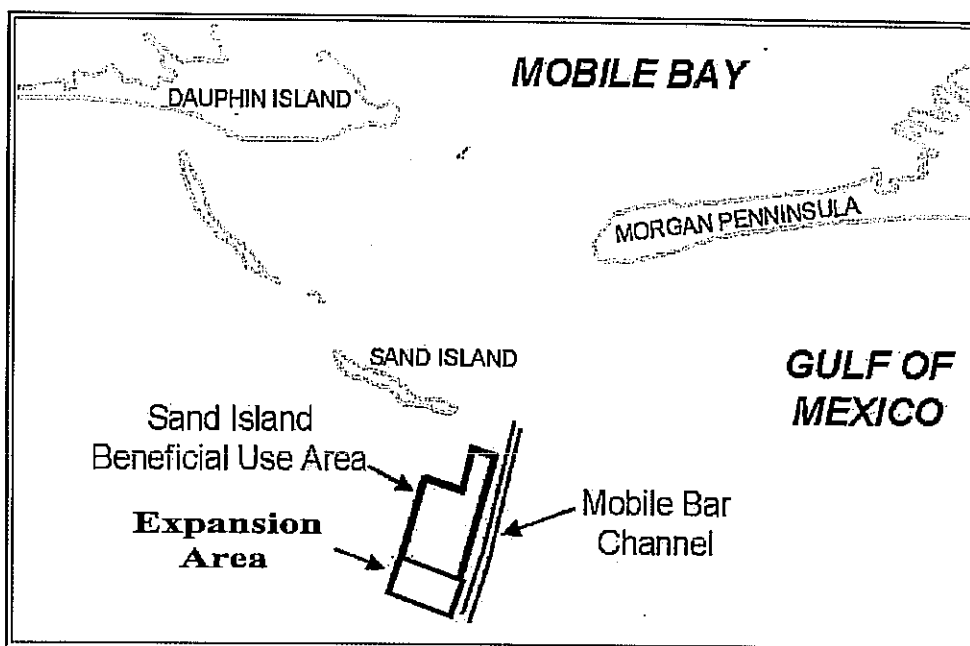
## **Enclosure 17**

Finding of No Significant Impact,  
Environmental Assessment,  
Section 404 (b)(1) Evaluation Report  
for  
Expansion of Sand Island Beneficial Use Area

**Finding of No Significant Impact,  
Environmental Assessment,  
and  
Section 404(b)(1) Evaluation Report  
for  
Expansion of Sand Island Beneficial Use Area**

**Mobile Harbor Federal Navigation Project  
Mobile, Alabama**

**Federally Authorized**



**Prepared by**

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



**January 2010**



**FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
**EXPANSION OF SAND ISLAND BENEFICIAL USE AREA**  
**MOBILE HARBOR FEDERAL NAVIGATION PROJECT**  
**MOBILE, ALABAMA**  
**FEDERALLY AUTHORIZED**

**I. PROPOSED ACTION.**

**1) Purpose and Need for the Proposed Action.** The primary objective and overall project purpose is to improve the navigational efficiency of the Mobile Harbor Federal Navigation Project and reduce costs associated with dredged material disposal operations. The basic project purpose is to expand the southern end of the Sand Island Beneficial Use Area (SIBUA) 2000 x 4500 feet southward in order to continue beneficial use practices and to accommodate the hopper dredges used for placing dredged material in the disposal area. The SIBUA site is currently used by the U.S. Army Corps of Engineers (Corps), Mobile District for the disposal of maintenance material dredged from the federally authorized Mobile Harbor navigation project.

Extension of the SIBUA site meets a public need to provide an expanded disposal area of adequate depth and size for future use and safe operation of the hopper dredge and to keep valuable sand removed from the bar channel within the littoral system. This need stems from the continued maintenance of the federally-authorized navigation project 365 days-a-year.

Approximately 300,000 to over 3,000,000 cubic yards (cys) of maintenance material are dredged annually from the Mobile Bar Channel. An additional 600,000 cys of sand may be placed in the SIBUA during the construction of the Mobile Harbor Turning Basin over the next two years. About 5 million cys of material are annually dredged from the Main Ship Channel. Over the past 10 years, approximately 9.26 million cys of dredged sandy material has been placed in the SIBUA. Historically the Corps, Mobile District utilized open-water disposal sites adjacent to the navigation channel; however, in the 1980s these open-water sites were determined not to be a viable disposal option. Thus, in order to maintain the federally authorized Mobile Harbor navigation project, the Corps, Mobile District only has the upland sites, the SIBUA or Mobile-North Ocean Dredged Material Disposal Site to dispose of its dredged material. These sites have a finite capacity. Expansion of the SIBUA will provide additional space for hopper dredge disposal and keep the sand in the littoral system for additional beneficial use.

**2) Authority.** The navigation channel dredging in Mobile Bay and Mobile River began in 1826 with enactment of the River and Harbor Act of 1826. During the period 1826 to 1857, a channel 10 feet deep was dredged through the shoals in Mobile Bay up to the city of Mobile. Subsequently, further modifications to the channel were authorized and the original Federal project was enlarged by the addition of the Arlington, Garrows Bend, and Hollingers Island channels within the bay, and a channel into Chickasaw Creek from the Mobile River. Section 104 of the River and Harbor Act of 1954 authorized a 40-foot depth

channel with a 400-foot width in Mobile Bay to the mouth of the Mobile River and a 40-foot depth in the Mobile River to the Cochran Bridge with the width varying from 400 to 775 feet. The Senate Public Works Committee on 16 July 1970 and the House Public Works Committee on 15 December 1970, under the provisions of Section 201 of the 1965 Flood Control Act, authorized a 40-foot by 400-foot channel, branching from the main ship channel and extending through a land cut to the Theodore Industrial Park. The Theodore Ship Channel was reauthorized in the Water Resources Development Act of 1976.

Further improvements to the existing Federal project were initially authorized in the 1985 Energy and Water Resources Appropriation Act (PL 99-88, Ninety-ninth Congress, First Session). The improvements were reauthorized in Section 201 of the Water Resources Development Act of 1986 (PL 99 – 662, Ninety-ninth Congress, Second Session), which was approved 17 November 1986, and subsequently amended by Section 302 of the Water Resources Development Act of 1996. The report referenced by this authorization recommended the following improvements to the Federal project: deepening and widening the Gulf entrance channel to 57 by 700 feet; deepening and widening the main ship channel to 55 by 550 feet in Mobile Bay, except for the upper 3.6 miles which require a width of 650 feet; deepening the Mobile River channel to 55 feet to a point about 1 mile below the Interstate 10 highway tunnels; and, constructing turning and anchorage basins near the upper end of the main ship channel.

**II. ALTERNATIVES CONSIDERED.** Three alternatives were considered for this project. The alternatives are:

1. No Action / No expansion of the SIBUA.
2. Expansion of the SIBUA to the south.
3. Expansion of the SIBUA to the north and west.

The “no action” alternative would result in the continued use of the existing SIBUA and avoid the proposed expansion area. Implementation of this alternative would not address the concerns of expanding the much needed disposal area capacity for the hopper dredge. With the construction of the new Mobile Harbor Turning Basin, there is a great opportunity to place additional sand in the littoral zone. Also, the current site is too shallow (< 25 feet) in many areas for safe hopper dredge operation. Therefore, the “no action” alternative was deemed unacceptable and not considered any further.

Expanding the beneficial use area to the south is the preferred alternative and considered the most viable option. Most of the area south of the beneficial use area has a depth much greater than 25 feet which is required for safe hopper dredge operation. Since the area is deeper, it can hold significantly more dredged material and has much less impact on local boating traffic. Therefore, this option was deemed the most viable alternative.

Expanding the beneficial use area to the west and north was also considered but the area is too shallow for hopper dredge use. In many areas, the depth of water ranges only from 9 to 11 feet when referenced to mean low water. A hopper dredge working in that area needs a depth of approximately 25 feet to safely work in that area. Therefore, this alternative was deemed unacceptable and not considered as a practical alternative.

**III. FACTORS CONSIDERED IN THE DETERMINATION THAT NO ENVIRONMENTAL IMPACT STATEMENT IS REQUIRED.**


The Corps, Mobile District decided that an Environmental Impact Statement (EIS) was not required for this project because there are two previous EISs conducted for site designation in Mobile Harbor. The District completed a Survey Report and EIS in October 1980 for navigation improvements to Mobile Harbor, Alabama. These reports recommended offshore disposal for a major portion of the material dredged from the construction and future maintenance of the improved channel. In addition, a supplemental EIS dated December 13, 1985, was prepared to address impacts associated with the offshore placement (Gulf Disposal Area) of dredged material from construction of navigation improvements and channel maintenance activities, and for the designation of an offshore placement sites(s). The Record of Decision implementing the harbor improvements was signed January 8, 1987.

The EIS and Supplemental EIS were coordinated with all applicable Federal, state and local agencies and interested public. A final Environmental Assessment (EA) was prepared to address impacts associated with the placement activities in the Beneficial Use Area dated March 1997. In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse, which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the lighthouse's rubble foundation was intended to provide protection to the historic structure.

An EA has been prepared to update resource description and impacts for the expansion area. All impacts identified in the EA are short-term and insignificant, and include temporary increased noise levels, exhaust emissions, localized turbidity, and benthic community destruction. The dredging equipment that will be used for this action is not known to take or harm any federally listed species. Therefore, no threatened or endangered species would be impacted. No historical or archeological artifacts are known to occur in the construction area. All adverse impacts caused by the proposed action are considered minor.

**IV. CONCLUSION.** An evaluation of the environmental impacts of the proposed action involving the expansion of the SIBUA, Mobile County, Alabama as discussed in the EA indicates that the action would have no significant effects on the environment and that the preparation of an EIS is not required.

Date:

3 Feb 2010  
Byron G. Jorns  
Colonel, Corps of Engineers  
District Commander

**ENVIRONMENTAL ASSESSMENT**  
**EXPANSION OF SAND ISLAND BENEFICIAL USE AREA**  
**MOBILE HARBOR FEDERAL NAVIGATION PROJECT**  
**MOBILE, ALABAMA**  
**FEDERALLY AUTHORIZED**

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Table 2 – Dredged Material Placed in the SIBUA 1998-2009

Table 3 - Gulf of Mexico Fishery Management Council Listed Species

Table 4 - EFH Query Results for SIBUA

Table 5 – Threatened and Endangered Species (NOAA and USFWS 2009)

### **Enclosures**

EA-Enclosure 1 – Public Notice FP08-IW03-04 dated February 29, 2008.

EA-Enclosure 2 – Corps letter dated July 24, 2009 requesting Section 7 concurrence from the U.S. Fish and Wildlife Service for the proposed expansion of the SIBUA.

EA-Enclosure 3 – Corps letter dated July 24, 2009 requesting to initiate formal Essential Fish Habitat consultation with NOAA's National Marine Fisheries Service, Habitat Conservation Division.

EA-Enclosure 4 – Corps letter dated July 24, 2009 requesting Section 7 concurrence from NOAA's National Marine Fisheries Service, Protected Resource Division.

EA-Enclosure 5 – E-mail dated July 27, 2009 from NOAA's National Marine Fisheries Service, Habitat Conservation Division stating concurrence with the proposed action.

EA-Enclosure 6 – E-mail dated July 31, 2009 from U.S. Fish and Wildlife Service stating concurrence with the proposed action.

EA Enclosure 7 – Legal Notice dated August 19, 2009 from Mobile Press-Register.

EA-Enclosure 8 – Corps letter dated August 28, 2009 requesting CZC and WQC from Alabama Department of Environmental Management.

EA-Enclosure 9 – State Water Quality Certification (WQC) and Coastal Zone Consistency (CZC) issued by ADEM, September 1, 2009 for the expansion area.

EA-Enclosure 10 – Letter dated September 2, 2009 from National Marine Fisheries Service, Protected Resource Division stating concurrence with the proposed action.

EA-Enclosure 11 – Survey report dated September 14, 2009 stating that a Cultural Resources Remote Sensing Survey was completed on the SIBUA proposed expansion area and that no cultural resources were located in the proposed expansion area.

EA-Enclosure 12 – Letter dated October 27, 2009 from the Alabama State Historic Preservation Officer stating no effects on the proposed expansion area.

EA-Enclosure 13 – Section 404 (b)(1) Evaluation Report for SIBUA Expansion.

**ACRONYMS AND ABBREVIATIONS**

ADEM	Alabama Department of Environmental Management
BA	Biological Assessment
BO	Biological Opinion
BMP	Best Management Practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Corps	United States Army Corps of Engineers
CZC	Coastal Zone Consistency
DA	Disposal Area
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
ER	Engineering Regulation
ESA	Endangered Species Act
FONSI	Findings of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
GIWW	Gulf Intracoastal Waterway
ITS	Incidental Take Statement
MDEQ	Mississippi Department of Environmental Quality
Mg/l	Milligrams per liter
MHTB	Mobile Harbor Turning Basin
MLW	Mean Low Water
MLLW	Mean Lower Low Water
NAAQS	National Ambient Air Quality Standards
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
ODMS	Ocean Dredged Material Disposal Site
O&M	Operations and Maintenance
RBO	Regional Biological Opinion
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
WRDA	Water Resources Development Act
WQC	Water Quality Certification

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**ENVIRONMENTAL ASSESSMENT**  
**EXPANSION OF SAND ISLAND BENEFICIAL USE AREA**  
**MOBILE HARBOR FEDERAL NAVIGATION PROJECT**  
**MOBILE, ALABAMA**  
**FEDERALLY AUTHORIZED**

## **1.0 INTRODUCTION**

This Environmental Assessment (EA) presents impacts that would potentially result from the expansion of the Sand Island Beneficial Use Area (SIBUA). The U.S. Army Corps of Engineers (Corps), Mobile District proposes to extend the 4,500-foot wide southern end of the disposal area an additional 2,000 feet by 4,500 feet southward. The purpose of this EA is to determine whether or not the proposed action has the potential for creating significant impacts to the environment and would thereby warrant a more detailed study on possible impacts, mitigation, and alternative courses of action.

The National Environmental Policy Act (NEPA) of 1969, as amended, excuses or excludes Federal agencies from the preparation of any formal environmental analysis with respect to actions that result in minor or no environmental effects, which are known as "categorical exclusions." An intermediate level of analysis, an EA, is prepared for an action that is not clearly categorically excluded, but does not clearly require an Environmental Impact Statement (EIS) [40 Code of Federal Regulations (CFR) §1501.3 (a) and (b)]. Based on the EA, Federal agencies either prepares an EIS, if one appears warranted, or issues a "Finding of No Significant Impact" (FONSI), which satisfies the NEPA requirement. This EA is prepared according to the Corps' Engineer Regulation (ER) 200-2, Procedures for Implementing NEPA, and the Council of Environmental Quality (CEQ) Regulations (40 CFR § 1508.27) for Implementing the Procedural Provisions of NEPA (40 CFR § 1500-1508).

The Corps, Mobile District decided that an EIS was not required for this project because there are two previous EISs conducted for site designation in Mobile Harbor. The District completed a Survey Report and EIS in October 1980 for navigation improvements to Mobile Harbor, Alabama. These reports recommended offshore disposal for a major portion of the material dredged from the construction and future maintenance of the improved channel. In addition, a supplemental EIS dated December 13, 1985, was prepared to address impacts associated with the offshore placement (Gulf Disposal Area) of dredged material from construction of navigation improvements and channel maintenance activities, and for the designation of offshore placement sites(s). The Record of Decision implementing the harbor improvements was signed January 8, 1987.

The EIS and Supplemental EIS were coordinated with all applicable Federal, state and local agencies and interested public. A final EA was prepared to address impacts associated with the placement activities in the beneficial use area dated March 1997. In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse, which is a valuable cultural resource listed on the National Register of

Historic Places. Placement of sandy material around the lighthouse's rubble foundation was intended to provide protection to the historic structure.

**1.1 Location.** Mobile Harbor, Alabama, is located in the southwestern part of the state in Mobile and Baldwin Counties, at the junction of the Mobile River with the head of Mobile Bay (**Figure 1**). The Port of Mobile is about 28 nautical miles north of the Bay entrance from the Gulf of Mexico and 170 nautical miles east of New Orleans, Louisiana. The SIBUA is located 3 miles off shore from the primary Mobile Bay entrance channel, boarded on the west by Dauphin Island, on the east by Mobile Point, Alabama, adjacent to the Sand Island Lighthouse and west of the Bar Channel as it approaches to the Mobile Harbor Ship Channel (**Figure 2**). Corner navigational coordinates for the extension project are listed in **Table 1**.

Table 1: SIBUA Extension Corner Coordinates	
Latitude 30.1612	Longitude 88.0718
Latitude 30.1576	Longitude 88.0579
Latitude 30.1559	Longitude 88.0736
Latitude 30.1523	Longitude 88.0595

**1.2 Description of the Entire Authorized Project.** Mobile Harbor, Mobile, Alabama and the surrounding bodies of water have a long history of maritime industry. The Corps, Mobile District is responsible for the operations and maintenance (O&M) of the federally-authorized Mobile Harbor navigation project. Mobile Bay is an estuarine system approximately seven miles wide at the northern end and 30 miles wide at the southernmost end. It stretches approximately 30 miles long from the Mobile Delta to the Dauphin Island-Mobile Point entrance. It is situated at the mouth of the Mobile River basin, which drains approximately 44,000 square miles in Alabama, Mississippi, and Georgia. The bay is almost uniformly shallow with an average depth of about 9.5 feet. The Port of Mobile is on the western side of the Mobile River at the head of the bay. Three federally-authorized navigation channels cross the bay, the Mobile Ship Channel from north to south, the Gulf Intracoastal Waterway from east to west, and the Theodore Industrial Park from northwest to southeast.

The existing Mobile Ship Channel is subdivided into the Mobile Bar and Bay Channel. The Mobile Bar Channel consists of a 47-foot by 600-foot channel, which extends north approximately 1.5 miles. The Bay Channel stretches from Mobile Bay north to the mouth of Mobile River at a depth of 45-foot by 400-foot channel. The Bar Channel is maintained with a hopper dredge. Material dredged from this channel is deposited in the open Gulf in Mobile-North Ocean Dredged Material Disposal Site (ODMDS) or the SIBUA. The Bay Channel is maintained with a hydraulic pipeline dredge and the dredged material is deposited in previously-approved disposal areas, Mobile-North ODMDS or Gaillard Island. The existing project was commenced in 1931 and completed in September 1981. In May 2000, the U.S. Army Corps of Engineers (Corps), Mobile District completed the most recent construction of a 1,300-foot

extension at the current 45-foot depth in Mobile River. Other studies are currently being pursued, such as a 2,100-foot and a 1,700-foot extension of the channel. In addition, the Mobile Harbor Deepening project was authorized by the Water Resources Development Act (WRDA) of 1986 to dimensions of 55-foot by 550-foot in the main channel and 57-foot by 700-foot deep across the bar. The existing project was authorized by Section 104 of the Rivers and Harbors Act of 3 September 1954 (H. Doc. 74, 83<sup>rd</sup> Congress, 1<sup>st</sup> Session, as amended) and previous acts.

**1.3 Description of the Proposed Action.** The proposed action would involve the southern expansion of the SIBUA. The Corps conducts maintenance dredging and disposal activities in the Mobile Bar Channel on a one to two year cycle. In addition, the Corps will be constructing a 55-foot deep turning basin in the vicinity of Little Sand Island known as the Mobile Harbor Turning Basin (MHTB). The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA, as illustrated in **Figure 2**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. Some of the sandy material removed from the MHTB may also be placed in the SIBUA.

In order to continue beneficial use practices and to accommodate the hopper dredges used for placing the material within the SIBUA, the Corps is proposing further expansion of the SIBUA. The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 feet to the south as illustrated in **Figure 3**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

The sandy sediments placed in the SIBUA have been deemed compatible with sediments in the SIBUA from a biological and physical standpoint according to guidelines established by the Corps and the U.S. Environmental Protection Agency (EPA). Placement activities are typically accomplished using hopper dredges, however, hopper barges or hydraulic pipeline dredges may be used as necessary. The quality of the sediment being placed in the SIBUA ranges from fine to medium-grained quartz sand from the navigation channel and gray to tan colored, poorly graded sand from the MHTB.

**1.4 Purpose and Need for the Proposed Action.** The primary objective and overall project purpose is to improve the navigational efficiency of the Mobile Harbor Federal Navigation Project and reduce costs associated with dredged material disposal operations. The basic project purpose is marine commerce/navigation which involves expanding the southern end of the SIBUA 2,000 feet by 4,500 feet in order to continue beneficial use practices and to accommodate the hopper dredges used for placing the material in the disposal area. The SIBUA site is currently used by the Corps, Mobile District for the disposal of sandy maintenance material dredged from the federally-authorized Mobile Harbor navigation project.

Extension of the SIBUA site meets a public need to provide an expanded disposal area of adequate depth and size for future use and safe operation of the hopper dredge and to keep valuable sand removed from the bar channel within the littoral system. This need stems from the continued maintenance of the federally-authorized navigation project 365 days-a-year. Approximately 300,000 cubic yards (cys) to in some instances over 3,000,000 cys of

maintenance material are dredged annually from the Mobile Bar Channel (**Table 2**). An additional 600,000 cys of sand may be placed in the SIBUA during the construction of the MHTB over the next two years. About 5 million cys of material are annually dredged from the Main Ship Channel. Over the past 12 years, approximately 9.61 million cys of dredged sandy material has been placed in the SIBUA.

**Table 2: Dredged Material Placed in SIBUA 1998-2009**

<u>Date</u>	<u>Quantity in Cubic Yards</u>
1998	350,000
1999	3,061,598
2002	92,820
2004	1,207,817
2005	1,808,765
2006	487,957
2007	1,011,998
2008	649,500
2009	942,817
Total	9,613,272 cys

Historically the Corps, Mobile District utilized open-water disposal sites adjacent to the navigation channel; however, in the 1980s these open-water sites were determined not to be a viable disposal option. Thus, in order to maintain the federally-authorized Mobile Harbor navigation project, the Corps, Mobile District only has the upland sites, the SIBUA or Mobile-North ODMDs to dispose of its dredged material. These sites have a finite capacity. Expansion of the SIBUA will provide additional space for hopper dredge disposal and keep the sand in the littoral system for additional beneficial use.

**1.5 Authority, History, and Improvements.** The navigation channel dredging in Mobile Bay and Mobile River began in 1826 with enactment of the River and Harbor Act of 1826. During the period 1826 to 1857, a channel 10 feet deep was dredged through the shoals in Mobile Bay up to the City of Mobile. Subsequently, further modifications to the channel were authorized and the original Federal project was enlarged by the addition of the Arlington, Garrows Bend, and Hollingers Island channels within the bay, and a channel into Chickasaw Creek from the Mobile River. Section 104 of the River and Harbor Act of 1954 authorized a 40-foot depth channel with a 400-foot width in Mobile Bay to the mouth of the Mobile River and a 40-foot depth in the Mobile River to the Cochran Bridge with the width varying from 400 to 775 feet. The Senate Public Works Committee on 16 July 1970 and the House Public Works Committee on 15 December 1970, under the provisions of Section 201 of the 1965 Flood Control Act, authorized a 40-foot by 400-foot channel, branching from the main ship channel and extending through a land cut to the Theodore Industrial Park. The Theodore Ship Channel was reauthorized in the Water Resources Development Act of 1976.

Further improvements to the existing Federal project were initially authorized in the 1985 Energy and Water Resources Appropriation Act (PL 99-88, Ninety-ninth Congress, First Session). The improvements were reauthorized in Section 201 of the Water Resources Development Act of 1986 (PL 99 – 662, Ninety-ninth Congress, Second Session), which was approved 17 November 1986, and subsequently amended by Section 302 of the Water Resources Development Act of 1996. The report referenced by this authorization recommended the following improvements to the Federal project: deepening and widening the Gulf entrance channel to 57 by 700 feet; deepening and widening the main ship channel to 55 by 550 feet in Mobile Bay, except for the upper 3.6 miles which require a width of 650 feet; deepening the Mobile River channel to 55 feet to a point about 1 mile below the Interstate 10 highway tunnels; and, constructing turning and anchorage basins near the upper end of the main ship channel.

**1.6 Port of Mobile.** The Port of Mobile is an industrial complex as well as a trade and shipping distribution center. Large shipyards, cement and ready-mix concrete manufacturing plants, petroleum and asphalt refineries, lumber manufacturing plants, and chemical plants abound. Its harbor facilities include large oil terminals, the Alabama State Docks, and the Theodore Industrial Park, where a chemical plant, cement manufacturing plant, and a ferro-alloy plant operate. General cargo facilities at the Alabama State Port have been greatly enhanced in recent years, with about \$500 million invested in port infrastructure, including new state-of-the-art wharves, warehouses and cranes. In 1995, the Port of Mobile handled 50.9 million tons of cargo and was ranked eleventh in the nation. In 2006, the Port ranked tenth, handling 59.8 million tons of cargo. Forest products are the primary outbound general cargoes at the Alabama State Docks comprising nearly 50 percent of total forest products moving through the Gulf Coast region. The highest export tonnage is coal. Another high-tonnage outbound product is petroleum. Primary inbound cargo at the Port of Mobile includes petroleum, coal, and iron ore.

**2.0 ALTERNATIVES.** Three alternatives were considered for this project. These alternatives are:

1. No Action / No expansion of the SIBUA.
2. Expansion of the SIBUA to the south.
3. Expansion of the SIBUA to the north and west.

The “no action” alternative would result in the continued use of the existing SIBUA and avoid the proposed expansion area. Implementation of this alternative would not address the concerns of expanding the much needed disposal area capacity for the hopper dredge. With the construction of the new MHTB, there is a great opportunity to place additional sand in the littoral zone. Also, the current site is too shallow (< 25 feet) in many areas for safe hopper dredge operation. Therefore, the “no action” alternative was deemed unacceptable and not considered any further.

Expanding the beneficial use area to the south is the preferred alternative and considered the most viable option. Most of the area south of the beneficial use area has a depth much greater than 25 feet which is required for safe hopper dredge operation. Since the area is deeper, it can hold significantly more dredged material and have much less impact on local boating traffic. Therefore, this option was deemed the most viable alternative.

Expanding the beneficial use area to the west and north was also considered as an alternative but the area is too shallow for hopper dredge use. In many areas, the depth of water ranges only from 9 to 11 feet when referenced to Mean Low Water (MLW). A hopper dredge working in that area needs a depth of approximately 25 feet to safely work in that area. Therefore, this alternative was deemed unacceptable and not considered as a practical alternative.

### 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 (1896 hectares of mapped oyster reef) of bay bottom throughout coastal Alabama. The primary oyster reefs of Alabama are located in the southwestern portion of Mobile Bay (Cedar Point, Sand Reef Buoy, Dauphin Island Bay, Kings Bayou, and Peavy Island Reef). Oyster reefs are also located to the east in Bon Secour Bay and to the west in Portersville Bay. There are additional small, scattered patches of oysters especially along the western shore of Mobile Bay in addition to the riparian beds located in Heron Bay and the Mississippi Sound (May 1971; Tatum *et al.* 1996).

*Submerged Aquatic Vegetation.* The Mobile Bay National Estuary Program funded a survey of submerged aquatic vegetation (SAV) in coastal Alabama in summer and fall 2002. This work included ground-truthed photo-interpreted aerial imagery of SAVs (Vittor and Associates, 2003). In the marine areas the 2002 SAV survey found shoal grass *Halodule wrightii* comprised most of the acreage, particularly in Mississippi Sound (819.4 acres) and southern Perdido Bay (299.6 acres, including Florida waters). In addition, relatively small patches of SAV occurred along the northern shoreline of the western end of Dauphin Island, and in Baldwin County in Little Lagoon, Bay la Launch, Arnica Bay, and Palmetto Creek.

*Wetlands.* Tidal marshes are located along the bay shorelines and the shoreline of the Mississippi Sound. 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). Within the vicinity of the project there are also a few isolated wetlands, some being densely vegetated with slash pine *Pinus elliotti*, a thick understory of titi *Cyrilla racemiflora*, and other shrubs.

*Sediments.* The sediments along the Mobile Harbor navigation channel consist of sand to clays with various mixtures of sand, silt, and clay located throughout the channel. Sediments are primarily composed of sands in the Bar Channel; a mix of estuarine silty clay and clay in Mobile Bay; and clays in the Mississippi Sound (Corps 1980). Sediments from the MHTB channel consist of brown-colored poorly graded sand with a small percentage of silt. The current velocities range from about 8 inches per second (in/s) to 16 in/s near the SIBUA. The directions of the currents measured during the April survey (ebb tide conditions) moved towards the east while August directions (flood tide conditions) moved to the north-northwest (Kjerfve 1983).

**3.2 Terrestrial Wildlife.** Birds in the vicinity of the project may include: Gulls, pelicans, terns, sandpipers, plovers, stilts, skimmers, oystercatchers, herons, egrets and ibises.

**3.3 Benthos, Motile Invertebrates, and Fishes.** The benthic community in the Mississippi Sound and lower Mobile Bay 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. 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*.

A number of studies evaluating the fish and invertebrates of Alabama estuaries have been conducted. These studies looked at species abundance and diversity in coastal waters. The nearshore and marsh species are comprised largely of fish in the families *Poeciliidae*, *Cyprinodontidae*, and *Atherinidae* which serve as the prey for the Southern flounder *Paralichthys lethostigma* and seatrout *Cynoscion* spp., both important sport and commercial species. Common migratory fish in the study area are Atlantic croaker *Micropogonias undulatus*, spot *Leiostomus xanthurus*, and sand seatrout *Cynoscion arenarius*. Important forage fish within the area are the pelagic species; Bay anchovy *Anchoa mitchilli*, striped anchovy *Anchoa hepsetus*, and Gulf menhaden *Brevoortia patronus*. 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).

Most marine species considered to be of significant economic importance utilize open water areas of the Gulf of Mexico for spawning purposes rather than the confines of semi-enclosed estuaries. However, almost all of these species, except for anadromous forms, migrate seaward seasonally for spawning, then larvae and early juveniles return to the estuaries, which serve as nursery grounds. Estuaries provide larvae and juveniles with protective habitat, an influx of freshwater, a continuous mixing zone, and an abundance of food supply. This phenomenon considered in this report is documented in scores of publications, but especially Christmas and Waller (1973), Loyacano and Smith (1979), and Benson (1982). This section evaluates potential impacts on several species as a result of expanding the SIBUA site for the disposal of dredged material.

Shipp (1983) documented this utilization activity by numerous species, such as the bay anchovy (*Anchoa mitchilli*), the speckled trout or spotted sea trout (*Cynoscion nebulosus*), and the red fish or red drum (*Sciaenops ocellatus*) in the immediate vicinity of the SIBUA. Pattillo et al (1997) summarized the life history and environmental tolerances for three species of shrimp in

this region. The bay anchovy spawns throughout estuaries and nearshore Gulf of Mexico waters. Large numbers of these fish inhabit the lower estuaries and near-shore waters during warm months. The SIBUA does provide suitable spawning habitat for the bay anchovy but no data exists to indicate this particular site is more suitable than another. The SIBUA 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.

Spotted sea trout and red fish are species of concern to coastal states due to their game fish importance. The red drum is an important recreational species throughout its range. Juveniles generally live in estuaries and move to near-shore oceanic waters, such as SIBUA, as they reach maturity (Pearson 1929). Adults range widely over the near-shore continental shelf waters throughout the year but apparently move to coastal waters to spawn (Overstreet 1983). Spawning is generally thought to take place in coastal waters near inlets (Jannke 1971, Holt et al. 1985) although Lyczkowski-Shultz et al. (1988) found eggs and larvae out to 20 miles from shore in the eastern Gulf of Mexico. It is believed that water temperature and salinity levels are more important to the spawning of the spotted sea trout than a specific location because newly hatched spotted sea trout will not survive low salinity and low temperature conditions. Optimum spawning conditions for spotted sea trout exist when salinity is 20 to 34 parts per thousand (ppt) and temperatures reach 70 to 90° Fahrenheit (F). Spawning takes place at night in coastal bays, sounds, and lagoons, near passes, and around barrier islands from March through November. Females may lay up to 10 million eggs. The eggs hatch within 20 hours and are transported to estuaries by winds and currents. Juveniles spend 2 to 4 years in shallow grassy areas and then tend to move into the near-shore passes and along beaches.

The SIBUA could possibly serve as a spawning site for these species since both are known to spawn in lower estuaries, in near-shore areas, and around barrier islands (Perret et al. 1980; Williams et al., 1980; Benson, 1982). In a literature review, Wade (1980) noted that earliest observations of this century data implied intra-estuarine spawning, while the more recent data, relying more heavily on empirical observations of the presence and transport of eggs and larvae, indicated that most spawning is really salinity dependent, and in fact more activity is concentrated just off the barrier islands than previously thought. Studies indicated large numbers of eggs and larvae of several species of the drum family, including both the spotted sea trout and red drum, are present at the SIBUA. The passes into the Mobile Bay estuary are the lanes of transport for these larvae leading into the Bay. These passes are located near the vicinity of the SIBUA. Thus, strong evidence support that all near-shore areas are important spawning areas for these species, and the SIBUA is not unique in their importance. Spawning location for the red drum is more definitive. Christmas and Waller (1973) report spawning of red drum outside of the Mississippi barrier islands, near to passes, and indicate no mature females have ever been taken in estuarine waters along their area of study.

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 Alabama 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. Several shrimpers actively fish in the vicinity of the SIBUA site for shrimp. However, shrimp is also actively fished outside of the boundaries of the site.

**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 open-water marine environment with a sandy bottom and subject to high wave action and currents.

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

The Mississippi Sound and adjacent waters have been identified as important nursery areas for nine sharks, primarily Atlantic sharpnose, blacktip, finetooth, and bull sharks. Less prevalent species are the spinner, blacknose, sandbar, bonnethead, and scalloped hammerhead. Typically sharks migrate inshore in the early spring around March and April, remain inshore during the summer months and then migrate offshore during the late fall around October. Most

shark species in the Mississippi waters give birth during late spring and early summer, with young sharks spending just a few months of their life's in shallow coastal waters. Most shark species are abundant around barrier islands, with adult sharks commonly located south of the barrier islands (Carlson *et al*, 2003).

The species managed by the Gulf of Mexico Fishery Management Council are listed in **Table 3** below.

<b>Table 3: Fishery Management Plans and Managed Species for the Gulf of Mexico. (NMFS 2008)</b>	
<b>Shrimp Fishery Management Plan</b>	
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>	
<b>Reef Fish Fishery Management Plan</b>	
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>	
cube snapper – <i>L. cyanopterus</i>	
dog snapper – <i>L. jacobus</i>	
dwarf sand perch – <i>Diplectrum ivittatum</i>	
gag grouper – <i>M. microlepis</i>	
goldface tilefish – <i>C. chrysops</i>	
goliath grouper – <i>Epinephelus itajara</i>	
gray snapper – <i>L. griseus</i>	
gray triggerfish – <i>Balistes capricornus</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>	
rock hind – <i>E. odscensionis</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>	
vermillion snapper – <i>Rhomboplites aurorubens</i>	
Warsaw grouper – <i>E. nigrilus</i>	
wenchman – <i>Pristipomoides aquilonaris</i>	
<b>Stone Crab Fishery Management Plan FL</b>	
stone crab – <i>Menippe mercenaria</i>	
gulf stone crab – <i>M. adina</i>	
<b>Spiny Lobster Fishery Management Plan</b>	
spiny lobster – <i>Panulirus argus</i>	
slipper lobster – <i>Scyllarides nodife</i>	
<b>Coral and Coral Reef Fishery Management Plan</b>	
varied coral species and coral reef communities comprised of several hundred species	
<b>Coastal Migratory Pelagic Fishery Management Plan</b>	
cobia – <i>Rachycentron canadum</i>	
king mackerel – <i>Scomberomorus cavalla</i>	
Spanish mackerel – <i>S. maculatus</i>	
<b>Red Drum Fishery Management Plan</b>	
red drum – <i>Sciaenops ocellatus</i>	
yellowedge grouper – <i>E. flavolimbatus</i>	
yellowfin grouper – <i>M. venenosus</i>	
yellowmouth grouper – <i>M. interstitialis</i>	
yellowtail snapper – <i>Ocyurus chrysurus</i>	

Within the project area, EFH has been designated for managed species of Gulf of Mexico dolphin, wahoo, red drum, blue marlin, sharks (11 species), coastal migratory pelagics (3 species), reef fish (43 species), stone crab (2 species) and shrimp (4 species). No habitat areas of particular concern were identified for this area. **Table 4** contains the Query Results for the managed species located within the project area.

**Table 4.** Essential Fish Habitat Query Results for SIBUA 2010.

<b>EFH Data Notice:</b> Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional Fishery Management Councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources. • NMFS Southeast Regional Office						
<b>Query Results</b> (Latitude = 30.192426, Longitude = -88.092842) The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.						
Link to EFH Text	Data Catches	Show on Map	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
			119	Scalloped Hammerhead Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=119">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=119</a>	HMS
			133	Sphero Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=133">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=133</a>	HMS
			147	Tiger Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=147">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=147</a>	HMS
			169	Finetooth Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=169">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=169</a>	HMS
			7	Atlantic Sharpnose Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=7">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=7</a>	HMS
			19	Blacknose Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=19">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=19</a>	HMS
			27	Blacktip Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=27">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=27</a>	HMS
			34	Blue Marlin	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=34">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=34</a>	HMS
			46	Bonnethead Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=46">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=46</a>	HMS
			53	Bull Shark	<a href="http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=53">http://www.nmfs.noaa.gov/sta/hms/EFH/FinalFEIS/Amendment_1_Chapter5.pdf#page=53</a>	HMS
			Red Drum	All	Gulf of Mexico	Red Drum
			Shrimp (4 Species)	All	Gulf of Mexico	Shrimp
			Coastal Migratory Pelagic (5 Species)	All	Gulf of Mexico	Coastal Migratory Pelagic
			Stone Crab (2 Species)	All	Gulf of Mexico	Stone Crab
			Reef Fish (43 Species)	All	Gulf of Mexico	Reef Fish

#### HAPC Results

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

#### Missing Data Notice:

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

\*\*For links to all EFH text descriptions see the complete data inventory: open data inventory -->

Secretarial EFH  
 Smooth Hammerhead Shark  
 Galapagos Shark  
 Nanowatch Shark  
 Bigeye Sand Tiger Shark  
 Whale Shark  
 Caribbean Sharpnose Shark  
 Smalltail Shark  
 Bigeye Stag (G) Shark  
 Sawngill Shark  
 Sixgill Shark  
 Smalltail Shark  
 Gulf of Mexico Dolphin Wahoo EFH  
 Dolphin

**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 Alabama. The National Oceanic and Atmospheric Administration (NOAA) and USFWS lists the following species in **Table 5** as either threatened and/or endangered that may potentially occur within the project area:

**Table 5: Threatened and Endangered Species (NOAA and USFWS 2009)**

LISTED SPECIES	SCIENTIFIC NAME	STATUS	DATE LISTED
<b>Marine Mammals</b>			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaengliae</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
West Indian manatee	<i>Trichechus manatus</i>	Endangered	03/11/67
<b>Turtles</b>			
green sea turtle	<i>Chelonia mydas</i>	Threatened <sup>1</sup>	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
<b>Fish</b>			
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	09/30/91
<b>Birds</b>			
Piping Plover	<i>Charadrius melodus</i>	Threatened	12/11/85
Least Tern	<i>Sterna antillarum</i>	Endangered	05/28/85

**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 the local watersheds provide nutrients and sediments that serve to maintain productivity both in the Sound and in the extensive salt marsh habitats bordering 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 fresh water sources, but are hydraulically restricted due to barrier islands. In addition, 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 materials such as detritus, and plankton. Greatest stratification in the water occurs in summer (Thompson et al., 1999)

The Alabama Department of Environmental Management (ADEM) has classified the coastal water in the project area as suitable for recreation, propagation of fish and wildlife and shellfish harvesting. Sufficient dissolved oxygen concentrations, water clarity, and typical salinity ranges with little to no stratification in the water column occur within this site. Water quality within the project area is influenced mainly by non-point source pollution. According to the 2008 Section 303(d) list prepared by the ADEM, the main causes of water quality degradation within the area are pathogens, introduced into the system by urban runoff and storm sewers.

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

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

**3.9 Esthetics.** SIBUA is located offshore from any beach or recreational areas. The closest beachfront to the site is the dynamic barrier island (about 3.0 miles) known as Sand Island, which is oriented southeastward to northeastward. This island is a popular boating designation for individuals operating out from the Mobile Bay or the Gulf Shore/Fort Morgan vicinity. The remote location of the island makes it a favorite spot to visit for boaters and overnight campers during the summer months. During cooler periods, very few visitors use it. Sand Island is not connected to the mainland. No structures of any substance are located there because it is vulnerable to storms and strong tides and is of such low relief (maximum about 9 feet). The island continually changes its contour in response to the meteorological and wave energy conditions and was severed in several places by Hurricane Frederic in September of 1979. Other tropical storms have also altered the shape of the island.

The closest developed resort to the SIBUA is Dauphin Island located about three miles landward of Sand Island. Several hundred permanent residents populate Dauphin Island. However, the population increases during the summer months, due to the presence of several hundred vacation and resort homes, several condominiums, and educational facilities. The island also attracts several thousand additional daytime visitors during weekends depending on local weather conditions. Despite populations described above, there is very little public access to the island's beaches. The majority of beachfront is privately owned, and the extreme western end of the island, which is undeveloped, has been fenced to prevent public access. Therefore, Dauphin Island cannot be considered a major resort/beach site for the general public. However, it is extensively developed for private ownership.

Even more remote from the SIBUA than either Sand or Dauphin Island is the Gulf Shores-Fort Morgan peninsula area. Actually, the extreme eastern tip of Fort Morgan peninsula is nearly the same distance from the site as is Dauphin Island, but the majority of this beachfront extends directly eastward. Gulf Shores and Fort Morgan have become a major Gulf Coast tourist attraction, with scores of condominiums and hotels/motels, and an ever-increasing westward moving wave of development. Private residents live year-round in Gulf Shores and Fort Morgan; however, the population escalates during the summer months due to the number of hotels, motels, and the condo and house rentals. Gulf Shores and Fort Morgan also attract snowbirds from the north for the wintering months.

**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.

**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, cultural resources were evaluated via a literature review and remote sensing data which focused on archaeological resources (shipwrecks). The information gathered from these sources was used to characterize and assess the potential effects of the proposed project. The data search revealed that there were several possible ship wrecks in the vicinity of the SIBUA. No sites have been identified within the Bar Channel. One site has been identified as being of potential cultural importance within the SIBUA but it is not located within the proposed expansion area. All of the sites are currently covered with several feet of sand and have not been recently disturbed.

## **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 disposal of maintenance material in the SIBUA were identified in this evaluation. The closest oyster reefs are located several miles from the open water placement activities associated with this project.

*Submerged Aquatic Vegetation.* No significant impacts to the SAVs were identified in this evaluation. The closest known SAVs are located several miles 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.* Emergent wetlands are not located in the vicinity of the project and will not be impacted.

*Sediments.* Disposal operations will result in the temporary increases of suspended sediments, the loss of benthic organisms, increases in nutrients, and bathymetry changes in the ocean bottom. The increase in turbidity will reduce light penetration through the water column,

thereby reducing photosynthesis, surface water temperatures, and esthetics. These conditions could potentially alter visual predator-prey relations in the immediate project vicinity. In addition, sediment adheres to fish gills, resulting in respiratory stresses, and natural movement of eggs and larvae could be potentially altered as a result of the sediment adherence. However, the salinity of water associated with the SIBUA is high enough to promote rapid settling of finer particles. Ninety-eight percent of discharged sediments from hydraulic dredging have been observed to settle out within 200 feet of discharge points during similar operations in the project vicinity (Corps 1978). All of these described impacts are temporary and are anticipated to return to previous conditions shortly after disposal operations. 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 13**). The sediment quality and texture of the Bar Channel dredged material is expected to be homogenous to that existing in the SIBUA. This is due to the close proximity to the channel and the fact that this area has historically received dredged material from the channel for years. The material from the MHTB also consists of predominately sandy material with traces of silt.

**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. This project is located several miles from the nearest land.

**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.

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 will result in the mounding of the sandy dredged material after it is released from the hopper dredge in a relatively thick layer. 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. 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 openwater disposal areas. These areas combined comprise less than 0.1% of estuarine water bottom of the state within the Mississippi Sound and Mobile Bay systems.

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).

SIBUA does not provide important habitat that could not be found in other areas of the Gulf of Mexico. There is no significant resource at this site that is essential for the continued survival of any particular species. With 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. Therefore, it was determined that no adverse impacts to the aquatic community would result from the continued use of the SIBUA or extension area.

**4.4 EFH.** The Corps, Mobile District will take extensive steps to reduce and avoid potential impacts to EFH as well as other significant area resources. No estuarine emergent wetlands, oyster reefs, or SAVs would be adversely affected by the proposed action. 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 of finfish or shellfish populations are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through



disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete. As detailed in section 4.3 of this assessment, no significant long-term impacts to this resource is expected as result of this action.

Increased water column turbidity during dredging would be temporary and localized. The spatial extent of elevated turbidity is expected to be within 400 feet of the operation, with turbidity levels returning to ambient conditions within a few hours after completion of the dredging activities. 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 impacts are expected to occur.

The Corps, Mobile district received an e-mail from the NMFS, HCD dated July 27, 2009 stating that no significant adverse effects on EFH, fish and wildlife resources are expected to result from this project and they have no objections to this project (**Enclosure 5**).

**4.5 Threatened and Endangered Species.** Significant impacts to threatened and endangered species would be the loss of or long term reduction in the size of a population; a habitat modification that causes a permanent disruption to breeding, foraging or other life history requirement; permanent interference with the movement of native resident or migratory protected species; and loss of any area designated a critical habitat.

The whale species listed as threatened or endangered that could occur in the vicinity of the project area typically occur in the deeper waters off the continental shelf and would only venture through the project area as incidental transients. Any impacts to these species would be limited to annoyance and alteration of swimming patterns to avoid the active dredging areas. Any such impacts would be negligible. The West Indian manatee migrates along the Gulf coast from Florida to Louisiana as a seasonal transient. The project area does not provide habitat requirements and it is very unlikely that the animal would be located that far out from shore. In the unlikely event that a manatee was located in the vicinity of the project site, "Standard Manatee Construction Conditions" would be implemented. The piping plover and least tern occur along the Gulf Coast and also may occur on Sand Island or other near by land forms. Since this project is located over water and away from any land forms, it is highly unlikely that these birds would be disrupted by the proposed project. In summary, any impacts to whales, manatees or shore birds would be temporary or negligible.

Through consultation with the NMFS and the USFWS the Corps, Mobile District has determined that five species of sea turtles (loggerhead, green, hawksbill, Kemp's ridley, and leatherback), and Gulf sturgeon protected by the ESA can be found in or near the project area and may be affected by the project. These species will likely avoid the immediate project vicinity during dredging or sand placement due to noise from vessels and machinery; however these effects will be insignificant. Sea turtles and Gulf sturgeon may also be affected by dredging and disposal operations if they were to be struck by the dredge as it transits the site or by the movement of hydraulic pipelines; however, due to their mobility, the chance of this occurring is discountable. This project is not located within designated critical habitat for any of the listed species.

Activities associated with the removal of materials from the Mobile Bar Channel by hopper dredge have already been analyzed in the November 2003 Regional Biological Opinion (RBO) titled “Dredging of Gulf of Mexico Navigation Channels and Sand Mining (“Borrow”) Areas Using Hopper Dredges by Corps of Engineers (COE) Galveston, New Orleans, Mobile, and Jacksonville Districts” as amended and modified on June 24, 2005, and January 7 2009. Potential impacts on the five species of listed sea turtles and Gulf sturgeon from hopper dredging activities were assessed in the 2003 RBO. In the opinion, NMFS concluded that sea turtles and Gulf sturgeon can be adversely affected by hopper dredges and included in Incidental Take Statement (ITS), pursuant to Section 7 of ESA. The ITS in the 2003 RBO contains reasonable and prudent measures with implementing terms and conditions to help minimize impacts of take; therefore any sea turtle or Gulf sturgeon take resulting from future maintenance dredging in Mobile Bar Channel will be assessed against the Annual ITS in the RBO.

The Corps, Mobile District made an assessment and determined that no federally-protected species or designated critical habitat were likely to be adversely affected as a result of the proposed project. Letters requesting concurrence with the District’s Not Likely to Adversely Affect (NLAA) determination were sent to the NMFS and USFWS on July 24, 2009 (**Enclosures 2 & 4**). The USFWS concurred, by e-mail dated July 31, 2009 and stated that “no significant adverse effects on fish and wildlife resources are expected to result from this project” (**Enclosure 6**). NMFS, PRD concurred with the Corps, Mobile District’s determination by letter on September 2, 2009 and stated that “the proposed expansion of the SIBUA is not likely to adversely affect sea turtles and Gulf sturgeon protected by the ESA under NMFS’ purview” (**Enclosure 10**). In summary, the proposed project may affect, but is not likely to adversely affect the five species of turtles or Gulf sturgeon.

**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 channel. The dredged material placed in the SIBUA will consist primarily of fine to medium-grained sands. This type of material has historically resulted in insignificant release potential for dissolved constituents that may potentially enter the water column. Suspended particles are expected to settle out within a short time, 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. SIBUA has been historically used for the disposal of sandy dredged material since 1997. Thus, the Mobile District does not anticipate any adverse impacts as a result of the expansion process. In addition, ADEM issued water quality certification on September 1, 2009 (**Enclosure 9**).

**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 materials, 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. Any air quality impacts would be temporary and negligible.

**4.9 Esthetics.** SIBUA is currently used by the Mobile District for the maintenance operations of the bar channel. Continued use of the SIBUA and the extension of the site are not anticipated to have any adverse impacts to Sand and Dauphin Islands, Gulf Shores, and Fort Morgan due to the distances of these sites from the disposal sites. Sand Island should benefit from the expansion due to the additional sand placed in the littoral system. SIBUA may be intensely trawled during offshore migrations in summer and early fall for fish and shrimp. Commercial and recreational vessels and dredges have concurrently utilized the same area in the past without incident. Only temporary degradation to the esthetic environment would occur as a result of the proposed action to the local environment. Impacts would primarily occur as a result of the physical presence of heavy equipment. Some minor increases in turbidity maybe 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 as a result of engine noise from the dredge, and noise emitted from other job related equipment. While there is little that can be done to reduce noise during the operation, these impacts would be short term and restricted to the immediate vicinity of the activity. No long-term increase in noise would occur in or around the project area. Noise is not expected to be a significant impact.

**4.11 Cultural Resources.** During July and August of 2009, a remote sensing survey was conducted by the Corps, Mobile District on the proposed expansion area and previously surveyed SIBUA. The purpose of the survey was to identify cultural resources sites (most notably shipwrecks) within the disposal area boundaries. The survey work was conducted as part of the Corps' responsibility as outlined in Section 106 of the NHPA. In addition, the survey was discussed directly with the Alabama State Historic Preservation Officer (SHPO) and with the Marine Advisory Commission. Survey results revealed, with a high level of confidence, that there are no shipwrecks present in the proposed expansion area. However, the existing SIBUA includes several clusters of anomalies believed to be shipwrecks. The shallow nature of the areas containing the anomalies makes them unsuitable for hopper dredge disposal. Therefore, the continued use of the SIBUA will have no affect on those previously identified cultural resources. A copy of the Corps Mobile District's Cultural Resource Remote Sensing Survey Report dated September 14, 2009 is referenced in **Enclosure 11**.

In summary, the SIBUA expansion project is in compliance with the NHPA, coordination with the Alabama SHPO has been conducted. No historic or archaeological resources are registered or known to exist within the expansion area. The Corps, Mobile District has determined that maintenance dredging operations within existing Bar Channel and utilizing the SIBUA expansion area has no potential to cause effects to historic properties as per 32CFR 800.3(a)(1). The Alabama SHPO concurred with the Corps, Mobile District's findings via letter dated October 27, 2009 (**Enclosure 12**).

**5.0 CUMULATIVE EFFECTS SUMMARY.** Federal regulations implementing the NEPA (40 CFR Sections 1500-1508) require that the cumulative impacts of a Proposed Action be assessed. NEPA defines cumulative effects as an “impact on the environment which results 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.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 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 Mobile Harbor navigation channel and MHTB to provide safe navigation for commercial and recreational vessels. The expansion of the SIBUA is essential for future dredging events to meet this Congressional mandate. Future development of the surrounding area would likely proceed under the “no action” or the “preferred action” plan as development in the immediate area of Mobile Bay is not specific to the proposed action but connected with existing local attractions and urbanization of the area. Thus, expansion of the SIBUA 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 the Alabama Coastal Management Program to the maximum extent practicable. ADEM issued Coastal Zone Consistency for the expansion area on September 1, 2009 and is referenced in **Enclosure 9**.

**6.2 Clean Water Act of 1972.** No work would occur until the State has issued water quality certification for the proposed action. All State water quality standards would be met. Section 401 water quality certification was requested from the ADEM for the expansion area and issued on September 1, 2009 and is referenced in **Enclosure 9**. A Section 404(b)(1) evaluation is included in this report as **Enclosure 13**.

**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 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 expansion of SIBUA is located in open-water and uninhabited; thus, no changes in demographics, housing, or public services would occur as a result of the proposed project. With respect to the protection of children, the likelihood of disproportionate risk to children is not significant. Re-designating the disposal site does not involve activities that would pose any disproportionate environmental health risk or safety risk to children.

**6.7 E.O. 11990, Environmental Justice.** The proposed action complies with Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”, and does not represent disproportionately high and adverse human health or environmental effects on minority populations and low-income populations in the United States.

The proposed southern expansion of SIBUA is not designed to create a benefit for any group or individual. The expansion and disposal activities do not create disproportionately high or adverse human health or environmental impacts on minority or low-income populations of the surrounding community. Review and evaluation of the proposed SIBUA expansion have not disclosed the existence of identifiable minority or low-income communities that would be adversely impacted by the proposed project.

**7.0 COORDINATION.** The general public was notified of the proposed action via public notice on December 5, 2009. The public notice was 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. A legal notice was published in the Mobile Register on August 19, 2009 (**Enclosure 7**).

**8.0 CONCLUSION.** The proposed expansion of the SIBUA 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.

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CORPS OF ENGINEERS

U. S. ARMY

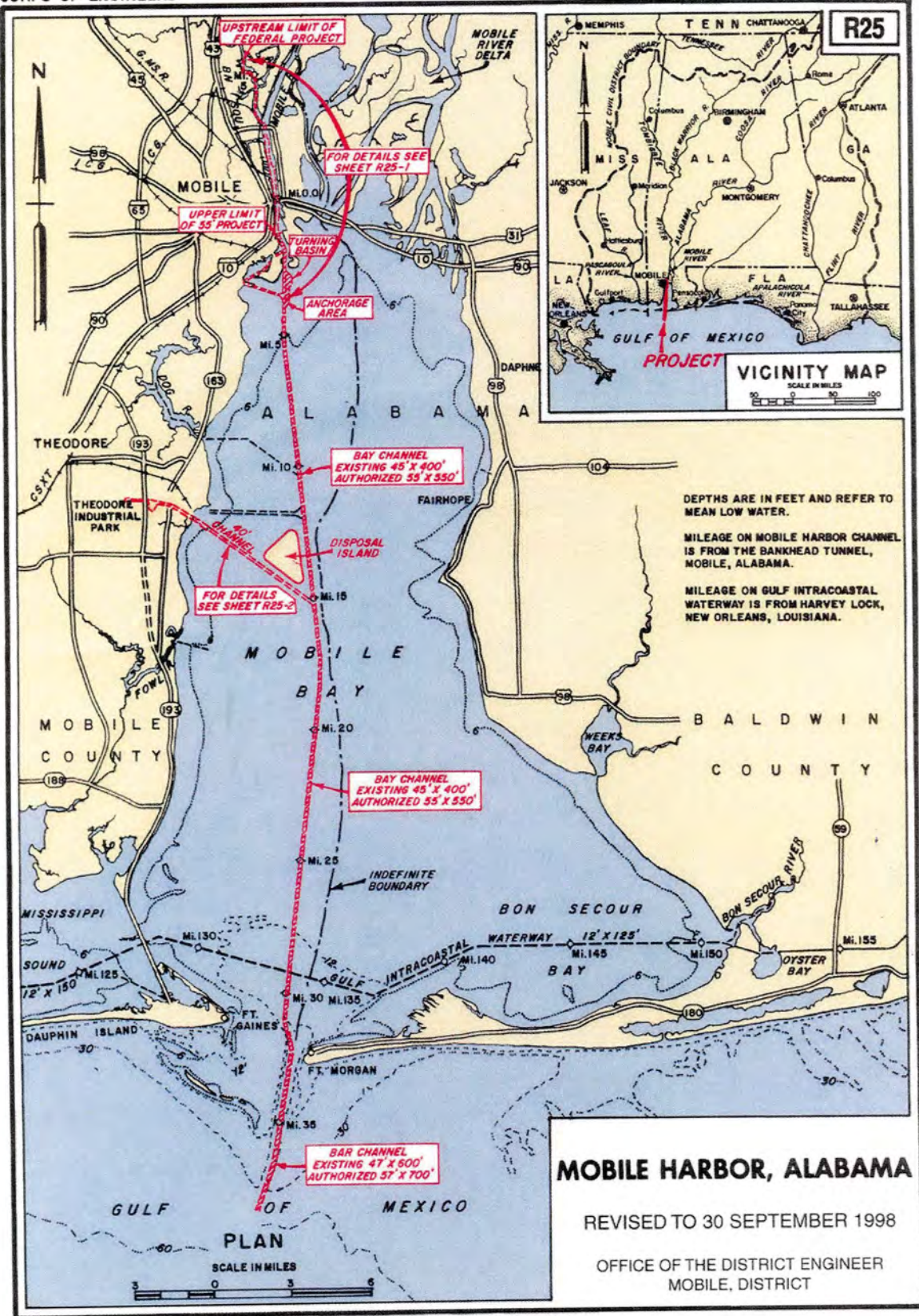
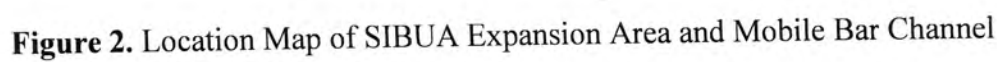


Figure 1. Mobile Harbor Federally Authorized Navigation Project





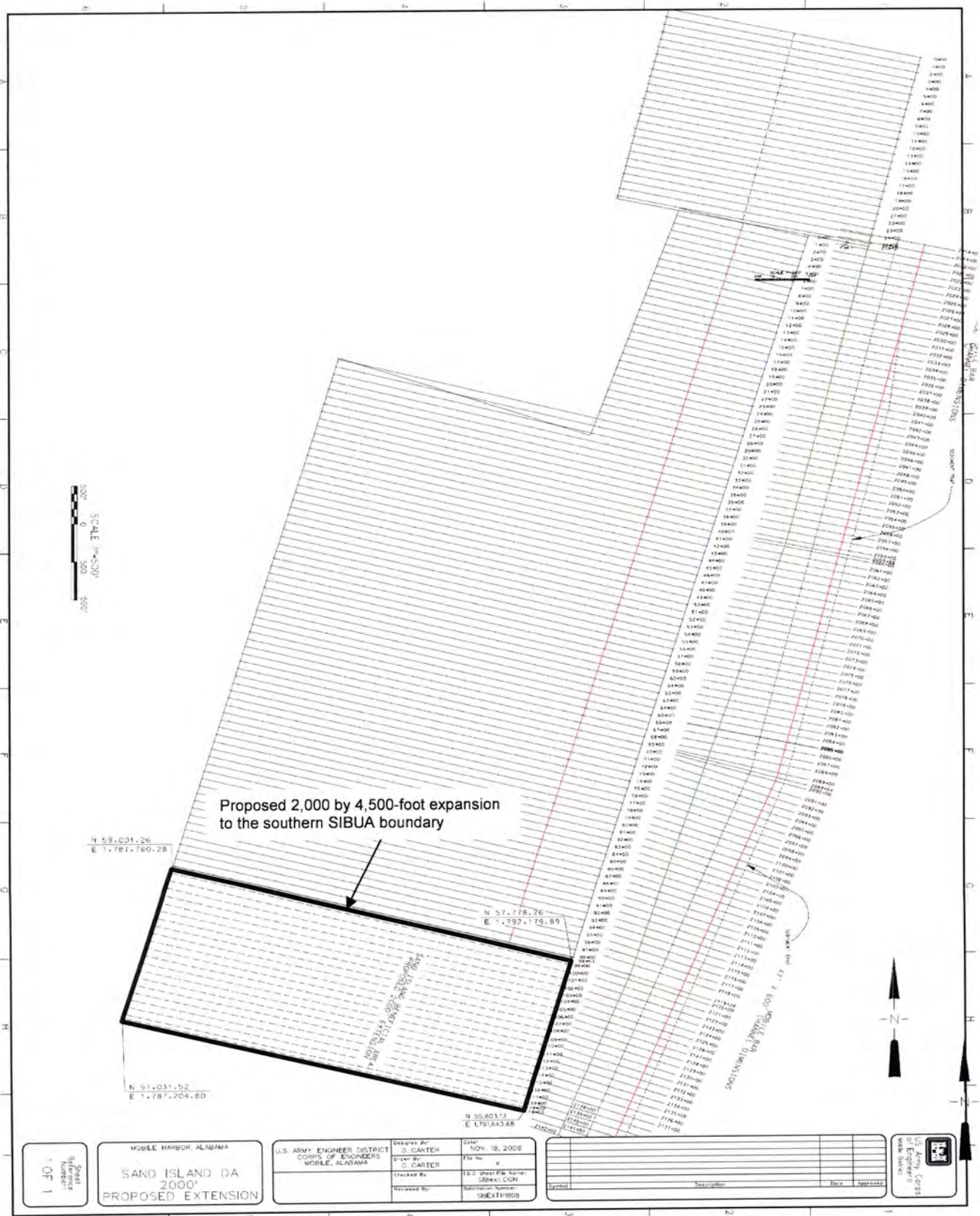


Figure 3. Detailed Location of the Sand Island Beneficial Use Area with Coordinates

**District Commander**

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

REPLY TO  
ATTENTION OF:

**CESAM-PD-EC**  
**PUBLIC NOTICE NO. FP08-MH14-05**

**5 December 2008**

**15-DAY**  
**JOINT PUBLIC NOTICE**  
**U.S. ARMY CORPS OF ENGINEERS**  
**AND**  
**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**MAINTENANCE DREDGING AND PLACEMENT ACTIVITIES**  
**MOBILE HARBOR NAVIGATION PROJECT**  
**MOBILE COUNTY, ALABAMA**

**EXPANSION OF THE SAND ISLAND BENEFICIAL USE AREA**

Interested persons are hereby notified that the U.S. Army Corps of Engineers (Corps), Mobile District, proposes to expand the Sand Island Beneficial Use Area (SIBUA) disposal site by extending the southern end of the disposal area approximately 2,000 feet southward. Placement of sandy material in this area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

This public notice is issued in accordance with rules and regulations published in the Federal Register on 26 April 1988. These regulations provide for the review of the dredging programs for federally authorized projects. These laws are applicable whenever dredged or fill material may enter navigable waters. The recipient of this notice is requested specifically to review the proposed action as it may impact on 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:** Mobile Bar Channel and the Gulf of Mexico, Mobile County, Alabama.

**DESCRIPTION OF THE ENTIRE EXISTING PROJECT:** The existing Mobile Harbor, Alabama navigation project (Figure 1) consists of the following:

- (a) a 47-foot by 600-foot channel about 1.5 miles long across Mobile Bar;
- (b) a 45-foot by 400-foot channel in Mobile Bay to mouth of Mobile River;
- (c) a 40-foot channel in Mobile River to highway bridge, varying from 500 to 775 feet wide;

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**CESAM-PD-EC  
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(d) a 25-foot channel from highway bridge to and up Chickasaw Creek to a point 400 feet south of mouth of Shell Bayou, widths being 500 feet in Mobile River and 250 feet in Chickasaw Creek;

(e) a turning basin 40 feet deep, 2,500 feet long, and 800 to 1,000 feet wide, opposite Alabama State Docks;

(f) a turning basin 40 feet deep, 1,000 feet wide, and 1,600 feet long opposite Magazine Point;

(g) a 27-foot by 150-foot channel from Mobile Bay Channel along Arlington Pier to a turning basin 800 feet long and 600 feet wide opposite Brookley Complex ocean terminal, and continuing thence to a turning basin 250 feet wide and 800 feet long in Garrows Bend, thence a 22-foot by 150-foot channel to the causeway linking McDuffie Island to the mainland;

(h) a channel serving the Theodore Industrial Park 40 feet deep and 400 feet wide from the main ship channel in Mobile Bay and extending northwesterly for about 5.3 miles to the shore of Mobile Bay, including an anchorage basin near the shoreline, thence a land cut 40 feet deep, 300 feet wide and 1.9 miles long to and including a 42 acre trapezoid turning basin 40 feet deep, and a barge channel 12- by 100 feet, extending 6500 feet and terminating in a 300-by 300-foot turning basin; and

(i) maintenance of Three Mile Creek by snagging, from its intersection with Industrial Canal to Mobile River. The project provides also for an anchorage area 32 feet deep, 100 feet wide, and 2,000 feet long opposite site formerly occupied by the U.S. Quarantine Station at McDuffie (Sand) Island.

Prior to widening the Mobile Bay Channel as authorized in 1954, the Quarantine Station anchorage area was maintained to a project width of 200 feet. Construction by local interests of a solid-fill causeway across Garrows Bend Channel between McDuffie Island and the mainland is also provided for under existing project. Total length of the bay and river channels is about 41.7 miles. Plane of reference is mean lower low water. Further authorization in 1986 provides for future development to deepen and widen entrance channel over the bar to 57 feet by 700 feet about 7.4 miles long, deepen and widen bay channel to 55 feet by 550 feet about 27.0 miles long, deepen and widen an additional 3.6 miles of bay channel to 55 feet by 650 feet and provide 55-foot deep anchorage area and turning basin in vicinity of Little Sand Island. Although the authorized project is for the construction of a 55-foot by 550-foot channel, Phase I construction completed in 1990 consisted of deepening the entrance channel from 42 feet to 47 feet for a distance of 6.1 miles from the Gulf of Mexico to Mobile Bay; and deepening the bay channel from 40 feet to 45 feet from the mouth of the bay north for a distance of 31.2 miles to the McDuffie Coal Terminal.

The existing project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts).

**CESAM-PD-EC****PUBLIC NOTICE NO. FP08-MH14-05****5 December 2008**

Controlling Depth: Maintained to authorized depths: As of 1 June 1990: outer Bar Channel, 47.0 feet; Bay Channel, 45.0 feet; Chickasaw Creek Channel, 25.0 feet; Arlington Channel, 27.0 feet; Turning Basin to Highway Bridge, 40.0 feet.

**DESCRIPTION OF PROPOSED ACTION:** The Corps conducts maintenance dredging and disposal activities in the Mobile Bar Channel on a one to two year cycle. The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in **Figure 2**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 3**), which is a valuable cultural resource listed on the National Register of Historic Places. This action was coordinated with and approved by the Alabama State Historic Preservation Officer. Placement of sandy material around the lighthouse's rubble foundation is intended to provide protection to the historic structure.

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the Corps is requesting further expansion of the SIBUA due to the site depths changing. The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 feet to the south as illustrated in **Figure 4**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

The sandy sediments placed in the SIBUA have been deemed compatible with sediments in the SIBUA from a biological and physical standpoint according to guidelines established by the Corps and the U.S. Environmental Protection Agency. Placement activities are typically accomplished using hopper dredges; however, hopper barges or hydraulic pipeline dredges may be used as necessary. The quality of the sediment being placed in the SIBUA ranges from sand to silty sandy material.

**WATER QUALITY CERTIFICATION:** Pursuant to the requirements of the Clean Water Act, a modification to the existing state water quality certification is requested from the Alabama Department of Environmental Management (ADEM) to cover the activities associated with the proposed placement of suitable dredged material from the bar channel in the SIBUA. A decision relative to water quality certification will be made by ADEM upon completion of the required 15-day comment period for this public notice.

**COASTAL ZONE CONSISTENCY:** Pursuant to the Coastal Zone Management Act, the proposed action is consistent with the Alabama Coastal Management Program to the maximum extent practicable. Upon completion of the required 15-day comment period, a decision relative to coastal zone consistency will be made by ADEM.

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

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CONSIDERATIONS:**

In accordance with the requirements of the NEPA, impacts associated with navigation improvements for the Mobile Harbor navigation project were addressed in an Environmental Impact Statement (EIS) dated October 1980. In addition, a Supplemental EIS dated December 13, 1985, was prepared to address impacts associated with the offshore placement (Gulf Disposal Area) of dredged material from construction of navigation improvements and channel maintenance activities, and for the designation of an offshore placement sites(s). The Record of Decision implementing the harbor improvements was signed January 8, 1987. The EIS and Supplemental EIS were coordinated with all applicable Federal, State and local agencies and interested public. A final environmental assessment (EA) was prepared to address impacts associated with the placement activities in the beneficial use area dated March 1997, and a Finding of No Significant Impact (FONSI) signed on March 1997. A Supplemental EA is currently being prepared and comments received from this Public Notice will be incorporated into the final document.

**SECTION 404 (B)(1) EVALUATION REPORT:** Water quality impacts associated with the proposed action have been identified in an evaluation report prepared in the original SIBUA designation under Public Notice Number FP97-MH08-02 and in accordance with Public Law 92-500, Section 404(b)(1) Guidelines promulgated by the U.S. Environmental Protection Agency under the Clean Water Act. Impacts discussed in the section 404(b)(1) evaluation report identified temporary increases in turbidity and suspended solids concentrations near the disposal area, short-term elimination of benthic organisms, and localized short-term degradation of esthetics near the disposal area. Recent sediment quality investigations performed in the channel show the material to be substantially free of contaminants of concern and suitable for open-water disposal following the guidelines of the Inland Testing Manual. A Section 404(b)(1) Evaluation Report is currently being prepared and comments received from this Public Notice will be incorporated into the final document.

**ENDANGERED/THREATENED SPECIES:** The proposed action is being coordinated with the U.S. Department of the Interior, Fish and Wildlife Service (FWS), and the U.S. Department of Commerce, National Marine Fisheries Service (NMFS) by this public notice. Some species listed by the FWS and NMFS as endangered or threatened are occasional visitors to the vicinity of the project area. Impacts to Gulf sturgeon have been evaluated by NMFS in the Regional Biological Opinion for Hopper Dredging in the Gulf of Mexico. Based on our determination, no endangered or threatened species or their critical habitats will be adversely impacted by the proposed expansion of the SIBUA and placement of sediment in this area.

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**ESSENTIAL FISH HABITAT:** 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 seek to minimize adverse effects on habitat caused by fishing and non-fishing activities.

The 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. The habitat in the project area, which is located just outside the mouth of Mobile Bay, consists of Gulf of Mexico waters and sandy substrate consistent with sediment along the northern Gulf of Mexico. The NMFS has management plans for brown shrimp (*Penaeus aztecus*), red drum (*Sciaenops ocellatus*), white shrimp (*P. setiferus*), and Spanish mackerel (*S. maculatus*) within the project area. Based on the time that it would take to complete the dredging and disposal, and the size of the proposed placement areas in relation to the total available acreage of similar habitat within the Gulf of Mexico, we do not anticipate that the proposed action would result in long-term adverse effects to EFH.

**CULTURAL RESOURCES CONSIDERATION:** In September 2004, a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse, which is a valuable cultural resource listed on the National Register of Historic Places. This action was coordinated with and approved by the Alabama State Historic Preservation Officer (SHPO). Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure. Similarly, continued placement of sandy material within the existing SIBUA and the proposed expanded area would supply a continued source of sand to the local system and provide protection to the historic resource. A letter is being sent to Alabama SHPO for their concurrence with our determination.

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



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

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

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

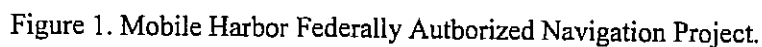
Other Federal, State, and local organizations, affiliated Indian Tribe interests, and U.S. Senators and Representatives of the State of Alabama are being sent copies of the notice and are being asked to participate in coordinating this proposed work.

**CORRESPONDENCE:** Any person who has an interest that may be affected by the 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 15 days of the date of this public notice. A request for a hearing must clearly set forth the interest that may be affected and the manner in which the interest may be affected. You are requested to communicate the information contained in this notice to any other parties who may have an interest in the proposed activities. Correspondence concerning the public notice should refer to Public Notice No. FP08-MH14-05 and should be directed to the Commander, U.S. Army Engineer District Mobile, P.O. Box 2288, Mobile, Alabama 36628-0001, ATTN: CESAM-PD-EC. For additional information please contact Mr. Larry Parson at (251) 690-3139 or Mr. Michael Malsom at 251-690-2023.

  
**CURTIS M. FLAKES**

U.S. Army Corps of Engineers  
Mobile District

**5 December 2008**



PUBLIC NOTICE NO. FP08-MH14-05  
CESAM-PD-EC

5 December 2008

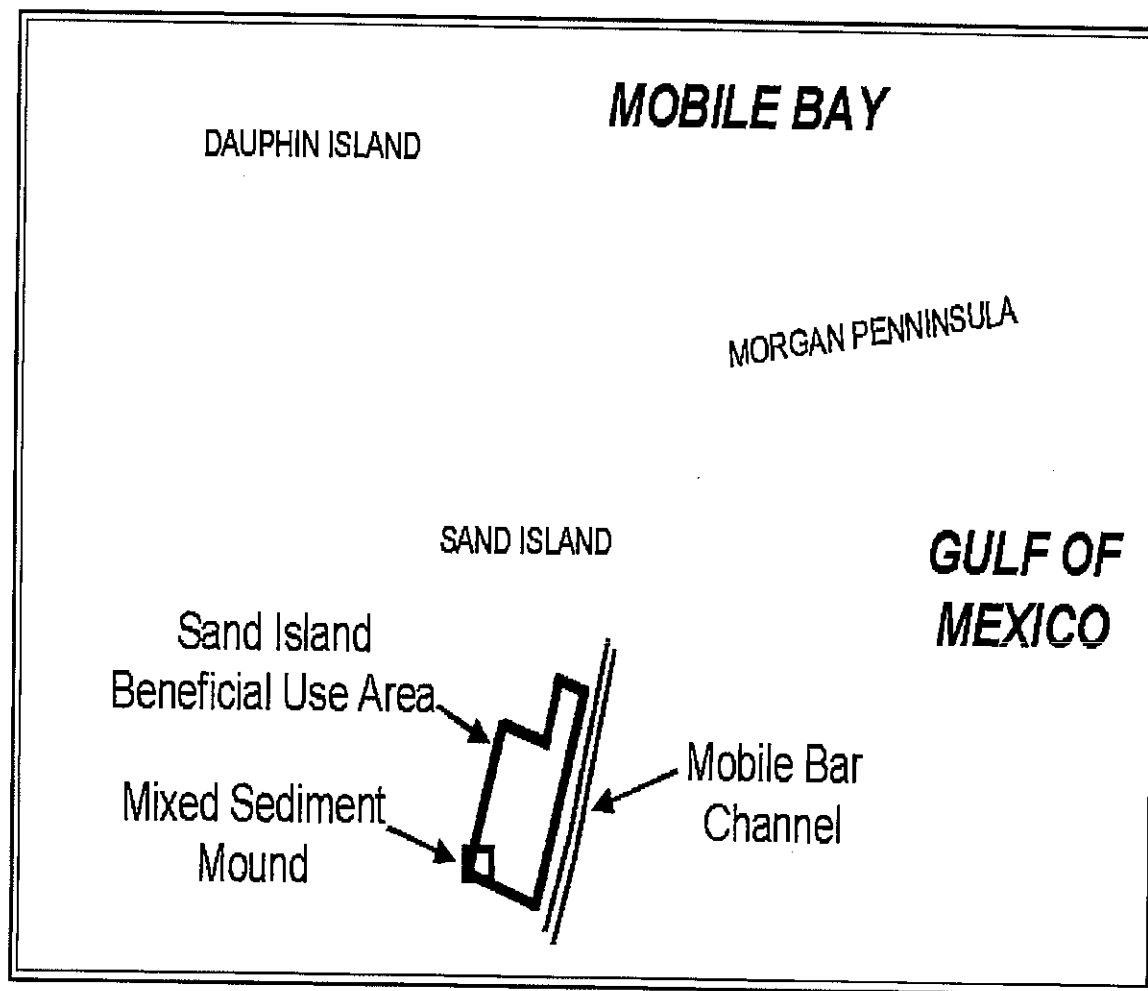


Figure 2. Location of the Mobile Bar Channel and Sand Island Beneficial Use Area (SIBUA)

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CESAM-PD-EC

5 December 2008

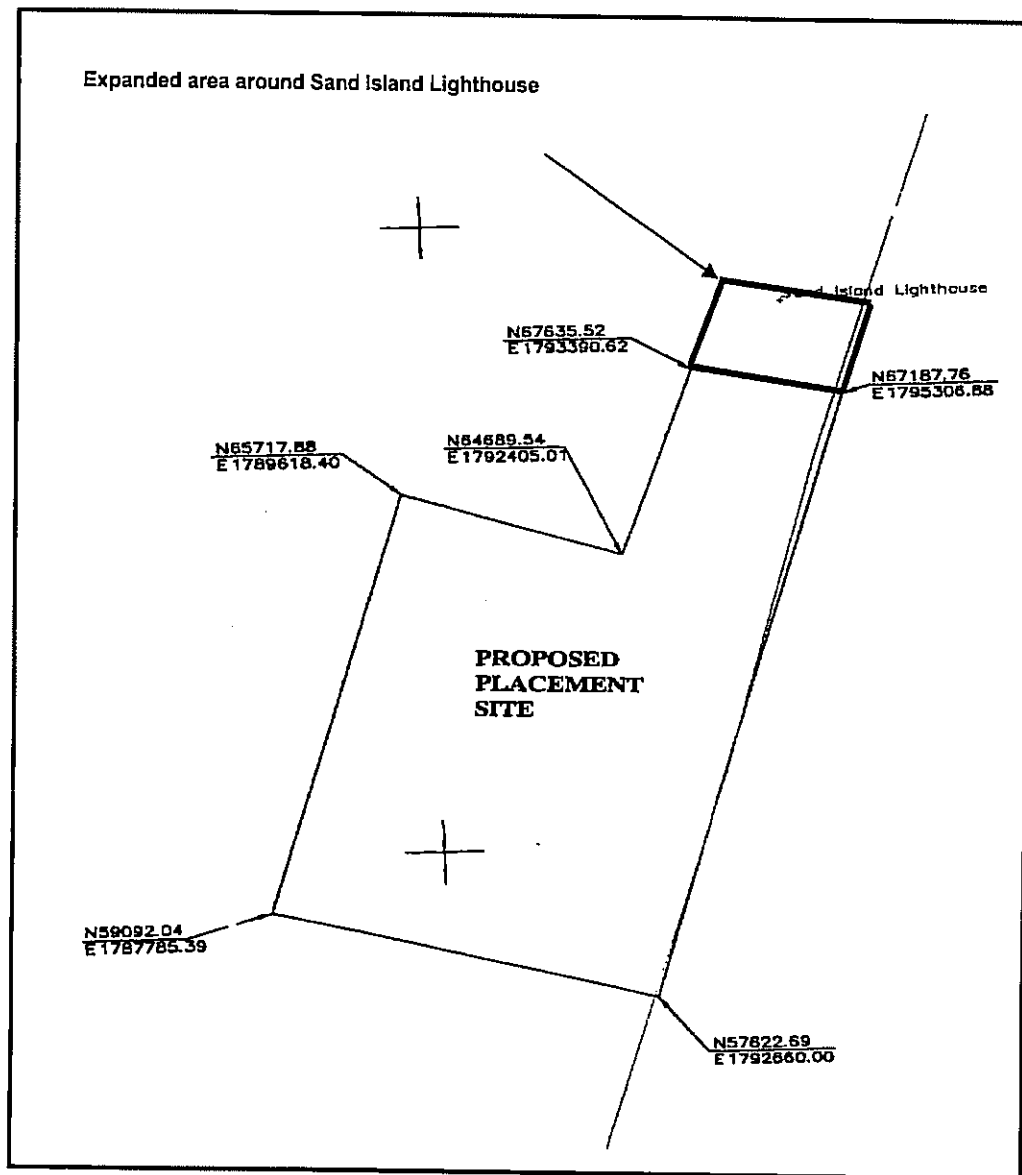


Figure 3. Previous expansion of SIBUA to include the area around Sand Island Lighthouse

EA-Enclosure 1

**5 December 2008**



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

July 24, 2009

Coastal Environmental Team  
Planning and Environmental DivisionMr. William Pearson  
U.S. Fish and Wildlife Service  
1208-B Main Street  
Daphne, Alabama 36526

Dear Mr. Pearson,

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (Figure 1). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. Under the requirements of Section 7 of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the not likely to adversely affect determination for the extension of the SIBUA.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in Figure 2. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in Figure 3. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (Figure 4) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure.

EA-Enclosure 2

Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

The U.S. Fish and Wildlife Service lists the following species as either threatened and/or endangered that may occur within the area:

**Mobile County:**

T - Piping plover (*Charadrius melodus*)  
 E - Red-cockaded woodpecker (*Picoides borealis*)  
 E - Least tern (*Sterna antillarum*)  
 T - Eastern indigo snake (*Drymarchon corais couperi*)  
 T - Gopher Tortoise (*Gopherus polyphemus*)  
 E - Alabama red-bellied turtle (*Pseudemys alabamensis*)  
 T - Loggerhead sea turtle (*Caretta caretta*)  
 E - Kemp's ridley sea turtle (*Lepidochelys kempii*) (P)  
 T - Green sea turtle (*Chelonia mydas*) (P)  
 T - Gulf sturgeon (*Acipenser oxyrinchus desotoi*)  
 T - Flatwoods salamander (*Ambystoma cingulatum*) (P)  
 E - Louisiana quillwort (*Isoetes louisianensis*) (P)  
 C - Black pine snake (*Pituophis melanoleucus lodingi*)  
 E - West Indian manatee (*Trichechus manatus*)  
 BGEPA - Bald Eagle (*Haliaeetus leucocephalus*)

**Analysis of Effects:**

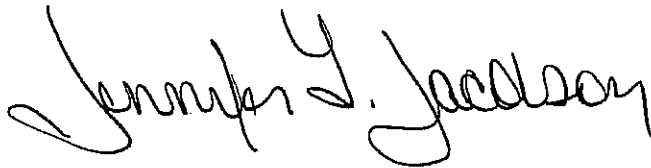
The Corps, Mobile District has historically agreed to implement "Standard Manatee Construction Conditions" during similar dredging projects in Alabama. The Corps believes that if these measures are implemented there will be no adverse impact to West Indian manatees. The loggerhead sea turtle, Kemp's ridley sea turtle, and green sea turtle could possibly be impacted because they could be found in the area; however, if they are in the vicinity, it is believed that they will avoid the area while disposal operations are in progress. We plan to adhere to the 2003 Regional Biological Opinion on hopper dredging in the Gulf of Mexico. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely that adverse effects to the species' habitat would result. In the unlikely event a Gulf sturgeon is in the area, the proposed action would not adversely affect the species due to the mobile species likely avoiding the project area during disposal operations. No significant impacts to these species are anticipated.

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 disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

Based on this information, the Mobile District finds that the proposed activity is not likely to adversely affect any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the determination for extension of the SIBUA.

Should you require any further assistance, please call Mr. Michael F. Malsom at (251) 690-2023 or by email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, reading "Jennifer L. Jacobson". The signature is fluid and cursive, with the first name "Jennifer" being more prominent and the last name "Jacobson" following in a similar style.

Jennifer L. Jacobson  
Leader, Coastal Environment Team



REPLY TO  
ATTENTION OFDEPARTMENT OF THE ARMY  
MOBILE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 2208  
MOBILE, AL 36628-0001

July 24, 2009

Coastal Environment Team  
Planning and Environmental DivisionMr. 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 an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (**Figure 1**). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. By this letter and its information therein, the Mobile District is requesting to initiate formal Essential Fish Habitat (EFH) consultation.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in **Figure 2**. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in **Figure 3**. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (**Figure 4**) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy material around the light house's rubble foundation is intended to provide protection to the historic structure.

Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

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

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

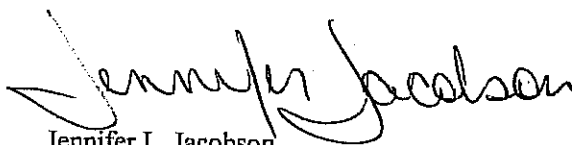
Most of the motile benthic and pelagic fauna, such as crab, shrimp, and fish, should be able to avoid the disturbed area and should return shortly after the activity is completed. No long-term direct impacts to managed species are anticipated. However, it is reasonable to anticipate some non-motile and motile invertebrate species will be physically affected through disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

The Corps, Mobile District has taken extensive steps to reduce and avoid potential impacts to EFH as well as other significant area resources. The Corps, Mobile District will be utilizing a previously authorized disposal area, and adheres to water quality requirements provided by the Alabama Department of Environmental Management to further reduce impacts to EFH. These steps also include reducing the amount of material dredged within the bar channel to the minimal amount required to achieve the project objectives.

Based on the above assessment of the project in relation to impacts to fisheries resources, the overall impact to identified species is considered negligible given the relatively small area. 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. Michael F. Malsom at (251) 690-2023 or e-mail him at [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer L. Jacobson". The signature is fluid and cursive, with the first name "Jennifer" and last name "Jacobson" clearly distinguishable.

Jennifer L. Jacobson  
Chief, Coastal Environmental Team

EA-Enclosure 3

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

July 24, 2009

Coastal Environmental Team  
Planning and Environmental DivisionMr. David Bernhart  
National Oceanographic and Atmospheric  
Administration Fisheries  
Southeast Regional Office  
Protected Resources Division  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

Dear Mr. Bernhart,

The U.S. Army Corps of Engineers (Corps), Mobile District is proposing an expansion of the Sand Island Beneficial Use Area (SIBUA) by extending the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a federal navigation project in southern Mobile County, Alabama (Figure 1). The SIBUA project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The SIBUA is located west of the Mobile Bar Channel, south of Dauphin Island-Mobile Port entrance and adjacent to the Sand Island Lighthouse. Under the requirements of Section 7 of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the not likely to adversely affect determination for the extension of the SIBUA.

**Description of the Proposed SIBUA Expansion Project:**

In order to continue beneficial use practices and to accommodate the dredges used for placing the material within the SIBUA, the following action is proposed:

The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 to the south as illustrated in Figure 2. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system. We considered expanding the beneficial use area to the north and west but the area is too shallow for hopper dredge access.

The primary disposal area for the material removed from the bar channel includes an area known as the SIBUA as illustrated in Figure 3. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. In September 2004 a modification of the SIBUA was issued to expand the disposal site to include the area around the Sand Island Lighthouse (Figure 4) which is a valuable cultural resource listed on the National Register of Historic Places. Placement of sandy

material around the light house's rubble foundation is intended to provide protection to the historic structure.

Maintenance dredging and disposal of any portion of the Bar Channel would be performed on an as needed basis with an overall average dredging cycle occurring approximately every one to two years. However, the actual time between dredging cycles and use of the placement area may vary due to the variable rates of shoaling. Dredging and placement of materials could occur at any time of the year.

The National Oceanic and Atmospheric Administration lists the following species as either threatened and/or endangered that may occur within the area:

### Alabama

Listed Species	Scientific Name	Status	Date Listed
<b>Marine Mammals</b>			
blue whale	<i>Balaenoptera musculus</i>	Endangered	12/02/70
finback whale	<i>Balaenoptera physalus</i>	Endangered	12/02/70
humpback whale	<i>Megaptera novaengliae</i>	Endangered	12/02/70
sei whale	<i>Balaenoptera borealis</i>	Endangered	12/02/70
sperm whale	<i>Physeter macrocephalus</i>	Endangered	12/02/70
<b>Turtles</b>			
green sea turtle	<i>Chalonia mydas</i>	Threatened	07/28/78
hawksbill sea turtle	<i>Eretmochelys imbricata</i>	Endangered	06/02/70
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	12/02/70
leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	06/02/70
loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	07/28/78
<b>Fish</b>			
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	09/30/91

### Analysis of Effects:

No adverse impacts would occur to whales because they are not typically found in the vicinity of the project site. The loggerhead, Kemp's ridley and green sea turtles could possibly be impacted because they could be found in the area; however, if they are in the vicinity, it is believed that they will avoid the area while disposal operations are in progress. We plan to adhere to the 2003 Regional Biological Opinion on hopper dredging in the Gulf of Mexico. Since the project is located outside of critical habitat for Gulf sturgeon, it is unlikely that adverse effects to the species habitat would result. In the unlikely event a Gulf sturgeon is in the area,

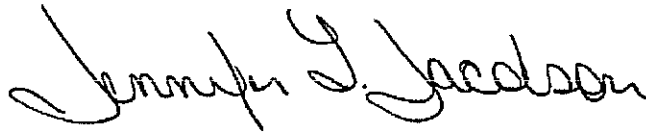
the proposed action would not adversely affect the species' due to the mobile species likely avoiding the project area during operations. The species will likely avoid the project area during operations. No significant impacts to these species are anticipated.

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 disposal operations. These species are expected to recover rapidly soon after the disposal operations are complete.

Based on this information, the Mobile District finds that the proposed activity is not likely to adversely affect any listed endangered and/or threatened species or their associated critical habitat. Under Section 7 coordination of the Endangered Species Act, the Corps, Mobile District requests your concurrence with the determination for extension of the SIBUA.

Should you require any further assistance, please call Mr. Michael F. Malsom at (251) 690-2023 or by email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

Sincerely,



Jennifer L. Jacobson  
Chief, Coastal Environment Team

Enclosures

**Malsom, Michael F SAM**

**From:** Parson, Larry E SAM  
**Sent:** Monday, July 27, 2009 3:58 PM  
**To:** Malsom, Michael F SAM  
**Subject:** FW: Sand Island Beneficial Use Area (SIBUA) Expansion

FYI

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

**From:** Mark Thompson [mailto:Mark.Thompson@noaa.gov]  
**Sent:** Monday, July 27, 2009 3:50 PM  
**To:** Parson, Larry E SAM; Jacobson, Jennifer L SAM  
**Cc:** Patric Harper; Ferraro, Carl; Powell.Duncan@epamail.epa.gov; Kelly Shotts; Kevin Anson  
**Subject:** Re: Sand Island Beneficial Use Area (SIBUA) Expansion

In accordance with the provisions of the Magnuson-Stevens Fishery Conservation and Management Act, the National Marine Fisheries Service (NMFS), Habitat Conservation Division (HCD), has reviewed the Corps of Engineers, Mobile District's letter dated July 24, 2009, initiating essential fish habitat (EFH) consultation for the proposed expansion of the Sand Island Beneficial Use Area (SIBUA) in the Gulf of Mexico, south of Dauphin Island, Alabama. Based on the information provided and our previous review of the project's public notice, the NMFS HCD has no objections to or EFH Conservation Recommendations to provide regarding the proposed expansion of the SIBUA.

We appreciate your effort in addressing EFH. If you have any questions, please contact me at this email address or at 850/234-5061.

Sincerely,

Mark Thompson

Parson, Larry E SAM wrote:

>  
 > Hello Mark,  
 >  
 > The Corps is moving forward with plans to expand the SIBUA.  
 > Attached is a letter to your agency requesting  
 > consultation/concurrence pertaining to EFH. An official hardcopy is  
 > in the mail. Also attached is the Public Notice that we sent out back  
 > in December. There is a dredge in the area that is available to do  
 > work in the ber channel which will utilize the SIBUA, so anything you  
 > could do to move this along expeditiously would be appreciated. Give  
 > me a call if you have any questions on this. Thanks!  
 >  
 >  
 > Lp  
 >  
 > \_\_\_\_\_  
 > Larry E. Parson  
 > U.S. Army Corps of Engineers, Mobile District Coastal Environment Team  
 > (251) 690-3139  
 >  
 >  
 > <<Ltr to NMFS-EFH.pdf>> <<SIBUA FW - Dec. 2008-final.pdf>>  
 >

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

**Malsom, Michael F SAM**

---

**From:** Patric\_Harper@fws.gov  
**Sent:** Friday, July 31, 2009 1:09 PM  
**To:** Malsom, Michael F SAM  
**Subject:** SIBUA expansion

Michael,  
The U. S. Fish and Wildlife Service has reviewed your July 24, 2009 letter requesting concurrence for a NLAA determination for the extension of the Sand Island Beneficial Use Area (SIBUA) in southern Mobile County, Alabama. No significant adverse effects on fish and wildlife resources are expected to result from this project. Therefore, we have no objections to this proposal. Our comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

FWS Log # 2009-FA-0238

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



Name: U.S. ARMY CORP

Sales Rep: Christine Bevins

U.S. ARMY CORP  
P.O. BOX 2288  
MOBILE, AL 36628

- Press - Register  
Lock Box 1712  
Mobile, AL 36633-1712

Macie Carlson being sworn, says that she is bookkeeper of Press-Register which publishes a daily newspaper in the City and County of Mobile, State of Alabama: and collected notice appeared in the issue of

LEGAL NOTICE  
OF REQUEST FOR STATE CERTIFI-  
CATION OF ACTIVITIES REQUIR-  
ING A FEDERAL LICENSE OR PERMIT

7025 or 8000 "Mn" of  
Michael F. Johnson, Jr. (born 1947)  
on the subject of information and  
computer technology project.  
Miami August 18, 1988.

FILED  
AUG 19 1957

[illegible][illegible]

FOR QUESTIONS CONCERNING THIS AFFIDAVIT,  
PLEASE CALL MEDIA CARLSON AT (251) 219-5418.  
YOU CAN PLACE A LEGAL NOTICE BY EMAIL OR FAX:  
LEGALS@PRESS-REGISTER.COM OR FAX# (251) 219-5037

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

August 28, 2009

Coastal Environment Team  
Planning and Environmental DivisionMr. Scott Brown  
Alabama Department of Environmental Management  
4171 Commander's Drive  
Mobile, Alabama 36615

Dear Mr. Brown:

Pursuant to the requirements of the Clean Water Act and Coastal Zone Management Act, water quality certification and coastal zone consistency is requested for a five year period for the proposed expansion of the Sand Island Beneficial Use Area (SIBUA). Expansion of the SIBUA extends the southern end of the disposal area approximately 2000 x 4500 feet. The SIBUA serves as a disposal area for the Mobile Bar Channel which is a Federal navigation project in southern Mobile County, Alabama. The SIBUA was last granted water quality certification and coastal zone consistency from the Alabama Department of Environmental Management as described in Public Notice FP97-MH08-02 dated March 17, 1997. A detailed description of the current proposed action is described in the enclosed Public Notice No. FP08-MH14-05 (**Enclosure 1**). Although there are changes to the disposal area dimensions, there are no changes to the disposal techniques from those that have been coordinated and approved by your office in the past. Based on a review of the Alabama Coastal Management Program, we find that the proposed action is consistent with the program to the maximum extent practicable.

The project has been coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service through normal agency correspondence pertaining to endangered and/or threatened species and Essential Fish Habitat, respectively. Those agencies concurred with the project in the enclosed e-mail notifications (**Enclosures 2 and 3**). The Dauphin Island Property Owners Association and Town of Dauphin responded to the Public Notice. A copy of those letters and our responses are located in **Enclosures 4 and 5**. We received a comment letter from the Chairman of the Sand Island Lighthouse Committee. No other comments were received from the general public in response to our Public Notice.

The required legal notice was published in the Mobile Press Register, Mobile, Alabama on August 19, 2009. Proof of publication for the required legal notice is enclosed (**Enclosure 6**).

The Mobile District Cultural Resources Team completed a three day remote sensing survey at the proposed expansion location on August 19, 2009. The survey was assisted by the Operations survey team and technicians from the Irvington field office. The survey included magnetometer and side scan sonar investigations of the area in search of sunken vessels or other submerged cultural resources. No cultural resources were discovered that will impede the expansion of the SIBUA.

EA-Enclosure 8

Based on a review of the Alabama Coastal Zone Management Program, we find that the proposed action is consistent with the program to the maximum extent practicable. If you have any questions concerning the proposed action, please contact Mr. Michael F. Malsom at (251) 690-2023 or at email address [michael.f.malsom@usace.army.mil](mailto:michael.f.malsom@usace.army.mil).

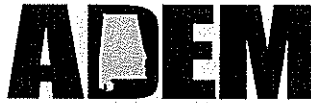
Sincerely,

A handwritten signature in black ink, appearing to read "Curtis M. Flakes". The signature is fluid and cursive, with the first name "Curtis" being more prominent.

Curtis M. Flakes  
Chief, Planning and Environmental  
Division

EA-Enclosure 8

ONIS "TREY" GLENN, III  
DIRECTOR



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

BOB RILEY  
GOVERNOR

September 1, 2009

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

RE: CWA Section 401 (a) Water Quality Certification and Coastal Consistency  
FP08-MH14-05/COEP-09-001-JCR  
Mobile Harbor Federal Navigation Project  
Expansion of the Sand Island Beneficial Use Area  
Mobile County

Dear Mr. Flakes:

The Alabama Department of Environmental Management (ADEM) has completed its review of the above referenced joint public notice and all associated materials submitted related to the proposal by the U.S. Army Corps of Engineers (USACOE) to conduct maintenance dredging disposal area expansion activities of the Sand Island Beneficial Use Area (SIBUA) along the Mobile Bar Channel. The ADEM understands the USACOE proposes to conduct the expansion of the SIBUA disposal area located near Dauphin Island, Mobile County, Alabama. The expansion consists of extending the 4,500 foot wide southern boundary of the SIBUA approximately 2,000 feet to the south. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to allow for the placement of maintenance dredging material from the Mobile Bar Channel in a manner that returns this material to the local littoral system. Placement activities are typically accomplished using hopper dredges; however, hopper barges or hydraulic pipeline dredges may be used as necessary.

The USACOE advertisement of this project by joint public notice with ADEM has been completed. On the basis of a review of all materials submitted and associated with the proposal, it is the opinion of the ADEM that a decision relative to water quality certification is appropriate. Action pertinent to water quality and coastal management certification is required by Section 401(a) (1) of the Clean Water Act, 33 U.S.C. §1251, *et. seq.*, and the Alabama Coastal Area Management Program. If conducted in accordance with the conditions prescribed herein, ADEM hereby issues official certification for a period not to exceed five (5) years from the date of issuance that there is reasonable assurance that the discharge resulting from the proposed activities as submitted will not violate applicable water quality standards established under Section 303 of the Clean Water Act and §22-22-9(g), Code of Alabama (1976). Furthermore, ADEM hereby agrees with the USACOE's determination of consistency with the Alabama Coastal Area Management Program conditional upon continued compliance with the management program and conditions prescribed herein.

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

To minimize impacts to Alabama's state waters and coastal resources, the following conditions must be incorporated as part of FP08-MH14-05.

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

Birmingham Branch  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (Fax)

Decatur Branch  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (Fax)



Mobile Branch  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (Fax)

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

EA-Enclosure 9

September 1, 2009  
U.S. Army Corps of Engineers  
FP08-MH14-05/COEP-09-001-JCR  
Page 2 of 3

2. The USACOE and/or its assigns shall allow any duly authorized employee of the ADEM or its contractors, or Attorney General or District Attorney to enter upon the premises associated with the project authorized by this permit for the purposes of ascertaining compliance with the terms and conditions of the permit and with the rules and regulations of the ADEM.
3. The USACOE and/or its assigns must implement appropriate, effective Best Management Practices (BMPs) for prevention and control of nonpoint sources of pollutants, during and after project implementation. The USACOE and/or its assigns, at a minimum, must implement applicable effective BMPs as provided in the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas, published by the Alabama State Soil and Water Conservation Committee, 2003.
4. The USACOE and/or its assigns shall conduct daily inspections of the filling activities during the life of the project to ensure that in-stream turbidity resulting from active dredging or return water from a disposal area will not cause the discharge of sediment into wetlands, substantial visible contrast with the receiving waters greater than 400 feet from the activity or result in an increase of 50 NTUs above background turbidity levels in the receiving waters. The USACOE and/or its assigns must suspend operations should downstream turbidity exceed upstream turbidity by 50 NTUs. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage. The daily inspections shall be conducted by a qualified credentialed professional (QCP) or qualified personnel under the direct supervision of a QCP.
5. The USACOE and/or its assigns shall be responsible for the condition of the spoil disposal areas for the life of the dredging and disposal activity and until the disposal areas are reclaimed or adequately stabilized, and for pumping and discharge rates, to ensure settling of suspended solids within the confines of the spoil disposal areas sufficient to ensure that turbidity in the return water will not cause substantial visible contrast within the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving waters.
6. Upon the loss or failure of any treatment facility, BMP, or other management measures as identified by responsible on-site staff during day to day operations or as identified by ADEM technical staff during facility inspections, the USACOE and/or its assigns shall, where necessary to maintain compliance with this certification, suspend, cease, reduce, or otherwise control work/activity and all discharges until effective treatment is restored. The USACOE and/or its assigns shall immediately notify the ADEM Coastal/Facility Section at (251) 432-6533 of resultant work stoppage.
7. The USACOE and/or its assigns shall provide written notice to the ADEM of any proposed modifications to the approved maintenance dredging disposal area expansion plan, including but not limited to expansion beyond the authorized extension of the 4,500 foot wide southern boundary approximately 2,000 feet to the south or use of alternative disposal sites not specified in the proposal. The approved maintenance dredging disposal area expansion plan for the USACOE Mobile Harbor Navigation Project was received by the ADEM Coastal/Facility Section December 5, 2008 (copy enclosed). Modifications may not be implemented without prior written notice and approval from the ADEM. Upon such notice, the Director may require the submission of additional information and/or a new permit application, and additional fees may be required.
8. Unauthorized deviations from the maintenance dredging proposal, implementation of additional impacts exceeding the scope of the proposal authorized herein, or failure to abide by all the

September 1, 2009  
U.S. Army Corps of Engineers  
FP08-MH14-05/COEP-09-001-JCR  
Page 3 of 3

conditions and requirements herein may constitute a violation of this certification, resulting in invalidation of this CWA 401 (a) water quality certification and coastal consistency determination.

9. This certification is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information and/or a new permit application, and additional fees may be required.
10. Notifications, modifications, and submissions of requested documents as required by the conditions above and other correspondence related to this project should be submitted to the ADEM Coastal/Facility Section, Attn: Jennifer Robinson, 4171 Commanders Drive, Mobile, AL 36616. Condition Nos. 4 and 6 require immediate telephone notification in addition to a written report.

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

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

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

Please call or write anytime with questions. The ADEM contact for this project is Jennifer Robinson: (251) 432-6533 or jrobinson@adem.state.al.us. Always include ADEM tracking No.: COEP-09-001-JCR in any future correspondence relative to this project.

Sincerely,



Steven O. Jenkins, Chief  
Field Operations Division

SOJ/jcr File: CZCERTVXXX

Enclosure (1 page)

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

EA-Enclosure 9



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, FL 33701-5505  
(727) 824-5317 FAX 824-5309  
<http://sero.nmfs.noaa.gov>

SEP -2 2009

SER31:SEH

Ms. Jennifer L. Jacobson  
Mobile District Corps of Engineers  
P.O. Box 2288  
Mobile, AL 36628-0001

Re: Proposed Expansion of the Sand Island Beneficial Use Area (SIBUA)

Dear Ms. Jacobson:

This responds to your letter dated July 24, 2009, requesting National Marine Fisheries Service (NMFS) concurrence with your determinations pursuant to section 7 of the Endangered Species Act (ESA) for the Army Corps of Engineers (COE) Mobile District's proposed expansion of the Sand Island Beneficial Use Area (SIBUA) disposal site. You determined the project may affect, but is not likely to adversely affect, blue, finback, humpback, sei, or sperm whales; swimming sea turtles; and Gulf sturgeon or its designated critical habitat. NMFS requested additional information via e-mail on August 11, 2009, and a response was received from the applicant's consultant via e-mail on August 18, 2009. NMFS' determinations regarding the effects of the proposed actions are based on the description of the actions in this informal consultation. You are reminded that any changes to the proposed actions may negate the findings of the present consultation and may require reinitiation of consultation with NMFS.

The project area is located in the Gulf of Mexico at latitude 30.155969611°N, longitude 88.073634258°W (southwestern corner) and latitude 30.152354130°N, longitude 88.059579807°W (southeastern corner) (NAD83), west of the Mobile Bar Channel, south of the Dauphin Island-Mobile Port entrance, and adjacent to the Sand Island Lighthouse, Mobile County, Alabama. The project area consists of sandy substrate consistent with sediment along the northern Gulf of Mexico. The SIBUA serves as a disposal area primarily for sandy material dredged from the Mobile Bar Channel, which is part of the Mobile Harbor federal navigation project. The COE proposes to expand the SIBUA disposal site to the south by 212 acres. Site depths in the existing SIBUA have changed, and the proposed expansion is intended to provide sufficient depths for dredge equipment access while continuing to place material from the Mobile Bar Channel in a manner that returns this material to the local littoral system. The water depths in the proposed expansion area range from 23-46 feet with an average depth approximately 35 feet. Expansion of the SIBUA to areas to the north and west of the SIBUA is not feasible because these areas are too shallow for hopper dredge access. Previously, in September 2004, the SIBUA was expanded to include the Sand Island Lighthouse. Maintenance dredging and disposal of any portion of the Mobile Bar Channel will be performed on an as needed basis, with an overall average dredging cycle occurring approximately every one to two years. The actual time between dredging cycles and use of the SIBUA disposal area may vary however, due to the variable rates of shoaling. Dredging of Mobile Bar Channel and placement of materials in the SIBUA disposal area could occur at any time of the year. Placement activities typically are accomplished using hopper dredges; however, hopper barges or hydraulic pipelines may be used as necessary. The type of sediment being placed in the SIBUA disposal area ranges from sand to silty sandy material.



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Five species of sea turtles (loggerhead, green, hawksbill, Kemp's ridley, and leatherback), and Gulf sturgeon protected by the ESA can be found in or near the action area and may be affected by the project. The project is not located within designated critical habitat for any listed species.

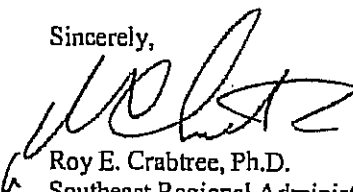
Activities associated with the removal of materials from the Mobile Bar Channel by hopper dredge have already been analyzed in the November 2003 Regional Biological Opinion (RBO) titled "Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by Corps of Engineers (COE) Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287)," as amended and modified on June 24, 2005, and January 7, 2009. Potential impacts on the five species of listed sea turtles (leatherback, hawksbill, loggerhead, green, and Kemp's ridley) and Gulf sturgeon from hopper dredging activities were assessed in the 2003 RBO. In that opinion, NMFS concluded that sea turtles and Gulf sturgeon can be adversely affected by hopper dredges and included an Incidental Take Statement (ITS), pursuant to section 7 of the ESA. The ITS in the 2003 RBO contains reasonable and prudent measures with implementing terms and conditions to help minimize the impacts of take; therefore any sea turtle or Gulf sturgeon take resulting from future maintenance dredging in Mobile Bar Channel will be assessed against the annual ITS in the RBO.

We believe the proposed expansion of the SIBUA disposal site and the future placement of sand in the SIBUA is not likely to adversely affect sea turtles and Gulf sturgeon protected by the ESA under NMFS' purview. These species will likely temporarily avoid the immediate project vicinity during sand placement due to noise from vessels and machinery; however these effects will be insignificant. Sea turtles and Gulf sturgeon may also be affected by dredging and disposal operations if they were to be struck by the dredge as it transits the site or by the movement of hydraulic pipelines; however, due to their mobility, the likelihood of this occurring is discountable. For this reason, it is also not likely that sea turtles or Gulf sturgeon would be harmed by the proposed expansion of the SIBUA disposal site and the future placement of sand in the SIBUA.

This concludes your consultation responsibilities under the ESA for species under NMFS' purview. Consultation must be reinstituted 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 have enclosed additional information on other statutory requirements that may apply to this action, and on NMFS' Public Consultation Tracking System to allow you to track the status of ESA consultations. If you have any questions, please contact Sarah Heberling at (727) 824-5312 or by e-mail at Sarah.Heberling@noaa.gov. Thank you for your continued cooperation in the conservation of listed species.

Sincerely,



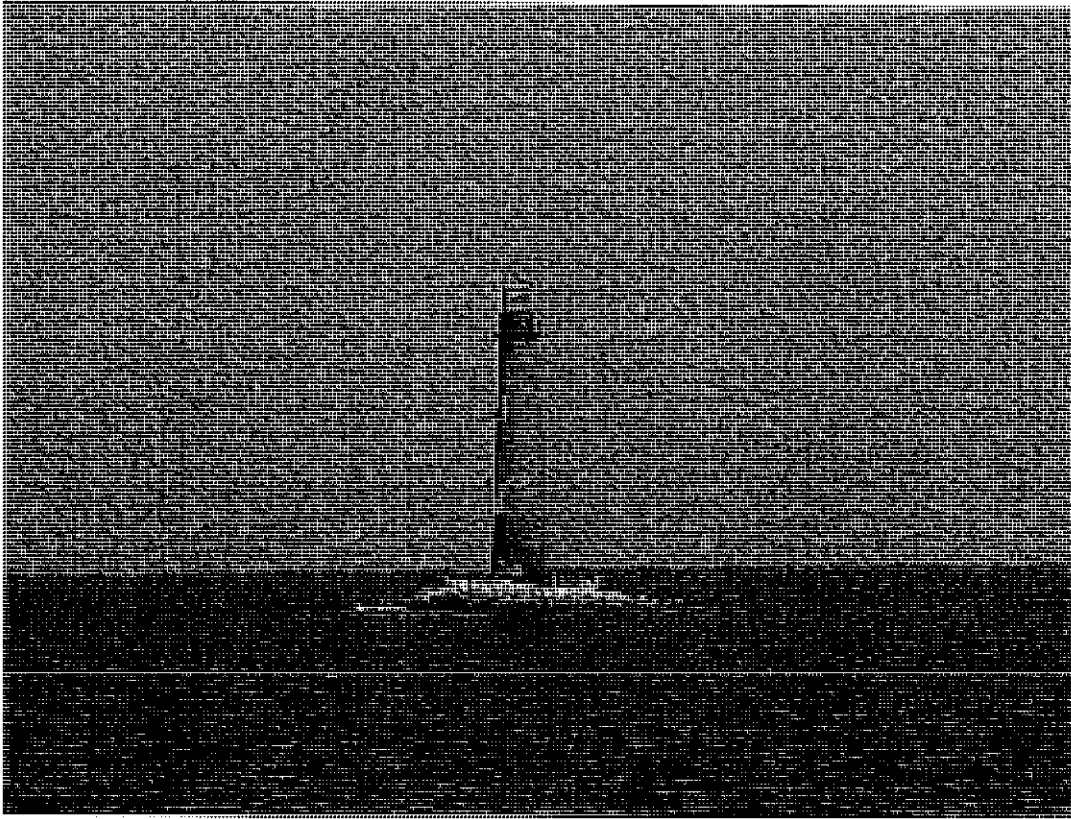
Roy E. Crabtree, Ph.D.  
Southeast Regional Administrator

Enclosure

File: 1514-22.F.1.AL  
Ref: I/SER/2009/04326



**Cultural Resources Remote Sensing Survey  
Sand Island Beneficial Use Disposal Area  
Proposed Southern Expansion Site**



Report by  
U.S. Army Corps of Engineers  
Mobile District  
Joseph Giliberti and Tommy Birchett  
Principal Investigators

Draft

September 14, 2009

EA-Enclosure 11

## *I. Introduction*

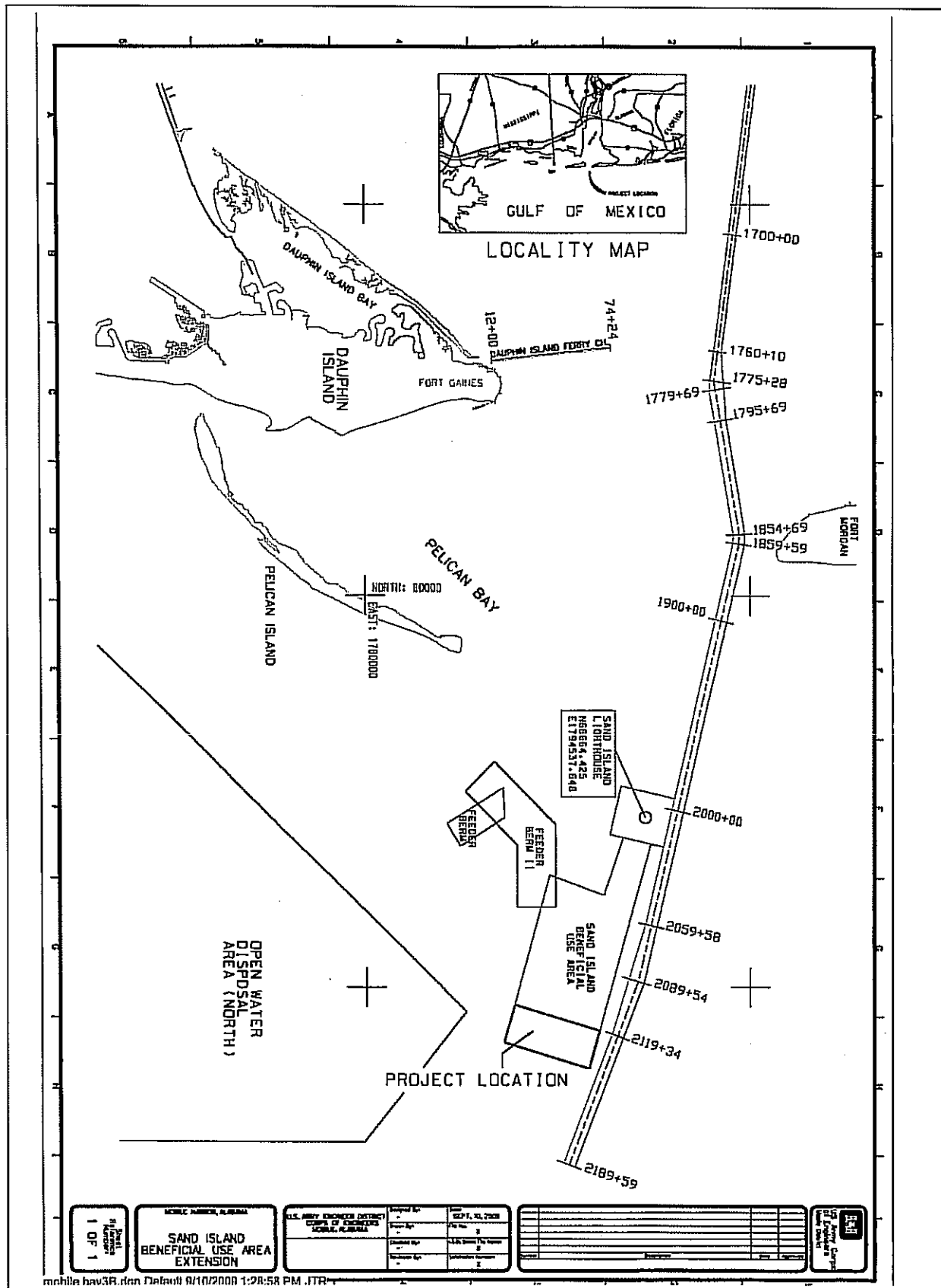
On July 9 and 10, and August 19, 2009, a remote sensing survey was conducted by the U.S. Army, Corps of Engineers, Mobile District (COE) of a proposed expansion of the Sand Island Beneficial Use Area (SIBU) (Figure 1). In addition, resurvey was conducted of portions of the previously surveyed SIBU. The surveys were done in order to identify possible cultural resources sites (most notably shipwreck sites) within the disposal area boundaries.

The cultural resources survey work was conducted as part of the COE's responsibilities as outlined in Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that the potential effects of any Federal action on historic properties, defined as cultural resources that meet the requirements for inclusion on the National Register of Historic Places (NRHP), be considered prior to initiation of the action. In addition, the effect determination by the Lead Federal agency must be coordinated with the State Historic Preservation Officer (SHPO) as well as other interested parties. The COE is the lead Federal agency for the proposed expansion of the SIBU.

Initial coordination included release of a public notice for the proposed expansion (Public Notice #FPO8-MH14-05). In addition, the action was discussed directly with the Alabama SHPO review staff and with the Maritime Advisory Commission via the winter quarterly meeting. Based on the initial discussions, a two pronged strategy was recommended for assessing resources within the area. First, the Alabama SHPO underwater specialist, Stacey Hathorn, requested a resurvey of the identified anomalies within the original SIBU area. This was to give an update as to the status of possible wreck sites. The resurvey could also help eliminate some anomalies as sites, due to movement, etc. The second request was for a remote sensing survey of the proposed expansion area. Methodologies were discussed, including transect interval, survey coverage, and type of equipment to employ during the study.

## *II. Previous Research*

The entire SIBU was covered by a detailed historic context and background study funded by the COE (Pecorelli and Poplin 1997). This document covered an area well beyond the SIBU but focused on the disposal area. The context and results of that study are available and have been consulted on with the SHPO. Briefly, the study found that at least nine previously conducted remote sensing surveys had taken place within the SIBU general area. Most of these studies were the results of NHPA section 106 requirements related to the oil and gas industry projects permitted by the Mineral Management Service. These studies and the literature review conducted by the COE revealed numerous shipwrecks and identified anomalies within the general area. Most are located north of the Sand

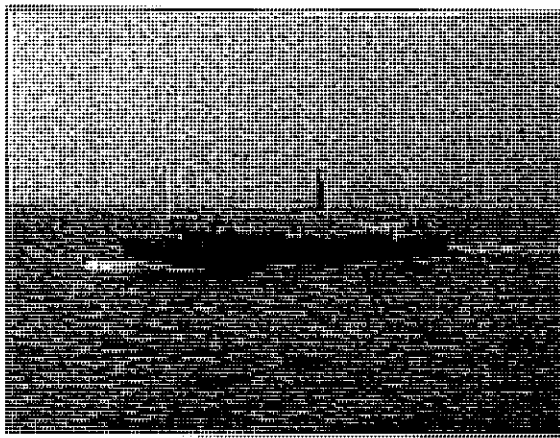


Island Light House. They include vessels of the French and Spanish periods, historic American period, Civil War, all the way up to modern era freighters. None of the known wreck sites or identified anomalies is located within the proposed southern expansion area. The reader is referred to the previous study for further details (Pecorelli and Poplin 1997).

### ***III. Project Description***

The entire SIBU southern expansion area is considered to be the Area of Potential Effect (APE) of this action (see Figure 1). The proposed action is the deposition by Hopper dredge of material excavated from the Mobile Ship Channel. A Hopper dredge is a self propelled floating plant which is capable of dredging material, storing it onboard, transporting it to the disposal area, and dumping it. Hopper dredges perform the largest and most dangerous jobs – clearing channels and offshore sandbars from the mouths of major rivers. Hopper dredges move like a normal ship. When dredging, they move very slowly. When the dredge's hopper is loaded, the dredge maneuvers both in and out of the channel to reach the relocation site. Direct pump out is a common method of removing dredged material from hopper dredges but some dredges empty their hoppers by splitting the two halves of their hulls on giant hinges. Either way, a hopper dredge fills its hoppers as it dredges the bottom. Hoses connected to a pipeline extending are attached to the hopper dredge discharge manifold. The dredge mixes the dredged material with water to form a slurry and pumps the slurry from its discharge manifold through the hoses and pipeline to a designated discharge location.

The most commonly used hopper dredge for the Mobile Ship Channel is the Columbia (Figure 2). The Columbia originally saw service during WWII as a U.S. Navy LST. Converted to a trailing arm hopper dredge, Columbia has been employed exclusively in the service of the COE in the waters of the U.S. Gulf, Atlantic Coast and Great Lakes. She has a crew of 16 and can dig steadily 24 hrs per day, 7 days per week. Propulsion is through a pair of EMD 12 cylinder diesel engines. The main dredge pump is powered by an EMD 16 cylinder diesel engine.



**Figure 2. View of the hopper dredge Columbia south of Sand Island Light House.**

Dredging of the Mobile Ship Channel has been coordinated and cleared separately and is not discussed in this report. The APE is located approximately one nautical mile south of the Sand Island Light House, adjacent to and west of the ship channel (see Figure 1). Effects of the disposal of material on historic properties are considered beneficial. The COE believes the material would protect possible wreck sites from vandalism and help protect them from natural predation and disturbance from storm and tidal action.

#### *IV. Methodology*

The survey was carried out by COE archaeologists Tommy Birchett and Joseph Giliberti, with the support of the marine cadastral survey team from the Irvington field office. The survey team included survey technicians, a boat captain, and a first mate (Figure 3). The survey platform for the work was the COE vessel Irvington. The Irvington is a 54 foot long by 20 foot wide cat-hulled aluminum custom built survey ship constructed by Krichak Shipbuilding in Seattle, Washington (Figure 4). The Irvington is propelled by twin Detroit diesel foil engines.



Figure 3. View showing crew on Irvington.

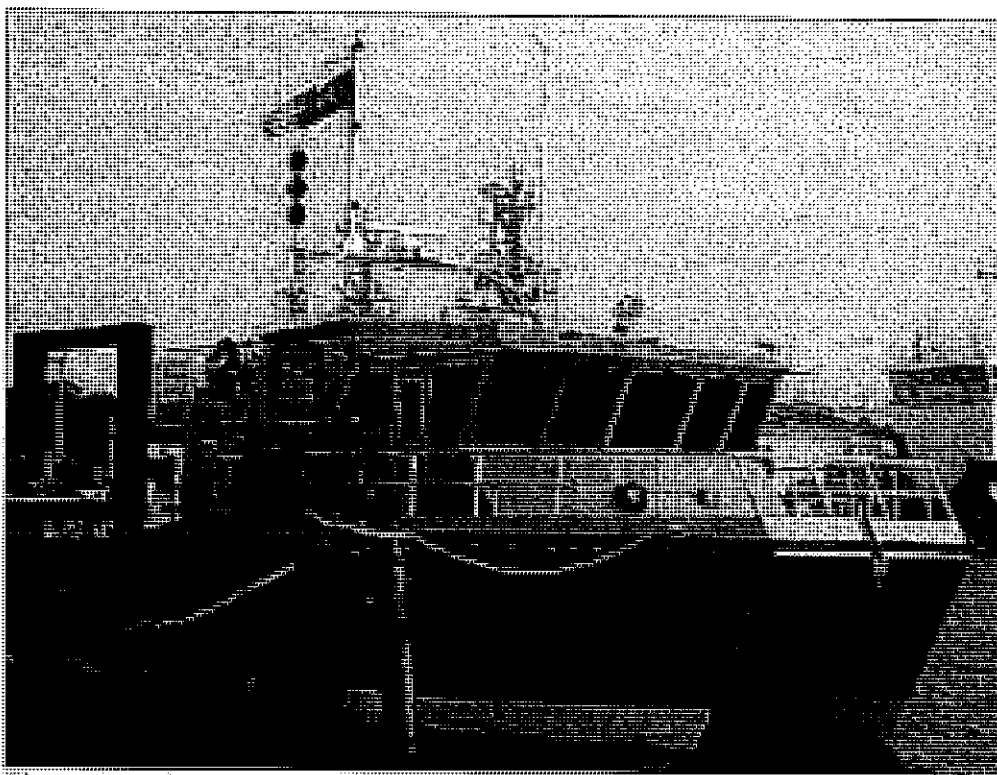


Figure 4. Irvington docked at Coast Guard base, Brookley Field, Mobile.

The survey equipment employed included a Geometrics G-881 magnetometer and a Klein System 3000 side-scan sonar array (Figures 5). Locational data was provided by a Starlink survey grade Global Positioning System with a Trimble Hypa-POS-MIV survey grade receiver. Data received was processed via several software systems in tandem. These included the Geometrics MagLog, MagPick, and Hypack systems. Incoming data was monitored at all times by one of the archaeologists and was recorded via on-board lap top computers located within the main cabin (Figure 6). Survey transect intervals were 30 meters for initial survey coverage. In areas where anomalies were located or previous hits were identified, tighter intervals were run. When anomalies were identified, the side scan sonar was also employed.

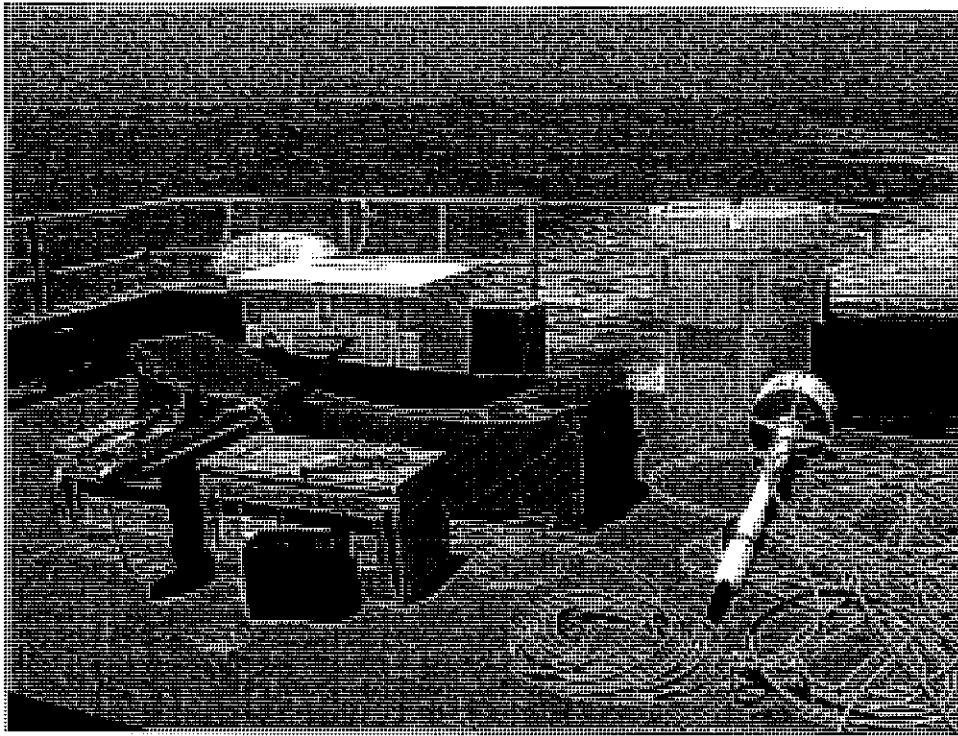


Figure 5. Survey equipment on stern of Irvington.

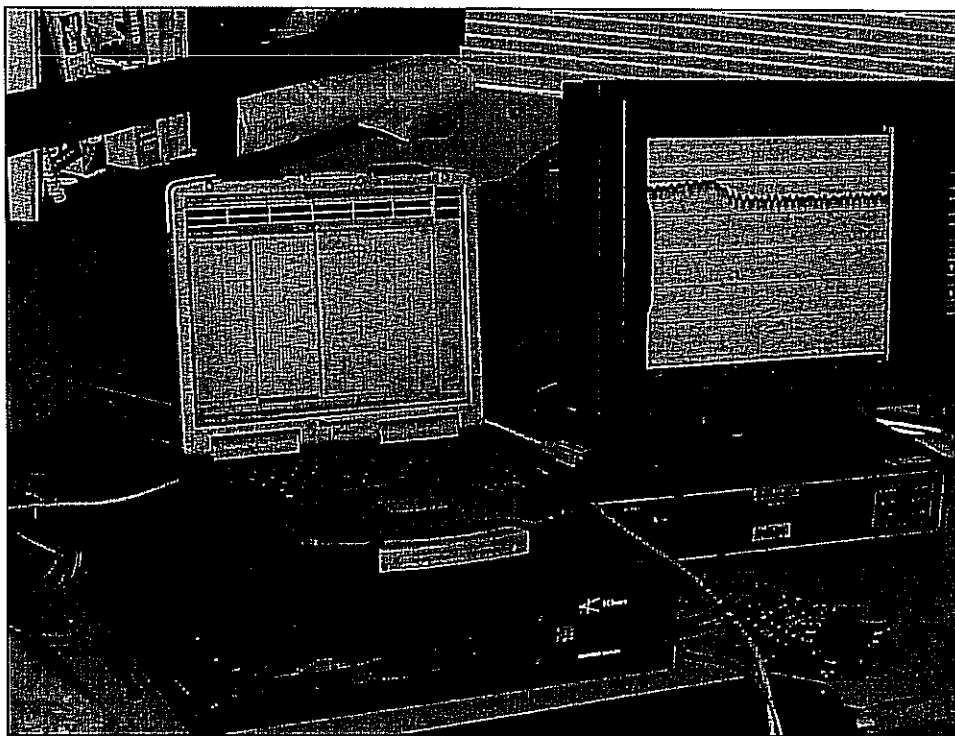


Figure 6. View of processing and monitoring set-up in vessel cabin area.

## *V. Results*

Field conditions during the first two days of survey were considered almost ideal. The seas were calm and there was very little wind. An ebb tide was the only negative condition. Conditions during the third day of work were rougher, with moderate seas and winds variable from 10-15 knots. Boat traffic was moderate on both days.

Initial work consisted of resurvey of the existing SIBU area focusing on known anomaly locations. This allowed for tweaking of toe-fish positioning as well as boat speed, all to maximize efficiency and reduce magnetic interference and turbulence. A boat speed of between 6.5 and 7.5 knots was found to be the most efficient, depending on boat orientation, survey direction and tidal flow. In addition, shutting down the engine located on the side of the vessel from which the magnetometer was suspended, greatly reduced interference from turbulence.

Resurvey of the existing SIBU was conducted on July 9, 2009. Magnetic anomalies consistent with those previously reported were found (Pecorelli and Poplin 1997). Locational data was slightly off, but was within 10 meters of originally recorded positions. Differences in location may be due to drift of material or, may be due to use of different datums and projection systems. At the time of report writing, the question of datums used by the original surveyors had yet to be resolved. Regardless of the minor positional differences, the current survey essentially confirmed the previous results. Side scan sonar inspection found a single ballast field, which was located on the eastern edge of the most prominent anomaly grouping. Figure 7 shows example of side scan sonar display of anomalies in existing SIBU.

Survey of the proposed expansion area proceeded on July 10, 2009. A total of 20 survey lines were crisscrossed, roughly east to west across the expansion area. The first four survey lines run had mixed results. Interference and inconsistent signal strength were considered too great for the data to be accepted. Therefore, the data from those lines was discarded post-survey. However, the remaining 17 lines were recorded smoothly. Two anomalies were located during the survey. Anomaly #1 was found in the first line, near the ship channel. Anomaly #1 consisted of a broad area of magnetic spikes varying in intensity from five gammas to 25 gammas. The spikes were not good bipolar readings, and thus were considered questionable. In addition, as previously mentioned, line one and those nearby were not considered usable. Anomaly #2 was found on the southeast corner of the expansion area. Anomaly #2 consisted of a well defined, bipolar spike with an intensity of 45 gammas. Although small, the spike was considered worthy of further investigation. Figure 8 shows display of the magnetic field data, contour interval five gammas.



Due to the difficulties in the first four lines, and the two recorded anomalies, the survey team returned to the area for further work on August 19, 2009. The first five survey lines were resurveyed. No anomalies were recorded and anomaly #1 was not relocated despite additional survey runs. Tight interval survey was also conducted over the small target located in the southeastern portion of the area recorded as anomaly #2. The target could not be relocated. Figure 9 shows display of magnetic data from resurvey of first five survey lines.

The final results of the survey found no anomalies within the expansion area that could be interpreted as a possible ship wreck or cultural resources site.

## *VI. Recommendations*

Survey of the proposed SIBU expansion area demonstrated with a high level of confidence that there are no shipwrecks present. It is the conclusion of this research that the proposed dredge disposal will have no affect on cultural resources. No further study is recommended for the expansion area.

The existing beneficial use area includes several clusters of anomalies believed to be shipwrecks. Resurvey confirmed earlier study results. The shallow nature of the areas containing the anomalies makes them unusable by the existing dredging operations and the hopper dredge. Therefore, the continued use of the SIBU will have no affect on those resources as previously concluded. Should the proposed action be changed or new action be proposed that may impact those areas, a continuation of the previously agreed upon avoidance area is recommended.

## *VII. References Cited*

Pecorelli III, Harry and Eric C. Poplin.

1997 Literature Search, Sand Island Beneficial Use Area, Mobile Harbor, Alabama.  
Report Prepared for the U.S. Army Corps of Engineers, Mobile District.

January 2010



STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION  
468 SOUTH PERRY STREET  
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE  
EXECUTIVE DIRECTOR

October 27, 2009

TEL: 334-242-3184  
FAX: 334-240-3477

Kenneth P. Bradley  
USACE Mobile District  
P.O. Box 2288  
Mobile, Alabama 36628-0001

Re: AHC 10-0034  
Expansion of Sand Island Beneficial Use Area (SIBUA)  
Gulf of Mexico

Dear Mr. Bradley:

Upon review of the information forwarded by your office, we have determined that we agree with your findings of no effect in the expansion area. Continue use of the existing SIBUA will have no effect provided that project activities continue to avoid known clusters of anomalies thought to be shipwrecks.

We appreciate your efforts on this project. Should you have any questions, please contact Stacye Hathorn at (334) 230-2649. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown  
Deputy State Historic Preservation Officer

EAB/SHG/gcr

## **EA-Enclosure 13**

### **Section 404 (b)(1) Evaluation Report for SIBUA Expansion**

**SECTION 404 (b)(1) EVALUATION REPORT**  
**EXPANSION OF SAND ISLAND BENEFICIAL USE AREA**  
**MOBILE HARBOR FEDERAL NAVIGATION PROJECT**  
**MOBILE, ALABAMA**  
**FEDERALLY AUTHORIZED**

**I. PROJECT DESCRIPTION:**

A. **Location:** The expansion area is located southeast of Sand Island along the west side of the Mobile Bar Channel and adjacent to the Sand Island Lighthouse in the Gulf of Mexico, Mobile County, Alabama. (**Figure 1** of the Environmental Assessment [EA]).

B. **General Description:** The U.S. Army Corps of Engineers (Corps) conducts maintenance dredging and disposal activities in the Mobile Bar Channel on a one to two year cycle. In addition, the Corps will be constructing a 55-foot deep turning basin in the vicinity of Little Sand Island known as the Mobile Harbor Turning Basin (MHTB). The primary disposal area for the material removed from the bar channel includes an area known as the Sand Island Beneficial Use Area (SIBUA) as illustrated in **Figure 2** of the EA. The beneficial use area is located west of the navigation channel and is intended to keep valuable sand removed from the bar channel in the local littoral system. Some of the sandy material removed from the MHTB may also be placed in the SIBUA.

In order to continue beneficial use practices and to accommodate the hopper dredges used for placing the material within the SIBUA, the Corps is proposing further expansion of the SIBUA. The proposed expansion consists of extending the 4,500-foot wide southern boundary approximately 2,000 feet to the south as illustrated in **Figure 3** of the EA. This expanded area will provide sufficient depths for access of the dredge equipment while continuing to place material from the bar channel in a manner that returns this material to the local littoral system.

The sandy sediments placed in the SIBUA have been deemed compatible with sediments in the SIBUA from a biological and physical standpoint according to guidelines established by Corps and the U.S. Environmental Protection Agency. Placement activities are typically accomplished using hopper dredges, however hopper barges or hydraulic pipeline dredges may be used as necessary. The quality of the sediment being placed in the SIBUA ranges from fine to medium-grained quartz sand from the navigation channel and gray to tan colored, poorly graded sand from the MHTB.

C. **Authority and Purpose:** The existing project was authorized by Section 201 of the Water Resources Development Act of 1986 (Public Law 99-662, November 17, 1986, and previous acts). The purpose of the project is to expand the southern end of the existing SIBUA in order to continue beneficial use practices and to accommodate the hopper dredges used for placing material in the disposal area.

**D. General Description of Dredged or Fill Material:**

(1) **General Characteristics of Material:** The material to be placed in the proposed disposal area extension will be maintenance dredged material from the bar channel and turning basin. The dredged material from the bar channel will be sandy sediments and composed predominantly of medium and fine-grained quartz sand. Dredged material from the MHTB will be poorly graded sand with 4-5% fines. The time of placement could be any time of the year depending upon the extent of shoaling in the channel and construction schedule for the MHTB.

(2) **Quantity and Source of Material:** It is estimated approximately 300,000 cubic yards (cys) to over 3,000,000 cys of sandy material are removed from bar channel on an annual basis. There is an estimated 600,000 cys of sandy material requiring removal at the MHTB over the next two years. Some of this material may be placed in the SIBUA.

**E. Description of the Proposed Discharge Site:**

(1) **Location:** The discharge site is located southeast of Sand Island along the west side of the Mobile Bar Channel and adjacent to the Sand Island Lighthouse in the Gulf of Mexico, Mobile County, Alabama. The disposal area is presented in **Figures 2 and 3** of the EA.

(2) **Size:** The proposed southern extension of the SIBUA is 2,000 feet long by 4,500 feet wide.

(3) **Type of Site:** The site is a previously authorized open-water beneficial use area.

(4) **Type of Habitat:** The proposed disposal site is characterized by predominantly fine to medium quartz sand that is white to tan in color. It is part of the ebb tide shoal associated with the mouth of Mobile Bay. It is a very dynamic environment that changes drastically as a function of climate and wave conditions. The direction of littoral transport is from east to west. The constantly shifting sediments do not allow aquatic vegetation to become rooted or attached to the unconsolidated sandy substrate. No submerged aquatic vegetation or oyster reefs are present at this site.

(5) **Timing and Duration of Discharge:** The maintenance dredging activities for this project can occur any time of the year depending on the rate of shoaling.

**F. Description of the Disposal Method:** Placement will be accomplished by a hopper scowl and in some instances a pipeline dredge.

**II. Factual Determinations (Section 230.11):****A. Physical Substrate Determinations:**

(1) **Substrate Elevation and Slope:** The intent of the SIBUA is to keep sandy materials in the littoral system. The materials placed will be redistributed by local currents and

waves to a more natural configuration consistent with the ebb tidal shoal. The proposed new disposal site will allow hopper dredge placement in depths ranging from 23 to 46 feet below Mean Low Water (MLW). The average depth of the extension area appears to be approximately 36 feet below MLW.

(2) **Sediment Type:** All material dredged from the navigation channel and placed on the described disposal sites is fine to medium quality quartz sand. Material from the MTHB is poorly graded sand with 4 to 5% fines.

(3) **Dredged/Fill Material Movement.** The dredged material placed in the disposal area would be subject to movement in the littoral system. This movement would occur on a continuous basis depending upon wave action, climate and the frequency of storm events. The predominant sediment transport pattern in this area is from east to west. The purpose of placing the sand at the proposed site is to allow the sand to return to the littoral system and migrate west, thus, providing benefits to the local environment.

(4) **Physical Effects on Benthos.** It is certain that some benthic organisms would be destroyed by the proposed action; however, due to the constant movement of material by currents, benthic organism diversity and abundance would appear to be low. Research conducted by the U.S. Army Corps of Engineers, Engineering, Research and Development Center (ERDC) under the Dredged Material Research Program suggests that the benthic community is adapted to a wide range of naturally occurring environmental changes and that no significant or long-term changes in community structure or function are expected.

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

(6) **Actions Taken to Minimize Impacts (Subpart H).** No actions that would further reduce impacts due to the placement of the dredged material are deemed necessary.

#### **B. Water Column Determinations:**

(1) **Salinity.** There would be no change in salinity gradients or patterns.

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

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

(4) **Color.** No effect.

(5) **Odor.** No effect.

(6) **Taste.** No effect.

(7) **Dissolved Gas Levels.** Temporary decreases in dissolved oxygen could likely result from the operations depending on timing of discharge. If decreases occur, they will be of a short duration. No significant effect to the water column is anticipated.

(8) **Nutrients.** Slight increases in nutrient concentrations may occur; however, these would rapidly return to normal. These described increases would have no significant effect to the water column.

(9) **Eutrophication.** No effect.

C. **Water Circulation, Fluctuation, and Salinity Gradient Determinations:**

(1) **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 effect.

(2) **Stratification.** No effect.

(3) **Hydrologic Regime.** No effect.

(4) **Normal Water Level Fluctuations.** No effect.

(5) **Salinity Gradient.** No effect on the salinity gradient is anticipated.

D. **Suspended Particulate/Turbidity Determination:**

(1) **Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Placement Site:** Suspended particulate and turbidity levels are expected to undergo minor increases during dredging and placement activities, however, suspended sediment of this type will quickly fall out of the water column and return to normal conditions. No significant effects would occur as a result of these increases. Turbidity during disposal is not expected to violate State water quality certification conditions.

(2) **Effects on Chemical and Physical Properties of the Water Column:**

(a) **Light Penetration.** Increased turbidity levels in the project area as a result of the placement of dredged material would reduce the penetration of light into the water column only slightly and would be a minor short-term impact.

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

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

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

(e) **Esthetics.** Placement of dredged material would likely decrease the esthetic qualities of the project area for a short period of time during and shortly after placement. The disposal areas equilibrate and rapidly return to normal upon exposure to the wave climate.

(3) **Effects on Biota:**

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

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

(c) **Sight Feeders.** No significant effects.

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

E. **Contaminant Determinations.** No significant effects. The dredged material within the littoral system consists of marine sand from areas that are far removed from sources of contamination and therefore is considered free of any contaminants. The sandy dredged material from the MHTB is below a 10-foot layer of sediments and is free of any contaminants.

F. **Aquatic Ecosystem and Organism Determinations:**

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

(2) **Effects on Benthos.** Benthic organisms would be destroyed by the deposition of dredged material below the waterline in the SIBUA placement areas, but no long-term effects are expected on the benthic community as a result of the proposed action.

(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.** No effect.

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

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

(d) **Vegetated Shallows.** Not applicable.

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



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

(6) **Effects on Threatened and Endangered Species.** Through consultation with the National Marine Fisheries Service (NMFS) Protected Resource Division (PRD) and the U.S. 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 leatherback, hawksbill, loggerhead, green and Kemp's ridley sea turtles may be affected by the expansion of the SIBUA. Letters were sent to NMFS and USFWS requesting concurrence with the District's Not Likely to Adversely Affect (NLAA) any listed endangered and/or threatened species or their associated critical habitat on July 24, 2009. The USFWS provided their concurrence with the proposed extension by e-mail dated July 31, 2009. NMFS PRD concurred with the Corps, Mobile District's determination on a NLAA threatened and endangered species and stated that they have no objections to the proposed expansion, under their purview by letter dated September 2, 2009.

(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.

**G. Proposed Disposal Site Determinations:**

(1) **Mixing Zone Determination.** The Alabama Department of Environmental Management (ADEM) specified a mixing zone for turbidity compliance of up to 400 feet from the activity and an increase of 50 NTUs above background turbidity levels. The Corps, Mobile District, will adhere to that turbidity requirement.

(a) **Depth of water at the disposal site.** Depths of water at the site vary from 23 to 46 feet.

(b) **Current velocity, direction, and variability at the disposal site.** Not significant.

(c) **Degree of turbulence.** Not significant.

(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.** The proposed action would involve open-water disposal of dredged material consisting of marine sand from the Mobile Bar Channel and sand from the MHTB. Sand from the bar channel is predominantly white to light brown and consists of fine to medium quartz sand. The sand from the turning basin is gray to tan colored and poorly graded with 4-5% fines. Approximately 300,000 cys to 3,000,000 cys of sand is removed annually from the bar channel. The MHTB project contains approximately 600,000 cys of sand. Some of this material may be placed in the SIBUA also. Rapid settling of the sandy material is anticipated.

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

(2) **Determination of Compliance with Applicable Water Quality Standards.** The proposed activity is in compliance with all applicable water quality standards. Water Quality Certification and Coastal Zone Consistency was issued by ADEM for the MHTB Project. The SIBUA was included in the permit as an authorized disposal area. The existing certification, Number FP06-MH13-10/COEP-07-02, was issued on February 12, 2007 and expires on February 12, 2012. Modification for the addition of the extension area was issued on September 1, 2009 by ADEM and expires on September 1, 2014.

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

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

(b) **Recreational and Commercial Fisheries.** Recreational and commercial fishing would be temporarily impacted primarily as a result of the physical presence of heavy equipment during operation activities.

(c) **Water Related Recreation.** No significant effects.

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

(e) **Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves.** Placement of the material will be near the Sand Island Lighthouse which is a valuable cultural resource listed on the National Register of Historic Places. There should be no impact to this structure.

(f) **Other Effects.** No effect.

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

I. **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.

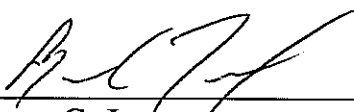
C. The planned placement of dredged materials would not violate any applicable State water quality standards; nor will it violate the Toxic Effluent Standard of Section 307 of the Clean Water Act (CWA). The renewed permit was received from ADEM on September 1, 2009 for Section 410 Water Quality Certification and Coastal Zone Consistency.

D. Use of the SIBUA expansion site will not jeopardize the continued existence of any federally-listed endangered or threatened species or their critical habitat provided the specified conditions in this document are implemented during maintenance dredging and disposal operations.

E. The proposed placement of fill 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 discharge on the aquatic ecosystem.

Date: 3 Feb 2010

  
Byron G. Jorns  
Colonel, Corps of Engineers  
District Commander