



**DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400 LEAKE AVENUE  
NEW ORLEANS, LOUISIANA 70118**

REPLY TO  
ATTENTION OF

Regional Planning and Environment  
Division South  
Environmental Compliance Branch

**DRAFT FINDING OF NO SIGNIFICANT IMPACT  
(FONSI)**

**MISSISSIPPI RIVER LEVEES, EAST BANK LEVEE, PONTCHARTRAIN LEVEE  
DISTRICT, UPPER PONTCHARTRAIN SEEPAGE CONTROL  
EAST BATON ROUGE PARISH, LOUISIANA**

**Description of the Proposed Action (Recommended Plan):** The proposed action consists of the construction of 14 relief wells placed approximately 130 feet apart near the toe of the existing levee. The location of the relief wells would be adjusted to avoid utilities and ramps. An adjacent roadside ditch would be designed and reconfigured to collect relief well outflow. Five permanent pumps would be installed to route the relief well outflow back over the levee and into the river.

**Factors Considered in Determination:** This U.S. Army Corps of Engineers, New Orleans District (CEMVN) has assessed the impacts of the "no action" and the recommended plan on important resources including: aquatic resources/fisheries, wildlife, threatened and endangered species, cultural resources, environmental justice, recreational resources, visual resources (aesthetics), air quality, and water quality. On [REDACTED], draft EA #566 and the associated draft Finding of No Significant Impact were mailed out for a 30-day public review and comment period and EA #566 was published on CEMVN's "NEPA Compliance Documents" webpage for 30 days beginning [REDACTED] and ending [REDACTED]. Environmental compliance for the Federal action was achieved based upon the following actions:

**Clean Air Act of 1972:** In a letter dated [REDACTED], the Louisiana Department of Environmental Quality (LDEQ) granted a no-objection opinion for the volume of air emissions, i.e. nitrous oxides and volatile organic compounds that will be generated during construction of the project.

**Endangered Species Act:** The U.S. Fish and Wildlife Service (USFWS) concurred with CEMVN's determination of "no affect" on December 13, 2018.

**Environmental Design Commitments:** The following commitments are an integral part of the proposed action:

1. If the proposed action is changed significantly or is not implemented within one year, CEMVN will reinitiate consultation with the USFWS to ensure that the proposed action would not adversely affect any Federally-listed threatened or endangered species, critical habitat, or trust resources.

2. If any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work will proceed in the area containing these cultural resources until a CEMVN staff archeologist has been notified and final coordination with the State Historic Preservation Officer and Tribal Historic Preservation Officer has been completed.

**Public Involvement:** The recommended plan has been coordinated with appropriate Federal, state, and local agencies and businesses, organizations, and individuals through distribution of EA #566 for a 30-day public review and comment period starting on [REDACTED]. Comments on the EA #566 and FONSI were received from the USFWS and LDEQ (Appendix A and B). All comments received have been addressed and responses have been provided.

**Decision:** CEMVN has assessed the environmental impacts of the recommended plan on relevant resources in EA #566. The recommended plan would have only temporary, short term impacts on air quality from heavy equipment operations during construction, and short term temporary impacts to adjacent areas from construction noise. Beneficial impacts would be continued flood risk reduction and levee stability. An assessment of the potential environmental impacts to important resources found that the proposed project would have only minor, temporary, and insignificant impacts to important resources in the project area. I have reviewed the EA #566 and have considered public and agency comments and recommendations. Based on the assessment conducted in EA #566 which is attached hereto and made a part hereof, and the implementation of the environmental design commitments listed above, I have determined that the recommended plan would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

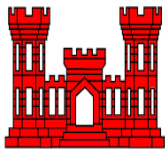
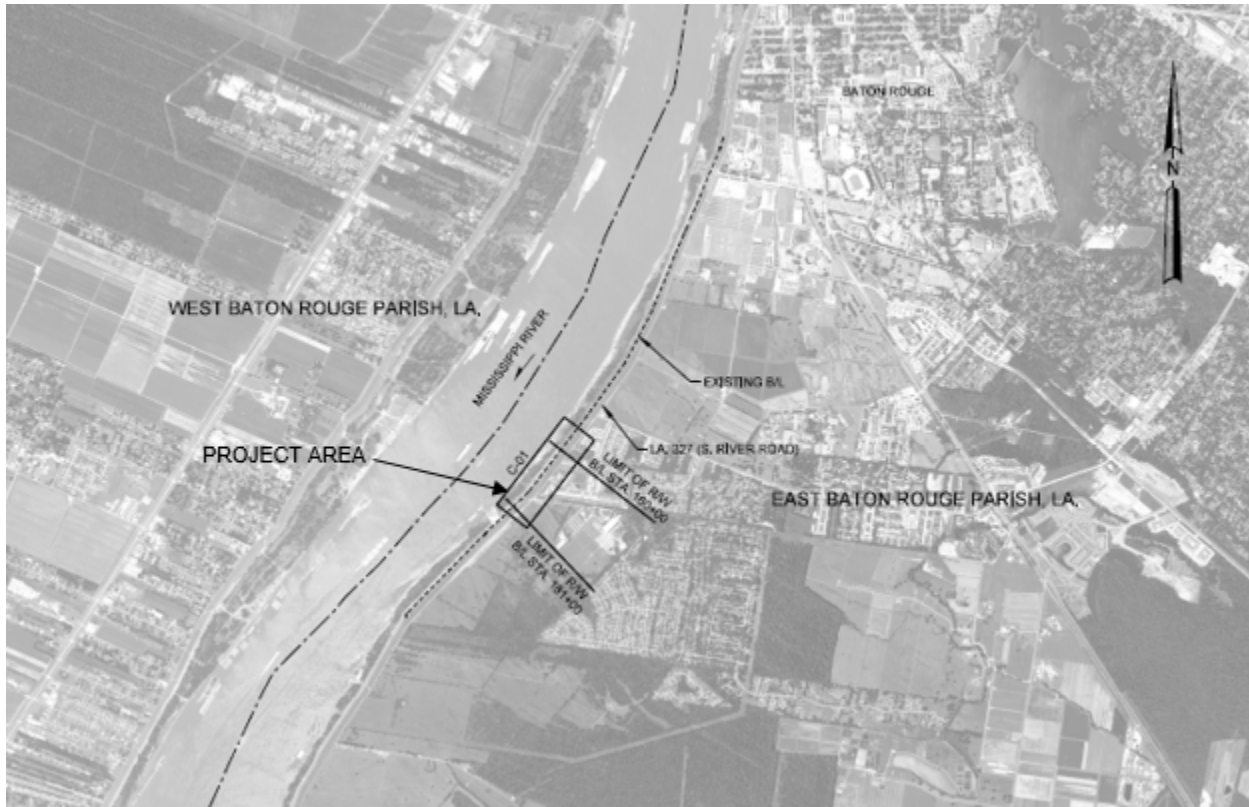
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Date

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Michael Clancy  
Colonel, U.S. Army  
District Commander

**DRAFT ENVIRONMENTAL ASSESSMENT**  
**Mississippi River Levees, East Bank Levee, Pontchartrain Levee**  
**District, Upper Pontchartrain Seepage Control**  
**East Baton Rouge Parish, Louisiana**  
**EA #566**



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

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# DRAFT ENVIRONMENTAL ASSESSMENT

## Mississippi River Levees, East Bank Levee, Pontchartrain Levee District, Upper Pontchartrain Seepage Control

### EAST BATON ROUGE PARISH, LOUISIANA

#### EA #566

## 1. Introduction

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared this draft Environmental Assessment (EA) for the New Orleans District (CEMVN) to evaluate potential impacts of installing 14 relief wells in a previously developed rights-of-way (ROW) to collect seepage during high water stages on the Mississippi River and two catch basins with five permanent pumps to return the seepage water collected from the wells back to the river. This EA has been prepared in accordance with the National Environmental Policy Act of 1969 and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation ER 200-2-2. This EA provides sufficient information on the potential adverse and beneficial environmental effects to 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

The proposed action is located approximately 4 miles south southwest of downtown Baton Rouge adjacent to River Road (Figures 1 – 3). The project consists of construction of 14 relief wells placed approximately 130 feet apart near the toe of the existing levee. The location of the relief wells would be adjusted to avoid utilities and ramps. A permanent catch basin and pumping system would convey the water, discharged from the relief wells, back over the levee and into the river. The roadside ditch between the levee and the road would be designed and reconfigured to collect well outflow. Two catch basins and five permanent pumps would be installed to route the well outflow back over the levee and into the river via five 12-inch high-density polyethylene (HDPE) pipes (one pipe per pump) and flexible discharge hoses (Figure 2). Each pump has a pumping capacity of 1,150 gallons per minute (gpm) at the designated total dynamic head. Total discharge volume (i.e., seepage water pumped back over the levee and into the river) would vary based upon how much seepage is flowing into the catch basins. All excavated material removed from the site during construction would be hauled in watertight trucks with secured binders on tailgates to an approved commercial disposal facility. The proposed project would manage seepage flow to improve levee stability by designing seepage control measures between stations 160+00 and 181+00.

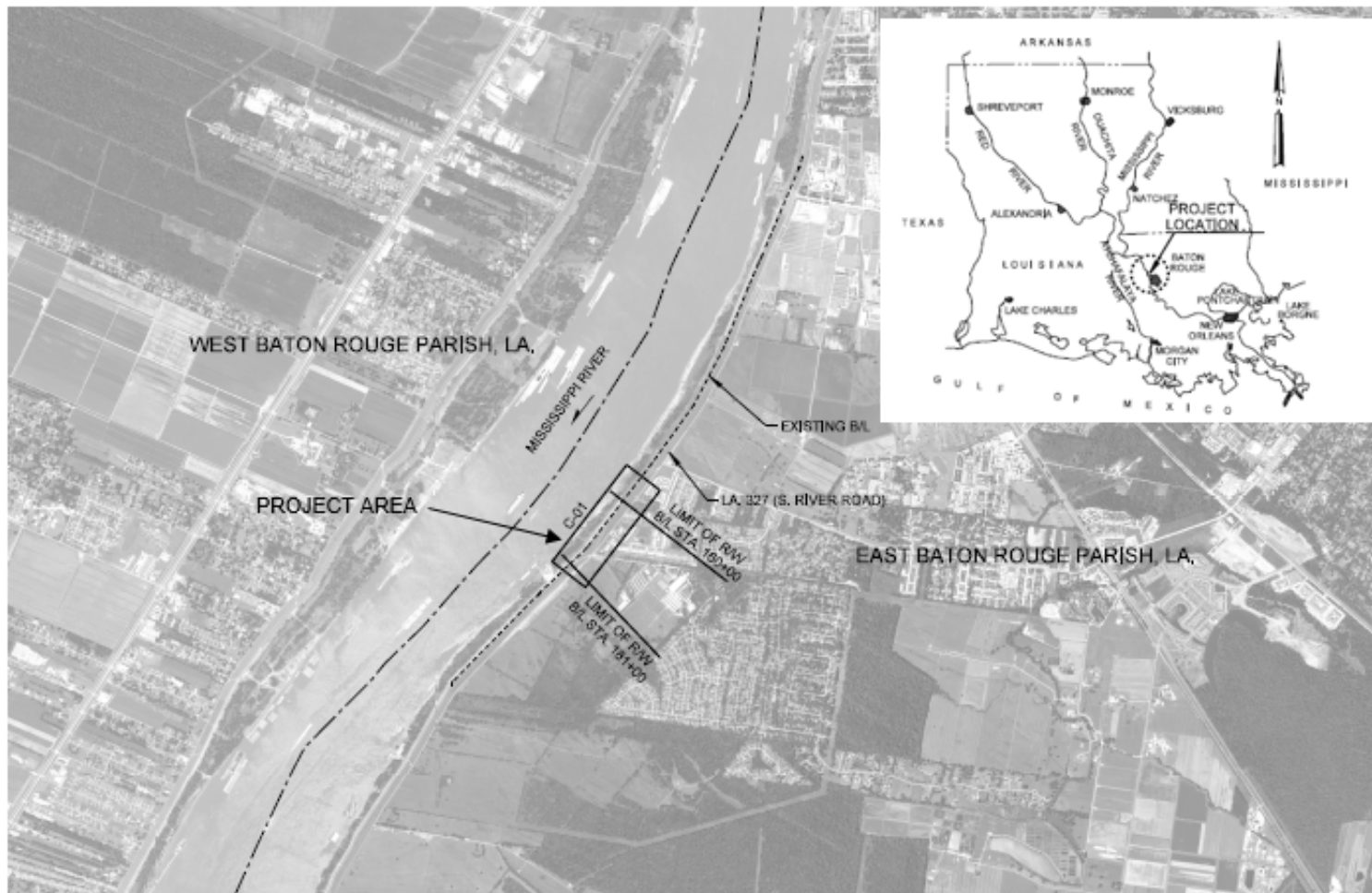


Figure 1: Project Location is approximately 4 miles south southwest of downtown Baton Rouge adjacent to River Road.

## **1.2 Authority**

The proposed action was authorized by the Flood Control Act of 1928 (Public Law 70-391), as amended, including but not limited to, the Flood Control Act of 1936 (Public Law 74-738), the Flood Control Act of 1938 (Public Law 75-761), the Flood Control Act of 1941 (Public Law 77-228), the Flood Control Act of 1946 (Public Law 79-526), the Flood Control Act of 1950 (Public Law 81-516), the Flood Control Act of 1954 (Public Law 83-780), the Flood Control Act of 1962 (Public Law 87-874), the Flood Control Act of 1965 (Public Law 89-298), the River and Harbor and Flood Control Act of 1968 (Public Law 90-483), and the Water Resources Development Act (WRDA) of 1986 (Public Law 99-662).

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

The purpose of the proposed action is to continue providing flood risk reduction resulting from Mississippi River high water events to valuable urban land uses including, but not limited to, residential, commercial, and agricultural resources located on the left descending bank of river mile 225 in East Baton Rouge Parish, Louisiana. The proposed project would manage seepage flow to improve levee stability by designing seepage control measures between stations 160+00 and 181+00.

## **1.4 Data Gaps and Uncertainties**

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

## **1.5 Prior NEPA Documents**

Operation and maintenance of the Mississippi River levees, including repairs, is covered by the "Mississippi River and Tributaries (MR&T), Mississippi River Levees and Channel Improvement" Final Environmental Impact Statement (FEIS) 1976. The Statement of Findings was signed on April 4, 1976.

## **1.6 Public Concerns**

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 (PDF), 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 PDF, with a major element of this plan being levees for the containment of flood flows.

The comprehensive MR&T project has four major elements: levees and floodwalls to contain flood flows; floodways to pass excess flows past critical Mississippi River reaches; channel improvement and stabilization to provide efficient navigation alignment, increased flood-carrying capacity and protection of the levee system; and tributary basin improvements. The MR&T project in the alluvial valley between Cape Girardeau, Missouri, and Head of Passes, Louisiana, provides



protection from floods by means of levees, floodwalls, flood ways, reservoirs (in Yazoo and St. Francis basins), bank stabilization and channel improvements in and along the river and its tributaries and outlets insofar as affected by backwater of the Mississippi River.

Historically, the Mississippi River Levees feature has been under construction since 1928 and the engineering and construction capability exists to complete the project in the year 2020. When completed, approximately 35,000 square miles will be protected from the Mississippi River PDF. The Mississippi River mainline levees were first constructed by settlers at New Orleans in the early 1700s. Federal construction of the Mississippi River mainline levees began shortly after the passage of the Flood Control Act of 1928 and has continued ever since. The Mississippi River mainline levees protect the lower Mississippi River valley against the PDF by confining flow to the leveed channel, except where it enters backwater areas, allowing the overflow of several levees designed to overtop and fill tributary basins, or diverting flow into four project floodway areas. The mainline levee system, comprised of levees, floodwalls, and various control structures, is approximately 1,610 miles long.

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

### **2.1 Proposed Action**

The proposed action is located approximately 4 miles south southwest of downtown Baton Rouge adjacent to River Road. The project consists of construction of 14 relief wells placed approximately 130 feet apart near the toe of the existing levee. The location of the relief wells would be adjusted to avoid utilities and ramps. A permanent catch basin and pumping system would convey the water, discharged from the relief wells, back over the levee and into the river. The roadside ditch between the levee and the road would be designed and reconfigured to collect well outflow. Two catch basins and five permanent pumps would be installed to route the well outflow back over the levee and into the river via five 12-inch HDPE pipes (one pipe per pump) and flexible discharge hoses (Figures 2). Each pump has a pumping capacity of 1,150 gpm at the designated total dynamic head. Total discharge volume (i.e., seepage water pumped back over the levee and into the river) would vary based upon how much seepage is flowing into the catch basins. All excavated material removed from the site during construction would be hauled in watertight trucks with secured binders on tailgates to an approved commercial disposal facility. The proposed project would manage seepage flow to improve levee stability by designing seepage control measures between stations 160+00 and 181+00.

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

One alternative to the proposed action was considered. This alternative was: No-action. In the no-action alternative (a.k.a. future without project condition), the proposed action would not be constructed. Without the proposed improvements to the designated levee reaches there exists an increased risk of damage to the west bank Mississippi River mainline levees during high river periods typically ranging from early March to June as well as during hurricane season beginning in June and lasting until mid-November.

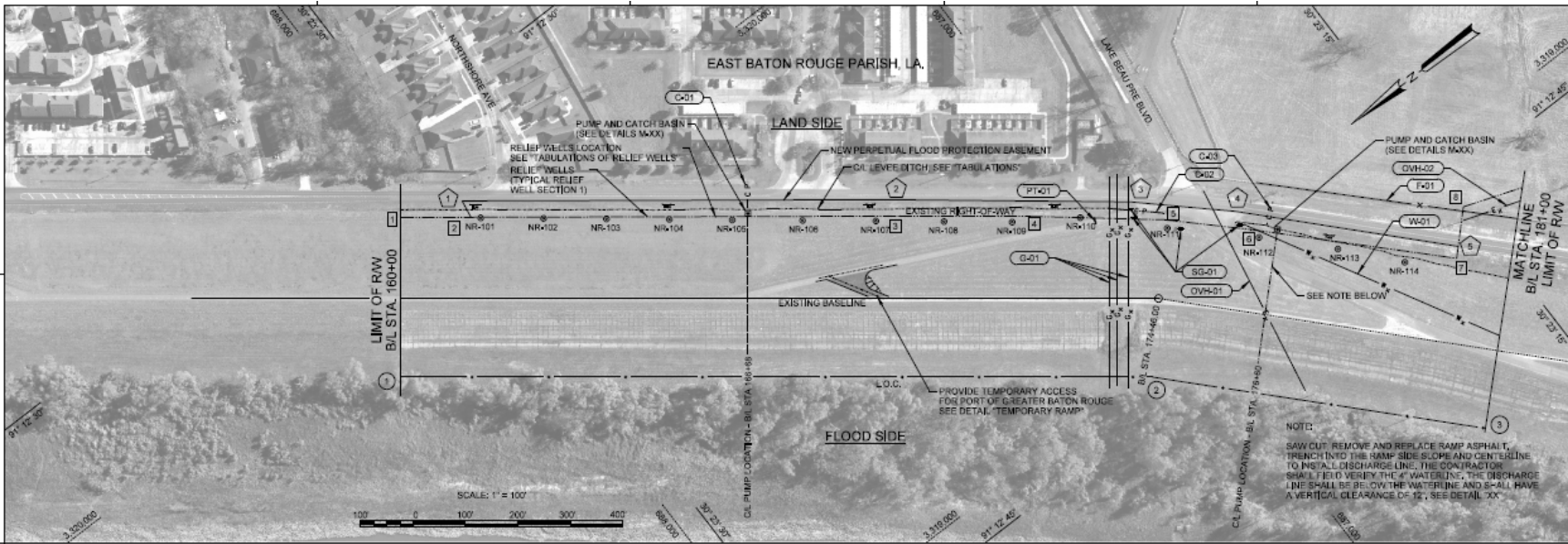


Figure 2: Project ROW Location.

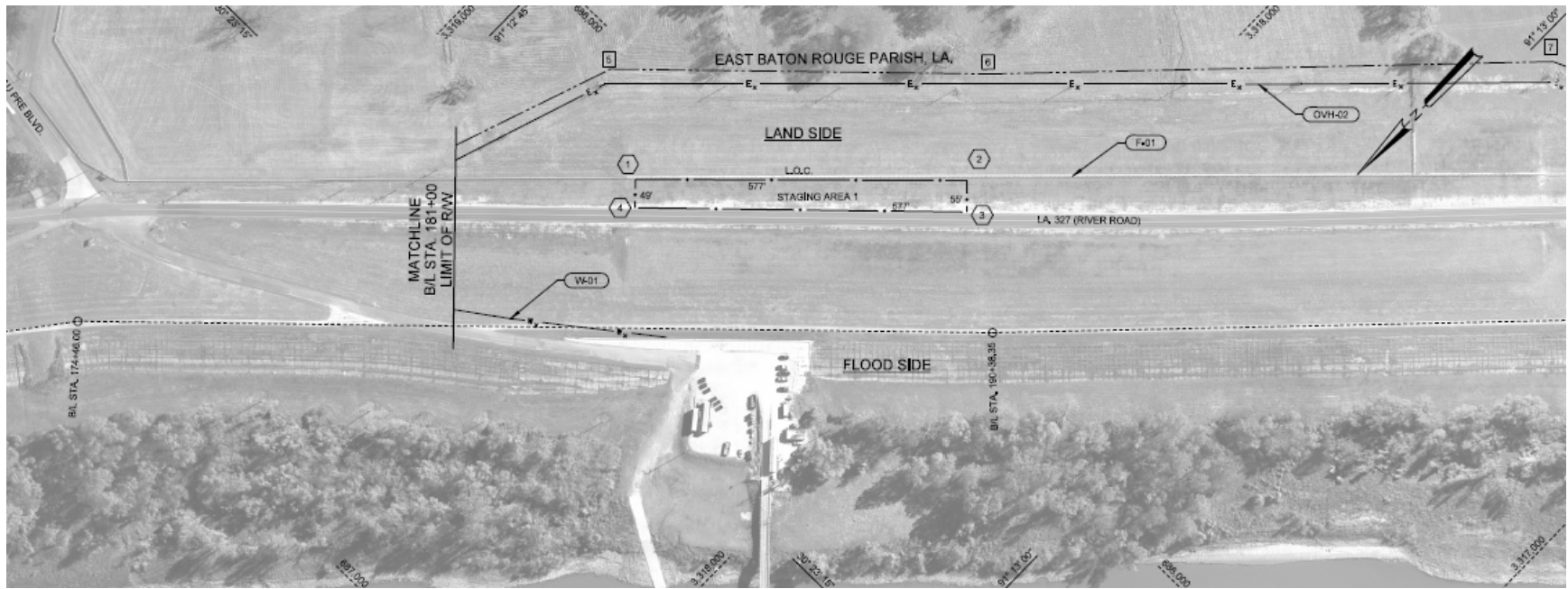


Figure 3: Project Staging Area Location.

### **3. Affected Environment**

#### **3.1 Description of the Project Area**

The project area is located within the Mississippi River deltaic plain, with the Mississippi River acting as the primary influence on geomorphic processes in the delta region. The Mississippi River levees are designed to protect the alluvial valley against the PDF by confining flow between the levees with the exception of areas where it enters the natural backwater areas and is diverted purposely into floodway areas. The Mississippi River Mainline Levee System consists of levees and floodwalls along the river, floodways and control structures. The levee line on the west bank begins just south of Cape Girardeau, Missouri, and extends to Venice, Louisiana. On the east bank of the river, levees alternate with high bluffs to give protection from floods.

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

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. It drains 41 percent of the 48 contiguous states of the United States. The basin covers more than 1,245,000 square miles, includes all or parts of 31 states and two Canadian provinces, and roughly resembles a funnel which has its spout at the Gulf of Mexico. Waters from as far east as New York and as far west as Montana contribute to flows in the lower river.

The lower alluvial valley of the Mississippi River is a relatively flat plain of about 35,000 square miles bordering on the river which would be overflowed during periods of high water if it were not for man-made protective works. This valley begins just below Cape Girardeau, Missouri, is roughly 600 miles in length, varies in width from 25 to 125 miles, and includes parts of seven states—Missouri, Illinois, Tennessee, Kentucky, Arkansas, Mississippi, and Louisiana.

The Mississippi River is the mainstem of the world's most highly developed waterway system, about 12,350 miles in length. The Mississippi River discharges the headwater flows from about 41 percent of the contiguous 48 states. Discharge at Baton Rouge ranges from a high of 1,500,000 cubic feet per second (cfs) occurring once every 16 years, on average, to an all-time low of 75,000 cfs recorded once during the period of 1930 to the present, with an average annual discharge of 450,000 cfs. Southwest Pass of the Mississippi River discharges roughly one-third of the river's total flow, with an average discharge of about 145,000 cfs. South Pass of the Mississippi River discharges roughly one-sixth of the river's total flow, with an average discharge of about 78,000 cfs. Pass a Loutre of the Mississippi River discharges almost one-third of the river's total flow or slightly less than the Southwest Pass flow. The average discharge through Pass a Loutre is just under 145,000 cfs. The combined discharge of Southwest Pass, South Pass, and Pass a Loutre is approximately 80 percent of the total river flow into the Gulf of Mexico. The remaining flow is distributed through minor passes upstream of Head of Passes.

Deep-draft navigation is a major component of waterborne traffic on the river. Currently, the river is maintained to a depth of -45 feet for deep-draft access from mile marker -22.0 in the bar channel reach up to river mile 232.4 at Baton Rouge, Louisiana. There is extensive urban and industrial development near the Baton Rouge and New Orleans metropolitan areas. The remaining areas adjacent to the river are developed primarily for agriculture; however, industrial and urban development in these areas does occur. The Mississippi River is a source for drinking water, recreation, and commerce.

### **3.1.2 Climate and Climate Change**

The climate in the project area is humid, 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. Tropical storms and hurricanes are likely to affect the area 3 out of every 10 years, with severe storm damage approximately once every 2 or 3 decades. The majority of these occur between early June and November. The largest recent hurricanes were Katrina and Rita in 2005 which caused damage in the project area. Hurricanes Gustav and Ike in 2008, and more recently, Isaac in 2012, caused additional damage in the project area. Summer thunderstorms are common, and tornadoes strike occasionally. Average annual temperature in the area is 67 degrees Fahrenheit (°F), with mean monthly temperatures ranging from 82°F in August to 52°F in January. Average annual precipitation is 57.0 inches, varying from a monthly average of 7.5 inches in July, to an average of 3.5 inches in October. (<http://www.srcc.lsu.edu/>).

### **3.1.3 Geology**

The project area lies on the flood and protected side of the modern Mississippi River levee. Fluvial activity in the project 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.

The 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 project area as typically peat, mucks, and 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).

## **3.2 Relevant Resources**

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

The following resources have been considered and found to not be affected by the proposed action: wetlands, soils and water bottoms; estuarine water bodies; estuarine or marine fisheries resources, including essential fish habitat; terrestrial resources, including prime and/or unique farmlands; and socioeconomic resources including land use, population, transportation, oil and gas, environmental health and safety, community cohesion, desirable community growth, tax

revenues, property values, public facilities and services, business activity and employment, and displacement of people. The objectives of Executive Order 11988 (Floodplain Management) were considered; however, CEMVN has determined that floodplain impacts, if any, from the proposed action would be mainly positive. Additionally, there is no practicable alternative for project construction outside the 100-year floodplain. No portion of the project area has been designated a Louisiana Natural and Scenic River; therefore, a Scenic Rivers permit is not warranted.

The following relevant resources are discussed in this EA: aquatic resources/fisheries, wildlife, threatened and endangered species, cultural resources, environmental justice, recreational resources, visual resources (aesthetics), air quality, and water quality.

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

Resource	Institutionally Important	Technically Important	Publicly Important
<b>Aquatic Resources/ Fisheries</b>	Fish and Wildlife Coordination Act of 1958, as amended; Clean Water Act of 1977, as amended; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968.	They are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of the various freshwater and marine habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
<b>Wildlife</b>	Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918	They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
<b>Threatened and Endangered Species</b>	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.	USACE, USFWS, NMFS, NRCS, EPA, LDWF, and LDNR cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.
<b>Cultural Resources</b>	National Historic Preservation Act of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979	State and Federal agencies document and protect sites. Their association or linkage to past events, to historically important persons, and to design and construction values; and for their ability to yield important information about prehistory and history.	Preservation groups and private individuals support protection and enhancement of historical resources.
<b>Environmental Justice</b>	National Environmental Policy Act of 1969; Estuary Protection Act of 1968; Clean Water Act of 1972; Rivers and Harbors Act of 1899; Watershed Protection and Storm damage Protection Act of 1954. Executive Order 12898 of 1994 – Environmental Justice.	Technically important because the social and economic welfare of the Nation may be positively or adversely impacted by the proposed action; the social and economic welfare of minority and low-income populations may be positively or disproportionately impacted by proposed actions.	Publicly important because of the public's concern for health, welfare, and economic and social well-being from water resources projects; also public concerns about the fair and equitable treatment of all people.
<b>Recreation Resources</b>	Federal Water Project Recreation Act of 1965 as amended and Land and Water Conservation Fund Act of 1965 as amended	Provide high economic value of the local, state, and national economies.	Public makes high demands on recreational areas. There is a high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana; and the large per-capita number of recreational boat registrations in Louisiana.
<b>Visual Resources (Aesthetics)</b>	USACE ER 1105-2-100, and National Environmental Policy Act of 1969, the Coastal Barrier Resources Act of 1990, Louisiana's National and Scenic Rivers Act of 1988, and the National and Local Scenic Byway Program.	Visual accessibility to unique combinations of geological, botanical, and cultural features that may be an asset to a study area. State and Federal agencies recognize the value of beaches and shore dunes.	Environmental organizations and the public support the preservation of natural pleasing vistas.
<b>Air Quality</b>	Clean Air Act of 1963, Louisiana Environmental Quality Act of 1983.	State and Federal agencies recognize the status of ambient air quality in relation to the NAAQS.	Virtually all citizens express a desire for clean air.

Resource	Institutionally Important	Technically Important	Publicly Important
Water Quality	Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Mgt Act of 1972, and Louisiana State & Local Coastal Resources Act of 1978.	USACE, USFWS, NMFS, NRCS, EPA, and State DNR and wildlife/fishery offices recognize value of fisheries and good water quality and the national and state standards established to assess water quality.	Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water.

### 3.2.1 Aquatic Resources/Fisheries

#### Existing Conditions

The proposed action is located near the levee adjacent to the Mississippi River. No aquatic resources are found within the project area. Aquatic habitat in the vicinity of the project area is provided by the Mississippi River, adjacent borrow areas, and associated wetlands. The largest aquatic resource in proximity to project area is that portion of the main stem of the Mississippi River. This vast area is inherently low in primary productivity on a per acre basis because of high turbidity and has relatively poor benthic productivity because of shifting substrates and high current velocities in the area. The deep main river channel is the habitat of large predaceous fishes, some plankton feeders, and a group of omnivorous species.

Previously excavated borrow pits on the flood side of the existing Mississippi River levees provide additional complexity of aquatic habitat for various species of wildlife, finfish, and shellfish. On the flood side, the higher plants around these water bodies are important primary producers because a significant amount of leaf litter, branches, and other organic matter may wash into these lakes and borrow pits during high water conditions becoming a source of detritus. During annual high river season, typically from March - May, riverine aquatic resources (fish, shellfish, etc.) move onto the flooded river bank to forage on detritus, insects, insect larvae, worms, and various other food items. Some species use this high water period to spawn in the flooding areas.

Large predaceous fishes, plankton feeders and a group of omnivorous species inhabit the deep main river channel. Minnow, catfishes, carp, carpsuckers, and sunfishes are some of the fishes that may be found in the vicinity of the project area. Clams, dipterans, and mayflies are some of the area's representative invertebrates.

Several man-made, roadside ditches are found within the project area. These ditches do not seasonally hold water and would therefore not be considered aquatic resources. These ditches do drain into larger man-made ditches traversing Louisiana Highway 327.

### 3.2.2 Wildlife

#### Existing Conditions

Developed habitats in the vicinity of the project area include residential and commercial areas, as well as roads and existing levees. Those habitats do not support significant wildlife use. Agricultural lands occur on the protected side of the levee; agriculture includes sugarcane farming, cattle production, and haying.

Woodlots in the batture land adjacent to the project area provide habitat for many wildlife species including raccoons, opossum, fox, mink, rabbits, and bats. Many species of neotropical migratory and resident birds use the nesting and rearing habitat provided by the batture land. In addition, many species of reptiles and amphibians can be found in this area. The landward toe of the levee provides limited wildlife habitat and no aquatic habitat. The levee is frequently mowed. Some resident animals likely traverse the levee while foraging at night.

Mammals that adapt in varying degrees to periodically wet riparian or early successional hardwood habitat are likely to inhabit or frequent land adjacent to the project area. Beaver, swamp rabbit, nutria, muskrat, gray squirrel, fox squirrel, and white-tailed deer are likely present in the project vicinity. 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 project 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 project area. Reptiles such as the snapping turtle, softshell turtle, and red-eared turtle are also expected to occur in the wetlands and waterbodies adjacent to the project area.

### **3.2.3 Threatened, Endangered or Candidate Species**

#### **Existing Conditions**

The U.S. Fish and Wildlife Service (USFWS) lists four threatened or endangered species that may occur in East Baton Rouge Parish: West Indian manatee (*Trichechus manatus*), pallid sturgeon (*Scaphirhynchus a/bus*), Gulf sturgeon (*Acipenser oxyrinchus desotoi*), and inflated heelsplitter (*Potamilus inflatus*) (USFWS 2018).

#### **West Indian Manatee**

The threatened West Indian manatee (*Trichechus manatus*) is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees may also infrequently be observed in the Mississippi River and coastal areas of southwestern Louisiana. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

#### **Pallid Sturgeon**

The pallid sturgeon (*Scaphirhynchus albus*) is an endangered, bottom-oriented, fish that inhabits large riverine systems from Montana to Louisiana. Within this range, pallid sturgeon tend to select main channel habitats in the Mississippi River and main channel areas with islands or sand bars in the upper Missouri River. In Louisiana it occurs in the Atchafalaya and Mississippi Rivers, and below Lock and Dam Number 3 on the Red River (with known concentrations in the vicinity of the Old River Control Structure Complex). The pallid sturgeon is adapted to large, freeflowing, turbid rivers with a diverse assemblage of physical characteristics that are in a constant state of change. Many life history details and subsequent habitat requirements of this fish are not known. However, the pallid sturgeon is believed to utilize Louisiana riverine habitat during reproductive stages of its life cycle. Habitat loss through river channelization and dams has adversely affected this species throughout its range.



## **Gulf Sturgeon**

The Gulf sturgeon is an anadromous fish inhabiting coastal rivers from Louisiana to Florida during the warmer months and overwintering in estuaries, bays, and the Gulf of Mexico (NOAA 2018). Historically, Gulf sturgeon occurred from the Mississippi River east to Tampa Bay. Its present range extends from Lake Pontchartrain and the Pearl River system in Louisiana and Mississippi east to the Suwannee River in Florida; however, sporadic occurrences have been recorded as far west as the Rio Grande between Texas and Mexico, and as far east and south as Florida Bay. The only documented catches of Gulf sturgeon in the Mississippi River have reportedly taken place near its mouth; however, these are considered incidental occurrences since no resident (i.e., reproducing) population for the Mississippi River is believed to exist. The proposed project area is not located within any designated critical habitat in Louisiana.

## **Inflated Heelsplitter**

The inflated heelsplitter has an oval, compressed to moderately inflated, thin shell. The valves may gape anteriorly. The umbos are low, and there is a prominent posterior wing that may extend anterior to the beak in young individuals. The shell is brown to black and may have green rays in young individuals. The umbonal cavity is very shallow and the nacre is pink to purple. Maximum shell length is about 140 millimeters (5 1/2 inches) in adults (Stern 1976). It is most similar to the pinkpapershell (*Potamilus ohioensis*), yet is easily distinguished by shell morphology (Hartfield 1988). The shell and teeth of the inflated heelsplitter are more delicate, and the shell is darker and has a pointed posterior, whereas the pink papershell has a rounded posterior. The inflated heelsplitter appears more inflated due to a more developed and rounded posterior ridge. The posterior wing of the inflated heelsplitter is more pronounced and abruptly rounded over the dorsum. The pink papershell may lack much of a wing, and when pronounced, it may be only slightly rounded and extend scarcely above the dorsum (Hartfield 1988). The historical range of this species included Alabama, Louisiana, and Mississippi.

### **3.2.4 Cultural Resources**

#### **Existing Conditions**

The proposed project area is protected by artificial levees and is typically backed by a thin belt of alluvium and by late Pleistocene deposits. The geologic history of the proposed project area has been strongly influenced by sea level fluctuations in the Gulf of Mexico and the shifting of the Mississippi River and its distributaries. Both prehistoric and historic populations left cultural remains of their activities in variable proximity to the proposed project area, but the meandering river and the natural flooding and artificial efforts to control that flooding have destroyed many of these remains.

This proposed project area received a Phase I Cultural Resources Survey in 1993 (Jones et al. 1993). The final report resulting from that survey is on record at the Louisiana Division of Archaeology (LDOA) and is visible on the LDOA web map (survey 22-1468). No historic properties are recorded within the proposed project area.

### 3.2.5 Environmental Justice

#### Existing Conditions

Environmental Justice (EJ) is institutionally significant because of Executive Order 12898 of 1994 (E.O. 12898) 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. Minority populations are those persons who identify themselves as Black, Hispanic, Asian American, American Indian/Alaskan Native, Pacific Islander, some other race or a combination of two or more races. A minority population exists where the percentage of minorities in an affected area either exceeds 50 percent or is meaningfully greater than in the general population. Low-income populations as of 2016 are those whose income is \$24,339 or less for a family of four using the Census Bureau’s statistical poverty threshold (<https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>). The Census Bureau defines a “poverty area” as a census tract or block numbering area with 20 percent or more of its residents below the poverty threshold level and an “extreme poverty area” as one with 40 percent or more below the poverty threshold level. This resource is technically significant because the social and economic welfare of minority and low-income populations may be positively or disproportionately impacted by the proposed actions. This resource is publicly significant because of public concerns about the fair and equitable treatment (fair treatment and meaningful involvement) of all people with respect to environmental and human health consequences of Federal laws, regulations, policies, and actions.

A residential area along Louisiana Highway 327 (River Road) is adjacent to the project. Since high, adverse impacts are not anticipated from the levee seepage repair, the focus of the EJ analysis was on those households that may see minimal and temporary impacts related to trucks transporting the materials to the site or are close enough to the construction zone that they may be impacted by noise. Census Block Group (BG) data is used to identify minority and low-income populations in the impact area. Two U.S. Census Block Groups, 4 and 5, comprise the area along the transportation route in the neighborhood nearest the site, both in Census Tract 4014. In 2016, as reported by the U.S. Census Bureau, 17.2 percent of residents of the two Census Block Groups are minority (non-white) while 1.8 percent are Hispanic (Table 2; Manson et al. 2018).

**Table 2. Minority and Hispanic Population**

Census Tract	Block Group	Total				% Minority	Hispanic	% Hispanic
		Population	White	Black	Other			
4014	4	2,203	1,798	405	0	18.4%	33	1.5%
4014	5	1,930	1,623	264	43	15.9%	42	2.2%
Total		4,133	3,421	669	43	17.2%	75	1.8%

Overall, 37.2 percent of the area population is below the poverty level of the two Census Block Groups. Approximately 72 percent of residents in Block Group 5 are below the poverty level, while only 6.4 percent of Block Group 4 are low-income residents. Block Group 5 falls into the Environmental Justice consideration because the community is based upon the 20 percent or more of population below poverty level threshold (Table 3; Manson et al. 2018).

**Table 3. Low-income Population**

Census Tract	Block Group	Total Population	Population Below Poverty	% Population Below Poverty
4014	4	2,203	141	6.4%
4014	5	1,930	1,398	72.4%
Total		4,133	1,539	37.2%

### **3.2.6 Recreational Resources**

#### **Existing Conditions**

Recreational use of the project area is moderate and includes active recreation on the levee, such as biking, walking or running, and horseback riding. The paved slope of the levee may be used for bank fishing and the levee is accessible by small flat boats from the Mississippi River. The Parish of East Baton Rouge’s (BREC) Farr Park Equestrian Center and Recreational Vehicle Campground is located adjacent to the project area. The 297-acre Center features indoor and outdoor arenas, 256 horse stalls, a cross-country event course, horse trails, RV campground with 108 sites, and picnic shelters. BREC, with the assistance of a Department of Transportation and Development Transportation Enhancement Grant completed a Bicycle Trailhead in Farr Park near the main entry to the park at River Road. The trailhead includes restroom facilities, bike racks, air compressor, and water fountains.

The Bicycle Trailhead in Farr Park serves a 4.31 mile stretch of multi-use greenway path extending from Farr Park to Laurel Street in Downtown Baton Rouge which eventually links to the one mile riverfront promenade located downtown. The path atop the levee is 15 feet wide and includes separate lanes for bicycles and walkers/joggers as well as seating and water fountains. Additional trailheads for this multi-use greenway are located at Skip Bertman Drive, South Boulevard, Riverfront Plaza, and Florida Street.

BREC’s Capital Area Pathways Project is an initiative to identify routes and build a network of connecting trails and greenways throughout East Baton Rouge Parish. The BREC Commission approved the Proposed Parish Trails Master Plan on October 22, 2015 which identifies trail corridors that provide access to BREC parks and other points of interest in the community. As part of the Proposed East Baton Rouge Parish Loop, the Metropolitan Council at its December 12, 2017 meeting approved a contract for construction of a 6.8 mile segment of path that will run between BREC’s Farr Park and Ben Hur Road, which is south of the project.

The multi-use greenway path through the project area is also a component of the planning efforts towards the East Baton Rouge Pedestrian and Bicycle Master Plan which is expected to be completed and delivered by May 2019.

### **3.2.7 Visual Resources (Aesthetics)**

#### **Existing Conditions**

Existing Structures: The proposed site currently features the existing east bank Mississippi River Levee (MRL -East Bank) as a primary structure in the area. The levee is a typical earthen berm, covered in turf on both the protected and river sides. The river side also features a concrete apron armoring poured in place to prevent scouring and erosion during high water periods.

Other structures include a dock and pier located on the flood side of the MRL. There is gravel parking area, used by tractor trailers on a more or less permanent basis, just off of and attached to the MRL. A gravel access road traverses up the slope of the MRL to this docking facility, and also provides access for the inspection road that crowns the top of the levee.

**Water:** The Louisiana Scenic Rivers Act of 1988 was established to preserve, protect, and enhance the wilderness qualities, scenic beauties, and ecological regimes of rivers and streams in the state. The closest designated scenic river is Comite River. The segment of Comite River beginning at its intersection with Louisiana State Highway 10 and ending at its intersection with White Bayou is scenic and lies well to the north of the proposed project area. There are no other known, state designated scenic rivers or streams remotely near the project area. Other major water resources include the main river channel of the Mississippi River.

**Land Use:** The dominant Eco-Region (Daigle et al. 2006): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000) is Southern Holocene Meander Belts, which essentially follows the Mississippi River. Other, nearby Eco-Regions include Inland Swamps, Baton Rouge Terrace, and Southern Back Swamps. All of these Eco-Regions are a part of the Mississippi Alluvial Plain.

The vicinity of the project area is characteristic of Southern Helocene Meander Belts, with a variety of vegetation present, flat terrain lifting into a natural levee system near the banks of the Mississippi River, and open fields for agriculture.

Land use in the area is primarily agricultural, although there are significant pockets of both multi-family and single-family residential located to the east of the project site. These agricultural land uses may or may not be associated with Louisiana State University (which would be considered a Public/ Quasi-Public land use). The project is located approximately two and a half miles from the center of LSU's campus.

Directly to the northeast, and across Louisiana Highway 327, rests the 4 acre small planned unit development of Arlington Plantation consisting of lots with land use classifications of medium density residential.

Directly to the east, and across Louisiana Highway 327, rests the 16 acre planned unit development of Lake Beau Pre' Townhomes consisting of lots with land use classifications of low density residential.

Directly to the southeast, and across Louisiana Highway 327, rests the BREC Farr Park Equestrian Center and Recreational Vehicle Campground at 297 acres with a land use classification of park.

The equestrian center and campground feature the most dramatic landscape with green, open pastures covered in rolling hills and native grasses. Patches of oaks and other hardwoods dot the area blending and growing denser as you look east into the backdrop of dense forest. The landscape here is pastoral and serene, tremendously adding to the visual quality of the area.

**Landform and Vegetation:** The surrounding habitat is composed of a broad mixture of open fields fronting the major thoroughfares of the region, surrounded by a backdrop of deep, wooded areas and the Mississippi River Levee, which acts as the dominant landform feature in the area.

Overall, the habitat around the project area exhibits moderate plant species diversity and moderately high animal diversity. There are no known specifically identified, protected trees or

other plant materials in the immediate area. It is important to note that there is no federal law that formally protects vegetation, unless it is endangered or located on federally owned or protected lands. Some states and local governments may have laws and/or ordinances that protect trees and other vegetation. East Baton Rouge Parish has a tree protection ordinance in place that covers the entire parish. A permit would be required from the Director of Landscape and Urban Forestry and/ or the local Planning Commission, in order to take any specifically protected trees or vegetation down, which in this case, includes trees within the public ROW. This permitting process would need to be completed well before any work takes place at the site. Under the permits and responsibilities clause of the construction contract, the contractor is responsible for complying with all local and parish legal requirements, including the acquisition of permits, licenses, etc.

Access: Public visual access to the project site can be taken from Louisiana Highway 327. The drive along this thoroughfare is scenic and visually interesting. The project site is also accessible via 15 foot wide multi-use greenway path on top of the levee. This non-motorized path is used by bicyclists, walkers, and joggers.

Other Factors that Affect Visual Resources: user activity is moderate in this region, and is primarily relegated to farm and truck traffic, though includes a small percentage of residential commuters. Average Daily Traffic Counts provided by the Louisiana Department of Transportation and Development show an average daily traffic count in this region of approximately 4,678 cars per day along the Louisiana Highway 327 corridor in 2017 (LADOTD 2018) .

### **3.2.8 Air Quality**

#### **Existing Conditions**

The U.S. Environmental Protection Agency (USEPA), under the requirements of the Clean Air Act, has established National Ambient Air Quality Standards (NAAQS) for six contaminants, referred to as “criteria” pollutants (40 CFR 50). These are 1) carbon monoxide (CO), 2) nitrogen dioxide (NO<sub>2</sub>), 3) ozone (O<sub>3</sub>), 4a) particulate matter less than 10 microns in diameter (PM10), 4b) particulate matter less than 2.5 microns in diameter (PM2.5), 5) lead (Pb), and 6) sulfur dioxide (SO<sub>2</sub>). The NAAQS standards include primary and secondary standards. The primary standards were established at levels sufficient to protect public health with an adequate margin of safety. The secondary standards were established to protect the public welfare from the adverse effects associated with pollutants in the ambient air. The primary and secondary standards are presented in Table 4.

Effective June 15, 2004, East Baton Rouge Parish was designated by the USEPA as an ozone non-attainment parish under the 8-hour ozone standard. This classification is the result of area-wide air quality modeling studies, and the information is readily available from Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Assessment and Environmental Services.

As part of the Baton Rouge ozone non-attainment area, federal activities proposed in East Baton Rouge Parish may be subject to the State’s general conformity regulations as promulgated under LAC 33:III.14.A, Determining Conformity of General Federal Actions to State or Federal Implementation Plans. A general conformity applicability determination is made by estimating the total of direct and indirect volatile organic compound (VOC) and nitrogen oxide (NO<sub>x</sub>) emissions caused by the construction of the project. Prescribed de minimis levels of 100 tons per year per pollutant are applicable in East Baton Rouge Parish. However, no air permit is required for this

project due to the fact that all air emissions would result from mobile sources, i.e., construction equipment.

**Table 4: Primary and Secondary NAAQS for the Six Contaminants Established by EPA**

National Ambient Air Quality Standards [3][4]				
	Primary Standard		Secondary Standard	
Criteria Pollutant	Concentration Limit	Averaging Time	Concentration Limit	Averaging Time
Carbon monoxide	9 ppmv ( 10 mg/m <sup>3</sup> )	8-hour <sup>(1)</sup>	None	
	35 ppmv ( 40 mg/m <sup>3</sup> )	1-hour <sup>(1)</sup>		
Sulfur dioxide	0.03 ppmv ( 80 µg/m <sup>3</sup> )	Annual (arithmetic mean)	0.5 ppmv ( 1300 µg/m <sup>3</sup> )	3-hour <sup>(1)</sup>
	0.14 ppmv ( 365 µg/m <sup>3</sup> )	24-hour <sup>(1)</sup>		
Nitrogen dioxide	0.053 ppmv ( 100 µg/m <sup>3</sup> )	Annual (arithmetic mean)	Same as primary	
Ozone	0.075 ppmv ( 150 µg/m <sup>3</sup> )	8-hour <sup>(2)</sup>	Same as primary	
	0.12 ppmv ( 235 µg/m <sup>3</sup> )	1-hour <sup>(3)</sup>	Same as primary	
Lead	0.15 µg/m <sup>3</sup>	Rolling 3-month average	Same as primary	
	1.5 µg/m <sup>3</sup>	Quarterly average	Same as primary	
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup>	24-hour <sup>(4)</sup>	Same as primary	
Particulate Matter (PM <sub>2.5</sub> )	15 µg/m <sup>3</sup>	Annual <sup>(5)</sup> (arithmetic mean)	Same as primary	
	35 µg/m <sup>3</sup>	24-hour <sup>(6)</sup>	Same as primary	

(1) Not to be exceeded more than once per year.  
(2) The 3-year average of the fourth-highest daily maximum 8-hour average at each monitor within the area over each year must not exceed 0.075 ppmv.  
(3a) The expected number of days per calendar year with maximum hourly averages above 0.12 ppm must be equal to or less than 1.  
(3b) As of June 15, 2007, the U.S. EPA revoked the 1-hour ozone standard in all areas except for certain parts of 10 states.  
(4) Not to be exceeded more than once per year on average over 3 years.  
(5) The 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15 µg/m<sup>3</sup>.  
(6) The 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within the area must not exceed 35.5 µg/m<sup>3</sup>.

### **3.2.9 Water Quality**

#### **Existing Conditions**

As part of its surface water quality monitoring program, the LDEQ routinely monitors 25 parameters on a monthly or bimonthly basis using a fixed station, long-term network (Monitored Assessments) (LDEQ 1996). Based upon those data and the use of less-continuous information (Evaluated Assessments), such as fish tissue contaminants data, complaint investigations, and spill reports, the LDEQ has assessed water quality fitness for the following uses: primary contact recreation (swimming), secondary contact recreation (boating, fishing), fish and wildlife propagation, drinking water supply and shellfish propagation (LDEQ 1996). Based upon existing data and more subjective information, water quality is determined to either fully, partially, or, not support those uses. A designation of “threatened” is used for waters that fully support their designated uses but that may not fully support certain uses in the future because of anticipated sources or adverse trends in pollution.

According to the LDEQ Final 2018 Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)), the Bayou Manchac-From headwaters to Amite River (subsegment LA040201) “fully supports” designated uses for primary contact recreation and secondary contact recreation; and does not support designated use for fish and wildlife propagation (LDEQ 2018).

According to the LDEQ Final 2018 Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)), the Mississippi River-From Monte Sano Bayou to Head of Passes (subsegment LA070301) “fully supports” designated uses for primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply (LDEQ 2018).

## **4. Environmental Consequences**

### **4.1 Aquatic Resources/Fisheries**

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

Without implementation of the proposed action, no change to the aquatic resources in the project vicinity is expected to occur.

#### **Future Conditions with the Proposed Action**

With implementation of the proposed action, no significant effects to aquatic or fishery resources are anticipated because no important fishery resources are present within the project area. Even during high water events, when river water would be returned from the protected side of the levee to the unprotected side of the levee through the relief well and pump system, there would likely be no impacts to any of the species discussed in Section 3.2.1.

### **4.2 Wildlife**

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

Without implementation of the proposed action, no change to the wildlife resources in the project vicinity is expected to occur.

#### Future Conditions with the Proposed Action

With implementation of the proposed action, no effects to wildlife would occur as the project is located in a previously developed ROW and would be designed and constructed to avoid impacts to wildlife. Any wildlife that may be present in the maintained levee ROW is highly mobile and would simply utilize an adjacent stretch of levee during construction activities. Disturbance and noise from the construction equipment would temporarily disperse wildlife species from the project area. However, once the project is completed, wildlife species would be expected to return to the project area. The temporary disturbance would not adversely impact the general populations of wildlife species within the region, as extensive forested areas and suitable habitat is readily available within the vicinity of the project area, specifically riverside of the levee. The installation of the relief wells and associated pumps would have no long term effect to the utilization of the levee by the limited wildlife present within the existing ROW.

### **4.3 Threatened or Endangered Species**

#### Future Conditions with No-Action

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

#### Future Conditions with the Proposed Action

The CEMVN has determined that the proposed action would have “no effect” on listed threatened or endangered species or their critical habitat as the project area does not contain suitable habitat for any listed species. Even during high water events, when river water would be returned from the protected side of the levee to the unprotected side of the levee through the relief well and pump system, the impacts to any of the species defined in Section 3.2.3 would have “no effect”. The USFWS concurred with our determination on December 13, 2018 (Appendix A).

### **4.4 Cultural Resources**

#### Future Conditions with No Action

With no action, conditions would remain largely the same as present. No historic properties are within the project area, and there would be no direct effect on historic properties.

#### Future Conditions with the Proposed Action

There are no historic properties within the proposed project area, as determined by the Phase I Cultural Resources Survey (Jones et al. 1993) and the final report of the survey on record at LDOA (survey 22-1468). Because there is no potential for the project to cause effects on historic properties, there is no need for further consultation for Section 106 Compliance on this proposed project. Furthermore, the proposed action is intended to keep nearby activities at modern status quo, and so it would not adversely affect any neighboring historic properties.



## **4.5 Environmental Justice**

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

Under the No Action Alternative, the levee seepage project would not be constructed. The risk of flooding would remain the same as it is today for the area around the proposed site. Therefore, without implementation of the proposed action, the status quo would remain in regards to flood risks. If the levee is not repaired, seepage may flood the equestrian park/RV campground and the nearby neighborhoods.

### **Future Conditions with the Proposed Action**

It is unlikely that there will be any adverse or high impacts associated with the levee seepage project. Noise and transportation impacts are expected to be minimal and temporary until the completion of construction activities. Several truck trips would transport the materials needed for repair of the levee seepage. Trucks and equipment would use Louisiana Highway 327 (River Road), which is used by residents accessing two communities in the immediate vicinity of the project, one of which is identified as an EJ community based upon a high number of residents at or below the poverty threshold. Impacts, including alternating lane closures, may cause delays while noise associated with construction activities may occur during day time hours. The levee crown would not be accessible to the public for the duration of construction. There would be no disproportionate direct, indirect, or cumulative impacts on minority communities within the project area per 2016 U.S. Census information and the requirements of E.O. 12898.

## **4.6 Recreational Resources**

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

Without implementation of the proposed action, the conditions within the recreational environment would continue as they have in the past and would be dictated by the natural land use patterns and processes that have dominated the area in the past. If the levee is not repaired, seepage may flood the equestrian park/RV campground.

### **Future Conditions with the Proposed Action**

Temporary impacts including noise and dust from construction may affect the equestrian and camping activities of the BREC Farr Park Equestrian Center and RV Campground that are located adjacent to River Road. Traffic along Louisiana Highway 327, including cycling traffic, may be interrupted occasionally. Recreation users on the crown of the levee such as bikers, walkers, horseback riders, bird watchers, and photographers would be temporarily displaced during construction activities. Additionally, recreational use of the levee could be prohibited for up to a year while construction activities take place. Positive, long-term impacts to recreational resources include a reduced risk for seepage and associated flooding to the nearby BREC Farr Park and Equestrian Center and RV Campground.

## **4.7 Visual Resources (Aesthetics)**

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

Without implementation of the proposed action, seepage would continue to occur under the existing levee system. Increased water volumes may prove detrimental to a landscape and

vegetation naturally designed for drier conditions. However, the volume of water would have to increase dramatically for it to reach these drier areas and affect the landscape.

If seepage were allowed to continue along the Mississippi River Levee system and other similar systems across Louisiana and the nation, then there could likely be a dramatic change to the landscape as a whole.

#### Future Conditions with the Proposed Action

With the implementation of the proposed action there would be minimal direct and indirect impacts to visual resources in the project area. The proposed relief well construction and subsequent pumping of seepage waters over the existing levee could create a slight change to the landscape of the area.

Temporary impacts that would occur during the construction process would include a complete multi-use path closure on top of the levee during the construction process which may prohibit access for up to a year. Temporary closures to the northbound lane of Louisiana Highway 327 may also occur during that time. However, it is expected the area would return to pre-construction conditions soon after completion of the project.

Long term negative impacts to the aesthetic (visual) resources would be minimal. The 14 relief wells would appear identical to each other in size and shape, be spaced out at equal intervals, and would tend to create a linear rhythm along the toe of the levee. The grass covered levees would tend to continue to blend in with their surroundings and are much more desirable than cast concrete flood walls that tend to create visually inferior focal points in rural and pastoral landscapes.

### **4.8 Air Quality**

#### Future Conditions with No-Action

Without implementation of the proposed project, the status of attainment of air quality for East Baton Rouge Parish would not change from current conditions.

#### Future Conditions with the Proposed Action

With implementation of the proposed project, on-site construction activities would be expected to produce less than 0.2 tons per year of VOC and less than 4.0 tons per year of NO<sub>x</sub> emissions (less than the de minimis level of 100 tons per year per pollutant). Thus, the ambient air quality in East Baton Rouge Parish would not change from current conditions, and the status of attainment for the parish would not be altered. The LDEQ concurred with CEMVN's general conformity determination on **December XX, 2018** (Appendix B).

### **4.9 Water Quality**

#### Future Conditions with No-Action

Without implementation of the proposed action, no change to water quality is anticipated.

### Future Conditions with the Proposed Action

With implementation of the proposed action, impacts to water quality are expected to be minimal and limited. A stormwater pollution prevention plan would be developed to minimize any potential effects to water quality during construction. No impacts to wetlands or other waters of the U.S. would occur from implementation of the proposed action. Therefore a Clean Water Act (CWA), Section 401 water quality certification is not required.

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

The USACE is obligated under Engineer Regulation (ER) 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste (HTRW) contamination within the vicinity of proposed actions. ER 1165-2-132 identifies that HTRW policy is to avoid the use of project funds for HTRW removal and remediation activities. An ASTM E 1527-05 Phase 1 Environmental Site Assessment (ESA), HTRW 18-04 dated December 18, 2018, has been completed for the project area. A copy of the Phase 1 ESA will be maintained on file at CEMVN. The probability of encountering HTRW for the proposed actions is minimal based on the initial site assessments. If a recognized environmental condition is identified in relation to the project site, CEMVN would take the necessary measures, in accordance with ER 1165-2-132, to avoid the recognized environmental condition so that the probability of encountering or disturbing HTRW would continue to be low.

### **4.11 Cumulative Impacts Analysis**

The Council on Environmental Quality (CEQ) Regulations define cumulative impacts (CI) as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. CI can result from individually minor but collectively significant actions taking place over a period of time.”

The analysis set forth in this report indicates that there will be minimal, temporary and insignificant impacts to wildlife, nearby residents, and BREC Farr Park Equestrian Center and RV Campground due to noise during construction. The proposed project would have only temporary, short term impacts on air quality from heavy equipment operations during construction. Beneficial impacts would be continued flood risk reduction and levee stability. An assessment of the potential environmental impacts to important resources found that the proposed project would have only minor, temporary, and insignificant impacts to important resources in the project area. Therefore, the proposed action is not expected to result in any adverse cumulative impacts.

## **5. Coordination and Public Involvement**

A Public Notice for *EA #566* was published for public comment on CEMVN's “NEPA Compliance Documents” webpage for 30 days beginning [REDACTED].

Preparation of this EA and FONSI was coordinated with appropriate Congressional, Federal, Tribal, state, and local interests, as well as environmental groups and other interested parties. The following agencies, as well as other interested parties, received copies of the draft EA and draft FONSI:

U.S. Department of the Interior, Fish and Wildlife Service  
U.S. Environmental Protection Agency, Region VI

U.S. Department of Commerce, National Marine Fisheries Service  
U.S. Natural Resources Conservation Service, State Conservationist  
U.S. Coast Guard Sector New Orleans  
U.S. Coast Guard Marine Safety Unit Baton Rouge  
Maritime Navigation Safety Association  
The Associated Branch (Bar) Pilots  
Crescent River Port Pilots Association  
New Orleans Baton Rouge Steamship Pilot Association  
Associated Federal Pilots  
Big River Coalition  
Lower Mississippi River Committee (LOMRC)  
Coastal Protection and Restoration Authority Board of Louisiana  
Advisory Council on Historic Preservation  
Governor's Executive Assistant for Coastal Activities  
Louisiana Department of Wildlife and Fisheries  
Louisiana Department of Natural Resources, Coastal Management Division  
Louisiana Department of Natural Resources, Coastal Restoration Division  
Louisiana Department of Environmental Quality  
Louisiana State Historic Preservation Officer  
Plaquemines Parish Government  
Alabama-Coushatta Tribe of Texas  
Caddo Nation of Oklahoma  
Chitimacha Tribe of Louisiana  
Choctaw Nation of Oklahoma  
Coushatta Tribe of Louisiana  
Mississippi Band of Choctaw Indians  
Jena Band of Choctaw Indians  
Seminole Tribe of Florida  
Seminole Nation of Oklahoma  
Tunica-Biloxi Tribe of Louisiana

## **6. Compliance with Environmental Laws and Regulations**

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

- USFWS confirmation that the proposed action would have "no affect" on any endangered or threatened species (Appendix A);
- Receipt and acceptance or resolution of all LDEQ comments on the air quality impact analysis documented in the EA ([Appendix B](#)).

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

## **7. Conclusion**

The proposed action consists of the construction of 14 relief wells placed approximately 130 feet apart near the toe of the existing levee to control seepage landward of the mainline Mississippi River levee. Long-term benefits of the proposed action include critical flood risk reduction for the citizens of East Baton Rouge Parish. This office has assessed the environmental impacts of the

proposed action, and has determined that the proposed action would have no impact upon cultural resources and endangered or threatened species, and no significant adverse impact on aquatic resources/fisheries, wildlife, EJ, recreation resources, aesthetics resources, hydrology/water quality, or air quality. Thus, no compensatory mitigation would be required for the proposed action.

## 8. Prepared By

EA #566 and the associated FONSI were prepared by biologist Landon Parr, with relevant sections prepared by: Joseph Musso - HTRW; Dr. Paul Hughbanks - Cultural Resources; Andrew Perez and Jack Milazzo – Environmental Justice, Recreational Resources, and Visual Resources (Aesthetics). The address of the preparers is: U.S. Army Corps of Engineers, New Orleans District; Regional Planning and Environment Division South, CEMVN-PDC-CC; 7400 Leake Ave.; New Orleans, Louisiana 70118.

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## APPENDIX A

## APPENDIX B