ANNUAL SEA TURTLE MONITORING REPORT
MAINTENANCE DREDGING/BEACH NOURISHMENT
GULF OF MEXICO COAST
MOBILE DISTRICT
FISCAL YEAR 2008

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FOR GULF OF MEXICO PROJECTS
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INTRODUCTION

This report is submitted in fulfillment of requirements of the Endangered Species Act and the Section 7 Consultation - Biological Opinion concerning Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287) dated November 19, 2003 and amended on June 24, 2005 and January 9, 2007. Specifically this report, summarizing hopper dredging operations in Fiscal Year (FY) 2008 within the Mobile District, is submitted in compliance with Reasonable and Prudent Measure, Nos. 3 and 9.

The following Mobile District Civil Works hopper maintenance dredging projects were completed in FY 2008. No Civil Works shore protection projects were conducted using a hopper dredge in FY 2008.

Mobile Harbor	February 13, 2008 – February 23, 2008 March 28, 2008 to April 29, 2008 May 12, 2008 to June 3, 2008
Pascagoula Harbor	September 05, 2008 to November 09, 2008

No Regulatory hopper dredging work was conducted by the Mobile District in FY 2008.

The use of hopper dredges to maintain these navigation projects is necessary because of three factors: safety, weather conditions, and productivity. These factors are closely interrelated; however, the emphasis is placed on safety.

The dredges operating in navigation channels must be highly mobile to rapidly maneuver out of the way of other vessels. Pipeline cutterhead dredges are not self-propelled, and are held into position with spuds. Furthermore, the swing of the cutterhead is controlled by cables attached to the cutterhead arm. These cables are anchored along the outer limits of the channel to be dredged. Prior to moving the dredge, tenders must raise the anchors, and a towboat must be fastened to the dredge. These characteristics prevent the pipeline dredge from quickly moving out of the channel when other

vessels approach. From a practical standpoint, dredges are generally not relocated for normal ship traffic; rather, dredging may be interrupted, but the dredge remains a stationary obstruction in half of the channel. This situation is encountered in inland bays and waterways. The use of hopper dredges avoids such a stationary obstruction.

Weather conditions also affect the safety of the dredge and crew. Pipeline dredges were not designed to operate in open-sea conditions (such as the bar areas). Due to the reasons stated above, these dredges cannot rapidly demobilize in harsh weather, for example, as a hurricanes approaches. The pipelines used to transport the dredged material to the placement sites would also be highly susceptible to breaking during rough weather. Even in relatively sheltered bays, cutterhead dredges often stop dredging in rough weather, and during frontal passages. During these periods, only water is pumped to keep tension on the pipelines to prevent breaking. In the open Gulf of Mexico, this precaution would not be effective, even if it were possible to leave the dredge offshore. During relatively calm weather conditions, only the largest cutterhead dredges would be able to operate efficiently. Sea swells make it difficult to control the depth of the cutterhead; consequently, this affects the dredging operation.

Productivity of the dredging operation is important because the purpose of dredging is to remove shoals and provide a safe depth for waterborne traffic. The use of pipeline dredges in the open Gulf of Mexico Ocean would result in frequent relocations, or other interruptions, due to weather and traffic conditions. Consequently, it would take longer to remove shoals, which present a hazard to safe navigation. The longer the time to remove the shoals, the longer a dredge must be on site to maintain the channel. The presence of the dredge and pipeline, themselves, present an obstruction to safe navigation. For these reasons, hopper dredges are used to maintain deep-draft entrance channels and construct many shore protection projects in the Mobile District.

The Mobile District sometimes has to schedule hopper-dredging operations outside of the required December 1 through April 15 window due to the lack of equipment (dredges are on the Atlantic coast during this described period). The Mobile District tries to schedule as much of its hopper dredging during the December 1 through April 15 timeframe as possible. However, it is impossible to schedule all hopper-dredging projects during this time frame, due to the availability of the hopper dredge fleet. Hopper dredging priorities for the Mobile District are developed in concert with other Corps of Engineers Districts that conduct these operations along the Atlantic and Gulf Coasts. The priorities are determined after considering the dredging needs and resident sea turtle populations within the various Districts.

TURTLE MONITORING PROGRAM

A result of the consultation process was the requirement to document turtle takes by the dredges. In order to accomplish this task, before hopper dredging operations commenced, they were equipped such that all inflows and overflows would be screened. The configuration and location of the screens depends upon the construction of the dredge. The starting mesh size of this screening is 4-inches by 4-inches. Additionally, around-the-clock monitoring by NMFS-approved protected species observer(s) was conducted to identify any turtles or turtle parts that were caught on these screens. Draghead deflectors were also deployed to deflect any turtles that may happen to be in, or near, the path of the draghead during excavation. The design of the deflectors is such that a sediment riffle is created ahead of the draghead, cushioning any contact with turtles thereby preventing injuries.

The observers inspected and cleaned all inflow and overflow screening at the end of each load. Dragheads and deflectors were also inspected immediately after each load, and dredge personnel were informed if repairs were necessary. Data sheets were completed daily, detailing all biological samples and debris found in the screening and dragheads. The observers also recorded the start, end and discharge times for each load, the specific location of the dredging area, the type of material being dredged, weather, tide and water temperature data, the condition of the screening, and any other pertinent information. No sea turtle or Gulf sturgeon encounters or incidental takes occurred in FY 2008 for the Mobile District.

A bridge watch for sea turtles and marine mammals was maintained during all daylight hours, except when the observer was off the bridge, cleaning and inspecting the screens and dragheads. All sightings of cetaceans and sea turtles were recorded in a bridge watch logbook.

SCREEN CONFIGURATIONS

Turtle monitoring activities were conducted aboard 2 different hopper dredges during FY 2008. These were the *Newport* and *Glenn Edwards*. Each of these vessels was required to have rigid draghead deflectors, and 100% inflow screening or overflow screening with openings starting at 4” x 4.”

PROJECTS

Civil Works Projects in FY 2008

Mobile Harbor – Bay Channels
Glenn Edwards

On February 13, 2008 the *Glenn Edwards* began work on the Mobile Harbor- Bay Channel under contract W191278-08-0004. The contractor dredged approximately 1,107,551 cy of silty material. The required depth of dredging was 45 feet below Mean Lower Low Water (MLLW) with 2 feet of allowable overdepth dredging and 2 feet of advanced maintenance dredging.

Dredging began on February 13, 2008 and was completed on April 29, 2008. A total of 182 loads of dredged material were collected during 50 dredging days and deposited in the Mobile North Ocean Dredged Material Disposal Site (ODMDS).

The dredge was equipped with rigid draghead turtle deflectors, and 100% inflow screening with a 4-inch square mesh. NMFS-approved protected species observers provided 24-hour/day monitoring of dragheads and screens for each load cycle. The observers were employed by Coastwise, Inc. under a subcontract to the government. No relocation trawling was conducted during this work.

During the performance of this dredging, no incidental lethal or non lethal takes were observed.

Detailed information for this project can be accessed from the Corps' Sea Turtle Data Warehouse website – specifically at http://el.erdc.usace.army.mil/seaturtles.

Mobile Harbor – Bay Channels
Glenn Edwards

On May 12, 2008 the *Glenn Edwards* began work on the Mobile Harbor - Bay Channel under a new contract W191278-08-0026. The contractor dredged approximately 746,000 cy of silty material. The required depth of dredging was 45 feet below Mean Lower Low Water (MLLW) with 2 feet of allowable overdepth dredging and 2 feet of advanced maintenance dredging.

Dredging began on May 12, 2008 and was completed on June 3, 2008. A total of 101 loads of dredged material were collected during 23 dredging days and deposited in the Mobile North ODMDS.

The dredge was equipped with rigid draghead turtle deflectors, and 100% inflow screening with a 4-inch square mesh. NMFS-approved protected species observers provided 24-hour/day monitoring of dragheads and screens for each load cycle. The observers were employed by Coastwise, Inc. under a subcontract to the government. No relocation trawling was conducted during this work.

During the performance of this dredging, no incidental lethal or non lethal takes were observed.

Detailed information for this project can be accessed from the Corps' Sea Turtle Data Warehouse website – specifically at http://el.erdc.usace.army.mil/seaturtles.

Pascagoula Harbor – Bar Channel, Mississippi Sound Channel, and Bayou Casotte Channel
Glenn Edwards & Newport

On September 5, 2008 the *Glenn Edwards* and on October 10, 2008 the *Newport* under contract W9178-08-D-0051 began emergency dredging of the Pascagoula Harbor Navigation Channel as a result of shoaling from Hurricane Gustav. The contractor dredged approximately 2,033,326 cy of sand, silt and mud material (1,489,093 cy by the *Glenn Edwards* and 544,233 cy by the *Newport).* The required depth of dredging for the Pascagoula Bar was 44 feet below MLLW with 2 feet of allowable overdepth dredging and 2 feet of advanced maintenance dredging. The required depth of dredging of the Mississippi Sound and Bayou Casottee Channels were 42 feet below MLLW with 2 feet of allowable overdepth dredging and 2 feet of advanced maintenance dredging.

Dredging began on September 5, 2008 and was completed on November 9, 2008. A total of 477 loads (220 loads by *Glenn Edwards* and 257 loads by *Newport*) of dredged material were collected during 66 dredging days. Material was disposed of in authorized open water, littoral zone placement sites and the Pascagoula ODMDS. The FY 08 dredging consisted only of a total of 157 loads of dredged material (1,102,788 cy) collected by *Glenn Edwards* during 26 dredging days

The dredges were equipped with rigid draghead turtle deflectors, and 100% inflow screening with a 4-inch square mesh. Two NMFS-approved protected species observers provided 24-hour/day monitoring of dragheads and screens for each load cycle. The observers were employed by Coastwise, Inc. under a subcontract to the government. No relocation trawling was conducted during this work.

During the performance of this dredging, no incidental lethal or non lethal takes were observed.

Detailed information for this project, including incidental take forms can be accessed at the Corps' Sea Turtle Data Warehouse website – specifically at http://el.erdc.usace.army.mil/seaturtles.

Regulatory Projects in FY 2008

No hopper dredging work was preformed under the Mobile District Regulatory program during FY 2008.

SUMMARY

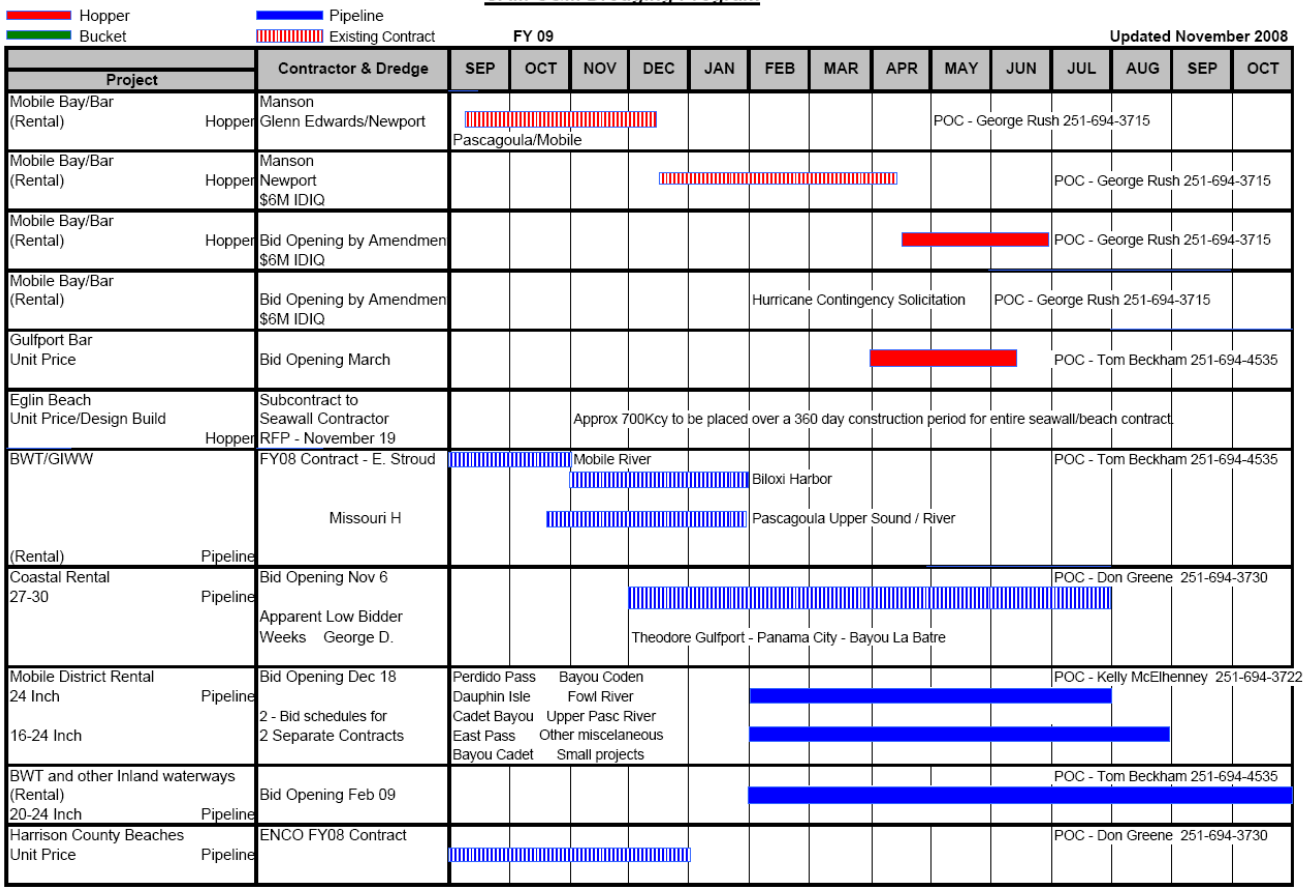
During Fiscal Year 2008, 2 maintenance-dredging projects were conducted using hopper dredges. In FY 2008, there were no lethal and nonleathal sea turtle or Gulf sturgeon encounters associated with dredging of these projects. No relocation trawling was conducted during the 2 civil works dredging projects.

ANTICIPATED FISCAL YEAR 2009 HOPPER DREDGING

Civil Works Anticipated Hopper Dredging Projects for FY 2009

Schedule For FY-09 Dredging Work for Mobile District
South Atlantic Division

SAM O&M Dredging Program



Regulatory Anticipate Hopper Dredging Projects for FY 2008

No Regulatory hopper dredging projects are anticipated for FY 2009.