Colonel Michael N. Clancy  
District Commander  
U.S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267  

Dear Colonel Clancy:

The U.S. Army Corps of Engineers (USACE), New Orleans District has prepared an Integrated Design and Implementation Report and Environmental Assessment (EA) #567 titled “Louisiana Coastal Area (LCA), Beneficial Use of Dredged Material (BUDMAT) Program, Barataria Bay Waterway Project at Jefferson Parish, Louisiana.” The EA evaluates the potential impacts associated with beneficially using dredged material removed from the upper reach of the Barataria Bay Waterway (BBWW) to create marsh habitat between Bayou Perot and Bayou Rigolettes, in Jefferson Parish, Louisiana. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of the proposed project and provides recommendations to minimize adverse project impacts while maximizing beneficial project impacts on those resources. This report has been prepared by the Fish and Wildlife Service (USFWS) under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). A draft copy of the report was provided to the National Marine Fisheries Service (NMFS) and the Louisiana Department of Wildlife and Fisheries (LDWF) for review. They concurred with our comments and recommendations which are included in this report.

The Louisiana Coastal Area (LCA) Beneficial Use of Dredged Material (BUDMAT) program was created to help fund the beneficial use of dredged material from federally-maintained waterways in coastal Louisiana. The program is only utilized for ecosystem restoration projects that are beyond the scope of disposal activities covered under the USACE’s Operations and Maintenance (O&M) dredging program Federal Standard. The program is authorized at $100 million, and funds have been appropriated for the BBWW project in partnership with Jefferson Parish Government.

STUDY AREA

The Study Area is located in southeast Louisiana, within the Barataria Basin in Jefferson Parish. It is bound on the north by Lake Salvador near Bayou Villars. The east boundary follows the east Jefferson Parish boundary, which runs south from the Gulf Intracoastal Waterway (GIWW, near River Mile 10), southeast of the Pen, and down south through Round Lake before terminating at the east end of Grand Terre. The west boundary follows the Jefferson Parish western boundary,
which runs from Lake Cataouatche, east of Couba Island, and through the center of Bayou Perot and Little Lake before terminating west of Elmers Island. The southern boundary is contained within the Gulf of Mexico.

Wetlands within the study area grade from fresh marsh along the northern extent to saline marsh along the southern extent. Other study area features include agriculture, urban development, privately-owned oyster leases, a public oyster seed bed within Turtle Bayou and Little Lake, and oil and gas pipelines. The Barataria Bay Waterway (BBWW) within the study area is a federally-maintained channel that extends from the Gulf Intracoastal Waterway near Lafitte, Louisiana (BBWW River Mile 37) south to the Gulf of Mexico between Grand Isle and Grand Terre (BBWW River Mile 0).

Historically, wetlands in the Barataria Basin were nourished by the fresh water, sediments, and nutrients delivered via overbank flooding of the Mississippi River and through its many distributary channels such as Bayou Lafourche, Bayou Barataria, and Bayou Grand Cheniere. As the flow of fresh water and sediments from the Mississippi River was restricted by the construction of flood protection levees in the 1930s and the closure of Bayou Lafourche in 1904 (Conner et al 1986), the basin began to gradually deteriorate from saltwater intrusion, subsidence, wave action, and sediment deprivation. Historically, Bayou Perot, and the longer, narrower Bayou Dupont-Bayou Barataria-Bayou Villars channels provided limited hydrologic connection between the upper and lower basin. The hydrologic connections between the upper and lower Barataria Basin are much greater today, due to the Barataria Bay Waterway, Bayou Segnette Waterway, Harvey Cutoff, and substantial erosion and interior marsh loss along Bayous Perot and Rigolettes. The frequency of high salinity events has also increased in the Barataria Basin (Swenson and Turner 1998), probably as a result of the increased tidal connectivity.

FISH AND WILDLIFE RESOURCES

The study area marshes provide habitat for federal trust species including wading birds, waterfowl, and neotropical migrants. Freshwater and estuarine fish and crustacean species are abundant. Study area marshes provide important habitat for the growth and production of estuarine-dependent species such as blue crab, white shrimp, brown shrimp, Gulf menhaden, Atlantic croaker, spot, red drum, black drum, sand seatrout, spotted seatrout, southern flounder, striped mullet, and other finfishes. Commercial shrimp harvests have been positively correlated with the area of tidal emergent wetlands (Turner 1977 and 1982). Future commercial harvests of shrimp and other fishes and shellfishes would likely be adversely impacted by losses in marsh habitat (Turner 1982). Other wildlife includes alligators, swamp rabbit, nutria, muskrat, mink, river otter, raccoon, white-tailed deer, and coyote.

FUTURE FISH AND WILDLIFE RESOURCES

Recent analyses by the U.S. Geological Survey (USGS; Couvillion et al. 2017) show the land area in the Barataria Basin has changed from 947,059 acres in 1932 to 670,281 acres in 2016 for a net loss of about 276,778 acres. This loss in land area amounts to a decrease of approximately 29% of the 1932 land area. This loss of marsh acreage results in less foraging, protection, and nesting habitat for fish and wildlife. While some localized areas are expected to maintain existing marsh or have an increase due to restoration efforts, the Barataria Basin in general will likely continue to lose marsh habitat and experience decreased abundances of fish and wildlife.
Threatened and Endangered Species
Federally-listed threatened and endangered species found in the project area include the threatened West Indian manatee (*Trichechus manatus*), the threatened red knot (*Calidris canutus rufa*), and sea turtles. The USACE should consult with the NMFS regarding sea turtles. The USACE should consult with the USFWS for all other species and include any USFWS-recommended protective measures in their work plan.

The threatened West Indian manatee 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. The following conservation measures should be included in all contracts and plans and specifications for in-water work in areas where the manatee may occur.

- 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”.

• Collisions with, injury to, or sightings of manatees should be immediately reported to the USFWS’s Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

The red knot, 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 May).

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. The USACE should determine whether the proposed project would potentially affect this species.

The USACE is responsible for determining whether the selected alternative is likely (or not likely) to adversely affect any listed species and/or critical habitat, and for requesting the USFWS’s concurrence with that determination. If the USACE determines, and the USFWS concurs, that the selected alternative is likely to adversely affect listed species and/or critical habitat, a request for formal consultation in accordance with Section 7 of the Endangered Species Act should be
submitted to the USFWS. That request should also include the USACE’s rationale supporting their determination.

**Species Proposed for Listing**
The eastern black rail (*Laterallus jamaicensis ssp.*) is the smallest of North America’s rail species. It has a broad distribution inhabiting higher elevations of tidal marshes and freshwater wetlands throughout the Americas. The eastern black rail breeds from New York to Florida along the Atlantic Coast and in Florida and Texas along the Gulf Coast. There is little known about the spring and fall migration as well as wintering distribution of the eastern black rail, but it has been documented year around in portions of the Gulf Coast from southeast Texas to Florida. Recent surveys conducted within southwestern Louisiana have revealed that the eastern black rail occurs along the Cameron and Vermilion Parish coastlines in both the breeding and non-breeding season.

Winter habitat for the eastern black rail is presumed to be similar to breeding habitat. Birds are found in a variety of salt, brackish, and freshwater marsh habitats that can be tidally or non-tidally influenced. Plant structure is considered more important than plant species composition in predicting habitat suitability (Flores and Eddleman 1995). In Louisiana, occurrences have been documented in high brackish marsh and presence is highly coorelated with gulf cordgrass (*Spartina spartinae*) and often interspersed with shrubs such as marsh elder (*Iva frutescens*) or saltbush (*Baccharis hamilifolia*). The high marsh is only inundated during extreme high tide events. In general, the character of the high marsh is a short grassy savannah. It may also occur in working wetland habitats such as rice fields.

On October 9, 2018, the Service announced a proposal to list the Eastern black rail as a threatened species and to provide measures under section 4(d) of the ESA that are tailored to our current understanding of the conservation needs of the eastern black rail. Section 7(a)(4) of the ESA provides a mechanism for identifying and resolving potential conflicts between a proposed Federal action and proposed species or proposed critical habitat at an early planning stage. A conference is required if a proposed action is likely to jeopardize the continued existence of a proposed species, or adversely modify or destroy proposed critical habitat; however Federal action agencies may request a conference on any proposed action that may affect proposed species or proposed critical habitat to ensure the conservation of that species.

**Migratory Birds**
Please be advised that the project area is located in habitats which are commonly inhabited by colonial nesting waterbirds and/or seabirds. Colonies may be present that are not currently listed in the database maintained by the LDWF. That database is updated primarily by (1) monitoring previously known colony sites and (2) augmenting point-to-point surveys with flyovers of adjacent suitable habitat. Although several comprehensive coast-wide surveys have been recently conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season because some waterbird colonies may change locations year-to-year.

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, depending on the species present. Below is the list of colonial nesting birds that may be found and the corresponding activity window during which
the project may occur without affecting nesting wading bird colonies. Please note no part of the project should occur outside those windows.

<table>
<thead>
<tr>
<th>Species</th>
<th>Project Activity Window/Non-Nesting Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhinga</td>
<td>July 1 to March 1</td>
</tr>
<tr>
<td>Cormorant</td>
<td>July 1 to March 1</td>
</tr>
<tr>
<td>Great Blue Heron</td>
<td>August 1 to February 15</td>
</tr>
<tr>
<td>Great Egret</td>
<td>August 1 to February 15</td>
</tr>
<tr>
<td>Snowy Egret</td>
<td>August 1 to March 1</td>
</tr>
</tbody>
</table>

In addition, we recommend that on-site contract personnel including project-designated inspectors be trained to identify colonial nesting birds and their nests, and avoid affecting them during the breeding season (i.e., the time period outside the activity window). Should on-site contractors and/or inspectors observe potential nesting activity, coordination with the LDWF and the Service should occur.

<table>
<thead>
<tr>
<th>Species</th>
<th>Project Activity Window/Non-Nesting Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little Blue Heron</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Tricolored Heron</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Reddish Egret</td>
<td>August 1 to March 1</td>
</tr>
<tr>
<td>Cattle Egret</td>
<td>September 1 to April 1</td>
</tr>
<tr>
<td>Green Heron</td>
<td>September 1 to March 15</td>
</tr>
<tr>
<td>Black-crowned Night-Heron</td>
<td>September 1 to March 1</td>
</tr>
<tr>
<td>Yellow-crowned Night-Heron</td>
<td>September 1 to March 15</td>
</tr>
<tr>
<td>Ibis</td>
<td>September 1 to April 1</td>
</tr>
<tr>
<td>Roseate Spoonbill</td>
<td>August 1 to April 1</td>
</tr>
</tbody>
</table>

**Essential Fish Habitat**

The project may be located within an area identified as Essential Fish Habitat (EFH) by the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, Magnuson-Stevens Act; P.L. 104-297). The USACE should consult with the NMFS regarding EFH.

**Species of Management Concern**

Species of fish, wildlife, and plants labeled as “S1” and “S2” by the Louisiana Department of Wildlife and Fisheries are extremely and very rare species, respectively, that are vulnerable to extirpation in Louisiana. These species, along with those identified as priority species by the Gulf Coast Joint Venture are species of management concern. Continued population declines could result in these species becoming candidates for listing under the Endangered Species Act. Some of these species may also be referred to as at-risk species; the USFWS has defined at-risk species as those species that have either been proposed for listing, are candidates for listing, or have been petitioned for listing. In addition, species of concern that would use study area’s fresh, intermediate, and brackish wetland habitats and potentially benefit from the proposed project include the glossy ibis, seaside sparrow, mottled duck, saltmarsh topminnow, and the peregrine falcon.
DESCRIPTION OF TENTATIVELY SELECTED PLAN AND EVALUATED ALTERNATIVES

Through coordination between the USACE’s Project Development Team (PDT), the non-federal sponsor (Jefferson Parish Government), and natural resource agencies, several action alternatives and a no-action alternative were compared. The environmentally preferable action alternative and the no-action alternative are described below.

1) Tentatively Selected Plan (TSP): BA-1 East – Bayou Perot/Bayou Rigolettes

The proposed project referred to as Alternative BA-1 East consists of an approximately 75-acre marsh creation site (site) that would be constructed using dredge material sourced from the BBWW. The site is located in the narrow corridor of wetlands that separates Bayou Perot and Bayou Rigolettes in Jefferson Parish, LA.

The site perimeter is approximately 8,500 continuous linear feet. Dredge material would be placed in the site. The site would have a target final elevation of +0.6 ft North American Vertical Datum 1988 (NAVD88), with a maximum tolerance of +/-0.5 ft (+0.1 ft to +1.1 ft NAVD88) after material settlement has occurred after the deposition of the material. The gross volume of dredge material is approximately 750,000 cyd of material. Sources of the material include: the Barataria Bay Entrance Y; upper BBWW reach; flotation access channel from BBWW to the project site. For the construction of the site, the material dredged from the BBWW would be loaded onto barges, transported to a designated pump-out location adjacent to the site, and then offloaded using a temporary pipeline. Material removed from the flotation access channel would be transported to the site where it would be incorporated into the site.

Bayou Rigolettes is too shallow for loaded barges to traverse. The flotation access channel would be dredged in state owned water bottoms to allow for ingress and egress of the barges and equipment required for the construction of the site (i.e., dredge material, temporary pipeline, earth moving equipment, etc.). Barge loaded equipment would be used for construction. The material excavated from the water bottoms from the creation of the flotation access channel would be placed in the site. The approximately 105-acre flotation access channel from the BBWW to the project site would be approximately 200 feet wide and 3.5 miles long.

Pipeline corridors would be required for accessing the site at ground level. The pipeline corridor to the north portion of the site would be approximately 50 feet wide by 450 feet long and the pipeline corridor to the south portion of the site would be approximately 50 feet wide by 1300 feet long. The pipeline corridors total approximately 2.5 acres.

Dredged material placed in the site would be held in place using natural shoreline and through the use of minimum retention (e.g., hay bales, core logs, sandbags, earthen fill, etc.).

2) No-Action Alternative

The restoration project would not be constructed and the eventual loss of the land bridge could result in an increased rate of wetland loss with a resulting loss of fish and wildlife habitat.
EVALUATION METHODS FOR SELECTED PLAN AND ALTERNATIVES

Wetland Value Assessment (WVA)
Evaluations of the effects of the alternatives to fish and wildlife resources were conducted using the WVA methodology. The USACE’s Civil Works WVA - Intermediate Marsh Model (Version 2.0) was used to assess coastal wetland environmental effects for this project. Implementation of the WVA requires that habitat quality and quantity (acreage) are measured for baseline conditions, and predicted for future without-project and future with-project conditions. Each WVA model utilizes an assemblage of variables considered important to the suitability of that habitat type to support a diversity of fish and wildlife species. The WVA provides a quantitative estimate of project-related impacts to fish and wildlife resources; however, the WVA is based on separate models for bottomland hardwoods, chenier/coastal ridge, fresh/intermediate marsh, brackish marsh, and saline marsh. Although, the WVA may not include every environmental or behavioral variable that could limit populations below their habitat potential, it is widely acknowledged to provide a cost-effective means of assessing restoration measures in coastal wetland communities.

The WVA models operate under the assumption that optimal conditions for fish and wildlife habitat within a given coastal wetland type can be characterized, and that existing or predicted conditions can be compared to that optimum to provide an index of habitat quality. Habitat quality is estimated and expressed through the use of a mathematical model developed specifically for each wetland type. Each model consists of: (1) a list of variables that are considered important in characterizing community-level fish and wildlife habitat values; (2) a Suitability Index graph for each variable, which defines the assumed relationship between habitat quality (Suitability Index) and different variable values; and, (3) a mathematical formula that combines the Suitability Indices for each variable into a single value for wetland habitat quality, termed the Habitat Suitability Index (HSI).

The product of an HSI value and the acreage of available habitat for a given target year is known as the Habitat Unit (HU) and is the basic unit for measuring project effects on fish and wildlife habitat. HUs are annualized over the project life to determine the Average Annual Habitat Units (AAHUs) available for each habitat type. The change (increase or decrease) in AAHUs for each future with-project scenario, compared to future without-project conditions, provides a measure of anticipated impacts. A net gain in AAHUs indicates that the project is beneficial to the fish and wildlife community within that habitat type; a net loss of AAHUs indicates that the project would adversely impact fish and wildlife resources.

IMPACTS OF SELECTED PLAN

Because the action alternative includes placement of dredged material in shallow water bottoms, it would impact submerged aquatic vegetation as well as benthic and slower moving aquatic demersal organisms; however, shallow water bottom habitat area is increasing relative to emergent marsh area and coastal islands in most of coastal Louisiana. The construction of the TSP would, however, increase the overall net habitat value of the area. The projected effects of the alternatives are summarized in Table 1.
Table 1. TSP restoration acres and AAHUs.

<table>
<thead>
<tr>
<th>TSP Site</th>
<th>Marsh restoration acres</th>
<th>Marsh acres remaining at 50 years</th>
<th>Total net benefits in AAHUs due to project</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA-1 East</td>
<td>72.2</td>
<td>59.05</td>
<td>16.95</td>
</tr>
</tbody>
</table>

USFWS POSITION AND RECOMMENDATIONS

Construction of the TSP would result in approximately 72.2 acres of intermediate marsh created with a net total of 16.95 AAHUs. If implemented, the TSP would create intermediate marsh and may benefit habitat for the at-risk glossy ibis, seaside sparrow, black rail, mottled duck, saltmarsh topminnow, and peregrine falcon. The USFWS supports this marsh creation project provided the following fish and wildlife conservation measures are implemented concurrently with project implementation to help ensure that fish and wildlife conservation is maximized:

1. West Indian manatee conservation measures from the Future Fish and Wildlife Resources section of this report should be included in all contracts, plans, and specifications for in-water work in areas where the manatee may occur.

2. Avoid adverse impacts to water bird colonies through careful design of project features and timing of construction. Should on-site contractors and/or inspectors observe potential nesting activity, coordination with the LDWF and the Service should occur.

3. The impacts to Essential Fishery Habitat should be discussed with the NMFS to determine if the project complies with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), Magnuson-Stevens Act; P.L. 104-297, as amended) and its implementing regulations.

4. Access corridors across existing wetlands should be avoided if possible. Impacted wetlands should be restored to a substrate elevation similar to the surrounding marsh. Flotation access channels in open water should be backfilled upon project completion. Post-construction surveys (e.g., centerline surveys) should be taken to ensure access channels have been adequately backfilled. That information should be provided to the natural resource agencies for review.

5. To ensure that dredged material is placed to specified elevations, we recommend that the USACE use an updated NAVD88 datum (i.e., current geoid) consistent with the NAVD88 datum that is referenced for the elevations of existing marsh and water level in the project area.

6. Further detailed planning of project features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, or other similar documents) should be coordinated with the Environmental Protection Agency (EPA), Louisiana Department of Natural Resources (LDNR), LDWF, NMFS, and USFWS. The USFWS shall be provided an opportunity to review and submit recommendations on the all work addressed in those reports as authorized in FWCA Sections 2a, 2e, and 2f (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) which states that any water resource development project...
with a federal nexus will coordinate with the USFWS (including NMFS and the state equivalent, in this case LDWF) during all levels of planning, engineering and construction.

7. Any proposed change in project features or plans should be coordinated in advance with the EPA, LDNR, LDWF, NMFS, and USFWS.

8. The LCA BUDMAT program specifies that monitoring and adaptive management plans are required for beneficial use habitat creation projects. The USACE should coordinate with the USFWS during development of those plans.

9. The USFWS recommends that the USACE contact the USFWS for additional consultation if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made and or finalized.

We appreciate the opportunity to assist in the development of the Barataira Bay Waterway BUDMAT project. If you need additional assistance or have questions regarding this letter, please contact Seth Bordelon (337/291-3138) of this office.

Sincerely,

Joseph A. Ranson
Field Supervisor
Louisiana Ecological Services Office

cc: CPRA, Baton Rouge, LA
EPA, Dallas, TX
LDNR, CMD, Baton Rouge, LA
LDWF, Baton Rouge, LA
NMFS, Baton Rouge, LA
USACE, NOD, New Orleans, LA (Attn: Mr. Daniel Meden)


To: Joseph Ranson, USFWS  
646 Cajundome Blvd., Suite 400  
Lafayette, LA 70506  
Fax: (337) 291-3139

From: Daniel Meden  
Phone: (504) 862-1014  
Date: January 30, 2019

Subject: T&E Species concurrence for the Louisiana Coastal Area, Beneficial Use of Dredged Material Program at Barataria Bay Waterway, Jefferson Parish, Louisiana Project

Dear Mr. Ranson:

Attention: David Walther

The U.S. Army Corps of Engineers (USACE), New Orleans District has proposed Environmental Assessment (EA) #567 titled "Louisiana Coastal Area (LCA) Beneficial Use of Dredged Material Program, Barataria Bay Waterway at Jefferson Parish, Louisiana." The EA is being prepared to address actions proposed under the Louisiana Coastal Area Beneficial Use of Dredged Material program, which has an approved Programmatic Environmental Impact Statement (EIS) entitled Louisiana Coastal Area Beneficial Use of Dredge Material Programmatic EIS and Record of Decision dated 13 August 2010.

Project Description

Alternative BA-1 East

The proposed Project, referred to as Alternative BA-1 East, consists of a marsh creation site (site) of approximately 75 acres using dredged material sourced from the Barataria Bay Waterway Federal navigation channel (BBW). The site is located in the narrow corridor of wetlands that separates Bayou Perot and Bayou Rigolettes in Jefferson Parish, LA. (See Engineering Plate R-01)

The site perimeter is approximately 8,500 continuous linear feet. Dredged material would be placed in the site. The site would have a target final elevation of +0.6 ft North American Vertical Datum 1988 (NAVD88), with a maximum tolerance of +/-0.5 ft (+0.1 ft to +1.1 ft NAVD88) after material settlement has occurred following the deposition of the material. The gross volume of dredged material is approximately 764,000 cyd of material. Sources of the material include: the Barataria Bay Entrance Y; the upper BBW reach; and a flotation access channel that will be dredged from BBW to the project site. For the construction of the site, the material dredged from the BBW would be loaded onto barges, transported to a designated pump-out location adjacent to the site, and then offloaded.
using a temporary pipeline. Material removed from the flotation access channel would be transported to the site where it would be incorporated into the site.

Since Bayou Rigolettes is too shallow for loaded barges to traverse, the flotation access channel would be dredged in state-owned water bottoms to allow for ingress and egress of the barges and equipment required for the construction of the site (i.e., dredged material, temporary pipeline, earth moving equipment, etc.). Barge-loaded equipment would be used for construction. The material excavated from the water bottoms from the creation of the flotation access channel would be placed in the site.

The approximately 105-acre flotation access channel from the BBW to the project site would be approximately 200 feet wide and 3.5 miles long. Temporary pipeline corridors would be required for accessing the site at ground level. The pipeline corridor to the north portion of the site would be approximately 50 feet wide by 450 feet long and the pipeline corridor to the south portion of the site would be approximately 50 feet wide by 1,300 feet long. These pipeline corridors total approximately 2.0 acres.

Dredged material placed in the site would be held in place using natural shoreline and through the use of minimum retention (e.g., hay bales, core logs, sandbags, earthen fill, etc.).

**Occurrence of Protected, Threatened and Endangered Species**

Although threatened or endangered species may occur within the broader study area of the Barataria Bay Waterway, their presence within the project area is highly unlikely. The project area does not contain critical habitat for federally-listed species, and the open water areas surrounding the project area would allow them to easily avoid the project activities. Therefore, the proposed project is unlikely to cause adverse direct or indirect impacts to (i.e., not likely to adversely affect) federally-listed threatened or endangered species, or their critical habitat, under the jurisdiction of USFWS. Additionally, CEMVN has concluded that no critical habitat for any threatened, endangered, or candidate species under the purview of NMFS has been designated within the project area, and that there would be no adverse impacts (i.e., no effect) to any of the NMFS federally-listed species that could potentially occur within the project area.

With coordination from US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), it was found that both the pallid sturgeon and Atlantic sturgeon are not in the project area. The foraging habitat of piping plovers and red knots includes intertidal beaches in barrier headlands and barrier islands, sand, mud, and/or algal flats, between annual low tide and annual high tide, none found within the project area. The brown pelican resides on coastal islands and mangroves and would also not be in the project area (Table 1).
Table 1. Threatened (T), Endangered (E), & Protected (P) Species in Project Area

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name and status (T, E, or P)</th>
<th>Found in Study Area</th>
<th>Found in Project Area</th>
<th>Determination of Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Haliaeetus leucocephalus</em></td>
<td>Bald Eagle (P)</td>
<td>Yes</td>
<td>No</td>
<td>Not likely to Adversely Affect (NLAA)</td>
</tr>
<tr>
<td><em>Pelecanus occidentalis</em></td>
<td>Brown Pelican (E)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Acipenser oxyrinchus</em></td>
<td>Atlantic Sturgeon (T)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Scaphirhynchus albus</em></td>
<td>Pallid Sturgeon (E)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Charadrius melodus</em></td>
<td>Piping Plover (T)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Calidris canutus</em></td>
<td>Red Knot (T)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Trichechus manatus</em></td>
<td>West Indian Manatee (T)</td>
<td>Yes</td>
<td>Yes</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Lepidochelys kempii</em></td>
<td>Kemp’s Ridley Sea Turtle (E)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Chelonia mydas</em></td>
<td>Green Sea Turtle (T)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Eretmochelys imbricata</em></td>
<td>Hawksbill Sea Turtle (T)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Caretta caretta</em></td>
<td>Loggerhead Sea Turtle (E)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
<tr>
<td><em>Dermochelys coriacea</em></td>
<td>Leatherback Sea Turtle (E)</td>
<td>Yes</td>
<td>No</td>
<td>NLAA</td>
</tr>
</tbody>
</table>

**West Indian Manatee**

The threatened West Indian manatee is known to regularly occur in parts of coastal Louisiana, but is infrequent within the vicinity of the current project area. 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. During in-water work in areas that potentially support manatees all personnel associated with the project would be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel would 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 would be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable. The following conservation measures would be included in all contracts and plans and specifications for in-water work in areas where the manatee may occur.
All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). The following is recommended to minimize potential impacts to manatees in areas of their potential presence:

1. 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).

2. 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.

3. 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.

4. 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”.

5. Collisions with, injury to, or sightings of manatees should be immediately reported to the United States Fish and Wildlife Service’s (USFWS) Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). The nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible, should be provided.

Migratory Shorebirds

The brown pelican (Pelecanus occidentalis), a year-round resident of coastal Louisiana that may occur in the project area, was removed from the Federal List of Endangered and Threatened Wildlife (i.e., “delisted”) by USFWS on November 17, 2009. Despite its delisting, brown pelicans - and other colonial nesting wading birds and seabirds - remain protected under the Migratory Bird Treaty Act. Portions of the proposed project area may contain habitats commonly inhabited by colonial nesting wading birds and seabirds. To
minimize disturbance to pelicans and other colonial nesting birds and seabirds potentially occurring in the project area, the USACE would observe restrictions on activity provided by the USFWS, Lafayette, Louisiana Ecological Services Office. Special operating conditions addressing pelicans and other colonial nesting wading birds and seabirds (including reporting presence of birds and/or nests; nowork distance restrictions—2000 feet for brown pelicans, 1000 feet for colonial nesting wading birds, and 650 feet for terns, gulls, and black skimmers; bird nesting prevention and avoidance measures; marking discovered nests) would be included in the USACE’s plans and specifications developed prior to dredging and disposal activities. In addition, dredging and disposal activities would be restricted to non-nesting periods for colonial nesting wading birds and seabirds when practicable.

Species of Management Concern

Species of fish, wildlife, and plants labeled as “S1” and S2” by the Louisiana Department of Wildlife and Fisheries are extremely and very rare species, respectively, that are vulnerable to extirpation in Louisiana. These species, along with those identified as priority species by the Gulf Coast Joint Venture are species of management concern. Continued population declines could result in these species becoming candidates for listing under the Endangered Species Act. Some of these species may also be referred to as at-risk species; USFWS has defined at-risk species as those species that have either been proposed for listing, are candidates for listing, or have been petitioned for listing.

The Saltmarsh topminnow (*Fundulus jenkinis*) may occur within Bayou Barataria. This species has an S3 state rank and is considered rare in Louisiana. Pollution and habitat destruction are major threats with habitat alteration being the most serious threat to this species.

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

Conclusion and Determination

Although threatened or endangered species may occur within the general project vicinity, their presence within the proposed project areas is unlikely. The proposed project area does not contain critical habitat for federally-listed species.

We believe that the project, as planned, is not likely to adversely affect federally-listed threatened or endangered species. Colonial nesting water/wading birds, the brown pelican, and other species of concerns mentioned in this document are not likely to be impacted by the proposed action. Please review this plan and inform us whether or not you agree with our determination. If there are any questions about the project or if any additional information is needed please contact Daniel Meden by phone at (504) 862-1014 or by email at daniel.c.meden@usace.army.mil.
Figure 1. Engineering Plate R-01; Project Area for Marsh Creation Site BA-1 East
CLASSIFICATION: UNCLASSIFIED

Attached, please find a signed consultation letter

RE: Section 106 Review Consultation
Undertaking: Beneficial Use of Dredged Material
Jefferson Parish, Louisiana
(Lat. 29.635 Long. -90.140)
Determination: No Historic Properties Affected

We look forward to your concurrence with this determination. Should you have any questions or need additional information with this undertaking, please contact Paul Hughbanks, Archaeologist at paul.j.hughbanks@usace.army.mil and (504) 862-1100, or Jason A. Emery, Tribal Liaison at (504) 862-2364 jason.a.emery@usace.army.mil.

Paul Hughbanks
Archaeologist, Natural/Cultural Resources Analysis RPEDS, New Orleans District
Office: 504-862-1100

CLASSIFICATION: UNCLASSIFIED

No known historic properties will be affected by this undertaking. Therefore, our office has no objection to the implementation of this project. This effect determination could change should new information come to our attention.

Kristin P. Sanders
State Historic Preservation Officer
Date 01/07/2019
Regional Planning and  
   Environment Division, South  
Environmental Planning Branch  
Attn: CEMVN-PDP-CSR

Kristin Sanders, SHPO  
LA State Historic Preservation Officer  
P.O. Box 44247  
Baton Rouge, LA 70804-4241

RE:        Section 106 Review Consultation  
             (Lat. 29.635 Long. -90.140)  
Determination:  No Historic Properties Affected

Dear Ms. Sanders:

The U.S. Army Corps of Engineers, New Orleans District (CEMVN) proposes to beneficially use material removed from the maintenance dredging of the Barataria Bay Waterway (BBWW) federal navigation project in Jefferson Parish, LA (Figure 1). Maintenance dredging of BBWW was coordinated via the National Environmental Policy Act (NEPA) with a 1976 Environmental Impact Statement (EIS), and with cultural resources surveys by Robert Neuman (1975) and Coastal Environments, Inc. (Gagliano et al. 1979). As part of CEMVN's evaluation and in partial fulfillment of responsibilities under the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in this letter to affect historic properties.

Description of the Undertaking

Approximately 500,000 cubic yards of dredged material removed along the BBWW between, roughly, BBWW river miles (RM) 26 to 32.5 and the Gulf Intercoastal Waterway-BBWW junction near BBWW RM 37 would be placed beneficially in open water on a site termed DA-1 East, for marsh creation purposes. Dredged material would be mechanically excavated, and transported by barge.

Area of Potential Effects (APE)

The marsh creation site DA-1 is located within the East Central Coastal Watershed within the Barataria Basin. The APE for direct and indirect effects to cultural resources includes the area of proposed DA-1 East Disposal, located between Bayou Rigolettes and Bayou Perot, and the path necessary to transport the sediment from the BBWW for
disposal at this location (Figure 2). The APE for direct and indirect effects at DA-1 East measures approximately 74 acres in size, of which 72 acres is defined as water.

**Identification and Evaluation**

Background and literature review was conducted by CEMVN staff. According to historic topographic and soil maps, the DA-1 East Disposal was partially submerged marsh and swamp land by the end of the 19th century. The soils are of the Lafitte-Clovelly association and are described as very frequently flooded. The National Register of Historic Places (NRHP) database, the Louisiana Cultural Resources Map, and cultural resources survey reports were reviewed to determine if historic properties are located in the project vicinity. The literature review revealed that no cultural resources surveys have been conducted that include the proposed disposal area, and no historic properties recorded. However, historic background included in existing surveys in the upper Basin all refer to the subsiding and disappearing nature of land. If historic properties once existed near this area, they are undetectable by visual methods.

**Assessment of Effects**

Based on the information presented in this letter, CEMVN has determined that there are no historic properties within the APE. As the Disposal project will be confined to a maintained waterway and to previous marsh areas that have subsided to their present levels under water, CEMVN is making a finding of **No Historic Properties Affected** for this undertaking and submitting it to you for review and comment. This project will be subject to the standard change in scope of work, unexpected discovery, and unmarked human burial sites act provisions. CEMVN requests your comments within 30 days.

We look forward to your concurrence with this determination. Should you have any questions or need additional information with this undertaking, please contact Paul Hughbanks, Archaeologist; U.S. Army Corps of Engineers, New Orleans District at paul.j.hughbanks@usace.army.mil; or Jason Emery, Archaeologist and Tribal Liaison at (504) 862-2364 jason.e.emery@usace.army.mil.

Sincerely,

[Signature]

MARSHALL K. HARPER
Chief, Environmental Planning Branch

CC: File
LA SHPO
An electronic copy of this letter with enclosures will be provided to the Section 106 Inbox, section106@crt.la.gov.
Figure 1. General Project Location. South of New Orleans near the Barataria Bay Waterway and the town of Lafitte, Jefferson Parish, Louisiana.
Figure 2. Proposed Project showing the dredging source within the Barataria Bay Waterway, the proposed disposal area for beneficial use, and the proposed bath for barge transport of the dredged material to the disposal area.
Dear Mr. Hughbanks:

Regarding the above-mentioned project, the Jena Band of Choctaw Indians' THPO hereby concurs with the determination of No Effect to present Cultural Properties. Should any inadvertent discoveries or unanticipated impacts occur, please contact all Tribes with interest in this area.

Sincerely,

Alina J. Shively
Jena Band of Choctaw Indians
Tribal Historic Preservation Officer
P.O. Box 14
Jena, LA 71342
(318) 992-1205
ashively@jenachoctaw.org

-----Original Message-----
From: Hughbanks, Paul J CIV USARMY CEMVN (US) [mailto:Paul.J.Hughbanks@usace.army.mil]
Sent: Tuesday, December 4, 2018 11:43 AM
To: Alina Shively <ashively@jenachoctaw.org>
Cc: Emery, Jason A CIV USARMY CEMVN (US) <Jason.A.Emery@usace.army.mil>
Subject: Section 106 Consultation: Beneficial Use of Dredged Material, Barataria Bay Waterway (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Attached, please find a signed consultation letter

RE: Section 106 Review Consultation
Undertaking: Beneficial Use of Dredged Material
Jefferson Parish, Louisiana
(Lat. 29.635 Long. -90.140)
Determination: No Historic Properties Affected

We look forward to your concurrence with this determination. Should you have any questions or need additional information with this undertaking, please contact Paul Hughbanks, Archaeologist at paul.j.hughbanks@usace.army.mil and (504) 862-1100, or Jason A. Emery, Tribal Liaison at (504) 862-2364 jason.a.emery@usace.army.mil.

Paul Hughbanks
Archaeologist, Natural/Cultural Resources Analysis RPEDS, New Orleans District
Office: 504-862-1100

CLASSIFICATION: UNCLASSIFIED
Mr. Hughbanks,

The Choctaw Nation of Oklahoma thanks the USACE, New Orleans District, for the correspondence regarding the above referenced project. Jefferson Parish lies in our area of historic interest. The Choctaw Nation Historic Preservation Department concurs with the finding of "no historic properties affected". However, we ask that work be stopped and our office contacted immediately in the event that Native American artifacts or human remains are encountered.

If you have any questions, please contact me.

Thank you,

Lindsey D. Bilyeu, MS
Senior Compliance Review Officer
Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702
580-924-8280 ext. 2631
Paul Hughbanks
Archaeologist, Natural/Cultural Resources Analysis RPEDS, New Orleans District
Office: 504-862-1100

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and do not necessarily represent those of the Choctaw Nation.
Marshall K. Harper  
Chief, Environmental Planning Branch  
Corps of Engineers- New Orleans District  
7400 Leake Avenue  
New Orleans, LA 70118  
Via email: marshall.k.harper@usace.army.mil

RE: C20190004, Coastal Zone Consistency  
New Orleans District, Corps of Engineers (COE)  
Direct Federal Action  
LCA BUDMAT Barataria Bay Waterway Marsh Creation Project  
Jefferson Parish, Louisiana

Dear Mr. Harper:

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

If you have any questions concerning this determination please contact Jim Bondy of the Consistency Section at (225) 342-3870 or james.bondy@la.gov.

Sincerely,

/S/ Charles Reulet  
Administrator  
Interagency Affairs/Field Services Division

CR/SK/jab

cc: Daniel Meden, COE  
Dave Butler, LDWF  
Frank Cole, OCM FI  
Jason Smith, Jefferson Parish