



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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June 29, 2015



Colonel Richard L. Hansen
District Commander
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Colonel Hansen:

Please refer to the May 4, 2015, Corps of Engineers (Corps) proposed Fiscal Year (FY) 2016 Operations and Maintenance Dredging and Disposal Plans (Plans) for federally-maintained navigation channels in the New Orleans District. We provide the following comments in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d), and the Migratory Bird Treaty Act (MBTA) of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.). Section I of this report provides technical comments and recommendations for projects presented in that plan. Section II provides project-specific information regarding species protected under the ESA that should be considered as early as possible in annual program planning. Section III provides comments on potential project impacts to bald eagles and colonial nesting waterbirds.

We commend the cooperative efforts between the Corps and the non-Federal sponsors to identify potential beneficial use of dredge material projects under the Louisiana Coastal Area (LCA), Beneficial Use of Dredge Material (BUDMAT) program and the Corps' Operations and Maintenance program and continue to support the beneficial use of dredge material to the greatest extent possible. We look forward to participating in the planning and selection of BUDMAT projects as a member of the Maintenance Dredging Beneficial Use Group (MDBUG).

The Fish and Wildlife Service recommends that all dredged material removed from areas that may have been exposed to oil and other contaminants related to the Deep Water Horizon spill are

analyzed for the presence of toxic materials. Only dredged material that is determined to be non-toxic to fish and wildlife should be used to create wetland habitats.

The Service has previously consulted on several maintenance dredging projects that included beneficial use of dredged material in areas designated as critical habitat for the piping plover (*Charadrius melodus*). While the intent of these projects is to restore coastal habitats, these areas have been designated as critical habitat under the ESA; therefore, project-associated impacts to critical habitat should be addressed. In an effort to address impacts associated with the implementation of coast-wide dredged material beneficial-use projects on the piping plover and its critical habitat, the Corps initiated consultation with the Service. We received the Corps' June 18, 2013, biological assessment and concurred with your "not likely to adversely affect" determination in our July 22, 2013, letter. The resulting recommendations are included in the comments by dredging project in section I of this report. The Service recommends that the Corps and the Service jointly re-examine projects addressed in that BO to determine the potential to develop a Section 7(a)(1) conservation program for the piping plover and the recently listed red knot (*Calidris canutus rufa*).

SECTION I

Atchafalaya Basin

Three Rivers – The endangered pallid sturgeon (*Scaphirhynchus albus*) is found in the Mississippi River and its major tributaries, including the Atchafalaya and Red Rivers. Known concentrations of pallid sturgeon occur in the vicinity of the Old River Control Structure, and they are believed to spawn in that area. The Corps has conducted research on pallid sturgeon habitat within the Atchafalaya River and information from that study was used to develop the following restrictions that would permit dredging and spoil disposal operations at the Old River Control Structure without adversely affecting the pallid sturgeon:

1. No dredging or spoil disposal activities will occur in the Atchafalaya River or Old River during April, May, and June; and,
2. All spoil disposal operations in the Atchafalaya River will be conducted at midstream and at the surface.

Accordingly, the Service recommends that the Corps adhere to the above conditions to avoid impacts to pallid sturgeon eggs or larvae when dredging within the Three Rivers area. Please refer to Section II of this letter for further information and recommendations regarding pallid sturgeon.

The endangered interior least tern (*Sterna antillarum*) is known to occur in this reach of the Mississippi River and inhabits sparsely and /or non-vegetated areas of sand or gravel bars both midstream and along the shoreline of the river. The Service recommends that the Corps determine presence/absence of interior least terns prior to dredging activities. If nesting interior least terns are observed adjacent to the project area during breeding season (May 15 to August 31, depending on river stages), further consultation with this office is recommended. Please refer to Section II of this letter for further information and recommendations regarding the interior least tern.

The threatened Louisiana black bear (*Ursus americanus luteolus*) and its critical habitat occur in the vicinity of the Three Rivers dredging project area. Because all the dredging and disposal activities would occur within the river channels, there would be no impacts to the Louisiana black bear. Any change in project plans that would involve activities not confined to the river channels could impact the Louisiana black bear and its critical habitat and would require consultation with the Service.

Berwick Bay Harbor –The Service recommends that the Corps place dredged material in the commercial sand pit disposal sites before placing any material in the open-water disposal areas to avoid adverse impacts to pallid sturgeon. Please refer to the information concerning the pallid sturgeon in Section II of this report.

Atchafalaya River

Crewboat Cut – The Service supports the beneficial uses proposed to create wetland habitat with dredged material from this cut. The marsh and higher elevation black willow habitat that currently exists in disposal area “I” were created through that process; however, utilization of disposal area “I”, northward of the larger island, also typically creates small islands of suboptimal habitat that persists for only one to two years. The Service recommends that the Corps utilize other disposal areas, including those South of Shell Island Pass (see next paragraph) in the Atchafalaya River Delta. If disposal area “I” or other nearby previously designated disposal areas are used for further disposal events, we recommend that they be filled to an elevation conducive for marsh creation, and that only areas lacking vegetation receive dredged material. If disposal area “I” is used, we recommend that that dredged material should be added contiguous with the larger island rather than placed in non-adjacent, individual mounds.

The Corps and the Louisiana Department of Natural Resources (LDNR), through the MDBUG have identified the Shell Island Sediment Delivery project in their near-term beneficial use program. That proposed project would pump dredge material via a pipeline through Shell Island Pass to Little Bay in the Atchafalaya Delta Wildlife Management Area (WMA) enhancing the existing delta formation process. The Service

recommends that the Corps consider the Shell Island Sediment Delivery project as an alternate sediment disposal opportunity, and we look forward to further coordination with the Corps and the Louisiana Department of Wildlife and Fisheries' (LDWF) Atchafalaya Delta Wildlife Management Area office in New Iberia, Louisiana.

The endangered West Indian manatee (*Trichechus manatus*) occurs in this reach of the Atchafalaya River to include canals within adjacent marshes and associated coastal waters. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in southeastern Louisiana. Human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All on-site personnel are responsible for observing water-related activities for the presence of manatees. The Service recommends that the Corps cease all dredging and associated dredging activities, to include vessel operation, if a manatee is observed within 50 feet of an active work area. Please refer to Section II of this report for information and additional recommendations regarding the manatee.

The pallid sturgeon is known to occur in this reach of the Atchafalaya River. Please refer to the information concerning the pallid sturgeon in Section II of this report.

Bay and Bar Channel – We continue to recommend that the Corps coordinate all Atchafalaya Bay activities with the LDWF Atchafalaya Delta WMA office. In addition, we support the Corp's continuing efforts to beneficially use dredged material to create vegetated wetlands in the area, including expansion of beneficial spoil deposition areas to the northwest side of the channel on Atchafalaya Delta WMA. We also support (where dredge material composition allows) creation of new, or maintenance of existing, bird islands adjacent to the Atchafalaya Bay and Bar Channel. Dredged material should be placed to an elevation that allows marsh vegetation to colonize, except when the material is utilized for bird island creation. Disposal of dredged material in the Ocean Dredged Material Disposal Site (ODMDS) should only be considered when all other beneficial options have been exhausted. We recommend that the suitability of lower reach Bar Channel-dredged material for beneficial use be reexamined each time dredging is conducted due to the dynamic nature of the soil properties associated with this reach of the project.

Federally listed as a threatened species, the piping plover, as well as its designated critical habitat, occur along the Louisiana coast, including most of the Atchafalaya River Delta.

Please refer to the information concerning this species, and its designated critical habitat, in Section II of this report.

As of December 2014, the red knot is federally listed as a threatened species. The species is known to occur along the Louisiana coast and may occur in the Atchafalaya River Delta. Although critical habitat has not been designated, we encourage you to avoid project activities that would adversely affect its habitat. Please refer to the information concerning this species in Section II of this report.

Disposal of dredged material resulting from the Corps' proposed O&M activities in the Atchafalaya River and Bayous Chene, Boeuf, and Black would occur in piping plover critical habitat Unit LA-2. This unit is located in the eastern portion of the LDWF's Atchafalaya Delta Wildlife Management Area and "...includes all exposed land and islands where primary constituent elements occur east and southeast of the main navigation channel of the Atchafalaya River to the MLLW. The islands located south and southeast of the deltaic splay, Donna, T-Pat, and Skimmer Islands and the unnamed bird island, are also included in this unit. This unit includes the entire islands where primary constituent elements occur to the MLLW." (Federal Register, Volume 66, No. 132). The islands included as critical habitat were created by dredged material, and since the time of designation, the Corps has named and/or added islands in the same general area (e.g., Avocet Island, Bird Island West, and Bird Island East).

Maintenance dredging in the Atchafalaya River and Bayous Chene, Boeuf, and Black occurs annually. Placement of material is closely coordinated with the LDWF to avoid disturbance to colonial nesting wading birds and shorebirds. The dredged material is deposited in shallow open water to create coastal habitat (i.e., deltaic peninsulas) and bird islands, and is placed in such a manner to avoid existing emergent marsh, channel banks, or other sensitive areas. New material is generally placed in open water to create new peninsulas. Often the placement of dredged material results in newly formed sub-aerial sand and mud flats along the edges of the newly created peninsulas. Material that is not suitable for creating marsh or island habitat is deposited in a designated offshore disposal site.

Piping plover critical habitat on the islands within this unit tends to become densely vegetated over time, and thus, unsuitable for the piping plover except for narrow sand strips along the edges of the islands that may provide suitable foraging habitat. Dredged material is sometimes placed on existing islands to suppress dense vegetation, which may also cover any suitable foraging habitat, but restores the primary constituent elements (PCEs) of critical habitat on the remainder of the islands. New sand and mud flat habitat may also be created in adjacent open water as excess material flows off the islands during placement or shaping and grading of the dredged material. Material placement maintains

piping plover critical habitat in an early successional stage and prevents loss of PCEs due to dense vegetation growth. The disturbance to any existing suitable habitat is temporary and does not occur at every dredging event. In addition, there is an abundance of suitable foraging habitat nearby into which birds can disperse until the benthic fauna recovers at the disposal site.

Should placement of material occur when piping plovers are present in the area, they may be temporarily displaced to nearby suitable habitat, but they would not be excluded from the area. Because material is deposited in different locations from one dredging event to the next and because material is placed either in open water or on dense vegetation, disposal areas can be re-colonized with benthic prey prior by the next placement event, so disturbance to existing critical habitat is temporary. Such temporary disturbance to piping plovers and their critical habitat is discountable and insignificant in nature, and critical habitat is benefitted by the maintenance of PCEs across the islands as stated in our July 22, 2013, letter.

The Service is responsible for two of the five species of federally listed sea turtles that occur in the estuaries, bays, and coastal waters of Louisiana. The two species, the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's Ridley sea turtle (*Lepidochelys kempii*), have been known to nest along the northern Gulf coast during the summer months (i.e., May through November) and may nest in this reach of the Atchafalaya River and associated shoreline.

Threats to sea turtle nesting attempts include beach nourishment, pollution, erosion control structures, vehicular and pedestrian traffic, coastal development and construction, and beachfront lighting (USFWS 2007). Destruction and over-exploitation of nesting habitat, drowning in fishing nets, and pollution are the greatest threats to sea turtles. Therefore, the Service recommends that you contact this office if your activities would occur on coastal beaches during the summer nesting months (i.e., May through November). Please refer to Section II of this report for additional information and recommendations regarding these species.

The West Indian manatee is known to occur in this reach of the Atchafalaya River Delta and associated coastal waters. Please refer to the information concerning this species in Section II of this report.

The Atchafalaya River Delta and bird islands along the bar channel also provide suitable habitat for numerous waterbird nesting colonies. Accordingly, the Corps should closely follow the survey and restriction recommendations found in Section III of this report.

The Corps is currently in the Preliminary Assessment phase of the Atchafalaya River Dredged Material Management Plan development. We look forward to coordinating with the Corps in the development of that plan.

Bayou Lafourche

The Corps intends to dredge the inland reach and channel from Miles 3.4 to -1.8 and place the material adjacent to the Belle Pass east and/or west jetties along the Gulf of Mexico shoreline. The Service generally supports the beneficial use of dredged material for beach nourishment when impacts to piping plover and its designated critical habitat are avoided.

Maintenance dredging in Bayou Lafourche occurs as needed varying from one to four years between events. The dredged material is deposited unconfined along the Gulf shoreline to the east and west of the channel adjacent to the jetties. The discharge points are located at the beach intertidal zone and the dredged material is placed unconfined, parallel to the shoreline, into the surf zone no closer than 100 feet from the top bank of the shoreline. The Corps anticipates that, between maintenance events, dredged material that is placed in such a manner would be dispersed gradually onto the shoreline, into the littoral drift, and offshore by wind and wave action and storm events.

The majority of material removed from the Port Fourchon channel will be placed on the west side of the channel during future maintenance events to abate erosion along the western Gulf shoreline (i.e., Belle Pass West). The western disposal area currently consists of rock shoreline protection in front of a vegetated saline marsh. During extreme low tide events sand and/or mud flats (created from previous disposal events) may be temporarily exposed Gulf-ward of the rock protection feature and may provide suitable foraging habitat for piping plover during that one tidal event. The Corps would dispose of material in the shallow open water adjacent to the rock protection feature. Although this area is located within the geographical boundary of designated critical habitat, PCEs rarely exist adjacent to the rock protection feature except during extreme low tide events, and therefore, no adverse effects to the piping plover or its critical habitat are anticipated since the area is often inundated and rarely exposed. Further, it is likely that placement of dredged material in this area would result in restoration and/or creation of PCEs during future placement events by slowly increasing the elevation of that shoreline reach over time to the extent that sub-aerial sand flat or beach habitat may be created.

The second disposal area located on the east side of the jetties does contain PCEs of critical habitat. Material placement at the eastern disposal site would involve placement of a dredge pipeline within the surf zone in order to nourish the beach profile without the need for heavy machinery on the beach. Installation of the dredge pipeline would occur

from the Gulf in open water. There would be no disturbance to the beach habitat since wind and wave action would carry the material onshore. As wave action carries fine sediment onto the beach face and deposits it, Aeolian transport can move the fine sands up the beach and onto the dune. Therefore, the fine-grained sediment that will be placed in the surf zone would move onto the beach face in a gradual and more natural manner. The discharge of dredged material is not expected to cause extensive stacking of sediment on the beach which means that the benthic fauna would not be smothered and the added material would not stress the benthic community within piping plover critical habitat. Similarly, since there would be no heavy machinery onshore, it is less likely that any plovers using the area during disposal activities would be disturbed.

The Corps should also consider placing dredged material behind the west Belle Pass headland on the west side of the channel to enhance the marsh habitat and nourish habitat associated with the completed Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) West Bell Pass Headland Restoration Project (TE-23). The continued presence of a land mass in that area would help to trap beach sediments that periodically wash over from storms and high water events and strengthen the headland. The Service also recommends that the Corps consider using dredge material to restore and nourish the completed CWPPRA West Bell Pass Barrier Headland Restoration Project (TE-52) which will strengthen and improve the resilience of the headland as well as help protect interior marshes.

At least one wading bird colony is located along the east bank of Belle Pass in the vicinity of the proposed dredging. In past correspondence, the Corps proposed to restrict dredging operations in the vicinity of those nesting areas until the incubation period (i.e., February 15 to June 14) is complete. During the restricted period, no work will occur within 750 feet of the colonies. After June 14, dredging operations and related activities would occur no less than 200 feet from the colonies. The Service previously concurred with those restrictions, based on the evidence of continued nesting along that heavily used waterway. We recommend, however, that the restricted period be extended to July 1 if incubation is not complete by June 14. We also recommend that a Corps biologist directly monitor and inspect the colonies by observation from the waterway during the late breeding season (i.e., July and August), to ensure that adult and nestling birds are not significantly disturbed by dredging activities. The project area should also be inspected for new or otherwise undocumented nesting colonies prior to project initiation, and a report summarizing the findings of those inspections and monitoring efforts should be submitted to the Service and the LDWF.

The piping plover, as well as its designated critical habitat, occur along the Louisiana coast, including the mouth of Bayou Loufourche and associated shoreline. Please refer to the information concerning this species, and its designated critical habitat, in Section II of

this report.

The red knot has been observed in Port Fourchon and adjacent barrier islands [ebird.org 2015]. Although no critical habitat for the red knot has been designated, we encourage you to avoid project activities that would adversely affect its habitat. Please refer to the information concerning this species in Section II of this report.

The West Indian manatee and sea turtles are known to occur in this reach of Bayou Lafouche and associated coastal waters. Please refer to the information concerning these species in Section II of this report.

Calcasieu River and Pass

Bar Channel - The Gulf of Mexico shoreline has experienced losses on the east and west sides of the Calcasieu River and Pass (CRP) Bar Channel likely due to recent hurricane passages. Piping Plover and its designated critical habitat occur along the Gulf of Mexico shoreline adjacent to the CRP Bar Channel. The Service continues to recommend that the Corps consider the use of the dredged material from the southern reaches of this channel along the Gulf of Mexico shoreline instead of disposal in the ODMDS if it is determined that the material composition is suitable and incremental funding is available. The Service also recommends the beneficial use of dredge material from the northern reaches of the channel in support of the CWPPRA Oyster Bayou Restoration Project (CS-59), currently in Phase 2 consultation, if timing is applicable and material composition is suitable.

The piping plover, as well as its designated critical habitat, occur along the Louisiana coast, including the Calcasieu River Pass and associated shoreline. Please refer to the information concerning this species, and its designated critical habitat, in Section II of this report.

The red knot is known to occur along the Louisiana coast and has been observed at the mouth of the Calcasieu River near the east jetty [ebird.org 2015]. Although no critical habitat for the red knot has been designated, we encourage you to avoid project activities that would adversely affect its habitat. Please refer to the information concerning this species in Section II of this report.

The West Indian manatee and sea turtles are known to occur in this reach of the Calcasieu River Pass and associated coastal waters. Please refer to the information concerning these species in Section II of this report.

Miles 5 to 17 and Devil's Elbow - We commend the Corps' efforts in coordinating the beneficial use of dredged material to create marsh habitat on the Sabine National Wildlife Refuge (NWR) through the CWPPRA program, and on privately-owned, shallow open-water areas (e.g. Black Lake Disposal Area). Support of the CWPPRA Kelso Bayou Marsh Creation Project (CS-53), currently in Phase 1 consultation, is recommended provided timing is applicable. The Corps plans to repeat the beneficial use effort on the Sabine NWR in FY2016 using the CWPPRA-constructed permanent pipeline for transport of dredged material from the CRP channel to the refuge site. The Corps also proposed a demonstration project for FY2013 using previously dredged material from a confined disposal facility (CDF) along the CRP inland segment to create marsh along the western shoreline of Calcasieu Lake adjacent to that CDF. That project was completed in 2014, but the elevation of the created landform is much higher than the surrounding marsh, and significant future compaction of the material is unlikely. The Corps plans to monitor the site for evidence of tidal inundation and marsh vegetation growth; we respectfully request copies of all monitoring reports. The Service recommends that the Corps review our comments regarding dredged material placement elevation for this project in our May 29, 2013, letter. We look forward to continued coordination with the Corps and private landowners to identify areas for long-term disposal of dredged material, and to obtain the necessary rights-of-entry to access those areas. The Service also looks forward to the full implementation of the completed Calcasieu River and Pass Dredge Material Management Plan.

The Service encourages the Corps to fully investigate funding sources that would allow beneficial use of dredged material to create/restore wetlands instead of confined upland disposal which we do not support.

The West Indian manatee and sea turtles are known to occur in this reach of the Calcasieu River. Please refer to the information concerning these species in Section II of this report.

Colonial nesting waterbirds are known to inhabit this area. We recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests during the breeding season and follow the work restrictions listed in Section III.

Gulf Intracoastal Waterway

Port Allen to Morgan City Alternate Route (Vicinity of Bayou Sorrel Lock) - The Service recommends that the Corps continue to incorporate the following disposal plan modifications to minimize potential impacts to water quality and terrestrial habitats:

1. New disposal sites within the Atchafalaya Basin should not exceed 2,000 feet in length (as measured parallel to the East Atchafalaya Basin Protection Levee borrow canal or Gulf Intracoastal Waterway [GIWW]) and a 200-foot-wide gap should be left between adjacent disposal sites to maintain adequate overbank flows and water circulation.
2. Expansion of existing disposal sites should also adhere to the above length and gap specifications. During initial construction of confined disposal sites, all levee borrow should be excavated from outside the borrow pit whenever practicable to improve water circulation.
3. Borrow for construction of containment dikes that are adjacent to channels other than the GIWW should be taken from those channels if the Corps' required 100-foot offset can be decreased.
4. Outside borrow ditches or effluent return ditches should include a sediment trap that can be easily excavated with the equipment used to refurbish the disposal site dikes.
5. At all disposal sites, plugs should be installed in any inside borrow ditches to facilitate maximum sediment retention within the disposal areas prior to the effluent reaching the spill boxes.
6. Existing confined disposal areas should be surveyed to ensure they have been filled to capacity prior to expanding into new areas.

The pallid sturgeon and manatee and sea turtles are known to occur in the Gulf Intracoastal Waterway. Please refer to the information concerning these species in Section II of this report.

Wax Lake Crossover – The threatened Louisiana black bear (*Ursus americanus luteolus*) and its critical habitat occur in the vicinity of the Wax Lake Crossover dredging project area. Because all the dredging and disposal activities would occur within waterway channels, there would be no impacts to the Louisiana black bear. Any change in project plans that would involve activities not confined to the channels could impact the Louisiana black bear and its critical habitat and would require consultation with the Service.

Houma Navigational Canal (HNC)

Terrebonne Bay – The Corps has designated an open water area in Bay Welsh as a beneficial use site along the Terrebonne Bay shoreline. This and other beneficial use sites have been identified as a priority by the MDBUG and as a disposal option under the HNC deepening study. Concurrently, the State is working towards extinguishing oyster leases in the area. We urge the Corps to make every effort to use material from the northern portion of the Terrebonne Bay reach beneficially at the Bay Welsh and other potential marsh creation areas, such as the CWPPRA project (TE-83) on the north shore of Lake Barre/Terrebone Bay which is currently in Phase 1 consultation, rather than placing it in the open water disposal areas. The Service continues to recommend that the Corps use material dredged from the southern end of the Terrebonne Bay reach as well as from the Cat Island Pass reach to restore island resources such as Wine Island and Timbalier Island.

The West Indian manatee and sea turtles are known to occur in Terrebonne Bay. Please refer to the information concerning these species in Section II of this report.

Mississippi River

Deep and Shallow Draft Crossings – The Service’s assessment and recommendations for the Channel Improvement Program (CIP) in the Lower Mississippi River (LMR) has been communicated to the Corps in a Biological Opinion dated December 12, 2013 (USFWS 2013). We continue to recommend that dredging activities avoid and/or minimize impacts on gravel bars, tributary mouths, backwater habitats, and affected species life cycle timing. Beneficial placement of dredged material should be utilized where appropriate and authorized. If beneficial placement cannot be utilized, the Service recommends thalweg disposal of dredge material where feasible.

The endangered fat pocketbook mussel (*Potamilus capax*) occurs in the LMR to the north of the Old River and Mississippi River junctions. Research has noted lateral movements by the fat pocketbook mussel are mostly downstream in unimpounded reaches (Peck 2010) therefore, the Service recommends periodic surveys for presence/absence of the species.

However, there are no historical occurrence records of the endangered fat pocketbook mussel in the proposed dredging sites of the LMR and the species does not occur within the active navigation channel. Therefore, in the Service’s Biological Opinion (USFWS 2013) we determined that maintenance dredging in the LMR is not likely to jeopardize the continued existence of the species.

The fat pocketbook mussel occurs in backwaters and secondary channels of the Mississippi River as well as at sites of river modifications (i.e., dikes and chevrons). Best management practices developed under the CIP are focused on maintaining and enhancing overall channel habitat complexity through dike design and notching, restoration of secondary channels, and use of value engineering techniques such as hard points and chevrons that provide river training and habitat benefits simultaneously (USFWS 2013). If river training and habitat enhancement techniques (i.e., dike notching, secondary channel restoration, hardpoints, chevrons, etc...) are utilized in the proposed operations and maintenance dredging reaches of the LMR, then the Service recommends surveys for fat pocketbook mussels in proposed or existing construction sites be conducted to evaluate presence/absence of the species. Please refer to information concerning the fat pocketbook mussel in Section II of this report.

The interior least tern is known to occur in the LMR as far south as the Tunica Bend proposed maintenance dredging location. The Service recommends that the Corps determine presence/absence of interior least terns in the vicinities of the Fort Adams, Smithland, and Tunica Bend proposed shallow draft crossing dredging sites prior to O&M activities. Please refer to Section II of this letter for further information and recommendations regarding the interior least tern.

The pallid sturgeon is known to occur in this reach of the Mississippi River. Please refer to the information concerning the pallid sturgeon in Section II of this report.

Southwest Pass – The Service’s recommendations for beneficial use of the dredged material from Southwest Pass have been relayed to the Corps through several communications, including a letter to the Coastal Management Division of the Louisiana Department of Natural Resources (LDNR) regarding the FY 2009 consistency determination, and to the Corps regarding the FY 2008 consistency determination, dated December 2, 2008, and October 12, 2007, respectively. In these letters, the Corps was urged to reduce or avoid the use of the Hopper Dredge Disposal Area (HDDA), near the head of Pass-a-Loutre and South Pass, to avoid or lessen the impacts to fish and wildlife habitat in Delta National Wildlife Refuge and Pass-a-Loutre WMA. The Service commends the Corps for their habitat creation in the Mississippi River Delta using material excavated from the HDDA; however, we continue to urge the Corps to discontinue use of the HDDA as a disposal site, and instead directly place dredged material at the beneficial use sites identified in the FY 2015 Maintenance Dredging Plans. We also continue to recommend, when practicable, the expanded use of cutterhead dredges which have been used successfully in Southwest Pass to create wetland habitat along the channel.

The MDBUG has identified the hopper dredge pump out project as a priority project. Through the hopper dredge pump out project an additional hopper dredge would be used that would allow beneficial use of dredged material while maintaining channel dimensions of Southwest Pass. Moreover, material removed from the channel by hopper dredge and placed in a designated beneficial use site would reduce the amount of material placed in the “Above Head of Passes” HDDA or the designated ocean disposal site. The Service looks forward to continued coordination with the Corps and other natural resources agencies regarding this matter.

The piping plover, as well as its designated critical habitat, occur along the Louisiana coast, including this reach of the Mississippi River Delta. Please refer to the information concerning this species, and its designated critical habitat, in Section II of this report.

The red knot is known to occur along the Louisiana coast and has been observed in the Mississippi River Delta [ebird.org 2015]. Although no critical habitat for the red knot has been designated, we encourage you to avoid project activities that would adversely affect its habitat. Please refer to the information concerning this species in Section II of this report.

The pallid sturgeon, manatee, and sea turtles may occur in this reach of the Mississippi River. Please refer to the information concerning these species in Section II of this report.

Mississippi River Outlets at Venice, LA

Baptiste Collette Bar Channel – Dredged material placement in this channel continues to provide nesting habitat for brown pelicans and other colonial nesting birds. On March 18, 2010, the Service provided to the Corps a draft Fish and Wildlife Coordination Act Report (FWCAR) for the “Integrated Feasibility Study and Environmental Assessment: Baptiste Collette Bayou Navigation Channel Deepening Section 203 Study.” That channel-deepening project, if authorized, would result in greater amounts of dredged material than is currently produced from routine maintenance dredging, potentially resulting in more marsh and bird island creation opportunities. The Service is currently working with the Corps and other natural resource agencies to develop a long-term plan for beneficially using dredge material on the Baptiste Collette bird islands to provide quality habitat for colonial nesting birds with different nesting habitat requirements. The Service has also provided recommendations for marsh and bird island creation in a January 6, 2011, letter to the Corps. We continue to recommend marsh creation adjacent to existing marsh. Confinement of dredged material by supratidal earthen berms should only be temporary until the material is consolidated; barriers to tidal exchange reduce the functionality of the marsh. The addition of dredged material to bird islands should not be

such that it reduces the extent of deep open water between them (2,000 feet distance recommended). Until a long-term comprehensive plan is developed, we recommend that information in that letter and Sections II and III of this report be followed prior to project initiation.

The Atlantic sturgeon (*Acipenser oxyrinchus desotoi*), federally listed as a threatened species, is an anadromous fish that is known to occur in the riverine, estuarine, and associated marine habitats of the Mississippi River Delta. Spawning occurs from late winter to early spring (i.e., March to May) in coastal rivers. Therefore, the Service recommends that the Corps avoid dredging activities in this reach of the Mississippi River Delta during spawning season if feasible. Please refer to Section II of this report for information and recommendations regarding the Atlantic sturgeon.

The piping plover and red knot occur along the Louisiana coast, including most of the Mississippi River Delta [ebird.org 2015]. Please refer to Section II of this report for information and recommendations regarding these species.

The pallid sturgeon, manatee, and sea turtles may occur in this reach of the Mississippi River. Please refer to the information concerning these species in Section II of this report.

Old River

Old River Lock Forebay and Tailbay- See comments under Atchafalaya Basin, Three Rivers above.

SECTION II

Pursuant to the Endangered Species Act of 1973, Table 1 details the federally-listed threatened, endangered, and candidate species (and their designated critical habitats) that could potentially be affected by the Corps' proposed FY 2016 maintenance dredging projects. Following that table are brief descriptions which include basic information regarding those threatened and endangered species that may occur in the listed project areas. Please note that those project areas which are not utilized by federally-listed species are not included in the table. Similarly, federally-listed species that may occur within the project area, but are not under the Service's jurisdiction are not included in the table. As in the past, please continue to advise us of your project-specific threatened and endangered species, as well as critical habitat, determinations in writing.

Table 1: Federally Listed Endangered and Threatened Species, Candidate Species, and Designated Critical Habitat that May Occur in the Corps of Engineers FY 2016 Maintenance Dredging/Disposal Areas.

Project	Species
Atchafalaya River Three Rivers	pallid sturgeon, interior least tern, Louisiana black bear, and Louisiana black bear critical habitat
Berwick Bay Harbor & Tidewater PT	pallid sturgeon, Louisiana black bear, and Louisiana black bear critical habitat
Horseshoe/Crewboat Cut	Pallid sturgeon and manatee
Bay Channel	piping plover, piping plover critical habitat, red knot, manatee, pallid sturgeon, and sea turtles
Bar Channel	piping plover, piping plover critical habitat, red knot, manatee, and sea turtles
Bayou Lafourche Port Fourchon Jetties & Bar Channel	piping plover, piping plover critical habitat, red knot, manatee, and sea turtles
Calcasieu River Mile 5 to 17 and Devil's Elbow	manatee and sea turtles
Bar Channel	piping plover, piping plover critical habitat, red knot, manatee, and sea turtles
GIWW Algiers Lock Forebay	pallid sturgeon and manatee

Harvey Lock Forebay	pallid sturgeon and manatee
INHC Lock Forebay	
Port Allen Lock Forebay	
Mile 99	
Port Allen to Morgan City Alternate Route	
Wax Lake Crossover	pallid sturgeon, manatee, and Louisiana black bear
Houma Navigational Channel Terrebonne Bay	manatee and sea turtles
Mississippi River Southwest Pass	pipin plover, pipin plover critical habitat, red knot, manatee, pallid sturgeon, and sea turtles
Baptiste Collette	manatee, pipin plover, red knot, pallid sturgeon, Atlantic sturgeon, and sea turtles
New Orleans Harbor (NOH)	pallid sturgeon and manatee
Shallow Draft Crossing	pallid sturgeon, fat pocketbook mussel, and interior least tern
Deep Draft Crossing	pallid sturgeon
Old River Lock Forebay and Tailbay	pallid sturgeon and interior least tern

The Louisiana black bear (*Ursus americanus luteolus*) was listed as a threatened subspecies in 1992. Although Louisiana black bears are primarily associated with forested wetlands, they utilize a variety of other habitat types, including scrub-shrub, marsh, spoil banks, and upland forests. Louisiana black bears, particularly pregnant females, normally den from December through April. Louisiana black bears will use almost any species of tree for a den site provided

that it meets a minimum diameter and cavity presence criteria as described below (Hightower et. al. 2002, Oli et. al. 1997, Weaver and Pelton 1994). Louisiana black bears will also use ground den sites, such as in hollow logs, slash piles, shallow burrows or depressions in areas of dense cover.

To afford additional protection to denning bears, the Service (through the final listing rule published on January 7, 1992, in Volume 57, No. 4 of the Federal Register) has extended legal protection to candidate and actual den trees in breeding habitat. Candidate den trees are defined in the final rule as bald cypress (*Taxodium distichum*) and tupelo gum (*Nyssa* sp.) having a diameter at breast height of 36 inches or greater, with visible cavities, and occurring in or along rivers, lakes, streams, bayous, sloughs, or other water bodies. "Actual den tree" refers to any tree used by a denning bear during the winter and early spring seasons. Research indicates that Louisiana black bears may use any tree species for a den site (including overcup oak, American elm, sweetgum, water hickory, and sycamore) provided that it meets the minimum diameter and cavity presence criteria described above (Hightower et. al. 2002, Oli et. al. 1997, Weaver and Pelton 1994).

On March 10, 2009, the Service published a final rule in the Federal Register (Volume 74, No. 45) designating 1,195,821 acres of critical habitat for the Louisiana black bear (effective April 9, 2009). Critical habitat identifies geographic areas containing features that are essential to the conservation of a threatened or endangered species, and which may require special management considerations or protection. Within the critical habitat boundary, only those areas that contain the physical and biological elements essential to support the life cycle needs of the Louisiana black bear are considered "critical habitat." Those elements are defined as breeding habitat and corridors within bottomland and upland hardwood forests and adjacent vegetated areas. Designation of critical habitat does not affect land ownership or establish a refuge or preserve, and only applies to situations where federal implementation, funding, or a federal permit is involved.

The Service strongly urges employees and contractors to avoid bears, if at all possible. Bears will typically avoid humans; however, with this type of activity and its encroachment into breeding habitat, bear sightings may occur. In order to prevent sightings from becoming confrontations, workers should be cautioned to not leave food or garbage in the field, as bears can become attracted and accustomed to human food quite easily. Once bears become habituated to human food sources, they often learn to associate areas of higher human density (i.e., residential, commercial, and industrial areas) with a readily available food source. As a result, human-bear conflicts occur, and it becomes difficult, if not impossible, to deter nuisance behavior even through forced relocation of the offending animal. In such cases, the only alternatives are to place the animal in permanent captivity or destroy it.

Should a proposed action directly or indirectly affect the Louisiana black bear or its designated critical habitat, further consultation with this office will be necessary.

The endangered West Indian manatee (*Trichechus manatus*) is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees may also infrequently be observed in the Mississippi River and coastal areas of southwestern Louisiana. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable.

- All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:
- All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at “no wake/idle” speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

- Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".

The interior least tern (*Sterna antillarum*) is an endangered migratory shorebird that breeds, nests, and rears its young on sparsely or non-vegetated portions of sand or gravel bars located mid-stream or along the shoreline in the Mississippi, Missouri, Arkansas, Ohio, Red and Rio Grande river systems and the rivers of central Texas. On the lower Mississippi River, the listed interior least tern population is concentrated within approximately 500 river miles between its confluence with the Ohio River at Cairo, Illinois, and Vicksburg, Mississippi. In Louisiana, the interior least tern historically occurred along the Mississippi River north of Baton Rouge, but few birds have been observed in surveys conducted over the last few years. Interior least tern nesting colonies are known to occur along the Red River in northwestern and Central Louisiana. Major threats to this species include habitat loss, human disturbance at nesting colonies, and altered water flow patterns.

The absence of nesting interior least terns should be confirmed before initiating any work in or adjacent to the Red or Mississippi Rivers during the breeding season (May 15 to August 31, depending upon river stages). In order to minimize impacts to nesting terns, the Service recommends that no activity should be conducted within 650 feet of a nesting colony (Martin and Lester 1990) and no disturbance to suitable nesting habitat (including changes in river morphology) should result from implementation of the proposed project. If nesting least terns are observed in proximity to the project area during the breeding season, all work should cease and the Service should be contacted immediately for further consultation.

The piping plover (*Charadrius melodus*), federally listed as a threatened species, is a small (7 inches long), pale, sand-colored shorebird that winters in coastal Louisiana and may be present for 8 to 10 months annually. Piping plovers arrive from their northern breeding grounds as early as late July and remain until late March or April. They feed on polychaete marine worms, various crustaceans, insects and their larvae, and bivalve mollusks that they peck from the top of or just beneath the sand. Piping plovers forage on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation. They roost in unvegetated or sparsely vegetated areas, which may have debris, detritus, or micro-topographic

relief offering refuge to plovers from high winds and cold weather. They also forage and roost in wrack (i.e., seaweed or other marine vegetation) deposited on beaches. 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 dependent 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); a map of the seven critical habitat units in Louisiana can be found at <http://criticalhabitat.fws.gov/crithab>. 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

The red knot (*Calidris canutus rufa*), federally listed as a threatened species, is a medium-sized shorebird about 9 to 11 inches (23 to 28 centimeters) in length with a proportionately small head, small eyes, short neck, and short legs. The black bill tapers steadily from a relatively thick base to a relatively fine tip; bill length is not much longer than head length. Legs are typically dark gray to black, but sometimes greenish in juveniles or older birds in non-breeding plumage. Non-breeding plumage is dusky gray above and whitish below. The red knot breeds in the central Canadian arctic but is found in Louisiana during spring and fall migrations and the winter months (generally September through March).

During migration and on their wintering grounds, red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks. Observations along the Texas coast indicate that red knots forage on beaches, oyster reefs, and exposed bay bottoms, and they roost on high sand flats, reefs, and other sites protected from high tides. In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Coquina clams (*Donax variabilis*), a frequent and often important food resource for red knots, are common along many gulf beaches. Major threats to this species along the Gulf of Mexico include the loss and degradation of habitat due to erosion, shoreline stabilization, and development; disturbance by humans and pets; and predation.

There are five species of federally listed threatened or endangered sea turtles that forage in the near shore waters, bays, and estuaries of Louisiana. The National Marine Fisheries Service (NMFS) is responsible for aquatic marine threatened or endangered species that occur in the marine environment. Please contact Eric Hawk (727/824-5312) at the NMFS Regional Office in St. Petersburg, Florida, for information concerning those species in the marine environment.

When sea turtles leave the marine environment and come onshore to nest, the Service is responsible for those species. Two species, the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's ridley (*Lepidochelys kempii*) could potentially nest in Louisiana during the summer months (i.e., May through November). Historical records indicate that loggerheads nested on the Chandeleur Islands and recent data indicate rare nesting attempts along Fourchon Beach in Lafourche Parish. The Kemp's ridley is known to nest in coastal Texas and Alabama; thus, nesting attempts could possibly occur in Louisiana as that species achieves recovery. The primary threats to nesting beaches include coastal development and construction, placement of erosion control structures and other barriers to nesting, beachfront lighting, vehicular and pedestrian traffic, sand extraction, beach erosion, beach nourishment, beach pollution, removal of native vegetation, and planting of non-native vegetation (USFWS 2007). We recommend that you contact this office if your activities would occur on coastal beaches during the summer months (i.e., May through November).

Loggerhead sea turtles (*Caretta caretta*) nest within the coastal United States from Virginia to Louisiana, 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. Historically in Louisiana, loggerheads have been known to nest on the Chandeleur Islands and recent data indicate rare nesting attempts along Fourchon Beach in Lafourche Parish. Nesting and hatching dates for the loggerhead in the northern Gulf of Mexico are from May 1 through November 30. Threats to this species include destruction of nesting habitat and drowning in fishing nets.

The Kemp's Ridley (*Lepidochelys kempii*) sea turtle has a restricted distribution. Nesting is essentially limited to the beaches of the western Gulf of Mexico, primarily in Mexico. Kemp's ridleys are coastal inhabitants throughout the Gulf of Mexico and the northwestern Atlantic Ocean, as far north as the Grand Banks and Nova Scotia, Canada. Juveniles and sub-adults occupy shallow, coastal regions and are commonly associated with crab-laden, sandy or muddy water bottoms. They are generally found in near shore areas of the Louisiana coast from May through October. Adults may be abundant near the mouth of the Mississippi River in the spring and summer. Adults and juveniles move offshore to deeper, warmer water during the winter. Between the East Gulf Coast of Texas and the Mississippi River Delta, Kemp's ridleys use near shore waters, ocean sides of jetties, small boat passageways through jetties, and dredged and nondredged channels. They have been observed within both Sabine and Calcasieu Lakes. Major threats to this species include over-exploitation on their nesting beaches, drowning in fishing nets, and pollution.

The pallid sturgeon (*Scaphirhynchus albus*) is an endangered, bottom-oriented, fish that inhabits large river systems from Montana to Louisiana. Within this range, pallid sturgeon tend to select main channel habitats in the Mississippi River and main channel areas with islands or sand bars in the upper Missouri River. In Louisiana it occurs in the Atchafalaya and Mississippi Rivers, and below Lock and Dam Number 3 on the Red River (with known concentrations in the vicinity of the Old River Control Structure Complex). The pallid sturgeon is adapted to large, free-flowing, turbid rivers with a diverse assemblage of physical characteristics that are in a constant state of change. Many life history details and subsequent habitat requirements of this fish are not known. However, the pallid sturgeon is believed to utilize Louisiana riverine habitat during reproductive stages of its life cycle. Habitat loss through river channelization and dams has adversely affected this species throughout its range.

The density of pallid sturgeon in the Lower Mississippi River Delta is thought to be extremely low; however, there have been limited sampling efforts in that area. The nearest recorded capture of a pallid sturgeon was at River Mile 99 to River Mile 80. The frequency of pallid sturgeon occurrence in the river (based on capture data) decreases from New Orleans south towards the mouth of the river. As river morphology changes moving south, habitat suitability for this species is generally thought to also gradually decrease towards the river mouth. Furthermore, the pallid sturgeon is believed to be a strictly freshwater fish, and is probably completely absent from the Lower Mississippi River Delta during low river flows when salt water from the Gulf of Mexico intrudes upriver along the bottom of the channel (salt water wedge). Dredging projects should be scheduled during those events if possible. Similarly, pallid sturgeon are also thought to occur infrequently in the Atchafalaya River Delta.

Entrainment issues associated with dredging operations in the Mississippi and Atchafalaya Rivers and through diversion structures off the Mississippi River are two potential effects that should be addressed in future planning studies and/or in analyzing current project effects. We recommend the following to minimize potential impacts to pallid sturgeon associated with dredging to ensure protection of the pallid sturgeon: (1) the cutterhead should remain completely buried in the bottom material during dredging operations. If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate should be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased; (2) during dredging, the pumping rates should be reduced to the slowest speed feasible while the cutterhead is descending to the channel bottom.

The Atlantic sturgeon (*Acipenser oxyrinchus desotoi*); formerly the Gulf sturgeon, federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine and marine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. In Louisiana, Atlantic sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain Basin, the Pearl River System, and adjacent estuarine and marine areas. 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. Atlantic 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 and navigation projects that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species. In riverine waters, the Service is responsible for all consultations regarding Atlantic sturgeon and critical habitat, while in marine waters the NMFS is responsible for consultation.

Federally listed as an endangered species, the fat pocketbook pearly mussel (*Potamilus capax*) inhabits the Mississippi River in Concordia, East Carroll, Madison, and Tensas Parishes, Louisiana. The fat pocketbook mussel has a smooth, rayless, shiny yellow to brown shell measuring up to 5 inches long. Although little is known about the ecology of this species, the fat pocketbook is a large river species and suitable habitat is most likely a mixture of stable sand, silt, and clay substrates with flowing water (e.g., old dike fields, secondary channels). The life history of this species is believed to be similar to that of other members of the Unionidae family, and the host fish is likely to be one or more species of large river fish. The greatest threats to this species include habitat alteration caused by activities related to navigation (e.g., channel maintenance dredging) and flood control, and reduction in water quality due to siltation.

SECTION III

Under the authority of the Endangered Species Act of 1973, as amended, the Service removed the brown pelican (*Pelecanus occidentalis*) from the Federal List of Endangered and Threatened Wildlife due to recovery. The final rule was published in the Federal Register on November 17, 2009, and was effective on December 17, 2009. This action is based on a review of the best available scientific and commercial data, which indicate that the species is no longer in danger of extinction, or likely to become so within the foreseeable future. The brown pelican will remain protected under the provisions of the MBTA.

The bald eagle (*Haliaeetus leucocephalus*) was officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the MBTA and the BGEPA. Comprehensive bald eagle survey data have not been collected by the Louisiana Department of Wildlife and Fisheries (LDWF) since 2008, and new active, inactive, or alternate nests may have been constructed within the proposed project area since that time. Therefore, the Service recommends the Corps determine bald eagle nest status in the vicinity of proposed maintenance dredging projects where nesting is known to occur prior to dredging activities.

Bald eagles typically nest in large trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. In southeastern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Major threats to this species include habitat alteration,

human disturbance, and environmental contaminants. Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during this critical period may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

Table 2: Corps of Engineers' FY 2016 Maintenance Dredging Projects that would occur in the vicinity of known Bald Eagle Nests.

Project	Reach
Atchafalaya Basin	Berwick Bay Harbor
GIWW	Alternate Route Below Bayou Sorrel Lock Mile 99 Wax Lake Crossover

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: <http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>. Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. On-site personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest is discovered within 1,500 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <http://www.fws.gov/southeast/es/baldeagle>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

On September 11, 2009, the Service published two federal regulations establishing the authority to issue permits for non-purposeful bald eagle take (typically disturbance) and eagle nest take when recommendations of the NBEM Guidelines cannot be achieved. Permits may be issued for nest take only under the following circumstances where: 1) necessary to alleviate a safety emergency to people or eagles, 2) necessary to ensure public health and safety, 3) the nest prevents the use of a pre-existing human-engineered structure, or 4) the activity or mitigation for the activity will provide a net benefit to eagles. Except in emergencies, only inactive nests may

be permitted to be taken. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. Should you need further assistance interpreting the guidelines or performing an on-line project evaluation, please contact this office.

In accordance with the Migratory Bird Treaty Act of 1918 (as amended), please be advised that some of the proposed dredged material disposal projects (as noted in Section I) are located in habitats which are commonly inhabited by colonial nesting wading birds and seabirds. Colonies may be present that are not currently listed in the database maintained by the LDWF. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site prior to dredging activities for the presence of undocumented nesting colonies during the nesting season. To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed if such colonies are found:

1. For colonies containing nesting brown pelicans, all activity occurring within 2,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 15 through March 31). Nesting periods vary considerably among Louisiana's brown pelican colonies, however, so it is possible that this activity window could be altered based upon the dynamics of the individual colony. The LDWF's Fur and Refuge Division should be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies. Brown pelicans are known to nest on barrier islands and other coastal islands in St. Bernard, Plaquemines, Jefferson, Lafourche, and Terrebonne Parishes, and on Rabbit Island in lower Calcasieu Lake, in Cameron Parish.
2. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).
3. For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).

All contracts should also contain a statement prohibiting work within the appropriate species-specific distance (referenced above) of any nesting colonies unless project-specific discussions with the Service indicate buffer zones may be reduced on a species-specific basis. We look forward to assisting your staff in identifying nesting colonies via pre-construction site inspections where needed.

We appreciate this opportunity to comment on the Corps' proposed FY 2016 maintenance dredging program. Should you or your staff have any questions about our recommendations, please contact Mr. John Savell (337/291-3144) of this office.

Sincerely,



Jeffrey D. Weller
Field Supervisor
Louisiana Ecological Services Office

cc: Southwest LA Refuges, FWS, Bell City, LA
Southeast LA Refuges, FWS, Lacombe, LA
NMFS, Baton Rouge, LA
EPA, Dallas, TX
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, New Iberia, LA
LA Dept. of Natural Resources (CMD), Baton Rouge, LA
CPRA, Baton Rouge, LA

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