

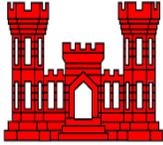
# ENVIRONMENTAL ASSESSMENT

## MISSISSIPPI RIVER AND TRIBUTARIES PROJECT ATCHAFALAYA BASIN CONSTRUCTION OF CHARENTON FLOODGATE

ST. MARY PARISH, LOUISIANA

EA# 511





**U.S. Army Corps of Engineers  
Mississippi Valley Division  
Regional Planning and Environmental Division South  
New Orleans District**

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# ENVIRONMENTAL ASSESSMENT

## MISSISSIPPI RIVER AND TRIBUTARIES PROJECT ATCHAFALAYA BASIN CONSTRUCTION OF CHARENTON FLOODGATE SAINT MARY PARISH, LOUISIANA EA# 511

### 1. Introduction

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South (RPEDS), has prepared this Environmental Assessment (EA) for New Orleans District (CEMVN) to evaluate potential impacts from constructing a new floodgate in front of the existing Charenton Floodgate that is located in St. Mary Parish (Figure 1). The Charenton Floodgate is a primary feature of the Atchafalaya Basin system and is located on the West Atchafalaya Basin Protection Levee. It was built in 1949 to control the flow of freshwater from the Atchafalaya Basin into the Charenton Drainage Canal and Bayou Teche. People also used the floodgate to navigate their boats through this location in the Atchafalaya levee system. This EA has been prepared in accordance with the National Environmental Policy Act of 1969 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 assist the District Commander, U.S. Army Corps of Engineers in making an informed decision on the appropriateness of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

### 1.1 Proposed Action

The proposed action consists of constructing a new floodgate structure on the Atchafalaya Basin side of the existing Charenton Floodgate structure (Figure 2). The proposed project footprint is shown in Figure 3. The floodwalls would extend out a couple hundred feet from each side of the new floodgate structure in order to tie-back into the existing levee. The existing walls on the monolith would be removed and the side slopes would be graded back in order to tie back into the existing levee alignment that is already constructed to the project design height. A temporary coffer dam would be placed on the Atchafalaya side of the system during construction. The existing floodgate structure will remain in place to continue to serve as the line of protection during construction until the new floodgates and floodwall are installed. Once the new system is in place, the existing steel floodgates will be removed but the concrete structure will remain. The bridge across the existing structure will not be impacted and will remain open to traffic both during construction and after construction is complete.

## 1.2 Authority

The East and West Atchafalaya Basin Protection Levees are part of the Atchafalaya Basin project, a prominent feature of the Flood Control, Mississippi River and Tributaries (MR&T) project. The Flood Control Act of May 15, 1928, authorized the MR&T (PL 7391, 70th Congress), as amended and supplemented. The Atchafalaya Basin Floodway extends from the Old River Control Complex near the confluence of the Mississippi, Red, and Atchafalaya Rivers in the north, to the Gulf of Mexico in the south. The floodway is designed to protect southern Louisiana from MR&T floods by diverting up to one-half of the combined flows of the Red and Mississippi Rivers to the Gulf. Congress authorized project features to provide environmental protection, public access, developmental control, and recreational development within the Atchafalaya Floodway with the Supplemental Appropriations Act for Fiscal Year 1985, PL 99-88, August 15, 1985 (H.R. 2577, July 2, 1985), and by the Water Resources Development Act of 1986 (PL 99-662).

- a.) Resolutions of the Committee on Public Works both the U.S. Senate and the U.S. House of Representatives authorized the Corps of Engineers to engage in a study of certain features of the Atchafalaya Basin Floodway System, Louisiana, Feasibility Study as follows:

“RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That the Chief of Engineers of the United States Army, be, and is hereby requested to examine and review the project for flood control of the Mississippi River in its alluvial valley, and for its improvement from the Head of Passes to Cape Girardeau, Missouri as authorized by the Flood Control Act approved May 15, 1928, and as amended by subsequent acts of Congress, including Public Law 780, Eighty-third Congress, which modified the basic project to include a plan of improvement for the control of Old and Atchafalaya Rivers, to determine whether, in the light of changed conditions, any modifications, extensions, or additions to the existing Old River control system or its operation are warranted at this time.” Adopted June 11, 1968.

“RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That the Chief of Engineers of the United States Army, in cooperation with other interested Federal and State agencies, such as the Environmental Protection Agency, and the Louisiana Stream Control Commission, be, and is hereby requested to review and report on the Mississippi River and Tributaries Project, published as House Document Numbered 308, Eighty-eight Congress, and other pertinent reports, with a view to developing a comprehensive plan for the management and preservation of the water and related land resources of the Atchafalaya River Basin, Louisiana, which could include provisions for reductions of siltation; improvement of water quality; and possible improvements of the area for commercial and sport fishing.” Adopted March 23, 1972.

b. Modification of some features of the Atchafalaya Basin, LA project were initiated by the Chief of Engineers through his discretionary authority by letter dated June 18, 1976, and endorsed by the President of the MRC on June 28, 1976. This provided for alternate plans to be accomplished within the authorized purpose of the Atchafalaya Basin system project as addressed, in specific terms, in the 1982 Feasibility Study. The Chief of Engineers has the discretionary authority to implement remaining features of the 1982 Feasibility Study as outlined by letter dated February 28, 1983, and approved by the President of the MRC in a first endorsement to the letter, dated March 11, 1983.

### **1.3 Purpose and Need for the Proposed Action**

The purpose of the proposed action is to construct a new floodgate to meet new design height requirements identified in the 2010 Refined Flowline Study Report completed for the Atchafalaya Basin. The Charenton Floodgate is currently the lowest spot in this line of protection and thus the highest priority on the West Atchafalaya Basin Protection Levee. Due to poor condition, the gates have not been operated in over 18 years. The levee systems around the perimeter of the Atchafalaya Basin have been raised through the years to provide a higher level of protection while the Charenton Floodgate remains the lowest location along the levee.

### **1.4 Data Gaps and Uncertainties**

Because natural systems are complex and consist of an intricate web of variables that influence the existence and condition of other variables within the system, all projects (e.g., flood risk management, restoration, etc.) contain inherent uncertainties. The effects of tropical storms, increased sea level rise, and climate change on each project's performance are uncertain and are addressed through future projections based on existing information.

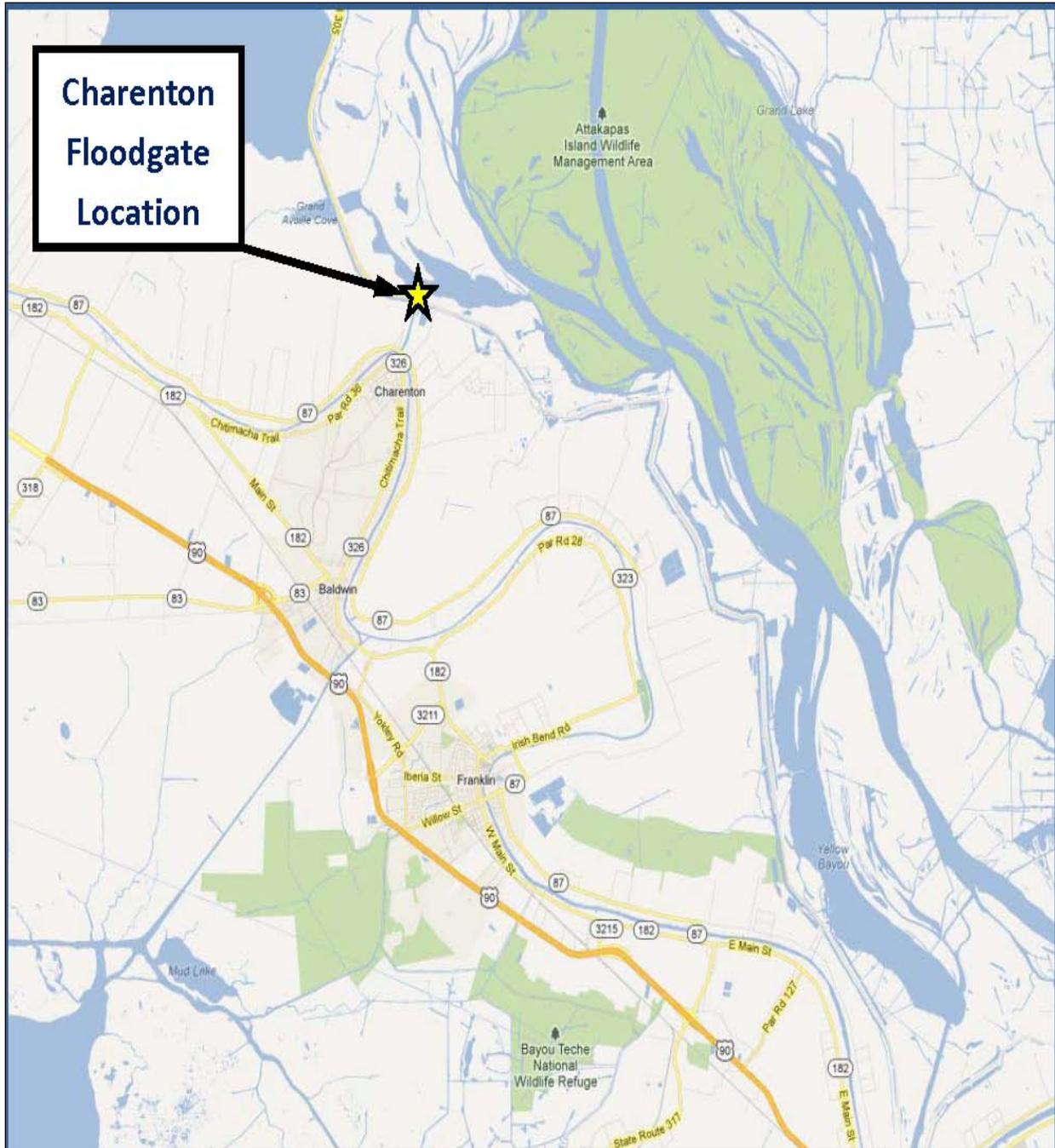


Figure 1. Charenton Floodgate Location Map, St. Mary Parish, Louisiana.

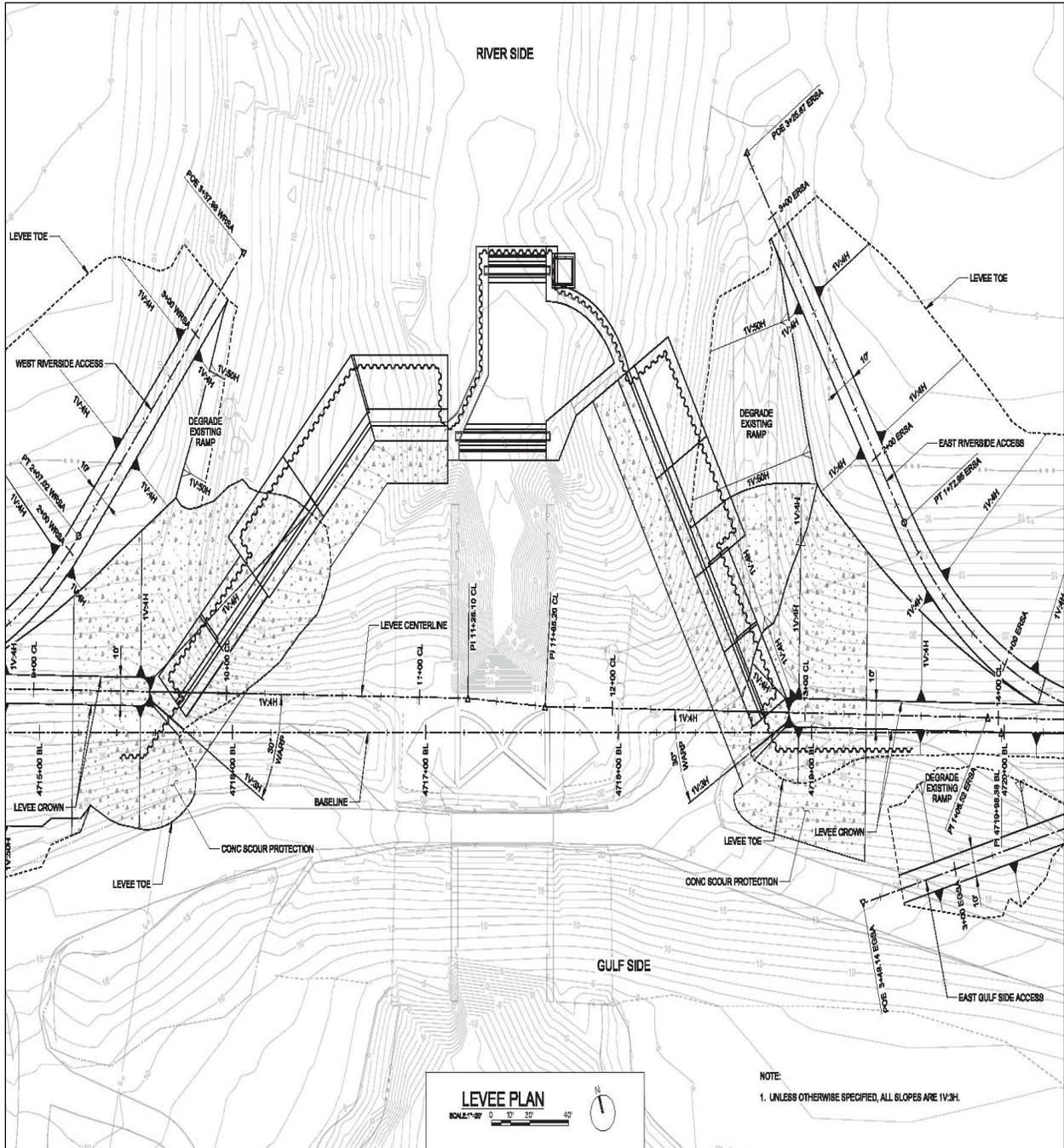


Figure 2. Proposed New Charenton Floodgate Plan, St. Mary Parish, Louisiana.

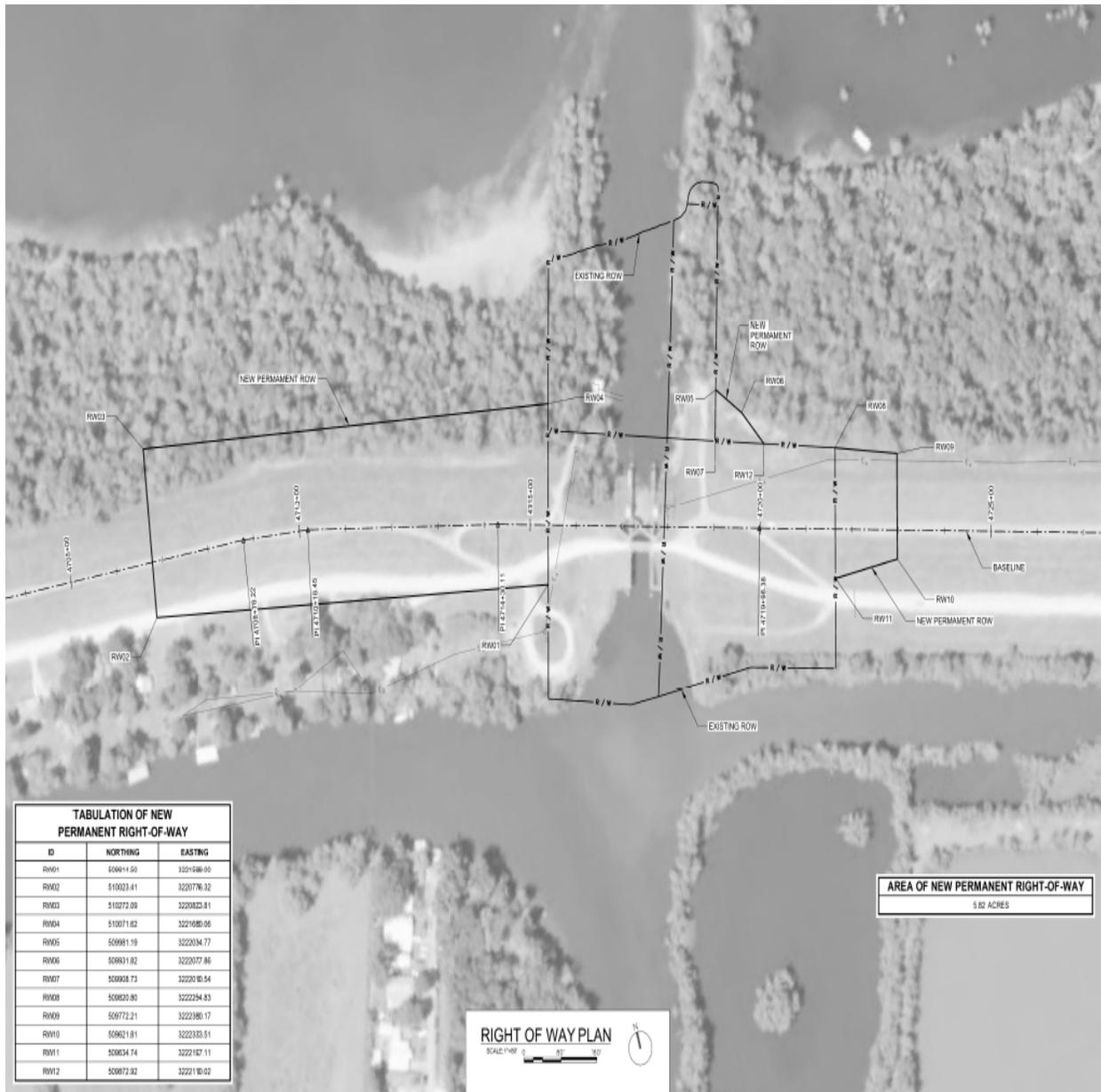


Figure 3. Charenton Floodgate Right-of-Way Footprint

## 1.5 Prior National Environmental Policy Act (NEPA) Documents

The environmental impacts of constructing the existing Charenton floodgate structure were assessed in the January 1982 final Environmental Impact Statement (FEIS), entitled *"Atchafalaya Basin Floodway System Feasibility Study,"* which is incorporated by reference herein. A Record of Decision (ROD) was signed on December 3, 1986, for the 1982 FEIS. EA# 467A, *"West Atchafalaya Basin Protection Levee W-86, 2nd Lift and Repairs Government Furnished Borrow Sites St. Mary Parish, Louisiana"*

assessed the impacts of utilizing two government-furnished borrow areas for (Phase B) construction of the Levee W-86 project, from B/L Station 4593+00 just north of Avoille Cove, to B/L Station 4713+00 at the Charenton Floodgate. The FONSI for EA #467A was signed on February 3, 2000. EA #467, *"Contractor Furnished Borrow Areas, West Atchafalaya Basin Protection Levee, Levee W-86, 2nd Lift and Repairs, St. Mary Parish, Louisiana,"* assessed the impacts of utilizing contractor furnished borrow pits for first phase (Phase A) construction of the Levee W-86 project, from approximately B/L Stations 4266+00 to 4593+00. The FONSI for EA #467 was signed on June 4, 2008. EA #358, *"W-85 A&B Levee Enlargement, West Atchafalaya Basin Protection Levee, Iberia and St. Mary Parishes, Louisiana,"* assessed the impacts of utilizing three government-furnished borrow areas located near Lake Fausse Pointe for the second lift and repairs to Levee W-85. The FONSI for EA #358 was signed on October 21, 2002. The borrow areas assessed for the W-85 project are separate from the borrow areas proposed for the W-86 Phase B project. The study was guided by the premise that the navigation component of the project was no longer needed. The navigation authorization was going to be removed through a post-authorization change. It was determined in 2010 that removing the navigation function through this structure was unacceptable to the local entities. The first is the *"Lower Atchafalaya Report"* dated May 16, 2000.

## **1.6 Public Concerns**

In October of 2010, a public meeting was organized and hosted by the Chitimacha Tribe of Louisiana in Charenton, Louisiana. Feedback from the meeting demonstrated overwhelming support for the existing Charenton Floodgate to be replaced with a new structure and retain the navigation function, continuing to allow regular access into the Atchafalaya Basin.

Residents of the lower Atchafalaya Basin are concerned about the floodway's ability to pass project floodwaters and to prevent damage to property within and adjacent to the floodway system. Residents are concerned about maintaining a structure for safe navigation into the Atchafalaya Basin. Widespread public support also exists for the protection of environmental resources within the Atchafalaya Basin, with special emphasis on preventing further loss or degradation of wetland and woodland habitats. The EA#511 will go out for a 30-day public review period allowing agencies and the public the opportunity to provide comments on the project.

## **2. Alternatives Including the Proposed Action**

### **2.1 Proposed Action**

Seven alternatives to the proposed action were considered to include five alternative locations for the proposed floodgate (Figure 4). These alternatives were: No-action; Alternative Location 1, Alternative Location 2A, Alternative Location 2B, Alternative Location 3, Alternative Location 4, and Alternative Location 5. Rebuilding the current floodgate (Alternative 1) was evaluated and determined to be unacceptable from an

engineering standpoint and was eliminated from further consideration. Construction on the gulf side of the existing structure (Alternative 3) was also eliminated as unacceptable because a new bridge with new approaches on each side of it would need to be constructed and the roadway is a designated emergency evacuation route that would be blocked during the construction. Constructing structures offset to the existing structure (Alternatives 4 and 5) would require a longer floodgate structure since it does not abut into the existing floodgate structure and a new channel to connect the Atchafalaya Basin to the Charenton Drainage Canal. These two alternatives were eliminated from further consideration because of the additional potential environmental impact.

General observations of the construction work required for each location led the design team to conclude that Alternative Location 2 would be the most economical and least disruptive location to construct the proposed project. Within this selected location, two types of tie-back alternatives were developed. Alternative 2-A was developed as an earthen levee tie-back system and Alternative 2-B was developed as a floodwall tie-back system. Alternative 2-A covers more area because of the new earthen levees extending out a couple hundred feet from each side of the new floodgate structure in order to tie back into the existing levee alignment that is already constructed to the project design height. For this EA the alternatives were renumbered and Alternative 1 is now the No Action.

## **2.2 No-Action Alternative (Future without Project [FWOP])**

In the future without project, the proposed action would not be constructed. The floodgate elevation would be lower than the adjacent levees. The Charenton Floodgate location would continue to be deficient and susceptible to overtopping.

## **2.3 Alternative 2-A**

Alternative 2-A adds a new floodgate structure to the Atchafalaya Basin side of the existing structure. New earthen levees extend out a couple hundred feet from each side of the new floodgate structure in order to tie back into the existing levee alignment that is already constructed to the project design height.

Construction work includes relocating the existing freshwater intake pump station. The footprint for the new structure and levees would be preloaded with soil and allowed to settle for 18 months prior to construction of the main features. Over four feet of settlement of the adjacent edge of the existing monolith is estimated. Removal of the existing walls on this monolith and side slopes graded back to levee/floodwall/floodgate is required for this alternative. The existing monolith foundation is to be left in place and allowed to settle. A temporary sheet piling coffer dam will be placed on the Atchafalaya side of the system during the construction process.

The existing floodgate structure would remain in place to continue to serve as the line of protection throughout construction until the new floodgates and line of protection is installed and operational. Once the new system is in place, the existing floodgates and

operating equipment are to be removed and scrapped. The existing concrete structure will be left in place as it currently exists. The bridge across the existing structure will not be impacted by this alternative and is to remain open to traffic during and after construction is complete.

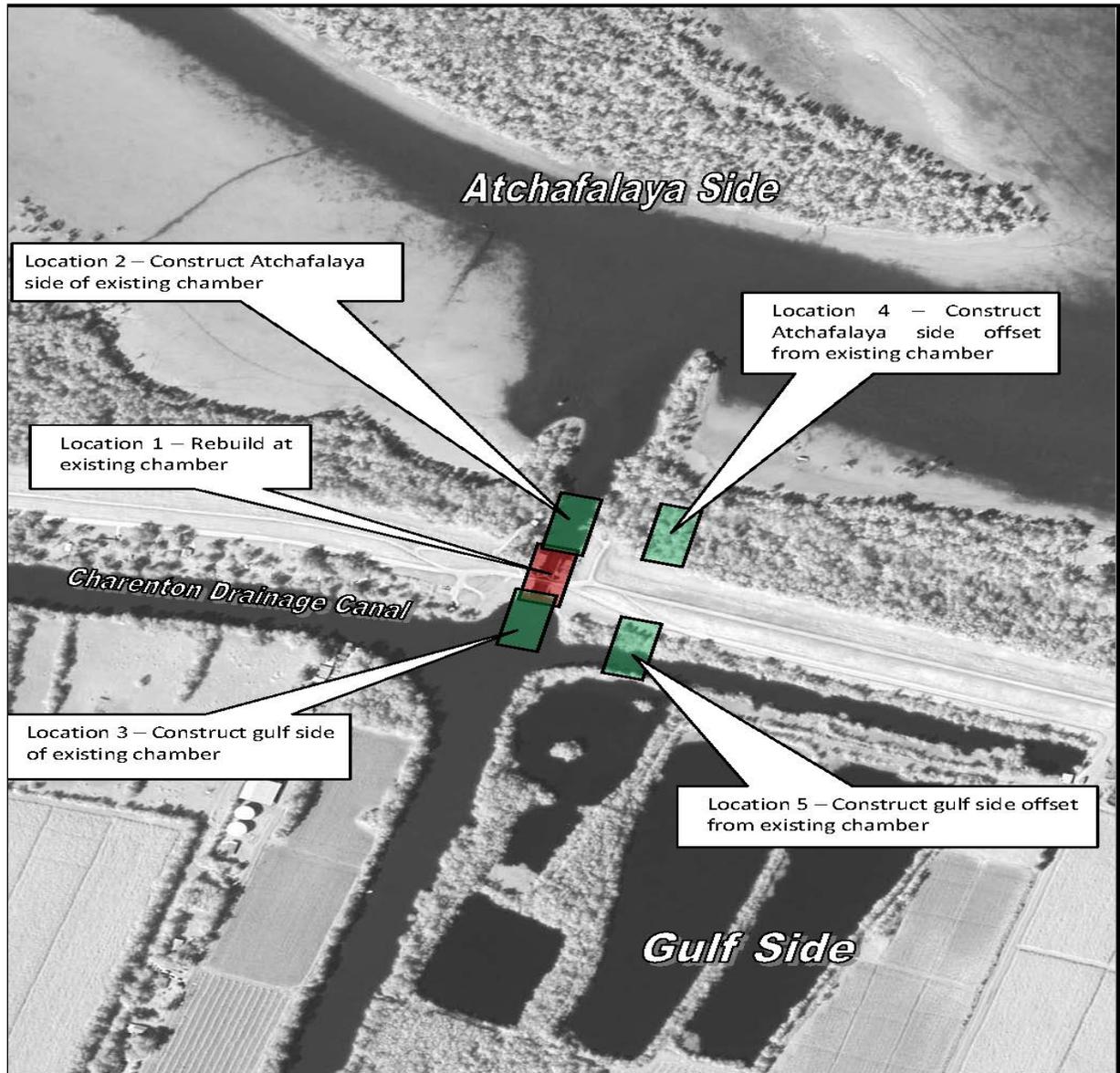


Figure 4. Alternative Locations for the Proposed Charenton Floodgate Modification, St. Mary Parish, Louisiana.

### **3. Affected Environment**

#### **3.1 Description of the Work Area**

The Atchafalaya River Basin is bounded on the east and west by artificial levees that were constructed in the 1930s as a direct result of the 1927 flood. The economy within this region is largely based on commercial fishing and trapping, outdoor recreation, and the extraction of oil and gas. Public access to the project area is via the existing Atchafalaya Basin berm road, which parallels the protected side of the levee. The levee and berm area are covered by a mixture of turf grasses. The levee crown and access ramps are dirt/gravel roadways. Primary habitats within the proposed project are forested wetlands and open water.

##### **3.1.1 Description of the Watershed**

The Charenton Drainage and Navigation Canal provides a means of accessing Lake Fausse Point, Grand Lake, and eventually the Atchafalaya River Main Channel via waterway. The Charenton Floodgate is located in the West Atchafalaya Basin Levee at the head of the Charenton Drainage Canal, about one mile north of Charenton. It controls the amount of fresh water from the Atchafalaya Basin into the Charenton Drainage Canal and Bayou Teche and allows for navigation through the levee. It is a part of the watershed for the Atchafalaya river system. The Atchafalaya River flows approximately 140 miles through southeast Louisiana from Simmesport to Atchafalaya Bay and the Gulf of Mexico, with an average headwater discharge of 218,400 cubic feet per second (cfs). In the early 1500s, the Mississippi River captured the lower Red River and established the Atchafalaya River as a distributary. Until the 1950s, the Mississippi River was diverting an increasing amount of its discharge into the Atchafalaya, an indication the Mississippi was about to shift its course. In the 1960s, the Old River Control Structure was completed, in accordance with the Flood Control Act of 1954, to prevent the capture by the Atchafalaya River of a large measure of the flow and sediment of the Mississippi River. By determinations in the current decision documents, allocation of flowage and bedload sediment from the Mississippi River through the Old River Control Complex into the Atchafalaya River are controlled in certain percentages. At present, 30 percent of the combined flows of the Red River and the Mississippi River are joined to become the Atchafalaya River system. Under the current design of the federally authorized MR&T Project, the floodways for the MR&T Atchafalaya Basin Flood Control Project are designed to pass one half of the project flood for the Mississippi River, or 1.5 million cfs, to the Gulf of Mexico. Today the Atchafalaya River is the main distributary of the Mississippi.

The Atchafalaya River is the primary source of water to one of the largest wetland complexes in the world. The Atchafalaya River Basin is extremely rich in biodiversity and productivity and is bounded on the east and west by artificial levees that were constructed in the 1930s as a direct result of the flood of 1927 and the authorization of the MR&T Project by the Flood Control Act of 1928, as amended. There are primarily three eco-regions in the Atchafalaya Basin: the northern part composed of bottomland hardwood forest; the middle, composed of cypress-willow-tupelo swamps; and the lower, which

contains freshwater and brackish marsh. The most ecologically important parts of the Atchafalaya Basin are 885,000 acres of forested wetlands and 517,000 acres of marshland that combine to make this the largest river swamp in North America.

Atchafalaya Bay was once the delta system for the Mississippi River as it flowed into the Gulf of Mexico prior to its re-routing through New Orleans to the east (Walker et al. 2003). Therefore, the area received significantly more flow and sediment load and, as a result, the bay is very shallow. Historically, this higher flow would have pushed much further into Atchafalaya Bay and the mixing zone where river water and seawater met would have been much further seaward than its current position. The river discharges into Atchafalaya Bay in southern Louisiana through two outlets, Lower Atchafalaya (70 percent of the discharge) and Wax Lake (30 percent) (Neill and Allison 2005).

### **3.1.2 Climate**

The Atchafalaya River Basin area has a humid, subtropical climate with a strong maritime character. Warm, moist southeasterly winds from the Gulf of Mexico are present throughout most of the year, with occasional cool, dry fronts occurring as a result of northeast high-pressure systems. The influx of cold air occurs less frequently in autumn and only rarely in summer. Tropical storms and hurricanes are likely to affect the area 3 out of every 10 years, with severe storm damage approximately once every 2 or 3 decades. The majority of these occur between early June and November. The largest recent hurricanes were Katrina and Rita in 2005 which caused damage in the proposed work area. Hurricanes Gustav and Ike in 2008, and more recently, Isaac in 2012, caused additional damage in the proposed work area. Summer thunderstorms are common, and tornadoes strike occasionally. Average annual temperature in the area is 67° F, with mean monthly temperatures ranging from 82° F in August to 52° F in January. Average annual precipitation is 57.0 inches, varying from a monthly average of 7.5 inches in July, to an average of 3.5 inches in October (<http://www.srcc.lsu.edu/>).

### **3.1.3 Geology**

The National Resource Conservation Service (2007) classifies the soils within the area as and adjacent to the proposed borrow areas as “Schriever clay, frequently flooded.” These soils were formed in clayey alluvium laid down over time by sediment deposits from the Atchafalaya River. The Schriever series soils have very poor drainage and are classified as very slow to impermeable soils, consisting of clayey to silty clay loam. This soil association is suitable for growth of bottomland hardwoods but is generally not well suited for cultivated crops due to frequent flooding.

## **3.2 Relevant Resources**

This section contains a description of relevant resources that could be impacted by the project. The relevant resources (Table 1) described in this section are those recognized by laws, executive orders, regulations, and other standards of national, state, or regional agencies and organizations; technical or scientific agencies, groups, or

individuals; and the general public. Important resources found within the proposed project area and assessed in this EA are wetlands, water bodies/water quality, wildlife, fisheries, threatened and endangered species, cultural resources, recreational resources, aesthetics, air quality, and prime and unique farmlands. The floodgate project is located in a remote area, so it was determined there would be no direct disproportionately high or adverse human health or environmental effects on any minority and/or low-income populations as per E.O. 12898, Environmental Justice in Minority and Low-Income Populations. Due to the remote location, small size, and short duration the project is not expected to produce adverse noise impacts.

**Table 1: Relevant Resources and Their Institutional, Technical, and Public Importance.**

| Resource                                 | Institutionally Important   | Technically Important  | Publicly Important  |
|--|---|--|---|
| <b>Wetlands</b>                          | Clean Water Act of 1977, as amended; Executive Order 11990 of 1977, Protection of Wetlands; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968., EO 11988, and Fish and Wildlife Coordination Act. | They provide necessary habitat for various species of plants, fish, and wildlife; they serve as ground water recharge areas; they provide storage areas for storm and flood waters; they serve as natural water filtration areas; they provide protection from wave action, erosion, and storm damage; and they provide various consumptive and non-consumptive recreational opportunities.                                | The high value the public places on the functions and values that wetlands provide. Environmental organizations and the public support the preservation of marshes.   |
| <b>Prime and/or Unique Farmlands</b>     | Farmland Protection Policy Act of 1981.   | USDA's NRCS recognizes the importance of prime and unique farmlands. Prime farmland is available land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops, such as citrus, tree nuts, olives, and vegetables. | Prime and unique farmland provides food, feed, forage, fiber, and oilseed crops for public consumption.   |
| <b>Aquatic Resources/ Fisheries</b>      | Fish and Wildlife Coordination Act of 1958, as amended; Clean Water Act of 1977, as amended; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968.   | They are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of the various freshwater and marine habitats; and many species are important commercial resources.   | The high priority that the public places on their esthetic, recreational, and commercial value.   |
| <b>Wildlife</b>                          | Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918.   | They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.   | The high priority that the public places on their esthetic, recreational, and commercial value.   |
| <b>Threatened and Endangered Species</b> | The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.  | USACE, USFWS, NMFS, NRCS, EPA, LDWF, and LDNR cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.   | The public supports the preservation of rare or declining species and their habitats.   |
| <b>Cultural Resources</b>                | National Historic Preservation Act of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979.   | State and Federal agencies document and protect sites. Their association or linkage to past events, to historically important persons, and to design and construction values; and for their ability to yield important information about prehistory and history.   | Preservation groups and private individuals support protection and enhancement of historical resources.   |
| <b>Recreation Resources</b>              | Federal Water Project Recreation Act of 1965 as amended and Land and Water Conservation Fund Act of 1965 as amended.  | Provide high economic value of the local, state, and national economies.   | Public makes high demands on recreational areas. There is a high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana; and the large per-capita number of recreational boat registrations in Louisiana. |

| Resource                             | Institutionally Important   | Technically Important  | Publicly Important  |
|--------------------------------------|---|--|---|
| <b>Visual Resources (Aesthetics)</b> | USACE ER 1105-2-100, and National Environmental Policy Act of 1969, the Coastal Barrier Resources Act of 1990, Louisiana's National and Scenic Rivers Act of 1988, and the National and Local Scenic Byway Program. | Visual accessibility to unique combinations of geological, botanical, and cultural features that may be an asset to a study area. State and Federal agencies recognize the value of beaches and shore dunes. | Environmental organizations and the public support the preservation of natural pleasing vistas.   |
| <b>Air Quality</b>                   | Clean Air Act of 1963, Louisiana Environmental Quality Act of 1983.   | State and Federal agencies recognize the status of ambient air quality in relation to the NAAQS.   | Virtually all citizens express a desire for clean air.  |
| <b>Water Quality</b>                 | Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Mgt Act of 1972, and Louisiana State & Local Coastal Resources Act of 1978.   | USACE, USFWS, NMFS, NRCS, EPA, and State DNR and wildlife/fishery offices recognize value of fisheries and good water quality and the national and state standards established to assess water quality.      | Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water. |

### 3.2.1 Wetlands

#### Existing Conditions

Wetlands in the project area provide various habitat opportunities for numerous wildlife species. A variety of birds utilize forested areas for nesting, breeding, brooding, and as perches. Wetlands in the project area also provide soft mast (samaras, berries), which are a valuable nutritional food source for birds, mammals, and other wildlife species. The surrounding swamp habitat is dominated by cypress trees other species include tupelo, black willow, and hackberry. Ground cover in the project area consists of detritus and deadfall from trees within the area, and seedlings of area plant species.

### 3.2.2 Prime and/or Unique Farmlands

#### Existing Conditions

The major agricultural commodity in St. Mary Parish is sugarcane, but other common crops grown are soybeans and citrus fruits. Livestock production, which includes cattle, horses, rabbits, sheep, goats, and swine are also managed. The Natural Resource Conservation Service (NRCS) was consulted because the proposed project would impact prime and unique farmland soils. Projects are subject to the Farmland Protection Policy Act (FPPA) requirements if they may irreversibly convert farmland to nonagricultural use and are completed by a federal agency. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land. Coordination with the NRCS was completed on June 11, 2020. The NRCS concluded that the proposed construction area will not impact prime farmland and therefore is exempt from the rules and regulations of the FPPA—Subtitle I of Title XV, Section 1539-1549.

### 3.2.3 Aquatic Resources/Fisheries

#### Existing Conditions

A wide variety of fish species are known to inhabit the area. Important aquatic resources expected to occur in the canal include largemouth bass, yellow bass, bluegill, crappie, gar, carp, shad, catfish and crawfish.

### 3.2.4 Wildlife

#### Existing Conditions

Some wildlife species that may inhabit the project area include opossum, gray squirrel, swamp rabbit, nutria, raccoon, rats, mice, turtles, snakes, frogs, and toads. Bird species known to exist in the area include wading birds, raptors, songbirds, and neo-tropical migrants.

### 3.2.5 Threatened and Endangered Species

#### Existing Conditions

Nine federally threatened, endangered, or candidate species are either known to or may possibly occur in St. Mary Parish, Louisiana: Eastern black rail, piping plover (*Charadrius melodus*) (threatened); red knot (*Calidris canutus rufa*) (threatened); West Indian manatee (*Trichechus manatus*) (endangered); pallid sturgeon (*Scaphirhynchus albus*) (endangered); hawksbill sea turtle (*Eretmochelys imbricata*) (endangered); leatherback sea turtle (*Dermochelys coriacea*) (endangered); Kemp's ridley sea turtle (*Lepidochelys kempii*) (endangered); loggerhead sea turtle (*Caretta caretta*) (threatened); Gulf sturgeon (*Acipenser oxyrinchus desotoi*) (threatened).

### 3.2.6 Cultural Resources

#### Existing Conditions

An evaluation of Charenton Floodgate for eligibility of listing in the National Register of Historic Places (NRHP) was conducted in November 2000 by R. Christopher Goodwin and Associates, Inc. The results of the evaluation determined that the Charenton Floodgate had retained much of the integrity from original construction and continues to operate as originally designed. The 2000 evaluation concluded that the floodgate was eligible for listing in the NRHP under Criteria A and C.

Under Criterion A, a property must be associated with events important to the broad patterns of United States history. As part of the Atchafalaya Floodway, Charenton Floodgate relates to the development of flood control for the Mississippi River Valley. The floodgate and levees were essential structures in local and national efforts to protect the lower Mississippi River Valley from floods. Charenton Floodgate also represents the increasing involvement of the USACE in the design and maintenance of flood control structures in the Mississippi Valley. The floodgate protects productive resources and expanding settlements along the lower Bayou Teche river basin. The Charenton Floodgate also frequently opens to allow fresh water to enter Bayou Teche via the Charenton Drainage and Navigation Canal.

To be determined eligible under Criterion C, the property must embody distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic value; or represent a significant and distinguishable entity whose components may lack individual distinction. Charenton Floodgate represents the type of engineering design used during the mid-twentieth century. The floodgate is one

of five structures utilizing similar gate technology built along the Atchafalaya Basin Floodway between 1941 and 1954. Charenton Floodgate is an excellent representative of the engineering construction used by the USACE and of the type and quality of materials used.

Charenton Floodgate has undergone few changes over the years. Many of the changes include minor alterations or routine maintenance, such as the replacement of the sector gates and the replacement of steel handrails with aluminum railings. Although a bridge built over the structure was replaced, the overall design of the floodgate is unaltered. Charenton Floodgate operates as originally designed. Therefore, the floodgate retains a high degree of integrity from its period of significance.

An updated evaluation of the floodgate was completed in 2016 to evaluate changes that were made to the structure since the 2000 evaluation, and determine if those changes diminished the integrity of the Charenton Floodgate and those qualities that make it significant and eligible for listing in the NRHP. The 2016 evaluation concluded that the floodgate remained eligible for listing in the NRHP under Criteria A and C.

Consultation with the Louisiana State Historic Preservation Officer (SHPO) and federally-recognized Tribes was conducted in May and June of 2016 for the proposed undertaking and the eligibility of the Charenton Floodgate for listing in the NRHP. In a letter dated June 13, 2016, the SHPO concurred that the Charenton Floodgate was eligible for listing in the NRHP under Criteria A and C, and that removal of the sector gates and the construction of new floodgate structure would cause an adverse effect to the Charenton Floodgate. The development of a Memorandum of Agreement (MOA) was recommended in order to develop strategies to mitigate for adverse effects to the floodgate. In a letter dated January 4, 2017, the Advisory Council on Historic Preservation (ACHP) stated that “Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, “Protection of Historic Properties” (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed.” The Chitimacha Tribe of Louisiana indicated an interest in having the floodgate replaced to improve flood protection and improve navigation and requested to participate in continued consultation for the development of the MOA.

In September 2020, the USACE reinitiated Section 106 consultation with the LA SHPO, the ACHP, and federally-recognized Tribes. On September 21, 2020, the Choctaw Nation of Oklahoma submitted written correspondence stating that “St. Mary Parish lies outside of our area of historic interest. The Choctaw Nation Historic Preservation Department respectfully defers to the other Tribes that have been contacted.” On September 22, 2020, the Muscogee (Creek) Nation submitted written correspondence stating that “The project area is located outside of our area of interest. We respectfully defer to the other tribes who have been contacted for comments.” On October 6, 2020, the USACE received a written response from the ACHP stating again that “Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, “Protection of Historic Properties” (36

CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed.”

### 3.2.7 Recreational Resources

#### Existing Conditions

The project is located within the Atchafalaya Basin which is a popular area for bird watching, boating, canoeing, fishing, hiking, hunting, photography, camping and wildlife viewing. Currently the USACE is preparing a Supplemental Environmental Impact Statement (SEIS) for recreation features south of I-10 within Atchafalaya Basin. The SEIS analyzes the development of three developed campgrounds, seven primitive campgrounds, five new and ten improved boat launches, one visitor center, hiking and paddling trails, and wildlife viewing areas.

The Charenton Drainage and Navigation Canal provides a waterway access north to Lake Fausse Pointe, Grand Lake, and eventually the Atchafalaya River Main Channel. These waterways provide opportunities for boating and fishing. Recreational resources are publicly important because of the high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana, and the large per-capita number of recreational boat registrations in Louisiana (Table 2).

**Table 2: FY 2017 Fishing/ Hunting Licenses<sup>1</sup>, Boater Registrations.**

| Parish/County   | Fishing Licenses |                    | Hunting Licenses |  |
|---|------------------|--------------------|------------------|--|
|   | Resident-Basic   | Resident-Saltwater | Resident-Basic   | Resident Boat <sup>2</sup> Registrations |
| Assumption  | 2,583            | 1,581              | 968              | 3,607                                    |
| Iberia  | 8,013            | 6,701              | 2,449            | 7,655                                    |
| Iberville   | 2,798            | 1,383              | 1,226            | 3,320                                    |
| Pointe Coupee   | 2,284            | 955                | 1,345            | 2,575                                    |
| Saint Landry  | 8,870            | 4,427              | 4,666            | 6,082                                    |
| Saint Martin  | 5,432            | 3,160              | 2,315            | 5,119                                    |
| Saint Mary  | 6,021            | 4,789              | 1,806            | 7,827                                    |
| Terrebonne  | 17,870           | 17,376             | 3,991            | 15,029                                   |
| Atchafalaya Basin Floodway System (ABFS) Parishes Total | 53,871           | 40,372             | 18,766           | 51,214                                   |

|                       |         |         |         |         |
|-----------------------|---------|---------|---------|---------|
| State Totals          | 376,945 | 229,436 | 152,165 | 320,819 |
| ABFS Percent of State | 14.3%   | 17.6%   | 12.3%   | 16%     |

Source: [www.wf.louisiana.gov/licenses/statistics](http://www.wf.louisiana.gov/licenses/statistics)

1 Number of licenses issued in Parish granting residents fishing or hunting privileges.

2 Resident Boater registration data is for 2011.

Within the vicinity of the project area there are several recreation areas including private recreation camps (approx. one mile east of the project); a primitive state campground on the south bank of Grand Avoille Cove (approx. 1.5 mile north of the project); a boat launch which provides access to Lake Fausse Pointe and Grand Avoille Cove (approx. 2 miles north of the project); Millet Point Boat Launch (approx. 4.5 south of the project); Attakapas Island WMA (approx. 2 miles east of the project); Lake Fausse Point State Park (approx. 7 miles north of the project). Also, within the USACE SEIS there is a proposal for a primitive campground, Fishers Island, approximately 3 miles north of the project area. Currently the Charenton Floodgate is closed; therefore not used by recreational vessels.

### 3.2.8 Visual Resources (Aesthetics)

#### Existing Conditions

The proposed site currently features the existing Western Atchafalaya River Levee (WARL) as a primary structure in the area. The levee is a typical earthen berm, covered in turf on both the protected and flood sides. Access roads crest the top of the levee and provide vehicular access for maintenance vehicles and visitors alike. There are a number of open water areas throughout the area that include the Charenton Drainage and Navigation Canal. There are no known state-designated scenic rivers or streams near the project area. The vicinity of the project area is characteristic of inland swamps, with a variety of vegetation present. The terrain is flat and splotched with low lying areas prone to water fill, characteristic of wetland and swamp habitats and a natural levee system near banks of nearby rivers and streams. Land use in the area is primarily agricultural between the flood gate and the City of Charenton, with a small pocket of single-family residential homes.

Other land uses include forested/vacant in the vicinity of the proposed borrow area and north of the flood gate in the Atchafalaya Basin. The surrounding habitat is comprised of a mixture of deep, wooded areas and the Western Atchafalaya River Levee, which acts as the dominant landform feature in the area. Otherwise, the terrain is relatively flat with minimal changes in elevation. The landscape is pastoral and serene, tremendously adding to the visual quality of the visitor experience. There are no specific known or identified protected trees or other plant materials in the immediate project area. Public visual and physical access to the project site is limited. There is a local street running north from LA Highway 87 that provides a distant view of the project area. Otherwise, access is from watercraft only. LA Highway 87 represents a portion of the Promised Land Scenic Byway which is a state-recognized scenic bayou.

### **3.2.9 Air Quality**

#### **Existing Conditions**

St. Mary Parish is currently in attainment of all National Ambient Air Quality Standards (NAAQS). This classification is the result of area-wide air quality modeling studies, and the information is readily available from Louisiana Department of Environmental Quality, Office of Environmental Assessment and Environmental Services.

### **3.2.10 Water Quality**

#### **Existing Conditions**

The Charenton Drainage and Navigation Canal provides access, northern waterway access to Lake Fausse Point, Grand Lake and eventually the Atchafalaya River Main Channel. The Charenton floodgate channel is typically non-turbid, due to the limited use. As part of its surface water quality monitoring program, the Louisiana Department of Environmental Quality (LDEQ) routinely monitors 25 parameters on a monthly or bimonthly basis using a fixed station, long-term network (Monitored Assessments) (LDEQ 1996). Based upon those data and the use of less-continuous information (Evaluated Assessments), such as fish tissue contaminants data, complaint investigations, and spill reports, the LDEQ has assessed water quality fitness for the following uses: primary contact recreation (swimming), secondary contact recreation (boating, fishing), fish and wildlife propagation, drinking water supply and shellfish propagation (LDEQ 1996). Based upon existing data and more subjective information, water quality is determined to either fully, partially, or, not support those uses. A designation of “threatened” is used for waters that fully support their designated uses but that may not fully support certain uses in the future because of anticipated sources or adverse trends in pollution.

According to the LDEQ Final 2016 Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)), the West Atchafalaya Basin Floodway Charenton Canal from Charenton Floodgate to the Intercoastal Waterway; includes Bayou Teche from Charenton to Baldwin (subsegment LA060601\_00) is “not supporting designated use” for primary contact recreation (i.e., swimming); “fully supporting designated use” for secondary contact recreation (i.e., boating); is “not supporting designated use” for fish and wildlife propagation (i.e., fishing); and is “fully supporting designated use” for drinking water supply (LDEQ 2016).

## **4. Environmental Consequences**

### **4.1 Wetlands**

#### **Future Conditions with No Action**

Without implementation of the proposed action, no impacts would occur to the bottomland hardwood habitat or cypress swamp. The Charenton Floodgate’s elevation would continue to be deficient and susceptible to overtopping.

### Future Conditions with the Proposed Action (Alternative 2B)

With implementation of the proposed action, 14.8 acres (7.2 AHU) of bottomland hardwood habitat and 2.2 acres (1.47 AHU) of cypress swamp habitat would be cleared and filled for the project to construct a new floodgate. The Wetland Value Assessment (WVA) methodology is a quantitative habitat-based assessment methodology developed for use in determining wetland benefits or losses. The WVA quantifies changes in wildlife habitat quality and quantity that are expected to result from a proposed project. The results of the WVA are measured in Annualized Habitat Units (AHUs). The WVA methodology provides an estimate of the number of acres benefited or lost due to the project's construction. The WVA model indicates 1.48 AHUs would be lost due to the project's construction. The impacts to the acres of bottomland hardwood and cypress swamp are unavoidable because of the foundation needed for the floodgate structure.

### Future Conditions with Alternative 2A

With implementation of Alternative 2A, 14.8 acres (7.2 AHU) of bottomland hardwood habitat and 2.2 acres (1.47 AHU) of cypress swamp habitat would be cleared and filled for the project to construct a new floodgate resulting in unavoidable impact to the bottomland hardwood and cypress swamp due to the floodgate structure foundation requirements.

## **4.2 Prime and Unique Farmlands**

### Future Conditions with No-Action

Without implementation of the proposed action, no direct or indirect impacts to prime and unique farmland would occur.

### Future Conditions with the Proposed Action

Farmland Conversion Impact Rating Forms were completed and provided to the NRCS (Appendix A). In a letter dated May 05, 2020, the NRCS indicated they had no objection to the project.

## **4.3 Aquatic Resources and Fisheries**

### Future Conditions with No Action

Without implementation of the proposed action, the proposed project would not be constructed, and impacts to aquatic resources and fisheries resources within the proposed project area would not likely change from current conditions.

### Future Conditions with the Proposed Action (Alternative 2B)

With implementation of the proposed action, the temporary cofferdam placed around the Atchafalaya side of the project would potentially enclose some fish species. As a result of this change, some fish mortality is expected during construction. Fish and aquatic organisms outside the cofferdam may be temporarily displaced during construction due to increased turbidity. Erosion control methods such as silt fences would be used but some runoff is expected along the project. Aquatic and fisheries resources are expected to recolonize the area post-construction. Due to the small project scope, cumulative impacts would be negligible. The temporary disturbances would not adversely impact the fishery population within the region, due to the extensive fish habitat available in the vicinity.

#### Future Conditions with Alternative 2A

With implementation of Alternative 2A, impacts on fisheries would be similar to the proposed action.

#### **4.4 Wildlife**

##### Future Conditions with No Action

Without implementation of the proposed action, the proposed project would not be constructed, and impacts to wildlife resources within the proposed project area would not likely change from current conditions.

##### Future Conditions with the Proposed Action (Alternative 2B)

With implementation of the proposed action, 2.2 acres of wooded wildlife habitat would be directly impacted due to its removal during construction. Wildlife would be displaced during construction. Indirect impacts such as stress caused by construction equipment would occur but would be short term in duration. The loss of habitat and temporary disturbance would not adversely impact the general populations of wildlife species within the region due to the large amount of comparable habitat available within the immediate vicinity of the project area.

##### Future Conditions with Alternative 2A

With implementation of Alternative 2A, 3.4 acres of forested wetland habitat would be directly impacted due to its removal during construction. The wildlife impacts would be similar to those described in the proposed action.

#### **4.5 Threatened and Endangered Species**

##### Future Conditions with No Action

Without implementation of the proposed action, there would be no direct or indirect impacts to threatened and endangered species.

### Future Conditions with the Proposed Action (Alternative 2B)

Federally listed species and/or their designated critical habitat that may occur in St. Mary Parish include the piping plover (*Charadrius melodus*), Eastern black rail, red knot, West Indian manatee (*Trichechus manatus*), sea turtles, Gulf sturgeon (*Acipenser oxyrinchus desotoi*) and pallid sturgeon (*Scaphirhynchus albus*). With implementation of the proposed action, no threatened or endangered species nor their critical habitats are known to occur in areas that would be disturbed by the proposed work. The CEMVN has made a determination of “not likely to adversely affect” the aforementioned species under the Endangered Species Act. USFWS has concurred with this determination on August 06, 2020.

### Future Conditions with Alternative 2A

Alternative 2A would have similar results to threatened or endangered species as the proposed action.

## **4.6 Cultural Resources**

### Future Conditions with No Action

Without implementation of the proposed action, the Charenton Floodgate would continue to exist in its current state and condition. The floodgate would not function as originally designed, would remain 10 feet deficient in height, and would not provide the level of flood protection necessary to meet the new height requirement in accordance with the USACE design standards and design criteria.

### Future Conditions with the Proposed Action

With implementation of the proposed action, the sector gates on the Charenton Floodgate would be removed and a new floodgate structure would be built in front of the floodgate. The main body of the floodgate on either side of the sector gates would remain in place. The sector gates on the Charenton Floodgate represent a unique design that allows the gates to withstand a head of water from either direction. The sector gates are a significant contributing element to the eligibility of the Charenton Floodgate for listing in the NRHP. Removal of the sector gates would cause an adverse effect to the Charenton Floodgate and would require mitigation to address those adverse effects. The USACE has consulted with the Louisiana SHPO, federally-recognized Tribes, and the ACHP to develop a MOA and strategies to mitigate for adverse effects associated with the removal of the sector gates and construction of the new floodgate structure. The MOA would be signed by all consulting parties prior to the signing of the FONSI and the agreed to mitigation completed prior to the removal of the sector gates and the commencement of any other construction related activities.

## **4.7 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 (Alternative 2B)*

With implementation of the proposed action, there is the potential that people boating and fishing in the adjacent waterway may be temporarily impacted by construction activities. When the gate is operational it would be opened upon request. Recreational access to the adjacent waterways such as Lake Fausse Pointe, Grand Lake, and the Atchafalaya River would be improved with the gate repaired.

#### *Future Conditions with Alternative 2A*

Alternative 2A would have similar impacts as those listed in the Proposed Action.

### **4.8 Visual Resources (Aesthetics)**

#### *Future Conditions with No Action*

Without implementation of the proposed action, the proposed project would not be constructed, and impacts to Visual Resources would not likely change from existing conditions.

#### *Future Conditions with the Proposed Action (Alternative 2B)*

Given the remote nature of the project area, impacts to Visual Resources would be minimal. The project construction site is well out of view of the public. The replacement of the gate itself will have minimal impacts due to the fact that it will be similar to what was there in the first place. The replacement of the gate will require the removal of some forested wetland habitat, but this removal will be on the Atchafalaya Basin side of the levee and out of the already minimal to nonexistent public view shed. Reconstruction or repair of adjacent levees, concrete work or other necessary structures will also have minimal impacts because these structures have already been in place prior to construction of the new features. The borrow area will also present minimal impacts due to its remote location. The borrow area has minimal access and will fit in with existing open water ponds in the area.

#### *Future Conditions with Alternative 2A*

Alternative 2A presents similar impacts as those listed in the Proposed Action (Alternative 2B). The main difference being that Alternative 2A has a larger construction footprint that removes more of the forested wetland habitat on the Atchafalaya Basin side of the project area. However; this does not make up for the fact that the area is still remote with limit visual access.

## 4.9 Air Quality

### Future Conditions with No Action

Without implementation of the proposed action, there would be no direct or indirect impacts on air quality.

### Future Conditions with the Proposed Action (Alternative 2B)

The primary air pollution sources resulting from project implementation would be short-term contributions of exhaust from heavy earthmoving machinery utilized in site preparation activities combined with potential recreational usage from vehicles and boating activities. Project-related contributions of air-borne contaminants would be anticipated to be site-specific and introduced in small inconsequential volumes resulting in no long-term impacts on current or future air quality attainment standards. It has been determined that the activities proposed under this project would not exceed *de minimis* levels of direct emissions of a criteria pollutant or its precursors and would be exempted by 40 CFR Part 93.153. Overall impacts to air quality would be expected to be minimal. With the proposed action, project activities would be expected to produce less than 5 tons per year of Volatile Organic Compounds and NO<sub>x</sub> emissions. Thus, the ambient air quality in St. Mary Parish would not noticeably change from current conditions, and the status of ambient air quality for the parish would not be directly or indirectly altered.

### Future Conditions with Alternative 2A

With implementation of Alternative 2A, impacts on air quality would be similar to the proposed action.

## 4.10 Water Quality

### Future Conditions with No Action

Without implementation of the proposed action, there would be no direct or indirect impacts on water quality.

### Future Conditions with the Proposed Action (Alternative 2B)

With implementation of the proposed action, the temporary cofferdam placed around the Atchafalaya side of the project would potentially increase turbidity during construction. Erosion control methods such as silt fences would be used but some runoff is expected along the project. Water quality impacts are expected to be minor and short-term and return to normal post-construction conditions. Due to the small project scope, cumulative impacts would be negligible. The temporary disturbances would not adversely impact water quality within the region and the water quality certification for the proposed project was received on June 10, 2020.

### Future Conditions with Alternative 2A

With implementation of Alternative 2A, impacts on water quality would be similar to the proposed action.

#### **4.11 Hazardous, Toxic, and Radioactive Waste**

The USACE is obligated under Engineer Regulation (ER) 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste (HTRW) contamination within the vicinity of proposed actions. ER 1165-2-132 identifies that HTRW policy is to avoid the use of project funds for HTRW removal and remediation activities. An ASTM E 1527-13 Phase 1 Environmental Site Assessment (ESA) dated May 06, 2020 has been completed for the project area. A copy of Phase 1 ESA will be maintained on file at CEMVN.

Additionally, other HTRW investigations were conducted in the project area and they indicate that there is a very low probability that Hazardous, Toxic, and Radioactive Waste (HTRW) would be encountered at the project location or the borrow site. No further investigation of HTRW is recommended, and the project may proceed without further study of HTRW; however, if the project locations or methods change the HTRW probability may need to be re-investigated.

#### **4.12 Cumulative Impacts**

The Council on Environmental Quality 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.

Within the last 10 years, no federal levee projects have been constructed within the project vicinity. The proposed action would result in minor impacts to the resources addressed in this EA and would not be expected to result in significant cumulative impacts. The conversion of 14.8 acres of bottomland hardwood and 2.2 acres of cypress swamp to uplands is considered relatively minor, due to the large extent of comparable habitat in the project vicinity. The Atchafalaya Basin Flood Control Project feature of the MR&T project provided for net environmental benefits to the Atchafalaya basin through the preservation and enhancement of its economic and natural resources.

The Atchafalaya Basin Flood Control project’s 1982 FEIS evaluated impacts associated with the existing Charenton floodgate feature, as well as with modification of existing features required to safely pass the project flood. The project flood translates into river flow rates. The Atchafalaya Basin Floodway must be capable of safely passing 1.5 million cubic feet per second to the Gulf of Mexico in order to avert floods along the highly populated, industrialized corridor of the lower Mississippi River. In addition to flood

protection features, the FEIS addressed various environmental features and non-structural real estate features of various types, including for example, the purchase of flowage easements, environmental protection easements and lands in fee as part of the project's recommended plan. The overall positive environmental contribution of the real estate feature was designed to offset the direct construction impacts of the flood protection features. Together, the environmental and real estate features would significantly benefit preservation of the basin's desired "wet and wild" characteristics. Therefore, as previously addressed in the comprehensive plan, project construction would not substantially adversely impact the environment on a long-term and/or cumulative basis.

## **5.0 Mitigation**

The Charenton Floodgate is part of the authorized Atchafalaya Basin Floodway System (ABFS) project. Habitat impacts, both negative and beneficial arising from the ABFS Project, were addressed in the 1982 ABFS EIS. The habitat impacts associated with the proposed project have been and are compensated by implementation of the ABFS Project. The implementation of the Congressionally authorized ABFS Recommended Plan described in the 1982 ABFS, Louisiana, Feasibility Study and Final EIS would result in over 40,000 annualized habitat units (AHU) of forested wetland habitat (bottomland hardwoods and cypress-tupelo), and nearly 3,000 AHU of swamp habitat for the ABFS. These cumulative benefits are specifically provided as a result of the acquisition of approximately 388,000 acres; 70,000 acres of USACE owned "fee" property to be managed for public access and 318,000 acres of developmental control and environmental protection easement lands that limit public access and timbering and are designed to prevent new structures, hydrological manipulations, and land conversion. WRDA 2007 authorized the acquisition of an additional 20,000 acres of fee-interest land from willing sellers. Of the authorized 70,000 fee acres, the USACE has purchased about 47,323 acres on both sides of the Atchafalaya River between U.S. Hwy 190 and I-10. Concurrently, the USACE has acquired approximately 94,000 acres of the 318,000 acres of developmental control and environmental protection easements over private lands in the basin, which will prohibit conversion of forestlands to other uses.

The Corps minimized wetland impacts to the maximum extent practicable by recommending the floodwall tieback alternative instead of an earthen levee option that would have impacted 3.4 acres of cypress swamp. Wetland impacts from the proposed Charenton Floodgate Modification project would be minor in scope and greatly offset by the overall positive contributions of the real estate feature in the ABFS Recommended Plan. The proposed Charenton Floodgate Modification project would impact 14.8 acres (7.2 AHU) of bottomland hardwood habitat and 2.2 acres (1.47 AHU) of cypress swamp habitat; however, these impacts are compensated for by the aforementioned net benefit of 40,000 AHU for forested wetland habitats and 3,000 AHU for swamp habitat under the Congressionally authorized ABFS Recommended Plan. Direct construction impacts of various project measures were designed to be offset by the overall positive contribution of environmental and nonstructural real estate features in the ABFS Recommended Plan. The loss of 14.8 acres (7.2 AHU) of bottomland hardwood habitat and 2.2 acres (1.47 AHU) of cypress swamp habitat associated with the proposed Charenton Floodgate

Modification project, when taken in context of similar wetland losses addressed by the 1982 FEIS, are more than adequately compensated for by the aforementioned mitigation plan. Therefore, no additional mitigation is necessary. As of the date of this EA, approximately 3% of the 40,000 AHU of forested wetland habitat has been utilized and approximately 3% of the 3,000 AHU for the swamp habitat has been utilized.

The proposed action is in the overall public interest as it will increase the floodgate height and will protect life and property in St. Mary Parish. Upon completion of the work, all levee embankments and areas disturbed by the construction activities would be seeded with Bermuda grass, fertilized, and mulched. Upon project completion, any disturbed areas on the Atchafalaya basin side of the levee that were not filled would be replanted with cypress tree saplings.

## **6.0 Coordination and Public Involvement**

Preparation of this draft EA and draft FONSI is being coordinated with the public, appropriate congressional, federal, tribal, state, and local interests, as well as environmental groups and other interested parties.

## **7.0 Compliance with Environmental Laws and Regulations**

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

- Coordination of this EA and draft FONSI with appropriate agencies, organizations, and individuals for their review and comments;
- Coordination with LDNR confirmed that the proposed action would not impact coastal resources and was concluded on May 22, 2020. (Appendix A)
- USFWS concurred with a determination of no effect to any federally-listed threatened or endangered species, or their critical habitat, under the jurisdiction of USFWS on August 05, 2020. (Appendix B)
- LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concluded that the deposit of spoil will not violate water quality standards as provided for in LAC 33: IX. Chapter 11. Therefore, LDEQ issued U.S. Army Corps of Engineers Water Quality Certification for the Atchafalaya Basin Construction, Charenton Floodgate Modification. A State Water Quality Certificate was received from the Louisiana Department of Environmental Quality on June 10, 2020. (Appendix C)
- Clean Water Act, Section 404(b)(1) Public Notice and Evaluation; (Appendix D)
- In a letter dated June 13, 2016, the LASHPO stated that the sector gates are a significant contributing element to the eligibility of the Charenton Floodgate for listing in the NRHP. Removal of the sector gates would cause an adverse effect to the Charenton Floodgate and would require mitigation to address those adverse effects. In response to the adverse effect determination, the USACE proposed to develop a MOA for the undertaking to mitigate for adverse effects to the Charenton Floodgate in a letter dated July 8, 2016. In a letter dated January 4, 2017, the ACHP stated that “Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, “Protection of Historic

Properties” (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed.”

In September 2020, the USACE reinitiated Section 106 consultation with the LA SHPO, the ACHP, and federally-recognized Tribes. In September 2020, the USACE reinitiated Section 106 consultation with the LA SHPO, the ACHP, and federally-recognized Tribes. On September 21, 2020, the Choctaw Nation of Oklahoma submitted written correspondence stating that “St. Mary Parish lies outside of our area of historic interest. The Choctaw Nation Historic Preservation Department respectfully defers to the other Tribes that have been contacted.” On September 22, 2020, the Muscogee (Creek) Nation submitted written correspondence stating that “The project area is located outside of our area of interest. We respectfully defer to the other tribes who have been contacted for comments.” On October 6, 2020, the USACE received a written response from the ACHP stating again that “Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, “Protection of Historic Properties” (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed.”

The USACE would fulfill its Section 106 procedures, described in Table 1, if the proposed action is carried forward by developing a MOA in consultation with the LA SHPO, ACHP, and federally-recognized Tribes, and other interested parties that mitigates for adverse effects associated with the removal of the sector gates and construction of the new floodgate structure. The MOA would be signed by all consulting parties prior to the signing of the FONSI and the agreed to mitigation completed prior to the removal of the sector gates and the commencement of any other construction related activities. (Appendix E)

- There would be a low probability of encountering HTRW in the proposed mitigation area and borrow area.
- Coordination with the Natural Resources Conservation Service was completed on May 5, 2020. NRCS concurred that the proposed actions of this EA will not impact prime farmland and therefore is exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. (Appendix F)

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

## **8.0 Conclusion**

This office has assessed the environmental impacts of the proposed action and has determined that both individually and cumulatively the proposed action would have no adverse impacts on threatened and endangered species or their critical habitats. The project would have no significant adverse impact on wetlands, wildlife, fisheries, cultural resources, recreation, aesthetics, air quality, or water quality.

## **9.0 Prepared By**

Environmental Assessment 511 and the associated Finding of No Significant Impact were prepared by Ms. Samantha Martin, Environmental Protection Specialist, with relevant sections and contributions prepared by: Mr. Joseph Musso (HTRW); Mrs. Jill Enersen (Cultural Resources and Historical Architecture). The address of the preparers is: U.S. Army Corps of Engineers, New Orleans District; Regional Planning and Environment Division South, CEMVN-PDC-C; 7400 Leake Avenue; New Orleans, Louisiana 70118.

## 10. References

Louisiana Department of Environmental Quality (LDEQ). 1996. State of Louisiana Water Quality Management Plan, Water Quality Inventory. Appendices A and B. Baton Rouge, LA.

Louisiana Department of Environmental Quality (LDEQ). 2018. 2018 Louisiana Water Quality Inventory: Integrated Report. Louisiana Department of Environmental Quality, Office of Environmental Assessment, Water Quality Assessment Division, Baton Rouge, LA. 194 p. + appendices.

Neill, C.F., and M.A. Allison. 2005. Subaqueous deltaic formation on the Atchafalaya Shelf, Louisiana. *Marine Geology*, Vol. 214, Issue 4. pp. 411–430.

Walker, N., Huh, O., Haag, A., Babin, A., Cable, J., Snedden, G., Braudo, D., Wilensky, D. and Prasad, K., 2003. A role for remote sensing in managing Mississippi River Diversions. *Backscatter*, Association for Marine Remote Sensin, Vol.14, no.1, 25-28, 2003.

# APPENDIX A

JOHN BEL EDWARDS  
GOVERNOR



THOMAS F. HARRIS  
SECRETARY

**State of Louisiana**  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL MANAGEMENT  
May 22, 2020

Edward P. Lambert  
Chief, Environmental Compliance Branch  
Corps of Engineers- New Orleans District  
7400 Leake Avenue  
New Orleans, LA 70118  
Via email: [edward.p.lambert@usace.army.mil](mailto:edward.p.lambert@usace.army.mil)

RE: **C20200050, Coastal Zone Consistency**  
**New Orleans District, Corps of Engineers (COE)**  
Direct Federal Action  
Charenton Floodgate Modification  
**St. Mary Parish, Louisiana**

Dear Mr. Lambert:

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

If you have any questions concerning this determination please contact Jeff Harris of the Consistency Section at (225) 342-7949 or [jeff.harris@la.gov](mailto:jeff.harris@la.gov).

Sincerely,

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

CR/MH/jdh

cc: Samantha Martin, COE  
Dave Butler, LDWF  
Hannah Pitts, OCM FI

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487  
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802  
(225) 342-7591 • Fax (225) 342-9439 • <http://www.dnr.louisiana.gov>  
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# APPENDIX B

## Endangered Species Act Determination

To: Mr. David Walther, U.S. Fish and Wildlife Service  
200 Dulles Drive  
Lafayette, Louisiana 70506

From: Samantha Martin  
Telephone: 504-862-2207  
Date: 03 August 2020  
E-mail: [samantha.c.martin@usace.army.mil](mailto:samantha.c.martin@usace.army.mil)

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act.) The project, as proposed,

is not likely to adversely effect those resources

  
Supervisor Date  
Louisiana Ecological Services Office  
U.S. Fish and Wildlife Service

Subject: Draft Environmental Assessment #511, "Mississippi River and Tributaries Project, Atchafalaya Basin Construction of Charenton Floodgate, Saint Mary Parish, Louisiana.

Dear Mr. Walther:

The U.S. Army Corps of Engineers, New Orleans District (CEMNV) proposes construct a new floodgate structure on the Atchafalaya Basin side of the existing Charenton Floodgate structure (Figure 2). The Charenton Floodgate is located one mile north of Charenton, Louisiana in St. Mary Parish. The structure is located adjacent to the West Atchafalaya Basin Protection Levee at its intersection with the Charenton Drainage Canal (Figure 1). The environmental impacts associated with the proposed work are currently being addressed in draft EA #511, which is scheduled to be available for review and comment in mid-August 2020.

The proposed action consists of constructing a new floodgate structure on the Atchafalaya Basin side of the existing Charenton Floodgate structure (Figure 2). The project footprint is shown in Figure 3. The floodwalls extend out a couple hundred feet from each side of the new floodgate structure in order to tie-back into the existing levee. The existing walls on the monolith would be removed and the side slopes would be graded back. A temporary coffer dam would be placed on the Atchafalaya side of the system during construction. The existing floodgate structure will remain in place to continue to serve as the line of protection during construction until the new floodgates and floodwall are installed. Once the new system is in place, the existing steel floodgates will be removed but the concrete structure will remain. The bridge across the existing structure will not be impacted and will remain open to traffic both during construction and after construction is complete. A total of approximately 50,000 cubic yards of earthen material and 2,700 cubic yards of concrete (scour protection) will be placed for the project. The borrow material would come from an existing 68.4-acre borrow area that was approved in Environmental Assessment #467A. The area is undeveloped woodlands with existing borrow pits. It is accessible by unpaved limestone roads. A temporary work area easement for 2 years will be acquired over this area to obtain clay for the levee enlargement.

# APPENDIX C

JOHN BEL EDWARDS  
GOVERNOR



CHUCK CARR BROWN, PH.D.  
SECRETARY

State of Louisiana  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

JUN 1 0 2020

Ms. Samantha Martin  
U.S. Army Corp of Engineers  
CEMVN-PDC-C  
7400 Leake Avenue  
New Orleans, Louisiana 70118

AI No.: 101235  
Activity No.: CER20200002

RE: Atchafalaya Basin Construction, Charenton Floodgate Modification (EA #511)  
Water Quality Certification WQC 200408-01  
St. Mary Parish

Dear Ms. Martin:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to construct a new floodgate structure on the Atchafalaya Basin side of the existing structure in order to control the flow of fresh water from the Atchafalaya Basin and for navigation of boats through the Atchafalaya levee system in St. Mary Parish.

The information provided in the application has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes that the deposit of spoil will not violate water quality standards as provided for in LAC 33:IX, Chapter 11. Therefore, LDEQ hereby issues U.S. Army Corp of Engineers Water Quality Certification, WQC 200408-01, for the Atchafalaya Basin Construction, Charenton Floodgate Modification (EA #511).

Should you have any questions concerning any part of this certification, please contact Hill (225) 219-3225 or by email at [elizabeth.hill@la.gov](mailto:elizabeth.hill@la.gov). Please reference Agency Interest (AI) number 101235 and Water Quality Certification 200408-01 on all future correspondence to this Department to ensure all correspondence regarding this project is properly filed into the Department's Electronic Document Management System.

Sincerely,

A handwritten signature in black ink that reads "Scott Guilliams".

Scott Guilliams  
Administrator  
Water Permits Division

c: IO-W

# APPENDIX D

## SECTION 404(b)(1) EVALUATION

### Mississippi River and Tributaries Project Atchafalaya Basin Construction of Charenton Floodgate

The following short form 404(b)(1) evaluation follows the format designed by the Office of the Chief of Engineers. As a measure to avoid unnecessary paperwork and to streamline regulation procedures while fulfilling the spirit and intent of environmental statutes, the U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District (CEMVN), is using this format for all proposed project elements requiring 404 evaluation, but involving no significant adverse impacts.

**PROJECT TITLE:** Mississippi River and Tributaries Project Atchafalaya Basin Construction of Charenton Floodgate, St. Mary Parish, Louisiana

**PROJECT LOCATION:** The Charenton Floodgate is located one mile north of Charenton, Louisiana in St. Mary Parish (Figure 1). The structure is located adjacent to the West Atchafalaya Basin Protection Levee at its intersection with the Charenton Drainage Canal. The project is located approximately at 29°54'6.52" N and 91°31'10.59"W, in St. Mary Parish.

**PROJECT DESCRIPTION:** The CEMVN proposes to construct a new floodgate structure on the Atchafalaya Basin side of the existing Charenton Floodgate structure (Figure 2). The proposed project footprint is shown in Figure 3. The floodwalls would extend out a couple hundred feet from each side of the new floodgate structure in order to tie-back into the existing levee. The existing walls on the monolith would be removed and the side slopes would be graded back in order to tie back into the existing levee alignment that is already constructed to the project design height. A temporary coffer dam would be placed on the Atchafalaya side of the system during construction. The existing floodgate structure will remain in place to serve as the line of defense during construction until the new floodgates and floodwall are installed. Once the new system is in place, the existing steel floodgates will be removed but the concrete structure will remain. The bridge across the existing structure will not be impacted and will remain open to traffic both during construction and after construction is complete.

**ACCESS ROADS:** Access to the project will be by Charenton Beach Road.

**FLOODWALL:** The floodwall will be constructed as shown on Figure 2. Earthen material from the proposed borrow area will be placed adjacent to the floodwall on a slope to transition to natural ground elevation. Upon completion of the floodwall, all embankments and areas disturbed by the construction activities will be seeded with Bermuda grass, fertilized, and mulched.

**BORROW AREA:** Earthen material would be obtained from a portion of a 68.4-acre borrow area previously cleared in Environmental Assessment #467A (C20080701). Approximately 50,000 cubic yards of earthen material would be excavated. The borrow area is located approximately 2.5 miles east of the project adjacent to levee on the protected side. Excavators would remove the earthen material deemed suitable for the project, loaded onto haul trucks and transported to the project site.

The Charenton Floodgate project will impact 2.2 acres of swamp. A silt fence will be placed along the levee toe on both the protected and flood sides of the levee to contain runoff material during construction activities. Upon completion of the project, all embankments and areas disturbed by the construction activities will be seeded with Bermuda grass, fertilized, and mulched.

# APPENDIX F



May 5, 2020

Samantha Martin  
U.S. Army Corps of Engineers  
Regional Planning and Environment Division South  
CEMVN-PDC-C; 7400 Leake Avenue  
New Orleans, LA 70118

RE: Environmental Assessment (EA) #511 – Charenton Floodgate Modification Project of  
Charenton, Louisiana in St. Mary Parish

Dear Ms. Martin:

I have reviewed the above referenced project for potential requirements of the Farmland Protection Policy Act (FPPA) and potential impact to Natural Resource Conservation Service projects in the immediate vicinity.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

The project map submitted with your request indicates that the proposed construction area will not impact prime farmland and therefore is exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. Furthermore, we do not predict impacts to NRCS work in the vicinity.

For specific information about the soils found in the project area, please visit our Web Soil Survey at the following location: <http://websoilsurvey.nrcs.usda.gov/>

Please direct all future correspondence to me at the address shown below.

Respectfully,

**RICHARD KACIR** Digitally signed by RICHARD KACIR  
Date: 2020.06.11 17:19:13 -0500

Chad Kacir  
State Conservationist

Attachment



Natural Resources Conservation Service  
State Office  
3737 Government Street  
Alexandria, Louisiana 71302  
Voice: (318) 473-7751 Fax: (844) 325-6947

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