

Appendix L

ENDANGERED SPECIES COORDINATION



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

July 2, 2007

SES

Stiles
x1583

Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch

Mr. Jim Boggs
U.S. Fish and Wildlife Service
Lafayette Field Office
646 Cajundome Blvd., Suite 400
Lafayette, Louisiana 70506

Dear Mr. Boggs:

The U.S. Army Corps of Engineers, New Orleans District is in the process of preparing a Dredge Material Management Plan and Supplemental Environmental Impact Statement (DMMP/SEIS) for the Calcasieu River and Pass, Louisiana. The purpose of the DMMP/SEIS is to investigate alternatives for managing dredged material for the next 20 years, including confined disposal, aquatic (open water or ocean) disposal, within banks disposal, beach nourishment, and other beneficial uses.

In accordance with the Endangered Species Act of 1973 (as amended), the enclosed biological assessment describes the potential effects on federally threatened and endangered species within the vicinity of the proposed area. Species that occur in Calcasieu and Cameron parishes include the American alligator, bald eagle, brown pelican, green sea turtle, Gulf sturgeon, Hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, piping plover, red-cockaded woodpecker, and the West Indians Manatee. Two of these species, the brown pelican and piping plover, have been observed in the project area.

It is the opinion of the U.S. Army Corps of Engineers, New Orleans District that the proposed project may affect but is not likely to adversely affect the continued existence or critical habitat for the piping plover or brown pelican.

This office seeks your comments and concurrence with our assessment. Please direct any questions concerning this action to Ms. Sandra Stiles at 504-862-1583.

Sincerely,

Boe
Boe
x1505
Wiggin
Wiggin
x2778

Enclosure

Elizabeth Wiggins
Chief, Environmental Planning and
Compliance Branch

**ENDANGERED SPECIES
BIOLOGICAL ASSESSMENT**

**CALCASIEU RIVER AND PASS
DREDGED MATERIAL MANAGEMENT PLAN**

AND

**SUPPLEMENTAL ENVIRONMENTAL IMPACT
STATEMENT**

TABLE OF CONTENTS

Section	Page
1.0 INTRODUCTION.....	1
1.1 Purpose and Need for Action.....	1
1.2 Species to Be Addressed	2
2.0 DESCRIPTION OF PROPOSED ACTION	2
3.0 DESCRIPTION OF PROJECT AREA	8
3.1 Habitats	9
3.2 Geology	9
3.3 Soils.....	10
4.0 THREATENED AND ENDANGERED SPECIES	10
4.1 Species Observed in Calcasieu and Cameron Parishes	10
4.2 Species Observed in the Project Area	15
5.0 SUMMARY OF EFFECTS OF THE PROPOSED ACTION.....	21
6.0 REFERENCES	23

ADDENDUM A: Concurrence Statements from FWS and NOAA

ADDENDUM B: Manatee Protection Procedures for Plans and Specifications

LIST OF TABLES

Table No.		Page
1	Proposed Action	4
2	Threatened (T) and Endangered (E) Species in Calcasieu and Cameron Parishes	11
3	Brown Pelican Nests in the Project Area, Rabbit Island, 2003 – 2007.....	16
4	Midwinter Brown Pelican Surveys in Project Area, 1988 - 2007.....	16
5	Number of Piping Plovers Observed Near Project Area, 1986 – 2001.....	18
6	Midwinter Piping Plover Surveys Near Project Area, 1988 - 2007.....	19
7	Summary of Potential Impacts on Federally Listed Species	21

LIST OF FIGURES

Figure No.		Page
1	Physical and Geographical Features of the Calcasieu Basin	attached
2	Disposal Sites for the Proposed Action	attached
3	Midwinter Brown Pelican Counts in Project Area	17
4	Midwinter Piping Plover Counts Near Project Area.....	19

ENDANGERED SPECIES ACT BIOLOGICAL ASSESSMENT

CALCASIEU RIVER AND PASS DREDGED MATERIAL MANAGEMENT PLAN AND SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

1.0 INTRODUCTION

Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended, requires that, *“Each Federal agency shall, in consultation with and with the assistance of the secretary, insure that any action authorized, funded, or carried, out by such agency.... Is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species... ”*.

This Biological Assessment (BA) provides the information required pursuant to the ESA and implementing regulation (50 CFR 402.14), to comply with the ESA. Additional jurisprudence includes the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. section 4321, *et seq.*; the Fish and Wildlife Conservation Act of 1958 (PL 85-624; 16 U.S.C. 661 *et seq.*); the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940. This BA has been approved by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NOAA) (Addendum A).

1.1 Purpose and Need for Action

The Calcasieu River and Pass, Louisiana, project (Calcasieu Ship Channel), located in Calcasieu and Cameron parishes, extends from the City of Lake Charles to the Gulf of Mexico. The project area includes Calcasieu Lake, Calcasieu Pass, and marshes and waters within and adjacent to the Sabine National Wildlife Refuge. The project location is depicted in Figure 1.

The purpose of this Dredged Materials Management Plan (DMMP) is to provide for the identification of sites for the placement of material dredged from Mile 5 to Mile 36 of the Calcasieu Ship Channel, to develop management strategies for dredged material placement sites to maximize their capacities, and to provide management strategies for the ship channel that would reduce dredging frequencies and dredged material quantities. The actions and strategies set forth in the DMMP would provide for the management of materials dredged through operations and maintenance of the federal navigation channel for a period of 20 years. The DMMP is integrated with a supplemental environmental impact statement (SEIS).

Preparation of the DMMP/SEIS will enable the New Orleans District, Corps of Engineers (CEMVN) to comply with the requirement of ER 1105-2-100 that a DMMP be prepared for each Federally-authorized navigation project.

The Calcasieu Ship Channel does not have adequate dredged material disposal capacity for the long-term maintenance of the project. Existing disposal sites are at or near capacity, and past maintenance deficiencies have resulted in substantial erosion of disposal facilities into adjacent water bodies. Other disposal sites have been lost to commercial development. Previous real estate agreements, which have enabled landowners to opt out of agreements for disposal, have resulted in some landowners rescinding permissions for their property to be used for the placement of dredged material. As a result, remaining disposal areas cannot accommodate the volume of dredged material needed to maintain the channel to project-authorized dimensions, and it has become necessary for channel widths to be reduced in some reaches.

1.2 Species to be Addressed

This BA describes the potential effects on federally threatened and endangered species within the vicinity of the proposed area. Species that occur in Calcasieu and Cameron parishes include the American alligator, bald eagle, brown pelican, green sea turtle, Gulf sturgeon, hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, piping plover, red-cockaded woodpecker, and the West Indian Manatee. Two of these species, the brown pelican and piping plover, have been observed in the project area.

2.0 DESCRIPTION OF PROPOSED ACTION

The Proposed Action was formulated to maximize the use of the Federal Government's and local sponsor's investments in lands, easements, rights-of-way and relocations (LERRs), as well as real estate improvements that have occurred over the life of the project. The sites proposed in this alternative have a high level of certainty regarding their availability for channel maintenance over the life of the DMMP and a low level of risk with regard to the loss of real estate investment and the loss of placement areas due to the withdrawal of easements and other landowner issues.

This plan involves the rehabilitation and maximum use of existing CDFs through management practices discussed in Section 5, *Implementation*, of the DMMP/SEIS. A preliminary Disposal Area Management Plan (DAMP) in Section 5 calls for:

- Significant site rehabilitation to include the horizontal and vertical expansion of the existing dikes on each of the remaining placement areas in multiple lifts, as necessary,
- Replacement and addition of dewatering structures at each of the sites, and
- Measures for dewatering the sites to include ditching, drying, and draining of existing and future materials to allow for consolidation and increased capacity.

Following these measures would allow each site to drain, dry, and consolidate, providing approximately 20-to-30% more capacity for dredged material over the life of the project.

These measures would require contractors to follow a prescribed management plan for placing dredged material in each section of the channel. To help provide capacity needed for the 20-year dredging need, vertical and horizontal expansion of the existing exterior dikes would be necessary. The new dimensions of the exterior dikes will be dependent upon need, lands easements and rights-of way, and the geotechnical properties of each specific placement area.

In spite of consolidation through the DAMP and vertical and horizontal expansion of the CDFs, the CDF capacity in this plan would not be adequate to meet the 20- year placement needs of the channel. Therefore, this alternative also includes beneficial use sites that would accommodate a large portion of the dredged material over the period. The material would be used for the restoration of subsided and eroded coastal wetlands. Although there are many areas identified for beneficial use placement, the beneficial use placement areas chosen in this alternative were based upon agency coordination and the willingness of current landowners to accept dredged materials on their property at this time. This alternative requires the diversion of approximately 40 percent of the dredged materials to beneficial use and is in compliance with national and state priorities for coastal restoration in Louisiana.

Table 1 lists the placement areas of the DMMP by reach and mile section. The capacity of beneficial use sites was estimated based upon available acreages and water depths at each of the identified beneficial use placement areas. These estimates were derived from local maps and charts, coordination with the various landowners and federal or state agency personnel, and site visits (where allowable). The acreages and final placement of materials would be dependent upon the site-specific geotechnical and engineering design parameters and incorporation of the landowner's needs through negotiation of LERRs.

Figure 2 shows the disposal area locations, including CDFs and BU sites, of the proposed action—Plan B. A discussion of each disposal site for material dredged from each mile marker/reach is outlined in the following subsections.

Bank Stabilization

Rock or riprap would be used to armor areas along the ship channel that have been shown to be susceptible to erosion from currents and ship passage. On the right descending bank of the channel, armoring would be placed from channel mile 16.5 to 18.7 (Figure 2-4). On the left descending bank of the channel, armoring would be placed along channel miles 15.6 to 20. Armoring would also be placed along the lake side of CDFs 17/19, 22, 23, and the wetland expansion area to the east of CDF D/E. A foreshore dike has already been constructed along the left-descending bank of the channel between miles 11 and 16 to prevent erosion. The Texaco Cut would remain open, and would be armored on its

Table 1. Disposal Sites for Dredged Material

Reach	Section	Placement Sites	Type	Beneficial Use (CY)	Existing Capacity (CY)	Vertical Expansion (CY)	Horizontal Expansion: Upland Creation (CY)	Total Site Capacity (CY)	Total 20-Year Capacity (CY)	20-Year Dredge Quantity (CY)
River	34 to 36, Coon Island, Port	1	CDF	0	80,700	807,000	0	887,700	1,668,700	1,596,800
		2	CDF	0	71,000	710,000	0	781,000		
	30 to 34, Turning Basin, Clooney Isl. Loop	3	CDF	0	364,600	1,823,000	0	2,187,600	4,053,300	2,689,800
		7 (1/2)	CDF	0	207,300	1,658,400	0	1,865,700		
	26 to 30	7 (1/2)	CDF	0	207,300	1,658,400	0	1,865,700	6,538,500	5,877,200
		8	CDF	0	0	2,478,400	0	2,478,400		
		9	CDF	0	0	2,194,400	0	2,194,400		
	22 to 26	10	CDF	0	0	1,742,400	0	1,742,400	13,452,000	12,706,400
		11	CDF	0	217,800	1,742,400	0	1,960,200		
		12A	CDF	0	0	2,064,800	0	2,064,800		
12B		CDF	0	2,095,800	5,588,800	0	7,684,600			
Upper Lake	21 to 22	15	CDF	0	584,000	2,920,000	0	3,504,000	6,214,000	4,458,800
		16 N	CDF	0	0	2,710,000	0	2,710,000		
	Devil's Elbow	13	CDF	0	0	11,455,000	0	11,455,000	11,455,000	10,310,400
	16 to 21	17	CDF	0	309,700	2,026,400		2,336,100	22,582,650	19,885,400
		19	CDF	0	0	1,694,000	1,936,500	3,630,500		
		22	CDF	0	214,500	1,716,800		1,931,300		
		Foreshore Dike	CDF	0	0	0	7,465,000	7,465,000		
		West of Black Lake (50)	BU Site	7,219,750	0	0	0	7,219,750		
	12 to 16	D	CDF	2,066,000	398,500	0	4,087,200	6,551,700	22,503,400	19,475,000
		E	CDF	2,066,000	0	0	4,087,200	6,153,200		
Foreshore Dike		CDF	0	0	0	925,000	925,000			
Sabine NWR (5)		BU Site	8,873,500	0	0	0	8,873,500			
Lower Lake		Cameron Par. School Bd (49)	BU Site	2,420,000	0	0	0	2,420,000	11,696,500	9,261,800
		Sabine NWR (18)	BU Site	9,276,500	0	0	0	9,276,500		
	5 to 9.5	H	CDF	0	458,000	916,400	0	1,374,400	13,329,600	10,853,000
		M	CDF	0	0	5,059,200	0	5,059,200		
		N	CDF	0	2,826,400	0	0	2,826,400		
		Cameron Prairie NWR (19)	BU Site	2,904,000	0	0	0	2,904,000		
	Cameron Prairie NWR (20)	BU Site	1,165,600				1,165,600			
Total				35,991,350	8,035,600	50,965,800	18,500,900	113,493,650	113,493,650	97,114,600

northern and southern banks into Calcasieu Lake to reduce erosion resulting from boat traffic, waves, and wind-driven currents.

River Reach

Mile 34 to Mile 36 and the Port of Lake Charles Terminals: The 20-year dredging need in this area can be met by rehabilitation of CDFs 1 and 2 and increasing the dike heights an additional 10 feet. The maintenance dredging material in this channel segment is predominantly sand with a low bulking factor. The dredging cycle is approximately 10 years for the channel and every five years for the Port facilities, thus allowing ample time for site management.

Mile 30 to 34, the Turning Basin, Coon Island, and Clooney Island: The 20-year dredging need for this reach could be achieved by raising the dikes at CDF 3 by 10 feet, raising the dikes at CDF 7 by 8 feet, and using half of the capacity of CDF 7. The channel is maintained on an approximately 10-year dredging frequency and the turning basin, Clooney Island Loop, and Coon Island are maintained approximately every seven years.

Mile 26 to 30: The 20-year dredging need can be met by raising the existing dikes 8 feet at CDFs 7, 8, and 9. Half of the CDF 7 capacity would be used for River Reach Mile 30 to 34, leaving the remainder of its existing capacity available for Mile 26 to 30. This area is dredged approximately every six years.

Mile 22 to 26: The 20-year dredging demand can be met by raising the existing dikes at CDFs 10, 11, 12A and 12B an additional 8 feet. This area is dredged approximately every two to three years.

Upper Lake

Devil's Elbow: The 20-year dredging capacity requirement can be met by raising the dikes at CDF 13 by 10 feet. This reach is dredged every one-and-one-half to two years.

Mile 21 to 22: Rehabilitating the sites and raising the dikes at CDFs 15 and 16N approximately 10 feet would meet the 20-year dredging demand for material dredged from Mile 21 to 22. Dredging at miles 21 to 22 takes place approximately every two years.

Mile 16 to 21: CDFs 16N, 16S, 16C, 17, 19, 20, 21, 22, and 23 have historically been used for dredged material placement in this channel segment. CDF 16N would be reserved for material dredged from Mile 21 to 22. Easements for use of CDFs 16S and 16C have been removed by the landowner and are no longer available. CDFs 19, 20, 21 and 23 are full or near capacity or have outlived their capacity due to their limited size and are no longer economically feasible to use as individual sites. CDF 22 (Figure 2-14)

would be used, but it would not provide sufficient capacity for the 20-year dredging demand. The placement areas proposed to replace and supplement capacity requirements for this channel segment are:

- Beneficial Use West of Black Lake (BU Site 50). Approximately 887 acres are available for beneficial use to create a diversity of habitats at this site (Figure 2-15). The property owner may allow an additional 2,300 acres for placement in the future at site BU site 24, which is adjacent. Containment features would be required to control the placement within the property boundaries unless adjacent landowners become part of the coastal restoration initiatives in this reach. The northern portion of this site has been assessed under a separate NEPA document (see Section 1.9.5 (c)) and may be used for the placement of dredged material as needed prior to the finalization of this DMMP/SEIS. This is in accordance with WRDA 2007, Section 5081, which states, “The Secretary shall expedite completion of a dredged material management plan for the Calcasieu Ship Channel, Louisiana, and may take interim measures to increase the capacity of existing disposal areas, or to construct new confined or beneficial use disposal areas, for the channel.”
- Recovering the eroded channel-side capacity through construction of a Foreshore Dike. The CEMVN has constructed a foreshore rock dike from approximate mile 11.2 to 15.6 (Figure 2-16). The dike has been placed along the historic shoreline of the channel, providing dredged material placement from -3 to +20 feet for an average width of 500 feet. Approximately eight million cubic yards of capacity can be placed here. The majority of this site would be used in this reach but shared with Mile 12 to 16.
- Combining and expanding CDF 17 and CDF 19. Additional capacity would be gained from incorporating CDF 19 into CDF 17 as a single site and expanding it east into the lake and west along the channel to straighten out the shoreline. Rehabilitating the site and providing shoreline protection would be necessary.

Mile 12 to 16: Historically, dredged materials from this channel segment were placed in CDFs A, B, C, D, E and 23. CDFs A, B, C and 23 are of limited size and reached full capacity. Rehabilitating or raising the dikes would not provide the necessary ponding and retention necessary for solids to settle sufficiently for discharges to meet water quality standards or sufficient capacity to justify the cost. These sites were eliminated from further consideration as candidate sites. Rehabilitation and expansion of CDFs D and E do not provide sufficient capacity. The proposed placement areas are:

- Upland Expansion of CDFs D and E. These existing CDFs would be expanded into Calcasieu Lake to the original dimensions evaluated in the

1976 EIS. The resultant capacities were calculated to a finished elevation of +20 MLG.

- Wetland Expansion of CDFs D and E. Semi-confined intertidal marsh would be created in Calcasieu Lake adjacent to CDFs D and E. The marsh would extend from the edge of the upland expansion to the approximately 3-foot depth contour of Calcasieu Lake. The marsh habitat created would be a combination of marsh and mudflats (shallow open water).
- Recovering the Eroded Channel-Side Capacity through Construction of a Foreshore Dike. The Corps of Engineers has an ongoing contract to construct a foreshore rock dike from approximately mile 11.2 to 15.6. The dike is placed along the historic shoreline of the channel, providing dredged material placement from -3 to +20 feet for an average width of 500 feet. Approximately 8 million cubic yards of capacity can be realized with proper placement and management.
- • Beneficial Use in the Sabine National Wildlife Refuge (NWR) (BU Site 5). Approximately 3,083 acres are available for placement to restore marsh habitat (Figure 2-18). The ratio of open water to marsh would be approximately 1:1 to allow for water circulation, terracing and other restoration features. Although the Sabine NWR includes more than 5,000 acres of potential disposal area, refuge officials have indicated preference for the disposal area shown in Figure 2-18. Portions of this site have been assessed or are currently being analyzed under separate NEPA documents (see Section 1.9.5) and may be used for the placement of dredged material as needed prior to the finalization of this DMMP/SEIS in accordance with WRDA 2007, Section 5081.

Lower Lake

Mile 9.5 to 12

The CDFs in this area do not have sufficient capacity or acreage for expansion. CDF F was withdrawn from use by the Sabine NWR, which has indicated that upland placement of dredged material is not consistent with the refuge's approved management policy. Proposed actions to meet the 20-year dredging capacity need are as follows:

- Beneficial Use in the Sabine NWR (BU Site 18). Approximately 1,572 acres are available for unconfined placement for beneficial use to create marsh.
- Beneficial Use on Submerged Lands Owned by the Cameron Parish School Board (BU Site 49). Approximately 639 acres are available for emiconfined placement to create marsh or uplands habitat.

This reach is dredged approximately every three years.

Mile 5 to 9.5: CDFs H, M and N could provide the 20-year dredged material capacity requirement with a 10-foot dike raise and proper dewatering and site management (figures 2-20 and 2-21). CDFs J and K were considered not to be viable disposal sites due to their limited capacity and dike stability issues and were eliminated. Supplemental actions to meet the 20-year dredging capacity need are:

- Beneficial Use of Dredged Materials on the Cameron Prairie NWR (BU Site 19). Approximately 1,026 acres are available for potential beneficial use in the Cameron Prairie NWR. With limited containment, the side-cast borrow ditches along the storm surge dikes could be refilled and the shallow open water areas used for marsh and habitat restoration.
- Beneficial Use of Dredged Materials on the Cameron Prairie NWR (BU Site 20). Approximately 1,867 acres are available for beneficial use in the Cameron Prairie NWR for marsh restoration.

Pass Channel

Mile 0 to 5: The presence of strong tidal currents in this reach prevents the accumulation of sediments. Dredging in this reach is not required.

Bar Channel

Mile 0 to -32: The practice of agitating and placing material dredged from this reach into the ODMDS would be continued. The ODMDS provides sufficient capacity for disposal of material dredged from the Bar (Entrance) Channel for at least the next 20 years.

3.0 DESCRIPTION OF PROJECT AREA

The project area is within the ecosystem identified by the U.S. Fish and Wildlife Service (USFWS) as the Lower Mississippi River Ecosystem. The Louisiana Department of Wildlife and Fisheries (LDWF) places the project area within the state's Gulf Coast Prairies and Marshes Ecoregion. The project area ecosystem serves as the primary wintering habitat for mid-continent waterfowl populations, as well as breeding and migration habitat for migratory songbirds returning from Central and South America, and also provides habitat for numerous resident wildlife species.

3.1 Habitats

Three major aquatic habitat types are represented within the project study area: (1) freshwater habitat in the tributaries feeding into the Calcasieu Ship Channel and freshwater marshes in the surrounding area; (2) brackish water habitat within the channel, typically extending from the saltwater barrier just north of the project end (at the I-10 Bridge) to approximately Turner's Bay, near the crossing of the Gulf Intracoastal Waterway (GIWW); and (3) saltwater habitat from that point to the Gulf of Mexico. A

bottom saltwater wedge in the Channel can sometimes extend from the Gulf to the saltwater barrier, depending upon drought conditions in the area.

Terrestrial habitats within the project area consist of four major types: (1) Coastal Prairie habitat in the upper portion of the project area (primarily Calcasieu Parish); (2) a transition to Coastal Marshes near the parish line; (3) Forested Wetlands mixed into the Coastal Prairie habitat and the northern portion of the Coastal Marshes; and (4) Cheniers at the southern end of the project area.

3.2 Geology

Surface sediments within the project site and the surrounding area are primarily dredge spoil comprised of river alluvium deposited by the Calcasieu River Complex. No significant naturally occurring geomorphologic features are present, and artificial levees comprised of dredge spoil and riprap are the only significant topographic features within the project area. The surface, riverine, and lacustrine deposits are underlain by approximately 34,000 feet of sediment and sedimentary rock that consist almost entirely of sandstone, siltstone, and claystone. These sediments record the outward progression of the Gulf Coastal Plain over time as a result of natural erosion and sedimentation processes.

The project area is a deltaic-marine environment. The current morphology of the basin is primarily the result of deterioration of abandoned delta complexes through wave erosion and subsidence. Abandoned deltaic environments have received little attention in the past, but recent concern for coastal land loss in Louisiana has generated considerable interest in these environments and has resulted in the formulation of a model (the Penland and Boyd model) that provides an interpretation for some of the more distinctive features observed in these areas.

Deltaic-marine environments are transitional environments, combining the morphologic features of fluvial and deltaic environments with those of coastal settings. A wide variety of features may be found in deltaic-marine environments, depending in part upon the local climate and geologic setting. Some of the more prevalent morphologic features of these environments include distributaries; interdistributary marshes; cheniers; bays, lakes, and sounds; beaches and barrier islands; reefs; and nearshore gulf environments.

3.3 Soils

The project corridor itself is comprised almost exclusively of the Calcasieu Ship Channel, which does not contain any soils or adjacent spoil banks, and is composed of frequently flooded aquents and udfluvents. Soils in the vicinity of the project corridor are typically hydric silt loams and mucks that generally experience a high degree of flooding. Six soil types occurring in the project corridor are classified as prime farmland; however, these soil types do not occur extensively and are typically not available for agricultural use. Consequently, these soil types do not meet the requirements of prime farmland as defined by the USDA.

4.0 THREATENED AND ENDANGERED SPECIES

4.1 Species Observed in Calcasieu and Cameron Parishes

The threatened and endangered species that are present in Calcasieu and Cameron Parishes are listed in Table 2 and described in the following paragraphs. Of the 12 species listed, only two are likely to be observed within the project area: the piping plover (*Charadrius melodus*) and brown pelican (*Pelecanus occidentalis*).

Table 2. Threatened (T) and Endangered (E) Species in Calcasieu and Cameron Parishes

Common Name	Scientific name	Federal Status	State Status	Parish
American Alligator	<i>(Alligator mississippiensis)</i>	T (S/A)	Not listed.	Calcasieu and Cameron
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	T	Calcasieu and Cameron
Brown Pelican	<i>Pelecanus occidentalis</i>	E	E	Cameron
Green sea turtle	<i>Chelonia mydas</i>	T	T	Cameron
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	T	T	Cameron
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	E	E	Cameron
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	E	E	Cameron
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	E	Cameron
Loggerhead sea turtle	<i>Caretta caretta</i>	T	T	Cameron
Piping plover	<i>Charadrius melodus</i>	T	T; Critical Habitat	Cameron
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	E	Calcasieu
West Indian Manatee	<i>Trichechus manatus</i>	E	E	Cameron

Source: U.S. Fish and Wildlife Service (USFWS; April 2003).

Source: United States Fish and Wildlife Service (USFWS; April 2003).

American Alligator: The American alligator's range extends across the southeastern states from North Carolina to Texas. This reptile's primary habitat includes freshwater swamps and marshes, but it is also seen in rivers, lakes and smaller bodies of water.

Alligators have been shown to be an important part of their ecosystem, and are thus regarded by many as a “keystone” species, a status that encompasses many functions from control of prey species to the creation of peat through their nesting activities (University of Florida, 1998). Populations of the American alligator were severely affected in the early parts of this century, due to hunting of the animal for its skin. In 1967, this species was listed as an endangered species, and hunting was prohibited. As a result, the alligator has undergone a successful recovery. Alligator hunting is allowed again; however, an alligator hunter must possess alligator CITES tags to harvest alligators. These tags are issued by the LDWF on property containing sufficient alligator habitat capable of sustaining an alligator harvest. Alligator hunters apply for alligator tags prior to the season.

The alligator is classified by USFWS as “Similarity of Appearance to a Threatened Taxon.” The species to which it is similar is the American crocodile (*Crocodylus acutus*), an endangered species. The alligator can be distinguished from the crocodile by its head shape and color. The crocodile has a narrower snout, and unlike the alligator, has teeth in the lower jaw that are visible even when its mouth is shut. In the United States, the American crocodile is found only in southern peninsular Florida.

Because of its similarity to the crocodile, the USFWS regulates the legal trade in alligator skins, or products made from them, to protect the crocodile, whose skin is similar in appearance, but illegal in the commercial market.

Bald Eagle: The bald eagle is the only species of sea eagle native to North America. Adults are black with a snow-white head and tail. Sub adults are mottled brown and black and lack the distinctive white head and tail. Wingspan is 6 to 7 feet with females weighing between 10-14 lbs. and males weighing between 8-10 lbs.

Bald eagles nest in Louisiana from October through mid-May, primarily in cypress snags in swamps or near fresh to intermediate marshes or open water in the southeastern parishes. Bald eagles will often return to the same nest for a number of years; however, they may also use alternate nests within the vicinity. Shoreline trees that provide a clear view of the water to locate aquatic prey are often chosen as nest sites. Bald eagles primarily feed on fish, but are opportunistic and will eat a variety of mammals, amphibians, crustaceans, and birds. Wintering habitat used by bald eagles in Louisiana is characterized by abundant, readily available food sources. Most wintering areas are associated with open water where eagles feed on fish or waterfowl.

The USFWS has indicated that there are no known bald eagle nests in the vicinity of the project area (Walther, 2007). In addition, neither the LDWF nor the National Audubon Society Christmas Bird Count has reported any sightings of the bald eagle in the project area. If a bald eagle nest is found within 1,500 feet of the project area, the USFWS would need to be contacted to develop measures (e.g., spatial restrictions around active bald eagle nests) to avoid impacts on this species.

Green Sea Turtle: The threatened green sea turtle is one of seven species of sea turtles

found throughout the world. An adult green sea turtle carapace (top of shell) can measure more than three feet (one meter) in straight carapace length, and weigh 220 pounds (100 kilograms). This species has a smooth carapace with four pairs of lateral scutes (plates), a single pair of prefrontal scales, and a lower jaw-edge that is coarsely serrated, corresponding to strong grooves and ridges on the inner surface of the upper jaw. The term "green" applies not to the external coloration, but to the color of the turtle's subdermal fat.

Green sea turtles have a circumglobal distribution in tropical and sub-tropical waters. In the United States, this species occurs in the Atlantic Ocean around the Virgin Islands, Puerto Rico, and along the Atlantic and Gulf coasts of the continental United States from Massachusetts to Texas (NOAA Fisheries/FWS, 1991). Green sea turtles utilize shallow estuarine habitats and other areas with an abundance of marine algae and sea grasses, their principal food sources. Terrestrial habitats are limited to nesting sites, which are typically located on high-energy beaches with deep sand and little organic content.

Nesting within the project area is highly unlikely, as green sea turtles prefer to nest on high-energy beaches with deep sand and little organic content. Further, the Minerals Management Service (MMS) (1997) indicates that reports of green sea turtle nesting in the northern Gulf are "isolated and infrequent."

Gulf Sturgeon: The Gulf sturgeon (*Acipenser oxyrinchus desotoi*), federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May). Adults and sub-adults may be found in those rivers and streams until November and in estuarine or marine waters during the remainder of the year. Sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations such as those caused by water control structures that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species.

Based on distribution information from the NOAA Fisheries (2007), the present range of the Gulf sturgeon extends from Lake Pontchartrain and the Pearl River system in eastern Louisiana and western Mississippi east to the Suwannee River in Florida. The project area is not within the current range of the Gulf sturgeon.

Hawksbill Sea Turtle: The endangered Hawksbill Sea Turtle is one of seven species of sea turtles found throughout the world. One of the smaller sea turtles, it has overlapping scutes (plates) that are thicker than those of other sea turtles. This protects them from being battered against sharp coral and rocks during storm events. Adults range in size from 30 to 36 inches (0.8-1.0 meters) carapace length, and weigh 100 to 200 pounds (45-90 kilograms). Its carapace (upper shell) is an attractive dark brown with faint yellow streaks and blotches and a yellow plastron (under shell). The name "hawksbill" refers to the turtle's prominent hooked beak.

The hawksbill sea turtle is one of the most infrequently encountered sea turtles in offshore Louisiana. However, a hawksbill was reported near Calcasieu Lake in 1986 (Fuller *et al.*, 1987). Hawksbills generally inhabit coastal reefs, bays, rocky areas, passes, estuaries, and lagoons, where they are found at depths of less than 70 feet. Nesting occurs on undisturbed, deep-sand beaches, from high-energy ocean beaches to tiny pocket beaches several meters wide bounded by crevices of cliff walls; these beaches are typically low-energy, with woody vegetation near the waterline. In the continental United States, nesting sites are restricted to Florida where nesting is sporadic at best (NOAA Fisheries/USFWS, 1993). Due to the lack of suitable foraging and nesting habitats, there is a low probability of this species occurring within the project area.

Kemp's Ridley Sea Turtle: The Kemp's ridley sea turtle is the smallest of all living sea turtles. Adult and juvenile Kemp's ridleys are primarily restricted to the Gulf of Mexico, although juveniles have been recorded from throughout the Atlantic Ocean. Nesting occurs from April through July and is essentially limited to an 11-mile stretch of coastline near Rancho Nuevo, Tamaulipas, Mexico. No Kemp's ridley sea turtle nesting habitat occurs near the project site (i.e., sandy beaches), and nesting has not been known to occur in the area. The estuarine and offshore waters of Louisiana are considered important foraging areas. Adults are primarily shallow-water benthic feeders that specialize on portunid crabs. Other food items include shrimp, snails, bivalves, sea urchins, jellyfish, sea stars, fish, and occasionally marine plants. Juveniles typically feed on *Sargassum* spp. and associated infauna. During the non-breeding season, Kemp's ridley sea turtles prefer warm bays, shallow coastal waters, tidal rivers, estuaries, and seagrass beds with substrates of sand and mud. Juvenile Kemp's ridleys are generally found in Louisiana's coastal waters from May through October, whereas adults are common during the spring and summer near the mouth of the Mississippi River. In the winter, Kemp's ridleys typically move offshore to deeper, warmer waters, but some of the deepwater channels and estuaries in Louisiana might provide important thermal refuge.

Leatherback Sea Turtle: The leatherback is the largest, deepest diving, and most migratory and wide ranging of all sea turtles. The adult leatherback can reach 4 to 8 feet in length and 500 to 2000 pounds in weight. Its shell is composed of a mosaic of small bones covered by firm, rubbery skin with seven longitudinal ridges or keels. The skin is predominantly black with varying degrees of pale spotting; including a notable pink spot on the dorsal surface of the head in adults. A tooth-like cusp is located on each side of the gray upper jaw; the lower jaw is hooked anteriorly. The paddle-like clawless limbs are black with white margins and pale spotting.

Leatherbacks are mainly pelagic, inhabiting the open ocean and seldom entering coastal waters except for nesting purposes. This species has been reported as occurring in shallow coastal waters but not usually near shore (Lee and Socci, 1989). A 1987 aerial survey of shallow Gulf of Mexico waters found that leatherback sea turtles occurred with the highest frequency in offshore Louisiana in October (NOAA Fisheries/USFWS, 1992). The leatherback typically nests on beaches with a deepwater approach. Major nesting beaches include Malaysia, Mexico, French Guiana, Surinam, Costa Rica, and Trinidad. In the continental United States, leatherbacks nest only sporadically in some of the Atlantic

and Gulf states; the largest U.S. nesting assemblages are found in the U.S. Virgin Islands, Puerto Rico, and Florida.

Loggerhead Sea Turtle: Loggerheads were named for their relatively large heads, which support powerful jaws and enable them to feed on hard-shelled prey, such as whelks and conch. The carapace (top shell) is slightly heart-shaped and reddish-brown in adults and sub-adults, while the plastron (bottom shell) is generally a pale yellowish color. The neck and flippers are usually dull brown to reddish brown on top and medium to pale yellow on the sides and bottom. Mean straight carapace length of adults in the southeastern U.S. is approximately 36 in (92 cm); corresponding weight is about 250 lbs (113 kg).

Federally listed as a threatened species, loggerhead sea turtles nest within the coastal United States from Louisiana to Virginia, with major nesting concentrations occurring on the coastal islands of North Carolina, South Carolina, and Georgia, and on the Atlantic and Gulf coasts of Florida. In Louisiana, loggerheads are known to nest on the Chandeleur Islands, which is over 250 miles east of the project area.

Red-Cockaded Woodpecker: Rather small (22 cm.) black-and-white woodpecker with longish bill, the endangered red-cockaded woodpecker (RCW) nests in open, park-like stands of mature (i.e., greater than 60 years of age) pine trees containing little hardwood understory or midstory. RCWs can tolerate small numbers of overstory hardwoods or large midstory hardwoods at low densities found naturally in many southern pine forests, but they are not tolerant of dense hardwood midstories resulting from fire suppression. RCWs excavate roost and nest cavities in large living pines (i.e., 10 inches or greater in diameter at breast height). The cavity trees and the foraging area within 200 feet of those trees are known as a cluster. Foraging habitat is defined as pine and pine-hardwood (i.e., 50 percent or more of the dominant trees are pines) stands over 30 years of age that are located contiguous to and within one-half mile of the cluster. Habitat does not exist within the project area.

West Indian Manatee: The average body length of an adult West Indian manatee is approximately three meters but some individuals can reach a length of 4.5 meters including the tail. The average weight of these manatees ranges between 200 and 600 kg, however the largest individuals can weigh up to 1,500 kg. Manatees are somewhat seal shaped with forelimbs (flippers) adapted for a completely aquatic life and no hind limbs. Lungs extend the length of the animal's body, which is important in controlling position in the water column. Hair is distributed sparsely over the body and the surface layer of skin is continually sloughing off. This is believed to reduce the build-up of algae on their skin.

Federally listed as an endangered species, West Indian manatees occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). Manatees have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of Louisiana. One manatee was observed in Cameron Parish in 1929.

Although the manatee is a rare visitor to coastal Louisiana and the Calcasieu Basin, the Corps has developed procedures to ensure that any manatees sighted in the area of construction and/or maintenance operations are protected. A copy of these procedures is appended.

4.2 Species Observed in the Project Area

Brown Pelican

Description: Federally listed as an endangered species, brown pelicans are large, dark gray-brown water birds with white about the head and neck. Immature brown pelicans are gray-brown above and on the neck, with an underside of white. The adult can reach up to eight pounds and have wingspreads of over seven feet.

Habitat: Brown pelicans nest in colonies mostly on small coastal islands. The nests are usually built in mangrove trees of similar size vegetation, but ground nesting may also occur. Nests vary from practically nothing to well built nests of sticks, reeds, straws, palmetto leaves, and grasses. The eastern subspecies nests mostly in early spring or summer, although fall and winter nesting have been recorded in some localities. Normal clutch size for the brown pelican is three eggs. Feeding occurs primarily in shallow estuarine waters with the birds seldom venturing more than 20 miles out to sea except to take advantage of especially good fishing conditions. Sand spits and offshore sand bars are used extensively as daily loafing and nocturnal roost areas. Major threats to this species have been chemical pollutants, colony site erosion, disease, and human disturbance.

Distribution: Nesting is generally confined to the Carolinas, Florida, Louisiana, Alabama, and the Caribbean. In Louisiana, brown pelicans nest in mangrove trees, shrub thickets, or within dunes of barrier islands between November and July. Birds seldom venture more than 20 miles out to sea and most foraging occurs in shallow estuarine waters, using sand spits and offshore sand bars for loafing and nocturnal roost areas. In the project area, a known rookery is located on Rabbit Island in Calcasieu Lake. The island has been a prime nesting site for the species (Table 3). The number of nests was low in 2006 as a result of Hurricane Rita, which occurred on September 24, 2005. Thankfully, young produced in 2005 had fledged before the storm.

Midwinter brown pelican surveys conducted within a five-mile radius of Calcasieu Lake show that brown pelican counts have varied from 0 to 757 between 1988 and 2007 (Table 4). Figure 3 shows brown pelican counts graphically.

Table 3. Brown Pelican Nests in the Project Area, Rabbit Island, 2003 - 2007

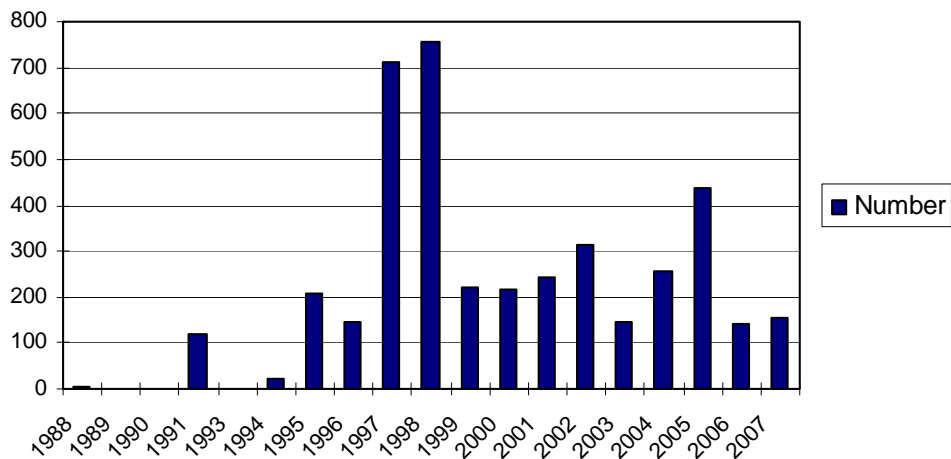
Year	Total # Of Nests	Number of Successful Nests	Number of Young Produced	Ave. # of Young Per Successful Nest
2003	4	4	7	1.8
2004	0	0	0	0
2005	75	75	86	1.15
2006	8	8	15	1.88
2007	175	As of May 15, eggs and young up to two weeks old existed in the nests.		

Source: Tom Hess, Biological Manager, Louisiana Department of Wildlife and Fisheries. Personal communication, 2007.

Table 4. Midwinter Brown Pelican Surveys in Project Area, 1988 - 2007

Year	Number Sighted
1988	3
1989	2
1990	2
1991	119
1993	0
1994	22
1995	209
1996	147
1997	712
1998	757
1999	222
2000	215
2001	243
2002	313
2003	144
2004	258
2005	436
2006	142
2007	155

Source: National Audubon Society (2002). The Christmas Bird Count Historical Results [Online]. Available <http://www.audubon.org/bird/cbc> [June 7, 2007].



Source: National Audubon Society (2002). The Christmas Bird Count Historical Results [Online]. Available <http://www.audubon.org/bird/cbc> [June7, 2007].

Figure 3. Midwinter Brown Pelican Counts in Project Area

Piping Plover

Description: Federally listed as a threatened species, piping plovers are small shorebirds approximately seven inches long with sand-colored plumage on their backs and crown and white underparts. Piping plovers winter in Louisiana, and may be present eight to ten months. They depart for the wintering grounds from mid-July through late October and remain until late March or April. Piping plovers feed extensively on intertidal beaches, mudflats, sandflats, algal flats, and wash-over passes with no or very sparse emergent vegetation. In most areas, wintering piping plovers are dependent on a mosaic of sites distributed throughout the landscape, because the suitability of a particular site for foraging or roosting is dependant on local weather and tidal conditions. Plovers move among sites as environmental conditions change.

Habitat: On July 10, 2001, the USFWS designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132). Their designated critical habitat identifies specific areas that are essential to the conservation of the species. The primary constituent elements for piping plover wintering habitat are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. Constituent elements are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Important components (or primary constituent elements) of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers. Small sand dunes, debris, and sparse vegetation within adjacent beaches provide shelter from wind and extreme

temperatures. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation.

Distribution: Piping plovers from all breeding populations winter along South Atlantic, Gulf Coast, and Caribbean beaches and barrier islands, primarily on intertidal beaches with sand and/or mud flats with no or very sparse vegetation. The piping plover, as well as its designated critical habitat, occur along the Louisiana coast.

Piping plover have been observed south of the project area between Holly Beach and the Calcasieu Ship Channel. Numbers have declined between 1986 and 2001 (Table 5).

Table 5. Number of Piping Plovers Observed Near Project Area, 1986 - 2001

Year	Number Sighted
1986	20
1988	10
1991	8
1996	6
2001	6

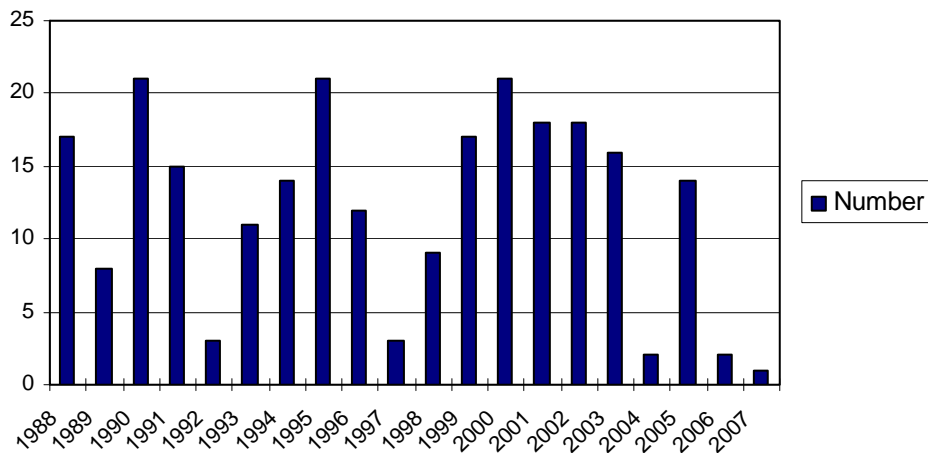
Source: Louisiana Natural Heritage Program, within the Louisiana Department of Wildlife and Fisheries.

More recent surveys were undertaken in 2006 by the Avian Non-Game Program of the Louisiana Department of Wildlife and Fisheries, but they covered a broad geographical extent outside of the project area. According to the 2006 surveys, 35 piping plovers were sited along the coast between the Texas border and the ship channel. Additionally, three piping plovers were sited between the ship channel and Rutherford Beach, to the east. Midwinter surveys conducted within a five-mile radius of Calcasieu Lake show that winter piping plover counts have varied from 1 to 21 between 1988 and 2007 (Table 6). Figure 4 shows piping plover counts graphically.

**Table 6. Midwinter Piping Plover Surveys
Near Project Area, 1988 - 2007**

Year	Number sighted
1988	17
1989	8
1990	21
1991	15
1992	3
1993	11
1994	14
1995	21
1996	12
1997	3
1998	9
1999	17
2000	21
2001	18
2002	18
2003	16
2004	2
2005	14
2006	2
2007	1

Source: National Audubon Society (2002). The Christmas Bird Count Historical Results [Online]. Available <http://www.audubon.org/bird/cbc> [June7, 2007].



Source: National Audubon Society (2002). The Christmas Bird Count Historical Results [Online]. Available <http://www.audubon.org/bird/cbc> [June7, 2007].

Figure 4. Midwinter piping plover counts near project area.

5.0 SUMMARY OF EFFECTS OF THE PROPOSED ACTION

The proposed action was evaluated and the anticipated effects of the action determined in accordance with the ESA. The potential impacts identified with respect to the listed species and proposed action are summarized as follows and shown in Table 7.

Brown Pelican

If any of the CDFs in the project area are used by brown pelicans for roosting or loafing habitats, the placement of dredged material in CDFs may interfere with those activities. However, ample sites for roosting and loafing are available. The placement of material for beneficial use would reduce open water habitat by converting it to marsh, thereby reducing available foraging habitat. However, the reduction in the amount of open water is negligible compared to that remaining. The mobility of brown pelicans is such that operations involving the placement of dredged material would neither harm nor interfere with their activities.

According to Tom Hess, biological manager of the Rockefeller State Wildlife Refuge of the LDWF, the placement of material for beneficial use on Rabbit Island or other islands created in the lake could have the possibility of improving nesting habitat (Personal communication, 2007). It is concluded that the proposed action may affect but is not likely to adversely affect the brown pelican. If work is done on Rabbit Island for brown pelicans, coordination will be re-initiated to ensure such work would not impact that species.

Piping Plover

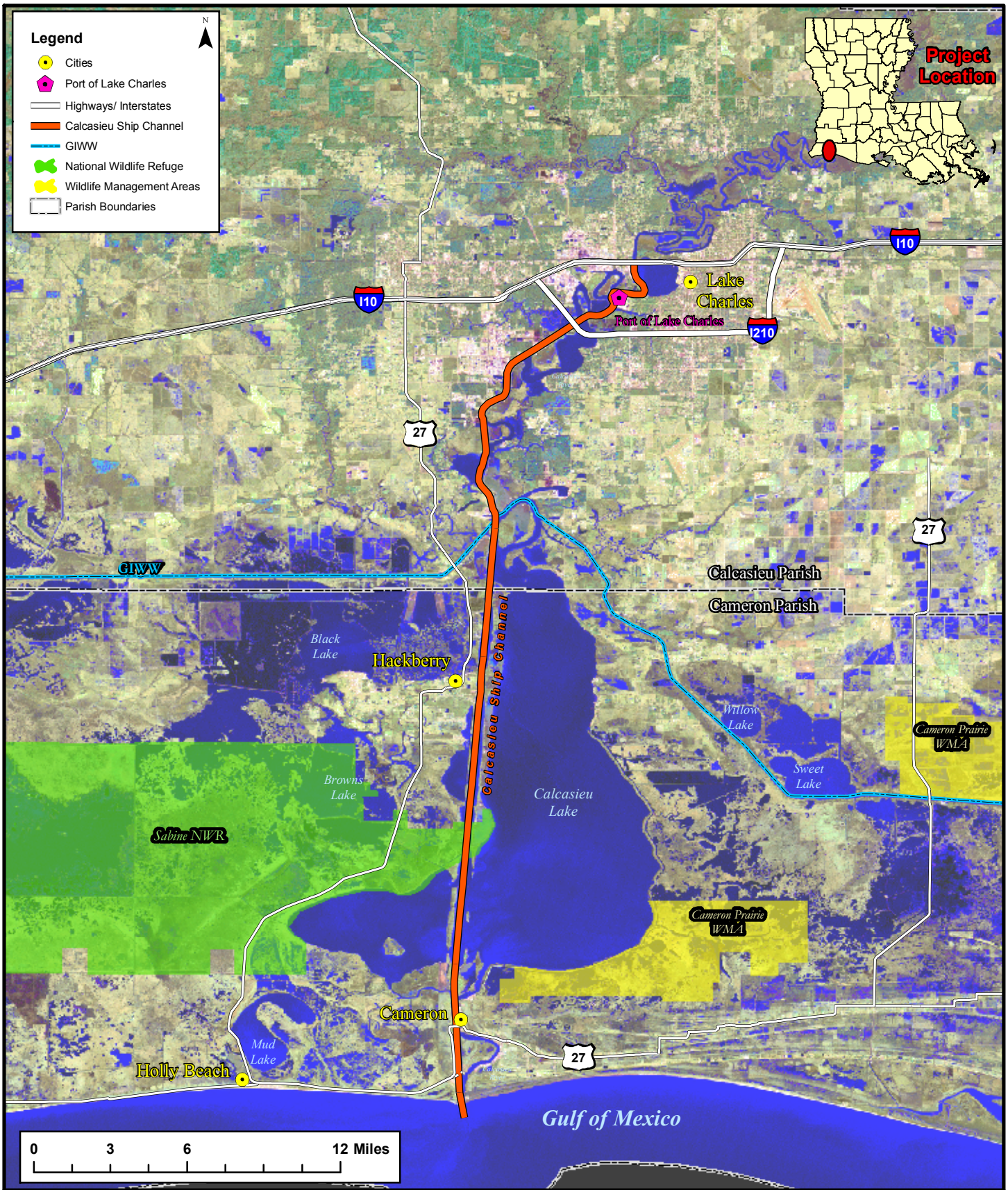
The placement of dredged material in CDFs would not interfere with foraging or other activities by the piping plover. Dredged material disposal operations are likely to temporarily displace any birds that might be present in the vicinity of the dredging or dredge material disposal to other areas. The placement of material for beneficial use would have no effect on piping plover habitat because the piping plover's habitat is south of the project limits. Therefore, it is concluded that the proposed action may affect but is not likely to adversely affect the piping plover.

Table 7. Summary of Potential Impacts on Federally Listed Species

Common Name	Federal Status	State Status	Impacts
American Alligator (<i>Alligator mississippiensis</i>)	T (S/A)	Not listed.	No effect.
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	T	T	No effect. Not likely to occur in project area.
Brown Pelican (<i>Pelecanus occidentalis</i>)	E	E	Not likely to adversely affect.
Green Sea Turtle (<i>Chelonia mydas</i>)	T	T	No effect. Not likely to occur in project area.
Gulf Sturgeon (<i>Acipenser oxyrinchus desotoi</i>)	T	T	No effect. Not likely to occur in project area.
Hawksbill Sea Turtle (<i>Eretmochelys imbricata</i>)	E	E	No effect. Not likely to occur in project area.
Kemp's Ridley Sea Turtle (<i>Lepidochelys kempii</i>)	E	E	No effect. Not likely to occur in project area.
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>)	E	E	No effect. Not likely to occur in project area.
Loggerhead Sea Turtle (<i>Caretta caretta</i>)	T	T	No effect. Not likely to occur in project area.
Piping Plover (<i>Charadrius melodus</i>)	T	T; Critical Habitat	Not likely to adversely affect.
Red-Cockaded Woodpecker (<i>Picoides borealis</i>)	E	E	No effect. Not likely to occur in project area.
West Indian Manatee (<i>Trichechus manatus</i>)	E	E	No effect. Not likely to occur in project area.

6.0 REFERENCES

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**PHYSICAL AND GEOGRAPHICAL FEATURES
OF THE CALCASIEU BASIN**
Calcasieu River & Pass
Dredged Material Management Plan



Figure: 1
Date: June 2007
Scale: 1:330,000
Source: USACE, LCHTD, GEC
Map Author: C. Perez

Landsat Thematic Mapper Satellite Image: 2002 RGB753-Pan merge, LDEQ (2002)

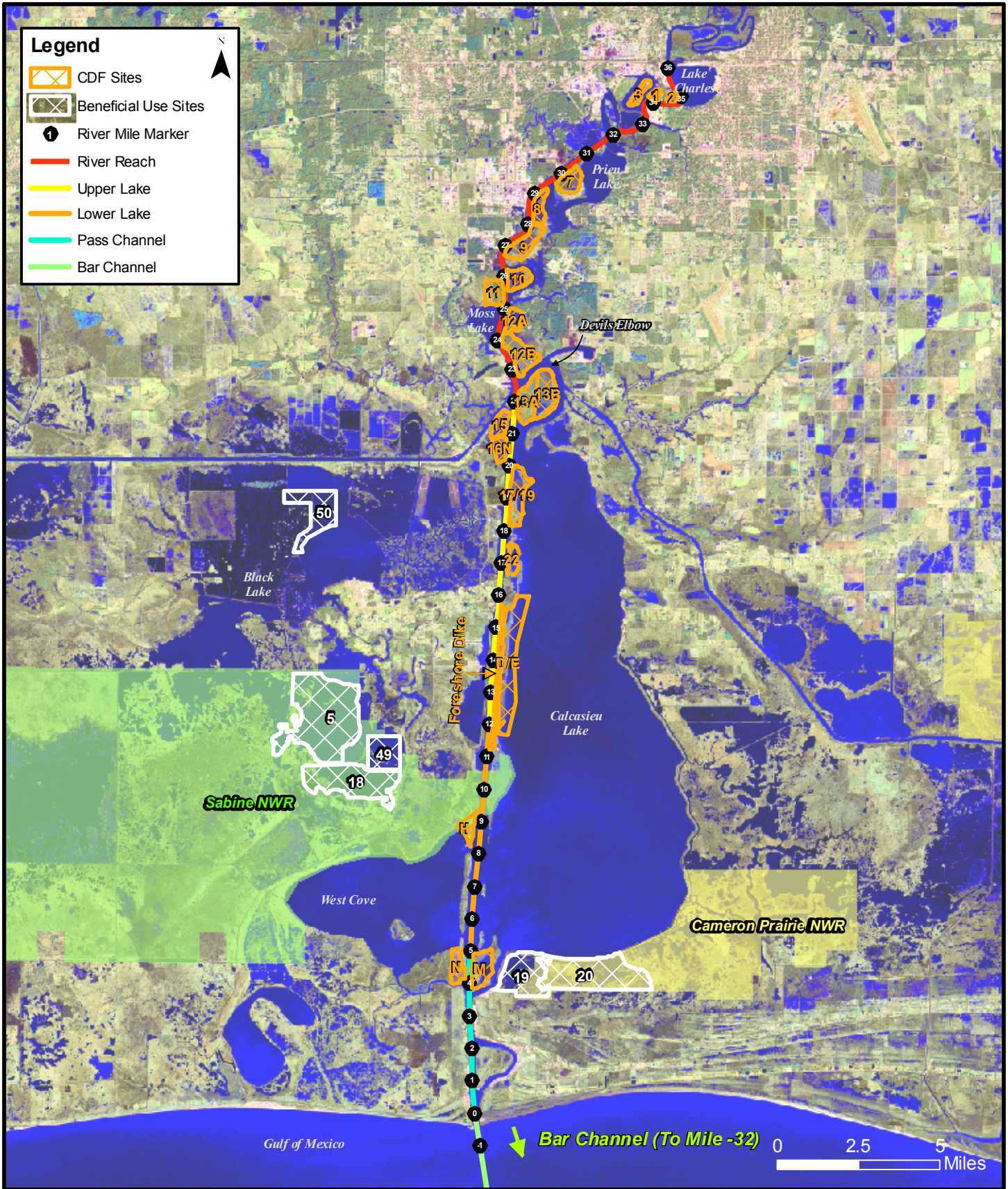


FIGURE 2. RECOMMENDED PLAN
 Calcasieu River and Pass, Louisiana
 Dredged Material Management Plan



Date: December 2008
 Scale: 1:260,000
 Source: USGS/GEC/USACE
 Map Author: Moore 27585101-765

Landsat Thematic Mapper Satellite Image: 2002 RGB753-Pan merge, LDEQ (2002)

Addendum A

APPROVAL STATEMENTS FROM FWS AND NOAA

**New Orleans District
Corps of Engineers**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

November 13, 2007

Ms. Elizabeth Wiggins, Chief
Environmental Planning and Compliance Branch
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Wiggins:

Please reference your July 2, 2007, letter (and attached biological assessment), Ms. Sandra Stiles' July 12, 2007, electronic mail (and attached revised biological assessment), and the U.S. Army Corps of Engineers' (Corps) August 2007 Preliminary Draft of the Supplemental Environmental Impact Statement (SEIS) for the proposed Dredged Material Management Plan (DMMP) for the Calcasieu River and Pass (River Miles 5 to 36), in Calcasieu and Cameron Parishes, Louisiana. Based on the information contained in those documents, the Corps requests our concurrence with their determination that the proposed DMMP is not likely to adversely affect the endangered brown pelican (*Pelecanus occidentalis*) and the threatened piping plover (*Charadrius melodus*), or its designated critical habitat. The U.S. Fish and Wildlife Service (Service) has reviewed the information provided, and offers the following comments in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The Corps' preferred option for the proposed DMMP is Alternative B – Primary Placement in Confined Disposal Facilities (CDFs) Supplemented with Beneficial Use. The sites proposed under that alternative have a high level of certainty regarding their availability for channel maintenance over the life of the DMMP and a low level of risk with regards to real estate and landowner issues. Alternative B involves the rehabilitation and maximum use of existing CDFs through management practices discussed in the DMMP and SEIS.

As you know, brown pelicans are currently known to nest on Rabbit Island in Calcasieu Lake in southwestern Louisiana. In spring and summer, nests are built in mangrove trees or other shrubby vegetation, although ground nesting may also occur. Brown pelicans feed along the Louisiana coast in shallow estuarine waters, using sand spits and offshore sand bars as rest and roost areas. Major threats to this species include chemical pollutants, colony site erosion, disease, and human disturbance.

Based on the revised biological assessment (BA), several of the proposed CDFs may be used by brown pelicans for loafing and/or roosting. Because there is an abundance of suitable loafing and roosting habitat within the Calcasieu River system, any pelicans utilizing CDFs at the time of construction would be temporarily dispersed into other available areas. The Corps is also considering Rabbit Island as a beneficial use disposal area under Alternative B of the DMMP

because the Louisiana Department of Wildlife and Fisheries believes that beneficial use of dredged material on Rabbit Island could potentially expand and improve existing brown pelican nesting habitat. Because details of a disposal plan for Rabbit Island have not yet been developed, the Corps has determined that they would re-initiate consultation with the Service if Rabbit Island is chosen as a disposal area in the future and would discuss potential effects of a disposal plan at that time. Therefore, the Corps has determined that the currently proposed DMMP is not likely to adversely affect the brown pelican. Because any pelicans utilizing the project area for foraging, roosting, or loafing would be temporarily dispersed into nearby suitable habitats, and because no work would be conducted on Rabbit Island during the brown pelican nesting season without additional consultation, the Service concurs with the Corps' determination.

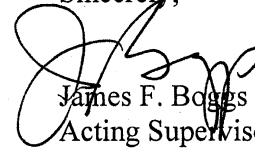
The piping plover, as well as its designated critical habitat, also occur along the Louisiana coast in proximity to the proposed project area. Piping plovers winter in Louisiana, and may be present for 8 to 10 months annually. They arrive from the breeding grounds as early as late July and remain until late March or April. Piping plovers feed extensively on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation; they also require unvegetated or sparsely vegetated areas for roosting. Roosting areas may have debris, detritus, or micro-topographic relief offering refuge to plovers from high winds and cold weather. In most areas, wintering piping plovers are dependent on a mosaic of sites distributed throughout the landscape, because the suitability of a particular site for foraging or roosting is dependant on local weather and tidal conditions. Plovers move among sites as environmental conditions change, and studies have indicated that they generally remain within a 2-mile area. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation. On July 10, 2001, the Service designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132). The primary constituent elements for piping plover wintering habitat are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. Constituent elements are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Important components (or primary constituent elements) of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers.

According to the revised BA, the existing CDFs are located north of the Louisiana Gulf coast shoreline where piping plovers are more likely to forage and roost during the winter months and where designated critical habitat exists. Although it is possible that piping plovers could be observed foraging in areas along the Calcasieu River and Pass, it is likely that they would disperse into more suitable habitats along the Gulf shoreline south of the existing CDFs and proposed beneficial use disposal areas. Based on that information, and because no work would occur within designated critical habitat, the Service also concurs with the Corps' determination that the proposed DMMP is not likely to adversely affect the piping plover and its designated critical habitat.

No further ESA consultation with the Service regarding the above listed species would be required for the proposed action unless there are changes in the scope or location of the project elements, or the project has not been initiated within one year. If the proposed action has not been initiated within one year, follow-up consultation should be accomplished with the Service prior to making expenditures to ensure that the threatened and endangered species information is up-to-date. If the scope or location of the proposed action is changed, re-initiation of consultation should occur as soon as such changes are made.

We appreciate the Corps' continued cooperation in the conservation of endangered and threatened species, and their designated critical habitat. If you have any questions or require additional information regarding the species discussed above, please contact Ms. Brigitte Firmin (337/291-3108) of this office.

Sincerely,



James F. Boggs
Acting Supervisor
Louisiana Field Office

cc: LDWF, Natural Heritage Program, Baton Rouge, LA

July 11, 2007

Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch

Mr. ~~Eric Hawk~~ *David Bernhart*
National Marine Fisheries Service
Protected Resources Division
263 13th Avenue South
St. Petersburg, FL 33701

Dear Mr. ~~Hawk~~: *Bernhart*

The U.S. Army Corps of Engineers, New Orleans District is in the process of preparing a Dredge Material Management Plan and Supplemental Environmental Impact Statement (DMMP/SEIS) for the Calcasieu River and Pass, Louisiana. The purpose of the DMMP/SEIS is to investigate alternatives for managing dredged material for the next 20 years, including confined disposal, aquatic (open water or ocean) disposal, within banks disposal, beach nourishment, and other beneficial uses. Please note the proposed project would be for O&M dredging by cutter-head dredge for the in-land reach of the Calcasieu River and Pass only.

In accordance with the Endangered Species Act of 1973 (as amended), the enclosed biological assessment describes the potential effects on federally threatened and endangered species within the vicinity of the proposed area. Species that occur in Calcasieu and Cameron parishes include the American alligator, bald eagle, brown pelican, green sea turtle, Gulf sturgeon, Hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, piping plover, red-cockaded woodpecker, and the West Indians Manatee. Two of these species, the brown pelican and piping plover, have been observed in the project area. None of the species under purview of the National Marine Fisheries Service are known to occur or have been observed within the project area. This Biological Assessment was prepared to meet the requirements of both the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). This BA was furnished to USFWS on July 10, 2007 for their review.


It is the opinion of the U.S. Army Corps of Engineers, New Orleans District that the proposed project would have no effect on the continued existence of threatened and endangered species under your purview or their critical habitat listed for Cameron Parish. This BA in no way replaces or supersedes the existing Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining (Consultation Number F/SER/2000/01287).

This office seeks your comments and concurrence with our assessment. Please direct any questions concerning this action to Ms. Sandra Stiles at 504-862-1583.

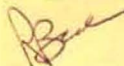
Sincerely,

Enclosure

Elizabeth Wiggins
Chief, Environmental Planning and
Compliance Branch



Stiles
x1583



Boe
X1505



Wiggins
x2778

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

From: Dennis Klemm [<mailto:Dennis.Klemm@noaa.gov>]

Sent: Thursday, October 11, 2007 1:04 PM

To: Stiles, Sandra E MVN

Subject: Calcasieu River and Pass DMMP

Dear Ms. Stiles,

NMFS has received the July 11, 2007, letter and biological assessment regarding the proposed Calcasieu River and Pass DMMP project. In that letter the COE has made a determination that based upon the location and details of the proposed project, no effect is expected for ESA species listed under the purview of NMFS. No further action is required from the COE in regards to ESA section 7 consultation with NMFS on this project. If project details or location is altered in a way that changes the COE's "no effect" determination, section 7 consultation with NMFS may then be required.

Sincerely,

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Dennis L. Klemm
Fishery Biologist-
Atlantic Sea Turtle Strategy Team
Protected Resources Division
Southeast Regional Office (SERO)
National Marine Fisheries Service- NOAA
Dennis.Klemm@noaa.gov
727 824-5312

Addendum B

MANATEE PROTECTION PROCEDURES

FOR PLANS AND SPECIFICATIONS

New Orleans District

Corps of Engineers

Standard Manatee Protection Measures

USFWS, June 8, 2006

Federally listed as an endangered species, West Indian manatees (*Trichechus manatus*) occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). Manatees have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of Louisiana. They have also been occasionally observed elsewhere along the Louisiana Gulf coast. The manatee has declined in numbers due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution. Cold weather and outbreaks of red tide may also adversely affect these animals. The following are standard manatee protection measures that would minimize potential impacts to manatees:

- All contract personnel associated with the project should be informed of the potential presence of manatees and the need to avoid collisions with manatees, which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
 - All construction personnel are responsible for observing water-related activities for the presence of manatee(s).
 - Temporary signs should be posted prior to and during all construction/dredging activities to remind personnel to be observant for manatees during active construction/dredging operations or within vessel movement zones (i.e., work area), and at least one sign should be placed where it is visible to the vessel operator.
 - Siltation barriers, if used, should be made of material in which manatees could not become entangled, and should be properly secured and monitored.
 - If a manatee is sighted within 100 yards of the active work zone, special operating conditions should be implemented, including: no operation of moving equipment within 50 feet of a manatee; all vessels shall operate at no wake/idle speeds within 100 yards of the work area; and siltation barriers, if used, should be re-secured and monitored. Once the manatee has left the 100-yard buffer zone around the work area on its own accord, special operating conditions are no longer necessary, but careful observations would be resumed.
 - Any manatee sighting should be immediately reported to the U.S. Fish and Wildlife Service (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821).
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Enclosure

