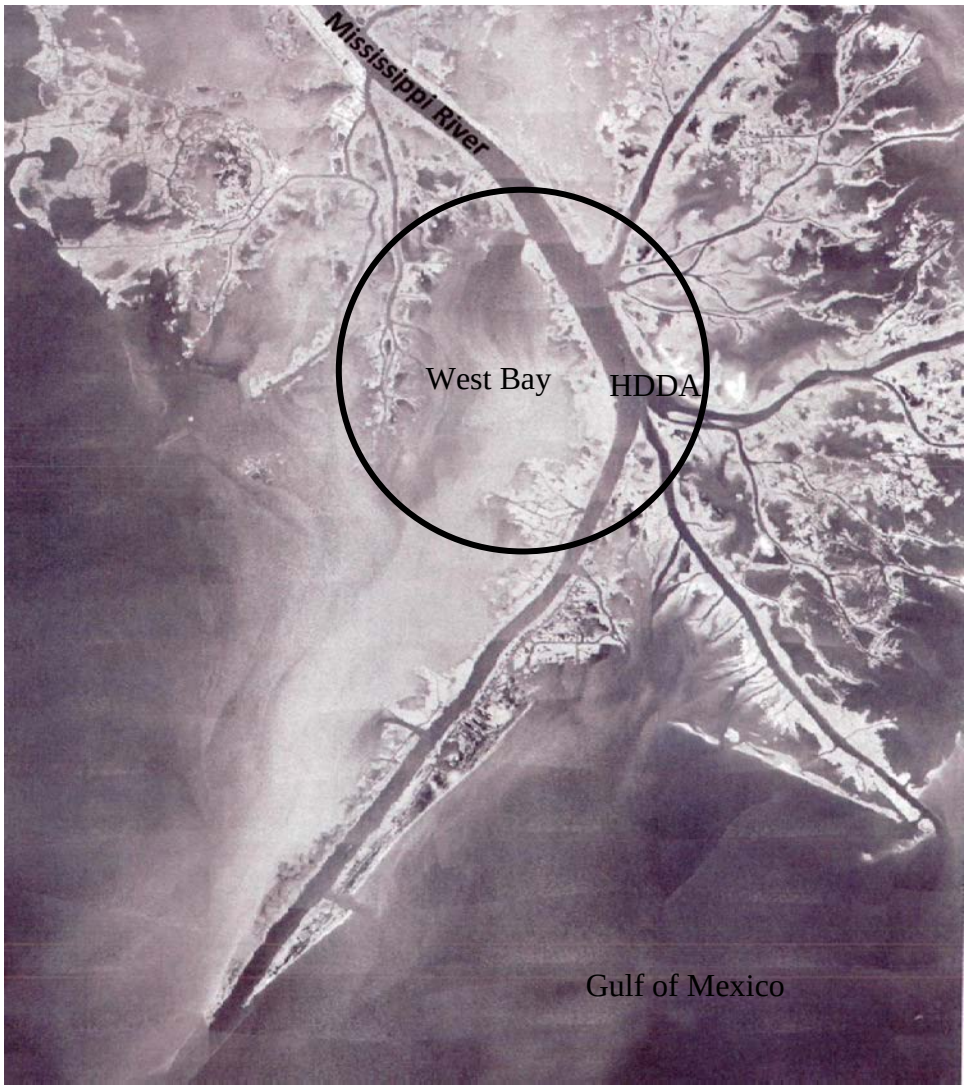
DRAFT ENVIRONMENTAL ASSESSMENT

WEST BAY MARSH CREATION TIER 1
LOUISIANA COASTAL AREA (LCA)
BENEFICIAL USE OF DREDGED MATERIAL PROGRAM (BUDMAT)

PLAQUEMINES PARISH, LOUISIANA

EA # 535



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EA # 535

1.0 Introduction

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared this Environmental Assessment (EA) for New Orleans District (MVN) to evaluate the potential impacts of the designated disposal site for the placement and beneficial use of dredged material removed during maintenance dredging of the hopper dredge disposal area (HDDA) located in the Federally-maintained Mississippi River.

This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation ER 200-2-2. This EA provides sufficient information on the potential adverse and beneficial environmental effects to allow the District Commander to make an informed decision on the appropriateness of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The Louisiana Coastal Area (LCA) Beneficial Use of Dredged Material (BUDMAT) West Bay project is being proposed under the LCA BUDMAT 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 (ROD) dated 13 August 2010 and attached hereto as Appendix A. This EA #535 tiers off of the LCA BUDMAT Programmatic EIS.

The actions proposed in this EA #535 involve a 44-acre marsh creation site to be located within an area of West Bay that has recently undergone evaluation, coordination, and approval in connection with *Environmental Assessment (EA) Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana, Designation of Additional Disposal Areas for Head of Passes, Southwest Pass, and South Pass, Plaquemines Parish, Louisiana EA #517.* Although prepared under a different authority, EA #517, evaluated and coordinated the disposal of beneficial use (BU) dredged material, from the maintenance dredging of the Mississippi River, into this area (Figure 1). The FONSI was signed on 22 Nov 2013.

EA #517 analyzed the impacts associated with the beneficial use-placement of dredged material into the approximately 17,781 acres of mainly shallow open water with some eroded marsh located in West Bay (Figure 1). USACE coordinated with resource agencies and all compliance with environmental laws and regulations was obtained. Because the proposed action being discussed in this EA (EA #535) is located within the area evaluated in EA #517 (Figure 1) and because impacts associated with the activity proposed in this EA #535 were contemplated,

evaluated, and coordinated in EA #517, EA #517 is herein incorporated by reference. It is attached hereto as Appendix B.

1.1 Proposed Action

MVN proposes to create marsh with the beneficial use-placement of dredged material removed during maintenance dredging of the HDDA (identified in green on Figure 1) located in the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana, Federal navigation project. The proposed approximately 44 acre marsh creation site (identified in yellow on Figure 1) is located in West Bay which is in Plaquemines Parish in southeastern Louisiana in the active delta of the Mississippi River. It is anticipated the disposal site will naturally vegetate through colonization of species from adjacent vegetated areas, consistent with experience at other beneficial use-disposal areas in the Mississippi River Delta. The maintenance-dredged sediments that will predominantly comprise the new beneficial-use disposal site are fine-grained and organic and, therefore, should have sufficient nutrients and moisture retention to facilitate rapid plant establishment and development (Broome et al. 1988).

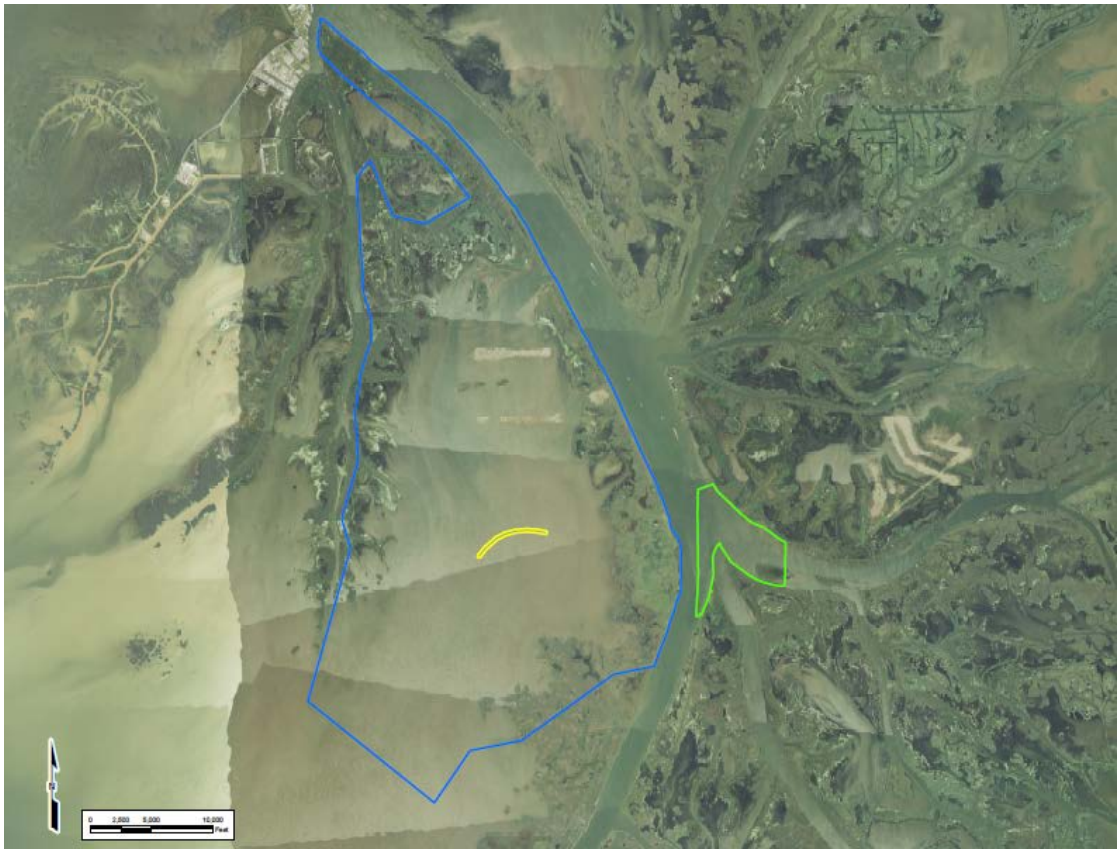

Figure 1. Area previously cleared for disposal in EA #517 (blue), proposed marsh creation site (yellow), HDDA dredge material site (green)

1.2 Authority

The Water Resources Development Act of 2007, Title VII, Section 7006 (Public Law 110-114) authorizes construction of the LCA ecosystem restoration program. The authority includes

requirements for comprehensive coastal restoration planning, program governance, a Science and Technology (S&T) Program, beneficial use of dredged material, feasibility studies for restoration plans, project modification investigations, restoration project construction, demonstration projects, and other elements. This authorization was recommended in the 31 January 2005, Report of the Chief of Engineers.

1.3 Purpose and Need for the Proposed Action

Maintenance dredging of the Gulf of Mexico entrance channels to the Mississippi River is needed to ensure safe passage of commercial shipping from the Gulf to upriver ports of call. The Southwest Pass of the Mississippi River is the principal shipping channel between the Gulf of Mexico and the Head of Passes, where Southwest Pass and two other distributary channels, South Pass and Pass a Loutre, split from the main stem of the Mississippi River. The approximately 22-mile-long Southwest Pass navigation channel is currently maintained at a depth of -45 feet MLG to provide deep-draft access to the New Orleans – Baton Rouge port corridor and its associated commerce and industries.

Hopper-dredged material removed from the reach between Venice and Mile 11.0 below Head of Passes is hauled and deposited into a location in the river located just above the Head of Passes, called the HDDA.

Management of the HDDA involves maintaining sufficient depths in the area to allow continuous use by hopper dredges during routine maintenance dredging of Southwest Pass. When the site is nearly full, dredged material is excavated using a hydraulic cutterhead dredge and moved to permanent beneficial use-disposal locations, thereby maintaining storage capacity in the HDDA so that maintenance dredging in Southwest Pass may continue uninterrupted. When hydraulic cutterhead dredges are occasionally used in Southwest Pass, dredged material is placed unconfined in shallow open-water areas on either side of the channel for wetlands creation and development.

Activities like the proposed activity that are conducted under the LCA BUDMAT program will optimize the use of dredged materials resulting from the maintenance of these federally maintained navigation channels for ecosystem restoration beneficial use projects that are above and beyond the disposal activities that are covered under the USACE O&M maintenance dredging Federal Standard or the base disposal plan for a navigation project (identified as the least costly environmentally compliant alternative that is consistent with sound engineering standards).

1.4 Prior Reports

In addition to the reports listed in section 1.4 of EA #517 (Appendix B):

Programmatic EIS entitled “Louisiana Coastal Area Beneficial Use of Dredged Material Program” (LCA BUDMAT PEIS) with a signed ROD dated 13 August 2010.

EA #517 entitled “Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Designation of Additional Disposal Areas for Head of Passes, Southwest Pass, and South Pass, Plaquemines Parish, Louisiana” with a signed FONSI dated 22 Nov 2013.

1.5 Public Concerns

As described in greater detail in section 1.5 of EA #517, the public is concerned about maintaining safe and efficient navigable channels in support of commercial activity associated with Mississippi River ports. Additionally, as described in greater detail in section 2.1 of LCA BUDMAT PEIS, Louisiana has 30 percent of the total coastal marsh and accounts for 90 percent of the coastal marsh loss in the lower 48 states (Dahl 2000, Field et al. 1991, USGS 2003). There is widespread public support to avert further loss of coastal habitats and to beneficially use dredged material in support of that effort.

2.0 Alternatives including the Proposed Action

All alternatives considered would utilize the same processes for marsh creation with varying, locations of creation sites, acres of marsh creation, benefits and impacts.

Marsh creation cells along Grand Pass North and South were immediately eliminated due to the extensive impacts to submerged aquatic vegetation (SAV) that would occur during construction and due to the fact that the area is naturally accreting to marsh elevation without the proposed action.

To help identify a tentatively selected plan (TSP), the Delft3D model was run by the Water Institute of the Gulf (TWI).[1] The Delft3D is a flexible integrated modeling suite, which simulates two-dimensional and three-dimensional flow, sediment transport and morphology, waves, water quality and ecology and is capable of handling the interactions between these processes. The results of this modeling indicated that the Water Institute Alternative 1 (TWI-1) would lack sufficient benefit due to the limited impact it would have on the sedimentation process. The Water Institute Alternative 2 (TWI-2) would be the most beneficial as it would create the most marsh and capture the most sediment for future habitat creation. (See Appendix C).

The Wetland Value Assessment (WVA) model (Fresh-Intermediate Marsh WVA Version 1.1) was used to calculate and compare benefits among the remaining alternatives including the future without project (FWOP) alternative. WVA benefits are measured in net Average Annual Habitat Units (AAHUs), the results of which help guide the identification of a TSP. All alternative WVAs were calculated using the intermediate relative sea level rise (RSLR) scenario. See Table 1 for a comparison of WVA results for the remaining alternatives. (See Appendix D for the WVA model results.)

Table 1. Comparison of Benefits per Alternative

Alternative	Acres Created	AAHUs generated
TWI-2 (TSP)	44	121.2
Chevron	37	33

[1] The Water Institute of the Gulf is a not-for-profit, independent research institute dedicated to advancing the understanding of coastal, deltaic, river and water resource systems, both within the Gulf Coast and around the world.

Sediment retention enhancement devise (SRED)	25.5	7.5

Based on the results of the WVAs and the Delft3D model, the TWI-2 Alternative is projected to create the most benefits of all alternatives, 44 acres of marsh generating 121.2 AAHUs, and therefore it has been identified as the TSP.

2.1 Proposed Action - TWI-2 TSP

The proposed marsh creation site encompasses approximately 44 acres of shallow open water located in West Bay (Figure 1). Shoal material removed during maintenance dredging of the HDDA would be placed within the site for marsh creation. Maintenance-dredged material would be placed within the proposed site to a maximum initial dredged material slurry height of approximately +4.5 feet NAVD88 to achieve an expected final elevation between +2.5 to +3.0 feet NAVD88 which would be conducive to marsh development.

MVN anticipates the use of the existing access corridor that the current HDDA maintenance dredging project uses to reach the West Bay site. In the event that additional access corridors across existing marsh and upland areas extending from the Mississippi River are required to allow construction equipment and dredge pipeline to reach the discharge site within the disposal area adverse impacts to areas of existing marsh would be avoided to the maximum extent practicable. Such access corridors would be limited to a maximum width of approximately 150 feet. These access corridors would be backfilled with dredged material to a maximum elevation of approximately 3 feet above existing, adjacent marsh upon completion of dredging and disposal activities to restore these degraded corridors to pre-project marsh elevations and ultimately functioning marsh habitat.

Discharge of dredged material into the proposed disposal site would be performed by a hydraulic dredge. After excavation from the HDDA, dredged material would be pumped through a temporary pipeline to the proposed disposal site. Excavation and discharge of access corridor material would be performed by a mechanical dredge.

2.2 No-Action--Future Without Project (FWOP)

In the future without project condition (a.k.a., No-Action), the proposed action would not be implemented and the predicted environmental gains would not be achieved. The HDDA and existing disposal areas would continue to be used for disposal of maintenance-dredged material. The West Bay area is influenced by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) project referred to as “West Bay Sediment Diversion,” an uncontrolled river diversion that delivers an average of 20,000 cfs of water and sediment from the Mississippi River into West Bay. The West Bay Diversion would continue to induce accretion of land within West Bay at the current rate for such time as the diversion remains open.

2.3 Alternatives Considered but Eliminated

As discussed above, following initial screening of the Grand Pass and TWI-1 alternatives, the following alternatives were further investigated by use of the wetland value assessment (WVA). These remaining alternatives were eventually eliminated due to lack of benefits.

2.3.1 Chevron Alternative

Using the same processes described in Section 2.1 Proposed Action, 37 acres of marsh would be created slightly west of the existing northern most marsh island within West Bay (Figure 2). These 37 acres of chevron shaped (v-shaped) marsh islands would generate 33 AAHUs (see Table 1).

Figure 2. Chevron Alternative

2.3.2 SRED Alternative

Using the same processes described in Section 2.1 Proposed Action, 27.5 acres of marsh would be created slightly west of the existing northern most marsh island within West Bay (Figure 3). This linear 27.5 acre marsh island would generate 7.5 AAHUs (see Table 1).

Figure 3. SRED Alternative

3.0 Affected Environment

The proposed disposal site is located within the 17,781 acres of mainly open water with some eroded freshwater and intermediate marsh referred to in EA #517 as the West Bay Disposal Area. As further detailed in Section 3.1.1 of EA #517, this area is influenced by the CWPPRA uncontrolled river diversion that delivers an average of 20,000 cfs of water and sediment from the Mississippi River into West Bay. Located south of this diversion are three marsh islands, (See Figure 4), one constructed as part of a 2009 CWPPRA project, and two constructed following the preparation of EA #517 in connection with beneficial use of O&M dredged material. These projects have resulted in the creation of wetland habitat within the surrounding areas which provides valuable and diverse habitat for foraging, refugia, nesting, and loafing of terrestrial wildlife, migratory waterfowl, and other avian species. Based on available data from the Engineer Research and Development Center (ERDC) (John A. Barras, et.al., 2009) and USGS, however, it was determined that the area proposed for marsh creation has a current land loss rate of approximately -0.073%/yr. Areas to the west, closer to Grand Pass, show an approximate land gain of +0.0019 %/yr.

Figure 4. Marsh Islands Created Under CWPPRA 2009 (red) and Under O&M BU 2013 (yellow)

The following relevant resources are found to be applicable to this proposed action: navigation, wetlands, scrub-shrub, wildlife, aquatic resources/fisheries, essential fish habitat (EFH), threatened and endangered (T&E) species, water and sediment quality, air quality, cultural resources, recreational resources, and visual resources (aesthetics). Table 2 briefly summarizes the existing conditions. See Section 3.0 of EA #517 (Appendix B) for a more detailed discussion.

Table 2. Existing Conditions

Resource	Existing Conditions
Navigation	Southwest Pass provides deep-draft access to the New Orleans – Baton Rouge port corridor and its associated commerce and industries. The second important access channel from the Gulf, South Pass navigational channel, provides a more easterly entrance to the Mississippi River.
Wetlands	West Bay marshes occur adjacent to Southwest and South Passes and along Grand Pass. Vegetation here is dominated by common reed, giant cutgrass, elephant ear, and the free-floating water hyacinth (*Eichhornia* sp.), with black willow and eastern baccharis (*Baccharis halimifolia*) occurring along the higher- elevation areas (Figure 9). SAV is most common along the western edge of the bay, with dense cover of pondweed, coontail, parrotfeather, and duckweed (*Lemna* sp.)
Scrub-shrub	Subsequent to the preparation of EA #517, O&M BU projects created marsh islands in West Bay. These marsh islands have colonized with scrub-shrub vegetation along the higher elevations and marsh fringing the perimeter.
Wildlife	The proposed project area contains a variety of birds, mammals, and other wildlife. Both migratory and resident birds occur in or near the project area.
Aquatic resources/fisheries	The proposed project area contains shallow open-water habitat with water depths of approximately 1 to 5 feet. The estuarine nature of the project area provides a dynamic aquatic environment where freshwater and saltwater meet, providing a transitional zone between the two aquatic ecosystems. The marshes and waterways of the proposed project area provide important spawning and nursery habitat and a food source for a wide variety of fresh and saltwater fish species.
EFH	The estuarine waters in the proposed project area include EFH for several Federally-managed species. Specific categories of EFH in the project area include estuarine emergent wetlands, mud/sand substrates, and estuarine water column.
T&E species	Protected species that may occur in the project vicinity

	include the West Indian manatee, piping plover, red knot, pallid sturgeon, sea turtles and Gulf sturgeon. Louisiana is a migration stopover for red knots in both spring and fall, and some birds may overwinter in small numbers. In the southeastern United States, red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks.
Water and sediment quality	According to the Louisiana Department of Environmental Quality (LDEQ) "2010 Louisiana Water Quality Inventory: Integrated Report," the Mississippi River – Head of Passes to Mouth of Passes, including all passes in the birdfoot delta (segment no. LA070401_00), "fully supports" designated uses for primary contact recreation, secondary contact recreation, and fish and wildlife propagation based on Evaluated Assessment data (LDEQ 2012). The segment does not support the designated use for oyster propagation (LDEQ 2012).
Air quality	Plaquemines Parish is currently in attainment for all Federal NAAQS pollutants, including the 8-hour ozone standard (EPA 2013).
Cultural resources	No cultural resources have been recorded within the currently proposed dredge disposal site.
Recreational resources	Boating and fishing (fresh and saltwater) occur within the proposed disposal site.
Visual resources (aesthetics)	The principal distinguishing visual characteristics of the project area are its relatively flat topography, with most of the area covered by water and coastal marsh.

4.0 Environmental Consequences

4.1 Navigation

Future Conditions with No-Action

There would be no anticipated impacts to navigation without implementation of the proposed project. O&M activities would continue to dredge the HDDA and dispose of materials in one of the already approved BU sites.

Future Conditions with the Proposed Action

Hydraulic cutterhead dredges and disposal pipelines may cause minor and temporary interference of navigation by blocking sections of the channel, but are not expected to interfere significantly with shipping traffic. Dredging operations would be closely coordinated with representatives of the navigation industry and a Notice to Mariners would be posted by the USCG. Beneficial use-placement of dredged material in the proposed shallow open water areas could cause minor disruptions to small vessels using these portions of the project area; however, the effects on navigation would be mainly temporary.

4.2 Wetlands

Future Conditions with No-Action

Land loss in the proposed deposition area, due to subsidence, SLR and saltwater intrusion would likely continue at the current rate. Construction of recent CWPRRA and BU projects in the area has resulted in the creation of wetlands within the surrounding areas which has off-set wetland loss in the area to a limited degree.

Future Conditions with the Proposed Action

With implementation of the proposed action there could be some minimal and insignificant impacts to wetland resources. While MVN anticipates using existing access corridors, a small, undetermined amount of wetland habitat could be temporarily impacted during the excavation of any additional corridors that may be necessary to provide pipeline access to the proposed disposal site. The resulting loss of wetland function would be temporary, as these areas would be backfilled to pre-project elevations and eventually revegetated (naturally) and restored upon completion of the project. Direct placement of dredged material on existing marsh would be avoided. With implementation of the proposed action, there would be positive impacts to wetlands in the project area. Approximately 44 acres of marsh would be created in existing shallow open water. Newly created marsh would provide additional foraging, breeding, nesting, and nursery areas, as well as refugia for a multitude of estuarine-dependent and commercially important fish and shellfish, migratory waterfowl, wildlife, and several species of wading, diving, and shore birds, and help to offset the substantial wetlands loss currently taking place in this portion of the Mississippi Deltaic Plain. Thus, positive direct and indirect impacts to wetlands and wetland-related resources in the project area would be expected with implementation of the proposed action. Overall, there would be positive net benefits to wetland resources in the project area, with the creation of emergent wetland habitat of higher value to fish and wildlife resources than the existing open water.

The proposed action would result in the discharge of fill material into waters of the U.S. Under authority delegated from the Secretary of the Army and in accordance with Section 404 of the Clean Water Act of 1977, the USACE regulates discharges of dredged or fill material into waters (e.g., wetlands) of the U.S. Although the USACE does not process and issue permits for its own activities, the USACE authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including public hearings and application of the section 404(b)(1) guidelines. An evaluation of the proposed open water beneficial use-disposal site was prepared by MVN and signed on 8 Dec 2012 (Appendix F).

4.3 Scrub-Shrub

Future Conditions with No-Action

Land loss in the proposed deposition area, due to subsidence, SLR and saltwater intrusion would likely continue at the current rate. However, recent CWPRRA and BU projects and the West Bay diversion have resulted in the creation of wetlands within the surrounding areas which should help to reduce erosion of existing scrub-shrub.

Future Conditions with the Proposed Action

There could be a benefit as the marsh islands could be colonized with scrub-shrub vegetation along the higher elevations as seen in previous projects. Existing scrub-shrub habitat in the project area may indirectly benefit from the proposed beneficial use-placement activities, as created marsh could help to reduce erosion of existing wetlands and upland-ridge habitat in the areas that are susceptible to subsidence, sea level rise, and tropical storm surge.

4.4 Aquatic Resources/Fisheries

Future Conditions with No-Action

As described in greater detail in Section 4.4 of EA #517 (Appendix B), the proposed disposal areas would remain as shallow open water, the average depth of open-water area would continue to increase and the resulting loss of marsh and associated vegetation to open water would have an adverse impact on fish and shellfish populations inhabiting the area. However, recent CWPRRA and BU projects and the West Bay diversion have resulted in the creation of wetlands within the surrounding areas which provides highly productive fisheries habitat, increases detrital food material, and likely contributes to overall increased fisheries productivity.

Future Conditions with the Proposed Action

As described in greater detail in Section 4.4 of EA #517, implementation of the proposed action would result in some minimal direct and indirect effects to aquatic resources/fisheries in the form of altered open water bottom habitat. Approximately 167 acres of shallow open water bottom would be temporarily or permanently impacted by the beneficial use-placement of dredged material into the marsh creation site to create 44 acres of marsh.

Some positive indirect impacts to fisheries in the project area are also expected. Creation of new marsh would provide highly productive fisheries habitat, increase detrital food material, and likely contribute to overall increased fisheries productivity in the project area.

4.5 Wildlife

Future Conditions with No-Action

Land loss in the proposed deposition area would likely continue at the present rate resulting in a reduction of habitat diversity and availability for resident terrestrial wildlife, migratory waterfowl, and other avian species. Recent CWPRRA and BU projects and the West Bay diversion has resulted in the creation of wetlands habitat within the surrounding areas which provides valuable and diverse habitat for foraging, refugia, nesting, and loafing of terrestrial wildlife, migratory waterfowl, and other avian species.

Future Conditions with the Proposed Action

As described in greater detail in section 4.5 of EA#517, minimal and temporary adverse direct and indirect impacts to wildlife would be anticipated. There is the potential for noise or wave action generated by construction activities to displace terrestrial wildlife in the area. Migratory

waterfowl and other avian species, if present, would likely be only temporarily displaced from the project area. To minimize disturbance to colonial nesting wading birds and seabirds potentially occurring in the project area, MVN would observe restrictions on activity provided by the USFWS, Lafayette, Louisiana Field Office. Special operating conditions addressing colonial nesting wading birds and seabirds (reporting presence of birds and/or nests; no-work distance restrictions; bird nesting prevention and avoidance measures; marking discovered nests) would be included in any MVN plans and specifications developed prior to dredging and disposal activities associated with the proposed action.

It is anticipated that wildlife in and near the project area will ultimately benefit from the proposed activities as submerged and emergent vegetation potentially colonizing these areas would provide valuable and diverse habitat for foraging, refugia, nesting, and loafing of terrestrial wildlife, migratory waterfowl, and other avian species.

4.6 Essential Fish Habitat

Future Conditions with No-Action

Land loss in the proposed deposition area, due to subsidence, SLR and saltwater intrusion would likely continue at the current rate. However, recent CWPRRA and BU projects and the West Bay diversion have resulted in the creation of wetlands within the surrounding areas which are a generally more productive category of EFH.

Future Conditions with the Proposed Action

Approximately 167 acres of shallow open water bottom and associated EFH habitat (e.g., mud/sand substrates, SAV) would be potentially impacted by the placement of dredged material in the proposed disposal site for the creation of 44 acres of marsh. However, as described in greater detail in section 4.6 of EA #517, the site would be converted to a generally more productive category of EFH as they eventually become colonized by emergent vegetation. MVN received a letter from NMFS, dated October 30, 2013, concurring with the EFH analysis in EA #517.

4.7 Threatened and Endangered Species

Future Conditions with No-Action

Without implementation of the proposed action, no direct or indirect impacts to threatened or endangered species or their critical habitat would occur.

Future Conditions with the Proposed Action

As described in greater detail in section 4.7 of EA #517, construction activities associated with the proposed project may cause red knots occurring near the project area to be temporarily displaced to nearby areas containing foraging and loafing habitat. MVN has determined that the proposed action is “not likely to adversely affect” Federally-listed threatened or endangered species, or their critical habitat, under the jurisdiction of USFWS. The USFWS concurred with this determination in a letter dated March 22, 2013 and February 4, 2015. Additionally, MVN 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

4.8 Water and Sediment Quality

Future Conditions with No-Action

Without implementation of the proposed action, no direct or indirect impacts to water quality or sediment quality would occur.

Future Conditions with the Proposed Action

As described in greater detail in section 4.8 of EA #517, the proposed open water placement of dredged material for beneficial use, which is not expected to have any adverse effect on water quality of the receiving site, was evaluated as part of the Section 404(b)(1) Evaluation for EA #517. To comply with Section 401 of the Clean Water Act, a Louisiana Water Quality Certification (WQC) was obtained from LDEQ June 21, 2012.

4.9 Air Quality

Future Conditions with No-Action

Without implementation of the proposed action, no direct or indirect impacts to ambient air quality would occur.

Future Conditions with the Proposed Action

As described in greater detail in section 4.9 of EA #517, with implementation of the proposed action, direct and indirect impacts to ambient air quality within the project area—and possibly farther afield—are expected to be temporary, and primarily due to the emissions of construction equipment.

4.10 Cultural Resources

Future Conditions with No-Action

Without implementation of the proposed action, there would be no direct or indirect impacts to cultural resources.

Future Conditions with the Proposed Action

As described in greater detail in section 4.10 of EA #517, a determination letter of "no historic properties affected" was submitted to the State Historic Preservation Officer (SHPO) on 18 Sep 2013. MVN received a letter of concurrence from SHPO on 10 Oct 2013.

4.11 Recreational Resources

Future Conditions with No-Action

Without implementation of the proposed action, the conditions within the recreational environment would continue as they have in the past and would be dictated by the natural land use patterns and processes that have dominated the area in the past.

Future Conditions with the Proposed Action

Recreationists would be temporarily displaced during construction and disposal of dredge material. Approximately 44 acres of shallow open water in West Bay would be converted to marsh habitat. The creation of marsh would provide an increase in fish and wildlife habitat including nesting habitat for water fowl and nursery habitat for fish. Consumptive recreation use would likely increase as a result of an increase in quality and quantity of fish and wildlife habitat. Bird watching opportunities are also expected to increase as a result of improved habitat for neo-tropical migratory songbirds.

4.12 Visual Resources (Aesthetics)

Future Conditions with No-Action

As discussed in greater detail in section 4.12 of EA #517, under the no action alternative, no foreseen direct, indirect or cumulative impacts to visual resources would occur at the proposed dredge disposal site.

Future Conditions with the Proposed Action

The proposed placement of dredged material removed during the proposed action would have similar direct, indirect and cumulative impacts as the No Action alternative.

4.13 Hazardous, Toxic, and Radioactive Waste

The discharge of dredged material into waters of the United States is regulated under the Clean Water Act (CWA). In the absence of a known Hazardous, Toxic, and Radioactive Waste (HTRW) concern, the proposed action would not qualify for an HTRW investigation.

The USACE Engineer Regulation, ER 1165-2-132, Hazardous, Toxic, and Radioactive Waste (HTRW) for Civil Works Projects, states that dredged material and sediments beneath navigable waters proposed for dredging qualify as HTRW only if they are within the boundaries of a site designated by the EPA or a state for a response action (either a removal or a remedial action) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or if they are a part of a National Priority List (NPL) site under CERCLA (NPL is also known as "Superfund"). No portion of the project area proposed for dredging and disposal is included in the National Priority List.

Based upon a review of the NPL and CERCLA action sites, the probability of encountering HTRW in connection with this project is low. The proposed construction and beneficial use-disposal action does not qualify for an HTRW investigation and is evaluated as a water quality issue (see section on Water and Sediment Quality).

4.14 Cumulative Impacts

The Council on Environmental Quality (CEQ) Regulations define cumulative impacts (CI) as “the impact on the environment which results from the incremental impact of the action when

added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. CI can result from individually minor but collectively significant actions taking place over a period of time."

It is anticipated that through the efforts taken to avoid wetlands impacts and the beneficial use of dredged material that functionally compensates unavoidable remaining impacts, the proposed project would not result in overall adverse direct, secondary, or cumulative impacts to the aquatic environment and human environment in or near the project area. Overall, the cumulative impacts of the proposed action are expected to be positive, with long-term benefits to navigation, wetlands, EFH, fisheries and wildlife resources, and recreational opportunities anticipated in the project area. The proposed action would directly impact approximately 167 acres of shallow open water habitat by placement of dredged material, which would be used beneficially to create 44 acres of marsh. Impacts to the environment caused by the proposed action include: removal or conversion of shallow open water fisheries habitat, removal or conversion of EFH; temporary impacts to estuarine water column EFH from turbidity; removal or displacement of some benthic organisms; temporary impacts to water quality related to turbidity, suspended solids, and potentially low dissolved oxygen levels; and temporary impacts to air quality caused by emissions from construction equipment. These impacts would be offset by the creation of approximately 44 acres of marsh which would ultimately provide valuable fisheries and wildlife habitat and more productive categories of EFH. Because marsh has been shown to provide a greater reduction in hurricane storm surge than open water, created marsh habitat would offer an incremental benefit in minimizing hurricane damage.

5.0 Coordination

Preparation of this EA and a draft Finding of No Significant Impact (FONSI) have been coordinated with appropriate Congressional, Federal, Tribal, state, and local interests, as well as environmental groups and other interested parties. The following agencies, as well as other interested parties, have received copies of the draft EA and draft FONSI:

U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency, Region VI
U.S. Department of Commerce, National Marine Fisheries Service
U.S. Natural Resources Conservation Service, State Conservationist
U.S. Coast Guard Sector New Orleans
U.S. Coast Guard Marine Safety Unit Baton Rouge
Maritime Navigation Safety Association
The Associated Branch (Bar) Pilots
Crescent River Port Pilots Association
New Orleans Baton Rouge Steamship Pilot Association
Associated Federal Pilots
Big River Coalition
Lower Mississippi River Committee (LOMRC)
Coastal Protection and Restoration Authority
Advisory Council on Historic Preservation
Governor's Executive Assistant for Coastal Activities

Louisiana Department of Wildlife and Fisheries
Louisiana Department of Natural Resources, Coastal Management Division
Louisiana Department of Natural Resources, Coastal Restoration Division
Louisiana Department of Environmental Quality
Louisiana State Historic Preservation Officer
Plaquemines Parish Government
Alabama-Coushatta Tribe of Texas
Caddo Nation of Oklahoma
Chitimacha Tribe of Louisiana
Choctaw Nation of Oklahoma
Coushatta Tribe of Louisiana
Mississippi Band of Choctaw Indians
Jena Band of Choctaw Indians
Seminole Tribe of Florida
Seminole Nation of Oklahoma
Tunica-Biloxi Tribe of Louisiana

MVN received recommendations from USFWS dated 23 Jan 2015 which included the following:

1. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. We recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. For areas 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 nesting colony should be restricted to the non-nesting period.

   Response 1- Concur. USFWS guidelines will be followed in order to remain compliant with the Migratory Bird Treaty Act (MBTA).

2. The impacts to Essential Fishery Habitat should be discussed with the National Marine Fisheries Service 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.

   Response 2- Concur. MVN coordinated with NMFS on EFH through the completion of EA #517. NMFS will receive a copy of EA #535 to review and comment on as well.

3. The Corps proposes to construct retention dikes as needed to contain dredged material during initial placement. They would be allowed to degrade naturally, but would be mechanically degraded if necessary following inspection of the dikes, and a determination that the dredged material had compacted and dewatered sufficiently. The Service supports that plan and also recommends a maximum time period of 3 years, regardless of inspection implementation, after which any retention dikes would be degraded mechanically to allow hydrologic connection to the surrounding wetlands and fuller functionality of the created habitat.

Response 3- After further consideration, the Corps has determined that the area proposed for marsh creation is not conducive to the use of containment dikes.

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.
   Response 4- Concur. MVN anticipates the use of the existing access corridor that the current HDDA maintenance dredging project uses. If new access corridors are necessary they would be restored to pre-project elevation and expected to re-vegetate naturally. Floatation channels are not expected.

5. The Service recognizes the value of submerged aquatic vegetation (SAV) habitat to fish and wildlife, including Federal trust resource species. The Corps should avoid these areas if encountered and locate unvegetated open water areas for marsh creation if possible.

   Response 5- MVN also recognizes the value of SAV habitat. The area proposed for marsh creation currently contains no SAV. In addition, the proposed action is projected to create approximately 430 net acres of SAV over the project life. Therefore, if any SAV is impacted by construction, it would be minimal and would be offset by the indirect benefits of the project.

6. Marsh platforms or any submerged or subaerial land creation should be constructed so as to work synergistically with the West Bay Diversion to enhance sedimentation and subsequent wetland habitat creation. Created habitat should not significantly block water flow or otherwise adversely affect sedimentation in West Bay.

   Response 6- Concur. The Delft3D Model was used to determine the most efficient land creation location, shape and size.

7. Further detailed planning of project features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, Water Control Plans, or other similar documents) should be coordinated with the Service, NMFS, LDWF, EPA and LDNR). The Service shall be provided an opportunity to review and submit recommendations on the all work addressed in those reports.

   Response 7- Concur. MVN will continue to coordinate with the resource agencies.

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

   Response 8- Concur.

9. ESA consultation should be reinitiated should the proposed project features change significantly or are not implemented within one year of the last ESA consultation with this office to ensure that the proposed project does not adversely affect any federally listed threatened or endangered species or their habitat.

   Response 9- Concur.

6.0 Mitigation

An assessment of the potential environmental impacts to important resources found that the proposed project would have only minimal and insignificant impacts to resources in the project area. These impacts would be mainly related to the loss of shallow open water bottom habitat and associated fisheries resources due to construction activities as part of the proposed action. The presence of comparable habitat within the project vicinity minimizes the loss of shallow open water bottom habitats due to the proposed action. Furthermore, any losses of fisheries resources related to the removal of shallow open water bottom by placement of dredged material are out-weighed by the considerable fisheries benefits anticipated from the beneficial use of material dredged from the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana project navigation channel, which would create approximately 44 acres of productive marsh, marsh-related EFH (e.g., marsh edge, inner marsh, tidal creeks, marsh/water interface, etc.), and other aquatic habitat in the surrounding waters. With the creation of marsh and other productive habitat types in the proposed disposal areas, the long-term and cumulative impacts of the placement of dredged material are generally beneficial. Beneficial utilization of the dredged material for marsh creation would result in overall positive environmental benefits including a net increase of valuable breeding, nesting, foraging, and cover habitat utilized by a wide variety of fish and wildlife species. Therefore, no wetlands mitigation is required.

7.0 Compliance with Environmental Laws and Regulations

Environmental compliance for the proposed action would be achieved upon the following:

- coordination of this EA and draft FONSI with appropriate agencies, organizations, and individuals for their review and comments;
- NMFS confirmation that the proposed action would have no effect any endangered or threatened species;
- LDNR concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources Program;
- receipt of and acceptance or resolution of all USFWS Fish and Wildlife Coordination Act recommendations; Draft recommendations were received on Jan 23, 2015 and responses are provided in Paragraph 5.0 Coordination.
- receipt and acceptance or resolution of all LDEQ comments on the air quality impact analysis documented in the EA.
- In a letter dated February 4, 2015 USFWS concurred with a determination of not likely to adversely affect Federally-listed threatened or endangered species, or their critical habitat, under the jurisdiction of USFWS.
- A State Water Quality Certificate was received from the Louisiana Department of Environmental Quality on June 21, 2012.
- A Section 404(b)(l) evaluation was signed on December 8, 2012.

- In a letter dated October 10, 2013, the Louisiana State Historic Preservation Officer (SHPO) concurred with a recommendation of no effect on historic properties.
- On 18 September 2013, the CEMVN offered federally-recognized Tribes the opportunity to review and comment on a "no historic properties affected" finding that included the APE for the proposed action. The Choctaw Nation of Oklahoma concurred with the effect determination on 26 October 2013, and no objections to the effect determination have been received.

The draft FONSI will not be signed until the proposed action achieves environmental compliance with applicable laws and regulations, as described above.

8.0 Conclusion

The proposed action would allow for the beneficial use of shoal material removed during maintenance dredging of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana navigation channel. Beneficial use-placement of dredged material in the proposed disposal site would result in the creation of approximately 44 acres of wetlands habitat.

This office has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no significant adverse impact on the human and natural environment.

9.0 Prepared By

EA #517 and the associated FONSI were prepared by Tammy Gilmore, biologist, U.S. Army Corps of Engineers, New Orleans District; Regional Planning and Environment Division South, MVN-PDN-CEP; P.O. Box 60267; New Orleans, Louisiana 70160-0267.

10.0 References

USACE. 2013 Environmental Assessment (EA), Mississippi, Baton Rouge to the Gulf of Mexico, Louisiana, Designation of Additional Disposal Area for Head of Passes, Southwest Pass, and South Pass, Plaquemines Parish, Louisiana EA #517.

USACE. 2010 Louisiana Coastal Area (LCA), Louisiana Beneficial Use of Dredged Material Program, Final Programmatic Environmental Impact Statement.