

# **1.0 INTRODUCTION AND PURPOSE AND NEED**

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## 1.0 INTRODUCTION AND PURPOSE AND NEED

### 1.1 Project Introduction and Overview

The Coastal Protection and Restoration Authority of Louisiana (CPRA or the Applicant) is proposing to construct, operate, and maintain the proposed Mid-Barataria Sediment Diversion Project (proposed MBSD Project or Project). The proposed Project consists of a multi-component river diversion system intended to convey sediment, fresh water, and nutrients from the Mississippi River at approximate river mile (RM) 60.7 in the vicinity of the town of Ironton, Plaquemines Parish, Louisiana to the mid-Barataria Basin. After passing through a proposed intake structure complex on the bank of the Mississippi River and a proposed intake channel, the sediment-laden water would be transported through a conveyance channel to the mid-Barataria Basin located in Plaquemines and Jefferson Parishes. A more detailed description of the features and components of the proposed MBSD Project is provided in Section 1.3 and Chapter 2, Alternatives.

Under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (CWA) (33 USC 1344) (collectively referred to as “Section 10/404”), the U.S. Army Corps of Engineers (USACE) authorizes: (1) activities and structures in navigable waters, including construction, excavation, or deposition of materials in, over, or under such waters, or any work that would affect the course, location, condition, or capacity of those waters and (2) the discharge of dredged or fill material into wetlands and other waters of the U.S. at specific disposal sites through the issuance of Department of the Army (DA) permits. In addition, Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408 [Section 408]) authorizes the Secretary of the Army, through the Chief of Engineers, to grant permission for the alteration, occupation, or use of a USACE civil works project, if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project. Individual DA Section 10/404 permits and Section 408 permissions are issued after public notice and opportunity for public hearing.

Because the construction, operation, maintenance, repair, replacement, and rehabilitation of the proposed Project and/or its features has the potential to directly and indirectly impact navigable waters and wetlands and other waters of the U.S. and USACE civil works projects (such as federal levees and the Mississippi River navigation channel), CPRA submitted a Joint Permit Application on June 23, 2016 (revised March 16, 2018) and a Section 408 Permission Request Letter on January 13, 2017 to USACE, New Orleans District (CEMVN) for a Section 10/404 permit and Section 408 permission.

For major federal actions with the potential to significantly affect the quality of the human environment, the National Environmental Policy Act (NEPA) (42 U.S. Code [USC] 4321 *et seq.* [1969]), and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508 [1978]), require that federal agencies prepare a detailed, interdisciplinary Environmental Impact Statement (EIS) assessing the environmental impacts of and

alternatives to such actions prior to deciding whether to undertake them.<sup>1</sup> Approval of a Section 10/404 permit and a Section 408 permission to construct, operate, and maintain the MBSD Project would be a major federal action and consequently, USACE has prepared this EIS to understand the potential impacts associated with the proposed Project and reasonable alternatives to it. The USACE is the lead federal agency in preparing the EIS and has coordinated with other agencies with jurisdiction by law or special expertise acting as cooperating agencies (see Section 1.8).

The EIS describes the purpose and need; affected environment; potential direct, indirect, and cumulative impacts of the proposed Project and a reasonable range of alternatives; and identifies measures, as necessary, to avoid or minimize any adverse impacts. The information in the EIS will help decision makers, public officials, and citizens to understand the potential environmental impacts of the proposed Project and its alternatives before decisions regarding the proposed Project are made.

In addition to informing the USACE decisions, this EIS will be used to inform decisions that the *Deepwater Horizon* (DWH) Natural Resource Damage Assessment (NRDA) Louisiana Trustee Implementation Group (LA TIG)<sup>2</sup> may make regarding restoration planning in the Barataria Basin under the Oil Pollution Act (OPA) and the *Deepwater Horizon Oil Spill Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic EIS* (PDARP/PEIS) (DWH Trustees 2016a) and associated Record of Decision (ROD) (DWH Trustees 2016b). Additional information is provided in Section 1.6.1.

The MBSD Project has been added to the inventory of “covered projects” that are pending environmental review or authorization by the head of a federal agency pursuant to the requirements set forth in Title 41 of Fixing America’s Surface Transportation Act (FAST-41) (42 USC 4370m-l(c)(1)(A)(i)). As required by FAST-41, the USACE has

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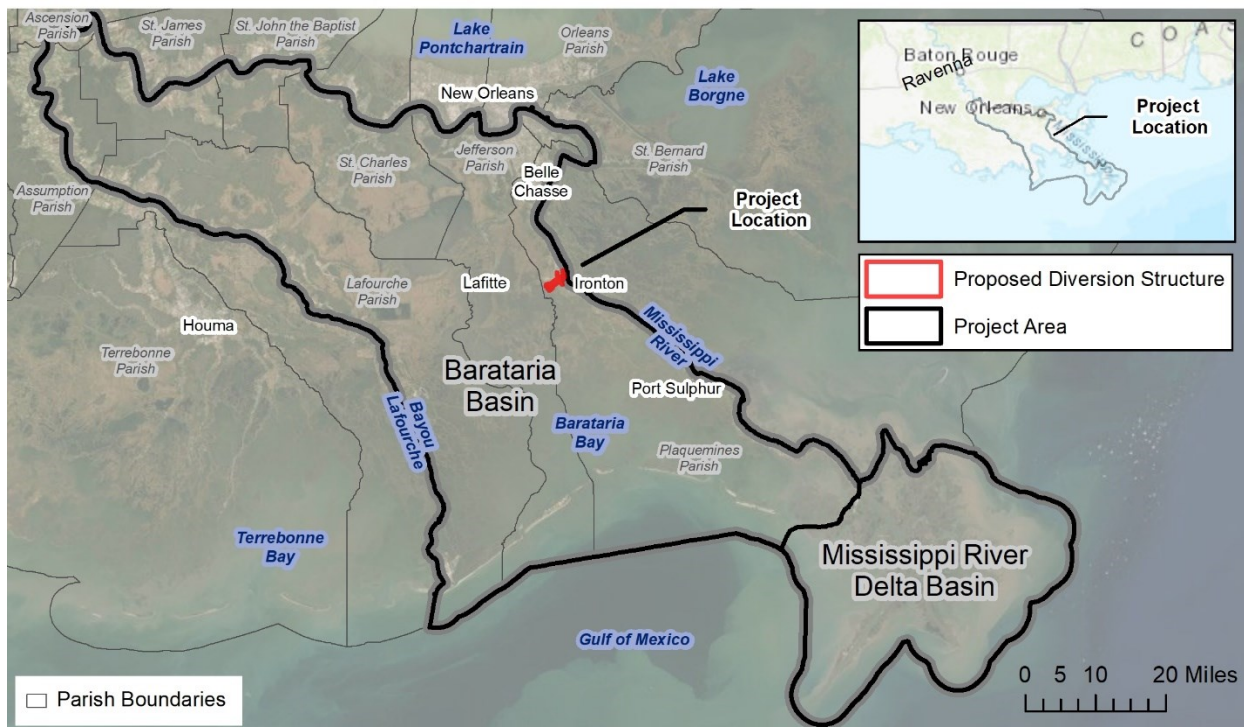
<sup>1</sup> USACE recognizes that on July 16, 2020, CEQ published a Final Rule revising its NEPA-implementing regulations at 40 CFR Parts 1500 - 1508 (85 FR 43304). The revised regulations apply to NEPA processes begun after their effective date, September 14, 2020, although agencies may apply the revised regulations to ongoing NEPA evaluations begun before that date. 40 CFR 1506.13. USACE has chosen to proceed under the regulations in effect at the time the MBSD EIS process began in 2017 (The Notice of Intent was published on April 27, 2017 [82 FR 19361]). Additionally, at least one change in the Final Rule does not align with other regulatory requirements of the DA permit process. While the Final Rule removes a NEPA requirement for cumulative impact analysis, the USACE public interest review and EPA’s CWA 404(b)(1) guidelines both currently require evaluation of cumulative effects (33 CFR 320.4; 40 CFR 230.11).

<sup>2</sup> On April 4, 2016, the LA TIG was established in Appendix 2 of the Consent Decree resolving civil claims by the DWH NRDA Trustees against BP Exploration and Production Inc. arising out of the DWH oil spill. (See *United States v. BXP et al.*, Civ. No. 10-4536, centralized in MDL 2179, In re: Oil Spill by the Oil Rig “Deepwater Horizon” in the Gulf of Mexico, on April 20, 2010 [E.D. La.]). The LA TIG is comprised of: the State of Louisiana [which includes the following state agencies: CPRA, Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Oil Spill Coordinator’s Office (LOSCO), Louisiana Department of Natural Resources (LDNR), and Louisiana Department of Environmental Quality (LDEQ)], the National Oceanic and Atmospheric Administration (NOAA), the U.S. Environmental Protection Agency (USEPA), the U.S. Department of the Interior (USDO), and the U.S. Department of Agriculture (USDA).

developed a coordinated project plan (CPP) that includes a permitting timetable and comprehensive schedule for all federal environmental reviews and authorizations to meet the requirements and intent of FAST-41, and to guide public and agency participation throughout the federal environmental review process (Permitting Dashboard 2017).

### 1.1.1 Project Location

The structural features of the proposed Project would be located in south Louisiana on the west bank of the Mississippi River at RM 60.7 just north of the town of Ironton, and the proposed Project outfall area for sediment, fresh water, and nutrients conveyed from the river is located within the mid-Barataria Basin (see Figures 1.1-1 and 1.1-2). The proposed Project area comprises the area within the hydrologic boundaries of the Barataria Basin and the western portion of the Lower Mississippi River Delta Basin, the latter of which includes the Lower Mississippi River from Donaldsonville in Ascension Parish to the birdfoot delta in the Gulf of Mexico. Detailed information regarding the proposed Project site features can be found in Section 1.3 and Chapter 2, Section 2.8.1 and details regarding the MBSD Project area can be found in Chapter 3, Section 3.1.



**Figure 1.1-1. Project Area (Barataria Basin and Western Portion of the Lower Mississippi River Delta Basin).**

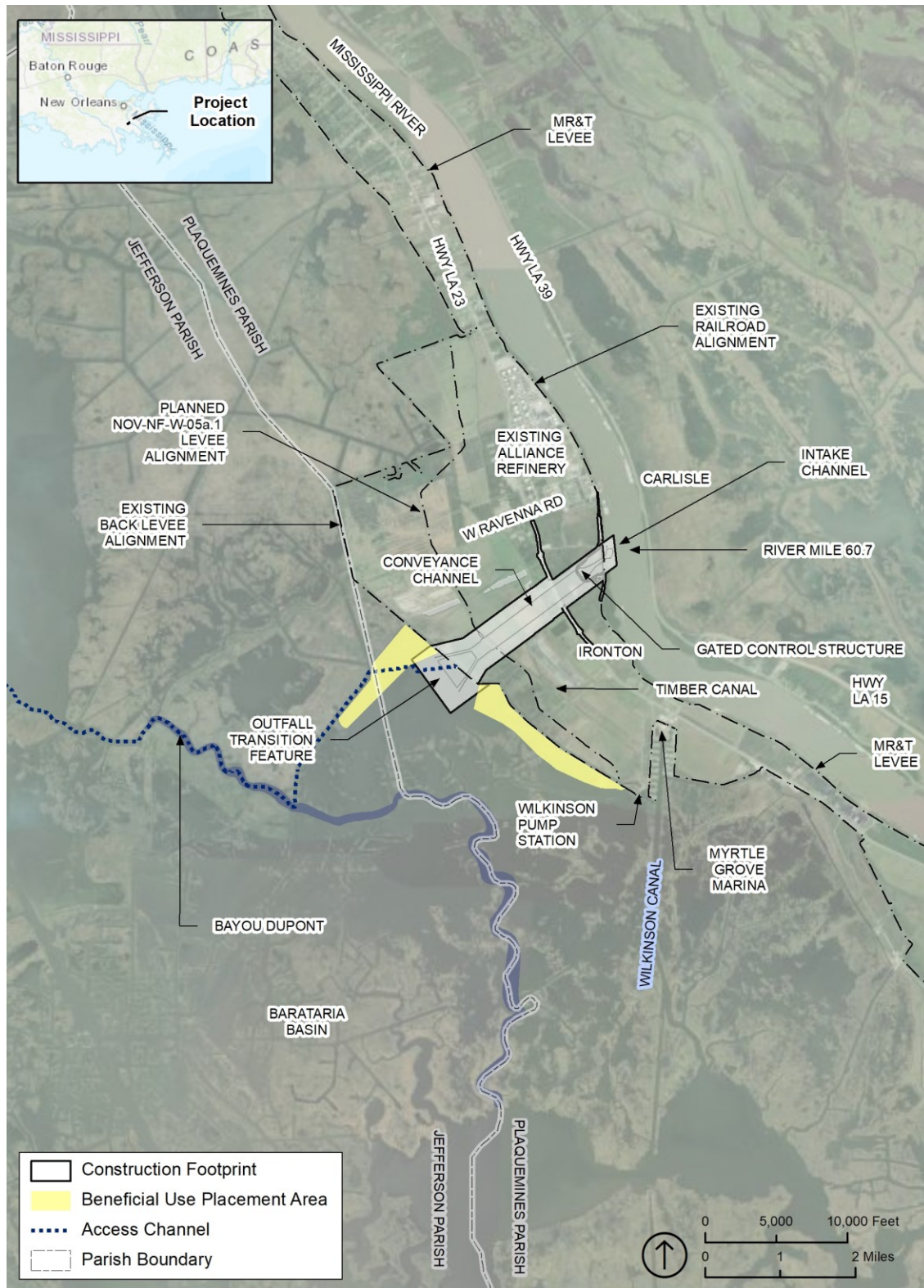


Figure 1.1-2. Project Site Map.



## 1.2 Project Background

### 1.2.1 History of the Barataria Basin

The Barataria Basin was formed over 1,000 years ago as part of the Lafourche delta complex and is a sub-estuary within the Mississippi River deltaic plain (U.S. Fish and Wildlife Service [USFWS] 1987). Historically, Mississippi River overbank flooding deposited sediment, fresh water, and nutrients into the Barataria Basin during annual flooding cycles, nourishing and sustaining wetland habitats. Levees and channelization of the Mississippi River altered natural sediment transport from the river into the basin, removing the source of sediment and fresh water that built and maintained wetlands and marshes. As a result, the basin is suffering from significant coastal habitat loss (U.S. Geological Survey [USGS] 2015, CPRA 2012).

Over time, the Barataria Basin has also been impacted by multiple events and forces (described further in Chapter 3), including:

- storm and hurricane events;
- erosion, subsidence, and sea-level rise;
- industrial, commercial, and residential development;
- additional flood risk management and drainage efforts; and
- the DWH oil spill.

As a result, various agencies and non-governmental organizations have implemented coastal protection, restoration, and rehabilitation projects within the basin. Additional information on these projects can be found in Chapter 4, Section 4.25 Cumulative Impacts.

### 1.2.2 Project History

#### 1.2.2.1 Previous Studies

Since the 1990s, several previous studies, under varied agencies and authorities, have explored the concept of diverting fresh water, sediments, and nutrients from the river to the Barataria Basin. Below is a brief overview of some of these various studies that, in part, led to the development of the proposed Project.<sup>3</sup>

- The Mississippi River Sediment, Nutrient, and Freshwater Redistribution Feasibility Study (MRSNFR Study) evaluated the potential environmental and socioeconomic impacts from several alternative designs and flow rates for

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<sup>3</sup> These studies are not part of the current proposed Project.

diverting sediment, fresh water, and nutrients from the river to the Barataria Basin. The MRSNFR Study identified two potential diversion alternatives in the vicinity of Myrtle Grove as a cost-effective means of utilizing Mississippi River resources for ecosystem restoration (USACE 2000).

- The Louisiana Coastal Wetlands Conservation and Restoration Task Force (LCWCRTF) and the Wetlands Conservation and Restoration Authority published a report entitled *Coast 2050: Toward a Sustainable Coastal Louisiana* (Coast 2050 Report), with the goals of implementing projects to restore and sustain Louisiana's coastal ecosystem for the benefit of Coastal Louisiana communities and resources (LCWCRTF and the Wetlands Conservation and Restoration Authority 1998). The restoration strategies included a 15,000 cubic feet per second (cfs) sediment diversion at Myrtle Grove.
- The Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) funded the Delta Building Diversion at Myrtle Grove Project (CWPPRA Project BA-33), which evaluated the feasibility of a controlled diversion structure and conveyance system with alternative design flows ranging from 2,500 to 15,000 cfs, coupled with the beneficial placement of dredged material in identified material deposition sites within the mid-Barataria Basin (LCWCRTF 2003). In 2008, CWPPRA Project BA-33 was de-authorized and transferred from CWPPRA to the USACE's Louisiana Coastal Area (LCA) program.
- The LCA Ecosystem Restoration Study Report and Programmatic EIS (USACE 2004) and the subsequent 2005 Chief's Report and Title VII of the Water Resources Development Act (WRDA) of 2007 authorized 15 coastal restoration projects including the 2,500 to 15,000 cfs Medium Diversion at Myrtle Grove with Dedicated Dredging Project (MDMG Project). The USACE and CPRA executed a Feasibility Cost Share Agreement for the MDMG Project in 2010 to develop a feasibility study and EIS, which has since been suspended. In 2011, CPRA and the USACE agreed to coordinate modeling efforts on the Mississippi River and signed a Feasibility Cost Sharing Agreement to evaluate sediment diversions on the Lower Mississippi River, resulting in the Mississippi River Hydrodynamic and Delta Management Study (MRHDM Study).
- The MRHDM Study is comprised of two efforts, the Mississippi River Hydrodynamic Study and the Mississippi River Delta Management Study. The Hydrodynamic effort was a comprehensive analysis of the water and sediment transport characteristics of the Lower Mississippi River through data collection, data analysis, and modeling. The Delta Management effort was a feasibility study that built on the Hydrodynamic Study designed to assess restoration alternatives. Work continued on these efforts when CPRA submitted an application for the currently proposed Project to CEMVN for a DA permit review in 2013 (see Section 1.2.2.2); however, the DA permit

request was later administratively withdrawn. In 2016, CPRA submitted a modified DA permit application and requested an orderly shutdown of the MRHDM Study.

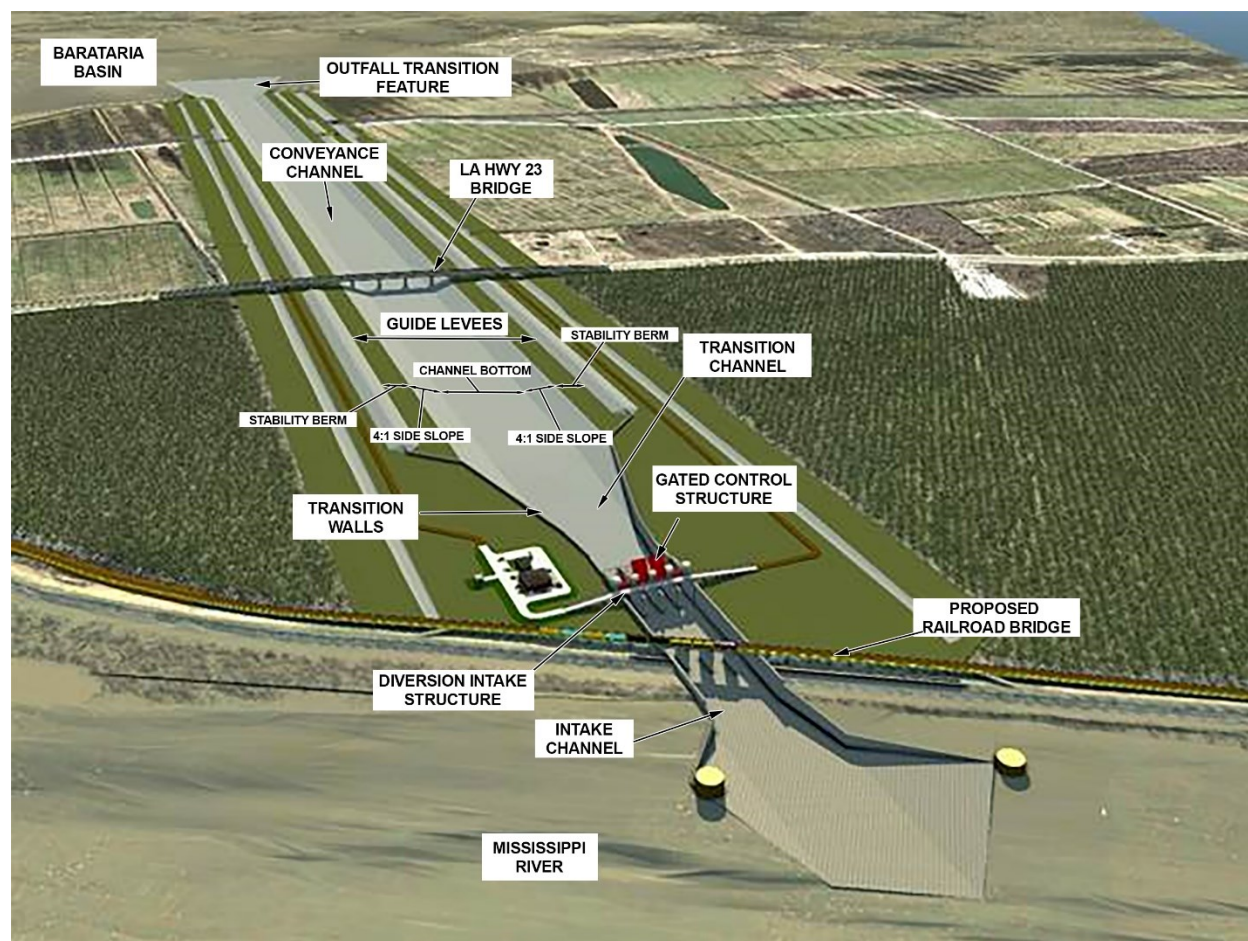
In 2012, CPRA completed its legislatively mandated update to Louisiana's Comprehensive Master Plan for a Sustainable Coast (Coastal Master Plan), which was approved by the Louisiana Legislature (CPRA 2012). The plan recommended sediment diversions as a land-building restoration tool (CPRA 2012). One such proposed diversion was the Mid-Barataria Sediment Diversion located at Myrtle Grove Project. CPRA's next legislatively mandated update to its Coastal Master Plan was completed and approved by the Louisiana Legislature in 2017 (CPRA 2017a). This Plan includes a Mid-Barataria Sediment Diversion with a 75,000 cfs capacity. The 2017 Coastal Master Plan supplants the 2012 Coastal Master Plan.

#### **1.2.2.2 CPRA Permit Application and Permission Request for Proposed MBSD Project**

In 2013, CPRA submitted an application to CEMVN for a DA permit for the proposed Project. In 2015, CPRA administratively withdrew the application. In 2016, CPRA submitted a modified DA permit application and permission request to CEMVN for the currently proposed Project. In 2018, CPRA submitted a revised permit application with a revised Purpose and Need.

### **1.3 Proposed Project**

The proposed Project consists of a controlled sediment and freshwater intake diversion structure in Plaquemines Parish on the right descending bank of the Mississippi River at RM 60.7, with a conveyance channel that would discharge sediment, fresh water, and nutrients from the Mississippi River into the mid-Barataria Basin in Plaquemines and Jefferson Parishes (see Figure 1.3-1). An outfall transition feature would be included that gradually transitions the conveyance channel to the natural ground within the basin, which would help facilitate sediment dispersal away from the diversion and reduce velocities to limit scour at the end of the structure. The conveyance channel would cross a portion of Louisiana Highway 23 (LA 23) and the New Orleans Gulf Coast (NOGC) Railroad. The proposed Project would also alter a portion of the Mississippi River Levee, which is part of the Mississippi River and Tributaries (MR&T) Project, and would alter the existing non-federal back levee and future NOV-NF-W-05a.1 levee reach of the New Orleans to Venice, Louisiana (NOV-NFL) Project. When operational, the proposed MBSD Project could discharge up to 75,000 cfs of sediment, fresh water, and nutrients into the mid-Barataria Basin during periods when Mississippi River flows are 450,000 cfs or greater at Belle Chasse, Plaquemines Parish, Louisiana. The structure is designed to discharge 75,000 cfs when the Mississippi River flow is at 1,000,000 cfs. When Mississippi River flows are below 450,000 cfs at Belle Chasse, the proposed MBSD Project would maintain a background (base) flow of up to 5,000 cfs to protect, sustain, and maintain newly vegetated or recently converted fresh, intermediate, and brackish marsh near the diversion outflow.



**Figure 1.3-1. Proposed MBSD Structure Intake System and Conveyance Channel.**

Construction of the conveyance channel would require that a portion of LA 23 and the NOGC Railroad be raised and relocated over the conveyance channel (see Figure 1.3-1). A number of other public and private facilities and utilities would also require relocation due to the construction, operation, and maintenance of the MBSD Project, including a crude oil pipeline, electrical transmission line and distribution line, and a parish water line. The MBSD Project would require an inverted drainage siphon below the conveyance channel to maintain drainage flows to the Wilkinson Canal Pump Station. Additional details on the design and operation of the proposed Project are provided in Chapter 2, Section 2.8.1.

If constructed as currently proposed, the footprint of the proposed Project would directly impact 182.9 acres of wetlands and 305.5 acres of Other Waters of the U.S. (excluding beneficial use placement areas) subject to USACE jurisdiction under the CWA Section 404. As previously noted, specific DA authorization and permission from the USACE are required for construction and operation of the proposed Project:

- because the proposed Project includes discharges of dredged or fill material in CWA Section 404 jurisdictional waters, a CWA Section 404 permit is

required;

- because the proposed Project requires construction to be performed in and structures to be located in the Mississippi River, a Rivers and Harbors Act Section 10 permit is required; and
- because the proposed Project would alter USACE civil works projects, permission to proceed under Section 408 is also required.

Required approvals from other federal and state agencies are discussed in Section 1.8 and Chapter 5, Consultation and Coordination.

## 1.4 Purpose and Need

Defining the purpose and need of a proposed project is a critical component of the NEPA process, as it forms the basis for the scope of alternatives considered in the EIS. In short, federal agencies are required to evaluate the impacts of the proposed project and a range of reasonable alternatives that satisfy the project's purpose and need. NEPA regulations (40 CFR 1502.13) state that an EIS "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." The purpose and need statement should be clear and concise in order to facilitate development of a reasonable range of alternatives. In this case, the purpose and need for this Project was developed taking into consideration the Applicant's stated purpose and need, input from the cooperating agencies (identified in Section 1.8), and input from representatives of the Council for Environmental Quality and the Federal Permitting Improvement Steering Council (FPISC).<sup>4</sup> The underlying purpose and need for the project (hereinafter called the "Project purpose and need") is:

Consistent with the LA TIG's Strategic Restoration Plan and Environmental Assessment #3 and the Louisiana Coastal Master Plan, the purpose is to restore for injuries caused by the DWH oil spill by implementing a large-scale sediment diversion in the Barataria Basin that will reconnect and re-establish sustainable deltaic processes between the Mississippi River and the Barataria Basin through the delivery of sediment, fresh water, and nutrients to support the long-term viability of existing and planned coastal restoration efforts. The proposed Project is needed to

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<sup>4</sup>The Applicant's original purpose and need statement did not reference consistency with the SRP/EA #3 or the Louisiana Coastal Master Plan and did not state that the purpose is to restore for injuries caused by the DWH oil spill by implementing a large-scale sediment diversion. In January 2018, the LA TIG submitted a proposed revised statement of purpose and need in the form set forth here. During a joint meeting between USACE, the Applicant, the LA TIG, representatives of the Council for Environmental Quality (CEQ) and representatives of the FPISC held on January 25, 2018, the participants discussed the proposed purpose and need changes. The CEQ and FPISC representatives were supportive of the changes to the Project purpose and need and USACE agreed to the change.

help restore habitat and ecosystem services injured in the northern Gulf of Mexico as a result of the DWH oil spill.

The CWA Section 404(b)(1) guidelines require that a basic and overall purpose for a proposed project be identified by the USACE. The overall project purpose is a statement designed to be concise, apply to the basic project purpose, and serve as the basis for the alternatives analysis. The basic project purpose is designed to capture the fundamental, essential, or irreducible purpose of a proposed project and is used to determine whether an action is water dependent. These purposes are further addressed in the CWA Section 404(b)(1) analysis, which will be completed prior to CEMVN's decision.

## **1.5 USACE Civil Works Projects in the Project Area**

The proposed Project has the potential to alter USACE civil works projects and requires a Section 408 permission to proceed. Below is a list of USACE civil works projects located within the Project area that may be subject to a Section 408 review.

### **1.5.1 Navigation Projects**

USACE navigation projects include planning and constructing navigation channels, locks, and dams; and dredging to maintain authorized channel depths in U.S. harbors and inland waterways (USACE 2018a). The USACE navigation projects that are located in the Project area are summarized below. See Chapter 3, Section 3.21 for additional details about navigation in the Project area.

#### **1.5.1.1 Mississippi River Ship Channel Gulf to Baton Rouge Project**

The Mississippi River Ship Channel (MRSC) Gulf to Baton Rouge Project is a deep draft navigation channel in the Mississippi River extending from Baton Rouge, Louisiana (RM 232 above head of passes [AHP]) to the Gulf of Mexico (RM 22 below head of passes [BHP]). In 1985, the channel was authorized to be deepened from 40 feet to 55 feet in accordance with the 1983 Report of the Chief of Engineers (1983 Chief's Report), with the exception of that portion of the channel extending from RM 115 to RM 13 AHP, which historically has channel depths exceeding 55 feet and does not require maintenance dredging (USACE 2016a). Construction of the channel deepening was planned in three phases, with the first two phases deepening the channel to 45 feet. The third phase planned to deepen the channel to 55 feet but has not been constructed. In 2018, the USACE prepared a final integrated draft general reevaluation report (GRR) and supplemental EIS (SEIS) to deepen the existing MRSC Gulf to Baton Rouge Project from the current depth of 45 feet to a depth of 50 feet. Construction began in 2020.

#### **1.5.1.2 Saltwater Sill Mitigation Project**

The 1983 Chief's Report (mentioned above) recommended the installation of a submerged sill (made of Mississippi River sediments using a hydraulic dredge) at Mississippi River RM 64.1 AHP during periods of low flow to mitigate potential saltwater

intrusion associated with deepening the MRSC. The sill is mandated to be constructed when a salinity trigger point is reached. Since completion of the -45-foot navigation channel, a sill has been constructed three times (in 1988, 1999, and 2012) due to saltwater intrusion during periods of low water (USACE 2018b).

### 1.5.1.3 Gulf Intracoastal Waterway

The Gulf Intracoastal Waterway (GIWW) is a navigable inland waterway extending approximately 1,050 miles from Carrabelle, Florida to Brownsville, Texas with a depth of 12 feet, designed primarily for barge transportation. The GIWW was authorized by the Rivers and Harbors Act of July 24, 1946 and was constructed in 1949. The GIWW extends across the proposed Project area from Bayou Lafourche at Larose, through Jean Lafitte, to the Harvey and Algiers Locks on the west bank of the Mississippi River near New Orleans (USACE 2018c) (see Figure 1.5-1).

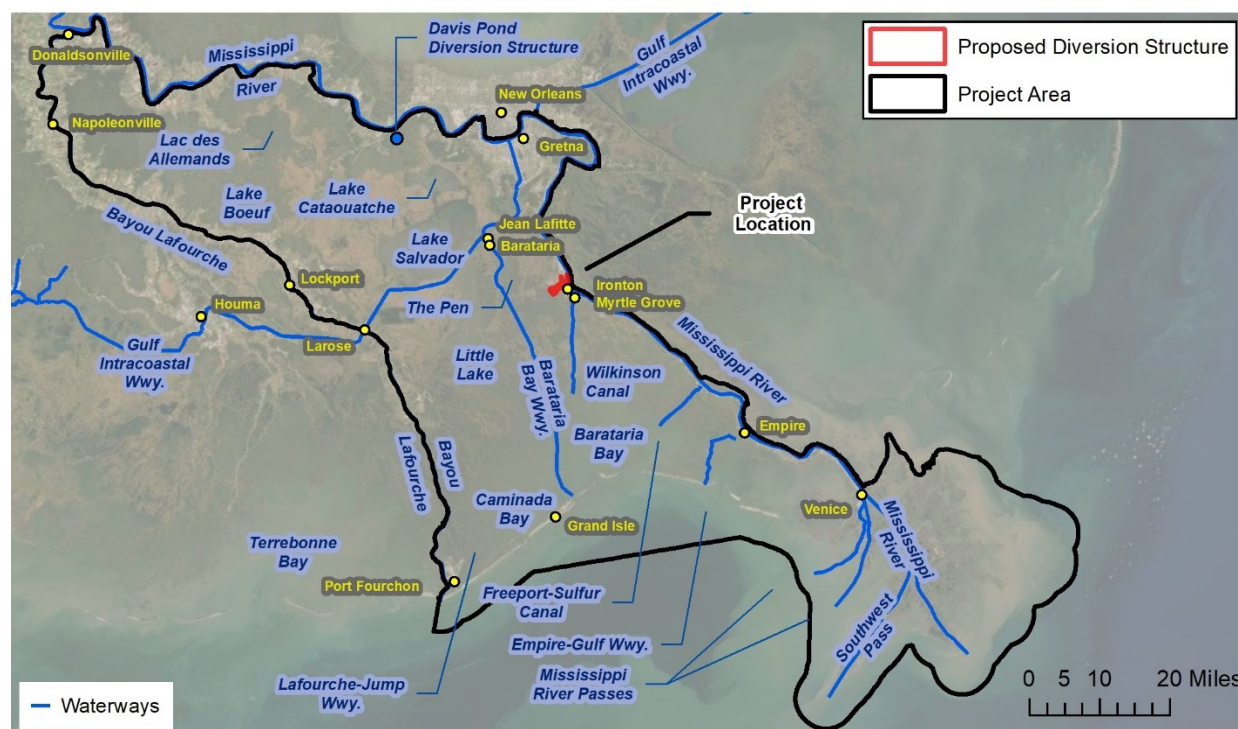


Figure 1.5-1. Major Waterbodies in the Project Area.

### 1.5.1.4 Barataria Bay Waterway

The Barataria Bay Waterway extends through the Project area from the GIWW at the town of Jean Lafitte, past the town of Barataria, to the Gulf of Mexico near Grand Isle (see Figure 1.5-1). The waterway was originally authorized for construction through the Rivers and Harbors Act of March 2, 1919. Multiple authorizations since then have modified the waterway to its current configuration consisting of three reaches: the Dupre Cut Inland Reach (RM 36.7 to RM 16), the Barataria Bay Reach (RM 16 to RM 0), and the Bar Channel Reach (RM 0 to RM -3.8), with depths of 10 feet, 10 feet, and 17 feet, respectively (USACE 2016b). Maintenance dredging of segments of these

reaches is conducted on an as-needed basis approximately every 2 to 3 years (USACE 2016b).

#### **1.5.1.5 Bayou Lafourche and Lafourche-Jump Waterway**

Bayou Lafourche comprises the western boundary of the Project area, extending from the Mississippi River in Donaldsonville to the Gulf of Mexico near Port Fourchon (see Figure 1.5-1). The bayou was a distributary of the Mississippi River until a dam was built at its junction with the Mississippi River in 1904, which was later replaced with the Mississippi River Levee (USACE 2007). Since the 1950s, efforts have been underway to reconnect freshwater flow from the Mississippi River to the bayou (CWPPRA 2018). The Rivers and Harbors Acts of 1935 and 1960 authorized modifications to the bayou that have culminated in existing authorized channel depths of 6 feet from Napoleonville to Lockport, 9 feet from Lockport to RM 3, and depths of 27 to 28 in the Jetty and Bar Channels (USACE 2016b). The authorized Lafourche-Jump Waterway consists of a 12-foot-deep channel from Bayou Lafourche at Leeville through the Southwestern Louisiana Canal and to Bayou Rigaud along the inland side of Grand Isle (USACE 2018d).

#### **1.5.2 Mississippi River and Tributaries Project, Mississippi River Levee**

In the wake of the devastating 1927 flood, the 1928 Flood Control Act authorized the construction of the MR&T Project for the purposes of flood risk management and channel improvement for efficient navigation. The Mississippi River Levee system is a main component of the MR&T Project and is comprised of levees, floodwalls, and various control structures, including 1,607 miles along the Mississippi River. In the proposed Project area, the levee extends along the Mississippi River from Donaldsonville to 10 miles AHP. The levees were constructed by the USACE. Local non-Federal interests perform minor operations, maintenance, and repair (such as grass-cutting) while USACE performs any major maintenance or repair involving construction (USACE 2018e). See Section 3.20.3.1 Federal Risk Reduction Levees for more details about the Mississippi River Levee.

#### **1.5.3 Hurricane and Storm Damage Risk Reduction System Projects**

Following Hurricanes Katrina and Rita in 2005, the USACE was authorized and funded to construct the Hurricane and Storm Damage Risk Reduction System (HSDRRS) to strengthen flood and storm surge risk reduction infrastructure for the 133-mile Greater New Orleans perimeter system consisting of the authorized Lake Pontchartrain and Vicinity, Louisiana and West Bank and Vicinity, Louisiana projects. Initiatives have included raising and strengthening levees, constructing floodwalls, gated structures, and pump stations, as well as improving approximately 70 miles of interior risk reduction structures. Major storm surge barrier gate and floodwall features on the west bank of the river include the GIWW-West Closure Complex (GIWW-WCC) and the Harvey Canal Floodwall. The HSDRRS system is designed to defend against a 100-year level of storm surge, also known as a storm that has a 1 percent chance of occurring in any given year (USACE 2018f).



#### **1.5.4 New Orleans to Venice Hurricane Protection Project, Plaquemines Parish, Louisiana with Incorporation of Non-Federal Levees**

The New Orleans to Venice (NOV) Hurricane Protection Project and the incorporation of non-Federal levees (NFL) into the NOV Project reduce risk to people and property in Plaquemines Parish below Oakville where the HSDRRS ends. The NOV Project is located along the east bank of the Mississippi River from Phoenix (approximately 28 miles southeast of New Orleans), to Bohemia, and along the west bank of the river from St. Jude (approximately 39 miles south of New Orleans), down to the vicinity of Venice. The NOV Project consists of back levees on the east bank and back levees and “co-located” hurricane levees and the Mississippi River Levee on the west bank. Additionally, 32 miles of pre-existing Plaquemines Parish non-Federal levees between Oakville and St. Jude, Louisiana on the west bank of the Mississippi River are being modified or replaced and incorporated into the NOV system. These back levees provide hurricane surge risk reduction from the Barataria Basin on the western side of Plaquemines Parish. (Together, these federal levees are referred to as the NOV-NFL Project levees in this EIS.) As part of the NOV-NFL Project, USACE finalized the location of the levee reach that would cross the proposed MBSD channel. This planned new reach is called the NOV-NF-W-05a.1 levee reach (see Figure 1.1-2). Construction of this reach is scheduled to begin in 2021. The existing non-Federal back levee will remain in place. For further details about the levees and HSDRRS projects in the basin, see Chapter 3, Section 3.20.3.1 Federal Risk Reduction Levees.

#### **1.5.5 Larose to Golden Meadow Project**

The purpose of the Larose to Golden Meadow Project is to provide an authorized hurricane risk reduction system to the communities located along Bayou Lafourche between Larose and Golden Meadow (USACE 2012a). The project is located along Bayou Lafourche in Lafourche Parish about 50 miles south of New Orleans. Authorized by the Flood Control Act of 1965, the project includes floodwalls, navigable floodgates, drainage structures, and a 48-mile ring levee that protects the communities of Larose, Cut Off, Galliano, and Golden Meadow within its perimeter (USACE 2018g).

#### **1.5.6 Davis Pond Freshwater Diversion Project**

Located on the west bank of the Mississippi River at RM 118 AHP, the Davis Pond Freshwater Diversion Project was authorized by the Flood Control Acts of 1928 and 1965 and amended by WRDA 1986 and 1996 with the goal of introducing fresh water, nutrients, and sediments to reduce marsh deterioration in the Barataria Basin. The project consists of a gated, four barrel, reinforced concrete culvert with corresponding inflow and outflow channels, approximately 19 miles of guide levees, 1.8 miles of rock weir, a 570 cfs pumping station, and a 9,311-acre ponding area (USACE 2018h). Construction began in 1996 and operations began in 2002.

## 1.6 Scope of the EIS

This EIS was developed in accordance with applicable NEPA, CEQ, and USACE regulations and guidance, as described in Section 1.1, and provides the USACE with information relevant to the socioeconomic and environmental impacts to be considered in making a decision whether to issue the requested permit and permission, as well as affording the public and other agencies the opportunity to provide comments. This EIS may also be used to inform decisions made by other federal agencies for additional regulatory, permitting, or funding processes required for the proposed Project and alternatives, to the extent practicable. This document analyzes both the direct impacts (those caused by implementing the proposed Project and occurring at the same time and place) and the indirect impacts (those caused by the proposed Project and occurring later in time or farther removed in distance but still reasonably foreseeable) of all alternatives carried forward for consideration, including the No Action Alternative. The potential for cumulative impacts (the impact on the environment that results from the incremental impact of the proposed Project when added to other past, present, and reasonably foreseeable future actions) is also addressed.

CEMVN and cooperating agencies identified relevant issues through public outreach during scoping and coordination with federal, state, and local agencies and Tribal Nations. Issues identified in scoping comments were used to inform the scope and development of the EIS. Table 1.6-1 below lists the primary topics that were identified in the public scoping comments and the chapter of the EIS that addresses each comment topic. Further details about scoping comments are provided in Chapter 7, Public Involvement and in the scoping report (see Appendix B).

| <b>Comment Topic</b>   | <b>PN</b> | <b>ALT</b> | <b>AE</b> | <b>EC</b> | <b>CLR</b> | <b>PUB</b> |
|--|-----------|------------|-----------|-----------|------------|------------|
| Alternatives analysis  |           | X          |           |           |            |            |
| Public coordination  |           |            |           |           |            | X          |
| Project operations   |           | X          |           | X         |            |            |
| Timeframe/schedule   | X         |            |           |           | X          |            |
| Adaptive management and monitoring   |           | X          |           | X         |            |            |
| Land loss and sea-level rise   | X         | X          | X         | X         |            |            |
| Flooding and storms  |           |            | X         | X         |            |            |
| Geology and sediment transport   |           |            | X         | X         |            |            |
| Wetland impacts  |           |            | X         | X         |            |            |
| Water and sediment quality   |           |            | X         | X         |            |            |
| Protected species  |           |            | X         | X         |            |            |
| Marine mammals   |           |            | X         | X         |            |            |
| Commercial fishing   |           |            | X         | X         |            |            |
| Fish resources   |           |            | X         | X         |            |            |
| Socioeconomics and environmental justice   |           |            | X         | X         |            |            |
| Land-based transportation and public utilities   |           | X          | X         | X         |            |            |
| Navigation   |           |            | X         | X         |            |            |
| Environmental impact analysis and modeling   |           |            |           | X         |            |            |
| Cumulative impacts   |           |            |           | X         |            |            |
| Other  |           | X          |           | X         |            |            |
| <p><sup>a</sup> Many comments provided input on multiple issues and therefore will be addressed in multiple chapters of the EIS.</p> <p><sup>b</sup> PN = Purpose and Need (Chap. 1), ALT = Alternatives (Chap. 2), AE = Affected Environment (Chap. 3), EC = Environmental Consequences (Chap. 4), CLR = Compliance with Other Environmental Laws and Regulations (Chap. 5); and PUB = Public Involvement (Chap. 7)</p> |           |            |           |           |            |            |

### 1.6.1 The OPA and DWH NRDA Decisions

On March 20, 2018, consistent with OPA and the PDARP/PEIS, the LA TIG published the Final Strategic Restoration Plan and Environmental Assessment #3: Restoration of Wetlands, Coastal, and Nearshore Habitats in the Barataria Basin, Louisiana (SRP/EA #3). In the SRP/EA #3, the LA TIG Trustees selected the proposed Project as part of a suite of restoration projects that constitutes the Trustees' preferred alternative for restoring DWH oil spill injuries through restoration in the Barataria Basin. The Trustees further decided, in the SRP/EA #3, to move forward with further restoration planning to determine whether to fund construction of the proposed MBSD Project (the Draft Phase II Restoration Plan #3.2 [Restoration Plan]). Thus, in addition to informing USACE's permit and permission decisions, this EIS will serve as the environmental review required by NEPA to inform the Trustees' OPA decision regarding funding the construction of the MBSD. CEMVN has coordinated and continues to coordinate with the LA TIG regarding its ongoing restoration planning for the Barataria

Basin in an effort to ensure consistency between the EIS and the LA TIG's restoration planning efforts to the extent possible.

## 1.7 Public Involvement Summary

NEPA regulations require input from the public, stakeholders, and government agencies throughout the NEPA process. The following provides a brief summary of the public involvement activities completed throughout development of this EIS. Public involvement activities are further discussed in Chapter 7, Public Involvement and supporting documentation is provided in Appendix B.

- **October 4, 2013:** A Notice of Intent (NOI) to prepare an EIS for the proposed Project was published by the USACE in the Federal Register on October 4, 2013 (78 Federal Register [FR] 61843) (see Appendix C);
- **March 17, 2017:** The CPP was made available on the FAST-41 and USACE websites;
- **April 27, 2017:** Following receipt of a modified DA permit application by CEMVN from CPRA (see Appendix A), an updated NOI was published by the USACE in the Federal Register to supplement the original NOI (82 FR 19361) (see Appendix C);
- **July 5, 2017:** The USACE provided official public notice of upcoming scoping meetings and announced the 60-day formal scoping comment period of July 6, 2017 through September 5, 2017;
- **July 4, 5, 11, 14, and 17, 2017:** Scoping meeting dates and locations were published in local newspapers (Plaquemines Gazette, The Times Picayune, and The Advocate) and press releases were issued;
- **July 20, 25, and 27, 2017:** Three public scoping meetings were held in the vicinity of the proposed Project; and
- **March 5, 2021:** A Notice of Availability (NOA) for the MBSD draft EIS (DEIS) will be published in the *Federal Register*; the 60-day formal DEIS comment period along with public meeting dates will be announced through a Public Notice that will be published to the CEMVN website, mailed to interested parties, and advertised in local media

Following publication of this DEIS, three public meetings will be held virtually since there are restrictions on in-person gatherings, to inform the public about the Project and to obtain and record public comments. The public meetings are anticipated to be held in April 2021. A public notice to announce public meetings and DEIS comment period will be provided by USACE. Comments received during these meetings and during the formal DEIS comment period will be addressed in the final EIS (FEIS) as required by relevant regulations, which will be made available for public

review for 30 days prior to issuance of a ROD. Any public comments received during the FEIS review period will be provided to the decision maker for consideration. Information regarding the proposed Project, the permitting process, and development of the EIS can be found at the USACE Project website at: <https://www.mvn.usace.army.mil/Missions/Regulatory/Permits/Mid-Barataria-Sediment-Diversion-EIS/>.

In addition to the USACE NEPA process for public involvement, as part of the public review process for the DWH NRDA restoration planning process, a NOA for the draft SRP/EA #3 was published in the Federal Register by the LA TIG on December 8, 2017. A 45-day comment period was held from December 20, 2017 through February 8, 2018, and a public meeting was held in New Orleans on January 24, 2018. The Final SRP/EA #3 was published in the Louisiana Register on March 20, 2018 and the Federal Register on March 21, 2018. The LA TIG intends to publish a NOA for the MBSD Restoration Plan on March 5, 2021. The LA TIG will hold a 60-day comment period (to run concurrent with the comment period on the MBSD DEIS) and will hold public meetings on the Restoration Plan in conjunction with the MBSD DEIS public review period and public meetings, since the LA TIG intends to use this EIS to satisfy its obligations for NEPA review of its proposed action in the Restoration Plan.

## 1.8 Agency Roles and Responsibilities

Pursuant to 40 CFR 1501.5 and 1508.16, the USACE as the lead agency is ultimately responsible for implementing the NEPA process in the preparation of the DEIS and the FEIS to support the USACE decision making on the DA Section 10/404 permit and Section 408 permission relative to the proposed Project. Per NEPA regulations (40 CFR 1508), the lead agency is "...the agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement." The USACE is coordinating with multiple cooperating agencies, including the federal agencies that are members of the LA TIG (see Table 1.8-1 for a complete list of cooperating agencies). NEPA (40 CFR 1508) defines cooperating agencies as "...any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action..." For the purposes of describing the role of other agencies and Tribal Nations that are participating in the NEPA process for the proposed Project, a "commenting agency" is defined as a federal, state, or local agency or Tribal Nation that is likely to provide substantive comments during the NEPA process related to a regulatory authority, law, policy, or executive order that is applicable to the proposed Project. The cooperating and commenting agencies pursuant to NEPA and Section 106 for this EIS and the related federal and state laws, regulations, executive orders, and policies applicable to the proposed Project are shown in Tables 1.8-1 and 1.8-2.

Additional information regarding the roles and responsibilities of federal, state, and local agencies, and Tribal Nations can be found in the USACE CPP prepared as part of the FAST-41 process, as described in Section 1.1.

| <b>Table 1.8-1<br/>Proposed MBSD Project NEPA Contributing Agencies and Relevant Authorities</b> |                     |  |
|--|---------------------|--|
| <b>Agency</b>  | <b>NEPA Role</b>    | <b>Responsibility</b>  |
| <b>Federal Agencies</b>  |                     |  |
| CEMVA  | Lead federal agency | <ul style="list-style-type: none"> <li>Clean Water Act (Section 404) (33 USC 1344);</li> <li>Rivers and Harbors Act of 1899 (Section 10) (33 USC 403); and Section 14 (Section 408) (33 USC 408)</li> </ul>  |
| U.S. Environmental Protection Agency (USEPA)   | Cooperating agency  | <ul style="list-style-type: none"> <li>Clean Water Act (33 USC 1344);</li> <li>Clean Air Act (42 USC 7401, et seq.);</li> <li>Oil Pollution Act (33 USC 2701, et seq.)</li> </ul>  |
| National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS)  | Cooperating agency  | <ul style="list-style-type: none"> <li>Endangered Species Act (ESA) (16 USC 1531 et seq.);</li> <li>Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) (16 USC 1801 et seq.);</li> <li>Marine Mammal Protection Act (MMPA) (16 USC 1361 et seq.);</li> <li>Oil Pollution Act (33 USC 2701, et seq.)</li> </ul>  |
| USFWS  | Cooperating agency  | <ul style="list-style-type: none"> <li>ESA (16 USC 1531 et seq.);</li> <li>Fish and Wildlife Coordination Act (16 USC 661-666c);</li> <li>Migratory Bird Treaty Act (40 Stat. 755, as amended 16 USC 703-712);</li> <li>Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 USC 668-668d);</li> <li>Coastal Barrier Resources Act (16 USC 3501-351092017);</li> </ul> |
| U.S. Department of the Interior (USDOI)  | Cooperating agency  | <ul style="list-style-type: none"> <li>Oil Pollution Act (33 USC 2701 et seq.);</li> </ul>   |
| U.S. Department of Agriculture (USDA)  | Cooperating agency  | <ul style="list-style-type: none"> <li>Farmland Protection Policy Act (7 USC 73)</li> <li>Oil Pollution Act (33 USC 2701 et seq.)</li> </ul>   |
| U.S. Coast Guard (USCG)  | Commenting agency   | <ul style="list-style-type: none"> <li>Rivers and Harbors Act (Section 9 and Section 10) (33 USC 401) – Navigation Interests and Safety</li> </ul>   |
| Federal Railroad Administration (FRA)  | Commenting agency   | <ul style="list-style-type: none"> <li>Potential relocation of an existing railroad (64 FR 28545)</li> </ul>   |
| Advisory Council on Historic Preservation (ACHP)   | Commenting agency   | <ul style="list-style-type: none"> <li>National Historic Preservation Act (54 USC 300101 et seq.)</li> </ul>   |
| USGS   | Commenting agency   | <ul style="list-style-type: none"> <li>Research, modeling, mapping, and project relevant data</li> </ul>   |
| Federal Highway Administration (FHWA)  | Commenting agency   | <ul style="list-style-type: none"> <li>Not applicable</li> </ul>   |
| <b>State Agencies</b>  |                     |  |
| Louisiana State Historic Preservation Office (SHPO)  | Commenting agency   | <ul style="list-style-type: none"> <li>National Historic Preservation Act (54 USC 300101 et seq.)</li> </ul>   |
| Louisiana Department of Transportation and Development (DOTD)                                    | Commenting agency   | <ul style="list-style-type: none"> <li>Project Permit for relocation of Louisiana Highway 23 (application processed through DOTD District and Headquarter offices);</li> <li>Temporary Access Connection (application processed through DOTD District office)</li> </ul>   |

| <b>Table 1.8-1<br/>Proposed MBSD Project NEPA Contributing Agencies and Relevant Authorities</b> |                   |   |
|--|-------------------|---|
| <b>Agency</b>  | <b>NEPA Role</b>  | <b>Responsibility</b>   |
| Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP)                       | Commenting agency | <ul style="list-style-type: none"> <li>• Potential impacts, closures, and modifications to Louisiana Highway 23</li> </ul>  |
| Louisiana Department of Wildlife and Fisheries (LDWF)  | Commenting agency | <ul style="list-style-type: none"> <li>• Louisiana fish and wildlife resources and supporting habitats</li> </ul>   |
| Louisiana Department of Natural Resources (LDNR)   | Commenting agency | <ul style="list-style-type: none"> <li>• Louisiana State and Local Coastal Resources Management Act;</li> <li>• Louisiana Coastal Resources Program requirements, Coastal Use Permit (CUP)</li> </ul> |
| CPRA   | Commenting agency | <ul style="list-style-type: none"> <li>• Applicant (10/404 permit and 408 permission);</li> <li>• Coastal Master Plan;</li> <li>• Oil Pollution Act (33 USC 2701 et seq.)</li> </ul>                  |
| Louisiana Office of State Lands  | Commenting agency | <ul style="list-style-type: none"> <li>• Waterbottom Permit (L.R.S. 41:1701-1714)</li> </ul>  |
| Louisiana Department of Environmental Quality (LDEQ)   | Commenting agency | <ul style="list-style-type: none"> <li>• Clean Water Act (33 USC 1341);</li> <li>• Water Quality Certification (WQC) procedures (Title 33, Part IX, Subpart 1, Chapter 15)</li> </ul>                 |
| <b>Local Government</b>  |                   |   |
| Plaquemines Parish Government (PPG)  | Commenting agency | <ul style="list-style-type: none"> <li>• Potential economic and social impacts;</li> <li>• Local issues</li> </ul>  |
| Jefferson Parish Government  | Commenting agency | <ul style="list-style-type: none"> <li>• Potential economic and social impacts;</li> <li>• Local issues</li> </ul>  |

| <b>Table 1.8-2<br/>National Historic Preservation Act, Section 106 Consultation</b> |                   |  |
|---|-------------------|--|
| <b>Agency</b>   | <b>Role</b>       | <b>Responsibility</b>  |
| <b>Federal Agencies</b>   |                   |  |
| Advisory Council on Historic Preservation (ACHP)                                    | Commenting agency | <ul style="list-style-type: none"> <li>• National Historic Preservation Act (Section 106)</li> </ul> |
| <b>State Agencies</b>   |                   |  |
| Louisiana State Historic Preservation Office (SHPO)                                 | Commenting agency | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| <b>Tribal Nations</b>   |                   |  |
| Alabama Coushatta   | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Caddo Nation of Oklahoma  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Chitimacha  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Choctaw Nation of Oklahoma  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Coushatta Tribe of Louisiana  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Jena Band of Choctaw  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Mississippi Band of Choctaw   | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Muscogee Nation   | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Seminole Nation of Oklahoma   | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Seminole Tribe of Florida   | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |
| Tunica-Biloxi Tribe of Louisiana  | Consulting party  | <ul style="list-style-type: none"> <li>• Section 106</li> </ul>                                      |