

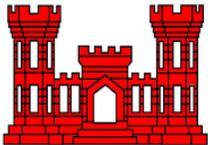
# **DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT**

LOUISIANA STATE PENITENTIARY

FLOOD DAMAGE REDUCTION MEASURES

WEST FELICIANA PARISH, LOUISIANA

SEA #278-D



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

1. INTRODUCTION.....	4
1.1 PROPOSED ACTION .....	4
1.2 AUTHORITY .....	10
1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION.....	10
1.4 PRIOR NEPA DOCUMENTS .....	11
1.5 PUBLIC CONCERNS.....	12
2. ALTERNATIVES TO THE PROPOSED ACTION .....	12
2.1 ALTERNATIVE 1 – NO ACTION.....	12
3. AFFECTED ENVIRONMENT.....	13
3.1. DESCRIPTION OF THE PROJECT AREA.....	13
3.2 DESCRIPTION OF THE WATERSHED.....	13
3.3 CLIMATE.....	14
3.4 GEOLOGY .....	15
3.5 RELEVANT RESOURCES.....	15
3.6 WETLANDS .....	17
3.7 AQUATIC RESOURCES/FISHERIES.....	17
3.8 WILDLIFE.....	17
3.9 TERRESTRIAL RESOURCES.....	18
3.10 THREATENED OR ENDANGERED SPECIES.....	18
3.11 CULTURAL RESOURCES.....	19
3.12 WATER QUALITY.....	21
3.13 AIR QUALITY.....	22
4. ENVIRONMENTAL CONSEQUENCES .....	23
4.1 WETLANDS .....	23
4.2 AQUATIC RESOURCES/FISHERIES.....	23
4.3 WILDLIFE.....	24
4.4 TERRESTRIAL RESOURCES.....	24
4.5 THREATENED OR ENDANGERED SPECIES.....	25
4.6 CULTURAL RESOURCES.....	25
4.7 WATER QUALITY.....	26
4.8 AIR QUALITY.....	27
4.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE .....	27
4.10 CUMULATIVE IMPACTS .....	28
5. COORDINATION AND PUBLIC INVOLVEMENT .....	28
6. MITIGATION .....	28
7. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS .....	33
8. CONCLUSION .....	34
9. PREPARED BY.....	34
10.REFERENCES.....	34

## FIGURES

Figure 1: Louisiana State Penitentiary, Project Vicinity Map .....	5
Figure 2: Louisiana State Penitentiary, Levee Slide Locations .....	6
Figure 3: Louisiana State Penitentiary, Levee Slide Repair Design. ....	9
Figure 4: Louisiana State Penitentiary, 77-acre Borrow Site Map .....	10
Figure 5: Louisiana River Basins Map.....	16

## TABLES

Table 1: Relevant Resources .....	14
Table 2: Final Approved 2018 Integrated Report of Water Quality in Louisiana .....	16

## APPENDICES

Appendix A: Non-Federal Sponsor Letter, August 30, 2019 .....	37
Appendix B: USFWS ESA Consultation Response.....	39
Appendix C: Section 106 and 110 NHPA SHPO and Tribal Consultation Response....	40
Appendix D: Clean Water Act, Section 401, State Water Quality Certificate.....	41

# DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

LOUISIANA STATE PENITENTIARY

FLOOD DAMAGE REDUCTION MEASURES

WEST FELICIANA PARISH, LOUISIANA

SEA #278-D

## 1. INTRODUCTION

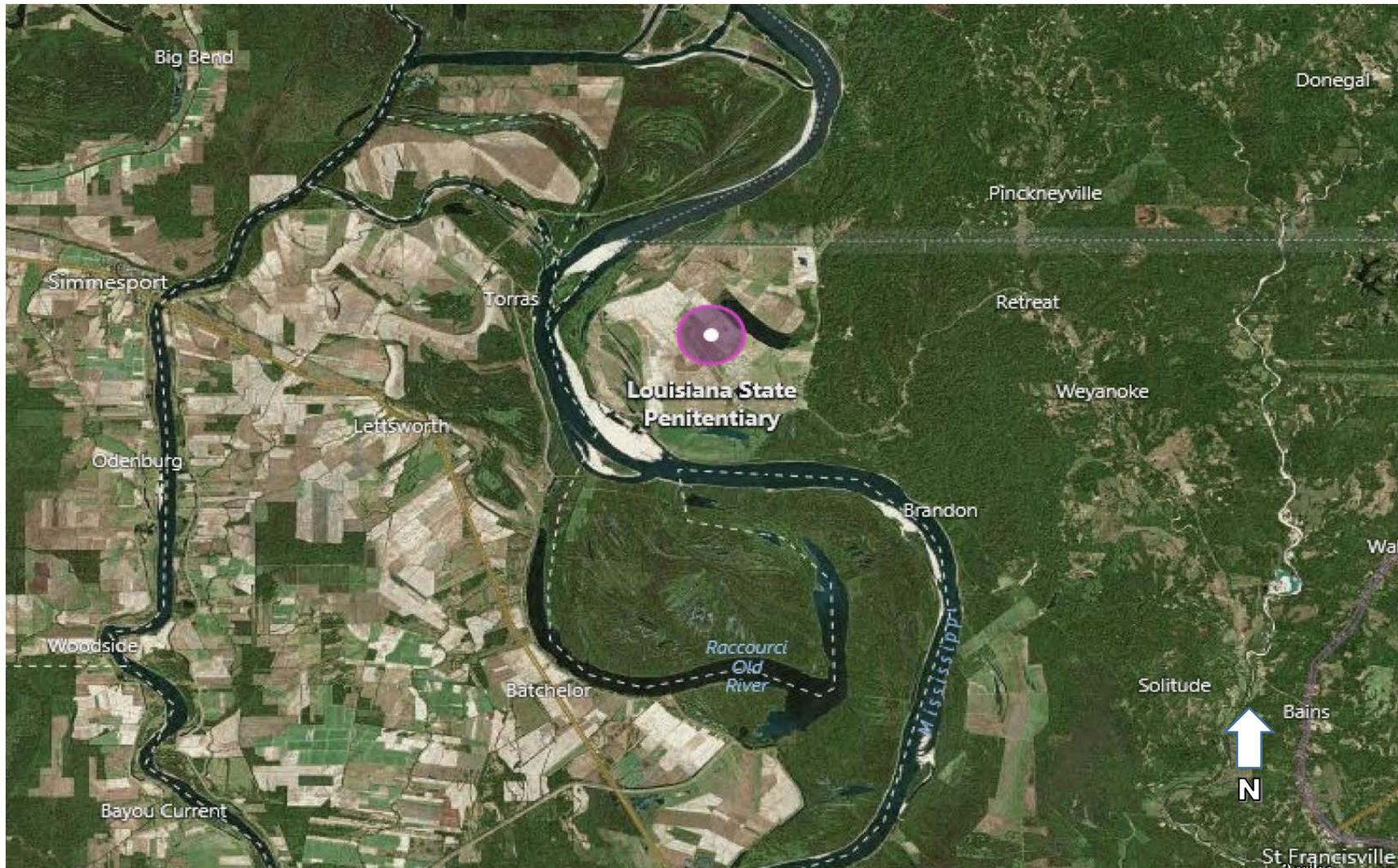
1.0 The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared this draft Supplemental Environmental Assessment (SEA) for the New Orleans District (CEMVN) to evaluate potential impacts associated with the proposed construction of flood damage reduction measures at the Louisiana State Penitentiary (LSP), located near Angola, in West Feliciana Parish, Louisiana. The Mississippi River Flood of 2018-2019, which transpired from November 2018 through August 2019, resulted in damage to the existing LSP levee. The non-Federal sponsor (NFS), the Louisiana Department of Public Safety and Corrections, requested assistance in writing dated August 30, 2019, for repair work to five separate locations along the LSP levee (LSPL) where levee slides occurred (Appendix A) (Figures 1 and 2). This draft SEA 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 draft SEA provides sufficient information on the potential adverse and beneficial environmental effects to allow the District Commander, USACE, CEMVN, to make an informed decision on the appropriateness of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

### 1.1 PROPOSED ACTION

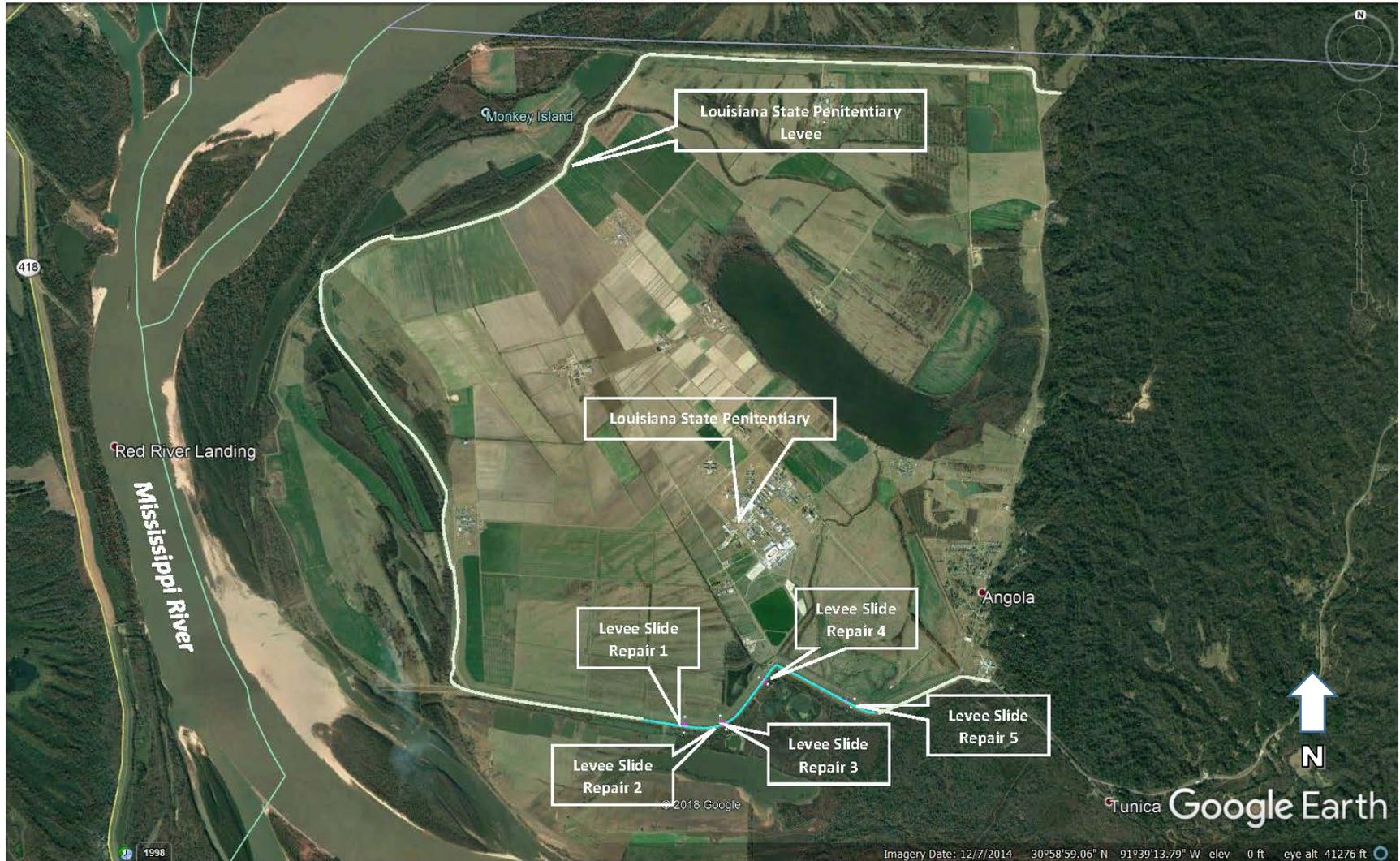
1.1.1 The proposed LSPL repairs entail the excavation of failed embankment material and damaged LSP levee sections; the replacement of embankment material in compacted levee lifts; the construction of a more gradual flood side and landside levee slope for slides 1, 3, 4, and 5 (100, 135, 110, and 470 linear feet, respectively); and the removal of an existing unpaved levee ramp for slide 2 (75 linear feet).

1.1.2 For LSPL slides 1, 3, 4, and 5, the repair will rehabilitate these sections using suitable embankment material to increase stability by decreasing the levee slope. The repaired LSP levee sections will be designed using the Mississippi River and Tributaries (MR&T) levee design standards and criteria. From the levee crown at elevation 69 feet North American Vertical Datum 1988 (NAVD88), the new river/landside levee slope will be 1 vertical on 5 horizontal to the existing ground. The estimated borrow quantity required to repair levee slides 1, 3, 4, and 5 is approximately 23,000 cubic yards, and the total combined length of all 4 slides is 815 linear feet.

1.1.3 For levee slide 2, on the unpaved ramp, the repair will consist of degrading the ramp to a uniform slope to match the areas directly adjacent to slide 2. From the levee crown at elevation 69 feet NAVD88, the new landside slope will be 1 vertical on 4 horizontal to the existing ground



**Figure 1: Louisiana State Penitentiary, LSPL Project Vicinity Map, West Feliciana Parish, Louisiana.**



**Figure 2: LSPL Work Areas, West Feliciana Parish, Louisiana.**

and will extend 75 linear ft. No borrow material is expected to be required to perform the repair for levee slide 2.

1.1.4 In preparation for the construction of the repairs, erosion protection (i.e., silt fencing) would be installed and surficial materials from the existing damaged portions of the LSPL would be removed. The silt fence would be constructed along the LSPL right-of-way, which will be five (5) feet from the toe of the LSPL, to minimize erosion and sediment runoff. The silt fence would be designed to retain sediment from runoff during clearing and grubbing, excavation, embankment placement, and final grading. Additional site preparation would require stripping vegetation and topsoil from areas that will receive clay. For the entire LSPL levee reach, this vegetation and topsoil may be stockpiled within the levee right-of-way and later placed on the levee to spur the growth of new vegetation. Any excess material that cannot be reused would become property of the USACE construction contractor who may dispose of the material in any legal manner. Before placement of the new embankment material, the damaged sections of the LSPL would be scarified (i.e. the surface would be roughened) so that any newly added material would bind to the clay material of the existing LSPL. Embankment material would be placed and spread in successive lifts (before compaction). Upon completion of the levee embankment repairs, all areas disturbed by the construction activities will be seeded with Bermuda grass and fertilized. Removal of silt fence barriers would occur after construction is complete and the soil is stabilized (Figure 3).

1.1.5 The proposed borrow site is approximately 1.5 acres and is located on the river side of the LSPL approximately 1,100 feet from the existing levee baseline. The 1.5 acre borrow site is part of a larger 77-acre proposed borrow area that CEMVN, Engineering Division identified as a viable earthen borrow source adjacent to the LSP site on the river side of the existing levee protection system for both the subject project and potential future projects at Angola, as needed (Figure 4). As the 1.5 acre borrow site is located within the larger overall 77-acre borrow area and the borrow area is a homogenous land use type (i.e., wet-pastureland), for purposes of this assessment all relevant resources evaluated herein will focus on both the proposed 1.5 acre borrow site and anticipated future use of the larger overall 77-acre borrow area.

1.1.6 In order to prepare the 1.5 acre borrow site, bulldozers and other heavy construction equipment would be utilized to clear the area of any vegetation, and earthen material deemed not suitable for the LSPL repairs. The borrow site would then be excavated to a pit depth of approximately -20.0 feet NAVD88. Excavation activities at the proposed borrow site would be conducted during dry or low water periods, or as much as practicable. Any vegetation and unsuitable earthen material removed may be temporarily stockpiled on-site. Groundwater seeping into the pit would be pumped out into adjacent areas and drain to the Mississippi River. Excavators (i.e. backhoes) would remove the suitable earthen material and process the material to eliminate water and reduce the moisture content from the soil. Moisture content processing will be done either adjacent to or within the borrow pit and using mechanical methods such as utilizing bulldozers to stockpile materials and disks to further reduce the moisture content of the soil. Once the moisture content has been reduced to levels that are acceptable to USACE, borrow material would be hauled in trucks with secured binders on tailgates to the Work Areas. Transportation routes for trucks carrying borrow material would be established on top of the existing LSPL. After all suitable earthen material is excavated from the borrow site, the borrow site would be allowed to fill with both rainwater and water resulting from seasonal high-water events on the Mississippi River. It is expected that the pit would remain an open water site for the life of the project.

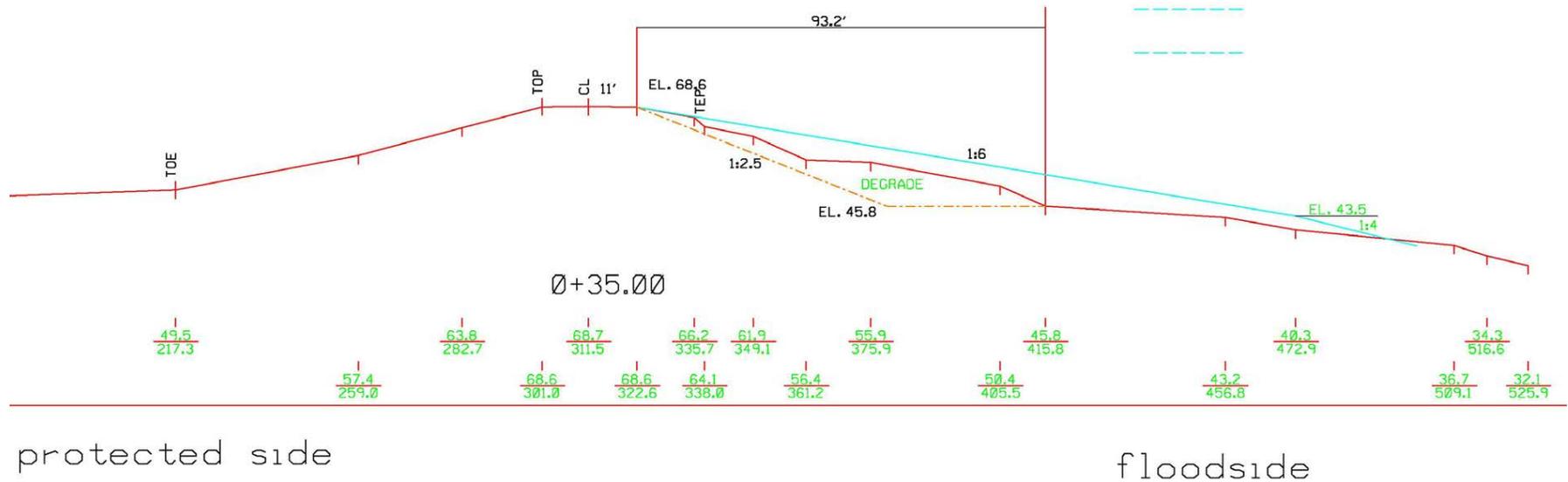


Figure 3: Louisiana State Penitentiary, Levee Slide Repair Design, West Feliciana Parish, Louisiana.



**Figure 4: Louisiana State Penitentiary, 77-acre Borrow Site Map, West Feliciana Parish, Louisiana.**

1.1.7 The staging area for construction equipment, materials, and personnel would be located within the existing LSPL right-of-way immediately adjacent to the LSPL repair sites. The staging area would be utilized for the duration of the repairs and would be returned to pre-existing conditions upon completion of the LSPL repairs.

## 1.2 AUTHORITY

1.2.1 The Louisiana State Penitentiary Levee (LSPL) Mississippi River, Louisiana Study was authorized by the September 3, 1973, Resolution of the United States Senate Committee on Public Works. The study was to review the Mississippi Rivers & Tributaries (MR&T) Project report, to determine whether to incorporate the (former) 12 miles of state levee at the Louisiana State Penitentiary at Angola, Louisiana into the Mississippi River Levee (MRL) system of the MR&T Project.

1.2.2 The LSPL Project, which incorporated 12.1 miles of the former non-federal levee into the MR&T project, is described in the Louisiana State Penitentiary Levee Mississippi River Final Feasibility Report and Final Environmental Impact Statement, dated January 1982, and approved by the Chief of Engineers on December 10, 1982, as updated and amended by the Flood Control, MR&T, LSPL, Mississippi River Limited Reevaluation Report, dated October 1998, revised July 1999, and approved by the Chief of Engineers on July 2, 1999.

1.2.3 Section 401(a) of the Water Resources Development Act of 1986 (P.L. 99-662) (WRDA 1986), authorized the Secretary of the Army to incorporate the entire LSPL into the MR&T Project. The LSPL Project is a federal flood control project that is 100% operated and maintained by the NFS pursuant to a July 30, 1999 Project Cooperation Agreement between the Department of the Army and the Louisiana Department of Public Safety and Corrections (NFS) for the LSPL Project. The LSPL Project is active in the USACE Rehabilitation and Inspection Program (RIP) and is eligible for rehabilitation assistance pursuant to ER 500-1-1. Although the construction of this project was funded with MR&T funds, Chapter 5, Section 5-3 (b)(2) of ER 500-1-1 does not operate to exclude this LSPL Project from the RIP because the NFS is contractually obligated to perform 100% of the OMRR&R of the project at no cost to the Federal Government. No USACE Operations and Maintenance, General funds, or MR&T funds have been used for the OMRR&R of the LSPL Project.

## 1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.3.1 The LSPL Project provides risk reduction from elevated Mississippi River stages up to the Project Design Flood (PDF) for the MR&T. The purpose of this project is to provide necessary rehabilitation assistance to repair and bring the LSP Levee project back to the MR&T design level to which the LSPL Project was previously constructed. The NFS, the Louisiana Department of Public Safety and Corrections, requested assistance in writing, dated August 30, 2019, for the damages to the LSPL Project caused by the Mississippi River Flood of 2018-2019.

1.3.2 The LSPL Project consists of 12.1 miles of levee that were constructed to the federal level design standard. The LSP Levee protects approximately 9,960 acres of land and contains the largest maximum-security prison in the United States and the only one in Louisiana. Additional critical infrastructure includes an airport, an ambulance provider, an electric substation, a fire station, and emergency medical services. According to the 2018 Census, the total population of the project area is 7,800, which includes 1,500 staff and 6,300 inmates. Furthermore, there are

116 total structures with a property value of \$94.5 million (valued in 2019 dollars) and slightly over 18,000 acres of agricultural land in the area with the main crops being soybeans, corn, and sugar cane.

## 1.4 PRIOR NEPA DOCUMENTS

1.4.1 The January 1982 Louisiana State Penitentiary (LSP) Levee Project Mississippi River Final Feasibility Report and Final Environmental Impact Statement (FEIS), "*Louisiana State Penitentiary, Mississippi River, West Feliciana Parish, Louisiana,*" recommended a plan to incorporate 12 miles of the former non-federal levee at Angola (n/k/a the LSP Levee) into the MRL system of the MR&T project. A Chief of Engineers Report was signed on December 10, 1982. The Army did not support authorization of this project because its purpose is to protect a state prison and recommended to Congress that the project be implemented by the State of Louisiana. Congress, however, authorized construction of the environmentally preferable recommended plan in the Water Resources Development Act of 1986 in accordance with the December 10, 1982 Chief of Engineers Report.

1.4.2 The October 1998 Limited Reevaluation Report (LRR), "*Flood Control, Mississippi River and Tributaries, Louisiana State Penitentiary Levee, Mississippi River,*" updated and amended the 1982 FEIS and addressed flood damage reduction measures, including enlargement of the mainline LSP levee. The 1999 LRR also served as the decision document and basis for the execution of a Project Cooperation Agreement between the Department of the Army and The Louisiana Department of Public Safety and Corrections (NFS) for the LSP Levee project. A Record of Decision was signed by Major General Phillip R. Anderson, U.S. Army President Designee, Mississippi River Commission, on July 9, 1999.

1.4.3 In 1998, Environmental Assessment (EA) #278, "*Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana,*" was prepared to address the impacts associated with enlargement of the existing levee, construction of seepage berms, installation of relief wells, and replacement of an existing concrete double-culvert structure in the existing levee. A Supplemental EA (SEA) #278, "*Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana,*" was also prepared to address the restoration of conveyance capability of an exterior intercepted drainage channel and relocation of the mitigation feature. In June 1998, The Louisiana National Guard was assigned the task of constructing a portion of the seepage berm at the LSP, which was completed in August 1998. To accommodate that work schedule, a Finding of No Significant Impact (FONSI) "B" was prepared to address the seepage berm construction only and was signed on May 8, 1998. A FONSI "A" was prepared to address the remaining flood damage reduction features addressed in both EA #278 and SEA #278 and was signed on September 20, 1998.

1.4.4 SEA #278-A, "*Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana,*" was prepared to address the impacts associated with the use of an alternate borrow area by the Louisiana National Guard in the event the Mississippi River had not receded sufficiently to enable the use of a previously approved borrow area. A FONSI for SEA #278-A was signed on May 27, 1998.

1.4.5 SEA #278-B, "*Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana,*" was prepared to address the impacts associated with the designation and use of additional borrow material to be utilized for berm and levee construction. A FONSI for SEA #278-B was signed on January 5, 2000.

1.4.6 SEA #278-C, “Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana,” was prepared to address the impacts associated with the evacuation of flows from relief wells and construction of a levee enlargement for the purposes of maintaining the LSP interior drainage system. A FONSI for SEA #278-C was signed on March 1, 2001.

## 1.5 PUBLIC CONCERNS

1.5.1 Since the great flood of 1927, there has been widespread public concern for flood control along the Mississippi River to protect environmental resources, infrastructure, and navigation. Throughout history, special emphasis has been placed on the construction and maintenance of channel training devices such as levees. The flood control plan of the MR&T Project is designed to control the Mississippi River "Project Design Flood," which is a theoretical flood greater than the great flood of 1927. The comprehensive flood control plan includes several features that protect a large part of the alluvial valley from the Project Design Flood, with a major element of this plan being levees for the containment of flood flows. The most significant concern in the project area is the continued maintenance of flood damage reduction measures in order to protect life and property at the LSP.

## 2. ALTERNATIVES TO THE PROPOSED ACTION

### 2.1 ALTERNATIVE 1 – NO ACTION

2.1.1 In the future without project condition (a.k.a. no-action), the Proposed Action would not be constructed. Without the proposed repairs to the five LSP levee slides, flood fight efforts and temporary repair measures would continue (e.g., temporary covering of the damaged areas with visqueen and sandbags). However, the area of the LSPL Project where the 2018-2019 flood disaster repairs were made under the P.L. 84-99 authority would be left vulnerable to seasonal high-water events on the Mississippi River, thus increasing the risk for catastrophic impacts to the protected areas of the LSPL Project, including but not limited to, the Louisiana State Penitentiary, agriculture land, and the community of Angola.

### 2.2 ALTERNATIVE 2 – REPAIR ALL FIVE LEVEE SLIDES USING PREVIOUS LSP LEVEE DESIGN STANDARDS

2.2.1 Alternative 2 consists of restoring the five levee slides and damaged sections of the LSPL Project to pre-event/pre-disaster conditions using the existing LSPL design standards. The estimated borrow quantity required to restore the LSPL to pre-flood conditions is approximately 4,000 cubic yards (CY). Earthen borrow material will be sourced from a 77-acre proposed borrow site adjacent to the Angola Prison site on the floodside of the existing levee protection system. Restoring the damaged sections of the LSPL Project to the pre-disaster event dimensions is not recommended, as it is likely that the Project will continue to suffer the same types of damage during future high water and flood events. Therefore, this alternative was not carried forward for further analysis.

### 3. AFFECTED ENVIRONMENT

#### 3.1. DESCRIPTION OF THE PROJECT AREA

3.1.1 The Proposed Action would be performed within the Mississippi River deltaic plain, with the Mississippi River acting as the primary influence on geomorphic processes in the delta region. The Louisiana State Penitentiary is situated on the left descending bank of the Mississippi River approximately 40 miles northwest of Baton Rouge and 22 miles northwest of St. Francisville. The riverbank where both the proposed 1.5 acre borrow site and larger overall 77-acre borrow area will be located is an open wet pastureland with surrounding areas of woody bottomland hardwood type vegetation and is frequently subject to flooding during periods of high water in the Mississippi River.

3.1.2 West Feliciana Parish is in the southeastern part of Louisiana, approximately 30 miles north of Baton Rouge. The parish has a total area of 426 square miles, with approximately 403 square miles comprised of land and the remaining 23 square miles consisting of water. The parish is located on the Mississippi River, and is bordered by Pointe Coupee Parish to the west and East Feliciana Parish to the east. West Feliciana Parish contains a variety of suburban, agricultural, and industrial development. Suburban areas are situated primarily in the town of St. Francisville, which is located at the southern end of the parish approximately 1.5 miles northeast of the Mississippi River. Agricultural and industrial developments exist primarily along the Mississippi River. The parish contains one incorporated area, St. Francisville, which is also the parish seat and largest municipality, as well as several unincorporated areas located in the northern part of the parish spreading from west to east (Tunica, Wakefield, and Bains). The Parish is also home to the Louisiana State Penitentiary (LSP) located in Angola (commonly referred to as Angola Prison), located on the left descending bank of the Mississippi River and is approximately 40 miles northwest of Baton Rouge and 22 miles northwest of St. Francisville. The LSP encompasses roughly 18,000 acres and is surrounded by the Mississippi River on three sides and by the Tunica Hills on the other. The Angola prison is the largest maximum-security prison in the United States and houses over 6,300 inmates and 1,500 staff. Additional critical infrastructure includes a landing strip, an ambulance provider, an electric substation, a fire station, and emergency medical services. The Mississippi River meanders across the western part of the parish and flows from northwest to southeast. West Feliciana Parish is comprised of two major land resource areas- Southern Mississippi Valley Silty Uplands and Southern Mississippi Valley Alluvium. These major land resource areas are used mainly as woodland, pastureland, and cropland. Elevation is about 360 feet above sea level in the Southern Mississippi Valley Silty Uplands Major Land Resource Area and 25 feet above sea level in the swamps of the Southern Mississippi Valley Alluvium Major Land Resource Area. According to U.S. Census data, West Feliciana Parish had an estimated population of 15,460 in 2018.

#### 3.2 DESCRIPTION OF THE WATERSHED

3.2.1 A watershed is an area of land drained by a particular set of streams and rivers. Of the twelve major watersheds within Louisiana, the Proposed Action is located within the Mississippi River Basin on the left descending bank of the Mississippi River in West Feliciana Parish, Louisiana (Figure 5). The Mississippi River has the third largest drainage basin in the world, exceeded in size only by the watersheds of the Amazon and Congo Rivers. The entire Mississippi River basin covers more than 1,245,000 square miles and includes all or parts of 31 states and two Canadian provinces. The lower Mississippi River is the portion of the Mississippi River

downstream of Cairo, Illinois. From the confluence of the Ohio River and upper Mississippi River at Cairo, the lower Mississippi River flows just under 1,000 miles to the Gulf of Mexico. The lower Mississippi River alluvial valley is generally bounded by bluffs on the eastern side of the river and the valleys of merging tributaries to the west (LDWF-CWCS 2005). Within CEMVN, the Mississippi River is bounded by levees that extend along the west bank from the vicinity of Black Hawk, Louisiana, generally southward to the vicinity of Venice, Louisiana, and on the east bank from Baton Rouge, Louisiana to Bohemia, Louisiana encompassing over 500 miles of levee and associated infrastructure.



**Figure 5: Louisiana River Basins (Map provided by Louisiana Department of Environmental Quality. The Mississippi River Basin is shown in green. The location of the Work is represented by a red star.**

### 3.3 CLIMATE

3.3.1 The climate in the Project Area is humid and subtropical with a strong maritime character. Warm, moist, southeasterly winds from the Gulf of Mexico prevail throughout most of the year, with occasional cool, dry fronts dominated by northeast high-pressure systems. The influx of cold air occurs less frequently in autumn and only rarely in summer. In winter, the average temperature is 54°F and the average daily minimum temperature is 41°F. In summer, the average temperature is 78°F and the average daily maximum temperature is 89°F. Summer thunderstorms are common, and tornadoes strike occasionally. The total annual precipitation is about 60.7 inches,

of this, 30 inches (50 percent) usually falls in April through September. The growing season for most crops falls within this period. In 2 years out of 10, the rainfall in April through September is less than 16 inches (<http://www.srcc.lsu.edu/>).

### 3.4 GEOLOGY

3.4.1 The Project Area lies on an existing levee located on the east riverbank of the Mississippi River. Fluvial activity in the proposed action area includes lateral migration and overbank deposition during flood stages. This activity is the dominant geologic process operating on the landscape in this region. The formation of natural levees point bar deposits, and other geomorphic features such as crevasse channels and abandoned river courses has been documented. There are also two major land resource areas-Southern Mississippi Valley Silty Uplands and Southern Mississippi Valley Alluvium. The Southern Mississippi Valley Silty Uplands Major Land Resource Area consists dominantly of well drained, moderately well drained, somewhat poorly drained, and poorly drained loamy soils. The Southern Mississippi Valley Alluvium Major Land Resource Area consists mainly of well drained and somewhat poorly drained loamy soils on natural levees and poorly drained and very poorly drained clayey soils on natural levees and in back swamps.

3.4.2 The overall Mississippi River Delta complex was formed by river deposits between 700 and 7,400 years ago. The Natural Resources Conservation Service (NRCS) classifies soils within the proposed action area as typically peat, mucks, clays mixed with organic matter, and silts derived from river deposits. The soil composition is subject to change as floodwaters and storm surges deposit new sediments. They are composed predominantly by Balize and Larose soil types. These soils are classified as continuously flooded deep, poorly drained, and permeable mineral clays and mucky clays. Marsh and swamp deposits are found in the vicinity of the River from New Orleans to the Heads of Passes at the Gulf of Mexico. Marsh deposits are primarily organic, consisting of 60 percent or more by volume of peat and other organic material with the remainder being a composition of various types of clays. Total organic thickness is normally 10 feet with variances less than one foot. Inland swamp deposits are composed of approximately 70 percent clay and 30 percent peat and organic materials. The percentage of sand and sandy silts increases with proximity to the open waters of the Gulf of Mexico (Saucier 1974).

### 3.5 RELEVANT RESOURCES

3.5.1 This section contains a description of relevant resources that could be impacted by the proposed action. The important resources described 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 public. Table 1 provides summary information of the institutional, technical, and public importance of these resources.

3.5.2 The following resources have been considered and found to not be affected by the proposed action: estuarine water bodies; estuarine or marine fisheries resources, including essential fish habitat; recreation resources; aesthetic visuals; and socioeconomic resources. The objectives of Executive Order 11988 (Floodplain Management) were considered; however, CEMVN has determined that there would be no floodplain impacts from the proposed action. Additionally, there is no practicable alternative for construction outside the 100-year floodplain. No portion of the proposed action area has been designated a Louisiana Natural and Scenic River; therefore, a Scenic Rivers permit is not warranted. Environmental justice concerns were considered in accordance with the Executive Order 12898 of 1994 and the Department of Defense's Strategy on Environmental Justice of 1995, which direct federal agencies to identify

and address any disproportionately high adverse human health or environmental effects of federal actions to minority and/or low-income populations. However, it is our determination that no significant populations or residential areas would be affected by the proposed action. Finally, the proposed action is located outside the Louisiana Coastal Zone.

3.5.3 The following relevant resources listed in Table 1 are discussed in this draft EA: wetlands; aquatic resources/fisheries; wildlife; terrestrial resources; threatened or endangered species; cultural resources; water quality; and air quality.

<b>Resource</b>	<b>Institutionally Important</b>	<b>Technically Important</b>	<b>Publicly Important</b>
<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>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>Terrestrial Resources</b>	Food Security Act of 1985, as amended; the Farmland Protection Policy Act of 1981; the Fish and Wildlife Coordination act of 1958, as amended.	The habitat provided for both open and forest-dwelling wildlife, and the provision or potential provision of forest products and human and livestock food products.	The present economic value or potential for future economic value.
<b>Threatened or 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 (NHPA), as amended, and Section 110 of the NHPA; the Native American Graves Protection and Repatriation Act of 1990; the Archeological Resources Protection Act of 1979; and USACE's Tribal Consultation Policy (2012)	Federal, State, and Tribal stakeholders document and protect cultural resources including archaeological sites, districts, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and/or sites of religious and cultural significance based on their association or linkage to past events, to historically important persons, 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>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.

<b>Resource</b>	<b>Institutionally Important</b>	<b>Technically Important</b>	<b>Publicly Important</b>
<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.

### 3.6 WETLANDS

3.6.1 General Existing Conditions. The proposed LSPL repairs would occur on the existing LSPL located on the east riverbank of the Mississippi River. The proposed 1.5 acre borrow site and larger overall 77-acre borrow area is located outside the LSP levee on the east riverbank of the Mississippi River. The borrow area is a wetland categorized as a “wet-pastureland”. Hydrological conditions (i.e., proximity to the Mississippi River) limit the use of the area, which is maintained as grazing pastureland during low-water periods when not inundated by flooding from the Mississippi River.

### 3.7 AQUATIC RESOURCES/FISHERIES

3.7.1 General Existing Conditions. The proposed levee slide repairs would occur on the existing LSP levee located on the east riverbank of the Mississippi River. The proposed 1.5 acre borrow site and larger overall 77-acre borrow area is located outside the LSP levee on the east riverbank of the Mississippi River. The largest aquatic resource in proximity to the Proposed Work Area is that portion of the main stem of the Mississippi River. Aquatic habitat can be found within the Mississippi River, adjacent borrow areas, and associated wetlands. The vast east riverbank area is relatively healthy in secondary productivity on a per acre basis because of high benthic productivity due in part to seasonal inundation by flood waters from high river events on the Mississippi River. During periods of high water, the flooded east riverbank, including existing borrow pits, provides aquatic habitat to various large predaceous fishes, some plankton feeders, and other groups of omnivorous species. Minnow, catfishes, carp, carpsuckers, and sunfishes are some of the fishes that may be found in the vicinity of the east riverbank area. Clams, dipterans, and mayflies are some of the area's representative invertebrates.

### 3.8 WILDLIFE

3.7.1 General Existing Conditions. Developed habitat in the vicinity of the proposed action area consists mainly of previously described facilities associated with the LSP, which are enclosed by the LSPL Project. The proposed action area, including the proposed 1.5 acre borrow site and larger overall 77-acre borrow area, provides some wildlife habitat when not inundated by flood waters due to seasonal high-water events on the Mississippi River. Foraging opportunities surrounding the borrow site exist during periods of low-water; however, there is very limited, if any, sustainable habitat.

3.7.2. Forested wetlands exist both upstream and downstream along the east riverbank of the river and provide habitat for many wildlife species including raccoons, opossum, fox, mink, rabbits, and bats. Many species of neotropical migratory and resident birds utilize this type of habitat for nesting and rearing. In addition, many species of reptiles and amphibians can be found in these forested areas.

3.7.3 Mammals that adapt in varying degrees to periodically wet riparian or early successional bottomland hardwood habitat are likely to inhabit or frequent land adjacent to the proposed action area. Beaver, swamp rabbit, nutria, muskrat, gray squirrel, fox squirrel, and white-tailed deer are likely present in the vicinity of the proposed action area. Woodlots in the batture also provide habitat for many resident passerine birds and essential resting areas for many migratory songbirds including warblers, orioles, thrushes, vireos, tanagers, grosbeaks, buntings, flycatchers, and cuckoos. Many of these and other passerine birds have undergone a decline in population primarily due to habitat loss. The area also supports resident hawks and owls including the red-shouldered hawk, barn owl, common screech owl, great horned owl, and barred owl. The red-tailed hawk, marsh hawk, and American kestrel are seasonal residents which utilize habitats within the vicinity of the proposed action area. Amphibians such as the pig frog, bullfrog, leopard frog, cricket frog, and Gulf Coast toad are expected to occur in the fresh and low salinity wetlands adjacent to the proposed action area. Reptiles such as the snapping turtle, soft-shell turtle, and red-eared turtle are also expected to occur in the wetlands and water bodies adjacent to the proposed action area.

### 3.9 TERRESTRIAL RESOURCES

3.9.1 The LSPL Project protects approximately 9,960 acres of land and contains the largest maximum-security prison in the United States and the only one in Louisiana. Additional critical infrastructure includes an airport, an ambulance provider, an electric substation, a fire station, and emergency medical services. Furthermore, the LSPL Project encompasses slightly over 18,000 acres of agricultural land which is the primary land use type inside the LSPL. The primary habitat type associated with both the 1.5 acre borrow site and the larger overall 77-acre borrow area located along the east riverbank can be classified as wet-pastureland. The surrounding levee and extensive forced-drainage systems have altered hydrology and the associated vegetation in all habitat types within the project area. Because of the drainage improvements and pumped drainage, there are no bottomland hardwood forested areas within either the 1.5 acre borrow site or the larger overall 77-acre borrow area. The area is primarily utilized as grazing pastureland during low-water periods when not inundated by flooding from the Mississippi River.

3.9.2 Within NEPA evaluations, the U.S. Army Corps of Engineers must consider the protection of the nations' significant/important agricultural lands from irreversible conversion to uses that result in their loss as an environmental or essential food production resource. The Farmland Protection Policy Act, 7 USC 4201 et seq., and the U.S. Department of Agriculture's implementing procedures (7 CFR § 658) require Federal agencies to evaluate the adverse effects of their actions on prime and unique farmland, including farmland of statewide and local importance. Based on aerial photography and field investigations, there is no active farming occurring on the east riverbank within either the 1.5 acre borrow site or the larger overall 77-acre borrow area. A farmland conversion impact rating form (AD 1006) was developed and sent to the Natural Resources Conservation Service containing information on those lands to be converted by the proposed action.

### 3.10 THREATENED OR ENDANGERED SPECIES

3.10.1 General Existing Conditions. The U.S. Fish and Wildlife Service (USFWS) lists one endangered species known to occur in West Feliciana Parish, the pallid sturgeon (*Scaphirhynchus albus*) (endangered) (USFWS 2020).

3.10.2 The pallid sturgeon only occurs in large rivers within the Mississippi and Missouri River Basins from Montana to Louisiana. This includes the Mississippi River and Atchafalaya River in South Louisiana. The pallid sturgeon tends to select main channel habitats in the Mississippi River. Aquatic habitats in the Mississippi River have been modified through the construction of flood control levees and channel modification through time, and some changes resulting from those modifications have likely been detrimental to pallid sturgeon. Although the river flows unobstructed for about 2,000 river miles from Gavins Point Dam in the middle Missouri River to the Gulf of Mexico, tributary impoundments, bendway cutoffs and dike and levee construction have each changed localized patterns of channel erosion and deposition in the Mississippi River. Collectively, they have resulted in a degradation trend throughout the system. Effects of these changes on pallid sturgeon are unknown because there are no historical data for comparison. The Pallid Sturgeon Lower Basin Recovery Workgroup has identified information gaps essential to the consultation and recovery processes in the Lower Mississippi River Basin. These include relative abundance of pallid sturgeon; demographics; feeding habits; habitat use; hybridization ratios; presence of fish diseases in the wild; population anomalies; and reliable separation and identification of pallid sturgeon, shovelnose sturgeon, and hybrids. While recent publications have contributed to filling some of these data gaps (e.g., Killgore et al., 2007), incomplete knowledge of those areas remains.

### 3.11 CULTURAL RESOURCES

3.11.1 General Existing Conditions. On May 01, 2020, CEMVN plotted the latitudes and longitudes of the of the LSPL Construction Work Items against various data sets: the NRHP database, the *Louisiana Cultural Resources Map* provided by the Louisiana State Historic Preservation Officer (SHPO), the U.S. Department of Agriculture (USDA) Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov>), U.S. Geological Survey (USGS) Quadrangle Maps (<http://nationalmap.gov/historical>), and other available historic maps on file with CEMVN. Additional background information consulted included the Louisiana Cultural Resources Management (CRM) Bibliography (LDOA Website), SHPO Site Forms, pertinent site, and survey reports regarding previous investigations within 1-mile (1.6 km) of the Section 106 NHPA, Area of Potential Effects (APEs), and aerial photography. This data was evaluated by CEMVN using the National Register (NR) Criteria.

3.11.2 Standing Structures. Based on CEMVN's background research it was determined that none of the LSPL Construction Work Item APEs are located within a presently listed or eligible National Register Historic District (NRHD). A historic building survey of the entire facility has not been undertaken due to security concerns and the sensitivity of the complex although there are multiple buildings over 45-years in age on the grounds of Angola as the prison has been in continuous operation by the State of Louisiana since 1901. However, there are very few existing buildings that predate the 1951 heel slashing incident where thirty-one inmates cut their Achilles tendons to protest inhumane living conditions and work schedules. Due to media attention resulting from this protest, noteworthy prison reforms took place during the 1950s and a "New Angola" was dedicated in 1955. Following this incident, the renowned architectural firm of Curtis and Davis was featured in an *Architectural Forum* issue in December of 1954 displaying "A New Kind of Prison" that highlighted improvements at Angola that were viewed as a major departure from traditional prison architecture. Based on the success of the mid-1950s projects at Angola, Curtis and Davis became nationwide leaders in prison design with more than fifty correctional projects across the United States. On March 19, 2019, in a consultation letter entitled: *Section 106 Review Consultation, Hurricane Katrina, FEMA DR-1603-LA Louisiana Department of Public Safety and Corrections, Angola State Prison - Pump Station Project, West Feliciana Parish, LA*

(HMGP# 1603-0434), FEMA recommended that a “Louisiana State Penitentiary Historic District” could be listed under Criterion A for social history and under Criterion C for prison architecture and that the Period of Significance of the historic district could include buildings such as the NRHP-listed Red Hat Cell Block, the Abandoned Pump Station Building (APSB), located on the opposite side of the levee from the present Slide 4 Project Area (Figure 2), as well as those buildings that were constructed during the 1950s which were designed by Curtis and Davis.

3.11.3 Archaeology. A review of historical accounts dating back to the seventeenth century from French explorers, missionaries, and settlers compiled by Perrault et al. (2001) indicates that Native American groups present within the project area included the Houma, Tunica, Natchez, Biloxi, and Korora. During the French and British colonial periods, European settlement surrounding the project area was sparse. However, following the transfer of West Florida to Spanish control in 1779, Spain began to aggressively assert their claims in the region through land grants and by the time of the Louisiana Purchase in 1803, nearly all the land surrounding the project area had been parceled into individual concessions. By 1880, the partnership of Louis Trager and Samuel L. James had established Seven (7) individual plantations within the modern-day footprint of Angola through the consolidation of smaller parcels of land: Angola, Bellevue, Loango, Panola, Monrovia, Lake Killarney, and Loch Lomand. Shortly after the Civil War, the partnership was dissolved and James retained Angola, Bellevue, and Loango Plantation, while Trager kept Panola, Monrovia, Lake Killarney, and Loch Lomand Plantation. James later obtained Killarney Plantation from Trager in 1889 due to his inability to maintain his mortgage and thereafter Trager’s remaining holdings were rescinded to William and Claude Acklen. Incidentally, James also played a significant role in the establishment of Angola as a penal institution. In 1869, another of his business ventures, the firm of James, Buckner, and Company, received a five-year lease from the State of Louisiana to manage the penal system. In 1870 the lease was extended to 21 years. This agreement gave the company the unlimited authority to lease convicts to work on plantations and public works projects. At his plantation at Angola, James hired out most of the land to sharecroppers and the remaining parcels were cultivated by prisoners under his agreement with the state. Following James death, James Jr. retained the prison lease but in 1901 the state resumed control of the prisoners, although convicts continued to be housed at prison camps including Angola Plantation. On March 27, 1901, the Board of the Central Louisiana State Penitentiary purchased Angola, Loango, Bellevue, and Killarney plantations from James Jr., totaling approximately 8,000 acres (3,237 ha). In 1922 the remaining three (3) plantations that were part of the original Trager and James partnership (Panola, Lochlomand, and Monrovia) were likewise acquired by the state from the Acklen estate and by 1923 Angola had expanded to its current size.

3.11.4 For historic properties eligible under Criterion D, CEMVN plotted the latitudes and longitudes of the APEs against the locations of previously recorded archaeological surveys and sites using the Louisiana Cultural Resources Map. CEMVN conducted a review of site and survey reports pertinent to the APEs. CEMVN verified that both the 1.5 acre borrow site and larger overall 77-Acre borrow area (Figure 4) is the only work item that has not been formally evaluated to-date. Slide Areas 1-5 (Figure 2) were surveyed in their entirety by Perrault et al. (2001) in advance of the 1999 LRR (see: Section 1.4.2). Both Phase I Survey and Phase II National Register testing was conducted as part of these efforts. Collectively, CEMVN identified four (4) archaeological sites within 1-mile (1.6 km) of the APEs; spanning from the Prehistoric period through the twentieth century. Only a single archaeological site is recorded near any of the present LSPL Construction Work Items; Site 16WF128 (Hog Pen Pump-house). This site is attributed to the 1890-1940 Industrialization and Modernization LA SHPO Cultural Unit (Smith et al. 1983) and consisted of the remnants of a late-nineteenth to mid-twentieth century pump house foundation

recorded on top of the existing levee in a highly disturbed area used as a hog pen. However, Perrault et al. (2001) recommended that no future testing occur at 16WF128, that the site was ineligible for listing on the NRHP, and that it would be buried by levee the proposed levee enlargement.

3.11.5 CEMVN also conducted a review of available information pertaining to the geological and land-use history of the project area. The Borrow Area APE is positioned on the river-side (batture) of the present LSPL and is inundated during high river stages. During low water conditions it is utilized for cultivation and pasture. CEMVN verified that that soils within the Borrow Area APE (<http://websoilsurvey.nrcs.usda.gov>) consist of approximately 69-percent Robinsonville and Convent alluvial soils and 29-percent Tunica and Sharkey alluvial soils; both of which are soil types typically indicative of natural levees that are occasionally to frequently flooded. The remaining 2-percent represents inundated former borrow pit locations. While natural levees are often conducive to human use/occupation, it is unlikely that evidence of any cultural activities occurring within the Borrow Area APE would have produced a lasting footprint prior to the truncation of back swamp and expansion of the alluvial apron beginning during the late-Prehistoric period approximately 2,000-1,000 years Before Present (BP). Furthermore, Saucier (Perrault et al. 2001:10) argue “that a majority of the apron actually formed during the nineteenth century” suggesting that the potential for Prehistoric or early-historic deposits becomes incrementally less probable heading west from the Tunica Hills within this highly dynamic and recent geological formation. Furthermore, as is depicted in the Mississippi River Commission (MRC) *Survey of the Lower Mississippi River* displaying stream channels in half-century intervals (MRC 1939), the earliest channel position documented by the 1820-1830 surveys likely spurred the first episodes of levee construction approximately following the same alignment as the present western-most boundary of the LSPL. Shortly thereafter, those plantations in the vicinity of the present Borrow Area APE were likely either directly or indirectly impacted by the 1848 Raccourci Cutoff as is recorded in the *La Tourette's Reference Map of the State of Louisiana*. Subsequently, the levee was extended east towards the Tunica Hills presumably to provide protection to those plantations located on the northern-side of the Raccourci Cutoff. Subsequent episodes of LSPL levee improvement have largely followed the original alignment defined during the early-nineteenth century as displayed in the 1880 *Survey of the Mississippi River* (MRC 1880); roughly corresponding to the State of Louisiana's lease to manage the penal system awarded to the firm of James, Buckner, and Company (see above), and were accomplished using convict labor.

## 3.12 WATER QUALITY

3.12.1 General Existing Conditions. Water quality in the Project Area is affected by both point source and non-point source discharges. Point sources include mainly agricultural discharges. Non-point sources include storm water runoff, landscape maintenance activities, and natural sources.

3.12.2 Section 303(d) of the Clean Water Act requires states to identify water bodies that are not meeting water quality standards and to develop total maximum daily loads for those pollutants suspected of preventing the water bodies from meeting their standards. Total maximum daily loads are the maximum amount of a given pollutant that can be discharged into a water body from all natural and anthropogenic sources including both point and non-point source discharges. In Louisiana, the Department of Environmental Quality oversees the program.

3.12.3 The Louisiana Department of Environmental Quality (LDEQ) surface water monitoring program is designed to measure progress towards achieving water quality goals at state and

national levels in order to gather baseline data used in establishing and reviewing the state water quality standards, and to provide a data base for use in determining the assimilative capacity of the waters of the state. Information is also used to establish permit limits for wastewater discharges. The program provides baseline data on a water body to monitor long-term trends in water quality.

3.12.4 LDEQ Section 305(b) and 303(d) reports for 2018, included in the Water Quality Inventory Integrated Report, lists one water body that is located adjacent to the Project Area, the Mississippi River. The assigned sub-segment code for the Mississippi River is LA070201. Sub-segment Code LA070201 boundaries are described as Mississippi River – from Old River Control Structure to Monte Sano Bayou. Available LDEQ records indicate that prior to the 2004 Water Quality Inventory (WQI) Report, suspected causes of impairment for the Mississippi River are listed as mercury, nitrate/nitrite (nitrite + nitrate as N), pesticides, phosphorous, priority organics (including dioxin) and total fecal coliforms.

3.12.5 As shown in Table 2, utilizing the 2018 U.S. Environmental Protection Agency (USEPA) Integrated Report methodology guidance categories, which categorize water body/pollutant combinations, the LDEQ 2018 report no longer assigns the LA070201 (Mississippi River) segment an Integrated Report Category number since it is fulfilling all standards (LDEQ 2018).

Table 2: Final Approved 2018 Integrated Report of Water Quality in Louisiana								
Subsegment Number	Designated Uses					Impaired Use	Suspected Causes of Impairment	Suspected Sources of Impairment
	PCR <sup>1</sup>	SCR <sup>2</sup>	FWP <sup>3</sup>	DWS <sup>4</sup>	OYS <sup>5</sup>			
LA070201	F <sup>6</sup>	F	F	F				

<sup>1</sup> Primary Contact Recreation (swimming), <sup>2</sup> Secondary Contact Recreation (boating), <sup>3</sup> Fish and Wildlife Propagation (fishing), <sup>4</sup> Drinking Water Supply, <sup>5</sup> Oyster Propagation, and <sup>6</sup> Fully supporting.

### 3.13 AIR QUALITY

3.13.1 General Existing Conditions. Federal air quality policies are regulated through the Clean Air Act. In accordance with this Act, the EPA has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment, which include: carbon monoxide (CO), NO<sub>x</sub>, ozone (O<sub>3</sub>), lead, particulates of 10 microns or less in size (PM-10 and PM-2.5), and sulfur dioxide (SO<sub>2</sub>). The EPA is required to designate counties or air basins as in attainment or nonattainment for each criteria pollutant. If an area is in nonattainment, the state must develop an implementation plan to achieve compliance. Once in compliance with NAAQS, the area becomes a maintenance area. The EPA has issued regulations addressing the applicability and procedures for ensuring that Federal activities comply with the Clean Air Act. The EPA Final Conformity Rule (58 FR 63214) requires Federal agencies to ensure that Federal actions in designated nonattainment or maintenance areas conform to an approved or promulgated State implementation plan or Federal implementation plan to ensure that a Federal action would not cause a new violation of the NAAQS, contribute to any increase in the frequency or severity of violations of existing NAAQS, or delay the timely attainment of any NAAQS interim or other attainment milestones. If a project would result in a total net increase in pollutant emissions that is less than the applicable *de minimis* threshold established in 40 CFR 93.153(b), or if the action is otherwise exempt, detailed conformity analyses are not required.

3.13.2 Ozone is the only parameter not directly emitted into the air, forming in the atmosphere when three atoms of oxygen (O<sub>3</sub>) are combined by a chemical reaction between oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents are some of the major sources of NO<sub>x</sub> and VOC, also known as ozone precursors. Strong sunlight and hot weather can cause ground-level ozone to form in harmful concentrations in the air.

3.13.3 The USEPA *Green Book Nonattainment Areas for Criteria Pollutants* (Green Book) maintains a list of all areas within the United States that are currently designated “nonattainment” areas with respect to one or more criteria air pollutants. Nonattainment areas are discussed by county or metropolitan statistical area (MSA). MSAs are geographic locations characterized by a large population nucleus, which are comprised of adjacent communities with a high degree of social and economic integration. MSAs are generally composed of multiple counties. Review of the Green Book indicates that West Feliciana Parish is currently in attainment for all Federal NAAQS pollutants, including the 8-hour ozone standard (USEPA 2011). This classification is the result of area-wide air quality modeling studies. Therefore, further analysis required by the CAA general conformity rule (Section 176(c)) would not apply for the proposed Federal action.

## 4. ENVIRONMENTAL CONSEQUENCES

### 4.1 WETLANDS

4.1.1 Future Conditions with No-Action Alternative. With no action, land-based resources associated with the proposed LSPL and 1.5 acre borrow site and larger overall 77-acre borrow area would not immediately change from current conditions. There would be no impact to terrestrial resources or conversion of the current land use type wet pastureland.

4.1.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, there would no effect to existing wetlands associated with the existing LSPL and proposed levee slide repairs.

4.1.3 With the excavation of the 1.5 acre borrow site and proposed future use of the larger overall 77-acre borrow area, there would be a permanent loss of the existing wetlands classified as wet-pastureland due to the conversion to shallow open water habitat. The compensatory mitigation plan proposed in Section 6 - Mitigation of this draft Environmental Assessment is expected to fully compensate for all impacts to wet-pastureland because of the Proposed Action.

### 4.2 AQUATIC RESOURCES/FISHERIES

4.1.1 Future Conditions with No-Action Alternative. With No Action, no change to the aquatic or fishery resources in the vicinity of the proposed action is expected to occur.

4.1.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, there would no effect to aquatic or fishery resources because of the Proposed levee slide repairs.

4.1.3 With the excavation of the 1.5 acre borrow site and proposed future use of the larger overall 77-acre borrow area, aquatic and fisheries resources that inhabit the adjacent Mississippi River would be indirectly impacted from the excavation of the proposed borrow area. During construction, any groundwater seeping into the pit would be pumped out into adjacent areas and

would likely drain into the Mississippi River. It is expected that there would be a temporary increase in turbidity within the river directly surrounding any areas of runoff or groundwater pumping operations. Any increases in turbidity would likely be diminished by the swift moving currents of the river, and any free-floating sediment would likely settle downstream. Development of a new borrow pit on the east riverbank would ultimately be expected to provide habitat and breeding ground for a variety of both aquatic and fisheries as previously described in the existing conditions section. This would occur primarily during periods of high-water events on the Mississippi River where a direct hydrological connection to the borrow pit would be established. Impacts to adjacent existing aquatic and fisheries resources resulting from any borrow site excavation activities would not be expected to pose any long-term adverse effects.

### 4.3 WILDLIFE

4.2.1 Future Conditions with No-Action. With no action, no change to the wildlife resources in the vicinity of the Proposed Action is expected to occur.

4.2.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, it is anticipated that there would be temporary, short-term direct impacts to any wildlife species that may be present within the construction area associated with the levee slide repairs. Wildlife species would likely relocate to adjacent suitable habitat. Upon completion of construction, it is anticipated that any temporarily displaced wildlife species would return to the project area.

4.2.3 With the excavation of the 1.5 acre borrow site and proposed future use of the larger overall 77-acre borrow area, wet-pastureland wetlands would be directly converted to a shallow open water environment. It is expected that any terrestrial wildlife habitat would be directly lost due to the conversion to shallow open water habitat. Terrestrial wildlife located within the proposed borrow area would be forced to relocate to adjacent suitable habitat. While the overall loss of terrestrial wildlife habitat would be considered adverse, the previously discussed adjacent terrestrial habitat (i.e. undeveloped hardwood forest) would allow for the continued movement and existence within the riverside forest corridor for any displaced wildlife. Additionally, newly created fringe habitat of the borrow pit would be expected to offer some habitat benefits for wildlife that are traditionally adapted to wetland habitats such as beaver, nutria, muskrat, and raccoon.

### 4.4 TERRESTRIAL RESOURCES

4.4.1 Future Conditions with No-Action. With no action, land-based resources associated with the proposed LSPL and 77-acre borrow site would not immediately change from current conditions. There would be no impact to terrestrial resources or conversion of the current land use type wet pastureland.

4.4.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, there would be no effect to existing terrestrial resources (i.e., land use types) associated with the existing LSPL and proposed levee slide repairs.

4.4.3 With the excavation of the 1.5 acre borrow site and proposed future use of the larger overall 77-acre borrow area, there would be a permanent loss of the existing land use type classified as wet-pastureland due to the conversion to shallow open water habitat. This direct conversion of this land use type would constitute a permanent loss of land-based resources.

## 4.5 THREATENED OR ENDANGERED SPECIES

4.5.1 Future Conditions with No-Action. With no action, there would be no effect to any listed threatened or endangered species or their critical habitat.

4.5.2 Future Conditions with the Proposed Action. Pallid sturgeon are normally found in the fast moving, deep waters of the Mississippi River's main current, so their presence near or within the project area (i.e., riverbank) would be considered highly unlikely. With implementation of the Proposed Action, CEMVN has determined that the project would not likely adversely affect the endangered pallid sturgeon or any critical habitat. The USFWS concurred with CEMVN's determination of "not likely to adversely affect" under Section 7 of the Endangered Species Act of 1973 and returned a copy of CEMVN's letter with their office stamp of concurrence dated January 22, 2021. (Appendix B).

4.5.3 CEMVN has determined that there would be no effect to any threatened or endangered species or critical habitat under the purview of the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Protected Resources Division.

## 4.6 CULTURAL RESOURCES

4.6.1 Future Conditions with No Action. With no action, the proposed CEMVN undertaking would not occur; therefore, CEMVN has no further responsibilities under Section 106 of the NHPA and no new direct, indirect, or cumulative impacts to cultural resources would be incurred.

4.6.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, CEMVN has performed a review of existing documentation; the NRHP database, the Louisiana Division of Archaeology (LDOA) Louisiana Cultural Resources Map (LDOA Website), historic map research, a review of pertinent cultural resources survey reports, and other available data, and concluded that with the exception of the NRHP-eligible APSB, which is screened from view of the Slide 4 APE by the existing levee, all of the existing built-environment resources within the facility are well beyond the viewshed of all of the proposed construction work items and all of the improvements are consistent with the current use of the facility and would not constitute a significant new introduction to the viewshed of any resources that may be eligible for listing on the NRHP as a contributing element of a future Louisiana State Penitentiary Historic District. Therefore, CEMVN has determined that the Undertaking will not adversely affect any of the characteristics that would make the built-environment resources eligible for inclusion in the NRHP.

4.6.3 Furthermore, it is anticipated that the most probable archaeological site type to fall within any of the present APEs would be associated with the historic use of the property dating from the late-nineteenth/early-twentieth centuries up until the present time and would likely be directly related to LSP levee building or agriculture; and if present, would likely have been disturbed by channel migration and/or levee construction and hold limited research potential, would be unlikely to possess the integrity needed to contribute significant information beyond that contained in existing historical documentation, and would not be substantial enough for contributing to the NRHP under Criterion D. Therefore, CEMVN has determined that it is unlikely any of the present APEs possesses any yet unidentified NRHP-eligible archaeological deposits.

4.6.4 Based on the identification and evaluation, CEMVN determined that there are no historic properties as defined in 36 CFR 800.16(l) within the APEs. Accordingly, on June 10, 2020, CEMVN submitted a finding of "No Historic Properties Affected" for this Undertaking to the

Louisiana State Historic Preservation Officer of the Department of Culture Recreation and Tourism (SHPO), the Choctaw Nation of Oklahoma (CNO), the Coushatta Tribe of Louisiana (CT), the Jena Band of Choctaw Indians (JBCI), the Mississippi Band of Choctaw Indians (MBCI), Muscogee Creek Nation (MCN), the Seminole Nation of Oklahoma (SNO), Seminole Tribe of Florida (STF), and the Tunica-Biloxi Tribe of Louisiana (TBTL).

4.6.5 SHPO concurrence was received on July 10, 2020. On July 28, 2020, the MCN submitted a written response letter stating “This project is located within our area of interest and is of importance to us. After reviewing the information provided, the [MCN] is unaware of any Muscogee sacred sites, burial grounds, or significant cultural resources located within the immediate project areas. Due to this, we concur that there should be no effects to any known historic properties and that work should proceed as planned. However, due to the historic presence of Muskogean peoples in the areas, we still request to be notified if any artifacts, cultural material or human remains are discovered during the project. Additionally, if there are any changes or updates to the project, we request to be notified of these,” and on August 21, 2020, CNO submitted a written response letter stating “The Choctaw Nation Historic Preservation Department concurs with the finding of “no historic properties affected”. However, we ask that work be stopped, and our office contacted immediately if Native American artifacts or human remains are encountered.” The remaining Tribes did not respond within the regulatory timeframes; therefore, CEMVN has fulfilled its NHPA Section 106 responsibilities to consult with Tribes.

4.6.6 In summary, CEMVN has determined that there would be a negligible effect on the Cultural Resources component of the human environment from implementing the Proposed Action.

## 4.7 WATER QUALITY

4.7.1 Future Conditions with No-Action. With no action, no new direct or indirect impacts to water quality would be expected to occur.

4.7.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, there would be minimal, temporary effects to water quality within the Mississippi River as a result of the proposed levee slide repairs. During construction, any sediment runoff from the levee slide repairs would be minimized through best management practices such as placement of silt fencing along the flood side toe of the existing LSPL. During construction, there exists the potential for some runoff to likely drain into the Mississippi River. As a result, there would likely be a temporary increase in turbidity within the river directly surrounding any areas of runoff; however, any increases in turbidity would likely be diminished by the swift moving currents of the river, and any free-floating sediment would likely settle downstream.

4.7.3 During the excavation of the 1.5 acre borrow site and proposed future use of the larger overall 77-acre borrow area, any groundwater seeping into the pit would be pumped out into adjacent areas and would likely drain into the Mississippi River. It is expected that there would be a temporary increase in turbidity within the river directly surrounding any areas of runoff or groundwater pumping operations. Any increases in turbidity would likely be diminished by the swift moving currents of the river, and any free-floating sediment would likely settle downstream. Temporary impacts to water quality resulting from any borrow site excavation activities would not be expected to pose any long-term adverse effects.

4.7.4 A Clean Water Act (CWA) draft Section 404(b)(1) public notice has been completed for this Work and would be circulated for public comment with this draft Environmental Assessment.

Additionally, a CWA Section 401 State Water Quality Certificate (WQC 202115-01/AI 101235/CER 20200010) was issued by the Louisiana Department of Environmental Quality by letter dated January 20, 2021. (Appendix D).

## 4.8 AIR QUALITY

4.8.1 Future Conditions with No-Action. With no action, no new direct or indirect impacts to ambient air quality would be expected to occur.

4.8.2 Future Conditions with the Proposed Action. With implementation of the Proposed Action, direct and indirect impacts to ambient air quality within the immediate vicinity of the Project Area are expected to be temporary, primarily due to the emissions of construction equipment. Due to the short duration of the proposed project, any increases or impacts to ambient air quality are expected to be short-term and minor and are not expected to cause or contribute to a violation of Federal or State ambient air quality standards. Once all construction activities associated with the Proposed Action cease, air quality within the vicinity is expected to return to pre-construction conditions.

## 4.9 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

4.9.1 CEMVN 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. USACE conducted a Phase 1 Environmental Site Assessment (ESA) for the footprints of the Proposed Action (including the proposed borrow site) in accordance with USACE Engineering Regulation No. 1165-2-132, Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance For Civil Works Projects (June 26, 1992) and the American Society for Testing and Materials (ASTM) E 1527-13, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process (ASTM, 1997). The Phase 1 ESA was performed on January 12, 2021 and a copy of the Phase 1 ESA will be maintained on file at the CEMVN Headquarters. The objective of the HTRW assessments was to identify HTRW problems early in the design of Work Items to ensure appropriate consideration of HTRW problems during detailed design. The HTRW assessments included: 1) a review of HTRW Phase I Environmental Database Review Corridor Reports and State and Federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify recognized environmental conditions (RECs), and 2) site reconnaissance to determine if RECs are within the footprint of the Proposed Action (including the borrow site). The probability of encountering HTRW for the Proposed Action is low based on the initial site assessment. If no recognized environmental conditions are identified in relation to the proposed action area, the probability of encountering HTRW for this Proposed Action would be considered low. If a recognized environmental condition is identified in relation to the Proposed action area site, CEMVN would take the necessary measures to avoid the recognized environmental condition so that the probability of encountering or disturbing HTRW would continue to be low.

## 4.10 CUMULATIVE IMPACTS

4.10.1 Cumulative impacts of the Proposed Action consist of the impacts of this action when compared to the impacts of all other past, present, or future similar or related actions. Thus, cumulative impacts could be the impacts of this current specific action when compared to all other flood damage reduction measures of the overall project. The previous portion of the overall LSP Project resulted in the losses of 19 acres of all forms of LSP land to ditches and approximately 646 acres of all forms of LSP lands to all land uses required by the levee system. Prior ditch excavation and reconstruction has more of an effect on LSP agricultural lands than on other resources more valuable to wildlife. The current action will permanently impact approximately 1.5 acres of wet pastureland due to the conversion to shallow open water habitat, but it will not change the character of the LSP. Future use of the larger overall 77-acre borrow area would also be expected to have the same permanent impacts to wet pastureland as previously described. The proposed action is counter-balanced from a socio-economic standpoint by the reduced efforts at flood fighting and the increased security to farm and prison operators and residents with increased protection from high river stages. The maintenance and repair/rehabilitation of the entirety of the levee system would serve to prevent future levee overtopping and failure. Not including these items as part of the proposed action would allow the area to revert to non-agricultural and non-prison use but would be socially unacceptable to the citizens of the state.

## 5. COORDINATION AND PUBLIC INVOLVEMENT

Preparation of this draft SEA 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.

## 6. MITIGATION

6.1 The appropriate application of mitigation is to formulate an alternative that first avoids adverse impacts, then minimizes adverse impacts, and lastly, compensates for unavoidable impacts. This draft Supplemental Environmental Assessment evaluates the potential impacts associated with the proposed LSPL slide repairs and designation of a 1.5 acre borrow site and proposed future use of a larger overall 77-acre borrow area on the east riverbank of the Mississippi River. As previously described, the proposed use of the 1.5 acre borrow site for this project is part of a larger overall 77-acre borrow area classified as wet-pastureland. The following mitigation plan is being developed to compensate for the unavoidable loss of 1.5 acres of wetland resources as result of the Proposed Action.

6.2 As originally described in Environmental Assessment (EA) #278, which is incorporated herein by reference, compensatory mitigation requirements were based on the mitigation planning experience of CEMVN personnel, with concurrence from the USFWS in a letter dated April 27, 1998. In EA #278, the ratio of compensatory mitigation for the unavoidable loss of farmed wetlands was originally established at 1:0.5 with the proposed reforestation of cleared lands with various species of bottomland hardwoods. For the Proposed Action, it was determined that unavoidable impacts to approximately 1.5 acres of wetlands classified as wet pastureland would similarly be compensated by a ratio of 0.5 acres of bottomland hardwood forest land for 1 acre of wet pastureland lost, but would be accomplished through the purchase of mitigation bank credits at a commercial mitigation bank. Thus, a total of approximately 1.5 acres of wet pastureland

losses would be compensated through acquisition of approximately 0.75 acres of bottomland hardwoods compensatory mitigation bank credits.

6.3 On January 4, 2007, the 110<sup>th</sup> Congress of the United States of America finalized the Water Resources Development Act (WRDA) of 2007 (H.R. 1495, Public Law 110-114). Under Section 2036(c), *Mitigation for Fish and Wildlife and Wetlands Losses – Wetlands Mitigation*, it specifically directs the U.S. Army Corps of Engineers to consider the use of commercial mitigation banks to fulfill the mitigation responsibilities of Civil Works projects, stating:

*In carrying out a water resources project that involved wetlands mitigation and that has impacts that occur within the service area of a mitigation bank, the Secretary, where appropriate, shall first consider the use of the mitigation bank if the bank contains sufficient available credits to offset the impact and the bank is approved in accordance with the Federal Guidance for the Establishment Use and Operation of Mitigation Banks (60 Fed. Reg. 58605) or other applicable Federal law (including regulations).*

6.4 Therefore, the following mitigation plan proposes to acquire appropriate bottomland hardwood compensatory mitigation bank credits for unavoidable impacts to wet pastureland resulting from the proposed use of the 1.5 acre borrow site. Because the impacts associated with the construction of the Proposed Action and mitigation required to compensate for those impacts is relatively minor, a decision was made to purchase credits in a mitigation bank. This affords for the best value from an ecosystem perspective, in that small blocks of restored forested land have a lesser overall value to an ecosystem than would a larger block of land, as would be the case in establishing a mitigation bank. U.S. Army Corps of Engineers-constructed mitigation options were evaluated in place of purchasing credits from commercial mitigation banks but were ultimately eliminated from further consideration due to lack of affordable options regarding land acquisition and costs associated with site development and operation and maintenance. Preliminary costs for Corps-constructed mitigation options would far exceed the cost of acquiring mitigation credits from an existing commercial mitigation bank within the appropriate watershed. Additionally, WRDA 2007 states that mitigation should be accomplished either prior to or concurrently with construction. Initial time estimates (i.e., time to acquire appropriate real estate from willing landowners) to develop Corps-constructed mitigation sites would delay the project construction of this vitally important LSPL repair that is necessary for the protection of life and property.

6.5 In Federal Register Vol. 73, No. 70, April 10, 2008, specifically Part 332, § 332.4 (c)(1) *Compensatory Mitigation for Losses of Aquatic Resources, Planning and documentation, Mitigation Plan, Preparation and Approval*, guidance was set forth requiring the preparation of a draft and final mitigation plan that would address the following 12 items: 1) preparation and approval; 2) objectives; 3) site selection; 4) site protection instrument; 5) baseline information; 6) determination of credits; 7) mitigation work plan; 8) maintenance plan; 9) performance standards; 10) monitoring requirements; 11) long-term management plan; 12) adaptive management plan; financial assurances; and other information. However, since the proposed mitigation plan proposes to utilize a compensatory mitigation bank, the following language included in Part 332 § 332.4 (c)(1)(i)(ii) would apply, “For permittees who intend to fulfill their compensatory mitigation obligations by securing credits from approved mitigation banks...their mitigation plan need include only the items described in paragraphs (c)(5) and (c)(6)...” Therefore, only items 5 and 6, baseline information and determination of credits, will be addressed further.

6.6 Item 5 – Baseline Information. For a complete description of “Baseline Information”, please refer to the following Sections within this EA: *3.1 Description of the Project Area*; *3.2 Description of the Watershed*; *3.3 Climate*; *3.4 Geology*; and *3.6 Wetlands*.

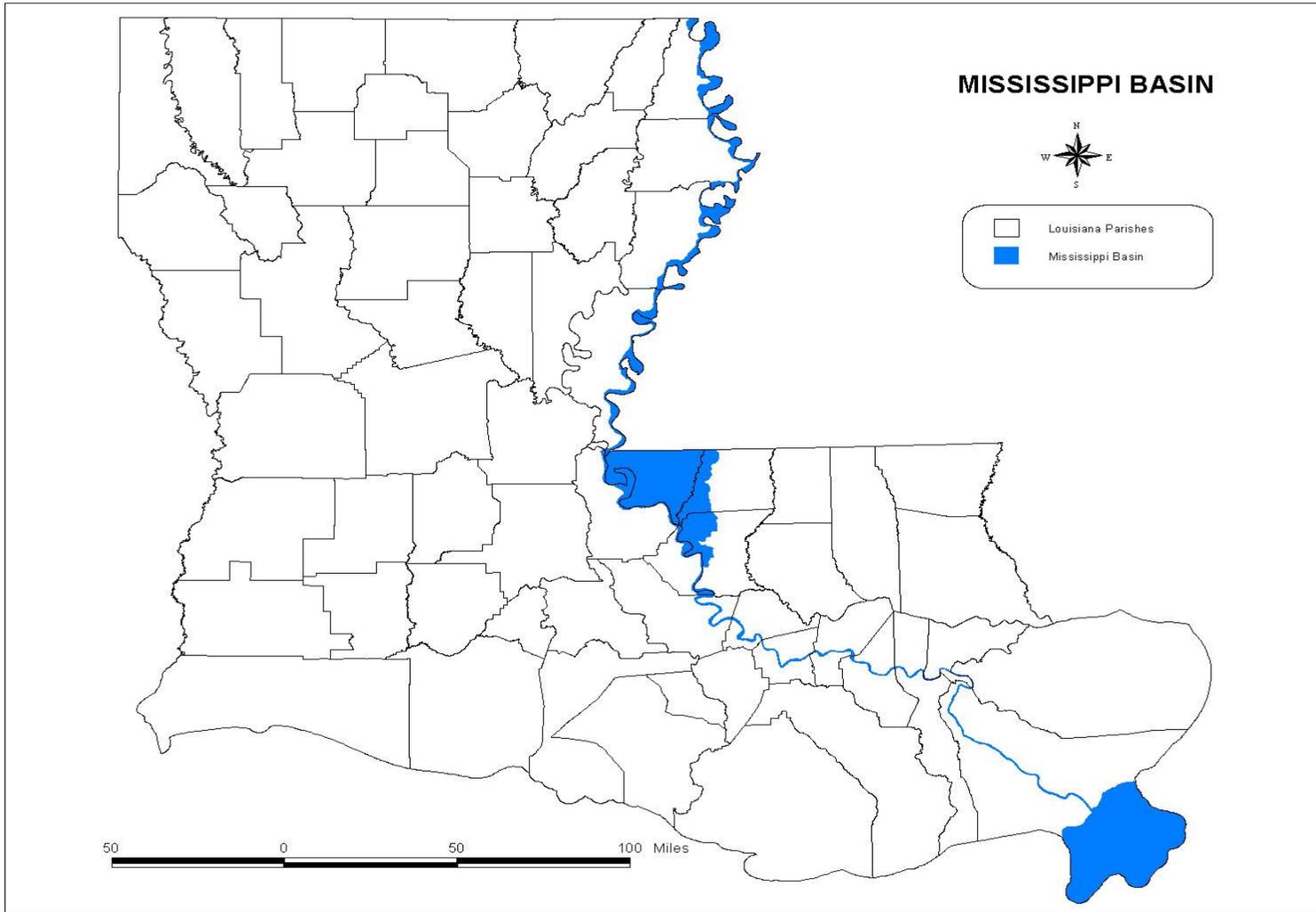
6.7 Item 6 – Determination of Credits. The proposed mitigation bank plan is designed to comply with the requirements set forth under USACE guidance “Implementation Guidance for Section 2036(a) of the Water Resources Development Act of 2007 – Mitigation for Fish and Wildlife and Wetland Losses” dated August 31, 2009, which further highlights the need for Civil Works mitigation plans to be consistent with the regulations and policies governing the U.S. Army Corps of Engineers Regulatory Program. To comply with these multiple laws and directives and to be consistent with the U.S. Army Corps of Engineers Regulatory Program, the New Orleans District investigated the use of mitigation banks within appropriate, applicable service area, the Mississippi River watershed basin. However, in the event that the total amount of credits that would be required to fully compensate for unavoidable wetlands impacts would not be achievable, the proposed mitigation bank plan is meant to afford the U.S. Army Corps of Engineers, New Orleans District the opportunity to explore reasonable and available mitigation opportunities both within the impacted service area as well as adjacent service area (Lake Pontchartrain River Basin) in order to compensate for unavoidable wetlands impacts. The amount of credits that would be required to fully compensate for unavoidable wetlands impacts will be determined upon selection of an appropriate compensatory mitigation bank. The mitigation bank plan is as follows:

6.8 Mitigation Bank Plan - Primary. The New Orleans District proposes to mitigate for approximately 1.5 acres of unavoidable adverse impacts to wet pastureland at available bottomland hardwood mitigation banks located within the Mississippi River Basin, within the New Orleans District boundaries. Within Louisiana, and specifically within the New Orleans District boundaries, the Mississippi River Basin is comprised of the Mississippi river along with West Feliciana Parish, portions of East Feliciana Parish east of Redwood Creek, portions of East Baton Rouge Parish east of the Comite River and the city of Baton Rouge, and the delta. The river is completely leveed on its western side from the Concordia Parish to Venice and on its eastern side from Baton Rouge to Venice (Figure 6).

6.9 In the Mississippi River Basin, there are currently five approved mitigation banks with available bottomland hardwood mitigation credits: Cypress Plantation; Cypress Plantation II; Tunica Swamp Silos; Ash Slough Headwaters; and Ash Slough Headwaters Addendum 1.

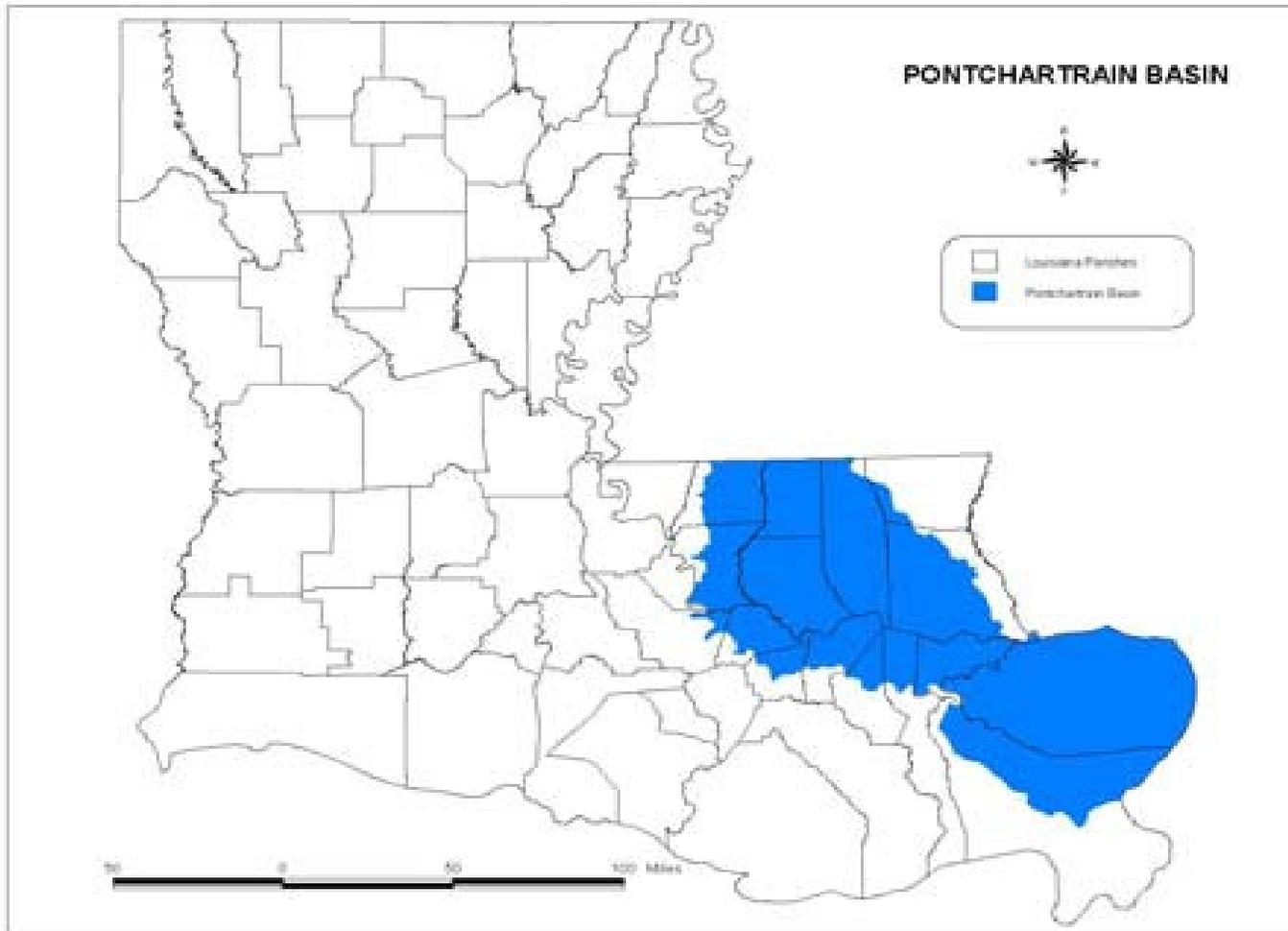
6.10 Mitigation Bank Plan - Secondary. The New Orleans District proposes to mitigate for approximately 1.5 acres of unavoidable adverse impacts to wet pastureland at available bottomland hardwood mitigation banks located within the adjacent Lake Pontchartrain River Basin, within the New Orleans District boundaries. The Lake Pontchartrain River Basin is a 4,700 square mile watershed in southeast Louisiana and southwest Mississippi. The topography of the basin ranges from more than 300 feet above sea level in the rolling hills along the Louisiana and Mississippi state line to sea level throughout the coastal wetlands to more than 10 feet below sea level in some areas of New Orleans. The northern half of the basin is commonly referred to as the Florida Parishes and it contains all or portions of 7 parishes: East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, and Washington (Figure 7).

6.11 In the Lake Pontchartrain River Basin, there are currently 14 approved mitigation banks with available bottomland hardwood mitigation credits: Ash Slough Headwaters; Zachary - Copper Mill Bayou; Zachary – Redwood Creek; Zachary - Comite Flats I; Zachary - Comite Flats



**— Mississippi River Basin**

**Figure 6: Mississippi River Basin.**



**— Lake Pontchartrain River Basin**

**Figure 7: Lake Pontchartrain River Basin.**

II; Comite Properties - Tract A; Comite Properties - Tract B; Beaver Creek; Crooked Branch; Bayou Manchac – Oakley; Bayou Conway; Timberton; Timberton II; and Timberton III.

## 7. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Environmental compliance for the proposed action would be achieved upon coordination of this draft SEA and draft FONSI with all appropriate agencies, organizations, and individuals for their review and comments.

- USFWS concurrence with CEMVN’s not likely to adversely affect determination on any threatened or endangered species (Appendix B).
- CEMVN National Historic Preservation Act, Section 106 consultation, and coordination of a finding of No Adverse Effect to Historic Properties” with the Louisiana State Historic Preservation Officer and any affected Federally and State recognized Tribes (Appendix C).
- Clean Water Act, Section 404(b)(1) Public Notice and Evaluation.
- Clean Water Act, Section 401 State Water Quality Certificate received from the Louisiana Department of Environmental Quality (Appendix D).
- Additionally, USACE, requires that its agents understand and acknowledge the following conditions required because of Section 106 consultation for ground disturbing activities that provide for the protection of and notification protocols for, unexpected discoveries or unexpected effects to historic properties and human remains:
  - Inadvertent Discovery and Unexpected Effects: If during the course of work, archaeological artifacts (prehistoric or historic) are discovered or unexpected effects to historic properties, including architecture, architectural elements, and/or archaeology, are identified, the contractor shall stop work in the general vicinity of the discovery or unexpected effect and take all reasonable measures to avoid or minimize harm to the finds or affected property. The contractor would ensure that the discovery or unexpected effects are secured and stabilized, as necessary, and access to the area is restricted. The contractor shall inform their Operations Division (OD) contacts at USACE, who would in turn contact Planning Division (PD) staff. The contractor would not proceed with work until USACE PD completes consultation with the Louisiana SHPO and others, as appropriate.
  - Louisiana Unmarked Human Burial Sites Preservation Act: If human bone or unmarked grave(s) are present within the proposed action area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The contractor shall notify the law enforcement agency of the jurisdiction where the remains are located within 24 hours of the discovery. The contractor shall also notify USACE and the Louisiana Division of Archaeology within 72 hours of the discovery. Discoveries of unmarked graves, burials, human remains, or items of cultural patrimony on federal or tribal lands shall be subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. §3001-3013, 18 U.S.C. § 1170) and the Archaeological Resources Protection Act of 1979 (ARPA)(16 U.S.C. §470aa – 470mm).

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

## **8. CONCLUSION**

The proposed action would consist of the designation of a 1.5 acre borrow site for use in repair to five levee slides located along the existing LSPL Project. Unavoidable permanent impacts to wetlands would require 0.75 acres of compensatory mitigation. Additionally, the proposed future use of the larger overall 77-acre borrow area will ultimately require compensatory mitigation. As such, future projects utilizing earthen borrow material from the 77-acre borrow area would individually provide the appropriate amount of compensatory mitigation required based on the mitigation plan described in Section 6 of this SEA. This office has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no impact to threatened or endangered species or cultural resources. Temporary and minimal impacts would occur to both air quality and water quality but would only occur for the duration of construction. Direct conversion of wet pastureland to shallow open water as a result of borrow activities would constitute a permanent loss of land-based resources and directly impact both terrestrial and wildlife resources. While the overall loss of terrestrial resources and wildlife habitat would be considered adverse, the previously discussed adjacent terrestrial habitat (i.e. undeveloped hardwood forest) would allow for the continued movement and existence within the riverside forest corridor for any displaced wildlife. Development of a new borrow pit on the east riverbank would ultimately be expected to provide additional habitat and breeding ground for a variety of both aquatic and fisheries resources.

## **9. PREPARED BY**

Draft Supplemental Environmental Assessment 278-D and the associated Finding of No Significant Impact were prepared by Mr. Mark Henry Lahare, Environmental Protection Specialist, with relevant sections and contributions prepared by: Mr. David Day (HTRW); Mr. Jeremiah Kaplan (Cultural Resources). 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**

- Coastal Wetland Forest Conservation and Use Science Working Group (LaCoast). 2005. Conservation, Protections and Utilization of Louisiana's Coastal Wetland Forests. Final Report to the Governor of Louisiana.
- Dardeau, Elba A., Stephen W. Ellis, and John G. Collins. 1991. The Articulated Concrete Mattress: History and Use. Proceedings of the Fifth Federal Interagency Sedimentation Conferences, 1947 to 2001. Section 3:3-1-3-7.
- Killgore, K. J., J. J. Hoover, S. G. George, B. R. Lewis, C. E. Murphy, and W. E. Lancaster. 2007. Distribution, relative abundance and movements of pallid sturgeon in the free-flowing Mississippi River. *Journal of Applied Ichthyology* 23:476-483.

- La Tourrette, John. 1848. La Tourrette's reference map of the state of Louisiana: from the original surveys of the United States, which show the townships, sections, or mile squares, Spanish grants, settlement rights & c., also the plantations with the owners names engraved thereon. New Orleans, John La Tourrette, 1848.
- 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.
- Louisiana Department of Wildlife and Fisheries (LDWF). 2005. Louisiana Comprehensive Wildlife Conservation Strategy (CWCS).
- Mississippi River Commission (MRC). 1880. Survey of the Mississippi River (Chart 61). Electronic document, <http://www2.mvn.usace.army.mil/eng2/hydsrv/msHYD.asp>.
- Map of the Lower Mississippi River from the Mouth of the Ohio River to the Head of the Passes in Eighty-Six Sheets: Survey of the Mississippi River, Sheet No. 63. Scale 1:20,000. 1883.
- Lower Mississippi River, Early Stream Channels at Approximate Half-Century Intervals, Cairo, Ill. to Baton Rouge, La., Mile 0 to Mile 842 (Sheet 11). 1939. 12 sheets, Vicksburg, Mississippi. Electronic document, <https://dmr.bsu.edu/digital/collection/MspRvrMps/id/2/>.
- Perrault, Stephanie L., Roger T. Saucier, Thurston Hahn, III, Dayna Lee, Joanne Ryan, and Chris Sperling. 2001. Cultural Resources Survey, Testing, and Exploratory Trenching for the Louisiana State Penitentiary Levee Enlargement Project, West Feliciana Parish, Louisiana. Report prepared by Coastal Environments, Inc. for the U.S. Army Corps of Engineers, New Orleans District. New Orleans, Louisiana (LA DOA Report No. 22-2229).
- Saucier, R. T. 1974. Geomorphology and Quaternary Geologic History of the Lower Mississippi Valley. Arkansas Archeological Survey Research Series No. 6.
- Smith, Steven D., Phillip G. Rivet, Kathleen M. Byrd and Nancy W. Hawkins. 1983. Louisiana's Comprehensive Archaeological Plan. State of Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Division of Archaeology, Baton Rouge, Louisiana.
- U.S. Army Corps of Engineers (USACE). July 1998. 1998 Final Supplemental Environmental Impact Statement (FSEIS) "Flood Control, Mississippi River & Tributaries, Mississippi River Mainline Levees Enlargement and Seepage Control, Cape Girardeau, Missouri to Head of Passes, LA." Vicksburg, Memphis and New Orleans Districts.
- U.S. Environmental Protection Agency (USEPA). 2011. Accessed online June 9, 2020. <http://www.epa.gov/oar/oaqps/greenbk/multipol.html>.
- U.S. Fish and Wildlife Service (USFWS). 2020. Information for Planning and Consultation. Online address: <https://ecos.fws.gov/ipac/>

Way, Carl H., Andrew C. Miller, Barry S. Payne, and C. Rex Bingham. 1992. Effects of Surface Texture of Articulated Concrete Mattress Blocks on Their Habitat Value. Lower Mississippi River Environmental Program, Report 19, Mississippi River Commission, Vicksburg, MS.

# APPENDIX A

Project Information Report  
Louisiana State Penitentiary Levee, Mississippi River Levee  
May 2020

## Department of Public Safety & Corrections State of Louisiana

JOHN BEL EDWARDS  
GOVERNOR



JAMES M. LE BLANG  
SECRETARY

August 30, 2019

Stephen F. Murphy, Colonel  
U. S. Army Corps of Engineers  
New Orleans District  
Emergency Management Office Rm 292  
7400 Leake Ave.  
New Orleans, La. 70118

Dear Colonel Murphy:

With regards to your notification of Rehabilitation Assistance for Damages to Flood Risk Management Projects, the Department of Corrections is requesting rehabilitation assistance for the Louisiana State Penitentiary levees due to the recent Mississippi River flood event.

The estimated cost of repairs is approximately \$1,000,000.00 for five slides and two beaver den holes. Additionally, we experienced extreme sand boil activity in a canal next to the levee that required the placement of 55-gallon barrels on an effort to stop the sand boils. There were sand boils in the canal where barrels could not be utilized and it was necessary to dam up the canal to create a water berm in an effort to control the sand boils. For this project we submit the following information:

- a. Public Sponsor's point of contact information:  
Assist. Warden IV Shirley Coody  
Cell Phone Number: 225-368-7958  
Office Phone Number: 225-655-2043
- b. Legal name of the flood control project: 2018 November Flood Fight Event
- c. Date and results of the last inspection by the U.S. Army Corps of Engineers  
November 5, 2018 – have not received report
- d. Location of the flood control project by township, range, city and Parish:  
Louisiana State Penitentiary, Angola, Louisiana - West Feliciana Parish

P.O. Box 94304 ♦ BAYON ROUGE, LOUISIANA 70804 ♦ (225) 342-6740 ♦ FAX (225) 342-3095 ♦ WWW.DOCLA.GOV

AN EQUAL OPPORTUNITY EMPLOYER

Page 2  
August 30, 2019

e. Location(s) of the damaged section(s) and extent of the damage at each location:

**Slides:**

- #1 Near Mile Marker 1: GPS 30.9379 latitude and -91.5843 longitude (sandbagged)
- #2 Near Mile Marker 1: GPS 30.9381 latitude and -91.5847 longitude (sandbagged)
- #3 Near Mile Marker 1: GPS 30.9384 latitude and -91.5854 longitude (no sandbags)
- #4 Near free flow: GPS 30.9394 latitude and -91.5932 longitude (sandbagged)
- #5 Past Cattle Guard: GPS 30.9351 latitude and -91.6016 longitude (no sandbags)

**Beaver holes:**

- #1: GPS 30.9350 latitude and -91.6027 longitude
- #2: GPS 30.9362 latitude and -91.6128 longitude

**Canal with extensive sand boils:**

- #1 At Crawfish Pond: GPS 30.9373 latitude and -91.5973 longitude

**Beaver Damage:**

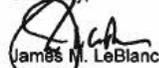
- #1 GPS 30.9352 latitude and -91.6025 longitude
- #2 GPS 30.9362 latitude and -91.6129 longitude

f. Date(s) damages were observed, photograph of damaged section(s): Attached

g. The name of the waterway causing the flood damages: Mississippi River

We kindly request your consideration of our project to be included by the U. S. Army Corps of Engineer's Rehabilitation Program. Should you need additional information, please feel free to contact Assist. Warden Shirley Coody.

Sincerely,

  
James M. LeBlanc  
Secretary

CC: Darrel Vannoy, Warden  
Shirley Coody, Assist. Warden

# APPENDIX B

## Endangered Species Act Determination

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

From: Mark Henry Lahare  
Telephone: 504-862-1344  
Date: 10 December 2020  
E-mail: [mark.h.lahare@usace.army.mil](mailto:mark.h.lahare@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

 22 Jan 21  
Supervisor Date  
Louisiana Ecological Services Office  
U.S. Fish and Wildlife Service

**Subject: Draft Supplemental Environmental Assessment #278-D, “Louisiana State Penitentiary, Flood Damage Reduction Measures, West Feliciana Parish, Louisiana.**

Dear Mr. Walther:

The U.S. Army Corps of Engineers, New Orleans District (CEMVN) proposes to construct flood damage reduction measures at the Louisiana State Penitentiary (LSP), located near Angola, in West Feliciana Parish, Louisiana. The Mississippi River Flood of 2018-2019, which transpired from November 2018 through August 2019, resulted in damage to the existing LSP levee. The non-Federal sponsor (NFS), the Louisiana Department of Public Safety and Corrections, requested assistance in writing, dated August 30, 2019, for five separate locations along the LSP levee where levee slides occurred (Figures 1 and 2). The environmental impacts associated with the proposed work are currently being addressed in draft Supplemental EA #278-D, which is scheduled to be available for review and comment in mid-January 2021.

The proposed LSP levee repairs entail the excavation of failed embankment material and damaged LSP levee sections; the replacement of embankment material in compacted levee lifts; the construction of a more gradual flood side and landside levee slope for slides 1, 3, 4, and 5 (100, 135, 110, and 470 linear feet, respectively); and the removal of an existing unpaved levee ramp for slide 2 (75 linear feet).

For LSP levee slides 1, 3, 4, and 5, the repair will rehabilitate these sections using suitable embankment material to increase stability by decreasing the levee slope. The repaired LSP levee sections will be designed using the Mississippi River and Tributaries (MR&T) levee design standards and criteria. From the levee crown at elevation 69 feet North American Vertical Datum 1988 (NAVD88), the new river/landside levee slope will be 1 vertical on 5 horizontal to the existing ground. The estimated borrow quantity required to repair levee slides 1, 3, 4, and 5 is approximately 23,000 cubic yards, and the total length of the 4 slides is 815 linear feet.

For levee slide 2, on the unpaved ramp, the repair will consist of degrading the ramp to a uniform slope to match the areas directly adjacent to slide 2. From the levee crown at elevation 69 feet NAVD88, the new landside slope will be 1 vertical on 4 horizontal to

# APPENDIX C



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400 LEAKE AVE  
NEW ORLEANS LA 70118-3651

June 10, 2020

Regional Planning and  
Environment Division, South  
Environmental Planning Branch  
Attn: CEMVN-PDS-N

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

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

Kristin P. Sanders  
State Historic Preservation Officer

Date

**RE: Section 106 Review Consultation**

**Undertaking:** Louisiana State Penitentiary, Flood Damage Reduction Measures, Angola Prison Levee Slide Repairs, West Feliciana Parish, Louisiana (Project ID 459682) (General Project Coordinates: 30.935109; -91.601984)

**Determination: No Historic Properties Affected**

Dear Ms. Sanders:

The U.S. Army Corps of Engineers (USACE), New Orleans District (CEMVN), proposes to fund the Mississippi River and Tributaries (MR&T), Mississippi River Levees, Louisiana Department of Public Safety and Corrections (LDPSC; non-federal sponsor), Louisiana State Penitentiary (LSP), Flood Damage Reduction Measures, Angola Prison Levee Slide Repairs, in West Feliciana Parish, Louisiana.

In partial fulfillment of CEMVN's responsibilities under Executive Order 13175, the National Environmental Policy Act, as amended (42 U.S.C. § 4321 et seq.), Section 106 of the National Historic Preservation Act (NHPA), as amended (54 U.S.C. § 306108), and its implementing regulations, 36 Code of Federal Regulations [CFR] Part 800, and Section 110 of the NHPA, that requires each Federal agency to assume responsibility for the preservation of historic properties or resources that fall under the agency's jurisdiction and that such properties are maintained and managed in a way that considers the preservation of their historic, archaeological, architectural, and cultural values. In compliance with Section 106, the CEMVN offers you the opportunity to review and comment on the potential of the proposed Undertaking described in this letter to adversely affect properties listed on or eligible for listing on the National Register of Historic Places (NRHP), protected tribal resources, tribal rights, or Native lands. Documentation in this letter is consistent with the requirements in 36 CFR § 800.11(e).

**Description of the Undertaking**

The Louisiana State Penitentiary Levee (LSPL) Project (Undertaking) is located in Angola, West Feliciana Parish, Louisiana. The project area is located approximately 40 miles (64.3 km) northwest of Baton Rouge and 22 miles (35.4 km) northwest of St. Francisville. The LSP at

## APPENDIX D

JOHN BEL EDWARDS  
GOVERNOR



CHUCK CARR BROWN, Ph.D.  
SECRETARY

**State of Louisiana**  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

JAN 20 2021

Mr. Mark Lahare  
Regional Planning Division, South  
Coastal Environmental Compliance Section  
CEMVN-PDC-C  
7400 Leake Avenue  
New Orleans, LA 70118  
attn.: Mark Henry Lahare

AI No.: 101235  
Activity No.: CER20200010

RE: Louisiana State Penitentiary, Flood Damage Reduction Measures, Supplemental Environmental Assessment #278-D  
Water Quality Certification WQC 201215-01  
Wet Feliciana Parish

Dear Mr. Lahare:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to excavate and place fill to construct flood damage reduction measures at the Louisiana State Penitentiary (LSP) located near Angola, West Feliciana 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 discharge of fill will not violate water quality standards as provided for in LAC 33:IX.Chapter 11. Therefore, LDEQ hereby issues US Army Corps of Engineers, New Orleans District Water Quality Certification, WQC 201215-01 for the Louisiana State Penitentiary, Flood Damage Reduction Measures, Supplemental Environmental Assessment #278-D project.

Should you have any questions concerning any part of this certification, please contact Elizabeth Hill at (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 201215-01 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,

  
Scott Williams  
Administrator  
Water Permits Division

c: IO-W

cc: Mark Lahare  
[mark.h.lahare@usace.army.mil](mailto:mark.h.lahare@usace.army.mil)

Post Office Box 4313 • Baton Rouge, Louisiana 70821-4313 • Phone 225-219-3181 • Fax 225-219-3309  
[www.deq.louisiana.gov](http://www.deq.louisiana.gov)