



**FEMA**

**U.S. Department of Homeland Security**  
Federal Emergency Management Agency  
Region VI  
Louisiana Integration and Recovery Office  
1500 Main Street  
Baton Rouge, Louisiana 70802

**FINDING OF NO SIGNIFICANT IMPACT  
FOR THE WEST BATON ROUGE PARISH GOVERNMENT  
BAYOU STUMPY WATERSHED RESTORATION THROUGH  
CHANNEL BOTTOM WIDENING IMPROVEMENTS FROM THE  
NORTHERN PARISH BOUNDARY TO LA HIGHWAY 76  
LOCATED IN WEST BATON ROUGE PARISH, LOUISIANA  
HAZARD MITIGATION GRANT PROGRAM  
*HMGP 4277-0022/DR-4277-LA***

**BACKGROUND**

The West Baton Rouge Parish Government, the Subrecipient, through the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) (Recipient), has requested federal funding through the Federal Emergency Management Agency’s (FEMA) Hazard Mitigation Grant Program (HMGP) to reduce flood risk and restore drainage within the Bayou Stumpy watershed during and after major storm events.

Bayou Stumpy and its tributaries are generally insufficient in size and confine the flows generated by moderate and major storms, resulting in overflow. In the past, Bayou Stumpy has experienced numerous overflows of its natural banks that has caused flooding in the surrounding residential, commercial, and agricultural lands. In order to reduce flooding in the Bayou Stumpy watershed, the Subrecipient proposes to widen and deepen sections of the bayou to address hydraulic deficiencies. Currently, there is reduced channel capacity in Bayou Stumpy due to siltation, obstructions, and insufficient size of the drainage systems. The proposed project is essential to the mitigation of the ongoing flooding of residences and property served by the drainage system.

The specific need of this project is to effectively alleviate flooding experienced during and after major storm events due to the reduction in channel depth in the bayou. The alternatives considered include: 1) No Action Alternative, and 2) the Preferred Action Alternative, Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm.

The Preferred Action Alternative would implement drainage improvements to the existing drainage system to reduce water surface height during storm events. Components of this project involve clearing existing obstructions, removing sediment deposits, and grading of the channel bottom to enhance the rate of flow.

The proposed project would allow the conveyance channel to flow in steady state conditions, while also adding more capacity to the channel and increasing freeboard. A complete description of these alternatives is included in the SEA, which is incorporated by reference in this document.

The United States Army Corps of Engineers (USACE), as the lead federal agency, conducted the original National Environmental Policy Act (NEPA) analysis and completed an Environmental Assessment (EA), 404(b)(1) Guidelines Evaluation, as applicable, and Public Interest Review for the Bayou Stumpy Watershed Restoration through Channel Bottom Widening Improvements Project from the Northern Parish Boundary to LA Highway (Hwy.) 76 in Port Allen, LA (Bayou Stumpy Watershed Drainage Improvements Project). On August 16, 2022, the USACE issued a Finding of No Significant Impact (FONSI), Environmental Assessment (EA), and Statement of Findings for the MVN 2021-00271-CQ Standard Individual Permit Application. FEMA plans to adopt the USACE's EA and has also provided supplemental information. A Supplemental Environmental Assessment (SEA) was prepared in accordance with FEMA Instruction 108-1-1 and the Department of Homeland Security (DHS) Instruction 023-01-001-01, Rev. 1, pursuant to Section 102 of the National Environmental Policy Act of 1969 (NEPA), as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR], Parts 1500-1508). This SEA supplements the existing USACE EA and FONSI dated August 16, 2022. Together, these documents evaluate the hazard mitigation proposal funding action and related potential impacts that would result from implementing the project. The purpose of the SEA was to analyze the potential environmental impacts associated with the proposed work and alternatives, and to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

## **FINDINGS**

FEMA has evaluated the proposed project for significant adverse impacts to physical resources (air quality), water resources (protection of wetlands, hydrology and floodplains, and groundwater), and historic and cultural resources. The results of these evaluations as well as consultations and input from other federal and state agencies are presented in the SEA.

## **CONDITIONS AND MITIGATION MEASURES**

The following conditions must be met as part of the implementation of the project. Failure to comply with these conditions may jeopardize federal funds.

- The Subrecipient is required to obtain and comply with all local, state, and federal permits, approvals, and requirements prior to initiating work on this project.
- If fill is stored on site, the contractor would be required to appropriately cover it.
- Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to avoid generating airborne dust (i.e., particulate air emissions).
- To reduce potential short-term effects to air quality from construction-related activities, the contractor would be responsible for using best management practices (BMP) to reduce fugitive dust generation and diesel emissions. Emissions from the burning of fuel by

internal combustion engines would temporarily increase the levels of some of the criteria pollutants, including carbon dioxide (CO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and non-criteria pollutants such as Volatile Organic Compounds (VOCs). To reduce these emissions, running times for fuel-burning equipment should be kept to a minimum and engines should be properly maintained.

- If any change to the scope of work (SOW) is located in wetlands or other areas subject to the jurisdiction of the U. S. Army Corps of Engineers (USACE), the Subrecipient should contact the USACE directly regarding permitting issues. If a USACE permit is required, part of the application process may involve a water quality certification (WQC) from the Louisiana Department of Environmental Quality (LDEQ).
- Proper signage is required to clearly identify the adjacent wetland boundaries to avoid potentially adverse impacts from construction vehicles/equipment/supplies that accidentally leave the boundaries of the approved rights-of-way (ROW).
- Any adverse impacts to adjacent wetlands resulting from the construction of this project would jeopardize receipt of federal funding. This includes equipment storage and staging of construction to ensure that wetlands are not adversely impacted per the Clean Water Act (CWA) and Executive Order (E.O.) 11990.
- All fill would consist of clean uncontaminated fill material and shall be stored and stockpiled within upland locations.
- Any changes or modifications to the proposed project would require a revised wetland jurisdictional determination.
- The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved U. S. Environmental Protection Agency (USEPA) construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions.
- The Subrecipient must comply with all State, Special, General, and Regional Conditions listed in the required Standard Permit (MVN-2021-00271-CQ) issued on August 19, 2022, expiring on September 30, 2027.

- The Subrecipient is required to coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized.
- Per 44 CFR 9.11(d), mitigation or minimization standards must be applied, where possible.
- Per 44 CFR 9.11(d)(4), there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation (WSE) of the base flood more than one (1) foot (ft.) at any point within the community.
- Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the National Flood Insurance Program (NFIP).
- Should the site plans (including drainage design) change, the Subrecipient must submit changes to the Federal Emergency Management Agency (FEMA) Environmental and Historic Preservation (EHP) for review and approval prior to the start of construction.
- New construction must be compliant with current codes and standards.
- If the project results in a discharge to waters of the State, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas greater than or equal to one (1) acre. The Subrecipient must contact the LDEQ Water Permits Division at 225-219-9371 to determine if the proposed project requires a permit.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting additional wastewater.
- If the project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application of Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information: (<http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx>) or by contacting the LDEQ Water Permits Division at 225-219-9371.
- Water softeners generate wastewaters that may require special limitations depending on local water quality considerations. If water system improvements include water softeners,



contact LDEQ Water Permits to determine if special water quality-based limitations will be necessary.

- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at 225-219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.
- All precautions should be observed to protect the groundwater of the region. BMPs should be implemented to ensure groundwater is protected.
- Extreme care must be taken during the construction process through the appropriate use and maintenance of BMPs.
- If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (Revised Statute [RS] 8:671, et seq.) is required. The Subrecipient shall notify the law enforcement agency of the jurisdiction where the remains are located within 24 hours of the discovery. The Subrecipient shall also notify FEMA and the Louisiana Division of Archaeology (LDOA) at 225-342-8170 within 72 hours of the discovery (Louisiana Unmarked Human Burial Sites Preservation Act).
- If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Subrecipient shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Subrecipient shall inform their Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) State Applicant Liaison and Hazard Mitigation Assistance contacts at FEMA, who will in turn contact FEMA Historical Preservation (HP) staff. The Subrecipient will not proceed with work until FEMA HP completes consultation with the State Historic Preservation Office (SHPO), and others as appropriate (Inadvertent Discovery Clause).
- All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Subrecipient must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.
- Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, the Subrecipient shall handle, manage, and dispose of

petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

- All debris would be disposed of at a permitted landfill.
- Any renovation or remodeling must comply with Louisiana Administrative Code (LAC) 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If the project will involve the removal or disturbance of any soils which may have contaminant concentrations that exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.
- The Subrecipient must take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to correspondence to the GOHSEP and the FEMA as part of the permanent project files.

## CONCLUSIONS

Based upon the incorporated SEA, and in accordance with Presidential Executive Orders 12898 (Environmental Justice), 11988 (Floodplain Management), and 11990 (Wetland Protection), FEMA has determined that the implementation of the proposed action with the conditions and mitigation measures outlined above and in the SEA would not result in significant adverse effects on the quality of the natural and human environment. In addition, the proposed project does not appear to have the potential for significant cumulative effects when combined with past, present, and reasonably foreseeable future actions. As a result of this FONSI, an Environmental Impact Statement (EIS) will not be prepared (FEMA Instruction 108-1-1) and the Preferred Action Alternative as described in the SEA may proceed.

**APPROVALS**

**KEVIN R  
JAYNES**

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Brianne Schmidtke  
FEMA Region VI  
HMA Branch Chief-Mitigation

Date

Supplemental Environmental Assessment

**West Baton Rouge Parish Government  
Bayou Stumpy Watershed Restoration through  
Channel Bottom Widening Improvements from  
the Northern Parish Boundary to LA Highway 76**

FEMA-4277-DR-LA

Port Allen, West Baton Rouge Parish, Louisiana

Hazard Mitigation Grant Program

Project Number 4277-0022

*February 2023*



**FEMA**

U.S. Department of Homeland Security  
Federal Emergency Management Agency, Region VI  
Louisiana Integration and Recovery Office  
1500 Main Street, Baton Rouge, Louisiana 70802

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## LIST OF ABBREVIATIONS AND ACRONYMS

ac.	Acre(s)
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
BFE	Base Flood Elevation(s)
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFM	Certified Floodplain Manager
CFR	Code of Federal Regulations
CO <sub>2</sub>	Carbon Dioxide
CWA	Clean Water Act
DA	Department of the Army
DHS	Department of Homeland Security
EA	Environmental Assessment
EHP	Environmental and Historic Preservation
EIS	Environmental Impact Statement
E.O.	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
ft.	foot/feet
GOHSEP	Governor's Office of Homeland Security and Emergency Preparedness
HMGP	Hazard Mitigation Grant Program
HMPU	Hazard Mitigation Plan Update
HP	Historical Preservation
HUC	Hydrologic Unit Code
Hwy.	Highway(s)
H&H	Hydrologic and Hydraulic; Hydraulic and Hydrology
in.	Inch(es)
JD	Jurisdictional Determination
LA	Louisiana
LAC	Louisiana Administrative Code
LDEQ	Louisiana Department of Environmental Quality
LDOA	Louisiana Division of Archaeology
LDWF	Louisiana Department of Wildlife and Fisheries
LIDAR	Light Detection and Ranging
LIRO	Louisiana Integration and Recovery Office
LPDES	Louisiana Pollutant Discharge Elimination System
mi.	mile(s)
mi <sup>2</sup>	square mile(s)
NAAQS	National Ambient Air Quality Standard
NCEI	National Centers for Environmental Information
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program



NHPA	National Historic Preservation Act
NO <sub>2</sub>	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O <sub>3</sub>	Ozone
PA	Programmatic Agreement
PL	Public Law
PM <sub>10</sub>	Particulate Matter less than 10 microns in diameter
Rd.	Road
RECAP	Risk Evaluation/Corrective Action Program
ROW	Rights-of-Way
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office/Officer
SPOC	Single-Point-of-Contact
SOV	Solicitation of Views
SOW	Scope of Work
SSA	Sole Source Aquifer
St.	Street
U.S.	United States
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compound
WOTUS	Waters of the United States
WQC	Water Quality Certification
WSE	Water Surface Elevation(s)
y <sup>3</sup>	Cubic yard(s)

## 1.0 INTRODUCTION

### 1.1 Project Authority

On August 11, 2016, severe storms moved across southeastern Louisiana (LA) and southwestern Mississippi dumping more than 20 inches (in.) of rain over a 72-hour period. Numerous watersheds were quickly overwhelmed and overbank flooding rose to unprecedented levels. President Barak Obama declared a major disaster on August 14, 2016, for much of south LA due to damages from the flood event and signed a disaster declaration (FEMA-4277-DR-LA) authorizing the Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) to provide federal assistance in designated areas of LA. FEMA is administering this disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law (PL) 93-288, as amended. Section 404 of the Stafford Act authorizes FEMA's Hazard Mitigation Grant Program (HMGP) to provide funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. Through the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) (Recipient), the Subrecipient, West Baton Rouge Parish Government, applied for funding under FEMA's HMGP to reduce flood risk and restore drainage within the Bayou Stumpy watershed.

The United States Army Corps of Engineers (USACE), as the lead federal agency, conducted the original National Environmental Policy Act (NEPA) analysis and completed an Environmental Assessment (EA), 404(b)(1) Guidelines Evaluation, as applicable, and Public Interest Review for the Bayou Stumpy Watershed Restoration through Channel Bottom Widening Improvements Project from the Northern Parish Boundary to LA Highway (Hwy.) 76 in Port Allen, LA (Bayou Stumpy Watershed Drainage Improvements Project). Any federal agency may adopt another federal agency's EA when such adoption would save time and money (Title 40 Code of Federal Regulations (CFR)) Sections 1500.4[n], 1500.5[h], and 1506.3), providing the original document satisfies the adopting agency's NEPA requirements. On August 16, 2022, the USACE issued a Finding of No Significant Impact (FONSI), EA, and Statement of Findings for the MVN 2021-00271-CQ Standard Individual Permit Application. FEMA plans to adopt the USACE's EA and has also provided supplemental information. The USACE's EA is included in Appendix B of this document. This Supplemental Environmental Assessment (SEA) supplements the existing USACE EA and FONSI dated August 16, 2022. Together, these documents evaluate the hazard mitigation proposal funding action and related potential impacts that would result from implementing the project.

This SEA is being prepared in accordance with FEMA Instruction 108-1-1 and DHS Instruction 023-01-001-01, Rev. 1, pursuant to Section 102 of the NEPA of 1969, as implemented by Title 40 of the CFR, Parts 1500-1508 (40 CFR 1500-1508), promulgated by the President's Council on Environmental Quality (CEQ). The purpose of this SEA is to evaluate the potential impacts of the proposed project on the physical and human environment. FEMA has prepared this SEA to evaluate and document compliance with other applicable federal laws, regulations, and Executive Orders (E.O.), including the Clean Air Act (CAA), the National Historic Preservation Act (NHPA), E.O. 11988 (Floodplain Management), and E.O. 11990 (Wetland Protection).

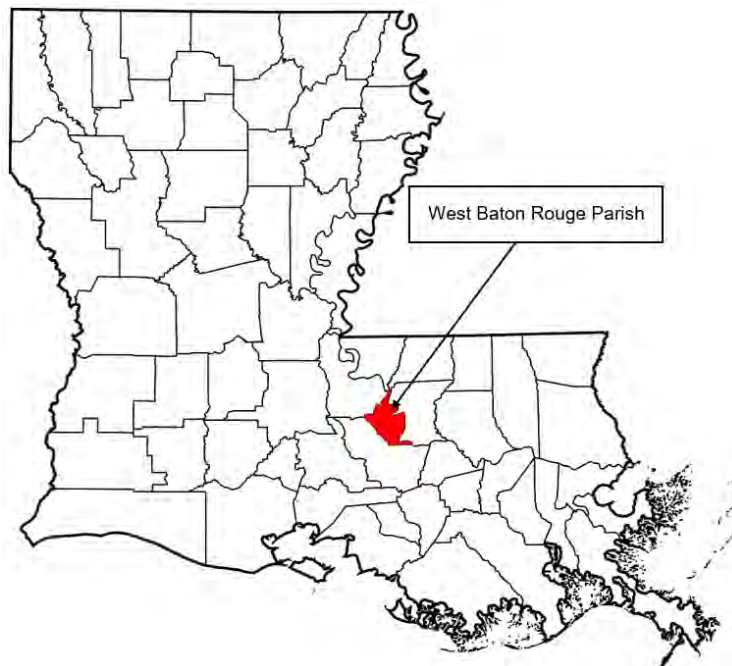
FEMA will use the findings in this SEA in order to determine whether a FONSI and adopting USACE’s EA is appropriate or whether preparation of an Environmental Impact Statement (EIS) is warranted.

The USACE EA analyzed the proposed alternative, the no-build alternative, and alternate onsite methods to limit spoil disposal areas to upland areas and or hauling spoil material offsite to an approved upland disposal facility. Upon completion of the final EA, USACE issued a FONSI on August 16, 2022.

The scope of this SEA is to analyze additional potential environmental effects that could result from implementation of the project that were not analyzed in the USACE EA. Additionally, FEMA will assess environmental or cultural resources effects as required by FEMA’s implementing regulations, laws, E.O. or agreements.

## 1.2 Background and Site Description

West Baton Rouge Parish is the second-smallest parish in LA by land area and smallest by total area and is located in south-central LA (Figure 1). It covers approximately 204 square miles (mi<sup>2</sup>), of which 191 mi<sup>2</sup> are land and 12 mi<sup>2</sup> are water. It is bounded by Pointe Coupee Parish to the north, Iberville Parish to the south, Pointe Coupee and Iberville Parishes to the west, and the Mississippi River and East Baton Rouge Parish to the east. Major highways in the parish include Interstate 10 (I-10), U.S. Hwy. 190, and numerous State highways and parish roads. Some of these roadways are significant evacuation routes for West Baton Rouge Parish, as well as surrounding parishes during states of emergency.



**Figure 1. Location of West Baton Rouge Parish, LA.**

West Baton Rouge Parish is part of the Mississippi River’s alluvial plain and is characterized by generally low relief floodplain topography. The land is relatively flat with a fairly uniform average

slope of approximately 0.1 percent westward, away from the Mississippi River levee system. The ground cover in the parish area was forestland before farming became prevalent. The natural drainage system consisted of a pattern of bayous and wide, shallow natural depressions. As farming increased, the parish initiated a drainage improvement program which enlarged and cleared these natural depressions. This altered the configuration and alignment of the watercourses and clearing these channels for the past 70 years resulted in the present outlet system of manmade drainage ditches.

In West Baton Rouge Parish stormwater is diverted away from agricultural, residential, commercial, and industrial areas as appropriate to prevent both life and property loss. Because of its land flatness, high annual rainfall, and soil wetness, the Parish's water-problem sources are closely related. As flooding from storm runoff aggravates and prolongs wet soil conditions in the nearly level terrain, drainage and flood problems are inseparable. Based on previous flood events, stormwater excesses and riverine flooding primarily affect the low-lying areas of the parish, and flood depths of up to six (6) feet (ft.) can be expected in the unincorporated areas of the parish. The incorporated areas of Addis and Brusly can expect flood depths of two (2) to four (4) ft. For the incorporated area of Port Allen flood depths could range from three (3) to five (5) ft. Drainage ditches must be cleared of sediment periodically to maintain adequate flow. In general, the parish's channels are not adequate to either prevent frequent, direct overflow from flooding, or to allow drainage systems to function properly (West Baton Rouge Parish Hazard Mitigation Plan Update (HMPU) 2021).

Bayou Stumpy is an existing drainage channel located within the Bayou Poydras-Stumpy Bayou Subwatershed (Hydrologic Unit Code, HUC 080703000202), which is approximately 18,469 acres (ac.) and consists of relatively flat and low-lying agricultural and residential areas. It was constructed in 1950 and serves as a primary outfall for the basin. It begins in Pointe Coupee Parish near False River and flows south for approximately 13 miles (mi.) containing both natural and manmade sections of channel to its confluence with Bayou Choctaw, the main parish outfall on the north end of the parish which ultimately empties into the Intracoastal Canal. Bayou Stumpy enters northwestern West Baton Rouge Parish and crosses U.S. Hwy. 190. Upon crossing U.S. Hwy. 190, it is joined by other parish laterals and continues to run largely in a southerly direction until it crosses LA Hwy. 76 (Rosedale Road (Rd.)) where it is again joined by other parish laterals and empties into Bayou Choctaw. Bayou Stumpy passes directly under several simply supported beam highway bridges including LA Hwy. 983 (Bueche Rd.), LA Hwy. 984 (Rougon Rd.), LA Hwy. 620 (Section Rd.), U.S. Hwy. 190, and LA Hwy. 76 (Rosedale Rd.).

Based on aerial and light detection and ranging (LIDAR) data, Bayou Stumpy has an approximate width of 30 ft. and has an invert of approximately 20 ft. on the northernmost reaches. At the southernmost downstream end where it empties into Bayou Choctaw, Bayou Stumpy has widened to a width of at least 60 ft. and has dropped its invert to approximately 6 ft. Bayou Stumpy and its tributaries are generally insufficient in size and confine the flows generated by moderate and major storms, resulting in overflow. In the past, Bayou Stumpy has experienced numerous overflows of its natural banks that has caused flooding in the surrounding residential, commercial, and agricultural lands.

Currently there are problems in maintenance of the drainage systems. Several obstructions including fallen trees, overgrown vegetation, and beaver dams impeding the flow throughout

Bayou Stumpy were observed during an emergency inspection in 2019. The obstructions significantly reduce the area of flow and flow rate within the channel. As the flow rate decreases, traveling sediments begin to settle, causing the channel bottom to shallow over long periods of time. This reduction in channel depth subsequently reduces the area of flow and strains the drainage system, particularly upstream, increasing the occurrence of flooding. Vegetation not controlled on ditch banks reduces the capacity of the channels and provides a source for infestation of the adjacent fields.

Approximately 50 properties within the Bayou Stumpy watershed experienced some form of interior structure flood loss or exterior property flood threat from the 2016 severe storm event. Losses were felt even more specifically in the areas around Elm Grove, Pecan Grove, and Section Rd. in Port Allen. These areas abut, contribute to, and are affected by the Bayou Stumpy watershed. The upstream and downstream areas of the reported flood damages are in need of relief through watershed hydraulic improvements.

Historically, West Baton Rouge Parish has received 14 Presidential Declarations resulting from either tropical cyclones (10 declarations) or flooding (4 declarations) between 2001 and 2020. The majority of the flood events in the Parish have been the direct result of significant rainfall. Many parts of the parish are located within special flood hazard areas (SFHA), the 100-year floodplain and additional flooding concerns are due to its proximity to the Mississippi River. Generally, West Baton Rouge Parish has flooded each time the Mississippi River reached flood stage (West Baton Rouge Parish HMPU 2021). Currently the river waters are retained by a system of levees. Only the extreme eastern strip of the Parish, on the river or batture side of the levee, will be flooded by the river.

According to the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) Storm Events Database, several events have occurred in the last 20 years resulting in approximately \$37 million in property damages caused by heavy rains, flooding, or tropical storms and hurricanes. Per the NOAA NCEI, Hurricane Isaac in August 2012 resulted in approximately \$100,000 in property damages in West Baton Rouge Parish. Many areas of southeast LA received 8 to 12 in. of rain with a few locations having 15 in. of rain or more. Another event in August 2016 caused by widespread showers and thunderstorms resulted in intense rainfall across a large portion of the Parish. Rainfall totals of 10 in. or more were common across southern LA. The heavy rainfall led to widespread flash flooding and record river flooding. Several roads were closed due to high water and approximately 40 homes suffered flood damage. The event was responsible for an estimated total of \$10 billion in damage across southern LA and southern Mississippi, of which \$1.29 million in property damage was experienced in West Baton Rouge Parish.

## **2.0 PURPOSE AND NEED**

The HMGP provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The Parish is proposing to mitigate flooding and reduce flood risk within the Bayou Stumpy watershed.

The purpose of the project is to provide flood control measures and protection to the areas within the Bayou Stumpy watershed including areas in and around Port Allen. These areas remain at high risk of water inundation from various sources, including thunderstorms, hurricanes, and tropical storms and depend on the bayou to drain portions of the parish and transport stormwater. Currently, Bayou Stumpy is not able to accommodate flows equal to and greater than the 100-year design storm event. The Subrecipient needs to alleviate flooding in these areas because the existing drainage system does not provide adequate flood protection during heavy rain events, leaving the area vulnerable to heavy rains, flooding, or tropical storms and hurricanes.

### **3.0 ALTERNATIVES**

Per 40 CFR Section 1501.5(e)(2), NEPA requires Federal agencies to consider the effects of a proposed action and any reasonable alternatives on the human and natural environment. Therefore, a key step in the EA process is to identify a range of reasonable alternatives to be evaluated in detail in the EA. This step is commonly referred to as an alternative development and screening process. The purpose is to identify reasonable alternatives to the proposed action to allow for a meaningful comparison of the effects of the alternatives including the proposed action and no action on the human and natural environment. This section describes alternatives proposed and considered in addressing the purpose and need.

#### **3.1 No Action Alternative**

Implementation of the No Action Alternative would entail no hazard mitigation measures or drainage improvements at the project site. Consequently, the site would remain in its current state and could lead to future flooding events to areas that utilize the Bayou Stumpy watershed for drainage. This alternative would not provide any type of protection to residents and businesses that depend upon this drainage and would remain at risk for potential flooding events due to inefficient drainage mechanisms. Under this alternative, flooding would not be abated or improved, and would continue to occur during frequent rain events resulting in continued flood insurance claims and costs and hardship on the residents in those areas where flooding occurs. Additionally, more sediment would be deposited over time degrading conditions further. This alternative does not meet the purpose and need but will continue to be evaluated throughout this EA and serve as a baseline comparison.

#### **3.2 Preferred Action Alternative: Dredging (referred to as Maintenance Dredging in USACE NEPA documents), Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm**

The Preferred Action Alternative involves dredging of an approximate 9.3-mile reach of Bayou Stumpy and removal of vegetative debris to restore the drainage within the watershed. The proposed project is located along Bayou Stumpy from the northern parish boundary (Latitude 30.594139, Longitude -91.358389) adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Hwy. 76 (Latitude 30.475069, Longitude -91.384917), in Port Allen, LA, in West Baton Rouge Parish (Figure 2). The project proposes to widen and deepen sections of the bayou based off of hydrological analysis performed for the project. The proposed improvement includes channel bottom widths of 30 ft., 20 ft., and 15 ft. for approximately 18,300 ft. (3.5 mi.),

7,100 ft. (1.3 mi.), and 23,700 ft. (4.5 mi.), respectively. See Figures 3 to 5 for the segments of Bayou Stumpy and their proposed channel bottom widths.

The proposed project also entails clearing existing obstructions, removing sediment deposits, and grading of the channel bottom to enhance the rate of flow. Fallen trees, beaver dams, and any other overgrown vegetation within the bayou would be removed. The spoil material dredged from the bayou would be placed in upland areas or within existing spoil bank areas along the bayou within the existing channel servitudes. Approximately 261,000 cubic yards (yd<sup>3</sup>) of earthen material would be dredged from the bayou. Concrete mats would be placed along the channel banks under five (5) bridge crossings as precautionary measures for sediment transport and erosion.

Seven (7) equipment access points to the bayou include roadways that run parallel to the channel, bridge crossings, and other locations that have been previously disturbed. No temporary access roads would be created. Heavy equipment, including marsh buggies, forwarders, excavators, etc. would be used on land and within the bayou. The equipment would be staged within the unfilled spoil banks along the project at two (2) locations. Vegetative debris would be staged along the banks of the bayou and burned in-place or temporarily staged at the equipment staging areas before being taken to the landfills for final disposal. The Subrecipient has not yet determined if the ashes from burning would be taken to a landfill or incorporated into the dredged material along the banks of the bayou. Extensive site plan drawings including the locations of access routes, staging areas, and dredge material placement areas are shown in Appendix A. See the SHPO concurrence letter found in Appendix B for site photographs, locations of slope stabilization measures (Table 2), equipment access points (Table 3), and equipment and debris staging areas (Table 4, Figures 14 and 15).



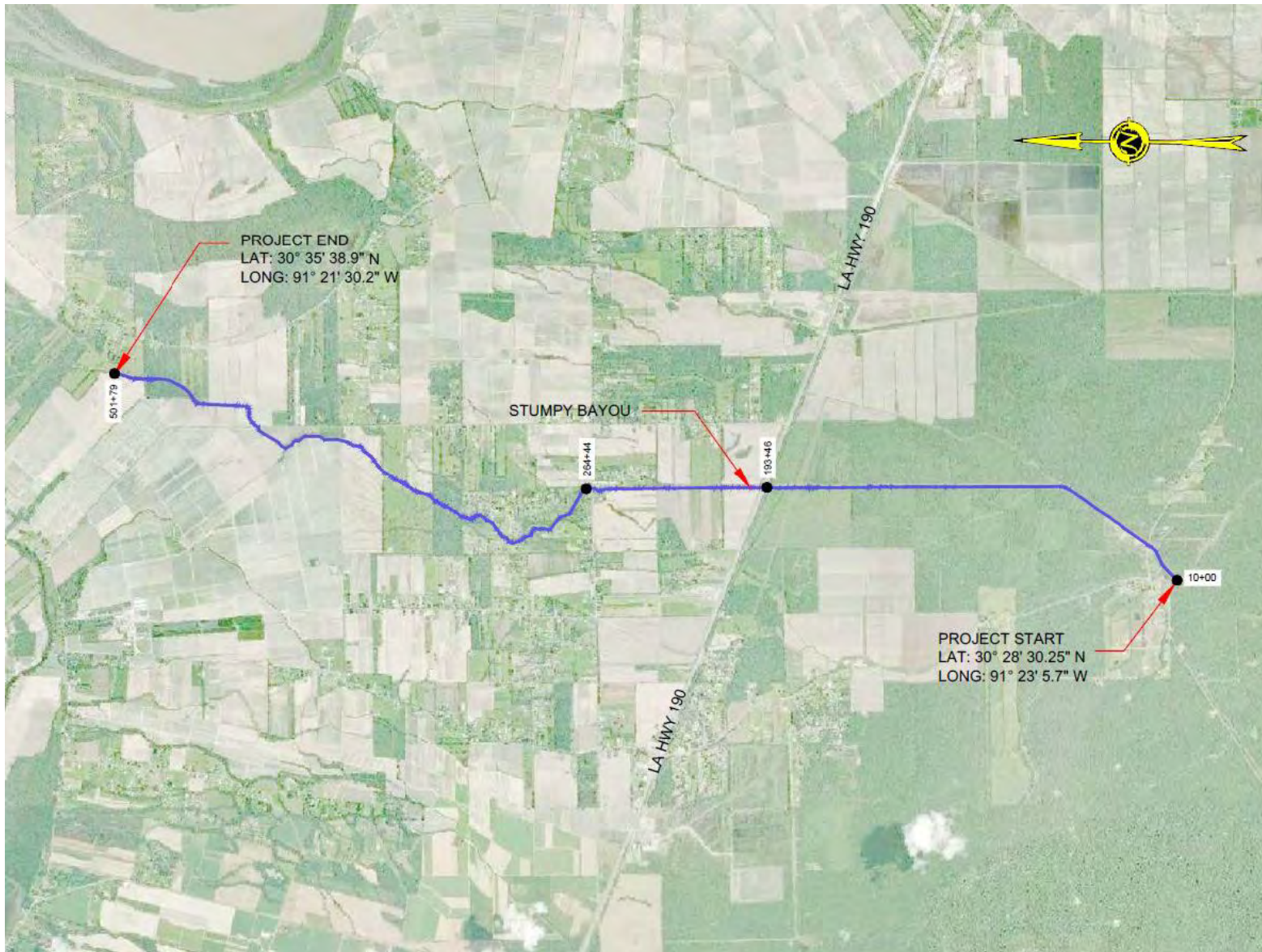


Figure 2. Project vicinity map for the proposed Bayou Stumpy Watershed Drainage Improvements Project.





**Figure 3. Plan View for the proposed 30 ft. channel bottom width segment of Bayou Stumpy for approximately 3.5 miles for the Bayou Stumpy Watershed Drainage Improvements Project provided by GIS Engineering, LLC.**





**Figure 4. Plan View for the proposed 20 ft. channel bottom width segment of Bayou Stumpy for approximately 1.3 miles for the Bayou Stumpy Watershed Drainage Improvements Project provided by GIS Engineering, LLC.**



**Figure 5. Plan View for the proposed 15 ft. channel bottom width segment of Bayou Stumpy for approximately 4.5 miles for the Bayou Stumpy Watershed Drainage Improvements Project provided by GIS Engineering, LLC.**



## 4.0 AFFECTED ENVIRONMENT AND ALTERNATIVES ANALYSIS

### 4.1 Physical Resources

#### 4.1.1 Air Quality

The CAA (42 U.S. Code (U.S.C.) Section 7401 et seq.) is the federal law that regulates air emissions from stationary and mobile sources. This law tasks the U.S. Environmental Protection Agency (USEPA), among its other responsibilities, with establishing primary and secondary air quality standards. Primary air quality standards protect the public's health, including the health of "sensitive populations, such as people with asthma, children, and older adults." Secondary air quality standards protect the public's welfare by promoting ecosystem health, preventing decreased visibility, and reducing damage to crops and buildings. The USEPA also has set National Ambient Air Quality Standards (NAAQS) for the following six (6) criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen oxides (NO<sub>x</sub>), ground-level ozone (O<sub>3</sub>), particulate matter (less than 10 microns [PM<sub>10</sub>] and less than 2.5 microns [PM<sub>2.5</sub>]), and sulfur dioxide (SO<sub>2</sub>).

Under the 1990 amendments to the CAA, the USEPA may delegate its regulatory authority to any state which has developed an approved State Implementation Plan (SIP) for carrying out the mandates of the CAA. The State of LA's initial SIP was approved on July 5, 2011, and its CAA implementing regulations are codified in Title 33.III of the LA Environmental Regulatory Code. The SIP has been revised several times since its original approval.

According to 40 CFR Section 93.150(a), "No department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan." In addition, 40 CFR Section 93.150(b) states, "A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this subpart before the action is taken." As a result, when the FEMA provides financial assistance for a project, such as the one currently under review in this SEA, the CAA requires a General Conformity determination whenever the project site is located in a "non-attainment area" for any one (1) of the six (6) criteria pollutants.

The CAA requires the State of LA to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. The Louisiana Department of Environmental Quality (LDEQ) has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts. Nonattainment Status for each Parish by year, accessed online at: [https://www3.epa.gov/airquality/greenbook/anayo\\_la.html](https://www3.epa.gov/airquality/greenbook/anayo_la.html) on May 23, 2022. Effective March 21, 2017, West Baton Rouge Parish was designated by the USEPA as an ozone attainment area with a maintenance plan under the 8-hour standard (81 FR 95051, December 27, 2016). Pursuant to both 40 CFR Section 93.153(b) and the Louisiana Administrative Code (LAC), Title 33, Part III, Section 1405.B.1, the applicable rate and *de minimis* threshold for direct and indirect ozone emissions (Volatile Organic Compounds [VOC] or NO<sub>x</sub>) is 100 tons per year per pollutant for each of these two ozone precursors.

**No Action Alternative:** Implementation of the No Action Alternative would not entail any construction activities, federal action, hazard mitigation measures, or reduced flood risk at the project sites and, therefore, would have no adverse impacts to air quality at the site.

**Preferred Action Alternative - Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm:** As required, the FEMA completed a general conformity applicability determination. Based on the analysis, FEMA Environmental and Historic Preservation (EHP) determined that the net total of VOC and NO<sub>x</sub> emissions for the proposed project would be less than the prescribed *de minimis* level of 100 tons per year per pollutant. Indirect emissions, should they occur, would be negligible. The conformity applicability determination was based upon calculated direct emissions from estimated vehicle road mileage and construction equipment hours of operation. Therefore, this action would comply with the conformity provisions of Louisiana's SIP. A solicitation of views (SOV) request was submitted to the LDEQ by the FEMA on May 26, 2022. The LDEQ responded to the FEMA on August 1, 2022, stating that West Baton Rouge Parish is currently classified as a maintenance area with the NAAQS. The department had no objections and offered general comments. As mentioned previously, vegetative debris would be staged along the banks of the bayou and possibly burned in-place. The Subrecipient has not yet determined if the ashes from burning would be taken to a landfill or incorporated into the dredged material along the banks of the bayou. The Subrecipient would make this determination prior to project initiation.

Potential short-term, localized impacts to air quality from construction equipment, engine emissions, dust particles, and burning would occur. Particulate emissions from project construction would likely increase temporarily in the immediate project vicinity. These effects would be localized and/or short duration. No long-term reduction in air quality is expected once construction activities cease. Therefore, no significant adverse impacts would occur as a result of this alternative. See Appendix B, Agency Correspondence. The Preferred Action Alternative must comply with the conditions and mitigation measures discussed in Section 6.0, Conditions and Mitigation Measures.

The Subrecipient must take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project. If fill is stored on site, the contractor would be required to appropriately cover it. Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to avoid generating airborne dust (i.e., particulate air emissions). To reduce potential short-term effects to air quality from construction-related activities, the contractor would be responsible for using best management practices (BMPs) to reduce fugitive dust generation and diesel emissions. Emissions from the burning of fuel by internal combustion engines would temporarily increase the levels of some of the criteria pollutants, including carbon dioxide (CO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and non-criteria pollutants such as VOCs. To reduce these emissions, running times for fuel-burning equipment should be kept to a minimum and engines should be properly maintained. All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to the GOHSEP and the FEMA as part of the permanent project files.

## **4.2 Water Resources**

### **4.2.1 Protection of Wetlands (E.O. 11990)**

E.O. 11990, Protection of Wetlands, directs federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the values of wetlands for federally funded

projects. The FEMA regulations for complying with E.O. 11990 are found at 44 CFR Part 9, Floodplain Management and Protection of Wetlands. The FEMA is required to follow the procedure outlined in 44 CFR Part 9 regarding actions in a wetland including the decision-making process, the 8-Step Process, to ensure the action is consistent with E.O. 11990. This process is further discussed in Section 4.2.2, Hydrology and Floodplains.

Waters of the U.S. (WOTUS) are defined in 33 CFR 328.3 and include a broad scope of surface waters. The Clean Water Act (CWA) regulates water quality of all discharges into WOTUS. Both wetlands and “dry washes” (channels that carry intermittent or seasonal flow) are considered WOTUS. Jurisdictional wetlands, a subset of WOTUS, are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (33 CFR 328.3[b]). Jurisdictional wetland determinations are regulated by the USACE pursuant to the CWA.

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Mapper queried on October 5, 2022, at <https://www.fws.gov/wetlands/Data/Mapper.html>, shows that mapped wetlands are present in the project areas. Bayou Stumpy is classified as a riverine wetland and is surrounded by areas classified as freshwater forested/shrub wetlands. This classification is based on aerial imagery and thus these areas may or may not be classified as a wetland during a jurisdictional wetland determination. See Figures 6 through 8 for a site overview utilizing the USFWS wetlands mapper tool.

30 ft. Segment



October 5, 2022

**Wetlands**

- |  |   |   |
|--|---|---|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland       |  Lake  |
|  Estuarine and Marine Wetland   |  Freshwater Forested/Shrub Wetland |  Other |
|  Freshwater Pond                |  Riverine                          |   |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

**Figure 6. NWI map for the proposed 30 ft. channel bottom width segment of the Bayou Stumpy Watershed Drainage Improvements Project for approximately 3.5 miles.**



20 ft. Segment



October 5, 2022

**Wetlands**

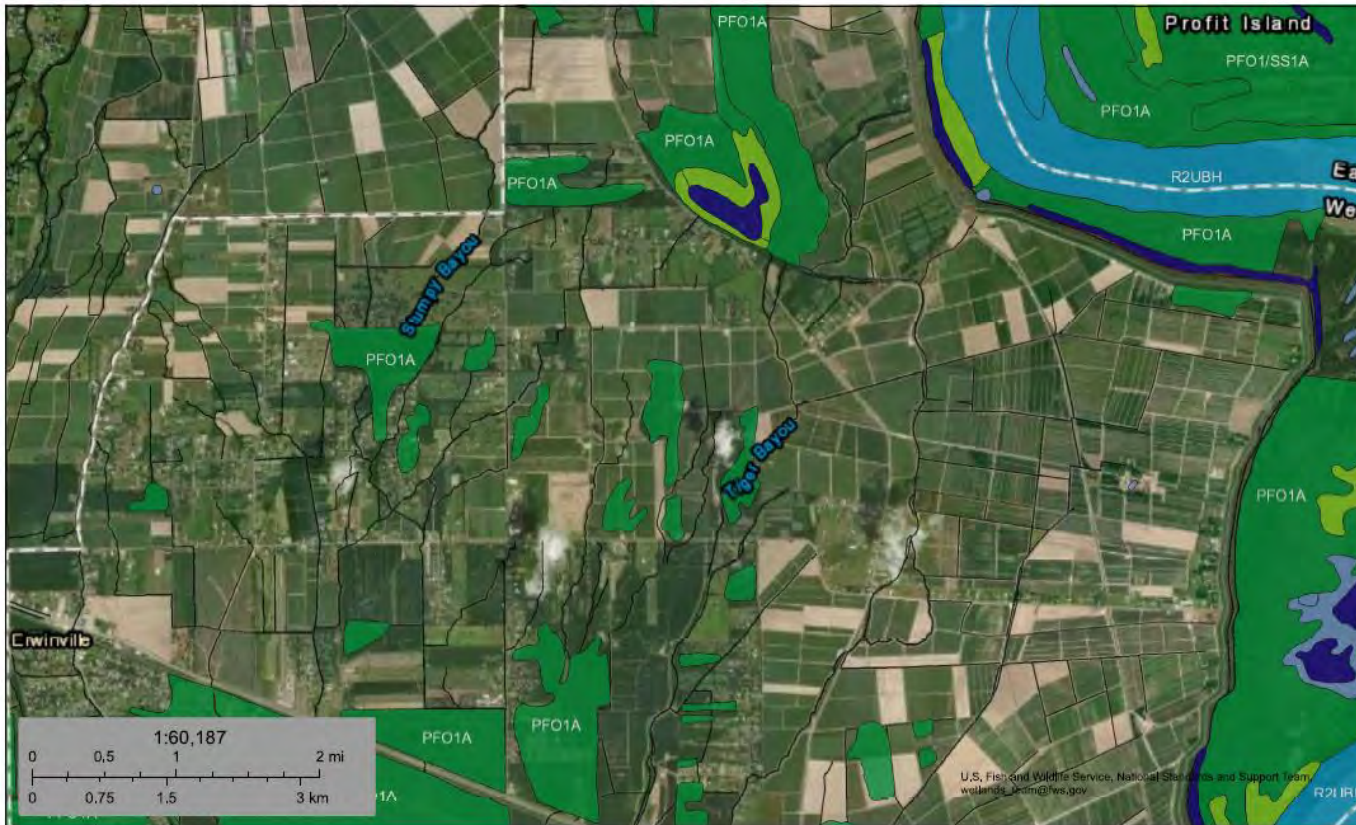
 Estuarine and Marine Deepwater	 Freshwater Emergent Wetland	 Lake
 Estuarine and Marine Wetland	 Freshwater Forested/Shrub Wetland	 Other
	 Freshwater Pond	 Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

**Figure 7. NWI map for the proposed 20 ft. channel bottom width segment of the Bayou Stumpy Watershed Drainage Improvements Project for approximately 1.3 miles.**





October 5, 2022

**Wetlands**

- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|   |                                |  | Freshwater Pond                   |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

**Figure 8. NWI map for the proposed 15 ft. channel bottom width segment of the Bayou Stumpy Watershed Drainage Improvements Project for approximately 4.5 miles.**

**No Action Alternative:** Implementation of the No Action Alternative would entail no hazard mitigation measures or reduced flood risk at the project site. Impacts to jurisdictional forested wetlands and scrub shrub/wet pasture mixed habitat would not be realized if the proposed project was not implemented. This Alternative would not further impact wetlands or other WOTUS and would not require any further permitting.

**Preferred Action Alternative - Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm:** For the Preferred Action Alternative, riverine and freshwater forested/shrub wetlands exist along portions of the Bayou Stumpy and work would occur in WOTUS. An SOV was prepared and submitted to the LDEQ on May 26, 2022 and to the USEPA on May 27, 2022. The LDEQ responded on August 1, 2022, that if any of the proposed work is located in wetlands or other areas subject to USACE jurisdiction, the USACE should be contacted regarding permitting issues. Additionally, the LDEQ noted that if a USACE permit is required, part of the application process may require a water quality certification (WQC) from LDEQ. The LDEQ issued a Phase I WQC 210614-03, to West Baton Rouge Parish on September 14, 2021 (Appendix B) certifying the proposed activity would not violate applicable water quality standards and concludes that the discharge of fill would not violate water quality standards as provided for in LAC 33:IX.Chapter 11. The USEPA Special Projects and NEPA Review Sections did not respond.

Per the USACE EA, an approved jurisdictional determinations (JD) for the northern portion and areas to the north along Bayou Stumpy was completed as MVN-2015-01248-SQ, dated January 6, 2016. Southern areas of Bayou Stumpy were delineated and a preliminary JD (MVN-2021-0271-SQ) was issued based on consultant provided data. On February 22, 2021, the Subrecipient submitted an application for a Department of the Army (DA) Permit (MVN-2021-00271-CQ) to the USACE New Orleans District Office. Based on the application, the proposed project would impact 9.25 ac. of potentially jurisdictional wetlands (7.05 ac. forested habitat and 2.2 ac. herbaceous habitat). The USACE New Orleans District reviewed the proposed activity and associated features specified in the application to determine their analysis under NEPA. Supporting documentation is found in Appendix C, Reports and Other Correspondence.

Based upon the information furnished, the proposed project would permanently impact approximately 9.25 ac. of bottomland hardwood forested wetland habitat. Per the USACE EA, the temporary impacts to WOTUS would be beneficial in nature to the residents in the region. In addition, the typical cross-sections proposed have been developed based on the results of the hydraulic and hydrologic analysis to minimize the footprint of dredging required. The dredging and placement work would be performed by accessing the bayou through available roadways. The access routes and staging areas are not expected to impact any wetlands. Per the Subrecipient, the proposed project has been designed to avoid and minimize direct and secondary adverse wetland impacts to the maximum extent practicable through the use of the existing uplands in certain portions of the bayou as spoil disposal. A majority of the Bayou Stumpy reach has existing spoil banks from previous cleanouts and/or maintenance from local entities. Approximately 39.4 ac. of existing spoil bank and or upland areas would be utilized as spoil placement areas to help improve drainage while minimizing direct impacts to wetlands. Approximately 261,000 CY of dredged material would be placed adjacent to the banks of Bayou Stumpy. Unavoidable impacts to

jurisdictional wetlands would be compensated through the purchasing of appropriate wetland credits at a USACE approved mitigation bank.

The Subrecipient was required to purchase compensatory mitigation for the unavoidable impacts to jurisdictional wetlands. The USACE sent a request for compensatory mitigation to the Subrecipient on December 15, 2021, for the proposed project. A total of 9.25 ac. of impact to bottomland hardwood forested wetland habitat, at the approved, selected mitigation banks, required the purchase of 26.4 ac. of bottomland hardwood habitat credit at the Avoca Island Mitigation Bank to offset the reduced wetland losses. The USACE has been provided with written notification from Avoca Island Mitigation Phase One, LLC, that the Subrecipient has satisfied this requirement as a result of the activities involving the proposed project. The USACE authorized the proposed project with a Standard Permit (MVN-2021-00271-CQ) on August 19, 2022, expiring on September 30, 2027. See Appendix B, Agency Correspondence.

Permanent impacts would occur to wetlands under the Preferred Action Alternative; however, mitigation credits have been purchased to compensate for the unavoidable wetlands impacts. Spoil bank gapping near avoided adjacent wetland areas, and use of existing spoil banks and upland areas would help minimize direct impacts to wetlands. The Subrecipient would minimize impacts to downstream waters and wetlands by implementing BMPs. Additional mitigation or restoration requirements would help alleviate concerns of the project causing future conversion impacts to any of the avoided forested wetlands that are proposed to be left in natural state. Also, special conditions would be required by the USACE in the final authorization regarding the use of non-contaminated fill material and BMPs for sediment control.

Per the hydraulic and hydrology (H&H), these improvements would have no adverse effects on downstream areas, existing stormwater conveyance systems, either manmade or natural channel that traverse through the basin or affect off-site drainage areas. The FEMA utilized the 8-Step process to ensure that the action is consistent with E.O. 11990. The 8-Step Process has been applied to this mitigation project and is described in Appendix D. The FEMA finds there is no practicable alternative to avoiding impacts to wetlands. The improvements are needed to control flooding. Construction BMPs would be included into the daily construction activities. See Appendix B, Agency Correspondence. The Preferred Action Alternative must comply with the conditions and mitigation measures discussed in Section 6.0, Conditions and Mitigation Measures.

If any change to the scope of work (SOW) is located in wetlands or other areas subject to the jurisdiction of the USACE, the Subrecipient should contact the USACE directly regarding permitting issues. If a USACE permit is required, part of the application process may involve a WQC from LDEQ. Proper signage is required to clearly identify the adjacent wetland boundaries to avoid potentially adverse impacts from construction vehicles/equipment/supplies that accidentally leave the boundaries of the approved rights-of-way (ROW). Any adverse impacts to adjacent wetlands resulting from the construction of this project would jeopardize receipt of federal funding. This includes equipment storage and staging of construction to ensure that wetlands are not adversely impacted per the CWA and E.O. 11990. All fill would consist of clean uncontaminated fill material and shall be stored and stockpiled within upland locations. Any changes or modifications to the proposed project would require a revised wetland JD.

The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved USEPA construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions.

The Subrecipient must comply with all State, Special, General, and Regional Conditions listed in the required Standard Permit (MVN-2021-00271-CQ) issued on August 19, 2022, which will expire on September 30, 2027. See Appendix B for conditions of the permit. All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to the GOHSEP and the FEMA as part of the permanent project files.

#### **4.2.2 Hydrology and Floodplains (E.O. 11988)**

E.O. 11988 (Floodplain Management) requires federal agencies to avoid or minimize development in the floodplain except when there are no practicable alternatives. A floodplain is defined as the lowland and relatively flat areas adjoining inland and coastal waters, including at a minimum that area subject to a 1% or greater chance of flooding in any given year. The FEMA complies with E.O. 11988 through 44 CFR Part 9, Floodplain Management and Protection of Wetlands. The FEMA uses Flood Insurance Rate Maps (FIRM) created by the National Flood Insurance Program (NFIP) as the best available flood data.

West Baton Rouge Parish enrolled in the NFIP on April 3, 1978. According to the FEMA FIRM Panels 22121C0045D, 22121C0065D, 22121C0075D, and 22121C0125D, dated July 16, 2014, portions of the project site are located within the SFHA Zone AE, which is the 100-year floodplain, or an area subjected by the 1% annual chance flood with base flood elevations (BFE) determined; within an undesignated floodway and SFHA, Zone A, which is also subjected by the 1% annual chance flood, but without BFEs because detailed hydraulic analyses have not been performed; and within Zone X (shaded), areas outside the SFHA, but between the limits of the base flood (1%) and the 500-year (0.2%) flood and are protected from the 100-year flood by a levee. Some portions of Bayou Stumpy are located in Pointe Coupee Parish within an unincorporated area with no digital data available on FIRM Panel 2201400425B, dated July 16, 1981. Even though portions of the project area are not in the SFHA, they are still subjected to local flooding.

Floodplain development in an undesignated floodway must be reviewed by the community on a case-by-case basis to ensure that increases in water surface elevations (WSE) do not occur greater than 1 ft., or to identify the need to adopt a floodway if adequate information is available. Per 44 CFR 9.11(d)(4) “there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted

within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the WSE of the base flood more than 1 ft. at any point within the community.”

Per E.O. 11988 federal agencies proposing activities in a 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. The FEMA is required to follow the procedure outlined in 44 CFR Part 9 to assure that alternatives to the preferred action have been considered. If no practicable alternative exists to implementing an action in the floodplain, the action must be designed to minimize potential harm to or within the floodplain. A notice must be publicly circulated explaining the action and the reasons for implementing an action in a floodplain. When evaluating actions in the floodplain, the FEMA utilizes the decision process described in 44 CFR Part 9, referred to as the 8-Step Process. The 8-Step Process ensures that the action is consistent with E.O. 11988.

Bayou Stumpy is considered an undesignated floodway and the FEMA-funded action in the bayou must comply with 44 CFR 9.11 (4). An H&H evaluation for the proposed project is documented in *Hydrologic and Hydraulic Analysis Report for Bayou Stumpy Watershed Improvements, Phase I Drainage Impact Study for West Baton Rouge Parish, LA* (H&H study report) prepared by GIS Engineering, LLC, dated May 5, 2021 (Appendix C). The H&H study report focused on determining and evaluating existing outfalls and laterals within the Bayou Stumpy watershed, hydrologic impacts to the area, and potential improvements in order to mitigate flood risk for the surrounding residential, agricultural, and commercial properties.

According to the H&H analysis, the Bayou Stumpy watershed was delineated into two (2) sub-basins, Basin A and Basin B. Basin A contains approximately 9,869 acres and drains to Bayou Stumpy, while Basin B is comprised of approximately 3,318 and drains to Little Stumpy Bayou, which eventually flows into Bayou Stumpy just upstream of its confluence with Bayou Choctaw. Both basins primarily consist of agricultural land use with some residential areas. Little Stumpy Bayou is a tributary to Bayou Stumpy and provides drainage to Basin B, which makes up most of the eastern portion of the Bayou Stumpy watershed. Little Stumpy Bayou spans approximately 6.5 miles to the east of Bayou Stumpy, is the second largest drainage lateral in the watershed, and drains approximately 3,000 ac. before flowing into Bayou Stumpy just north of its confluence with Bayou Choctaw. Per the H&H study report, Bayou Stumpy is the main drainage outfall for the Bayou Choctaw watershed, which encompasses approximately 70 percent of the Parish. Currently, there is reduced channel capacity in Bayou Stumpy due to siltation, obstructions, and insufficient size of the drainage systems.

**No Action Alternative:** Implementation of the No Action Alternative would not entail any construction activities, federal action, or hazard mitigation measures, and therefore, would not improve drainage or reduce flooding, nor would it decrease the risk of losses due to flooding. This alternative would not provide any type of improvement to the drainage system or protection to residents of the area during peak flow events, future storms, or other emergency situations. Moderate ongoing impacts to floodplains are anticipated under the No Action Alternative due to flooding during and after storm events. Water flow would continue to be restricted causing a loss of drainage capacity for the Parish. If the improvements are not installed, flooding would continue.

**Preferred Action Alternative - Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm:** The upstream to downstream profile of Bayou Stumpy revealed widely varying channel bottom slopes. These varying channel slopes along with the limitations in flow area create constrictions within the conveyance channel. The results of the H&H analysis determined the required channel sections for the proposed improvements to Bayou Stumpy. See Table 8 in Appendix C for existing vs. proposed channel widths and slopes.

The existing and proposed models were both run for the 10-, 25-, 50-, and 100-year storm event levels. The H&H analysis demonstrated more effective and efficient drainage to Bayou Choctaw from Bayou Stumpy if the proposed project was implemented. The results of the modeling for the existing conditions versus the proposed conditions indicate that the proposed project would reduce WSE and improve drainage by providing additional storage and capacity and removing obstructions that impeded the flow in the Bayou Stumpy watershed. Supporting modeling results for the existing and proposed conditions are summarized within the H&H study report (Tables 7 and 9, respectively, in Appendix C) and the pre- and post-project inundations for the 100-year storm for the Bayou Stumpy watershed and surrounding areas are illustrated in the figures (Attachments 6 and 7, respectively, in Appendix C).

The results of the H&H study report demonstrated that regrading Bayou Stumpy to have a consistent bottom channel slope from the upstream to the downstream boundaries, regrading cross-sectional areas throughout for consistency in flow area, and clearing Bayou Stumpy of debris or restrictions would improve the channel flow and decrease the WSE. The proposed improvements would substantially lower the WSE along Bayou Stumpy, provide increased freeboard and storage throughout the channel during higher stage conditions, and restore and improve the overall drainage in the watershed for any given storm event. Per the H&H study report, these improvements would have no adverse effects on downstream areas, existing stormwater conveyance systems, either manmade or natural channel that traverse through the basin or affect off-site drainage areas.

Per the USACE EA, the natural and beneficial values served by floodplains would be preserved through mitigative actions including BMPs at the project site during construction to minimize the effects of fill material, by the inclusion of drainage features within project designs, and by the requirement of compensatory mitigation within the watershed. No practicable alternatives within the floodplain which would lessen any adverse impact to the floodplain have been identified.

Portions of the proposed project would have no negative impacts on the floodplain because these areas are located outside the SFHA; however, these areas are still subject to local flooding. Other areas of the proposed project which are located in the SFHA would have minor impacts to the floodplain including indirect short-term impacts to the surrounding area during construction. The overall impact of the Preferred Action Alternative on the hydrology of Bayou Stumpy would be expected to be positive as demonstrated in the H&H study report with potential drainage improvement benefits and a higher level of storm protection compared to the present levels. The proposed project would lower the WSE from the existing conditions and reduce flood risk in comparison to the current conditions. The spoil banks would be designed to ensure that the existing hydrologic functions would not be impeded. Per the H&H study report, these improvements would have no adverse effects on downstream areas, existing stormwater

conveyance systems, either manmade or natural channel that traverse through the basin or affect off-site drainage areas. The FEMA utilized the 8-Step process to ensure that the action is consistent with E.O. 11988. The 8-Step Process has been applied to this mitigation project and is described in Appendix D. The FEMA finds there is no practicable alternative to avoiding minor impacts to the floodplain. The improvements are needed to control flooding. Construction BMPs would be included into the daily construction activities. The Preferred Action Alternative must comply with the conditions and mitigation measures discussed in Section 6.0, Conditions and Mitigation Measures.

The Subrecipient is required to coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized. Per 44 CFR 9.11(d), mitigation or minimization standards must be applied, where possible. Per 44 CFR 9.11(d)(4), there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the WSE of the base flood more than one (1) ft. at any point within the community. Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. Should the site plans (including drainage design) change, the Subrecipient must submit changes to the FEMA EHP for review and approval prior to the start of construction. New construction must be compliant with current codes and standards. All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to the GOHSEP and the FEMA as part of the permanent project files.

### 4.2.3 Groundwater

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The Sole Source Aquifer (SSA) Protection Program is authorized by Section 1424(e) of SDWA. The USEPA defines a sole or principal source aquifer as one which supplies at least 50% of the drinking water consumed in the area overlying the aquifer. The USEPA guidelines also stipulate these areas can have no alternative drinking water consumed in the area overlying the aquifer. The USEPA guidelines also stipulate that these areas can have no alternative drinking water source(s) which could physically, legally, and economically supply all those who depend upon the aquifer for drinking water. Per NEPAassist database search on May 23, 2022, the proposed project areas in West Baton Rouge Parish lie within the boundaries of a designated SSA system, the Southern Hills Aquifer System (SSA\_ID SSA35).

**No Action Alternative:** Implementation of the No Action Alternative would not entail any construction activities, federal action, hazard mitigation measures, or reduced flood risk at the project sites and, therefore, would have no adverse impacts to the quality of the groundwater underlying the site.



**Preferred Action Alternative - Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm:** The FEMA EHP does not anticipate any adverse effects on the quality of groundwater underneath the project corridor. An SOV request was submitted to the USEPA's SSA Program on May 27, 2022. Per the SSA Program's response dated June 10, 2022, the project, as proposed, should not have an adverse effect on the quality of the groundwater underlying the project site. An SOV request was submitted to the LDEQ by the FEMA on May 26, 2022. Per the LDEQ response dated August 1, 2022, the department has no objections and offered general comments. See Appendix B, Agency Correspondence. The Preferred Action Alternative must comply with the conditions and mitigation measures discussed in Section 6.0, Conditions and Mitigation Measures.

The Subrecipient must take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project. If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at 225-219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents. All precautions should be observed to protect the groundwater of the region. BMPs should be implemented to ensure groundwater is protected. All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to the GOHSEP and the FEMA as part of the permanent project files.

#### **4.3 Historic and Cultural Resources**

The consideration of impacts to historic and cultural resources is mandated under Section 101(b) 4 of NEPA as implemented by 40 CFR Part 1501-1508. Section 106 of the NHPA requires federal agencies to consider their effects of a federally funded or assisted project ("an undertaking") on historic properties and allows the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Additionally, federal agencies are required to consult with Indian Tribal Governments on a government-to-government basis as required in E.O. 13175. The FEMA has chosen to address potential impacts to historic properties through the Section 106 consultation process of NHPA as implemented through 36 CFR Part 800.

In order to fulfill its Section 106 responsibilities, the FEMA has initiated consultation on this project in accordance with the LA Programmatic Agreement (PA) among the FEMA, the LA State Historic Preservation Officer (SHPO), the GOHSEP, and Participating Tribes executed on December 21, 2016 (LA Statewide PA). The LA Statewide PA was created to streamline the Section 106 review process.

The Section 106 process requires the identification of historic properties that may be affected by the Preferred Action or alternatives within the project's Area of Potential Effects (APE). Historic properties, defined in Section 101(a)(1)(A) of the NHPA, include districts, sites (archaeological and religious/cultural), buildings, structures, and objects that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). Historic properties are identified by qualified agency representatives in consultation with interested parties.



Cultural resources in the project area were identified by the FEMA EHP staff through reviews of the NRHP database (NRHP 2022), the LA Cultural Resources Map and associated site forms (established by the State Historic Preservation Office (SHPO)) (LDOA 2022), and the USDA's Web Soil Survey (USDA 2022).

Bayou Stumpy is not located within or near a National Register Historic District, nor is it adjacent to any properties that have been listed or determined to be eligible for listing on the NRHP.

There are no archaeological sites or cemeteries previously recorded within 1000-feet of the length of the Bayou Stumpy project alignment APE (Appendix B). The USDA website indicates that soils within the project area of West Baton Rouge Parish can be classified into two general categories, largely based on landform. These soil mapping units and categories include the following: Commerce silt loam, Commerce silty clay loam, and Commerce silty clay loam; and Sharkey silty clay loam and Sharkey clay. Commerce soils are associated with natural levees and are somewhat poorly drained, while Sharkey soils are associated with backswamps that are poorly drained.

Aside from modern residential and extensive agricultural development, research indicates that the project area has not experienced the types of human activities that leave an archaeological record. Archaeological sites located in the vicinity of Bayou Stumpy were recorded further away on more highland soils or more significant natural levees with higher elevations and along larger, wider natural waterways. Based on the combination of poorly drained soils, historic disturbance, previously recorded site locations, and available natural resources, project locations along Bayou Stumpy have moderate to low potential for the presence of archaeological resources. Based on these factors, it is unlikely that any undisturbed archaeological deposits are present within the project areas.

**No Action Alternative:** Implementation of the No Action Alternative would result in continued flooding in the Bayou Stumpy watershed and thus could lead to impacts to structures over 45 years in age and other cultural properties in the benefit area.

**Preferred Action Alternative - Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm:** The FEMA identified and evaluated effects of the project on historic properties in accordance with Section 106 of the NHPA. As a result, the FEMA has determined No Historic Properties would be affected for the work proposed. This determination was submitted to SHPO and affected tribes on July 15, 2022. The SHPO responded in a letter dated August 04, 2022, concurring with the FEMA's determination. Consultation with affected tribes (Alabama-Coushatta Tribe of Texas, Chitimacha Tribe of Louisiana, Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Eastern Shawnee Tribe of Oklahoma, Jena Band of Choctaw Indians, Kialegee Tribal Town, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, and Tunica-Biloxi Tribe of Louisiana) was conducted per the PA and 36 CFR 800.2(c)(2)(i)(B). Written concurrence with the determination was submitted to the FEMA by the Choctaw Nation of Oklahoma (August 17, 2022). The remaining Tribes did not object within the regulatory timeframes in the NHPA (Appendix B). The Preferred Action Alternative must comply with the conditions and mitigation measures discussed in Section 6.0, Conditions and Mitigation Measures.

If human bone or unmarked grave(s) are present within the project area, compliance with the LA Unmarked Human Burial Sites Preservation Act (Revised Statue [RS] 8:671, et seq.) is required. The Subrecipient shall notify the law enforcement agency of the jurisdiction where the remains are located within 24 hours of the discovery. The Subrecipient shall also notify the FEMA and the LA Division of Archaeology (LDOA) at 225-342-8170 within 72 hours of the discovery (LA Unmarked Human Burial Sites Preservation Act). If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Subrecipient shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Subrecipient shall inform their GOHSEP State Applicant Liaison and Hazard Mitigation Assistance contacts at the FEMA, who will in turn contact the FEMA Historical Preservation (HP) staff. The Subrecipient will not proceed with work until the FEMA HP completes consultation with the SHPO, and others as appropriate (Inadvertent Discovery Clause). All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g., a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Subrecipient must notify the FEMA and the Recipient prior to extracting material. The FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and E.O. prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout. All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented, and copies forwarded to the GOHSEP and the FEMA as part of the permanent project files.

## **5.0 CUMULATIVE IMPACTS**

The resource categories described in Sections 4.2.1 and 4.2.2 that have the potential for minor environmental effects are Protection of Wetlands (E.O. 11990) and Hydrology & Floodplains (E.O. 11988), respectively. The proposed project site is centered at Latitude 30.53170, Longitude -91.37272 in zip code 70767. The USACE has determined that the Lower Grand River, HUC 08070300, in the Terrebonne Basin constitutes an appropriate boundary for a cumulative impact analysis of the Preferred Action and No Action Alternatives.

The consideration of cumulative impacts and any direct or indirect effects of the proposed project are discussed in existing USACE EA in Appendix B. Per the USACE EA, the Subrecipient has designed the project such that all work, access and staging would be conducted from the proposed project footprint. No work, equipment, or stockpiles would be placed outside of the construction limits. Additional mitigative action including BMPs and assurance that non-contaminated fill material have been proposed and would be utilized. Compensatory mitigation has been addressed and would help offset the impacts to eliminate or minimize the proposed activity's incremental contribution to cumulative effects within the geographic area. Mitigation required for the proposed activity is also discussed in the USACE EA. When considering the overall impacts that would result from the proposed activity, in relation to the overall impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area are not considered to be significant.

In conclusion, the FEMA has determined that the incremental effects of the other infrastructure recovery and improvement actions are likely to be similar to the proposed project's impacts and effects previously described within this SEA. Per the USACE EA, the beneficial effects of the project outweigh the detrimental impacts of the project. FEMA EHP is not aware of any other proposed projects near the proposed project impact area that have the potential to effect environmental resources of the project corridor and result in potential significant cumulative impacts when combined with the impacts from the proposed project.

## **6.0 CONDITIONS AND MITIGATION MEASURES**

Based upon the studies and consultations undertaken in this SEA, several conditions and mitigation measures must be taken by the Subrecipient prior to and during project implementation. The following conditions must be met as part of the implementation of the project. Failure to comply with these conditions may jeopardize federal funds. The Subrecipient is required to comply with all federal, state, and local laws, E.O.s, and regulations.

- The Subrecipient is required to obtain and comply with all local, state, and federal permits, approvals, and requirements prior to initiating work on this project.
- If fill is stored on site, the contractor would be required to appropriately cover it.
- Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to avoid generating airborne dust (i.e., particulate air emissions).
- To reduce potential short-term effects to air quality from construction-related activities, the contractor would be responsible for using best management practices (BMP) to reduce fugitive dust generation and diesel emissions. Emissions from the burning of fuel by internal combustion engines would temporarily increase the levels of some of the criteria pollutants, including carbon dioxide (CO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and non-criteria pollutants such as Volatile Organic Compounds (VOCs). To reduce these emissions, running times for fuel-burning equipment should be kept to a minimum and engines should be properly maintained.
- If any change to the scope of work (SOW) is located in wetlands or other areas subject to the jurisdiction of the U. S. Army Corps of Engineers (USACE), the Subrecipient should contact the USACE directly regarding permitting issues. If a USACE permit is required, part of the application process may involve a water quality certification (WQC) from the Louisiana Department of Environmental Quality (LDEQ).
- Proper signage is required to clearly identify the adjacent wetland boundaries to avoid potentially adverse impacts from construction vehicles/equipment/supplies that accidentally leave the boundaries of the approved rights-of-way (ROW).
- Any adverse impacts to adjacent wetlands resulting from the construction of this project would jeopardize receipt of federal funding. This includes equipment storage and staging of construction to ensure that wetlands are not adversely impacted per the Clean Water Act (CWA) and Executive Order (E.O.) 11990.

- All fill would consist of clean uncontaminated fill material and shall be stored and stockpiled within upland locations.
- Any changes or modifications to the proposed project would require a revised wetland jurisdictional determination.
- The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved U. S. Environmental Protection Agency (USEPA) construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions.
- The Subrecipient must comply with all State, Special, General, and Regional Conditions listed in the required Standard Permit (MVN-2021-00271-CQ) issued on August 19, 2022, expiring on September 30, 2027.
- The Subrecipient is required to coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized.
- Per 44 CFR 9.11(d), mitigation or minimization standards must be applied, where possible.
- Per 44 CFR 9.11(d)(4), there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation (WSE) of the base flood more than one (1) foot (ft.) at any point within the community.
- Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the National Flood Insurance Program (NFIP).
- Should the site plans (including drainage design) change, the Subrecipient must submit changes to the Federal Emergency Management Agency (FEMA) Environmental and Historic Preservation (EHP) for review and approval prior to the start of construction.
- New construction must be compliant with current codes and standards.

- If the project results in a discharge to waters of the State, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas greater than or equal to one (1) acre. The Subrecipient must contact the LDEQ Water Permits Division at 225-219-9371 to determine if the proposed project requires a permit.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting additional wastewater.
- If the project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application of Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information: (<http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx>) or by contacting the LDEQ Water Permits Division at 225-219-9371.
- Water softeners generate wastewaters that may require special limitations depending on local water quality considerations. If water system improvements include water softeners, contact LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at 225-219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.
- All precautions should be observed to protect the groundwater of the region. BMPs should be implemented to ensure groundwater is protected.
- Extreme care must be taken during the construction process through the appropriate use and maintenance of BMPs.
- If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (Revised Statute [RS] 8:671, et seq.) is required. The Subrecipient shall notify the law enforcement agency of the jurisdiction where the remains are located within 24 hours of the discovery. The Subrecipient shall also notify FEMA and the Louisiana Division of Archaeology (LDOA) at 225-342-8170 within 72 hours of the discovery (Louisiana Unmarked Human Burial Sites Preservation Act).
- If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Subrecipient shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Subrecipient shall inform their Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) State Applicant Liaison and Hazard Mitigation Assistance contacts at FEMA, who will in

turn contact FEMA Historical Preservation (HP) staff. The Subrecipient will not proceed with work until FEMA HP completes consultation with the State Historic Preservation Office (SHPO), and others as appropriate (Inadvertent Discovery Clause).

- All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Subrecipient must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.
- Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, the Subrecipient shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.
- All debris would be disposed of at a permitted landfill.
- Any renovation or remodeling must comply with Louisiana Administrative Code (LAC) 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If the project will involve the removal or disturbance of any soils which may have contaminant concentrations that exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.
- The Subrecipient must take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to correspondence to the GOHSEP and the FEMA as part of the permanent project files.

Failure to comply with these conditions may make part or all these projects ineligible for FEMA funding.

## **7.0 PUBLIC INVOLVEMENT**

The USACE, as the lead federal agency, published a public notice on June 28, 2021, for 20 days. Comments regarding the proposed activity were addressed by the USACE and are provided in the USACE's EA in Appendix B. A public notice regarding the SEA was published in *The Advocate* for five (5) days, Tuesday, January 10, 2023, through Saturday, January 14, 2023, and in the journal of record, the *Westside Journal*, for two (2) days, on Thursday, January 12, 2023, and Thursday, January 19, 2023, to notify the public that the SEA and FONSI were available for review at the West Baton Rouge Parish Library at 830 North Alexander Avenue, Port Allen, LA 70767 on Mondays, Wednesdays, and Fridays 8:30am to 5:30pm, Tuesdays and Thursdays 8:30am to 8:00pm, and Saturdays 9:00am to 1:00pm. The SEA was also published on the FEMA's website at <http://www.fema.gov/resource-document-library>. The 30-day comment period began on January 12, 2023, and concluded on February 10, 2023. A copy of the Public Notice is attached in Appendix D. The public comment period for the draft SEA completed, resulting in no public comments received.

## **8.0 AGENCY COORDINATION**

The following agencies were contacted by the USACE or FEMA:

- Louisiana Department of Environmental Quality (LDEQ)
- Louisiana Department of Wildlife and Fisheries (LDWF)
- Louisiana State Historic Preservation Officer (SHPO)
- U.S. Army Corps of Engineers (USACE)
- U.S. Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS)
- U.S. Environmental Protection Agency (USEPA)
- U.S. Fish and Wildlife Service (USFWS)

## **9.0 CONCLUSION**

Construction of the Preferred Action Alternative was analyzed based on the studies, consultations, and reviews undertaken as reported in this SEA. The findings of this SEA conclude that the Preferred Action Alternative would result in no significant adverse impacts to physical resources (air quality), water resources (protection of wetlands, hydrology and floodplains, and groundwater), and historic and cultural resources. Furthermore, this SEA concludes that the Preferred Action Alternative would not result in cumulative impacts on the affected environment.

The proposed improvements would address the hydraulic deficiencies within Bayou Stumpy and allow the conveyance channel to flow in steady state conditions, while also adding more capacity to the channel and increasing freeboard. During project construction, short-term impacts to resources are anticipated, and conditions have been incorporated to mitigate and minimize the effects. Short-term impacts as a result of the proposed project would be mitigated using BMPs, such as silt fences, proper vehicle and equipment maintenance, and appropriate signage. No long-term adverse impacts are anticipated from the proposed project. Therefore, the FEMA presently finds the Preferred Action Alternative meets the requirements for a FONSI under the NEPA, and the preparation of an EIS will not be required (Appendix D). If new information is received that indicates there may be significant adverse effects, the FEMA would then revise the findings and

issue a second public notice, for additional comments. However, if there are no significant comments, new information, or design changes, this SEA will become the final SEA.

Based upon the studies and consultations undertaken in this SEA, and given the precautionary and mitigating measures, there does not appear to be any significant environmental impacts associated with the Bayou Stumpy Watershed Drainage Improvements Project.

## **10.0 LIST OF PREPARERS**

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## **11.0 REFERENCES**

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**Appendix A**  
**Site Plans**





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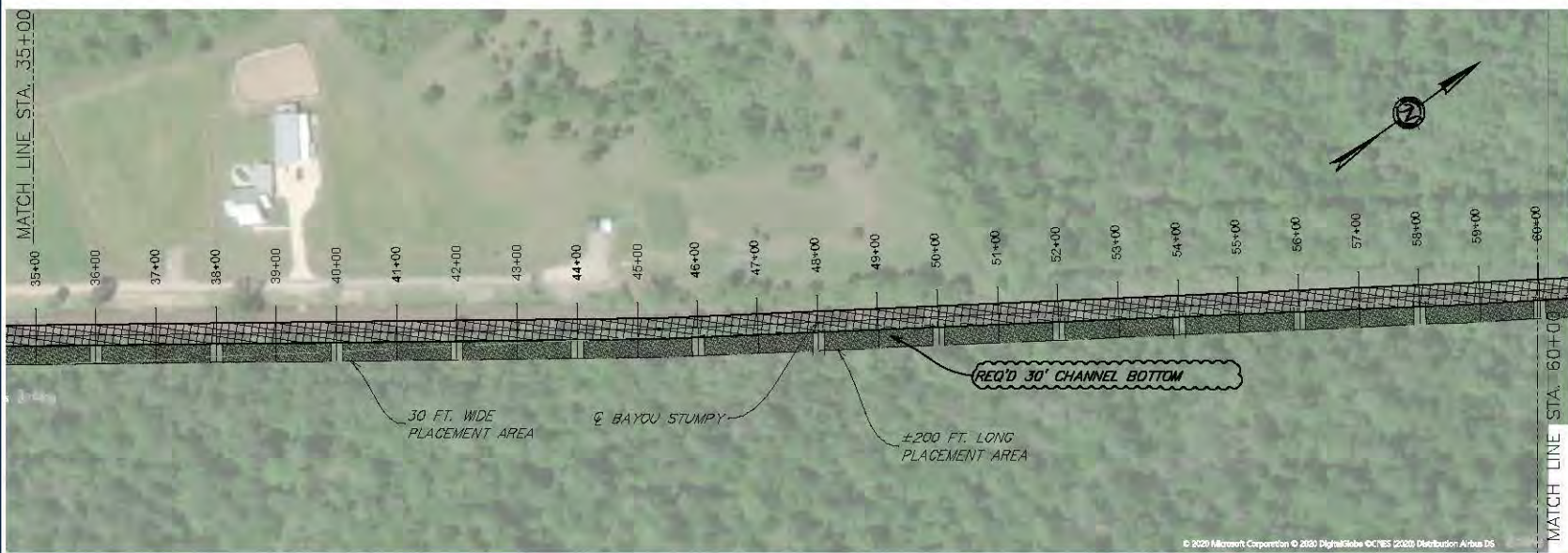
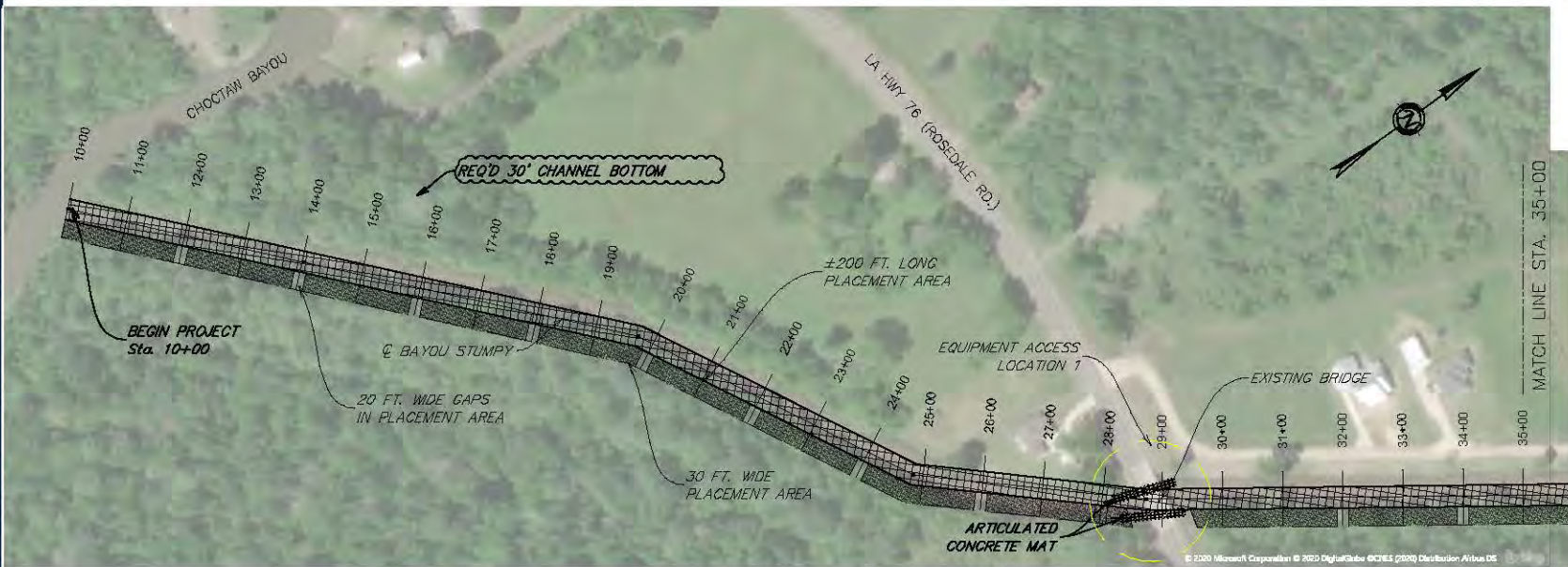
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### WEST BATON ROUGE PARISH GOVERNMENT

### HAYOU STUMPY WATERSHED IMPROVEMENTS

## DREDGING AND PLACEMENT AREA PLAN VIEW

<b>Project number</b>	<b>39145-1218</b>
<b>Date</b>	<b>JAN 2021</b>
<b>Designed by</b>	<b>XXX</b>
<b>Drawn by</b>	<b>SDP</b>
<b>Checked by</b>	<b>SDP</b>
<b>Checked by</b>	<b>MM</b>
<b>Plot Date</b>	<b>June 13, 2022</b>



NOTE: THE IMAGE ABOVE IS A GENERAL REPRESENTATION OF THE WORK AREA, ACTUAL FIELD CONDITIONS MAY DIFFER.

- PLACEMENT AREA
- DREDGING AREA



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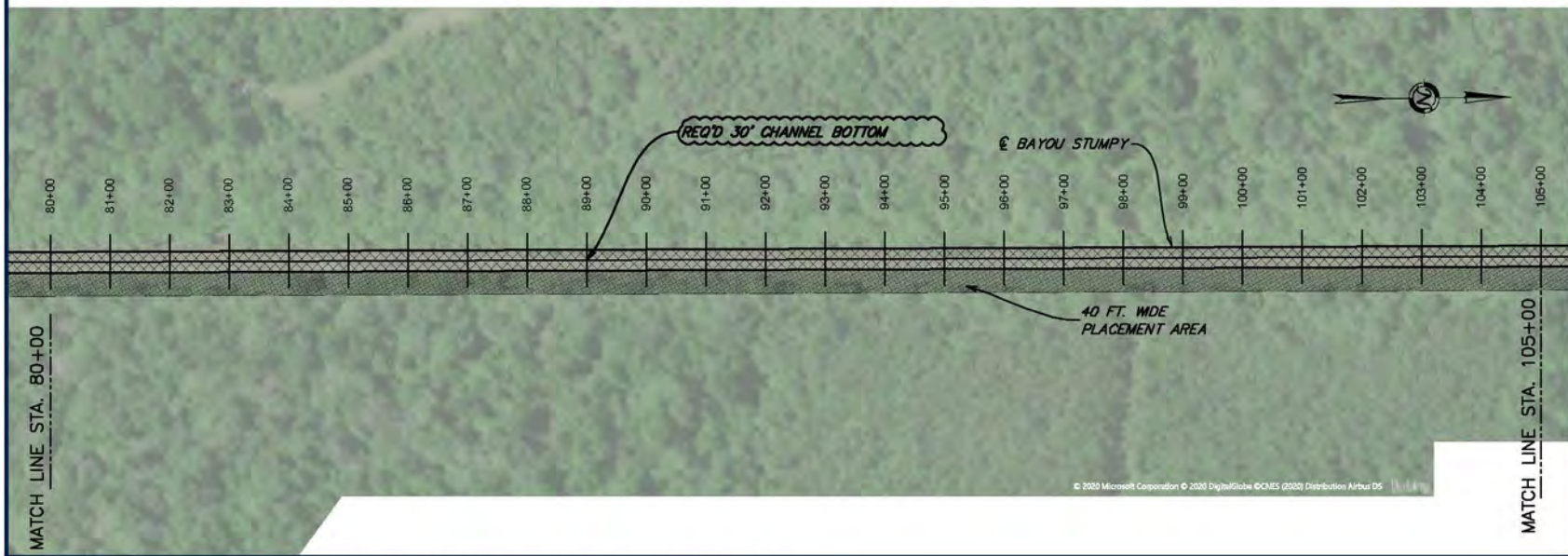
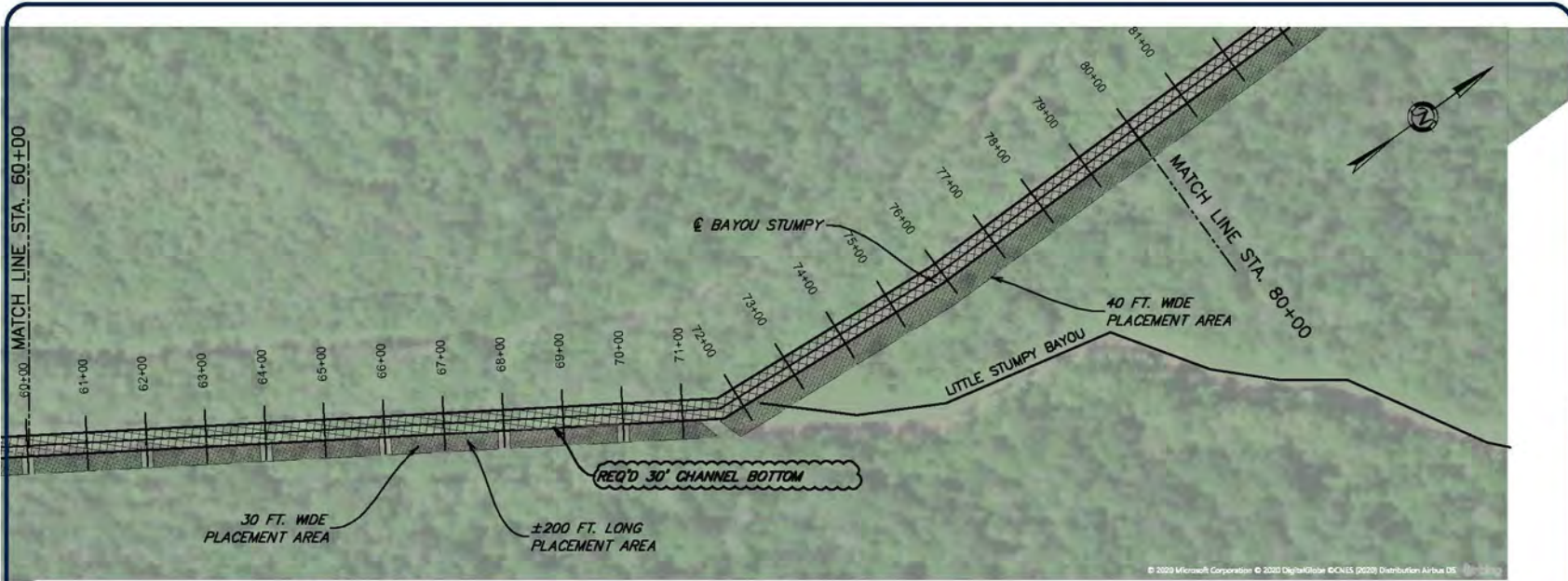
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 PARISH GOVERNMENT**

**BAYOU STUMPY WATERSHED  
 IMPROVEMENTS**

**DREDGING AND  
 PLACEMENT AREA  
 PLAN VIEW**

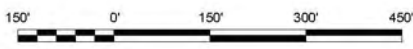
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Date	JAN 2021
Designed by	XXX
Drawn by	SDP
Checked by	SDP
Checked by	MM
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- PLACEMENT AREA
- DREDGING AREA



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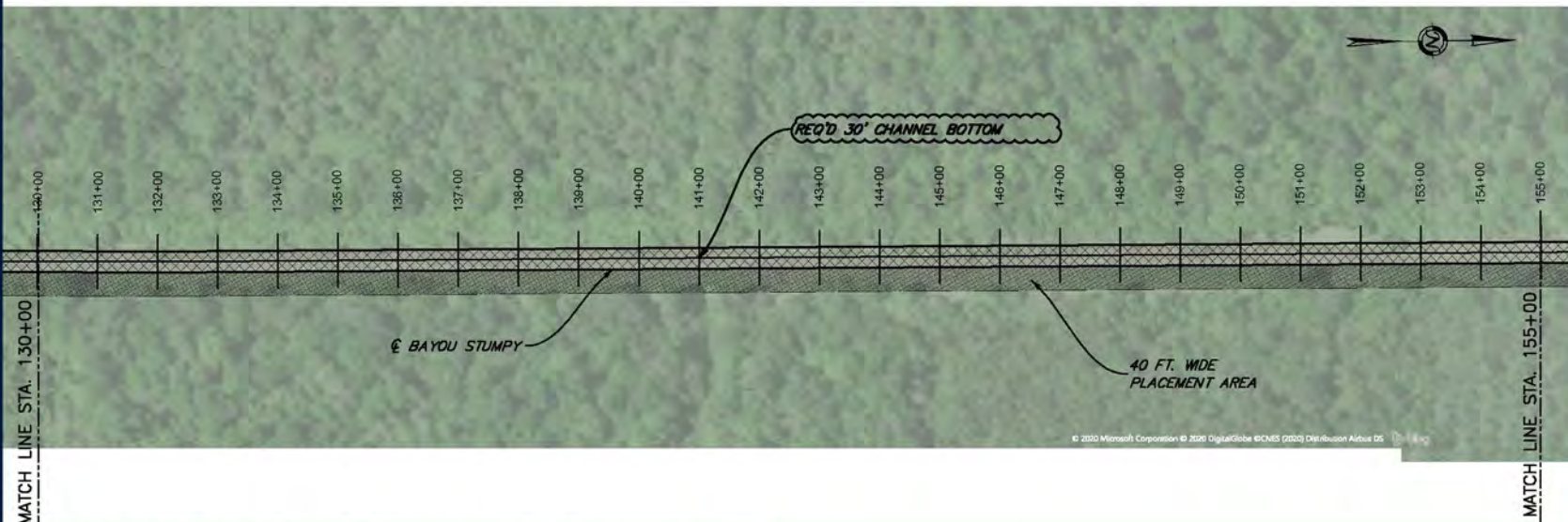
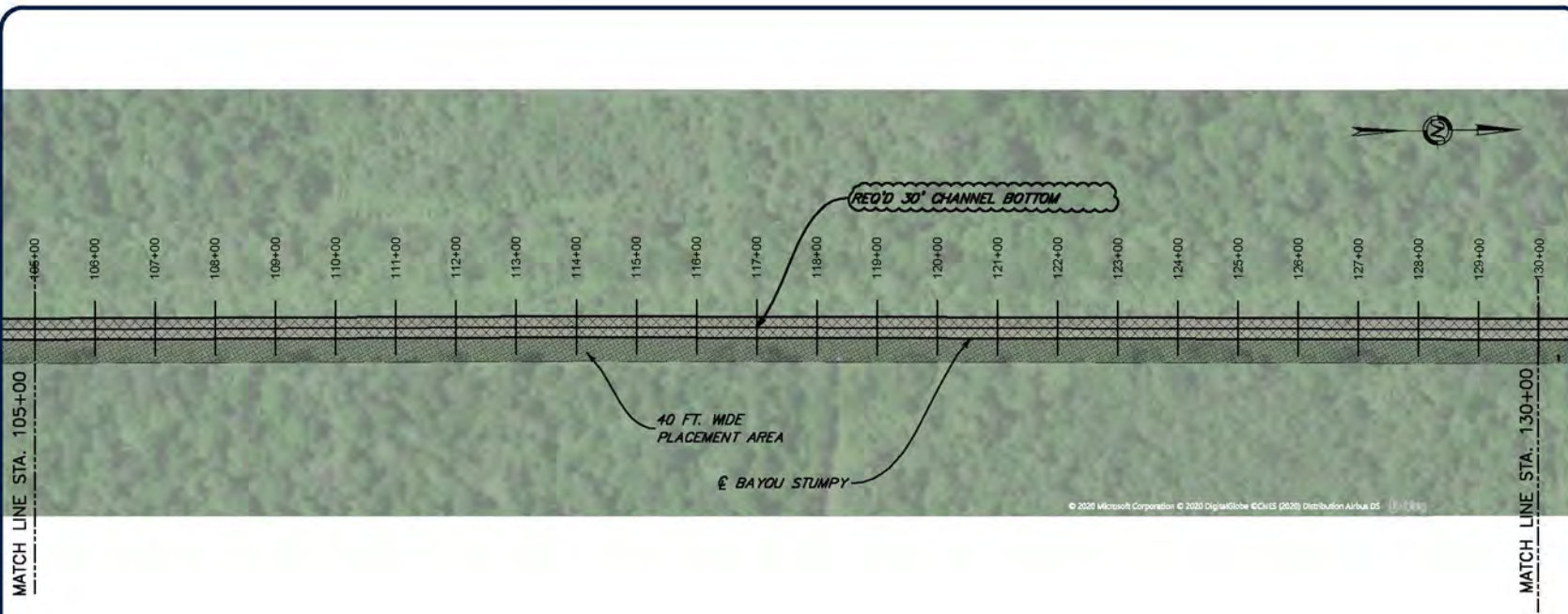
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 PARISH GOVERNMENT**

**BAYOU STUMPY WATERSHED  
 IMPROVEMENTS**

**DREDGING AND  
 PLACEMENT AREA  
 PLAN VIEW**

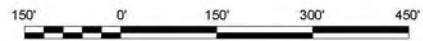
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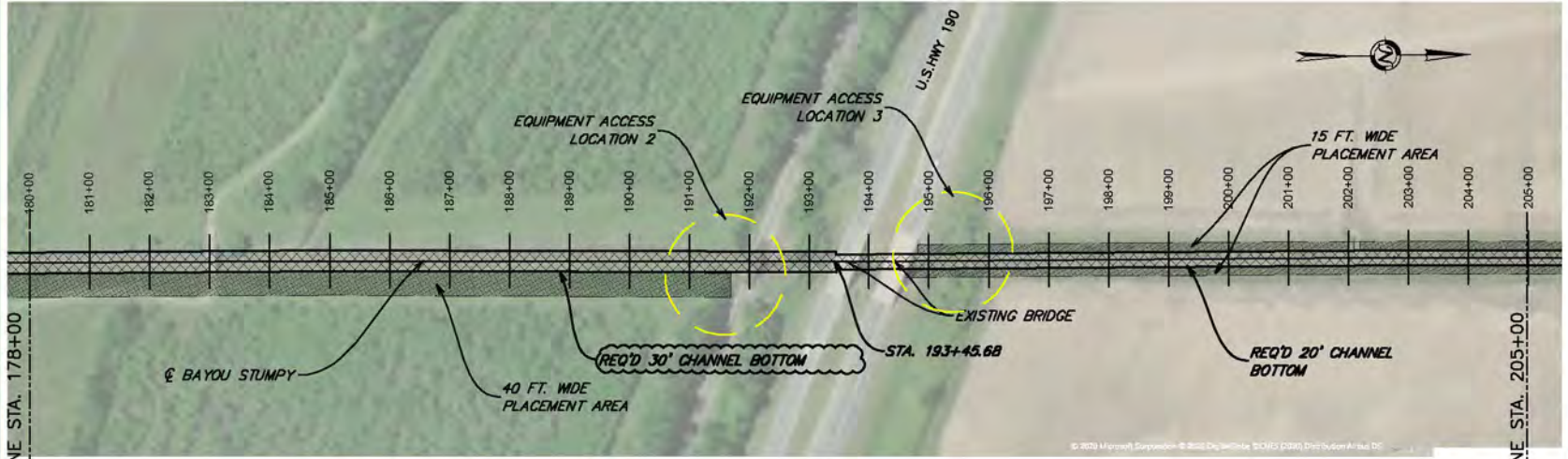
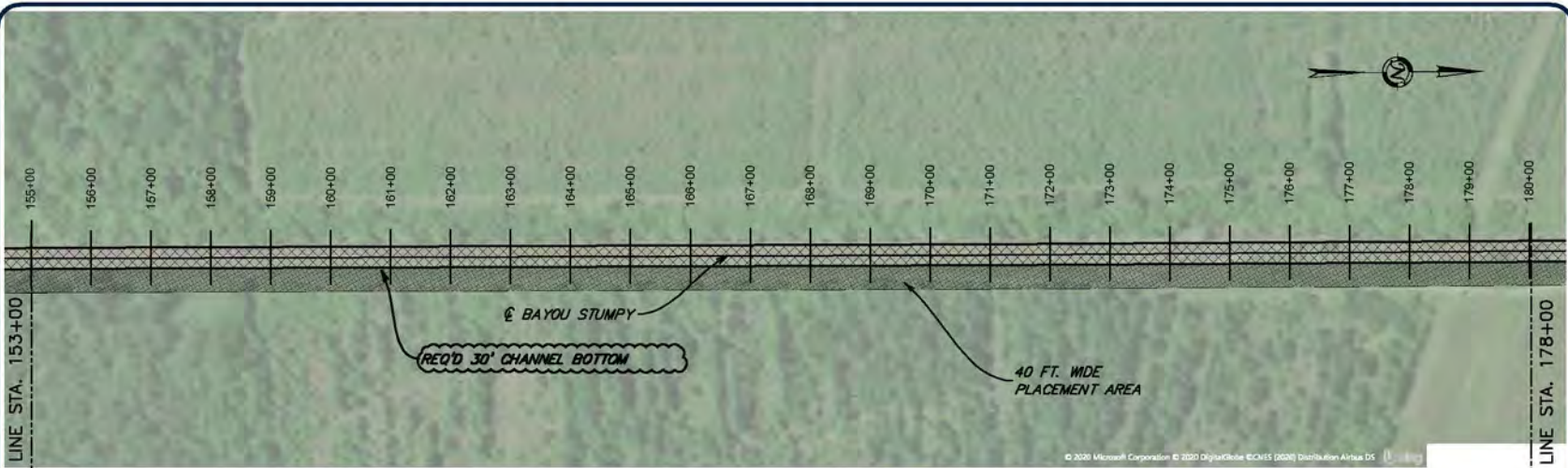
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- PLACEMENT AREA
- DREDGING AREA



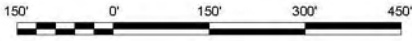
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- PLACEMENT AREA
- DREDGING AREA



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**WEST BATON ROUGE  
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 IMPROVEMENTS**

**DREDGING AND  
 PLACEMENT AREA  
 PLAN VIEW**

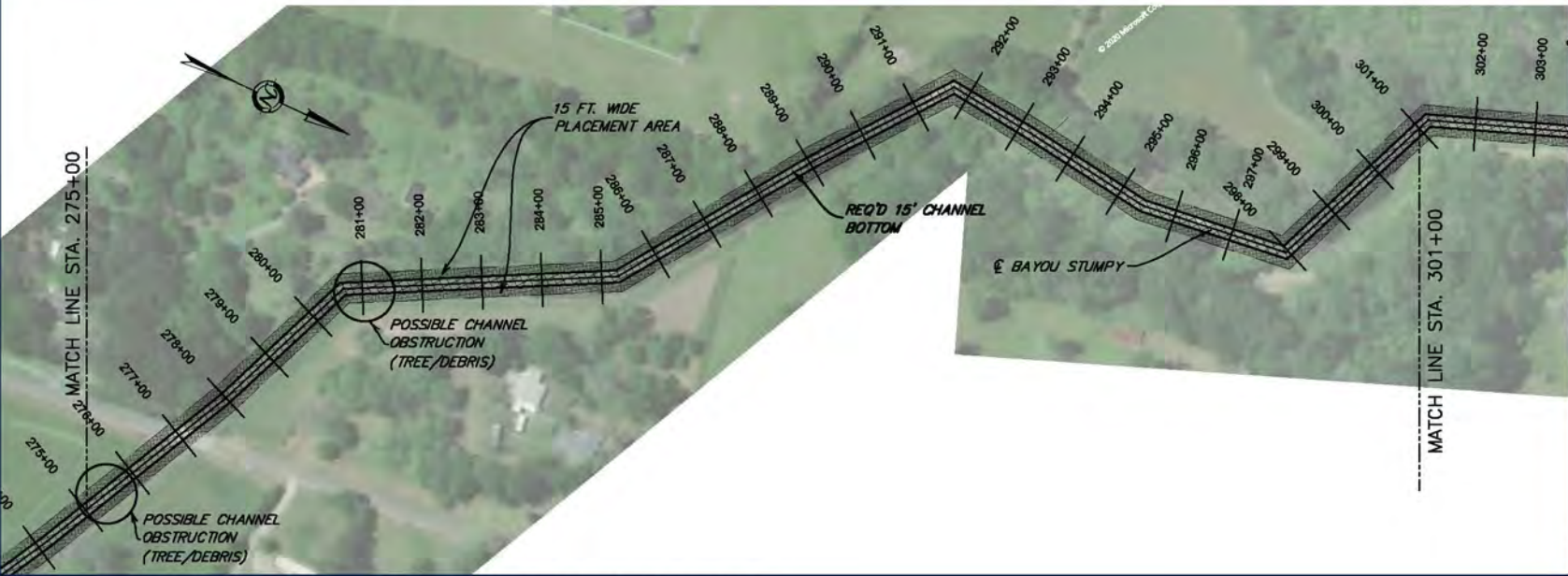
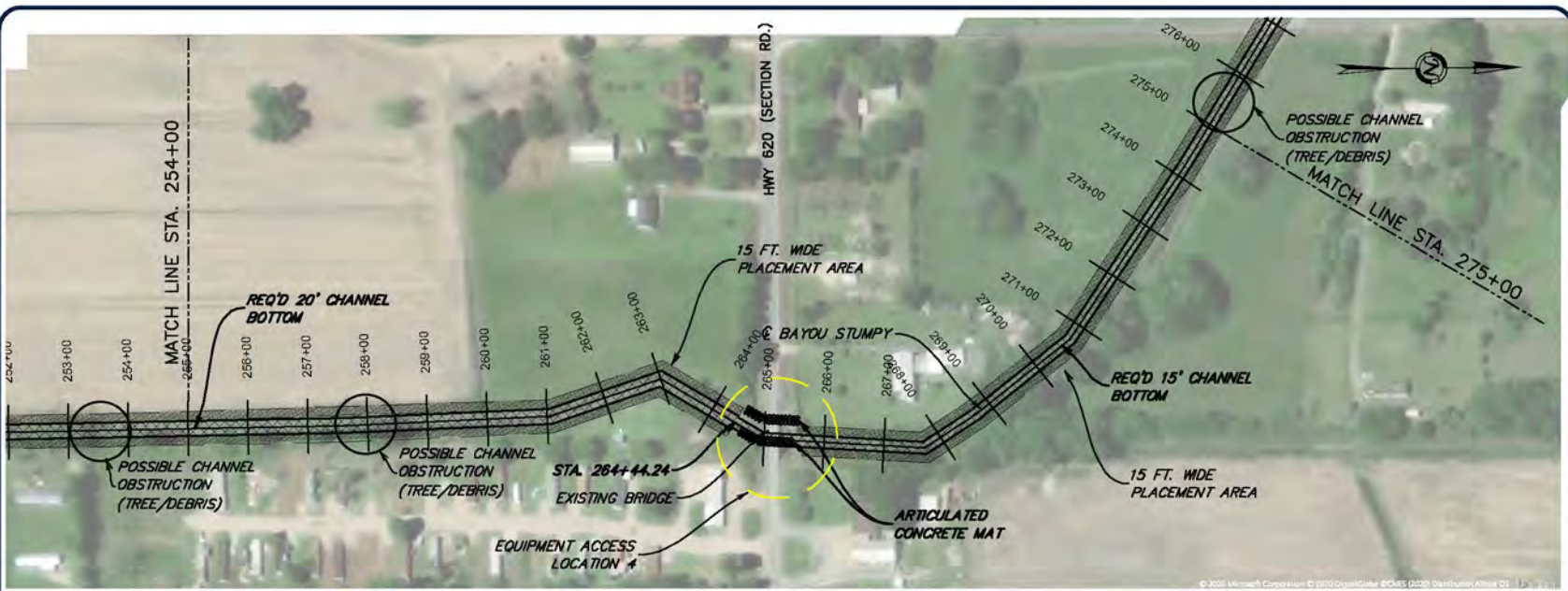
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Plot Date	June 13, 2022

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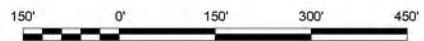






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-  - PLACEMENT AREA
-  - DREDGING AREA




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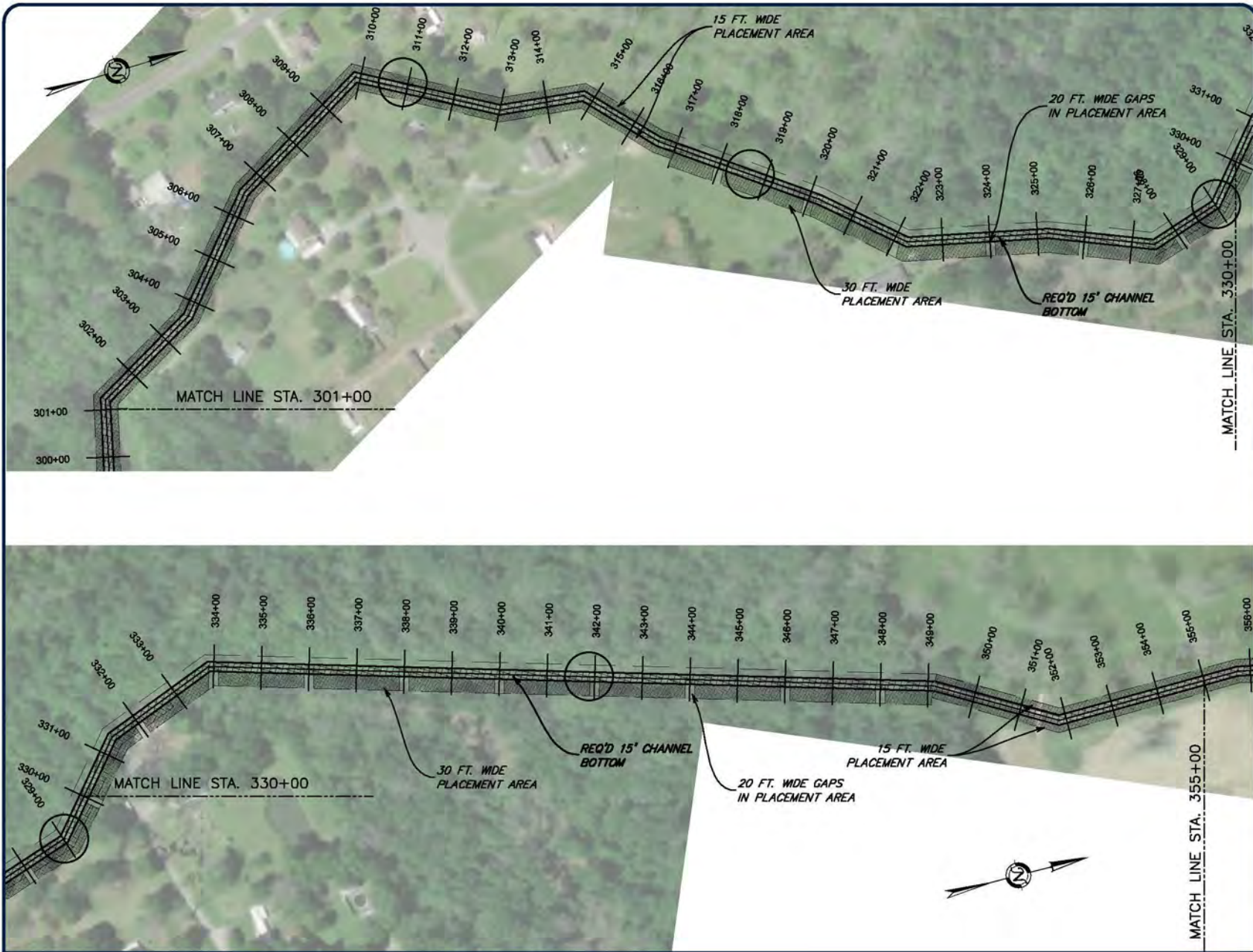
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**DREDGING AND  
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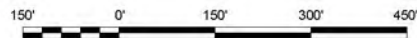
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-  - PLACEMENT AREA
-  - DREDGING AREA



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**DREDGING AND  
 PLACEMENT AREA  
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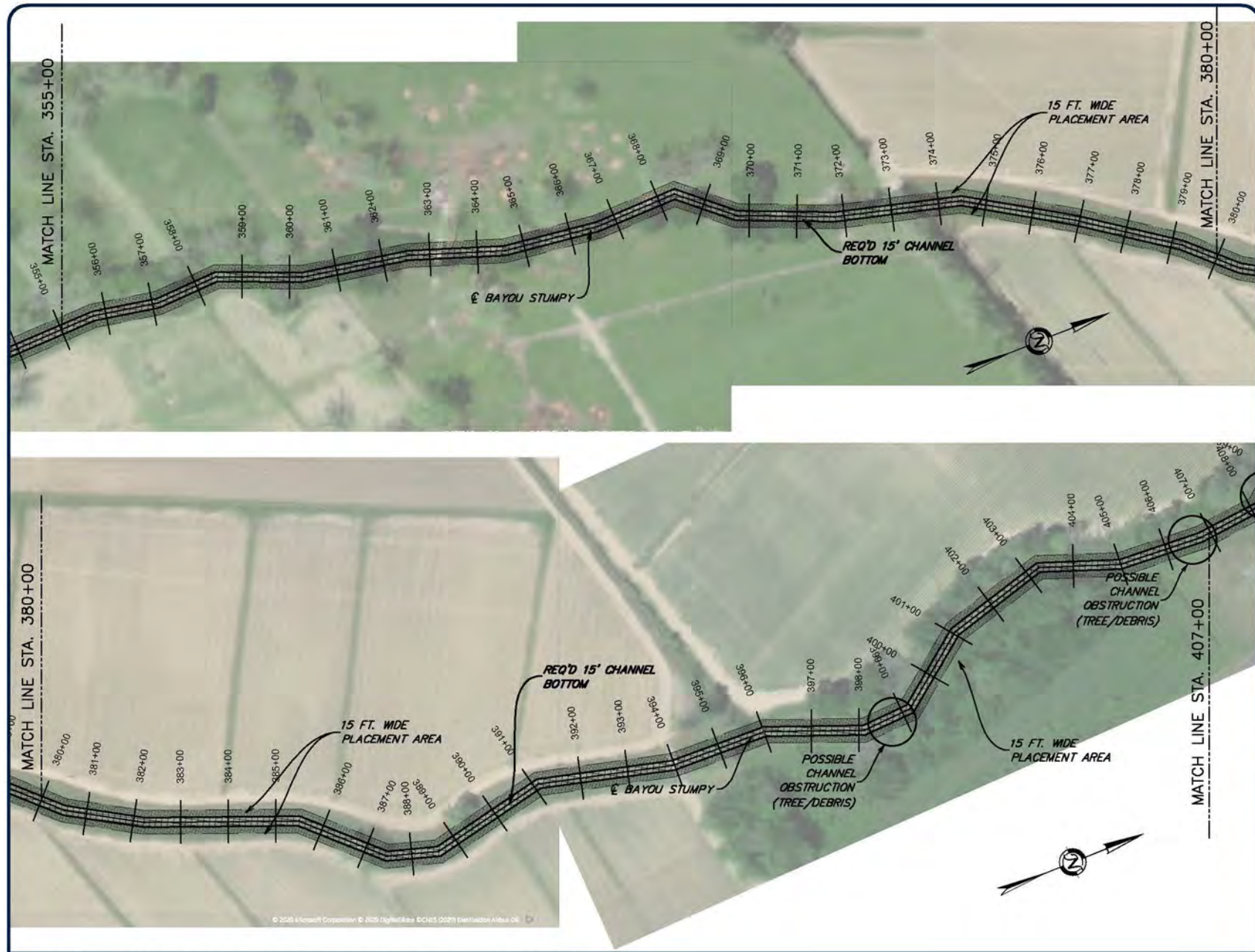
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 IMPROVEMENTS**

**DREDGING AND  
 PLACEMENT AREA  
 PLAN VIEW**

Project number	39145-1218
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- PLACEMENT AREA
- DREDGING AREA



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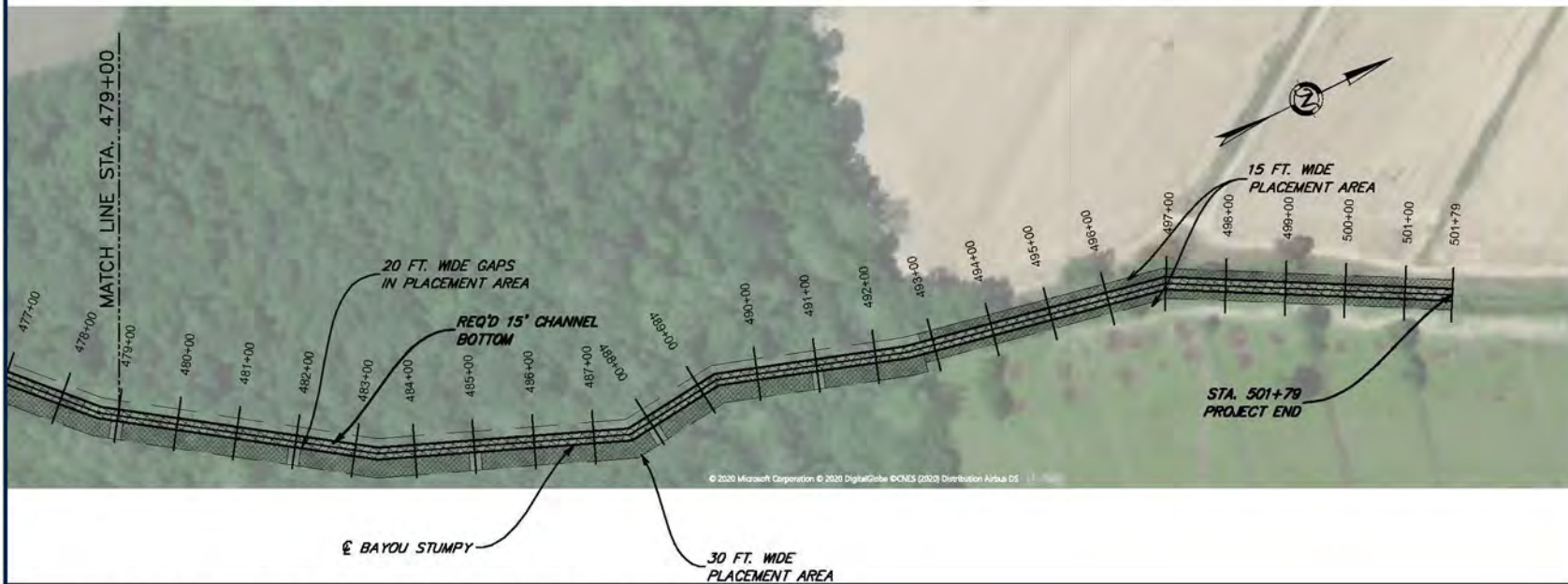
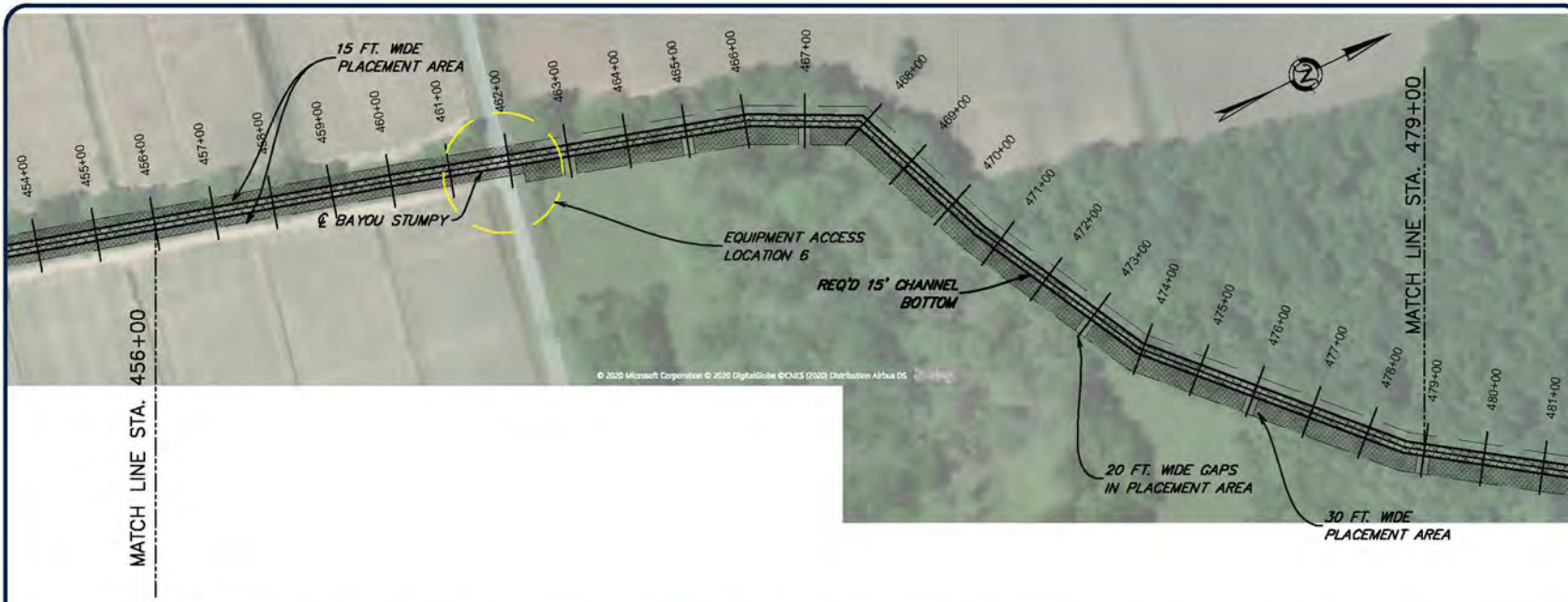
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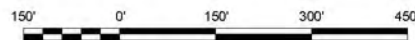
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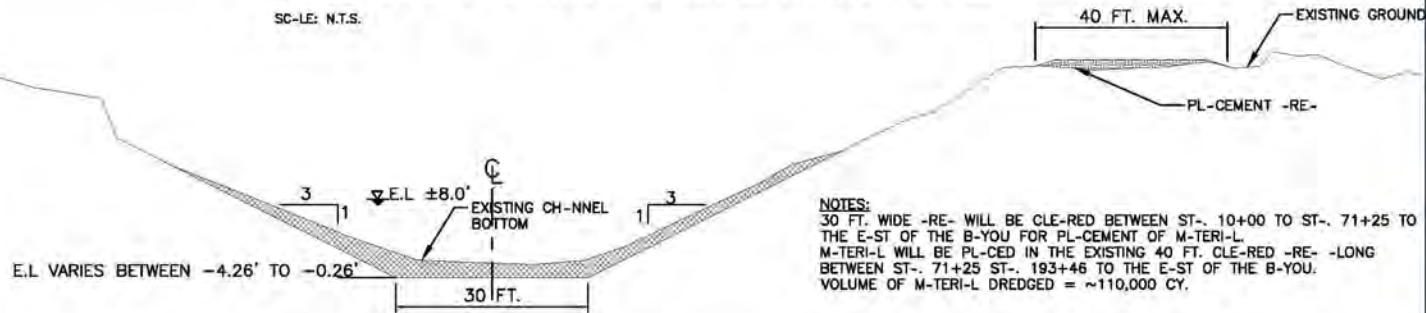
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- DREDGING AREA



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BAYOU STUMPY SECTION STA. 10+00 TO STA. 193+46

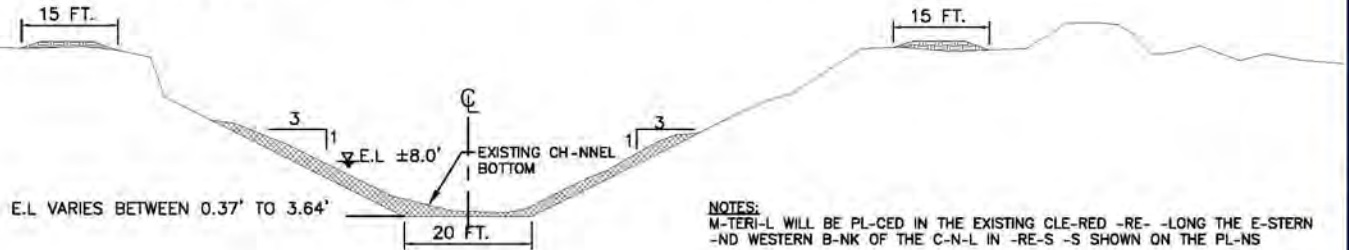
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**NOTES:**  
 30 FT. WIDE -RE- WILL BE CLE-RED BETWEEN ST-. 10+00 TO ST-. 71+25 TO THE E-ST OF THE B-YOU FOR PL-CEMENT OF M-TERI-L.  
 M-TERI-L WILL BE PL-CED IN THE EXISTING 40 FT. CLE-RED -RE- -LONG BETWEEN ST-. 71+25 ST-. 193+46 TO THE E-ST OF THE B-YOU.  
 VOLUME OF M-TERI-L DREDGED = ~110,000 CY.

BAYOU STUMPY SECTION STA. 193+46 TO STA. 264+00

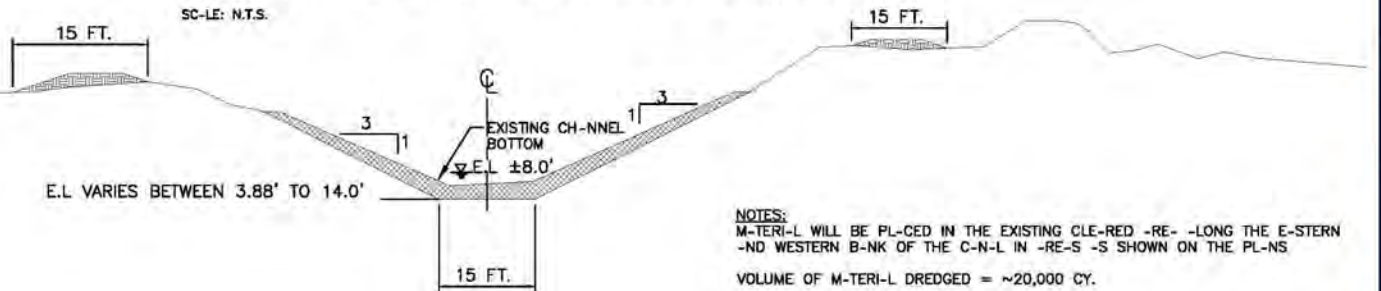
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**NOTES:**  
 M-TERI-L WILL BE PL-CED IN THE EXISTING CLE-RED -RE- -LONG THE E-STERN -ND WESTERN B-NK OF THE C-N-L IN -RE-S -S SHOWN ON THE PL-NS  
 VOLUME OF M-TERI-L DREDGED = ~41,500 CY.

BAYOU STUMPY SECTION STA. 264+44 TO STA. 317+00

SC-LE: N.T.S.



**NOTES:**  
 M-TERI-L WILL BE PL-CED IN THE EXISTING CLE-RED -RE- -LONG THE E-STERN -ND WESTERN B-NK OF THE C-N-L IN -RE-S -S SHOWN ON THE PL-NS  
 VOLUME OF M-TERI-L DREDGED = ~20,000 CY.

NOTE: THE IMAGE ABOVE IS A GENERAL REPRESENTATION OF THE WORK AREA, ACTUAL FIELD CONDITIONS MAY DIFFER.

\* NOTES:

1. CH-NNEL BOTTOM WIDTH 30' MIN FROM ST-. 10+00 TO ST-. 193+46
2. CH-NNEL BOTTOM WIDTH 20' ROM FROM ST-. 193+46 TO ST-. 264+44
3. CH-NNEL BOTTOM WIDTH 15' ROM FROM ST-. 264+44 TO ST-. 501+79

EXISTING CH-NNEL BOTTOM SHOWN IN -N - ER-GE OF CROSS-SECTIONS T-KEN OVER THE LENGTH OF E-CH SEGMENT



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**WEST BATON ROUGE  
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**BAYOU STUMPY WATERSHED  
 IMPROVEMENTS**

**TYPICAL  
 CROSS-SECTION**

Project number	39145-1218
Date	JAN 2021
Designed by	XXX
Drawn by	SDP
Checked by	SDP
Checked by	MM
Plot Date	June 2, 2021









**Appendix B**  
**Agency Correspondence**

# PUBLIC NOTICE

June 28, 2021

United States Army  
Corps of Engineers  
New Orleans District  
Regulatory Branch  
7400 Leake Avenue  
New Orleans, Louisiana 70118

(504) 862-1217  
Project Manager  
Kenny Blanke  
[Kenneth.G.Blanke@usace.army.mil](mailto:Kenneth.G.Blanke@usace.army.mil)  
MVN 2021-00271-CQ

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

## **STUMPY BAYOU WATERSHED IMPROVEMENT PROJECT NEAR ERWINVILLE, LOUISIANA IN WEST BATON ROUGE PARISH**

**NAME OF APPLICANT** West Baton Rouge Parish, c/o GIS Engineering, LLC, Attn: Mohan Menon, 450 Laurel Street, Suite 1500, Baton Rouge, Louisiana 70835

**LOCATION OF WORK:** On an approximate 9.3-mile reach of Stumpy Bayou, located along the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, within the Lower Grand River Basin, Lower Grand hydrologic unit (HUC 08070300), east of Erwinville, Louisiana, in West Baton Rouge Parish (Latitude 30.475069 N, Longitude -91.384917 W).

**CHARACTER OF WORK:** The applicant has requested a Department of the Army permit for the implementation of the Stumpy Bayou Watershed Improvement Project. The project entails the dredging of approximately 9.3 miles of Stumpy Bayou to clear existing obstructions within the bayou to restore drainage within the watershed. The project would include the removal of sediment deposits and grading of the channel bottom to enhance the rate of flow. The project would also remove fallen trees, beaver dams, and any other overgrown vegetation within the bayou. According to the applicant, the project purpose proposes to mitigate flooding and reduce flood risk within the Stumpy Bayou watershed. The project proposes to widen and deepen sections of the bayou based off of hydrological analysis performed for the project. Approximately 9.25 acres of potentially jurisdictional wetlands (7.05 acres forested habitat and 2.2 acres herbaceous habitat) are proposed to be impacted as a result of project implementation via clearing and fill placement along the banks of the bayou. Approximately 261,000 cubic yards of dredged material would be placed adjacent to the banks of Stumpy Bayou. A jurisdictional determination is pending with the Corps' Surveillance and Enforcement Section.

The applicant stated that the impacted area has been minimized through use of existing uplands in certain portions of the Stumpy Bayou as spoil disposal. The applicant has stated that any unavoidable impacts to jurisdictional wetlands would be compensated through the purchasing of appropriate wetland credits at a Corps approved mitigation bank.

The comment period for the Department of the Army Permit will close **20 days** from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request and must be mailed so as to be received before or by the last day of the comment period. Letters concerning the Corps of Engineers permit application must reference the applicant's name and the Permit Application Number, and be mailed to the Corps of Engineers at the address above, **ATTENTION: REGULATORY BRANCH.**

### **Corps of Engineers Permit Criteria**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The US Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the US Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Copies of this notice are being sent to the State Archeologist and State Historic Preservation Officer.

Our initial finding is that the proposed work would not affect any species, nor affect any habitat designated as critical to the survival and recovery of such species, listed as endangered by the U.S. Department of Commerce.

Utilizing the Information & Planning Consultation for Endangered Species in Louisiana (IPaC), dated January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office, the Corps has determined that the proposed activity will have no effect on any known species.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of NA acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the Department of Environmental Quality, Office of Environmental Services, before a permit is issued.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

for JOHN M. HERMAN  
Chief, Central Evaluation Section  
Regulatory Branch

Enclosure



## MEMORANDUM FOR RECORD

### **SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for the Above-Referenced Standard Individual Permit Application**

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, as applicable, Public Interest Review, and Statement of Findings for the subject application.

- 1.0 Introduction and Overview:** Information about the proposal subject to one or more of the Corps' regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 11 and findings are documented in Section 12 of this memorandum. Further, summary information about the activity including administrative history of actions taken during project evaluation is attached (ORM2 Summary) and incorporated in this memorandum.
- 1.1 Applicant: West Baton Rouge Parish
- 1.2 Activity location: Wetlands and waterbottoms associated with Bayou Stumpy, a tributary to Bayou Choctaw which eventually empties into the Gulf Intracoastal Waterway (GIWW-Alternate Route). On an approximate 9.3-linear mile reach of Bayou Stumpy, located along the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, within the Lower Grand River Basin, Lower Grand hydrologic unit (HUC 08070300), east of Erwinville, Louisiana, in West Baton Rouge Parish (Latitude 30.475069 N, Longitude -91.384917 W).
- 1.3 Description of activity requiring permit: The applicant has requested a Department of the Army Permit for the implementation of the Bayou Stumpy Watershed Improvement Project. The project entails the dredging of approximately 9.3 miles of Bayou Stumpy to clear existing obstructions within the bayou to restore drainage within the watershed. The project would include the removal of sediment deposits and grading of the channel bottom to enhance the rate of flow. The project would also remove fallen trees, beaver dams, and any other overgrown vegetation within the bayou. According to the applicant, the project purpose proposes to mitigate flooding and reduce flood risk within the Bayou Stumpy watershed. The project proposes to widen and deepen sections of the bayou based off of hydrological analysis performed for the project. Approximately 9.25 acres of jurisdictional wetlands (7.05 acres forested habitat and 2.2 acres herbaceous / scrub shrub habitat) are proposed to be impacted as a result of project implementation via clearing and fill placement along the banks of the bayou. Approximately 261,000 cubic yards of dredged material would be placed adjacent to the banks of Bayou Stumpy. The reshaping and drainage

improvements proposed were analyzed by an independent Hydrologic and Hydraulic Report performed in 2020 after Bayou Stumpy was identified as a watershed that needed improvements. The project has received funding from FEMA via the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) after the watershed was identified as an area that required improvements to help minimize and mitigate flood risk for the surrounding area.

The applicant has proposed to utilize any existing spoil banks as primary areas for spoil deposition and will also be utilizing best management practices to help minimize direct impacts to surrounding avoided wetlands and waters of the United States. The applicant is also proposing to gap spoil banks proposed in wetland areas to ensure surrounding wetlands will maintain hydrologic connectivity. The project's unavoidable impacts to approximately 9.25 acres of wetland habitat areas would be compensated through the purchasing of appropriate wetland credits at a Corps approved mitigation bank.

- 1.3.1 Proposed avoidance and minimization measures: The applicant has claimed that the project has been designed to avoid and minimize direct and secondary adverse wetland impacts to the maximum extent practicable through the use of the existing spoil banks located along the eastern side of Bayou Stumpy (south of US Hwy 190). These existing spoil banks will be utilized to help minimize impacts to wetlands located adjacent to this project. Gaps will be incorporated into the spoil banks when located adjacent to existing avoided wetland habitat. Approximately 39.4 acres of existing spoil bank and or upland areas will be utilized as spoil placement areas to help improve drainage while minimizing direct impacts to wetlands. The applicant will minimize impacts to downstream waters and wetlands by implementing Best Management Practices (BMPs) commensurate with a development of this type. Additionally, special conditions will be required in the final authorization regarding the use of non-contaminated fill material and BMPs for sediment control.
- 1.3.2 Proposed compensatory mitigation: The agent provided a statement that West Baton Rouge Parish wholly intends to off-set the unavoidable impacts to jurisdictional wetlands by contracting with a compensatory mitigation bank deemed suitable and selected by resource and regulatory agencies. The completed compensatory mitigation assessment is detailed in Section 8.0 of this document.
- 1.4 Existing conditions and any applicable project history: The project site is located along the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, within the Lower Grand River Basin, Lower Grand hydrologic unit (HUC 08070300), east of Erwinville,

Louisiana, in West Baton Rouge Parish (Latitude 30.475069 N, Longitude - 91.384917 W). Gaps are proposed to be installed to maintain hydrologic connectivity along the proposed spoil bank when in wetland areas. The Bayou Stumpy watershed is approximately 13,187 acres comprised primarily of agricultural and residential areas. According to the H&H analysis, the area has experienced problems in maintenance of drainage systems due to siltation of channels and insufficient size of drainage systems to confine stormwater flow. A majority of the Bayou Stumpy reach has existing spoil banks that have been present since at least the 1998 aerial imagery from previous cleanouts and or maintenance from local entities. An approved jurisdictional determination for the northern portion and areas to the north along Bayou Stumpy was completed as MVN-2015-01248-SQ, dated 6 January 2016. Southern areas of Bayou Stumpy were delineated and a preliminary JD (MVN-2021-0271-SQ) was issued based on consultant provided data.

- 1.5 Permit Authority: Section 10 of the Rivers and Harbors Act (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344). The southernmost portion of the project is located where Bayou Stumpy empties into Bayou Choctaw, which is a section 10 water. The majority of the reach of this project is Section 404 only.
- 2.0 **Scope of review for National Environmental Policy Act (i.e. scope of analysis), Section 7 of the Endangered Species Act (i.e. action area), and Section 106 of the National Historic Preservation Act (i.e. permit area)**
- 2.1 Determination of scope of analysis for National Environmental Policy Act (NEPA):

The scope of analysis includes the specific activity requiring a Department of the Army permit. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

Final description of scope of analysis: Wetlands onsite and the water bottoms of the WOUS as well as the adjacent, abutting uplands, specifically within the footprint of the project in regards to the drainage improvement project. The proposed project is located adjacent to a transportation corridor; however, the project does not comprise a link and is site specific. Only an approx. 19.17% of the proposed project site is within Corps' jurisdictional wetlands however, the extent of federal control and responsibility is such that federal review is warranted beyond the limits of the activities subject to Corps control due to the potential for indirect and cumulative effects from the reasonably close connection to the regulated activity.



- 2.2 Determination of the “Corps action area” for Section 7 of the Endangered Species Act (ESA): The ESA action area includes the wetlands onsite and the water bottoms of the WOUS as well as the adjacent, abutting uplands, specifically within the footprint of the project in regards to the drainage improvement project.

The scope of the activity is determined to be within the project boundary and includes areas of non-jurisdiction which may be affected by the federal action. The project area is not anticipated to affect any areas outside of its boundary.

- 2.3 Determination of permit area for Section 106 of the National Historic Preservation Act (NHPA):

The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures , as well as activities outside of waters of the U.S. because all three tests identified in 33 CFR 325, Appendix C(g)(1) have been met.

Final description of the permit area: Wetlands onsite and the water bottoms of the WOUS as well as the adjacent, abutting uplands, specifically within the footprint of the project in regards to the development.

The permit area is defined by the boundaries of the proposed project. Project related activities will be confined within the boundaries of the site.

### **3.0 Purpose and Need**

- 3.1 Purpose and need for the project as provided by the applicant and reviewed by the Corps: To dredge waterbottoms, clear obstructions and restore drainage within a watershed by widening and deepening Bayou Stumpy.

- 3.2 Basic project purpose, as determined by the Corps: drainage improvements.

- 3.3 Water dependency determination: The activity does not require access or proximity to or siting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is not water dependent.

An alternatives analysis has been completed for all practicable alternatives presented for this project, as outlined in Section 5.0.

- 3.4 Overall project purpose, as determined by the Corps: To dredge waterbottoms, reshape and deepen channel, remove vegetative debris (overgrown vegetation, beaver dams, etc.) and to place and maintain spoil material along existing or degraded spoil banks along Bayou Stumpy for drainage improvements within the watershed.

#### 4.0 Coordination

- 4.1 The results of coordinating the proposal on Public Notice (PN) are identified below, including a summary of issues raised, any applicant response and the Corps' evaluation of concerns.

Were comments received in response to the PN? Yes

Were comments forwarded to the applicant for response? Yes

Was a public meeting and/or hearing requested and, if so, was one conducted?  
No, no public hearing or meeting was requested.

Comments received in response to public notice:  
Public Notice period from 28 June 2021 through 19 July 2021.

The following received comments do not specifically regard compliance with other laws, policies or requirements as documented in Section 10.0 of this document:

Federal Agencies:

Environmental Protection Agency (EPA): By email dated 14 July 2021, EPA stated that they do not object to the project as proposed provided that the applicant has satisfied the requirements of the 404(b)(1) Guidelines. EPA also recommended that the applicant provide compensatory mitigation within the project watershed for all unavoidable impacts that should fully offset all lost functions and values. EPA requested an opportunity to review the LRAM calculations prior to permit issuance.

By email dated 10 August 2021, the Corps forwarded all Public Notice comments (including EPA) and also requested additional information regarding: (1) consideration of alternatives (avoidance and/or minimization) to the proposed impacts to jurisdictional wetlands from dredged material placement. The Corps asked that if there are any potential upland alternatives or existing spoil banks, it is recommended that those alternatives are considered to minimize project impact to wetlands. (2) gapping of spoil banks- in order to prevent impoundments and to allow for exchange between the adjacent areas which drain in Bayou Stumpy, the Corps would also recommend gapping these spoil banks. (3) justification- can you please provide justification for the project; which areas/communities it will serve and what drainage analysis or study findings were utilized to ensure that no impacts to downstream areas would occur as a result of this project? Have there been previous flooding events impacting these communities? (4) avoidance of adjacent wetlands-will the proposed drainage improvements have any indirect impact on these avoided wetlands (i.e.- draining of wetland areas or impacting wetland hydrology of these areas)?

By email dated 13 August 2021, the agent provided a written response to the Public Notice comments and provided a copy of the 2020 Hydrologic and Hydraulic analysis for the Bayou Stumpy Watershed drainage improvement project. A detailed account of the response will be discussed later in this document in the Corps Evaluation portion of this section located on page 8-9 of this document.

By email dated 16 September 2021, the Corps forwarded the applicant's response and additional information to EPA. EPA sent an email read receipt dated 17 September 2021.

Mitigation options were coordinated with EPA via email dated 3 December 2021 and revised spoil bank gap drawings were also coordinated with EPA via email on 30 June 2022. EPA sent an email read receipt to the spoil bank gaps drawing email on 20 June 2022.

State Agencies:

Louisiana Department of Wildlife and Fisheries (LDWF): By email dated 15 July 2021, LDWF provided the following comments and recommendations: (1) that the applicant place spoil material only in areas that have identified spoil banks, (2) that the applicant properly install adequate erosion/siltation control measures around construction areas that require land based earthwork (spoil placement areas) to ensure that no project related sediments, debris, and other pollutants enter adjacent wetlands or waters, and (3) that the applicant purchase mitigation credits from an approved mitigation bank located within the same watershed as the authorized impacts.

By email dated 10 August 2021, the Corps forwarded all Public Notice comments (including LDWF) and also requested additional information (discussed previously in document).

Applicant's Response: By email dated 13 August 2021, the agent provided a written response to the Public Notice comments and provided a copy of the 2020 Hydrologic and Hydraulic analysis for the Bayou Stumpy Watershed drainage improvement project. A detailed account of the response will be discussed later in this document in the Corps Evaluation portion of this section located on page 8-9 of this document.

By email dated 16 September 2021, the Corps forwarded the applicant's response and additional information to LDWF. LDWF concurred with the applicant's response via email on 24 September 2021.

Mitigation options were coordinated with LDWF via email dated 3 December 2021 and revised spoil bank gap drawings were also coordinated with LDWF via



email on 30 June 2022. LDWF concurred with mitigation options via email on 3 December 2021 but did not respond to the gapped spoil bank updated drawings.

Individuals:

By email dated 30 June 2021, Mr. Kenneth Teague provided the following comments stating: “The applicant has not provided sufficient information regarding the purpose and need for the proposed project. For example, has flooding occurred in the drainage area recently? What evidence is there if so? The applicant should also provide data supporting their assertion that the proposed action will solve whatever problem they end up disclosing. All of this should be available for public review and comment.

The applicant has not demonstrated compliance with the Clean Water Act, Section 404(b)(1) Guidelines. The applicant should be required to demonstrate they have attempted to avoid and minimize impacts to aquatic habitats.

The proposed action will degrade Bayou Stumpy, although it has been channelized in the past. The applicant should be required to estimate the impacts to the stream environment and propose appropriate mitigation.

The proposed action will almost certainly impact about 3000 acres of forested wetlands along the final 2 mi of the proposed project, north of Hwy 76, by altering wetland hydrology by draining these wetlands more than they are currently drained. The applicant should be required to disclose these impacts to the public.

They should be required to estimate the changes to wetland hydrology, to estimate the types of changes this would cause to the forested wetlands along Bayou Stumpy, and to estimate the magnitude of these changes. The applicant should be required to demonstrate avoidance and minimization of such impacts, and finally, they must propose mitigation for any unavoidable impacts. The applicant should be required to estimate the risk of induced development impacting these wetlands, when they are further drained. Such impact estimates should be disclosed to the public. Appropriate mitigation should be proposed.

The applicant should be required to demonstrate that they have attempted to avoid and minimize the wetland impacts disclosed in the PN, associated with proposed dredged material disposal.

The applicant should be required to test the proposed dredged material (elutriate) for contaminants, particularly pesticides, legacy pesticides in particular. If any bioaccumulative contaminants are detected, bioaccumulation testing should be required. If any contaminants in elutriate exceed water quality criteria, mixing calculations must be done to estimate whether water quality criteria would be met. If any toxic contaminants without water quality criteria are detected, water column toxicity testing must be required. “

By email dated 10 August 2021, the Corps forwarded all Public Notice comments (including Mr. Teague’s) and also requested additional information (discussed previously in document).

Applicant’s Response: By email dated 13 August 2021, the agent provided a written response to the Public Notice comments and provided a copy of the 2020

Hydrologic and Hydraulic (H&H) analysis for the Bayou Stumpy Watershed drainage improvement project. A detailed account of the response will be discussed later in this document in the Corps Evaluation portion of this section located on page 8-9 of this document. A lot of Mr. Teague's comments were addressed by the H&H Analysis, demonstration of project need, use of existing spoil banks to the maximum extent practicable, use of BMPs, spoil bank gapping, LA Department of Environmental Quality issuing the Section 401 Water Quality Certification, and the requirement of compensatory mitigation for all unavoidable project related impacts associated with the project.

Corps Evaluation: Project has received authorizations from the Louisiana Department of Environmental Quality regarding water quality standards and additional drawings indicating the spoil bank gapping (every 200 feet approximately 20 feet wide) while the project is located adjacent to avoided wetlands and or Other Waters of the US. Permit decision was delayed due to funding delays tied to the project design and necessary required compensatory mitigation requirements. Applicant was delayed in purchasing mitigation during these funding delays while the state and other federal agencies were finalizing project funding. Permit will include special condition which stipulates that permittee must obtain all local, state, parish approvals prior to commencement of construction. Permittee shall also utilize best management practices to prevent adjacent waters of the US and wetlands from being directly impacted as a result of construction activity related runoff. The applicant shall be required to stabilize the spoil bank placement once construction has been completed to help maintain these spoil banks and prevent any additional sediment runoff into adjacent wetlands and or back into Bayou Stumpy.

The detailed response package received from the applicant on 13 August 2021 addressed the agencies' and Corp's concerns and questions based on the public notice. Additional information provided (both in H & H Analysis and applicant response) helped ensure that spoil banks will be utilized as much as practicable. The applicant evaluated double handling and also moving the spoil material to adjacent pasture and or hauling portions offsite. The costs associated with this and amount of additional equipment and trucks to facilitate this alternative were not feasible. The majority of the Bayou Stumpy reach proposed to be dredged in this project has been subject to past maintenance and or "reaming" of some portions of the channel as evidenced by existing spoil banks presence and also through aerial photography. The use of the existing spoil banks and upland areas adjacent to approximately 39.4 acres of the proposed project helped minimize potential direct and secondary impacts to wetland habitats associated with this project. The applicant provided updated plan views showing the spoil bank gap locations when the spoil placement is in wetland habitat to help maintain hydrologic

connectivity of the avoided, adjacent wetlands. BMPs shall be utilized, and spoil areas shall be stabilized with hydromulch material to help promote vegetative herbaceous growth to help stabilize soils. No rootballs are proposed to be removed along these cleared spoil bank areas to help maintain stability of the bank areas. The Corps has determined that the applicant's responses were adequate and through the incorporation of BMPs, spoil bank gapping, and compensatory mitigation requirements that there were no outstanding issues remaining regarding this project.

Upon review of CWA regulations and CEMVN permit processing procedures, the agent's responses are regarded as sufficient. The agent has also provided an alternative project design analysis which primarily focused on alternative designs of the project and or spoil disposal alternatives which will be discussed later in this document. The applicant also provided justification for the project which has been discussed and will be further elaborated on in this document.

Additional discussion of submitted comments, applicant response and/or Corps' evaluation: Previously discussed above.

4.2 Were additional issues raised by the Corps including any as a result of coordination with other Corps offices? Yes

If yes, provide discussion including coordination of concerns with the applicant, applicant's response and Corps' evaluation of the response:

CEMVN Real Estate Region South Division (RE): By email dated 30 June 2021, RE stated that no real estate instrument is required the proposed project.

CEMVN Archaeologist and Tribal Liaison (PDN-NCR): By memo dated No potential or little likelihood to cause effects to Historic Properties. Rationale: 33 CFR 325 Appendix C (3)(b)(1) and (3)(b)(3); 36 CFR 800.3(b)(1). This project involves activities that are limited to areas where past disturbance was so severe as to preclude the existence of intact cultural deposits, and the work to be permitted is limited to incidental or low volume disturbance. A search of the Louisiana Division of Archaeology Cultural Resource Viewer online database and other sources showed no previously recorded historic properties in the permit area.

Note: The proposed project involves the maintenance dredging of Bayou Stumpy and the removal of vegetative debris. The Corps jurisdiction for the proposed undertaking is limited to impacted wetlands and waters. Bayou Stumpy has been previously impacted by channelization. Dredged material would be placed on the existing spoil bank.



4.3 Were comments raised that do not require further discussion because they address activities and/or effects outside of the Corps' purview? No

If yes, provide discussion: N/A

**5.0 Alternatives Analysis** (33 CFR Part 325 Appendix B(7), 40 CFR 230.5(c) and 40 CFR 1502.14). An evaluation of alternatives is required under NEPA for all jurisdictional activities. An evaluation of alternatives is required under the Section 404(b) (1) Guidelines for projects that include the discharge of dredged or fill material. NEPA requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives; under the Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.

5.1 Site selection/screening criteria: In order to be practicable, an alternative must be available, achieve the overall project purpose (as defined by the Corps), and be feasible when considering cost, logistics and existing technology.

Criteria for evaluating alternatives as evaluated and determined by the Corps: The proposed project involves the proposed dredging of an approximate 9.3-linear mile reach of Bayou Stumpy to improve drainage for the surrounding areas. The project entails the dredging, deepening, and widening of the bayou and the placement of excavated material onto existing spoil banks. The project alternatives are project area specific due to the nature of the project purpose. The applicant was asked to develop and or consider alternative designs and or methods to both achieve the project purpose while avoiding impacts to special aquatic sites.

5.2 Description of alternatives

The agent evaluated the currently proposed alternative (proposed project), the no-build alternative, and alternate onsite methods to limit spoil disposal areas to upland areas and or hauling spoil material offsite to an approved upland disposal facility.

5.2.1 No action alternative: The no action alternative may avoid short or potential long term and cumulative adverse impacts to the local environment that may result from project implementation. The site would remain in its current state and could potentially lead to future flooding events to areas that utilize the Bayou Stumpy watershed for drainage. Residents and businesses that depend upon this drainage would remain at risk for potential flooding events due to inefficient drainage mechanisms that were identified by the H&H Analysis. The study modelled 10-yr, 25-yr, 50-yr, and 100-yr storm events were modelled existing versus post project implementation and demonstrated more effective and

efficient drainage to Bayou Choctaw from Bayou Stumpy if the proposed project was implemented. Impacts to the 9.25 acres of jurisdictional forested wetlands and scrub shrub/ wet pasture mixed habitat would not be realized if this project was not implemented.

#### 5.2.2 Off-site alternatives

Discussed earlier in document, project was determined to be site specific and limited to the Bayou Stumpy site; H&H Analysis provided justification for site selection to help facilitate flood risk mitigation and minimization.

#### 5.2.3 On-site alternatives

On-site alternative 1 (applicant's preferred alternative): This proposed configuration substantially meets most criteria and, other than direct impacts to the aquatic resources located on-site, makes the site the most viable option. Due to the location of aquatic resources on the project site, complete avoidance would result in constraining project goals to the point of impracticality. Spoil bank gapping near avoided adjacent wetland areas, and use of existing spoil banks and upland areas help minimize direct impacts to wetlands. Further impacts to downstream waters and wetlands will be minimized by implementing BMPs during construction and additional mitigation or restoration requirements will help alleviate concerns if the project causes future conversion impacts to any of the avoided forested wetlands that are proposed to be left in natural state.

#### 5.3 Evaluate alternatives and whether or not each is practicable under the Guidelines or reasonable under NEPA.

Offsite adjacent property alternative was not practicable as discussed in previous section.

#### 5.4 Least environmentally damaging practicable alternative under the 404(b)(1) Guidelines (if applicable) and the environmentally preferable alternative under NEPA:

The proposed project site substantially meets the criteria and other than direct impacts to aquatic resources, it has been determined that the proposed site and configuration represents the least environmentally damaging practicable alternative. The use of existing spoil banks helps minimize direct impacts to wetlands and the proposed spoil bank gapping through wet areas will maintain hydrologic connectivity. Additional handling of the material and or complete removal of the material to upland disposal sites were not practicable due to cost and safety.

**6.0 Evaluation for Compliance with the Section 404(b)(1) Guidelines.** The following sequence of evaluation is consistent with 40 CFR 230.5

6.1 Practicable alternatives to the proposed discharge consistent with 40 CFR 230.5(c) are evaluated in Section 5. The statements below summarize the analysis of alternatives.

In summary, based on the analysis in Section 5.0 above, the no-action alternative, which would not involve discharge into waters, is not practicable.

For those projects that would discharge into a special aquatic site and are not water dependent, the applicant has demonstrated there are no practicable alternatives that do not involve special aquatic sites.

It has been determined that there are no alternatives to the proposed discharge that would be less environmentally damaging. (Subpart B, 40 CFR 230.10(a)). The proposed discharge in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences.

6.2 Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)). Each disposal site shall be specified through the application of these Guidelines:

Discussion: Discharge of fill material will occur at the project site within the footprint of the activity. Approx. 9.25 acres of jurisdictional wetlands moderate quality forested wetland with some wet pasture scrub/shrub habitats will be impacted by the placement or redistribution of fill material.

6.3 Potential impacts on physical and chemical characteristics of the aquatic ecosystem (Subpart C 40 CFR 230.20). See Table 1:

Table 1 – Potential Impacts on Physical and Chemical Characteristics						
Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Substrate					X	
Suspended particulates/ turbidity				X		
Water					X	
Current patterns and water circulation					X	

Table 1 – Potential Impacts on Physical and Chemical Characteristics						
Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Normal water fluctuations					X	
Salinity gradients		X				

Discussion: Natural contours and elevations within the filled wetlands will be eliminated and underlying soil horizons and natural subsurface flow at the site will be altered by the placement of fill material. The substratum directly beneath fill placement will consequently convert to anoxic and anaerobic conditions. Excavation and filling activities will also temporarily affect the physical or chemical characteristics of the substrate and water column. Adjacent waters will experience short-term increases in turbidity and suspended sediments as a result of project activities in Bayou Stumpy and portions of Bayou Choctaw. Ambient conditions are presumed to return to near pre-project conditions once the activity is complete. It is anticipated that project related impacts to the non-living environment at the project site are expected to be minor and localized.

6.4 Potential impacts on the living communities or human uses (Subparts D, E and F):

6.4.1 Potential impacts on the biological characteristics of the aquatic ecosystem (Subpart D 40 CFR 230.30). See Table 2:

Table 2 – Potential Impacts on Biological Characteristics						
Biological characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Threatened and endangered species		X				
Fish, crustaceans, mollusk, and other aquatic organisms					X	
Other wildlife					X	

Discussion: Per the IPAC agreement, no endangered species were identified within the project action area. The proposed action will result in a loss of any



benthic organisms at the immediate location of Bayou Stumpy and portions of Bayou Choctaw and small drainage conveyances on-site, more motile aquatic species and other wildlife present will relocate to similar available habitat in the vicinity, and the proposed work should result in no more than minimal adverse effects to EFH (if any is present), either individually or cumulatively, as confirmed by NMFS in a no objection determination detailed in Section 10.2. The overall impact to the aquatic ecosystem associated with the fill placement will be minor and temporary in nature.

6.4.2 Potential impacts on special aquatic sites (Subpart E 40 CFR 230.40). See Table 3:

Table 3 – Potential Impacts on Special Aquatic Sites						
Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Sanctuaries and refuges	X					
Wetlands					X	
Mud flats	X					
Vegetated shallows	X					
Coral reefs	X					

Discussion: It is anticipated that overall direct effects of project implementation will be minor for wetlands and not applicable for other special aquatic sites as none are present within the project area. The proposed project will directly impact approx. 9.25 acres of jurisdictional wetlands (moderate quality forested wetland habitat and wet pasture with scrub-shrub component) due to excavation, grading, and the placement of fill material. Wetlands onsite have been determined to be moderate quality bottomland hardwood habitat (moderate quality dominated by red maple, box elder, water oak, sweet gum, and green ash in the tree and sapling strata; wet pasture species include spike rush, alligator weed, and common rush).

6.4.3 Potential impacts on human use characteristics (Subpart F 40 CFR 230.50). See Table 4:



Table 4 – Potential Impacts on Human Use Characteristics						
Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Municipal and private water supplies			X			
Recreational and commercial fisheries			X			
Water-related recreation			X			
Aesthetics					X	
Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves	X					

Discussion: There are no known water supply intake structures in the immediate vicinity of the project site. Although natural features are generally considered to be more aesthetically pleasing than man-made structures and developments, the aesthetic effect of this project is considered to be long term, but minor.

6.5 Pre-testing evaluation (Subpart G, 40 CFR 230.60):

The following has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. See Table 5:

Table 5 – Possible Contaminants in Dredged/Fill Material	
Physical characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	
Results from previous testing of the material or similar material in the vicinity of the project	
Known, significant sources of persistent pesticides from land runoff or percolation	
Spill records for petroleum products or designated (Section 331 of CWA) hazardous substances	
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	X
Known existence of substantial material deposits of substances which	

Table 5 – Possible Contaminants in Dredged/Fill Material	
could be released in harmful quantities to the aquatic environment by man-induced discharge activities	

Discussion: The LA DEQ has verified that the discharge of proposed fill material will not violate state water quality standards and offered no objection to the proposed project, by WQC 210614-03 dated 14 September 2021. Contaminants which may be present may be biologically available to the aquatic environment; however, the effects are expected to be negligible and the likelihood of contamination is acceptably low. There are no known records of chemical spills or pollutant discharges in the immediate vicinity of the project site. The final authorization will be conditioned such that all material used during construction shall be pollutant free in accordance with the EPA Guidelines for Discharge of Dredged or Fill Material.

It has been determined that testing is not required because the likelihood of contamination by contaminants is acceptably low and the material may be excluded from evaluation procedures.

6.6 Evaluation and testing (Subpart G, 40 CFR 230-61):

Discussion: Any excavated material will be redistributed as on-site fill and any contaminants within that material are present at the site currently. All impacted jurisdictional wetlands will be elevated.

6.7 Actions to minimize adverse impacts (Subpart H). The following actions, as appropriate, have been taken through application of 40 CFR 230.70-230.77 to ensure minimal adverse effects of the proposed discharge. See Table 6:

Table 6 – Actions to Ensure Adverse Effects are Minimized	
Actions concerning the location of the discharge	X
Actions concerning the material to be discharged	X
Actions controlling the material after discharge	X
Actions affecting the method of dispersion	
Actions affecting plant and animal populations	
Actions affecting human use	X

Discussion: This site will be left at or raised to non-wetland natural ground elevation and areas where spoil banks are proposed for the Bayou Stumpy drainage improvement project. Some areas will have spoil banks limited to the eastern side where existing spoil banks are located and other reaches will utilize both sides of the banks of the bayou for disposal. Appropriate erosion control

methods (BMP's) will be utilized during and after the construction phase to help prevent erosion and degradation of water quality or non-point source pollution on-site. A special condition will be included in the final authorization stating that the permittee shall also ensure that any contractors, foremen, and/or any workers associated with construction of the development are equally aware of the conditions and restrictions associated with this approval to reduce secondary and cumulative effects due to human occupation.

6.8 Factual Determinations (Subpart B, 40 CFR 230.11). The following determinations are made based on the applicable information above, including actions to minimize effects and consideration for contaminants. See Table 7:

Table 7 – Factual Determinations of Potential Impacts						
Site	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Physical substrate					X	
Water circulation, fluctuation and salinity					X	
Suspended particulates/turbidity				X		
Contaminants			X			
Aquatic ecosystem and organisms					X	
Proposed disposal site					X	
Cumulative effects on the aquatic ecosystem					X	
Secondary effects on the aquatic ecosystem					X	

Discussion: As discussed in previous sections, it is anticipated that overall direct effects of project implementation will be minor and/or negligible. Cumulatively, the proposed project would contribute to the increasing impacts to wetlands and water bottoms within the Terrebonne Basin. Portions of this specific location has been determined to be outside of the 100-year floodplain. The development of wetlands for human use has contributed to wetland loss in Louisiana, both directly and indirectly. The cumulative impacts associated with the proposed project, while not significant, do add to the historical and continued impacts to this ecological system within this region of Louisiana. Cumulative effects include continued deterioration from isolation and fragmentation of wetlands, sheet flow redirection through adjacent wetlands/waters, subsidence

and reduced animal populations. Additional development further limits the possibility of restoring and/or managing areas as contiguous forested ecosystems, which further depletes the overall productivity of such ecosystems. Subsequent increases in traffic, noise, light, trash, air pollutants, water pollutants and other impacts associated with such growth will be realized as a result of continued development.

The avoided wetland areas will realize minor adverse secondary impacts due to disturbances such as human intervention, noise and runoff associated with the project. Other potentially adverse impacts to any adjacent undeveloped wetlands include increased disturbance via human traffic and noise levels, though they are considered to be local, minor and long-term. It is also anticipated that future development will be proposed in the immediate vicinity of this project, and within areas of jurisdiction, will require permit action. Special conditions will be included in this authorization to ensure secondary impacts to the avoided forested wetland habitat are minimal through the use of BMPs and spoil bank gapping. It is anticipated that through the efforts taken for erosion and sediment control, as well as minimizing impacts such that only those which are necessary will occur, permit issuance will not result in substantial direct, secondary or cumulative adverse impact on the aquatic environment.

- 6.9 Findings of compliance or non-compliance with the restrictions on discharges (40 CFR 230.10(a-d) and 230.12). Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur. See Table 8:

Subject	Yes	No
1. Is there a practicable alternative to the proposed discharge that would be less damaging to the environment (any alternative with less aquatic resource effects, or an alternative with more aquatic resource effects that avoids other significant adverse environmental consequences?)		X
2. Will the discharge cause or contribute to violations of any applicable water quality standards?		X
3. Will the discharge violate any toxic effluent standards (under Section 307 of the Act)?		X
4. Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?		X
5. Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries?		X
6. Will the discharge cause or contribute to significant degradation of waters of the U.S.?		X



Table 8 – Compliance with Restrictions on Discharge		
Subject	Yes	No
7. Have all appropriate and practicable steps (Subpart H, 40 CFR 230.70) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?	X	

Discussion: The activity does not need to be located within a special aquatic site, however it has been demonstrated that this project location is the least environmentally damaging practicable alternative for a development which has provided adequate justification of need. Although impacts to jurisdictional aquatic resources are unavoidable for the proposal, the preferred alternative does not have other known significant adverse environmental consequences. Mitigative efforts have been made to minimize impacts to the maximum extent practicable including the assessment and requirement of compensatory mitigation and the avoidance of direct impacts to 9.25 acres of forested wetlands onsite.

**7.0 General Public Interest Review (33 CFR 320.4 and RGL 84-09)**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as stated at 33 CFR 320.4(a). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR 320.4(b) through (r). The benefits which reasonably may be expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.

7.1 All public interest factors have been reviewed and those that are relevant to the proposal are considered and discussed in additional detail. See Table 9 and any discussion that follows.

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
1. Conservation: Minor impacts at the project site in regards to the quality of the environment are anticipated however, as a result of mitigative action including BMPs and compensatory mitigation, impacts are considered to be neutralized.			X			



Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
2. Economics: It is anticipated that the proposed project would provide economic returns to the state, parish, and immediate area during and after construction activities due to providing drainage to the parish's residents in this area.					X	
3. Aesthetics: Aesthetic values of the area would be permanently impacted due to visual, auditory and physical changes resulting from conversion of wet pasture and forested wetlands to a drainage project with spoil banks. Impacts from the project are expected to be minor, localized, and long-term. Potential increases in turbidity within receiving waters associated with the project should be short-term, localized, and minimal in scope.		X				
4. General Environmental Concerns: Environmental project detriments include short-term turbidity in Bayou Stumpy and Bayou Choctaw and the loss of approx. 9.25 acres of forested wetlands. As a result of mitigative action including BMPs and compensatory mitigation, impacts are considered to be neutralized.			X			
5. Wetlands: Presently and historically, the wetlands of the project site have been used as wildlife habitat, storm water storage area and to perform other wetland functions. Impacts from the proposed project to wetlands are expected to be minor, localized, and long-term and as a result of mitigative action including BMPs and compensatory mitigation, impacts are considered to be neutralized.			X			
6. Historic Properties: No historical properties are known to exist in the vicinity of the project site.	X					
7. Fish and Wildlife Values: No EFH are present in the vicinity of the project. Per the IPAC Agreement, no threatened or endangered species were identified within the ESA action area. Other potential impacts to wildlife have been summarized in Section 6.4.1. Impacts from the proposed project are expected to be minor, localized, and long-term and as a result of mitigative action including BMPs and compensatory mitigation, impacts are considered to be neutralized.			X			

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
8. Flood Hazards: Impacts from the proposed project to potential flooding on human health, safety and welfare are anticipated to be minimal, and the risks of flood losses are considered to be minor. Information provided by the applicant and within the H&H Analysis demonstrated potential drainage improvement benefits for this area within West Baton Rouge Parish.					X	
9. Floodplain Values: The majority of the site is located outside of the 100-year floodplain as determined by the Louisiana Geographic Information Center (LAGIC) 100-year Floodplain Map. Some portions of the site are located within Flood Zone A (within 100-year Floodplain). It has been determined, to the maximum extent practicable, that the natural and beneficial values served by floodplains have been preserved through mitigative actions including BMPs at the project site during construction to minimize the effects of fill material, by the inclusion of drainage features within project designs, and by the requirement of compensatory mitigation within the watershed. No practicable alternatives within the floodplain which will lessen any adverse impact to the floodplain have been identified.			X			
10. Land Use: Although the project would alter the natural elements of the immediate area, it is anticipated that the project would ultimately benefit the residents by providing drainage improvements to the Bayou Stumpy watershed area.					X	
11. Navigation: The project is not located within a navigational waterway. The project does interact with Bayou Choctaw which is a navigable waterway but the project does not propose any structures to be placed with the section 10 or any other navigation areas.			X			

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
12. Shoreline Erosion and Accretion: Project includes deepening, reshaping, and excavation of Bayou Stumpy for drainage improvements. Project design incorporated features to ensure spoil bank disposal areas would be placed far enough from the bayou edge to prevent runoff and the project will incorporate BMPs to prevent any additional sediment sloughing back into the bayou. Project impacts on WOUS are considered to be minor, localized and long term and have been minimized with the use of BMPs and through implementation of gapping and vegetation stabilization of the spoil areas.			X			
13. Recreation: Undeveloped forested areas are historically utilized for recreational purposes. This project site is within and adjacent to Bayou Stumpy. Although this project location is relatively undeveloped, the location and accessibility are not those which would promote extensive recreational use it is located adjacent to major roadway crossings with little parking access and on private property.				X		
14. Water Supply and Conservation: This project involves drainage improvement efficiencies and is not anticipated to have a negative impact on water supply.			X			
15. Water Quality: As summarized in Section 10.5, LA DEQ has issued a WQC for this project and it has been determined that the project will not violate state water quality standards. Mitigative actions to preserve water quality include BMPs at the project site during construction to minimize the effects of fill material, the inclusion of drainage features within project design, and the requirement of compensatory mitigation within the watershed. Other potential impacts to, and mitigation for, water quality has been summarized in Section 6.4.3 and 6.8			X			
16. Energy Needs: This project is not anticipated to impact energy conservation or development.	X					

Table 9: Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	Not Applicable
17. Safety: The final authorization will be conditioned such that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.				X		
18. Food and Fiber Production: This project is not anticipated to impact food and fiber production.	X					
19. Mineral Needs: This project is not anticipated to impact mineral needs.	X					
20. Consideration of Property Ownership: Project area is within a parish maintained waterbody and adjacent right of way to perform the proposed drainage improvements, impacts are considered to be negligible.				X		
21. Needs and Welfare of the People: The project will help provide drainage improvements to the public that reside in the area.					X	

Additional discussion of effects on factors above: N/A

7.1.1 Climate Change. The proposed activities within the Corps federal control and responsibility likely will result in a negligible release of greenhouse gases into the atmosphere when compared to global greenhouse gas emissions. Greenhouse gas emissions have been shown to contribute to climate change. Aquatic resources can be sources and/or sinks of greenhouse gases. For instance, some aquatic resources sequester carbon dioxide whereas others release methane; therefore, authorized impacts to aquatic resources can result in either an increase or decrease in atmospheric greenhouse gas. These impacts are considered de minimis and are negated through compensatory mitigation. Greenhouse gas emissions associated with the Corps federal action may also occur from the combustion of fossil fuels associated with the operation of construction equipment, increases in traffic, etc. The Corps has no authority to regulate emissions that result from the combustion of fossil fuels. These are subject to federal regulations under the Clean Air Act and/or the Corporate Average Fuel Economy (CAFE) Program. Greenhouse gas emissions from the Corps action have been weighed against national goals of energy independence, national security, and economic development and determined not contrary to the public interest.



- 7.2 The relative extent of the public and private need for the proposed structure or work:

The project is needed to improve overall drainage for the Bayou Stumpy Watershed, which tends to flood during heavy storm events. This waterbody is an existing drainage channel that serves as the primary outfall for the basin in the northeastern portion of West Baton Rouge Parish (WBRP), north of U.S. HWY 190, and west of LA HWY 984. It is the main drainage outfall for the Choctaw Bayou Watershed, which comprises approximately 70 percent of WBRP. In the past, Bayou Stumpy has experienced numerous overflows of its natural banks that has caused flooding in the surrounding residential, commercial, and agricultural lands. The proposed project will provide drainage efficiencies to help lower potential risk of flooding of these areas which would be a benefit to the public.

- 7.3 If there are unresolved conflicts as to resource use, explain how the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work was considered.

Discussion: There were no unresolved conflicts identified as to resource use.

- 7.4 The extent and permanence of the beneficial and/or detrimental effects that the proposed work is likely to have on the public and private use to which the area is suited:

Detrimental effects are expected to be minimal and permanent.

Beneficial effects are expected to be minimal and permanent.

Increased turbidity and the modification to water bottom habitats will occur however, ambient conditions will return to near pre-project conditions once the activity is complete. As described previously, project related detriments associated with the project are considered to be long term, resulting in the loss of 9.25 acres of forested wetland habitat. Benefits from project implementation will include short-term employment during construction and potential lowering of flood risk to residents in the area. The permittee shall adhere to the special conditions of the permit and assure that BMPs for appropriate erosion and siltation controls be utilized and maintained in effective operating condition during construction to avoid sediment runoff into adjacent wetlands and waterways. Compensatory mitigation was assessed and required for unavoidable impacts as described in Section 8.0 of this document.

**8.0 Mitigation**(33 CFR 320.4(r), 33 CFR Part 332, 40 CFR 230.70-77, 40 CFR 1508.20 and 40 CFR 1502.14)

8.1 Avoidance and Minimization: When evaluating a proposal including regulated activities in waters of the United States, consideration must be given to avoiding and minimizing effects to those waters. Avoidance and minimization measures are described above in Sections 1 and 3.

Were any other mitigative actions including project modifications discussed with the applicant implemented to minimize adverse project impacts? (see 33 CFR 320.4(r)(1)(i)) Yes

As described in Section 1.3.1, the project will include approximate 20-foot spoil bank gaps every 200 feet along reaches of the project that are adjacent to avoided wetland habitat. The final authorization will also include special conditions to minimize impacts to downstream waters and wetlands by implementing Best Management Practices (BMPs) commensurate with a development of this type. Additionally, the inclusion of special conditions in the final authorization as described previously will be utilized to minimize adverse project impacts.

8.2 Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States? Yes

Provide rationale: Compensatory mitigation has been assessed for the unavoidable impacts to the jurisdictional wetlands on the project site. Impacts to these wetlands include the discharge of fill material associated with clearing, grading, excavation and direct placement.

8.3 Type and location of compensatory mitigation

8.3.1 Is the impact in the service area of an approved mitigation bank? Yes  
In-kind and in-basin compensatory mitigation was available within the Terrebonne Basin- Lower Grande River HUC (USGS HUC 08070300). LRAM was calculated and coordinated with LDWF as previously discussed in document.

If yes, does the mitigation bank have appropriate number and resource type of credits available? Yes

8.3.2 Is the impact in the service area of an approved in-lieu fee program? No

If yes, does the in-lieu fee program have the appropriate number and resource type of credits available? N/A

8.3.3 Selected compensatory mitigation type/location(s). See Table 10:

Table 10 – Mitigation Type and Location	
Mitigation bank credits	X
In-lieu fee program credits	
Permittee-responsible mitigation under a watershed approach	
Permittee-responsible mitigation, on-site and in-kind	
Permittee-responsible mitigation, off-site and/or out of kind	

8.3.4 Does the selected compensatory mitigation option deviate from the order of the options presented in §332.3(b)(2)-(6)? No

If yes, provide rationale for the deviation, including the likelihood for ecological success and sustainability, location of the compensation site relative to the impact site and their significance within the watershed, and/or the costs of the compensatory mitigation project (see 33 CFR §332.3(a)(1)): N/A

8.4 Amount of compensatory mitigation: A total of 9.25 acres of impact to bottomland hardwood forested wetland habitat (mitigated in-kind as BLH), at the approved, selected mitigation banks, required the purchase of 26.4 acres of BLH credit at Avoca Island Mitigation Bank.

Rationale for required compensatory mitigation amount: The project is located in the Terrebonne Basin – Lower Grand River HUC (HUC 08070300). Utilizing the Louisiana Wetland Rapid Assessment Method (LRAM), it has been determined that the maximum habitat condition for the project site (forested wetland portion of impacts) is medium quality with medium hydrologic condition and medium negative influences and wet pasture is degraded with low habitat quality and medium hydrology. The LRAM Impact worksheet has been included in the administrative record. The LRAM was conducted for the proposed impacts to 7.05 acre of jurisdictional forested wetlands and 2.2 acres of jurisdictional wet pasture with scrub-shrub component wetland habitat. By letter and email received on 22 July 2022, the approved Avoca Island Mitigation Bank was selected by the applicant for 26.4 acres of bottomland hardwoods (BLH) needed to offset the reduced wetland losses. Issuance of this permit confirms that the US Army Corps of Engineers, New Orleans District, Regulatory Branch (CEMVN) has been provided with written notification from Avoca Island Mitigation Phase One, LLC that the permittee has contracted for 26.4 acres of Bottomland Hardwoods at the Avoca Island Mitigation Bank. Avoca Island Mitigation Phase One, LLC has assumed responsibility for completing the mitigation in accordance with the Avoca Island Mitigation Banking Instrument and has recorded the allocation of the mitigation required by this permit in the Regulatory



In-Lieu Fee and Bank Information Tracking System (RIBITS). The mitigation confirmation letter is located in the file.

## **9.0 Consideration of Cumulative Impacts**

(40 CFR 230.11(g) and 40 CFR 1508.7, RGL 84-9) Cumulative impact is 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. Cumulative impacts can result from individually minor direct and indirect but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider how the direct and indirect environmental effects caused by the proposed activity requiring DA authorization (i.e., the incremental impact of the action) contribute to cumulative effects, and whether that incremental contribution is significant or not. .

- 9.1 Identify/describe the direct and indirect effects caused by the proposed activity: Direct effects include clearing, excavation, grading and the redistribution and discharge of fill material at the project site associated with the construction of the completed mixed use development site. The increased turbidity and impacts to organisms within the immediate vicinity of the project site are considered to be minimal and temporary. Indirect effects associated with the proposed project, specifically the encroachment into jurisdictional areas that may be caused by the habitation of the project site, are expected to be long term, yet minimal and special conditions to this authorization are anticipated to result in mitigative action to reduce such effects. These impacts, while not significant, do add to the historical and continued impacts to this ecological system within this region of Louisiana. It is anticipated that through the efforts taken for avoidance of effects to adjacent aquatic resources via the use of BMPs, that permit issuance will not result in substantial direct or indirect adverse impacts.
- 9.2 The geographic scope for the cumulative effects assessment is: The proposed project is in the Terrebonne Basin: Lower Grand River (HUC 08070300).
- 9.3 The temporal scope of this assessment covers: Pre-program era activities, especially those associated with long-existing residential and commercial developments, though anticipated future activities may be projected via regional demographic trends. For the purposes of quantifying impacts to jurisdictional aquatic resources, data has been extracted from the ORM database as described in Section 9.4.
- 9.4 Describe the affected environment: As of the 2017 EPA reporting year documentation, the Lower Grand River Watershed contains 0 listed estuaries



and 0 freshwater lakes but contains 7 listed rivers totaling over 273 miles. The ORM database reports that Corps authorizations granted within this HUC since the implementation of the Clean Water Act of 1972 (1 January 1973 through 31 December 2017) have authorized a total of approx. 377.03 acres of permanent loss to jurisdictional aquatic resources. Specifically, Corps permits within this HUC for the 5- year period of 1 January 2013 to 31 December 2017 have authorized the fill of approx. 145.6 wetland acres, approx. 13 acres of streams and have required compensatory mitigation for a total of 961.78 acres of wetland impacts. In addition to Corps authorized projects, other stressors on the resources include commercial and residential development, roadway projects, waterfront development, utilization of wetlands and waterbodies for public and private access and commute. Natural resource issues of particular concern within the Basin are the continued conversion of wetlands, fragmentation & loss of wetland habitat and reduction in storm water capacity. Specific to activities utilizing relatively undeveloped wetland habitats, commercial, residential and industrial development projects and local infrastructure projects such as those for drainage, flood protection and transportation, have cumulatively impacted ecological functions.

- 9.5 Determine the environmental consequences: The proposed action, during construction, will contribute to temporary changes in the immediate vicinity of the project site in regards to turbidity, sediment layers and drainage however, utilizing BMPs would minimize adverse effects on adjacent resources. After completion of the project, it is anticipated that conditions will return to those similar to that of pre-project status in the surrounding area. Even though minimal in impact, the proposed project would contribute to cumulative impacts to aquatic resources in the Lower Grand River Hydrologic Unit and Terrebonne Basin. The cumulative impacts associated with the proposed project, while not significant, do add to the historical and continued impacts to this ecological system within this region of Louisiana. Specific to this location, effects of the removal of a forested riparian habitat may potentially reduce species diversity, interrupt the water cycle and cause soil erosion in areas along the riparian corridor. Secondary and cumulative effects of this project on the aquatic ecosystem have been described further in Section 6.8 of this document.
- 9.6 Discuss any mitigation to avoid, minimize or compensate for cumulative effects: The applicant has designed the project such that all work, access and staging will be conducted from the proposed project footprint. No work, equipment, or stockpiles will be placed outside of the construction limits. Additional mitigative action including BMPs and assurance that non-contaminated fill material will be utilized have been proposed and will be utilized. Compensatory mitigation has been assessed and details are described in Section 8.0 of this document.

9.7 Conclusions regarding cumulative impacts:

When considering the overall impacts that will result from the proposed activity, in relation to the overall impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area described in section 9.2, are not considered to be significant. Compensatory mitigation will be required to help offset the impacts to eliminate or minimize the proposed activity's incremental contribution to cumulative effects within the geographic area described in Section 9.2. Mitigation required for the proposed activity is discussed in Section 8.0.

**10.0 Compliance with Other Laws, Policies, and Requirements**

**10.1 Section 7(a)(2) of the Endangered Species Act (ESA):** Refer to Section 2.2 for description of the Corps action area for Section 7.

10.1.1 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No. 10.1.2 Are there listed species or designated critical habitat present or in the vicinity of the Corps' action area? No.

10.1.2 Are there listed species or designated critical habitat present or in the vicinity of the Corps' action area? No. The Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA

Effect determination(s), including no effect, for all known species/habitat, and basis for determination(s): IPAC review was conducted for this project on 8 March 2021, and it was determined that no known species would be affected by the project.

10.1.3 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than "no effect" (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation). Consultation not required as a result of the IPaC agreement.

Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA. The documentation of the consultation is incorporated by reference.

**10.2 Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Essential Fish Habitat (EFH).**

10.2.1 Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? No

10.2.2 Did the proposed project require review under the Magnuson-Stevens Act? No. The project is not within a marine area and the NMFS EFH online mapping system does not indicate EFH present within the vicinity of the project location.

Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under EFH provisions of the Magnuson-Stevens Act.

10.3 **Section 106 of the National Historic Preservation Act (Section 106):** Refer to Section 2.3 for permit area determination.

10.3.1 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed? No

FEMA is involved with this project and may be coordinating separately with the THPO to satisfy their specific requirements.

Pursuant to Section 101 of the NHPA, the United States federal government established the SHPO and within the non-tribal boundaries of CEMVN, the Louisiana Office of Cultural Development maintains the role of the SHPO with the duty to conduct Section 106 reviews. Direct coordination was not conducted with SHPO and the THPOs with interest in the project Parish due to the NPCE determination.

10.3.2 Known historic properties present? No.

No known cultural resource sites present. This project's permit application and submitted information were forwarded to the PDN-NCR as summarized in Section 4.2. Additional consultation is necessary to ensure compliance of the regulated activity with Section 106 of the NHPA.

Effect determination and basis for that determination: CEMVN Archaeologist and Tribal Liaison (PDN-NCR): By memo dated 6 October 2021, PDN-NCR stated that No potential or little likelihood to cause effects to Historic Properties (NPCE). Rationale: 33 CFR 325 Appendix C (3)(b)(1) and (3)(b)(3); 36 CFR 800.3(b)(1). This project involves activities that are limited to areas where past disturbance was so severe as to preclude the existence of intact cultural deposits, and the work to be permitted is limited to incidental or low volume disturbance. A search of the Louisiana Division of Archaeology Cultural Resource Viewer online database and other sources showed no previously recorded historic properties in the permit area.



10.3.3 Consultation was initiated and completed with the appropriate agencies, tribes and/or other parties for any determinations other than “no potential to cause effects” (see the attached ORM2 Summary sheet for consultation type, begin date, end date and closure method of the consultation).  
A 30-day consultation was not performed due to the CEMVN effect determination (NPCE).

Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA. Compliance documentation incorporated by reference.

#### 10.4 Tribal Trust Responsibilities

10.4.1 Was government-to-government consultation conducted with Federally-recognized Tribe(s)? No  
Corps PDN-NCR made the NPCE determination and therefore coordination with the THPO is not required.

Provide a description of any consultation (s) conducted including results and how concerns were addressed. Consultation was determined to be unnecessary following the direct coordination of the PCN and the CEMVN determination. The Corps has determined that it has fulfilled its tribal trust responsibilities.

10.4.2 Other Tribal including any discussion of Tribal Treaty rights? N/A

#### 10.5 Section 401 of the Clean Water Act – Water Quality Certification (WQC)

10.5.1 Is a Section 401 WQC required, and if so, has the certification been issued, waived or presumed? An individual water quality certification is required and has been issued by the certifying agency.  
By letter dated 14 September 2021, LDEQ issued Water Quality Certification WQC 210614-03

#### 10.6 Coastal Zone Management Act (CZMA)

10.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? N/A, a CZMA consistency concurrence is not required.

#### 10.7 Wild and Scenic Rivers Act

10.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system? No



LDWF Scenic River Tracking Map does not indicate any scenic rivers in the vicinity.

The Corps has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.

#### 10.8 **Effects on Corps Civil Works Projects (33 USC 408)**

10.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy or use a Corps Civil Works project? No, there are no federal projects in or near the vicinity of the proposal.

#### 10.9 **Corps Wetland Policy (33 CFR 320.4(b))**

10.9.1 Does the project propose to impact wetlands? Yes

10.9.2 Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

10.10 **Other (as needed):** The final authorization will be conditioned such that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.

#### 11.0 **Special Conditions**

11.1 Are special conditions required to protect the public interest, ensure effects are not significant and/or ensure compliance of the activity with any of the laws above? Yes

11.2 Required special condition(s) CEMVN Standard Permit General Conditions 1-6 will be included with the authorization.

Special condition(s): 7. Any excavated and/or fill material placed within wetlands must be free of contaminants, to the best of the permittee's knowledge.

Rationale: *Self Explanatory.*

Special condition(s): 8. The permittee shall assure that all material used during construction shall be pollutant free in accordance with the EPA Guidelines for Discharge of Dredged or Fill Material, found in 40 CFR 230. The material may be obtained offsite or from site preparation. Offsite material shall not be obtained from wetlands or from areas that may adversely affect adjacent wetlands. Any excess material shall be placed in an upland area and properly contained or stabilized to prevent entry into adjacent wetlands of other waters.

Rationale: *Minimization of secondary impacts.*

Special condition(s): 9. Any changes in the project configuration as a result of local approvals must be documented and appropriate drawings provided to this District office for incorporation into the permit file.

Rationale: *Self Explanatory.*

Special condition(s): 10. Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetland, stream, or water body. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment/silt fencing, wooden or vinyl barriers, and/or seeding or sodding of exposed or disturbed areas. These structures should be maintained in effective operating condition until sediments are stabilized by vegetation and other impervious surfacing.

Rationale: *Best management practices shall be implemented to help prevent eroded material from entering adjacent wetlands and / or waterways.*

Special condition(s): 11. The permittee shall limit clearing, excavation and the placement of fill material to areas essential to the project. The remainder of the property shall be left in its natural state. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.

Rationale: *Self Explanatory.*

Special condition(s): 12. Wetlands that are not part of the project site but that are disturbed during construction, including the temporary crossing of wetland areas, shall be restored to their preproject elevations and conditions, including replanting.

Rationale: *Minimize project related impacts and to keep the project within the permitted footprint.*

Special condition(s): 13. The permittee shall ensure that a copy of this Department of the Army permit is supplied to all contractors and workers on this project so that they are made fully aware of the limits of the authorized work, adhere to and comply with all state, regional, and general conditions listed in the permit, as well as the permit's special conditions. Non-compliance with permit terms and conditions may result in permit suspension or revocation.

Rationale: *Minimize secondary impacts.*

Special condition(s): 14. The project area has been identified as an area of interest for federally recognized Native American Tribes. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee shall cease work immediately and contact the US Army Corps of Engineers, New Orleans District, Regulatory Division (CEMVN). CEMVN will initiate the required Federal, State, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.

Rationale: *Requirement for proper handling and notification in the event that cultural materials are uncovered during construction.*

Special condition(s): 15. The permittee is aware that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.

Rationale: *Self Explanatory*

Special condition(s): 16. Issuance of this permit confirms that CEMVN has been provided with written notification from Avoca Island Mitigation Phase One, LLC that the permittee has contracted for 26.4 acres of Bottomland Hardwoods at the Avoca Island Mitigation Bank. Avoca Island Mitigation Phase One, LLC has assumed responsibility for completing the mitigation in accordance with the Avoca Island Mitigation Banking Instrument and has recorded the allocation of the mitigation required by this permit in the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS).

Rationale: *Compensatory mitigation required for this project.*

Special condition(s): 17. The permittee is aware that future site visits and inspections of the project site may be conducted by personnel of CEMVN and/or other resource agencies in order to assess project compliance with the requirements of this authorization.

Rationale: *Self Explanatory.*

Special condition(s): 18. The permittee shall ensure that 20-foot spoil bank gapping as indicated on the permit drawings are maintained to ensure adjacent avoided wetland hydrology is maintained. The permittee shall also ensure that these spoil banks are stabilized once the project is completed to prevent sloughing of the spoil bank material into the waterway, adjacent wetlands, and/or constructed gaps.

Rationale: *Self Explanatory.*

Special condition(s): 19. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Rationale: *Self Explanatory.*

Special condition(s): 20. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

Rationale: *Self Explanatory.*

Special condition(s): 21. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on your authorized facilities. Any inquiries concerning a U.S. Coast Guard Private Aids to Navigation marking determination may be directed to the Eighth Coast Guard District (dpw), Hale Boggs Federal Building, 500 Poydras St., Suite 1230, New Orleans, Louisiana 70130, at (504) 671-2330 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation, you may visit the Eighth CG District web site at: <http://www.atlanticarea.uscg.mil/district-8/district-divisions/waterways/PATON>

Rationale: *Self Explanatory.*

Special condition(s): 22. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of this permit approval and drawings can be emailed to: D8MarineInfo@uscg.mil, or mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Suite 1230, New Orleans, Louisiana 70130. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2118.

Rationale: *Self Explanatory.*

## **12.0 Findings and Determinations**



- 12.1 Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.
- 12.2 Presidential Executive Orders (EO):
- 12.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.
- 12.2.2 EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.
- 12.2.3 EO 12898, Environmental Justice: The Corps has determined that the proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities. The Corps' authorization will be special conditioned to make certain that the permittee must obtain all state, parish, and local authorization prior to project commencement. These authorizations include, but are not limited to, drainage approvals.
- 12.2.4 EO 13112, Invasive Species: All exotic Chinese tallow tree will be removed during the construction and development of the public institutional development.
- 12.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The proposal is not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.
- 12.3 Findings of No Significant Impact: Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be required.
- 12.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation above, I have determined that the proposed discharge complies with the Guidelines, with the inclusion of the appropriate and practicable special conditions to minimize pollution or adverse effects to the affected ecosystem.

12.5 Public interest determination: Having reviewed and considered the information above, I find that the proposed project is not contrary to the public interest.

**PREPARED BY:**

**Kenneth G.  
Blanke**

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G. Blanke  
Date: 2022.08.16 10:38:48  
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Kenneth Blanke  
Project Manager

**REVIEWED BY:**

**John M.  
Herman**

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M. Herman  
Date: 2022.08.16 11:59:16  
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Chief, Central Evaluation Branch

**APPROVED BY:**

**Martin S.  
Mayer**

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S. Mayer  
Date: 2022.08.16 21:55:10  
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Chief, Regulatory Division

**RFI from the Corps; Received on 4/30/2021; Friday; Responded on May 25, 2021**

From, Kenny Blanke  
Environmental Resources Specialist, Central Evaluation Section  
Regulatory Branch  
504-862-1217 phone  
504-862-2574 fax  
[kenneth.g.blanke@usace.army.mil](mailto:kenneth.g.blanke@usace.army.mil)

**RFI from Kenny Blanke**

1. *Regarding potential wetland impacts associated with the project, I have looked through sets of aerial photography and some ArcMap files for the project area. I need clarification regarding impacts to forested wetlands or potential forested wetlands both from either access by equipment to perform the dredging and spoil placement.*

**Response:** A map showing the wetland/non-wetland is attached. In addition, data forms for both data locations have been attached.

Placement in the forested areas in acres: 7.05 acres

Placement in the herbaceous/emergent vegetation: 2.2 acres

**Total Wetland Impacts: 9.25 acres**

Access Impacts = 0 acres

Staging areas Impacts: 0 acres

Non-Wet area placement: 28.45 acres

2. *If other potential wetland habitats (scrub shrub or herbaceous) are present, please qualify those as well just so we can disclose under NEPA in our evaluation or advertisement.*

**Response:**

Placement in the scrub/shrub or herbaceous areas: 2.2 acres as shown on a map that has been added into the permit drawings (Sheet 17 of 17).

3. *Given the amount of approximate cubic yards of material proposed to be dredged (256,800 cubic yds total), if spoil banks are not present or have degraded back to wetland grade, gapping or staggering of spoil placement may need to be proposed if wetlands are detected.*

**Response:** Spoil material will be placed in a staggered manner and will focus on providing adequate gapping and drainage. In addition, the placement of dredged material will be placed in such a way that any low areas (wetland areas) will be avoided.

4. *Creating a new spoil bank may function as a "berm" preventing existing hydrologic functions from occurring and that is something that would cause potential impacts either causing areas to hold water or even affect drainage in these areas.*

**Response:** Spoil banks will be designed in such a way that they are staggered and gapped. This approach will make sure that the existing hydrologic functions will not be impeded.

5. *On the cross sections on Sheet 16, the 30-ft wide cross section (STA 10 + 00 to 193 + 46) indicates only one side for spoil placement but the notes specify both east and west banks will be utilized, please advise.*

**Response:** From Station 10+00 to 192+00, the placement is confined to only to the east bank of the bayou. The note has been revised to reflect the placement plan.

6. *Also, will the work be performed from outside of the channel or with a floating machine for this reach? I can only really discern one side from the aerials as having an existing cleared area or potentially having a cleared area but not both banks. Not sure how accessible these areas are but trying to figure out if there will be any impacts to forested wetlands from clearing and or spoil placement.*

**Response:** The dredging and placement work will be performed by accessing the bayou through available roadways. There are two staging area that are shown to utilize to store the equipment. The access routes and staging areas are expected to impact any wetlands.

7. *On the cross section for the 20-ft wide channel width (STA 193 + 46 to STA 264+ 44), fill placement is indicated on both sides of the bank. For the most part of this reach, some cleared areas can be seen (that isn't to state that there aren't wetlands present because I am utilizing satellite imagery for a quick review) but there are some patches of forested areas which do not really clearly show project referenced existing cleared areas. There is a large area of forested habitat near 30.533464 N -91.37289 W where the imagery looks pretty well covered with tree canopy.*

**Response:** The revised plan shows the spoil placement clearly. From Station 192+00 to 231+00 the placement is planned to the east and west side of the bayou, while from 231+00 to 268+00 segment, the spoil placement is planned to be on the west side of the bayou. The wetland distribution is clearly shown on Sheet 17 of 17.

8. *On the last cross section area for the 15-ft wide channel width (STA 264+44 to STA 501+79), there is a large forested area located north of West Bueche Road (LA 983) heading towards STA 501 +79 that does not indicate any cleared areas from imagery, a small portion of forested area located north of Powerline Road, and a large contiguous tract of forested habitat located northeast of Horner Road and west of Elm Grove Road which seems to have good canopy coverage as well on both sides of the bank.*

**Response:** The revised plan shows the spoil placement clearly. From station 268+00 to 501+00, the forested area has been assessed and shown on the Sheet 17 of 17. Approximately 4.35 acres of forested wetlands including herbaceous habitat has been observed. These details are shown on the Sheet --- of sheet as well as the table below.

Wetland delineation has been carried out on May 15, 2021. The data sheets and photographs are included separately.



**Bayou Stumpy Dredged Material Placement Details, Access Routes, and Staging Areas. Wetland Impacts**

- There are no wetland impacts due to the proposed staging areas and access routes.
- Forested Wetland Impact = 7.05 acres
- Herbaceous vegetation impact = 2.20 acres
- No Wetland areas = 34.15 acres

Stations	Dredging Length (feet)	Placement (Acres)	Width (ft.)	Placement Direction	Wetland Status	Wetland (Acres)
10+00 to 71+00	7,125	4.9	30	East	Forested Wetland	4.9
71+00 to 192+00	24,575	22.6	40	East	Non-Wetland	0
192+00 to 231+00	3,600	2.5	15	East and West	Non-Wetland	0
231+00 to 268+00	3,725	1.3	15	West	Non-Wetland	0
268+00 to 317+00	4,825	1.65	15	East	Non-Wetland	0
317+00 to 349+00	3,200	2.2	30	East	Forested and Emergent	2.2
349+00 to 396+00	4,700	3.2	15	East and West	Non-Wetland	0
396+00 to 462+00	6,600	2.3	30	East	Non-Wetland	0
462+00 to 493+00	3,100	2.15	30	East	Forested Wetland	2.15
493+00 to 501+oo	88	0.6	15	East and West	Non-Wetland	0
						<b>9.25</b>

**From:** [Gutierrez, Raul](#)  
**To:** [Blanke, Kenneth G Jr CIV USARMY CEMVN \(USA\)](#)  
**Cc:** [Dave Butler](#); [Elizabeth Hill](#)  
**Subject:** [Non-DoD Source] MVN-2021-00271-CQ  
**Date:** Wednesday, July 14, 2021 4:42:20 PM

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Kenny,

The Environmental Protection Agency (EPA) has reviewed the Public Notice dated June 28, 2021, concerning Department of the Army Permit Application Number MVN-2021-00271-CQ, submitted by West Baton Rouge Parish. The applicant is proposing to dredge approximately 9.3 miles of Stumpy Bayou to clear existing obstructions within the bayou to restore drainage within the watershed. Approximately 9.25 acres of potentially jurisdictional wetlands (7.05 acres forested habitat and 2.2 acres herbaceous habitat) are proposed to be impacted as a result of project implementation via clearing and fill placement along the banks of the bayou. The comments that follow are being provided for use in reaching a decision relative to compliance with the EPA's *404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230)*.

The jurisdictional wetlands that would be impacted by this project not only provide wildlife habitat, but also perform valuable water quality maintenance functions by removing excess nutrients and pollutants from the water. They also provide floodwater storage. As you are aware, wetland areas such as those proposed to be impacted have experienced a tremendous decline in Louisiana. The *404(b)(1) Guidelines* prohibit the discharge of dredged or fill material into waters of the United States, including wetlands, if there is a practicable alternative.

The EPA does not object to the project as proposed provided that the applicant has satisfied the requirements of the *404(b)(1) Guidelines*. This should include providing compensatory mitigation within the project watershed for all unavoidable impacts that should fully offset all lost functions and values. The EPA requests an opportunity to review the LRAM calculations prior to permit issuance. Thank you for the opportunity to review and comment on the public notice.

Raul Gutierrez, Ph.D.  
NPDES/Wetlands Review Section (6WDPN)  
US EPA Region 6  
(504) 862-2371

Office:  
US Army Corps of Engineers  
New Orleans District  
CEMVN-OD-SS  
7400 Leake Ave  
New Orleans, Louisiana 70118

JOHN BEL EDWARDS  
GOVERNOR



JACK MONToucET  
SECRETARY

PO BOX 98000 | BATON ROUGE LA | 70898

July 15, 2021

Mr. Martin S. Mayer, Chief  
Regulatory Branch  
United States Army Corps of Engineers  
7400 Leake Avenue  
New Orleans, LA 70118

RE: *Application Number: MVN-2021-00271-CQ*  
*Applicant: West Baton Rouge Parish*  
*Notice Date: June 28, 2021*

Dear Mr. Mayer:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced notice. The proposed activity involves the dredging of 9.3 miles of Stumpy Bayou, including the clearing of obstructions, sediment removal, etc. Approximately 9.25 acres of potentially jurisdictional wetlands will be impacted as a result of project implementation. Based upon this review, the following has been determined:

**Avoidance and Minimization**

The applicant proposes to place dredged material adjacent to potential forested wetlands found isolated along the project's alignment, with a majority of this habitat present from marker Sta.10+00 to 193+46 (as depicted on page 16 of the public notice drawings). LDWF does not have information as to whether there are existing spoil banks located along these isolated forested wetland segments of the project, thus they may currently provide wetland functions and values. **Therefore, LDWF recommends that the applicant place spoil material only in areas that have been identified as existing spoil banks, following review and approval of the jurisdictional determination.** Furthermore, no spoil material shall be placed in drainage features located along the bankline, as to avoid impoundment and alteration of hydrology within forested or herbaceous wetland areas. All spoil banks shall be gapped, and have a minimum width of 50 feet and a maximum spacing of 500 feet.

The applicant shall properly install adequate erosion/siltation control measures around construction areas that require land based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.), to ensure that no project related sediments, debris and other pollutants enter adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw

July 15, 2021


bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved EPA construction site storm-water runoff control and best practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized.

**Mitigation**

The applicant shall develop a mitigation plan designed to off-set impacts to fish and wildlife resources. That mitigation plan shall be approved by the resource and regulatory agencies. The approved mitigation plan shall be incorporated as part of the conditions of the permit.

LDWF submits these recommendations to the U.S. Army Corps of Engineers in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). Please do not hesitate to contact Habitat Section biologist Chris Davis at (225)765-2642 should you need further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randell S. Myers", with a horizontal flourish extending to the right.

Randell S. Myers  
Assistant Secretary, Wildlife Division

cd

c: EPA, Marine & Wetlands Section  
USFWS Ecological Services



**RFI from USACE: 08/09/2021**  
**Response: 08/13/2021**

**From Kenneth Blank**

**Please see subject Public Notice comments that were received during the comment period (LDWF, EPA, and Kenneth Teague-individual citizen) (comments are included later in this document).**

**Please note that the Corps does echo some of the issues raised in these comments. Specifically:**

- (1) Consideration of alternatives (avoidance and/or minimization) to impacting potentially jurisdictional wetlands from dredged material placement- if there are any potential upland alternatives or existing spoil banks, it is recommended that those alternatives are considered to minimize project impact to wetlands.**

**Response:** On behalf of West Baton Rouge Parish, attempts have been made to select placement area in non-wetland areas. Most of the dredged material is now proposed to be placed in non-wetland areas. The proposed wetland areas for placement is unavoidable due to the access issues as well as unacceptable cost to handle and double handle the dredge material. The details of the avoid, reduce, and deriving unavoidable impacts are as follows:

The section of the bayou between Sta. 10+00 to Sta. 71+50 was considered avoidance of wetlands for potential placement site as the banks are lined by forested wetlands. This section of the bayou is approximately 6,150 ft. and yields approximately 24,500 CY of dredged material.

Hauling off the proposed dredged material was considered in order to avoid impacting wetlands. The access required for transporting the material will have to be provided along the eastern bank of the bayou as there are no residential areas on the eastern bank. There is a minimum 30 ft. clearance would be required for the access of equipment for dredging and transportation. Hence approximately 4.25 acres of forest cover along the banks would have to be cleared. Additional area (100' x 100' minimum) will have to be cleared on both sides of Hwy 76 for stock piling and loading material along with constructing ramps for trucks hauling off material.

In addition to clearing of forested area, the hauling off operation will also involve double handling of material thereby increasing the cost of dredging. Also, the existing disposal area owned by the parish does not have sufficient capacity to accommodate the volume of material dredged and will require additional area for disposal / placement of material.

Onsite placement of material will also require the same amount of clearance as for the hauling off operation but will eliminate the requirement of other associated activities minimizing the cost of the activity.

**(2) Gapping of spoil banks- in order to prevent impoundments and to allow for exchange between the adjacent areas which drain in Bayou Stumpy, the Corps would also recommend gapping these spoil banks.**

**Response:** Adequate gaps will be provided to ensure exchange between the adjacent areas, which drain to drain to Bayou Stumpy. We propose gaps every 200 feet of spoil bank.

**(3) Justification- can you please provide justification for the project; which areas/communities it will serve and what drainage analysis or study findings were utilized to ensure that no impacts to downstream areas would occur as a result of this project? Have there been previous flooding events impacting these communities?**

**Response:**

***3.1 Justification:***

The project is needed to improve overall drainage for the Bayou Stumpy Watershed, which tends to flood during heavy storm events. Bayou Stumpy is an existing drainage channel that serves as the primary outfall for the basin in the northeastern portion of West Baton Rouge Parish (WBRP), north of U.S. HWY 190, and west of LA HWY 984. The existing Bayou Stumpy is the main drainage outfall for the Choctaw Bayou Watershed, which comprises approximately 70 percent of WBRP. Bayou Stumpy begins in Pointe Coupee Parish near False River and flows south for approximately 13-miles to its confluence with Choctaw Bayou.

Over the years, Bayou Stumpy has experienced numerous overflows of its natural banks that has caused flooding in the surrounding residential, commercial, and agricultural lands. The drainage capacity of Bayou Stumpy is evidently strained and not enough to handle storm events.

A hydrologic and hydraulic (H&H) model and analysis for Bayou Stumpy and the Bayou Choctaw watershed was performed in order to analyze existing drainage conditions and proposed improvements (**Attachment A**). The proposed improvements for Bayou Stumpy consist mainly of widening the canal water bottom, re-grading the canal, and slope stability along Bayou Stumpy, in order to increase the flow capacity, and decrease the water surface elevations throughout the watershed. The proposed improvements will provide for much needed storage capacity and freeboard throughout the channel, and will improve the overall drainage in the watershed for any given storm event.

The limits of the proposed improvement consist of channel bottom widening of 30 feet, 20 feet, and 15 feet for approximately 18,300 feet (3.5 miles), 7,100 feet (1.3 miles), and 23,700 feet (4.5 miles) respectively. All channel side slopes are to be no greater than 3 foot horizontal, to 1 foot vertical, and the

overall channel top width will remain within the existing channel footprint. Channel bottom widening of 30 foot extends from the intersection of Bayou Stumpy and Bayou Choctaw to crossing at U.S. 190. The 20-foot channel bottom widening extends from the crossing at U.S. HWY 190 to the crossing at LA HWY 620 and the 15-foot channel widening from LA HWY 620 to the end of the project alignment approximately 6,400 feet north of the crossing at LA HWY 984.

The existing Bayou Stumpy reach profile has an inconsistent channel bottom slope which affects the hydraulic efficiency of the channel. Therefore, in addition to the proposed cross-sectional improvements along Bayou Stumpy, the channel profile will be excavated and regraded as needed to have a smoother channel bottom slope from the most downstream point to the most upstream point. The proposed channel bottom slope will consist of an average of 0.04%, with the Bayou Choctaw confluence point having an invert of -4.25' NAVD88, and ranging to an invert of 14.80' NAVD88 at the most upstream point of the alignment.

The proposed extents of regrading of Bayou Stumpy were based on previous sections of flooding in residential, commercial, and agricultural areas of the watershed. Pre and post flood mapping results from the model prove that the of the channel provides much needed drainage, mitigating flooding on the majority of the watershed even for the most severe storm events.

There are five simply supported beam highway bridges crossing Bayou Stumpy, namely Hwy 983 (Bueche Rd.), Hwy 984 (Rougon Rd.), Hwy 620 (Section Rd.), U.S. Hwy 190 and Hwy 76 (Rosedale Rd.). As an added precaution due to the greater risk of sediment transport and erosion, concrete mats will be placed along the channel banks under bridge crossings. The proposed concrete mats will ensure the structural integrity of the existing bridges, will provide scour protection to the bridge supports, and will provide a larger factor of safety against slope stability.

Equipment for construction of the project shall be staged within the unfilled spoil banks along the project alignment at two main locations: 11201 Rosedale Rd. in Port Allen, Louisiana (Parcel No. 071600000101), and 6405 Rougon Rd. in Port Allen, Louisiana (Parcel No. 071300000303).

Access to the project construction will differ throughout the proposed project alignment. From Sta. 10+00 to Sta. 28+00, the project site can be accessed from the staging area at 11201 Rosedale Rd. For Sta. 28+00

to Sta. 71+00, the site can be accessed from Stumpy Ridge Acres Ln. For the site between Sta. 71+00 to Sta. 192+00, access can be through Parcel No.071500000100 (no address available). For Sta. 192+00 to Sta. 333+00, the project can be accessed either through U.S. HWY 190 or HWY 620. Bayou Stumpy Sta. 333+00 through Sta. 349+00 can be accessed through the driveway of 6029 Elm Grove Rd. (Parcel No.071310003900).and for Sta. 349+00 to Sta. 436+00 can be accessed from Parcel No. 071300000202 (no address available). Finally, for Sta. 436+00 to Sta. 501+79 (project end) construction access can be from HWY 984.

This project consists of enlarging the flow cross sectional area by widening the canal bottom and re-grading the side slopes. The enlarged cross section provides additional flow capacity and freeboard for any storm event. The proposed cross sections will keep the channel bottom between 15 to 30 feet wide and the profile will be regraded to provide a more constant channel bottom and improve the hydraulic efficiency. Articulated concrete mats will be placed along the channel banks under bridge crossings throughout the project alignment for piling scour protection and increased slope stability.

**3.2 Which areas/communities it will serve and what drainage analysis or study findings were utilized to ensure that no impacts to downstream areas would occur as a result of this project?**

The project will serve the entire Bayou Stumpy Watershed which is approximately 13,187 acres in size. A Hydrologic and Hydraulic (H&H) study was performed which modeled the entire basin hydrologically and Bayou Stumpy, the main outfall, was modeled hydraulically. Bayou Stumpy flows into Choctaw Bayou and existing Choctaw Bayou tailwater levels were utilized for the model as the boundary conditions. The improvements do not increase the volume of storm water downstream of the project area nor the flow rates of Stumpy Bayou when comparing existing vs. proposed conditions. The H&H was performed using the USACE HEC-HMS and HEC-RAS as explained in detail in the H&H report.

**3.3 Have there been previous flooding events impacting these communities?**

Yes – the area suffered from heavy flooding during the August 2016 floods.

**(4) avoidance of adjacent wetlands-will the proposed drainage improvements have any indirect impact on these avoided wetlands (i.e.- draining of wetland areas or impacting wetland hydrology of these areas)?**

Response: The proposed drainage improvements will not have any indirect impact on the avoided wetlands. The proposed placement locations on wetlands could have been previously used as placement sites as evidenced from the elevation changes. The proposed gaps will ensure adequate drainage and prevents impoundment,



## Comment 1- EPA

From  
Raul Gutierrez, Ph.D.  
NPDES/Wetlands Review Section (6WDPN)  
US EPA Region 6  
(504) 862-2371

The Environmental Protection Agency (EPA) has reviewed the Public Notice dated June 28, 2021, concerning Department of the Army Permit Application Number MVN-2021-00271-CQ, submitted by West Baton Rouge Parish. The applicant is proposing to dredge approximately 9.3 miles of Stumpy Bayou to clear existing obstructions within the bayou to restore drainage within the watershed. Approximately 9.25 acres of potentially jurisdictional wetlands (7.05 acres forested habitat and 2.2 acres herbaceous habitat) are proposed to be impacted as a result of project implementation via clearing and fill placement along the banks of the bayou. The comments that follow are being provided for use in reaching a decision relative to compliance with the EPA's *404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230)*.

The jurisdictional wetlands that would be impacted by this project not only provide wildlife habitat, but also perform valuable water quality maintenance functions by removing excess nutrients and pollutants from the water. They also provide floodwater storage. As you are aware, wetland areas such as those proposed to be impacted have experienced a tremendous decline in Louisiana. The *404(b)(1) Guidelines* prohibit the discharge of dredged or fill material into waters of the United States, including wetlands, if there is a practicable alternative.

The EPA does not object to the project as proposed provided that the applicant has satisfied the requirements of the *404(b)(1) Guidelines*. This should include providing compensatory mitigation within the project watershed for all unavoidable impacts that should fully offset all lost functions and values. The EPA requests an opportunity to review the LRAM calculations prior to permit issuance. Thank you for the opportunity to review and comment on the public notice.

**Response:** West Baton Rouge Parish will provide adequate compensatory mitigation based on the LRAM calculations provided by the Corps.

## Comment 2:

From  
Kenneth G. Teague, PWS (emeritus), Certified Senior Ecologist  
Austin, TX

**2a.** The applicant has not provided sufficient information regarding the purpose and need for the proposed project. For example, has flooding occurred in the drainage area recently? What evidence is there if so? The applicant should also provide data supporting their assertion that the proposed action will solve whatever problem they end up disclosing. All of this should be available for public review and comment.

**2b.** The applicant has not demonstrated compliance with the Clean Water Act, Section 404(b)(1)

Guidelines. The applicant should be required to demonstrate they have attempted to avoid and minimize impacts to aquatic habitats.

2c. The proposed action will degrade Stumpy Bayou, although it has been channelized in the past. The applicant should be required to estimate the impacts to the stream environment, and propose appropriate mitigation.

2d. The proposed action will almost certainly impact about 3000 acres of forested wetlands along the final 2 mi of the proposed project, north of Hwy 76, by altering wetland hydrology by draining these wetlands more than they are currently drained. The applicant should be required to disclose these impacts to the public. They should be required to estimate the changes to wetland hydrology, to estimate the types of changes this would cause to the forested wetlands along Stumpy Bayou, and to estimate the magnitude of these changes. The applicant should be required to demonstrate avoidance and minimization of such impacts, and finally, they must propose mitigation for any unavoidable impacts. The applicant should be required to estimate the risk of induced development impacting these wetlands, when they are further drained. Such impact estimates should be disclosed to the public. Appropriate mitigation should be proposed.

2e. The applicant should be required to demonstrate that they have attempted to avoid and minimize the wetland impacts disclosed in the PN, associated with proposed dredged material disposal.

2f. The applicant should be required to test the proposed dredged material (elutriate) for contaminants, particularly pesticides, legacy pesticides in particular. If any bioaccumulative contaminants are detected, bioaccumulation testing should be required. If any contaminants in elutriate exceed water quality criteria, mixing calculations must be done to estimate whether water quality criteria would be met. If any toxic contaminants without water quality criteria are detected, water column toxicity testing must be required.

**Response:** The comment 2a has been addressed above as part of the justification. Comment 2b has been addressed by providing responses to this RFI. Comment 2 c has been addressed. Comment 2d states that the project impacts about 3,000 acres. This statement is not accurate. The unavoidable impacts have been estimated and compensatory mitigation will be provided. Comment 2e has been addressed. Comment 2f is being addressed through LDEQ Water Quality Certification.

### **Comment 3: LDWF**

#### Avoidance and Minimization

The applicant proposes to place dredged material adjacent to potential forested wetlands found isolated along the project's alignment, with a majority of this habitat present from marker Sta.10+00 to 193+46 (as depicted on page 16 of the public notice drawings). LDWF does not have information as to whether there are existing spoil banks located along these isolated forested wetland segments of the project, thus they may currently provide wetland functions and values. Therefore, LDWF

recommends that the applicant place spoil material only in areas that have been identified as existing spoil banks, following review and approval of the jurisdictional determination.

**Response:** The spoil placements areas have been selected with utmost care. Most of the material has been proposed to be placed on non-wetland areas. As described above, the placement of material on wetland sites that are adjoining the bank and has elevation changes. The impacts caused by such placement is unavoidable.

Furthermore, no spoil material shall be placed in drainage features located along the bankline, as to avoid impoundment and alteration of hydrology within forested or herbaceous wetland areas. All spoil banks shall be gapped, and have a minimum width of 50 feet and a maximum spacing of 500 feet.

**Response:** This has been addressed above. Sufficient gapping will be provided for drainage and to prevent impoundment.

The applicant shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.), to ensure that no project related sediments, debris and other pollutants enter adjacent wetlands or waters.

**Response:** The applicant will properly install adequate erosion/siltation control measures around construction areas. BMPs will be followed.

Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved EPA construction site storm-water runoff control and best practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized.

**Response:** Yes, appropriate BMPs will be implemented.

### **Mitigation**

The applicant shall develop a mitigation plan designed to off-set impacts to fish and wildlife resources. That mitigation plan shall be approved by the resource and regulatory agencies. The approved mitigation plan shall be incorporated as part of the conditions of the permit.

**Response:** Appropriate mitigation measures will be implemented based on the Corps requirements.

# NHPA

## Section 106 Compliance Review MFR

Project Mgr: Kenny Blanke

Date: 6/9/2021

Ref #: MVN MVN-2021-0271-CQ

Applicant: West Baton Rouge Parish

Project Name: Removal of debris and cleanout of Stumpy Bayou for drainage improvements

Authority: Section 10  Section 404:

Permit Type: SP:  NWP:  RGP:  PGP:  LOP:

Project Location: Parish: West Baton Rouge

Waterway: Stumpy Bayou

Latitude: 30.475069 N

Longitude: -90.38491 W

Project description: The permit application is being processed under a Standard Permit for removal of silt, vegetative debris, to re-establish a channel and maintenance corridor along the top bank. This project is to help improve drainage along Stumpy Bayou and the communities that utilize it for drainage in West Baton Rouge Parish, near Port Allen, Louisiana. Approximately 9.3 acres of wetlands and 0.1 miles of channel bottoms are to be impacted as a result of project.

Which of the following information is provided:

- Photos/aerials
- Information about structures on the site and approximate construction dates
- Previous Cultural Resources Work (predetermination reports, survey reports, etc)
- Correspondence (SHPO, Tribal letters, etc.)
- Cultural Resources Survey Report/EIS/EA

*below this line is to be completed by cultural resources reviewer-*

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Reviewed by: Noah Fulmer

Date Reviewed: 6 October 2021

Determination of Effect: No potential or little likelihood to cause effects to Historic Properties.

Rationale: 33 CFR 325 Appendix C (3)(b)(1) and (3)(b)(3); 36 CFR 800.3(b)(1)

This project involves activities that are limited to areas where past disturbance was so severe as to preclude the existence of intact cultural deposits, and the work to be permitted is limited to incidental or low volume disturbance. A search of the Louisiana Division of Archaeology Cultural Resource Viewer online database and other sources showed no previously recorded historic properties in the permit area.

Note: The proposed project involves the maintenance dredging of Stumpy Bayou and the removal of vegetative debris. The Corps jurisdiction for the proposed undertaking is limited to impacted wetlands and waters. Stumpy bayou has been previously impacted by channelization. Dredged material would be placed on the existing spoil bank.





JOHN BEL EDWARDS  
GOVERNOR

CHUCK CARR BROWN, PH.D.  
SECRETARY

State of Louisiana  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL SERVICES

SEP 14 2021

Mr. Mohan Menon  
GIS Engineering, LLC  
450 Laurel Street, Suite 1500  
Baton Rouge, Louisiana 70801

AI No.: 104845  
Activity No.: CER20210001

RE: West Baton Rouge Parish -- Bayou Stumpy Watershed Improvements, Phase I  
Water Quality Certification WQC 210614-03  
Corps of Engineers Permit MVN-2021-00271-CQ  
West Baton Rouge Parish

Dear Mr. Menon:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to clear, grade, dredge, and place spoil to clear obstructions and dredge Bayou Stumpy to increase the flow of the bayou located off of LA Hwy 190 in Port Allen, West Baton Rouge Parish.

The information provided in the application and the additional information received August 25, 2021, 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 West Baton Rouge Parish -- Bayou Stumpy Watershed Improvements, Phase I Water Quality Certification, WQC 210614-03.

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 104845 and Wateree Quality Certification 210614-03 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

ec: Kenny Blanke  
[kenneth.g.blanke@usace.army.mil](mailto:kenneth.g.blanke@usace.army.mil)



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

15 December 2021

Regulatory Division  
Central Evaluation Branch

SUBJECT: MVN-2021-00271-CQ

West Baton Rouge Parish  
450 Laurel Street, Suite 1500  
Baton Rouge, Louisiana 70835

Gentlemen:

This is in regard to the above subject Department of the Army permit request to implement the Stumpy Bayou Watershed Improvement Project which involves the dredging of Stumpy Bayou to clear obstructions to restore drainage, located east of Erwinville, in West Baton Rouge Parish, Louisiana.

In order to satisfy the requirements of our regulations, and comply with our 1990 Memorandum of Agreement with the US Environmental Protection Agency (EPA), it has been determined that compensatory mitigation will be required for unavoidable impacts to jurisdictional wetlands.

Enclosed is a list of approved mitigation banks, sponsor contact information, and required credits appropriate for your project. Your compensatory mitigation requirements may be met by obtaining the appropriate credits from the sponsor/sponsors listed on the enclosure and having the sponsor record your credit procurement in the Regulatory In-Lieu Fee & Bank Information Tracking System (RIBITS). It is important that you contact the bank sponsor/sponsors listed to ensure the availability of the prescribed acreage and resource type.

Please advise your project manager, within **15 days** of the date of this letter, as to the mitigation bank you have entered into an agreement with. We will complete review of your application upon verification that the above requirements have been met. If you have any questions, please contact Kenny Blanke at (504) 862-1217.

Sincerely,

for Martin S. Mayer  
Chief, Regulatory Division



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT  
7400 LEAKE AVE  
NEW ORLEANS, LOUISIANA 70118-3651

August 19, 2022

Regulatory Division  
Central Evaluation Branch

SUBJECT: MVN-2021-00271-CQ

West Baton Rouge Parish  
880 North Alexander Ave  
Port Allen, LA 70767

Gentlemen:

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Central Evaluation Branch, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,  
**John M.**

**Herman**  
John M. Herman

Chief, Central Evaluation Branch

Digitally signed by John M.  
Herman  
Date: 2022.08.22 14:24:22  
-05'00'

Enclosures

## DEPARTMENT OF THE ARMY PERMIT

Permittee: West Baton Rouge Parish

Permit No.: MVN-2021-00271-CQ

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To excavate waterbottoms, clear, grade, place and maintain spoil material as fill for the implementation of the Bayou Stumpy Watershed Improvement Project for drainage improvements, in accordance with the drawings attached in 18 sheets, 1 dated February 17, 2021; 4 dated May 25, 2021; 3 dated June 2, 2021; 10 dated June 13, 2022.

Project Location: Located along and within an approximate 9.3-mile reach of Bayou Stumpy, from the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, east of Erwinville, Louisiana, in West Baton Rouge Parish (Latitude 30.475069 N, Longitude -91.384917 W).

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **September 30, 2027**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.



6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: See Pages 4 and 5**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

x   
(PERMITTEE)

x 8/17/22  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

\_\_\_\_\_

\_\_\_\_\_

(DATE)

John M. Herman, Chief, Central Evaluation Branch

for Stephen F. Murphy, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_

\_\_\_\_\_

(TRANSFEREE)

(DATE)

**SPECIAL CONDITIONS: MVN-2021-00271-CQ**

7. Any excavated and/or fill material placed within wetlands must be free of contaminants, to the best of the permittee's knowledge.
8. The permittee shall assure that all material used during construction shall be pollutant free in accordance with the EPA Guidelines for Discharge of Dredged or Fill Material, found in 40 CFR 230. The material may be obtained offsite or from site preparation. Offsite material shall not be obtained from wetlands or from areas that may adversely affect adjacent wetlands. Any excess material shall be placed in an upland area and properly contained or stabilized to prevent entry into adjacent wetlands of other waters.
9. Any changes in the project configuration as a result of local approvals must be documented and appropriate drawings provided to this District office for incorporation into the file.
10. Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetland, stream, or water body. Appropriate erosion and siltation controls must be utilized during construction to prevent sediment runoff into adjacent wetlands and waterways. Sediment control techniques could include but are not limited to the use of secured hay bales, sediment/silt fencing, wooden or vinyl barriers, and/or seeding or sodding of exposed or disturbed areas. These structures should be maintained in effective operating condition until sediments are stabilized by vegetation and other impervious surfacing.
11. The permittee shall limit clearing, excavation and the placement of fill material to areas essential to the project. The remainder of the property shall be left in its natural state. If the authorized project requires any additional work not expressly permitted herein, the permittee must obtain an amendment to this authorization prior to commencement of work.
12. Wetlands that are not part of the project site but that are disturbed during construction, including the temporary crossing of wetland areas, shall be restored to their preproject elevations and conditions, including replanting.
13. The permittee shall ensure that a copy of this Department of the Army permit is supplied to all contractors and workers on this project so that they are made fully aware of the limits of the authorized work, adhere to and comply with all state, regional, and general conditions listed in the permit, as well as the permit's special conditions. Non-compliance with permit terms and conditions may result in permit suspension or revocation.
14. The project area has been identified as an area of interest for federally recognized Native American Tribes. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee shall cease work immediately and contact the US Army Corps of Engineers, New Orleans District, Regulatory Division (CEMVN). CEMVN will initiate the required federal, state, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
15. The permittee is aware that all necessary local, state and parish approvals must be obtained prior to the commencement of work at the project site.
16. Issuance of this permit confirms that CEMVN has been provided with written notification from Avoca Island Mitigation Phase One, LLC that the permittee has contracted for 26.4 acres of Bottomland Hardwoods at the Avoca Island Mitigation Bank. Avoca Island Mitigation Phase One, LLC has assumed responsibility for completing the mitigation in accordance with the Avoca Island Mitigation Banking Instrument and has recorded the allocation of the mitigation required by this permit in the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS).

**SPECIAL CONDITIONS: MVN-2021-00271-CQ**

17. The permittee is aware that future site visits and inspections of the project site may be conducted by personnel of CEMVN and/or other resource agencies in order to assess project compliance with the requirements of this authorization.
18. The permittee shall ensure that 20-foot spoil bank gapping as indicated on the permit drawings are maintained to ensure adjacent avoided wetland hydrology is maintained. The permittee shall also ensure that these spoil banks are stabilized once the project is completed to prevent sloughing of the spoil bank material into the waterway, adjacent wetlands, and/or constructed gaps.
19. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
20. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
21. You must install and maintain, at your expense, any safety lights, signs and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on your authorized facilities. Any inquiries concerning a U.S. Coast Guard Private Aids to Navigation marking determination may be directed to the Eighth Coast Guard District (dpw), Hale Boggs Federal Building, 500 Poydras St., Suite 1230, New Orleans, Louisiana 70130, at (504) 671-2330 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation, you may visit the Eighth CG District web site at: <http://www.atlanticarea.uscg.mil/district-8/district-divisions/waterways/PATON>
22. If the authorized project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of this permit approval and drawings can be emailed to: D8MarineInfo@uscg.mil, or mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Suite 1230, New Orleans, Louisiana 70130. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2118.





# ENGINEERING LLC

Coastal Design & Infrastructure  
197 Elysian Drive  
Houma, LA 70363  
O: (985) 219-1000 | F: (985) 475-7014  
ENGINEERING • PLANNING • ENVIRONMENTAL CONSULTING

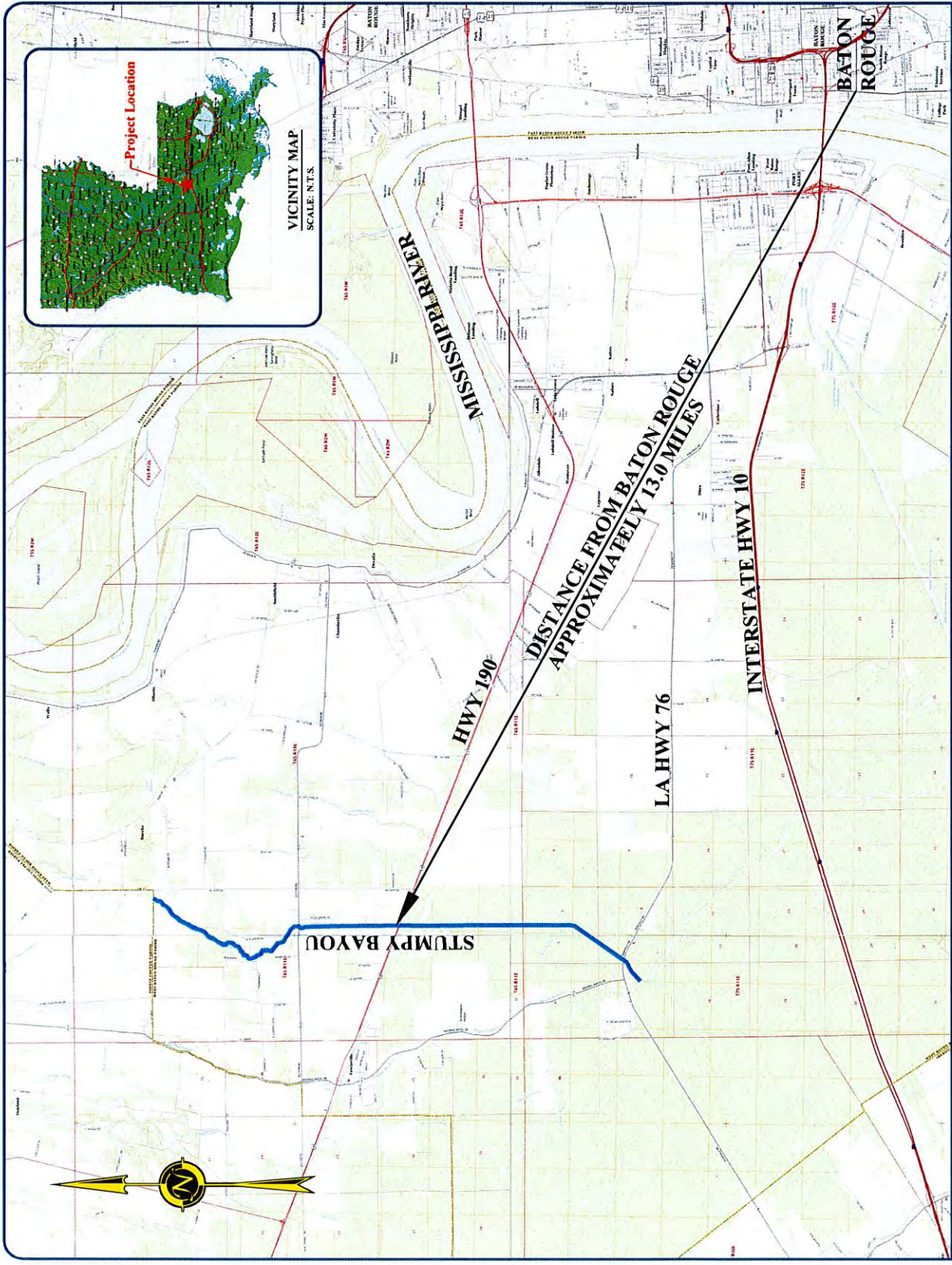
REVISIONS	
No.	Date

**PERMIT ONLY**  
NO GUARANTEE FOR ACCURACY FROM OTHERS  
ENGINEER'S SEAL  
LA LICENSE NO. 10000

WEST BATON ROUGE  
PARISH GOVERNMENT  
BAYOU STUMPY WATERSHED  
IMPROVEMENTS

## VICINITY MAP

Project number	39145-1218
Date	JAN 2021
Designed by	XXX
Drawn by	SDP
Checked by	SDP
Checked by	MM
Plot Date	February 17, 2021



**DISTANCE FROM BATON ROUGE  
APPROXIMATELY 13.0 MILES**

NOTE: THE IMAGE ABOVE IS A GENERAL REPRESENTATION OF THE WORK AREA. ACTUAL FIELD CONDITIONS MAY DIFFER.



# FEMA

**U.S. Department of Homeland Security**  
Federal Emergency Management Agency  
FEMA-DR 4277 LA  
Louisiana Integration and Recovery Office  
1500 Main Street  
Baton Rouge, LA 70802

May 26, 2022

MEMORANDUM TO: LDEQ

SUBJECT: Scoping Notification/Solicitation of Views/VOC, NOx Conformity Determination  
Stumpy Bayou Watershed Improvements Project  
West Baton Rouge Parish Government, Port Allen, West Baton Rouge Parish, Louisiana  
FEMA Hazard Mitigation Grant Program, HMGP# 4277-0022, FEMA-DR-4277-LA

To Whom It May Concern:

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is mandated by the U.S. Congress to administer federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. FEMA's Hazard Mitigation Grant Program (HMGP) provides funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. FEMA is considering providing HMGP funding for the attached project in relation to Louisiana Severe Storms and Flooding (FEMA-DR-4277-LA).

The Parish of West Baton Rouge (Subrecipient) has requested funding to implement the Stumpy Bayou Watershed Improvement Project which involves maintenance dredging of Stumpy Bayou and the removal of vegetative debris. The proposed project is along an approximate 9.3-mile reach of Stumpy Bayou, located along the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, within the Lower Grand River Basin, Lower Grand hydrologic unit (HUC 08070300), east of Erwinville, Louisiana, in West Baton Rouge Parish (Latitude 30.475069 N, Longitude -91.384917 W) (Figure 1). The proposed project entails the dredging of approximately 9.3 miles of Stumpy Bayou to clear existing obstructions within the bayou to restore drainage within the watershed. The project would include the removal of sediment deposits and grading of the channel bottom to enhance the rate of flow. In addition, the project would remove fallen trees, beaver dams, and any other overgrown vegetation within the bayou. See Figures 2 to 4 for the segments of Stumpy Bayou and their proposed channel bottom widths. According to the Subrecipient, the purpose of the project is to mitigate flooding and reduce flood risk within the Stumpy Bayou watershed. The project proposes to widen and deepen sections of the bayou based off of hydrological analysis performed for the project. Approximately 9.25 acres of potentially jurisdictional wetlands (7.05 acres forested habitat and 2.2 acres herbaceous habitat) are proposed to be impacted as a result of project implementation via clearing and fill placement along the banks of the bayou. Approximately 261,000 cubic yards of dredged material would be placed adjacent to the banks of Stumpy Bayou. A jurisdictional determination is pending with the Corps' Surveillance and Enforcement Section. The Subrecipient stated that the impacted area has been minimized through use of existing uplands in certain portions of the Stumpy Bayou as spoil disposal. The Subrecipient has also stated that any unavoidable impacts to jurisdictional wetlands would be compensated through the purchasing of appropriate wetland credits at a Corps approved mitigation bank.

To ensure compliance with the National Environmental Policy Act (NEPA), Executive Orders (E.O.s), and other applicable federal regulations, FEMA-EHP will be preparing an Environmental Assessment (EA). To



assist us in preparation of the EA, FEMA-EHP requests your review of the attached documents for a determination as to the requirements of any formal consultations, regulatory permits, determinations, authorizations, etc.

West Baton Rouge Parish is within an attainment area with a maintenance plan for ozone. The attachments contain the general conformity applicability determinations for the project demonstrating the project's emissions are well below the *de minimis* level of 100 tons per year for volatile organic compounds and nitrogen oxide.

Please review the attached information to determine whether your office has any objections to the proposed project and whether any permits from your office would need to be obtained. We would appreciate your comments on this project within thirty (30) calendar days of the date of this scoping notification. If we do not receive comments from your office within this time period, we will assume that your agency has no concerns or issues with the proposed project. If appropriate, FEMA will add the condition that the applicant will be required to obtain applicable permits from your office.

For questions regarding this matter, please contact Jamie Schexnayder, Environmental Protection Specialist, at (225) 200-4961. Comments may be e-mailed to [jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov).

Sincerely,

Tiffany Spann-Winfield  
Deputy EHP Program Lead  
FEMA LIRO

Attachments: Project Vicinity Map  
Proposed Plan View  
Equipment List  
Conformity Determination  
LDEQ Water Quality Certification





# DR-4277-0022 WBR Bayou Stumpy Watershed Improvements

## Results of Clean Air Act Applicability Determination - Ozone

Section 1 - Road Vehicles	Basic Exhaust Emission Level (BER)	Gasoline Hvy. Duty Temp. Correction		Gasoline Tampering Offset (OMTTAM)	Speed Correction Factor (SALCHF)	Travel Weighting Fraction (TF) (Not Used)	Calculated Basic Exhaust Emission Factor (BEF) (g/mi) (Stop for NO <sub>x</sub> )	Gasoline Crankcase and Evaporative Emissions (CCEVRT)	Gasoline Refueling Emissions	Gasoline Running Loss Emissions	Gasoline Resting Loss Emissions	Calculated Total Hydrocarbon (HC) Emissions Factor (g/mi)	Calculated Total VOC (g/mi)	Miles of Travel per Trip	Total Number of Trips	Total Emissions (metric tons)	Total Emissions (U.S. tons)
		Factor (TCF) or Lt. Duty Operating-Mode/TCF (OMTCTF)	Gasoline														
<b>Heavy duty diesel vehicles</b>																	
Dump Truck	VOC	2.100	N/A	N/A	0.7189237		1.5097398	N/A	N/A	N/A	N/A	1.50973984	1.589756052	50	90	0.0071539	0.0078857
	NO <sub>x</sub>	6.490	N/A	N/A	0.8824969		5.7274049							50	90	0.0257733	0.0284099
Semi-Tractor-Trailer Truck	VOC	2.100	N/A	N/A	0.7189237		1.5097398	N/A	N/A	N/A	N/A	1.50973984	1.589756052	25	10	0.0003974	0.0004381
	NO <sub>x</sub>	6.490	N/A	N/A	0.8824969		5.7274049							25	10	0.0014319	0.0015783
<b>Light duty gasoline trucks 1</b>																	
Pick Up Truck	VOC	0.562	1.0589419	0.020	0.6949617		0.4274886	0.6465	0.228	0	0.000	1.30199352	1.458148664	125	90	0.0164042	0.0180823
	NO <sub>x</sub>	0.651	1.0174539	0.020	1.0037132		0.6848962							125	90	0.0077051	0.0084933
Table:	X.1(A/B).1	X.7B	X.2B.1	X.6C	Downloads		↑	X.(2/9)(A/B/G)	X.2D	X.2C	X.9F	↑	↑			↑	↑
Formula:							Formula 1					Formula 2	Formula 3			Formula 4	Formula 5

Section 1 - Table of Formulas:	Formula 1	Formula 2	Formula 3	Formula 4	Formula 5
Gasoline:	$((\text{Col. D} \times \text{Col. E}) + \text{Col. F}) \times \text{Col. G}$	Sum of Cols. I through M	Col. N (adj. by fuel forms)	$(\text{Col. O} \times \text{Col. P} \times \text{Col. Q}) \div 1000000$	Col. R x 1.1023
Diesel:	$\text{Col. D} \times \text{Col. G} [\times \text{Col. E Lt. Duty}]$	= Col. I	Col. N - methane offset	$(\text{Col. I} \times \text{Col. P} \times \text{Col. Q}) \div 1000000$	

All road vehicle emissions factors taken from tabular or calculated values derived from EPA publication AP-42 Vol. 2, planned 5th edition. (<http://www.epa.gov/oms/ap42.htm>)

Road Sub-Total VOC (tons) 0.0239555 0.0264062  
 Road Sub-Total NO<sub>x</sub> (tons) 0.0349103 0.0384816  
 Road Combined (tons) 0.0588658 0.0648877

### Sub-Total Road Vehicles:

Section 2 - Non-Road Equipment	Steady-State Engine Emission Factors (g/hp-hr)	Transient Adjustment Factor (Certain Spark Ignition >25 HP and All Diesel)	Deterioration Factor	Temperature Correction Factor (Certain 4-Stroke Spark Ignition Only)	Calculated Emission Factor (BEF) (g/hp-hr) (Stop for NO <sub>x</sub> )	Calculated Total VOC (g/hp-hr)	Number of HP	Number of Hours	Total Emissions (metric tons)	Total Emissions (U.S. tons)			
<b>Compression ignition engines</b>													
Dozer	VOC	0.131	1.000	1.0122743	N/A	0.1330128			0.1400625	170	270	0.0064289	0.0070865
	NO <sub>x</sub>	0.276	1.000	1.0036368	N/A	0.2770038				170	270	0.0127145	0.0140152
Excavator	VOC	0.131	1.000	1.0149094	N/A	0.1333591			0.1404271	150	810	0.0170619	0.0188073
	NO <sub>x</sub>	0.276	1.000	1.0044176	N/A	0.2772193				150	810	0.0336821	0.0371278
Skid Steer	VOC	0.131	1.000	1.0074209	N/A	0.1323751			0.1393910	50	180	0.0012545	0.0013829
	NO <sub>x</sub>	3.000	1.000	1.0021988	N/A	3.0065964				50	180	0.0270594	0.0298275
Table:	A4	A5	1, 2, & A6		↑	↑			↑			↑	↑
Formula:					Formula 6	Formula 7			Formula 8			Formula 9	Formula 9

Section 2 - Table of Compression Formulas:	Formula 6	Formula 7	Formula 8	Formula 9
Col. D x Col. E x Col. F	Col. I x table VOC conversion factor	VOC: NO <sub>x</sub> :	$(\text{Col. O} \times \text{Col. P} \times \text{Col. Q}) \div 1000000$ $(\text{Col. I} \times \text{Col. P} \times \text{Col. Q}) \div 1000000$	Col. R x 1.1023

All non-road emissions factors taken from tabular or calculated values derived from various EPA non-road engine technical reports. (<http://www.epa.gov/otaq/nonrmdl.htm#techrept>)

Non-Road Sub-Total VOC (tons) 0.0247453 0.0272767  
 Non-Road Sub-Total NO<sub>x</sub> (tons) 0.0734560 0.0809705  
 Non-Road Combined (tons) 0.0982013 0.1082473

### Sub-Total - Non-Road:

### Grand Total:

The *de minimis* threshold for each of the two pollutants (VOC and NO<sub>x</sub>) is 100 tons/year within the five parishes surrounding Baton Rouge.

Combined Grand Total VOC (tons) 0.0487008 0.0536829  
 Combined Grand Total NO<sub>x</sub> (tons) 0.1083662 0.1194521  
 Combined Grand Total of VOC and NO<sub>x</sub> Emissions (tons) 0.1570670 0.1731350

**From:** [Linda \(Brown\) Piper](#)  
**To:** [Schexnayder, Jamie](#)  
**Cc:** [Vivian \(Aucoin\) Johnson \(DEQ\)](#); [Keith Horn](#); [Regina Philson](#)  
**Subject:** DEQ SOV#220620/0620 Stumpy Bayou Watershed Improvements Project  
**Date:** Monday, August 1, 2022 9:58:18 AM

**CAUTION:** This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Please select the Phish Alert Report button on the top right of your screen to report this email if it is unsolicited or suspicious in nature.

August 1, 2022

Tiffany Spann-Winfield  
Deputy EHP Program Lead  
FEMA LIRO 1500 Main St  
Baton Rouge, LA 70802  
[jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov)

RE: 220620/0620

Stumpy Bayou Watershed Improvements Project  
FEMA HGMP Funding  
West Baton Rouge Parish

Dear Ms. Spann-Winfield:

The Department of Environmental Quality (LDEQ), Business and Community Outreach Division has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required.

Additionally, precautions should be taken to protect workers from these hazardous constituents.

- If the project will involve the removal or disturbance of any soils/sediments which may have contaminant concentrations that exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility, or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.

**Currently, West Baton Rouge Parish is classified as a maintenance area with the National Ambient Air Quality Standards. However, since your general conformity determination shows that the proposed VOC and NOx emissions will be less than the *de minimis* levels, the Department has no objections to implementation of this project.**

Please send all future requests to my attention. If you have any questions, please feel free to contact me at (225) 219-3954 or by email at [linda.piper@la.gov](mailto:linda.piper@la.gov).

Sincerely,

**Linda (Brown) Piper**

*Environmental Scientist Manager*

LDEQ Office of the Secretary

Outreach and Small Business Assistance

225-219-3954 • [linda.piper@la.gov](mailto:linda.piper@la.gov)

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*Small Business/Community Assistance Program(SB/CAP) services are provided as a courtesy of the LDEQ. The SB/CAP claims no responsibility for any omissions or inaccuracies in values or information presented to the LDEQ Administrative Authority by small businesses seeking compliance with state environmental regulations. The LDEQ Administrative Authority alone determines when compliance is achieved, and small businesses are ultimately responsible for satisfying all requirements of such Authority.*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1201 ELM STREET, SUITE 500  
DALLAS, TEXAS 75270

June 10, 2022

Ms. Tiffany Spann-Winfield  
Deputy EHP Program Lead  
FEMA-LIRO, FEMA-DR4277 LA  
1500 Main Street  
Baton Rouge, LA 70802

Dear Ms. Spann-Winfield:

We have received your May 27, 2022, letter requesting our evaluation of the potential environmental impacts which might result from the following project:

**Propose Stumpy Bayou Watershed Improvements Project, HMGP# 4277-0022, FEMA-DR-4277-LA /// Project Start: Rosedale (30.475069, -91.384917), Approx. Mid-Point: Erwinville, Stumpy Bayou (30.529236, -91.372937), Project End: Rougon (30.594139, -91.358389), West Baton Rouge Parish, LA 70767**

The project funded by the Federal Emergency Management Agency/Hazard Mitigation Grant Program (FEMA/HMGP), is located on the Southern Hills aquifer system which has been designated a sole source aquifer (SSA) by the EPA. Based on the information provided for the project, we have determined that the project, as proposed, should not have an adverse effect on the quality of the ground water underlying the project site.

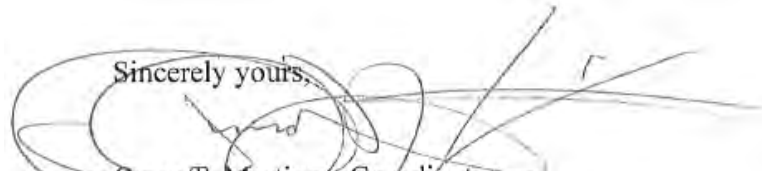
This approval of the proposed project does not relieve the applicant from adhering to other State and Federal requirements, which may apply. This approval is based solely upon the potential impact to the quality of ground water as it relates to the EPA's authority pursuant to Section 1424(e) of the Safe Drinking Water Act.

EPA intends to evaluate and respond to all projects submitted for formal review or evaluation purposes within forty-five (45) calendar days, from the Stamped Date the project is received by the EPA. However, if EPA is unable to complete its review within that timeframe, no assumption of a determination of a lack of impacts can be made. EPA acknowledges our approval is not required by law for the project to proceed with funding.

If you did not include the parish, project description, project location, area map, plat or the federal funding agency, please do so in future SSA correspondence.

If you have any questions on this letter or the SSA program please contact me at (214) 665-8485.

Sincerely yours,



Omar T. Martinez, Coordinator  
Sole Source Aquifer Program  
Ground Water/UIC Section

cc: Ms. Jamie Schexnayder, CFM, Environmental Protection Specialist  
Jesse Means, LDEQ



**Date: June 10, 2022**

**FYI: We have moved and have a New Address & Mail Code, please see below.**

Omar T. Martinez, Environmental Scientist  
Sole Source Aquifer Program Coordinator  
Ground Water/UIC Section (Mail Code: WDDG)  
U.S. Environmental Protection Agency, Region 6  
1201 Elm Street, Suite 500  
Dallas, Texas 75270

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

**U.S. Department of Homeland Security**  
Federal Emergency Management Agency  
FEMA-State Joint Field Office  
FEMA-4559-DR-LA  
1500 Main Street  
Baton Rouge, LA 70802



**FEMA**

July 15, 2022

Kristen Sanders  
State Historic Preservation Officer  
Department of Culture, Recreation & Tourism  
1051 North Third Street  
Baton Rouge, LA 70802

**RE: Section 106 Review Consultation, Severe Storms and Flooding, FEMA-4277-DR-LA-HMGP-0022**  
West Baton Rouge Parish, Improvements to Bayou Stumpy Watershed Project, West Baton Rouge Parish, Louisiana (Start: 30.475135, -91.384956; End: 30.594253, -91358214)  
Determination: No Historic Properties Affected

Dear Ms. Sanders:

The Federal Emergency Management Agency (FEMA) will be providing funds authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended, in response to Disaster Declaration FEMA-4277-DR-LA for Severe Storms and Flooding, dated August 14, 2016, as amended. FEMA is initiating Section 106 review for the above referenced project in accordance with the *Programmatic Agreement among the Federal Emergency Management Agency, the Louisiana State Historic Preservation Officer, the Governor's Office of Homeland Security and Emergency Preparedness, and Participating Tribes*, executed on December 21, 2016, as amended (2016 Statewide PA).

It is proposed that federal funding through FEMA's Hazard Mitigation Grants Program be provided to West Baton Rouge Parish (Subrecipient) to improve the Bayou Stumpy Watershed by removing debris and vegetation, deepening/widening the channel, and applying slope stabilization measures (Undertaking). Bayou Stumpy is located along the northern parish boundary adjacent to Pointe Coupee Parish, continuing southerly and terminating south of LA Highway 76, within the Lower Grand River Basin (Figure 1). Debris was deposited within the bayou as a result of severe storms and flooding during August 2016.

Bayou Stumpy is a natural waterway that includes large sections that have been channelized and includes other manmade improvements and drainage systems. The proposed project entails the dredging of approximately 9.3 miles of Bayou Stumpy to clear existing obstructions within the channel to restore drainage within the watershed (Figure 2). The project would include the removal of sediment deposits and grading of the channel bottom to enhance the rate of flow, as well as widening the channel bottom. The limits of the proposed improvement consist of channel bottom widening of 30 feet, 20 feet, and 15 feet for approximately 18,300 feet (3.5 miles), 7,100 feet (1.3 miles), and 23,700 feet (4.5 miles), respectively (Table 1) (Figures 3-5). All channel side slopes are to be no greater than three-foot horizontal to one-foot vertical, and the overall channel top width

will remain within the existing channel footprint. In addition, the project would remove fallen trees, beaver dams, and any other overgrown vegetation within the bayou, as well as apply slope stabilization measures along channel banks under bridge crossings throughout the project alignment. According to the Subrecipient, the purpose of the project is to mitigate flooding and reduce flood risk within the Stumpy Bayou watershed.

**Table 1. Project activity types and locations.**

Location	Type of Activity	Start Coordinates	End Coordinates	Figures
1	Full project extent	30.475135, -91.384956	30.594253, -91.358214	2
2	Bottom widening, 30-feet	30.475135, -91.384956	30.521515, -91.372875	3
3	Bottom widening, 20-feet	30.521515, -91.372875	30.540947, -91.372991	4
4	Bottom widening, 15-feet	30.540947, -91.372991	30.594253, -91.358214	5

Approximately 261,000 cubic yards of dredged material will be placed along both sides of the bayou, extending a maximum of 40-feet from either bank. Areas to be cleared of vegetation include the full 9.3-mile length of the project alignment, limited to within right-of-way and easement areas, extending a maximum of 40-feet from either bank. As an added precaution due to the greater risk of sediment transport and erosion, concrete mats will be placed along the channel banks under five bridge crossings (Table 2). The proposed concrete mats will ensure the structural integrity of the existing bridges, will provide scour protection to the bridge supports, and will provide a larger factor of safety against slope stability.

**Table 2. Locations of slope stabilization measures.**

Location	Address	Coordinates	Figures
1	LA Hwy 983 (W. Bueche Rd)	30.584385, -91.361988	6, 7
2	LA Hwy 984 (Rougon Rd)	30.578705, -91.365077	8
3	LA Hwy 620 (Section Rd)	30.540947, -91.372991	9
4	US Hwy 190	30.521515, -91.372875	10, 11
5	LA Hwy 76 (Rosedale Rd)	30.478123, -91.380459	12

The project will utilize heavy equipment on land and within the bayou. Equipment that may be used include marsh buggies, forwarders, excavators, skidsteers, ponnee, or self-loading trucks. Seven (7) equipment access points to the bayou have been identified (Table 3). These access points include roadways that run parallel to the channel, bridge crossings, and other locations that have been previously disturbed. Temporary board mats may be utilized to avoid creating ruts on the banks of the bayou. No temporary access roads will be created.

**Table 3. Equipment access points.**

Location	Address	Coordinates	Figures
1	11201 Rosedale Rd	30.476171, -91.378335	13
2	Stumpy Ridge Acres Ln	<i>Start:</i> 30.478243, -91.381168 <i>End:</i> 30.481761, -91.377772	13
3	Parcel #071500000100	30.506983, -91.372540	13
4	US Hwy 190 crossing	30.521515, -91.372875	13
5	6029 Elm Grove Rd	30.555618, -91.376541	13
6	Parcel #071300000202	30.562946, -91.371971	13
7	LA Hwy 984/Rougon Rd crossing	30.578705, -91.365077	13

Project equipment will be staged within the unfilled spoil banks along the project alignment at two (2) main locations (Table 4). Vegetative debris will be staged along the banks of the bayou and burned in-place or

temporarily staged at the equipment staging areas before being taken to landfills for final disposal. The Subrecipient has not determined yet if the ashes from burning will be taken to a landfill or incorporated into the dredged material along the banks of the bayou. Any debris staging or burn sites utilized outside of these locations will be approved through LDEQ and SHPO. As such, the debris removal process from the channel banks and staging areas to the final disposal sites would meet the criteria in Appendix B, Programmatic Allowances, of FEMA's Programmatic Agreement (PA) dated December 21, 2016, as amended. FEMA is consulting on the full scope of work as debris removal from natural waterways does not meet the criteria for Programmatic Allowances in the PA.

**Table 4. Equipment and debris staging areas.**

<b>Location</b>	<b>Address</b>	<b>Coordinates</b>	<b>Area</b>	<b>Figures</b>
1	11201 Rosedale Rd	30.476171, -91.378335	290 x 200 feet	14
2	6405 Rougon Road	30.559477, -91.373220	800 x 600 feet	15

FEMA has determined the Area of Potential Effect (APE) for the Undertaking to include the 9.3-mile Bayou Stumpy project alignment, an area extending 40-feet from each bank along the full project extent, as well as access points and staging sites (see Figures 14 and 15). In accordance with Stipulation II.C(2)(b) of the 2016 Statewide PA, FEMA is requesting your comments on or concurrence with the proposed APE.

During July 2022, FEMA consulted the Louisiana Office of Cultural Development's Cultural Resources National Register database, the Louisiana Cultural Resources Map and associated site files (LDOA website), the US Department of Agriculture Web Soil Survey maps (USDA Website), photographs, maps, and FEMA's internal files to identify historic properties along the Bayou Stumpy project extent.

Soils within the project area of West Baton Rouge Parish can be classified into two general categories, largely based on landform. These soil mapping units and categories include the following: Commerce silt loam, Commerce silty clay loam, and Commerce silty clay loam; and Sharkey silty clay loam and Sharkey clay (USDA 2022). Commerce soils are associated with natural levees and are somewhat poorly drained, while Sharkey soils are associated with backswamps that are poorly drained. Research indicates that soils in the parish have historically experienced a high degree of ground disturbance across the landscape through light industrial, residential, and extensive agricultural development, as well as natural and cultural erosional forces (LDOA Report 22-2808). Due to this history of disturbance, archaeological site potential may be lower within the project area. Background data suggests that most archaeological sites located in the vicinity of Bayou Stumpy were recorded further away on more highland soils or more significant natural levees with higher elevations and along larger, wider natural waterways. Based on the combination of poorly drained soils, historic disturbance, previously recorded site locations, and available natural resources, project locations along Bayou Stumpy have moderate to low potential for the presence of archaeological resources.

A little over half of the drainage was previously channelized, from LA Hwy 76 to just south of LA Hwy 620 (See Figures 1 & 2). This heavy ground-disturbing activity remade a canal adjacent to Bayou Stumpy and likely destroyed any potential prehistoric or early historic archaeological material that may have been along the banks of Bayou Stumpy. Since the ground was so heavily disturbed along this channelized segment, the probability of encountering significant, intact cultural materials within this area as a part of project activities is minimal.



Background research efforts determined that no archaeological sites or cemeteries have been recorded within 1000-feet of the length of the Bayou Stumpy project alignment. The bayou is not located within a National Register Historic District, nor is it adjacent to any properties that have been listed or determined to be eligible for listing on the National Register of Historic Places (Figure 16). On July 11, 2022, FEMA archaeologist Jakob Crockett drove/walked portions of the project area that are accessible by public ROW, including all bridge crossings. In common throughout the project extent were heavy, deeply plowed agriculture up to the banks of the drainage and no landform rises. The manmade nature of the bayou south of LA Hwy 620 is evident, while north of Hwy 620 the topography is low, former backswamp that is not a part of the natural levee of the Mississippi.

Based on the aforementioned identification and evaluation, FEMA has determined that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Furthermore, no portion of Bayou Stumpy is located within a National Register Historic District, nor is it adjacent to any properties that have been listed or determined to be eligible for listing on the National Register of Historic Places. Therefore, FEMA has determined a finding of No Historic Properties Affected for this Undertaking and is submitting this Undertaking for your review and comment. FEMA requests your comments within 30 days as required under Stipulation I E of the 2016 Statewide PA.

We respectfully request concurrence with this determination. Your prompt review of this project is greatly appreciated. Should you have any questions or need additional information regarding this Undertaking, please contact me at (504) 247-7771 or [jerame.cramer@fema.dhs.gov](mailto:jerame.cramer@fema.dhs.gov), or Jakob Crockett, Archaeologist, at [jakob.crockett@fema.dhs.gov](mailto:jakob.crockett@fema.dhs.gov) or 202-286-6275.

Sincerely,

JERAME J  
CRAMER

Digitally signed by  
JERAME J CRAMER  
Date: 2022.07.15  
13:17:50 -05'00'

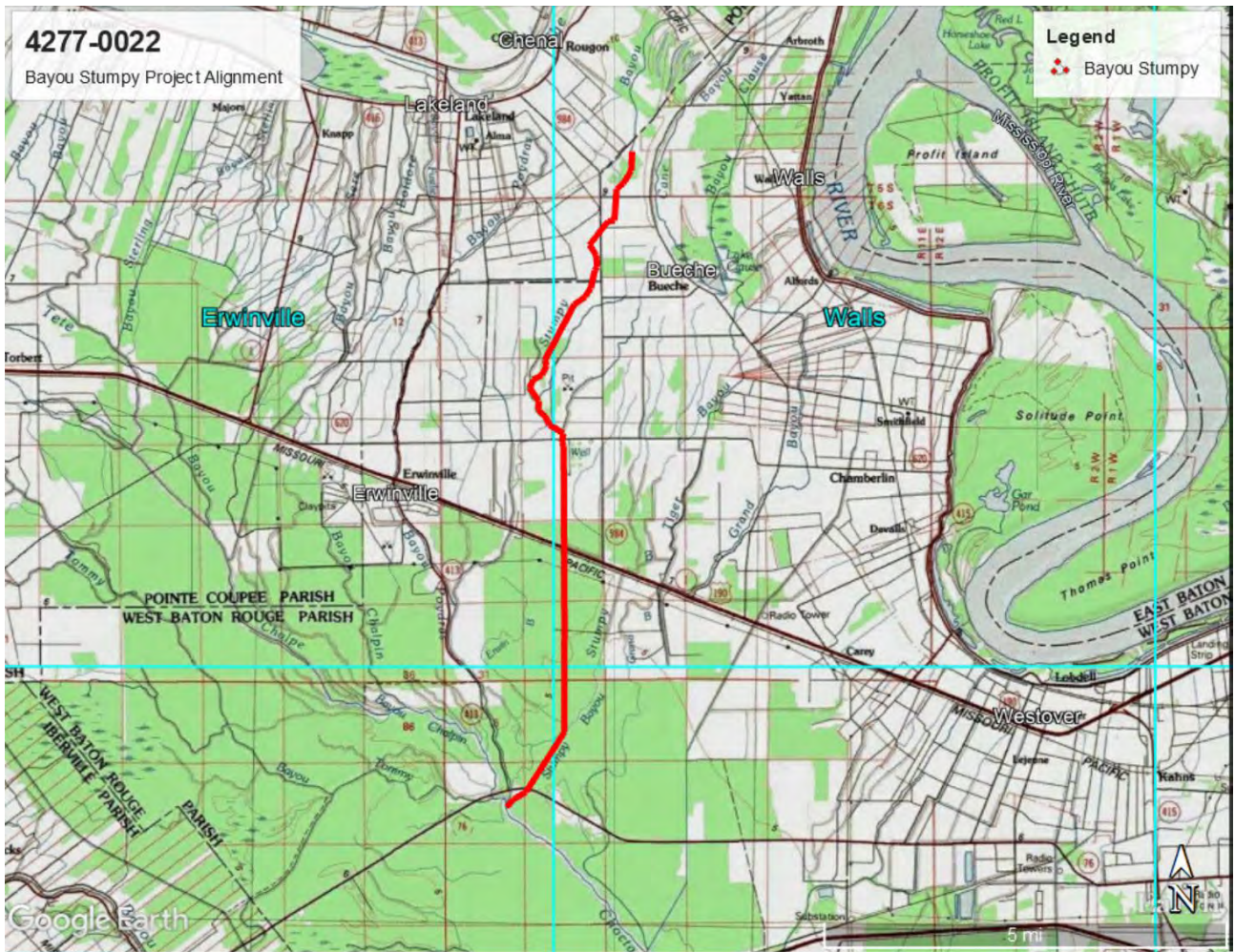
Jerame J. Cramer  
EHP Program Lead Louisiana  
FEMA Region 6  
Louisiana Integration and Recovery Office  
Baton Rouge, LA

CC: File

Distribution List:

Tribe	Contacts
Alabama-Coushatta Tribe of Texas	Chairperson Cecilia Flores Mr. Bryant Celestine, Historic Preservation Officer
Chitimacha Tribe of Louisiana	Chairman Rick Sylestine Ms. Kimberly S. Walden, Tribal Historic Preservation Officer

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[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]



**Figure 1.** Topographic map showing the location of the Bayou Stumpy Watershed Improvement project in West Baton Rouge Parish. Note approximately half the drainage was previously channelized from Hwy 76 to just north of US Hwy 190. Image via Google Earth, 2022.





**Figure 6.** North detail of the bridge at the LA Hwy 983 (West Bueche Road) crossing where slope stabilization measures will be applied.





**Figure 7.** South detail of the bridge at the LA Hwy 983 (West Bueche Road) crossing where slope stabilization measures will be applied.





**Figure 8.** West detail of the bridge at the LA Hwy 984 (Rougon Road) crossing where slope stabilization measures will be applied.





**Figure 9.** North detail of the bridge at the LA Hwy 620 (Section Road) crossing where slope stabilization measures will be applied.





**Figure 10.** North detail of the bridge at the US Hwy 190 crossing where slope stabilization measures will be applied.





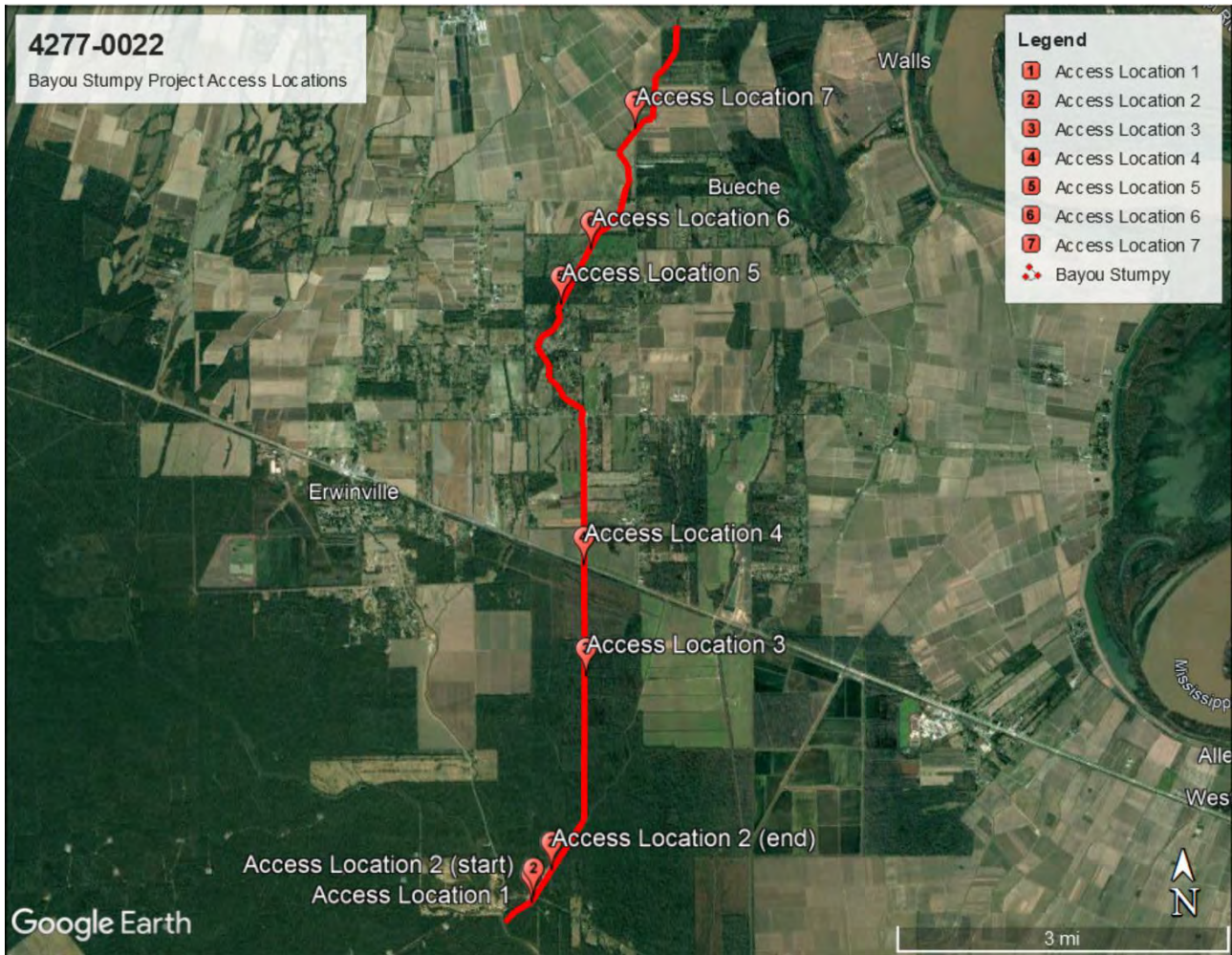
**Figure 11.** South detail of the bridge at the US Hwy 190 crossing where slope stabilization measures will be applied.





**Figure 12.** South detail of the bridge at the LA Hwy 76 (Rosedale Road) crossing where slope stabilization measures will be applied.



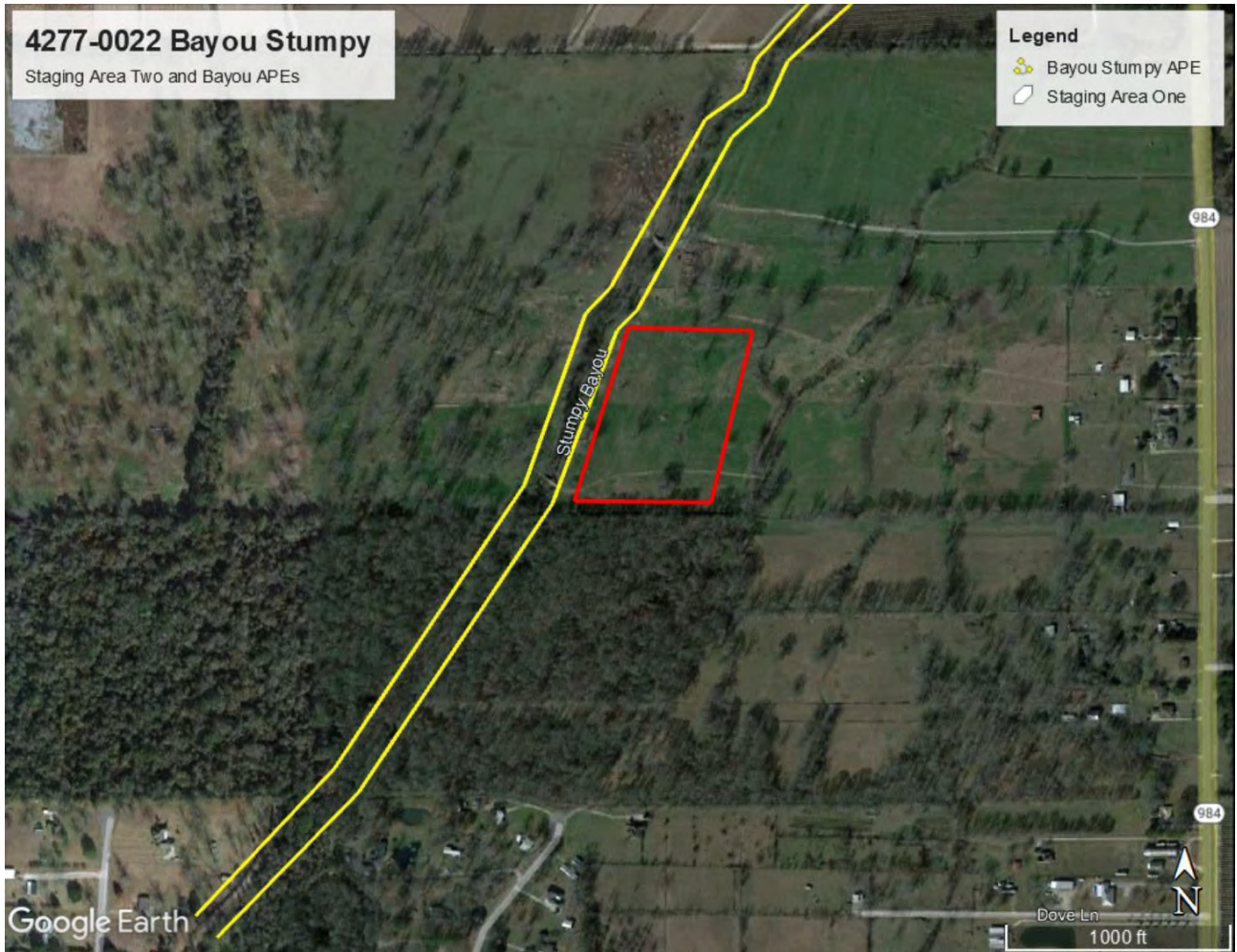


**Figure 13.** Map illustrating the seven (7) equipment access points along the Bayou Stumpy project alignment.



**Figure 14.** Equipment and debris Staging Area One. The square red polygon delineates the APE surrounding the staging area (290 by 200-feet). The yellow APE lines on either side of Bayou Stumpy, extending 40-feet from each bank, is representative of the full project extent. Image via Google Earth, 2022.





**Figure 15.** Equipment and debris Staging Area Two. The square red polygon delineates the APE surrounding the staging area (800 by 600-feet). The yellow APE lines on either side of Bayou Stumpy, extending 40-feet from each bank, is representative of the full project extent. Image via Google Earth, 2022.



**Figure 16.** Project area represented on topographic map showing cultural resource investigations within the vicinity of Bayou Stumpy. Note that no recorded historic resources are within 1000-feet of the Undertaking. Image adapted from Louisiana Cultural Resources Map. Accessed July 2022.

## Crockett, Jakob

---

**From:** Lindsey Bilyeu <lbilyeu@choctawnation.com>  
**Sent:** Wednesday, August 17, 2022 9:49 AM  
**To:** Crockett, Jakob  
**Subject:** RE: Section 106: West Baton Rouge Parish - Improvements to Bayou Stumpy Watershed Project (FEMA-4277-DR-LA-HMGP-0022)

**CAUTION:** This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Please select the Phish Alert Report button on the top right of your screen to report this email if it is unsolicited or suspicious in nature.

Mr. Crockett,

The Choctaw Nation of Oklahoma thanks FEMA for the correspondence regarding the above referenced project. West Baton Rouge Parish lies in our area of historic interest. The Choctaw Nation Historic Preservation Department has reviewed the project information and we concur with the finding of “no historic properties affected”. However, as we have data suggesting that Choctaws were in this area during the historic period, we request that work be stopped, and our office contacted immediately, in the event that Native American artifacts or human remains are encountered.

If you have any questions, please contact me.

Thank you,

Lindsey D. Bilyeu, M.S.  
Section 106 Program Coordinator 2  
Choctaw Nation of Oklahoma  
Historic Preservation Department  
Office: (580) 642-8377  
Cell: [REDACTED]

---

**From:** Crockett, Jakob <jakob.crockett@fema.dhs.gov>  
**Sent:** Friday, July 15, 2022 1:47 PM  
**To:** Lindsey Bilyeu <lbilyeu@choctawnation.com>  
**Cc:** Cramer, Jerame <Jerame.Cramer@fema.dhs.gov>; Scoggin, Robert <robert.w.scoggin@fema.dhs.gov>; Carroll, Annette <annette.carroll@fema.dhs.gov>  
**Subject:** Section 106: West Baton Rouge Parish - Improvements to Bayou Stumpy Watershed Project (FEMA-4277-DR-LA-HMGP-0022)

**Halito:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Bilyeu:

Attached, please find FEMA’s Section 106 consultation letter regarding the below project:

**RE: Section 106 Review Consultation, Hazard Mitigation Grant Program (HMGP), FEMA-4277-DR-LA-HMGP-0022**

**Applicant:** West Baton Rouge Parish

**Undertaking:** Improvements to Bayou Stumpy Watershed Project in West Baton Rouge Parish

**Determination: No Historic Properties Affected**

Your prompt review is greatly appreciated. Should you have any questions or need additional information regarding this undertaking, please contact the names listed on the letter or Jerame Cramer, Environmental Liaison Officer at 504-247-7771, or [Jerame.Cramer@fema.dhs.gov](mailto:Jerame.Cramer@fema.dhs.gov).

Sincerely,  
Jakob

Jakob D. Crockett, PhD  
Archeologist | Environmental and Historic Preservation | LIRO  
Mobile: (202) 286-6275  
[jakob.crockett@fema.dhs.gov](mailto:jakob.crockett@fema.dhs.gov)

Federal Emergency Management Agency  
[fema.gov](http://fema.gov)



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**Appendix C**  
**Reports and Other Correspondence**





17. DIRECTIONS TO THE SITE

FROM BATON ROUGE: TAKE THE I-110 S RAMP AND MERGE ONTO I-110 S. TAKE EXIT 1-J TO MERGE ONTO I-10 W. TAKE EXIT 153 TO MERGE ONTO LA 1 N TOWARDS PORT ALLEN. TURN LEFT ON TO ROSEDALE ROAD. CONTINUE ON ROSEDALE ROAD FOR APPROXIMATELY 11 MILES. THE DREDGING ACTIVITY STARTS AT THE INTERSECTION OF BAYOU STUMPY AND BAYOU POYDRAS.

18. Nature of Activity (Description of project, include all features)

THE PHASE I OF THE PROJECT INCLUDES THE DREDGING OF APPROXIMATELY 9.3 MILES OF BAYOU STUMPY TO CLEAR THE OBSTRUCTIONS IN THE BAYOU TO RESTORE THE DRAINAGE WITHIN THE WATERSHED. THE PROJECT WOULD CLEAR SEDIMENT DEPOSITS WITHIN THE BAYOU ALONG WITH GRADING THE BOTTOM OF THE CHANNEL TO ENHANCE THE RATE OF FLOW. IN ADDITION FALLEN TREES, BEAVER DAMS, AND OVERGROWN VEGETATION, OBSERVED AT VARIOUS LOCATIONS OF THE BAYOU WILL BE REMOVED.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

THE PROJECT AIMS TO MITIGATE FLOODING AND REDUCE FLOOD RISK OCCURING IN THE BAYOU STUMPY WATERSHED CAUSED DUE TO THE INSUFFICIENT SIZE OF THE BAYOU ALONG WITH IRREGULAR CHANNEL BOTTOM GRADE. IN ADDITION FALLEN TREES, BEAVER DAMS, AND OVERGROWN VEGETATION REDUCE THE DRAINAGE CAPACITY OF THE BAYOU CAUSING THE WATER TO BACKUP. THE PROPOSED PROJECT AIMS TO REMOVE THE OBSTRUCTIONS FROM THE BAYOU ALONG WITH REGRADING AND WIDENING THE EXISTING SECTIONS OF THE BAYOU BASED ON THE HYDROLOGICAL ANALYSIS CARRIED OUT.

**USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**

20. Reason(s) for Discharge

THE MATERIAL DREDGED FROM THE BAYOU WILL BE PLACED WITHIN THE EXISTING SPOIL BANK IN AREAS ALONG THE BAYOU WITHIN THE SERVITUDE. THE TOTAL VOLUME OF MATERIAL DREDGED FROM THE BAYOU IS APPROXIMATELY 336,000 CY.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards
336,000		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.00  
or  
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

THE IMPACTS CAUSED DURING THE PROPOSED PROJECT TO THE WATERS OF THE UNITED STATES ARE TEMPORARY IN NATURE AND WILL RATHER BE BENEFICIAL IN NATURE TO THE RESIDENTS IN THE REGION. IN ADDITION, THE TYPICAL CROSS-SECTIONS PROPOSED HAVE BEEN DEVELOPED BASED ON THE RESULTS OF THE H&H STUDY TO MINIMIZE THE FOOTPRINT OF DREDGING REQUIRED.

24. Is Any Portion of the Work Already Complete?  Yes  No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- SEE ATTACHED LAND OWNERS LIST

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
--------	----------------	-----------------------	--------------	---------------	-------------

NONE


\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

<b>Kevin Durbin</b>	<small>Digitally signed by Kevin Durbin Date: 2021.01.27 10:54:19 -06'00'</small>	<u>2021-01-27</u>	<b>Mohan Menon</b>	<small>Digitally signed by Mohan Menon DN: cn=Mohan Menon, email=mohmenon@epac.com Date: 2021.01.27 10:54:11 -06'00'</small>	<u>2021-01-27</u>
SIGNATURE OF APPLICANT		DATE	SIGNATURE OF AGENT		DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



Bayou Stumpy Watershed Improvements, Phase I

Drainage Impact Study

West Baton Rouge Parish, Louisiana

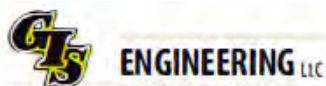
May 5, 2021

# Hydrologic & Hydraulic Analysis Report



Prepared By:

GIS Engineering, LLC.



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- Table 2 – Basin A Sub-Basins and Areas
- Table 3 – Basin B Sub-Basins and Areas
- Table 4 – Storm Frequencies & Depth
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- Table 6 – Sub-basin Peak Runoff Rates
- Table 7 – Bayou Stumpy Existing Conditions Model Results
- Table 8 – Bayou Stumpy Existing Conditions & Proposed Improvements
- Table 9 – Bayou Stumpy Proposed Improvements Model Results

Appendix

Attachment 1 – Drainage Basin Map

Attachment 2 – Soil Map

Attachment 3 – FEMA Map

Attachment 4 – HEC HMS Results

Attachment 5 – HEC RAS Results

Attachment 6 – Pre Inundation Map with Lidar

Attachment 7 – Post Inundation Map with Lidar

Attachment 8 – High Water Survey

# 1. Introduction

GIS Engineering, LLC (GIS) was tasked by the West Baton Rouge Parish (WBRP) Government to perform a Hydrologic & Hydraulic (H&H) analysis of the Bayou Stumpy Watershed. The objective of this analysis is to determine existing peak runoffs for the Bayou Stumpy Watershed in West Baton Rouge Parish, LA (See Figure 1), determine hydrologic impacts to the area, and identify potential improvements in order to mitigate flood risk for the surrounding residential, agricultural and commercial properties. The improvements recommended shall mitigate flooding and reduce flood risk, which would lead to preventing repetitive flood losses that have occurred in the area.

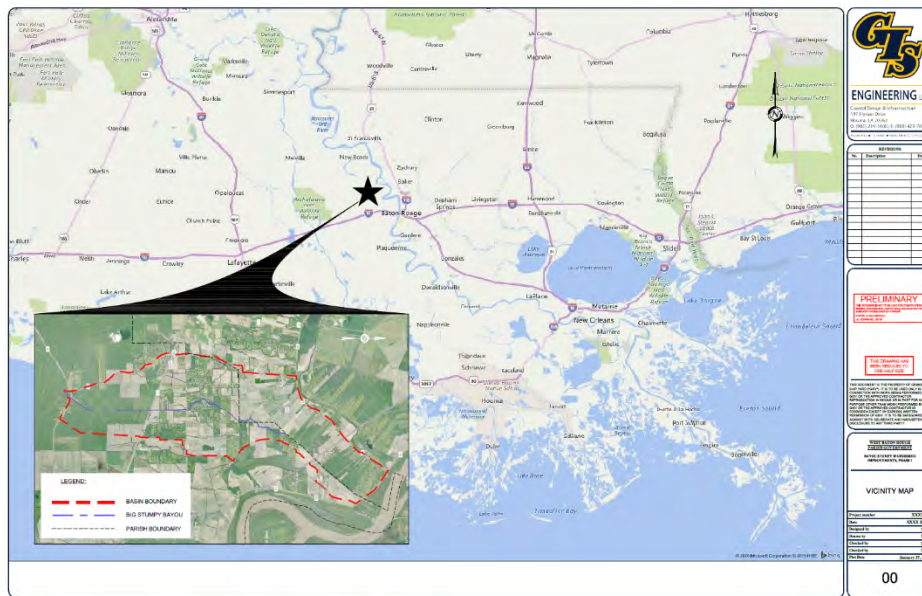


Figure 1: Vicinity Map

# 2. Site Location and Description

The Bayou Stumpy Watershed is located in West Baton Rouge Parish, Louisiana, and is approximately 13,187 acres, which is mainly agricultural and residential, that flows via gravity flow into Bayou Stumpy. This location is relatively flat, low lying and is shown in the Existing Drainage Map in Figure 2 below. The watershed was delineated into two sub-basins, Basin A and Basin B as shown in the figure. Basin A drains to Bayou Stumpy, while Basin B drains to Little Stumpy Bayou, which eventually flows into Bayou Stumpy just upstream of Bayou Stumpy's confluence with Choctaw Bayou.





Because of its land flatness, high annual rainfall, and soil wetness, West Baton Rouge Parish's water-problem sources are closely related. As flooding from storm runoff aggravates and prolongs wet soil conditions in the nearly level terrain, drainage and flood problems are inseparable.

### 3.2 Soils

The soils in this area consists of sediments deposited over time by the Mississippi and Atchafalaya rivers and their tributaries. GIS performed a soil survey for the study area in order to obtain the hydrologic soil group, as identified using the U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Web Soil Survey. Soils for the area consist primarily of *sharkey clay* and *silty clay loam* as depicted in Figure 3 below. A majority of the soils described are poorly drained with varying frequencies in flooding. The loamy soils are highly productive for agriculture but typically require some form of surface drainage. Soils in the area that are occasionally to frequently flooded, typically contain wooded areas and wetlands. The complete USDA Web Soil Survey can be found in Attachment 2.

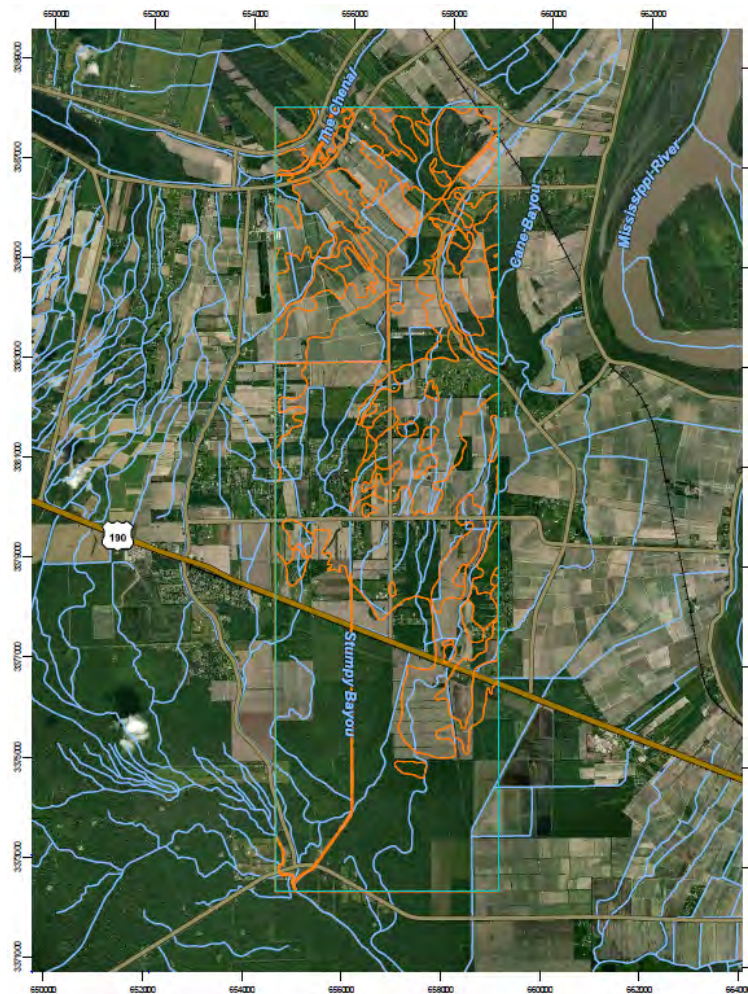


Figure 3: Soil Map

### **3.3 Vegetation**

The vegetation in the watershed project location are parallel to the Southern Holocene Meander Belts ecoregions. These ecoregions occur along the banks of the Mississippi River. Point bars, oxbows, natural levees, and abandoned river channels are common features in these regions. The natural communities and hydrology of these ecoregions have been heavily modified for agricultural purposes. Most of the bottomland has been cleared and converted to fields and cropland. Major crops in the region include sugar cane, cotton, soybeans, and corn. Livestock production and crawfish aquaculture operations are also common.

### **3.4 FEMA Mapping**

The watershed is designated as Zone A and Zone X by the Federal Emergency Management Agency (FEMA). See Attachment 3. A Flood Insurance Study (FIS) for West Baton Rouge Parish Louisiana and Incorporated Areas was revised by FEMA in July 16, 2014. This FIS was used to determine the tail water elevation used in the hydraulics modelling developed for this study.

## **4. Summary of Existing Drainage Features**

---

### **4.1 Bayou Stumpy**

Bayou Stumpy is an existing drainage channel that serves as the primary outfall for the basin. Bayou Stumpy begins in Pointe Coupee Parish near False River and flows south for approximately 13-miles containing both natural and man-made sections of channel to its confluence with Choctaw Bayou. Bayou Stumpy passes directly under several simply supported beam highway bridges including Hwy 983 (Bueche Rd.), Hwy 984 (Rougou Rd.), Hwy 620 (Section Rd.), U.S. Hwy 190 and Hwy 76 (Rosedale Rd.). Bayou Stumpy is part of the Choctaw Bayou Watershed which comprises 70 percent of the Parish.

During the emergency inspection performed in 2019, it was apparent that there were several obstructions impeding flow throughout Bayou Stumpy. These obstructions consisted of fallen trees, over grown vegetation, and beaver dams. The obstructions significantly reduce the area of flow within a channel and as a result, flow rate is also reduced. As the flow rate decreases, traveling sediments begin to settle, which in effect, and over long periods of time, causes Bayou Stumpy's bottom to shallow. This reduction in channel depth subsequently reduces the area of flow and strains the drainage system particularly upstream, increasing the occurrence of flooding.

In addition, the existing channel slope of Bayou Stumpy ranged from minimal slope to negative slopes in some areas. Field survey cross sections were performed along Bayou Stumpy and the typical channel characteristics of each reach of Bayou Stumpy are summarized below. All reaches summarized below were assumed to have a typical trapezoidal cross-sectional area.



Contributing Sub-Basins	Reach	Existing Bottom Width (ft.)	Length (ft.)	Channel Side Slope
A-1.1	A-1.1	12	4,350	3:1
A-1.2	A-1.2	12	8,965	3:1
A-1.3	A-1.3	12	5,968	3:1
A-2,A-17	A2/17 to A8	14	1,613	3:1
A 8, A-3	A8 to A9	14	3,352	3:1
A 4, A-5, A-6, A-7, A-9	A9 to A10	18	2,742	3:1
A 10	A10 to A11	21	1,358	3:1
A 11	A11 to A12/13	23	1,809	3:1
A 12, A-13	A12/13 to A14	25	1,188	3:1
A 14	A14 to A15	33	11,654	3:1
A 15	A15 to A16	30	398	3:1
B 1, B-2, B-3, B-4, A-16	A16 to end	35	6,116	3:1

Table 1 –Bayou Stumpy Channel Existing Features

#### 4.2 Little Stumpy Bayou

Little Stumpy Bayou is a tributary to Bayou Stumpy and provides drainage to Basin B, which makes up most of the eastern portion of the Bayou Stumpy Watershed. Little Stumpy Bayou spans approximately 6.5 miles to the east of Bayou Stumpy and is the second largest drainage lateral in the watershed. Little Stumpy Bayou drains approximately 3000 acres before flowing into Bayou Stumpy just north of its confluence with Bayou Choctaw.

#### 4.3 Named Laterals

There are several other named laterals in the Bayou Stumpy watershed. The detailed study of these laterals was not included in this study, but the drainage areas were included in the runoff calculations to determine their impacts to the hydraulic capacity of the overall watershed. The H&H model accounts for the flow of minor laterals through the definition of each sub-basins flow path and time of concentration.

### 5. Summary of Watershed Areas/Basins

---

#### 5.1 Drainage Basins

The Stumpy Bayou watershed consists of approximately 13,187 acres that were delineated into two primary basins, Basin A and Basin B, as shown in the drainage map in Attachment 1. The primary Basins A and B were further delineated into sub-basins for modeling accuracy purposes. Using the field survey results along with publicly available Lidar data, each sub-basin was delineated based on the natural drainage patterns as described in this section.

#### 5.2 Basin A

Basin A contains approximately 9,869 acres and consists majorly of agricultural land use with some residential areas. Basin A was subdivided into 16 sub-basins and are summarized in Table 2 below, along with characteristics for each sub-basin used for runoff calculations.



Sub-basin ID	Area (Acres)	Curve Number	Initial Abstraction (inches)	Time of Concentration (minutes)
A-1.1	5,038	82.40	0.43	5,264
A-1.2	786	83.70	0.39	1,415
A-1.3	131	83.80	0.39	628
A-2	224	81.75	0.45	1,008
A-3	374	84.00	0.38	1,253
A-4	125	83.75	0.39	472
A-5	222	85.30	0.34	843
A-6	82	85.05	0.35	489
A-7	365	85.95	0.33	874
A-8	127	84.75	0.36	504
A-9	328	86.00	0.33	771
A 10	76	85.70	0.33	666
A 11	214	86.00	0.33	1,017
A 12	86	86.00	0.33	1,134
A 13	149	85.70	0.33	1,317
A 14	857	80.00	0.50	2,920
A 15	441	80.00	0.50	1,794
A 16	242	80.25	0.49	1,179
A 17	27	82.65	0.42	258

Table 2 – Basin A Sub-Basins and Areas

### 5.3 Basin B

Basin B contains approximately 3,318 acres consisting primarily of agricultural land with some residential. Basin B was subdivided into 4 sub-basins and are summarized in Table 3 below, along with characteristics for each sub-basin used for runoff calculations

Sub-basin ID	Area (Acres)	Curve Number	Initial Abstraction (inches)	Time of Concentration (minutes)
B-1	745	83.00	0.41	1,522
B-2	443	85.60	0.34	1,251
B-3	644	86.00	0.33	1,575
B-4	1,486	84.20	0.38	2,545

Table 3 – Basin B Sub-Basins and Areas

## 6. Post Improvement Drainage Features

### 6.1 General

As stated previously, the intent of this analysis is an overall review and analysis of the Bayou Stumpy Watershed and to determine and evaluate improvement options for the existing outfalls and laterals within the watershed. Pre and post drainage basin and sub basin boundaries and areas will be maintained.

### 6.2 Alternatives Considered

Three alternatives were considered for post improvement drainage features and consist of:

- **Alternative 1 (No Build):** leave Bayou Stumpy as is without any improvements if model shows no flooding extents for existing conditions
- **Alternative 2:** increasing or reclaiming the cross sectional areas of Bayou Stumpy to provide additional storage and capacity and removing conflicts and obstructions that may be impeding flow which will improve drainage for the Bayou Stumpy Watershed.
- **Alternative 3:** adding a retention pond(s) adjacent to Bayou Stumpy to provide increased stormwater storage for the watershed and provide relief to Bayou Stumpy during major storm events.

All alternatives were analyzed conceptually, however after some preliminary modeling and cost estimating for the three alternatives, it was evident that Alternative 1 was not a realistic option as flooding was significant. Additionally, Alternative 2 provided significantly greater benefits than Alternatives 1 and 3. Alternative 3 provided some benefits, however the cost of construction was much greater than the benefits provided, yielding an ineffective alternative. Therefore, GIS proceeded to model Alternative 2 in detail and the methodology and results are included in this report.

## **7. Hydrologic & Hydraulic Model**

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### **7.1 Methodology**

The H&H model was developed using widely accepted engineering practices and technical manuals set forth by state and federal agencies. For the hydrologic model the USDA Soil Conservation Service SCS (now the Natural Resources Conservation Service, NRCS) Technical Release 20 (TR-20) & Technical Release 55 (TR-55) to calculate storm runoff volume, peak discharge rates, hydrographs, and times of concentration. For rainfall types, the Louisiana Department of Transportation and Development (LADOTD) Hydraulics Manual was used for Region III. The United States Army Corps of Engineers (USACE) software was used for the models. HEC-HMS (Hydrologic Modeling Software) and HEC-RAS (River Analysis Software) were used to for the hydrologic and hydraulic modeling respectively.

### **7.2 Hydrologic & Hydraulic Criteria**

The following design criteria were used in developing the H&H model:

- Storm Frequency- 10, 25, 50, and 100 year – 24 hour design storms
- Runoff Curve Number – Weighted Curve Numbers were used for each Sub Basin and Calculated as per the LADOTD Hydraulics Manual (2011 edition).
- Calculation of Time of Concentrations – Lag/CN Method

- A downstream (tailwater) boundary condition consisting of surface water elevation at the Bayou Stumpy and Choctaw Bayou confluence point was estimated using historical levels of existing gauges. Estimated downstream boundary conditions for each respective storm event are as follows:

Storm Frequency	Choctaw Bayou Water Surface Elevation (ft – NAVD88)
10-Year	10.00'
25-Year	12.00'
50-Year	12.00'
100-Year	18.10'

### 7.3 Hydrologic Model HEC-HMS

The hydrologic model was performed using the USACE software for storm models, HEC-HMS Version 4.3. HEC-HMS is designed to simulate the precipitation-runoff processes of dendritic watershed systems. HEC-HMS uses the above-mentioned USDA procedures to produce the calculations for rainfall runoff models.

The SCS method was used to develop runoff hydrographs and peak flow rates. Storm frequencies used were 10, 25, 50, and 100 year at 24-hour storm events.

Runoff curve numbers were approximated for each sub-basin using aerial photography and corroborated based on field visits. Curve numbers for sub-basins of mixed use were averaged based on area sizes, and used for runoff calculations. Lag times and times of concentration were developed using the SCS lag time equations. Hydrographs were generated using the SCS method Type 3 storm distribution, and 24 hour storm depths for each event were determined from the National Resource Conservation Services Rainfall Maps, as well as the Louisiana Department of Transportation and Development’s Hydraulics Manual. The following table summarizes the storms modeled and analyzed as part of this study.

Storm Frequency	Storm Type	Precipitation Depth
10-Year	Type III – 24 Hour	7.80 inches
25-Year	Type III – 24 Hour	9.60 inches
50-Year	Type III – 24 Hour	11.10 inches
100-Year	Type III – 24 Hour	12.60 inches

*Table 4 – Storm Frequencies & Depth*

### 7.4 Hydraulic Model (HEC-RAS)

The HEC-HMS peak stormwater runoff results were subsequently input to the USACE software for hydraulic modeling, HEC-RAS version 5.0.7. HEC-RAS performs steady and unsteady flow calculations for reaches or tributaries modeling. The junctions summarized in Table 5 below were used to define Bayou Stumpy for hydraulic modeling in HEC-RAS. Field survey cross section data along Bayou Stumpy was used along with aerial imagery to determine runoff routing between sub-basins. Routing in HEC-HMS is defined by reaches that tie-in to junctions. The table below summarizes all junctions used in the HMS, and subsequently in the RAS, models.

Junction	Contributing Sub-Basins	Reach
J A1.1	A1.1	A-1.1
J A1.2	A1.2	A-1.2
J A1.3	A-1.3	A-1.3
J A2/A17	A-2,A-17	A2/17 to A8
J A8	A-8, A-3	A8 to A9
J A9	A-4, A-5, A-6, A-7, A-9	A9 to A10
J 10	A-10	A10 to A11
J A11	A-11	A11 to A12/13
J A12/A13	A-12, A-13	A12/13 to A14
J A14	A-14	A14 to A15
J A15	A-15	A15 to A16
J A16/B4	B-1, B-2, B-3, B-4, A-16	A16 to end

Table 5 –Bayou Stumpy Junction Summary

## 8. Results

### 8.1 General

For the hydraulic models, it is assumed that the hydrologic conditions of the watershed will remain unchanged. The results obtained from HEC-HMS will be the same for the pre and post improvement HEC-RAS models. Results for both models are discussed in this section.

### 8.2 Hydrologic Model

The hydrologic model for the watershed was ran for the 10, 25, 50 and 100 year – 24 hour design storm. Table 6 below summarizes the peak runoff rates for each sub-basin analyzed. Complete peak runoff results are found in Attachment 4.

Sub-basin ID	Area (acre)	Curve Number	10 year Storm	25 year Storm	50 year Storm	100 year Storm
A-1.1	5,038	82	418.40	542.60	647.20	752.40
A-1.2	786	83	231.90	298.50	354.40	410.40
A-1.3	131	83	77.20	98.90	117.10	135.20
A-2	224	82	83.40	108.30	129.20	150.20
A-3	374	84	128.60	163.40	192.60	221.80
A-4	125	84	93.00	118.50	139.70	161.00
A-5	222	85	103.90	132.80	157.00	181.30
A-6	82	85	59.80	76.00	89.40	102.80
A-7	365	86	164.50	210.50	248.90	287.30



A-8	127	85	89.90	114.20	134.50	154.80
A-9	328	86	167.20	212.90	250.10	287.30
A-10	76	86	42.20	54.10	64.10	74.10
A-11	214	86	83.50	107.10	126.80	146.60
A-12	86	86	30.40	38.90	46.10	53.20
A-13	149	86	47.30	60.70	71.80	83.00
A-14	857	80	118.50	155.50	186.80	218.30
A-15	441	80	95.90	125.80	151.00	176.50
A-16	242	80	76.10	99.80	119.70	139.70
A-17	27	83	27.80	35.60	42.10	48.50
B-1	745	83	209.90	268.90	318.40	368.10
B-2	443	86	146.10	187.70	222.60	257.50
B-3	644	86	189.40	239.80	281.80	324.00
B-4	1,486	84	254.50	328.90	391.50	454.30

Table 6 –Sub-basin Peak Runoff Rates

### 8.3 Hydraulic Model – Existing Conditions.

HEC-RAS was used to determine the hydraulic capacities of the existing reaches of Bayou Stumpy using the HEC HMS peak runoff rates summarized above. The peak flows and stage results from the HEC-RAS model for the existing channel conditions are summarized in Table 7 below. Complete HEC RAS results are included as attachment 5 for both existing conditions and proposed improvements.

Junction	Bayou Stumpy Station	10 Year Storm		25 Year Storm		50 Year Storm		100 Year Storm	
		Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)
A1.1	501+79	679.9	26.47	879	27.19	1046.5	27.72	1214.8	28.22
A1.2	462+02	679.9	24.23	879	25.42	1046.5	26.17	1214.8	26.82
A1.3	373+25	679.9	19.84	879	21.14	1046.5	22.06	1214.8	22.94
A2/A17	311+67	681.1	17.56	880.6	18.95	1048.4	19.83	1217.1	21.15
A8	291+22	687	16.68	888.3	18.1	1057.6	19	1227.9	20.6
A9	263+95	802.7	16.31	1027.5	17.76	1215.7	18.63	1404.4	20.36
A10	241+79	841.5	15.51	1077.4	16.98	1275	17.81	1473	19.93
A11	221+79	919.8	14.76	1177.8	16.26	1393.9	17.04	1610.4	19.52
A12&A13	211+79	984	14.32	1260.1	15.87	1491.2	16.62	1722.8	19.34
A14	191+68	1006.1	13.5	1289.4	15.09	1526.7	15.75	1764.6	19
A15	81+79	1062.8	12.26	1363.6	13.95	1615.7	14.46	1868.6	18.59
A16&B4	71+79	1742.2	11.98	2234.8	13.7	2648	14.18	3063.9	18.52
Outlet	11+79	1742.2	10	2234.8	12	2648	12	3063.9	18.1

Table 7 –Bayou Stumpy Existing Conditions Model Results

Water surfaces determined above for the existing channels were used as the basis for determining recommended improvements for Stumpy Bayou. Inundation mapping for the 100-yr storm for existing conditions is included as Attachment 6.

### 8.4 Improvement Recommendations

GIS reviewed the results of the existing channel analysis to determine required channel sections for the proposed improvements to Stumpy Bayou. Through the results of the hydraulic model for the existing conditions and field observations, GIS was able to identify several locations within Bayou Stumpy that were creating constrictions within the conveyance channel. Furthermore, GIS evaluated the locations identified in the model against the survey data obtained, and was able to confirm that the flow area was constricted or had some restriction in the path of flow (e.g. large branches or debris).

Additionally, a profile from the upstream to the downstream end of the Bayou Stumpy hydraulic model, revealed widely varying channel bottom slopes. The varying channel slopes along with the constrictions in flow area caused the conveyance channel to flow restrictedly.

The first improvement considered to improve the channel flow and lower the water surface elevation consisted of:

1. Re-grading Bayou Stumpy to have a consistent bottom channel slope from the upstream boundary to the downstream boundary.
2. Re-grade the cross-sectional areas throughout for consistency in flow area.
3. Completely clearing Bayou Stumpy free of debris or restrictions.

The proposed improvements would allow Bayou Stumpy to flow in steady state conditions, while also adding more capacity to the conveyance channel and increasing freeboard. Table 8 below compares the existing and proposed cross-sectional areas for difference sections of Bayou Stumpy, as well as the proposed constant channel slope.

Junction	Bayou Stumpy Station	Existing Bottom Channel Width (ft)	Existing Side Slope (H:V)	Existing Bottom Slope (%)	Proposed Bottom Channel Width (ft)	Proposed Side Slope (H:V)	Proposed Bottom Slope (%)
A1.1	501+79	12	3:1	0.054%	15	3:1	0.041%
A1.2	462+02	12	3:1	0.054%	15	3:1	0.041%
A1.3	373+25	12	3:1	0.054%	15	3:1	0.041%
A2/A17	311+67	14	3:1	0.031%	15	3:1	0.041%
A8	291+22	14	3:1	0.030%	15	3:1	0.041%
A9	263+95	18	3:1	0.000%	20	3:1	0.041%
A10	241+79	21	3:1	0.166%	20	3:1	0.041%
A11	221+79	23	3:1	0.014%	20	3:1	0.041%
A12&A13	211+79	25	3:1	0.210%	20	3:1	0.041%
A14	191+68	33	3:1	0.009%	30	3:1	0.041%

A15	817+9	30	3:1	0.063%	30	3:1	0.041%
A16&B4	71+79	35	3:1	0.037%	30	3:1	0.041%

Table 8 – Bayou Stumpy Existing Conditions & Proposed Improvements

### 8.5 Hydraulic Model – Post Improvement Conditions Results

A new HEC-RAS hydraulic model was built for the post-improvement conditions as suggested in Table 7. The new model was ran for all four (4) storm events considered in the analysis. The peak flows and stage results from the post-improvement hydraulic model are summarized in Table 9 below. Complete HEC RAS results are included as attachment 5 for both existing conditions and proposed improvements.

Junction	Bayou Stumpy Station	10 Year Storm		25 Year Storm		50 Year Storm		100 Year Storm	
		Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)	Flow (cfs)	Stage (ft.)
A1.1	501+79	679.9	22.94	879	23.95	1046.5	24.69	1214.8	25.45
A1.2	462+02	679.9	20.35	879	21.32	1046.5	22.02	1214.8	23.03
A1.3	373+25	679.9	15.54	879	16.86	1046.5	17.64	1214.8	20.09
A2/A17	311+67	681.1	14.02	880.6	15.49	1048.4	16.19	1217.1	19.37
A8	291+22	687	13.51	888.3	15.05	1057.6	15.73	1227.9	19.18
A9	263+95	687	13.07	888.3	14.69	1057.6	15.33	1227.9	19.03
A10	241+79	687	12.8	888.3	14.46	1057.6	15.07	1227.9	18.93
A11	221+79	919.8	12.4	1177.8	14.13	1393.9	14.69	1610.4	18.79
A12&A13	211+79	919.8	12.22	1177.8	13.97	1393.9	14.51	1610.4	18.74
A14	191+68	984	11.78	1260.1	13.59	1491.2	14.07	1722.8	18.6
A15	81+79	1006.1	11	1289.4	12.88	1526.7	13.17	1764.6	18.35
A16&B4	71+79	1062.8	10.94	1363.6	12.82	1615.7	13.09	1868.6	18.32
Outlet	11+79	1742.2	10	2234.8	12	2648	12	3063.9	18.1

Table 9 – Bayou Stumpy Proposed Improvements Model Results Table

As shown in Table 9, the proposed improvements substantially lower the water surface elevation along Bayou Stumpy while the capacity remains the same. Thus, the improvements provide Bayou Stumpy with increased freeboard and storage during higher stage conditions. Inundation mapping for the 100-yr storm for the proposed improvements is included as Attachment 7.

## 9. Calibration of Model

Currently, there are no USGS gages within the vicinity of study area or near the Bayou Stumpy watershed. Following the 2016 August historical flooding in the region, a topographic survey was performed by West Baton Rouge Parish to determine high water elevations throughout the watershed. High water marks were measured within the area of the basin at elevations of 20ft. to 27ft. NADV88. GIS compared the existing condition HEC-RAS results from the 100-yr storm event modeled and the 2016 flood high water elevations. The comparison showed

lower elevations from the model results, as would be expected, but were within reasonable limits of the surveyed elevations. Based on the results of the comparisons, GIS believes the model is in very close representation of actual field conditions experienced through different storm events.

## **10. Conclusion**

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Based on the results from the models, GIS recommends the improvements for Bayou Stumpy in accordance with this report, which mainly consist of clearing and re-grading Bayou Stumpy. The recommended improvements will decrease the water surface elevations, allowing more storage and freeboard throughout the channel restore and improve the overall drainage in the watershed for any given storm event. These improvements will have no adverse effects on downstream areas, existing stormwater conveyance systems, either man-made or natural channel that traverse through the basin or affect off-site drainage areas.



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# ATTACHMENTS

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ATTACHMENT 3  
FEMA Map

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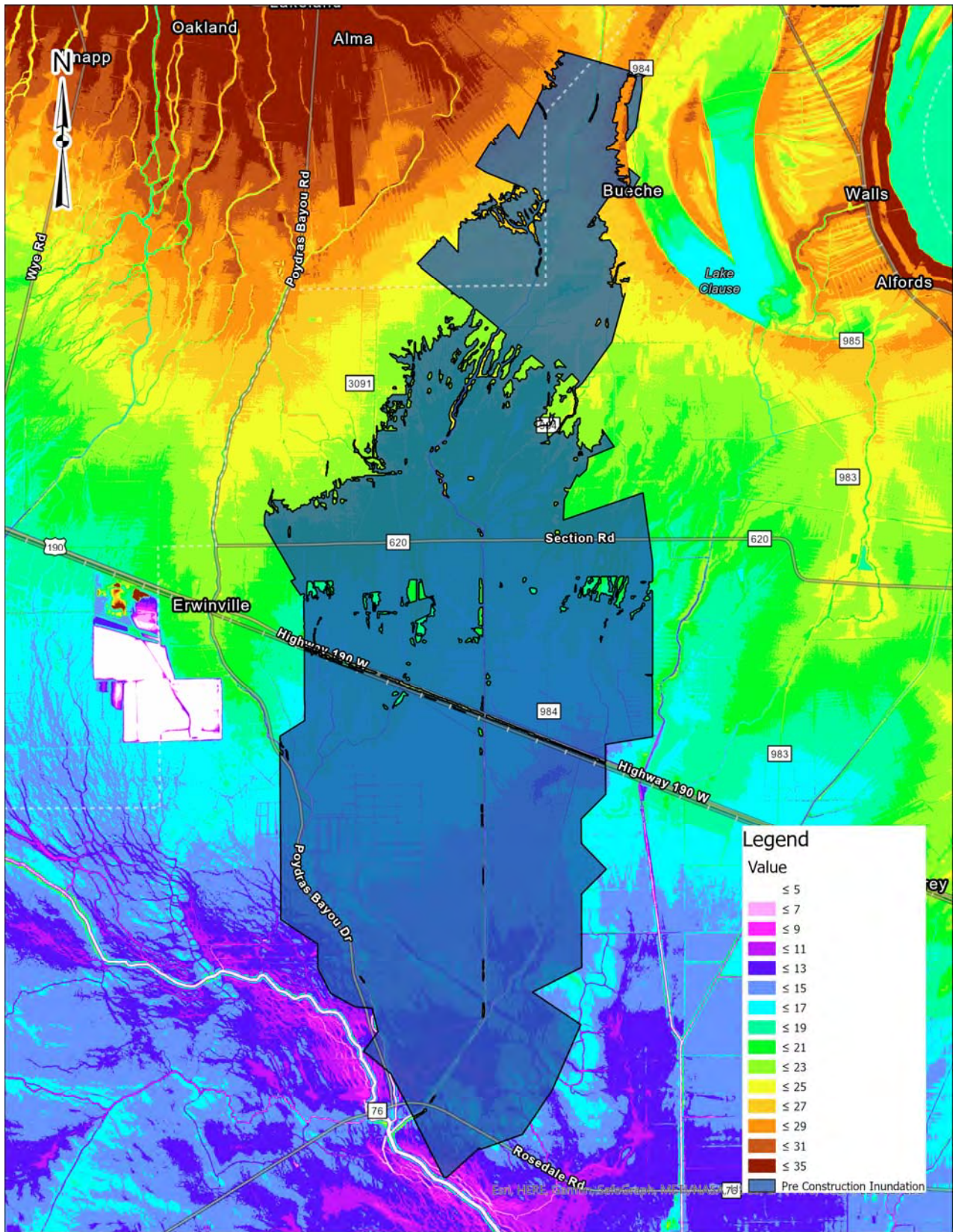
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**ATTACHMENT 6**  
Pre Inundation Map with Lidar

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PRE IMPROVEMENT INUNDATION – 100YEAR STORM



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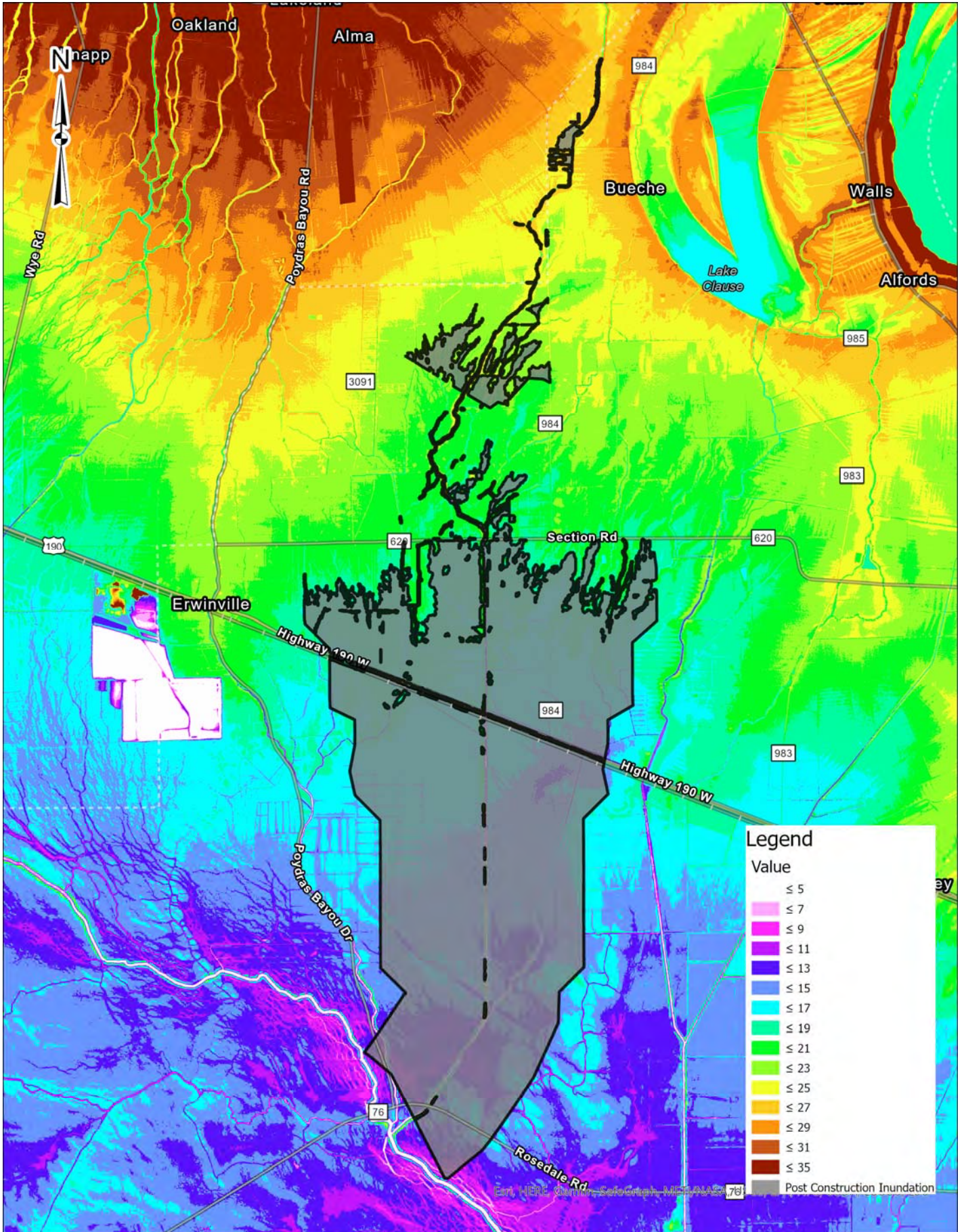
# ATTACHMENT 7

## Post Inundation Map with Lidar

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POST IMPROVEMENT INUNDATION – 100YEAR STORM



## **Appendix D**

### **Other Information (Public Notice, 8-Step Process, & FONSI)**



**FEMA PUBLIC NOTICE OF AVAILABILITY FOR THE DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED WEST BATON ROUGE PARISH GOVERNMENT BAYOU STUMPY WATERSHED RESTORATION THROUGH CHANNEL BOTTOM WIDENING IMPROVEMENTS FROM THE NORTHERN PARISH BOUNDARY TO LA HIGHWAY 76 LOCATED IN WEST BATON ROUGE PARISH, LOUISIANA**

Interested parties are hereby notified that the Federal Emergency Management Agency (FEMA) has prepared a draft Supplemental Environmental Assessment (SEA) and draft Finding of No Significant Impact (FONSI) in compliance with the National Environmental Policy Act (NEPA). The purpose of the draft EA is to assess the effects on the human and natural environment from improvements to the capacity of Stumpy Bayou in West Baton Rouge Parish, Louisiana.

The West Baton Rouge Parish Police Jury (Subrecipient), through the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) (Recipient), applied for funding under FEMA's Hazard Mitigation Grant Program (HMGP) to mitigate flooding and reduce flood risk within the Bayou Stumpy watershed. The HMGP provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. In accordance with the HMGP, the Subrecipient proposes to reduce the impacts of flooding during rain events in the proposed project areas by implementing hazard mitigation measures.

The purpose and need for the project are defined by the reoccurring flooding issues experienced in the Bayou Stumpy watershed including areas around Elm Grove, Pecan Grove, and Section Road in Port Allen. These areas abut, contribute to, and are affected by the Bayou Stumpy watershed. The upstream and downstream areas are in need of relief through watershed hydraulic improvements. To address these issues, the Subrecipient proposes to improve existing drainage within the watershed by clearing existing obstructions, removing sediment deposits, and grading the channel bottom to enhance the rate of flow. The proposed project is essential to the mitigation of the ongoing flooding of residences and property served by the drainage system.

The purpose of the draft SEA is to analyze the potential environmental impacts associated with the Preferred Action. The draft SEA evaluates a No Action Alternative and the Preferred Action Alternative, which would address the hydraulic deficiencies within Bayou Stumpy, allow steady state conditions within the channel, add more capacity, and increase freeboard. This would be accomplished by maintenance dredging, clearing obstructions, and removing vegetative debris within Bayou Stumpy to reduce flood risks and restore drainage in the Bayou Stumpy watershed to the 100-year storm. The draft FONSI is FEMA's finding that the Preferred Action would not have a significant effect on the human and natural environment.

The draft SEA and draft FONSI are available for review at the following location: West Baton Rouge Parish Library at 830 North Alexander Avenue, Port Allen, LA 70767 on Mondays, Wednesdays, and Fridays 8:30am to 5:30pm, Tuesdays and Thursdays 8:30am to 8:00pm, and Saturdays 9:00am to 1:00pm. This public notice will run in the journal of record, the *Westside Journal* for two (2) days on Thursday, January 12, 2023, and Thursday, January 19, 2023; and in

*The Advocate* for five (5) days, Tuesday, January 10, 2023, through Saturday, January 14, 2023. The document can also be downloaded from FEMA's website at <http://www.fema.gov/resource-document-library>. There will be a 30-day comment period beginning on January 12, 2023, and concluding on February 10, 2023, at 4 p.m. Written comments may be mailed to: DEPARTMENT OF HOMELAND SECURITY-FEMA EHP – West Baton Rouge Parish Bayou Stumpy Watershed Drainage Improvements, 1500 MAIN STREET, BATON ROUGE, LOUISIANA, 70802. Comments may be emailed to [fema-liro-ehp-hma@fema.dhs.gov](mailto:fema-liro-ehp-hma@fema.dhs.gov). Verbal comments will be accepted or recorded at 225-267-2962. If no substantive comments are received, the draft SEA and associated draft FONSI will become final.

## EXECUTIVE ORDER 11988/11990

### FLOODPLAIN MANAGEMENT/WETLANDS – CHECKLIST (44 CFR Part 9)

<b>APPLICANT:</b>	<b>West Baton Rouge Parish Government</b>
<b>COUNTY/STATE:</b>	<b>West Baton Rouge Parish/Louisiana</b>
<b>COORDINATES:</b>	30.53170, -91.37272
<b>PROPOSED ACTION:</b> <i>(Provide a brief scope of work)</i>	Implement drainage improvements to the existing drainage system by clearing existing obstructions, removing sediment deposits, and grading of the channel bottom to enhance the rate of flow. The spoil material dredged from the bayou would be placed in upland areas or within existing spoil bank areas along the bayou within the existing channel servitudes. The proposed improvement includes channel bottom widths of 30 ft., 20 ft., and 15 ft. for approximately 18,300 ft. (3.5 mi.), 7,100 ft. (1.3 mi.), and 23,700 ft. (4.5 mi.), respectively.

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**APPLICABILITY: Actions which have the potential to affect floodplains/wetlands or their occupants, or which are subject to potential harm by location in floodplains/wetlands.**

**YES**    **NO**

The proposed action could potentially adversely affect the floodplain/wetlands.

Remarks: Portions of the proposed project are in the 100-year floodplain and in an undesignated floodway.

Jurisdictional wetlands have been identified in portions of the proposed project.

**YES**    **NO**

The proposed action could potentially be adversely affected by the floodplain/wetlands.

Remarks: USACE standard permit issued on August 19, 2022.

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**ACTION:**

- Review against 500 Year floodplain (for Critical Action)**
- Review against 100 Year floodplain**
- Not Applicable (for actions located in wetland only)**

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**STEP NO. 1      Determine whether the proposed action is located in the 100-year floodplain (500-year floodplain for critical actions) and/or wetland; (44 CFR §9.7).**

West Baton Rouge Parish enrolled in the NFIP on April 3, 1978. Per the preliminary FIRM Panels 22121C0045D, 22121C0065D, 22121C0075D, and 22121C0125D, dated July 16, 2014, portions of the project site are located within the SFHA Zone AE, which is the 100-year floodplain, or an area subjected by the 1% annual chance flood with base flood elevations (BFE) determined; within an undesignated floodway and SFHA, Zone A, which is also



subjected by the 1% annual chance flood, but without BFEs because detailed hydraulic analyses have not been performed; and within Zone X (shaded), areas outside the SFHA, but between the limits of the base flood (1%) and the 500-year (0.2%) flood and are protected from the 100-year flood by a levee. Some portions of Bayou Stumpy are located in Pointe Coupee Parish within an unincorporated area with no digital data available on FIRM Panel 2201400425B, dated July 16, 1981. Even though portions of the project area are not in the SFHA, they are still subjected to local flooding.

A review of the National Wetland Inventory (NWI) online mapper queried on October 5, 2022, for the proposed site indicates that mapped wetlands are present in the project areas.

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**STEP NO. 2      Notify the public at the earliest possible time of the intent to carry out an action in a floodplain/wetland, and involve the affected and interested public in the decision-making process; (44 CFR §9.8)**

Notice was provided as part of a disaster cumulative notice:

Newspaper: The Advocate

Date: August 30, 2016

Project Specific Notice (e.g. EA, newspaper, public meeting, etc):

Type of Public  
Notice: \_\_\_\_\_

Date: \_\_\_\_\_

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**STEP NO. 3      Identify and evaluate practicable alternatives to locating the proposed action in a floodplain/wetland (including alternatives sites, actions and the "no action" option). (44 CFR §9.9)**

**Alternative Options**

YES  NO

Is there a practicable alternative site location outside of the floodplain/wetland?

If yes, provide the site location:

YES  NO

Is there a practicable alternative action outside of the floodplain/wetland that will not affect the floodplain/wetland?

If yes, describe the alternative action:

YES  NO

Is the NO Action alternative the most practicable alternative?

**If a practicable alternative exists outside the floodplain/wetland, FEMA must locate the action at the alternative site.**

**REMARKS:**

**Alternative 1 (No Action):** Implementation of the No Action Alternative would not entail any construction activities, federal action, or hazard mitigation measures, and therefore, would not improve drainage or reduce flooding, nor would it decrease the risk of losses due to flooding. Impacts to jurisdictional forested wetlands and scrub shrub/wet pasture mixed habitat would not be realized if the proposed project was not implemented.

**Alternative 2 (Proposed Alternative):** The Proposed Alternative would be to improve the drainage in the Bayou Stumpy watershed by clearing existing obstructions, removing sediment deposits, and grading of the channel bottom to enhance the rate of flow and restore the watershed to the 100-year storm.

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**STEP NO. 4 Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains/wetlands and the potential direct and indirect support of floodplain/wetlands development that could result from the proposed action; (44 CFR §9.10)**

- YES**  **NO** Is the proposed action in compliance with the NFIP (see 44 CFR Part 59 seq.)?

**N/A** Remarks:
- YES**  **NO** Does the proposed action increase the risk of flood loss?
- YES**  **NO** Will the proposed action result in an increased base discharge or increase the flood hazard potential to other properties or structures?
- YES**  **NO** Does the proposed action minimize the impact of floods on human health, safety and welfare?
- YES**  **NO** Will the proposed action induce future growth and development, which will potentially adversely affect the floodplain/wetland?
- YES**  **NO** Does the proposed action involve dredging and/or filling of a floodplain/wetlands?
- YES**  **NO** Will the proposed action result in the discharge of pollutants into the floodplain/wetlands?
- YES**  **NO** Does the proposed action avoid long and short-term adverse impacts associated with the occupancy and modification of floodplains/wetlands?

**N/A** Remarks:
- YES**  **NO** Will the proposed action result in any indirect impacts that will affect the natural values and functions of floodplains/wetlands?
- YES**  **NO** Will the proposed action forego an opportunity to restore the natural and beneficial values served by floodplains/wetlands?

**N/A** Remarks:
- YES**  **NO** Does the proposed action restore and/or preserve the natural and beneficial values served by floodplains/wetlands?

**N/A** Remarks:
- YES**  **NO** Will the proposed action result in an increase to the useful life of a structure or facility?

**REMARKS:**

An H&H evaluation for the proposed project is documented in *Hydrologic and Hydraulic Analysis Report for Bayou Stumpy Watershed Improvements, Phase I Drainage Impact Study for West Baton Rouge Parish, Louisiana* (H&H study report) prepared by GIS Engineering, LLC, dated May 5, 2021. The proposed improvements would substantially lower the WSE along Bayou Stumpy, provide increased freeboard and storage throughout the channel during higher stage conditions, and restore and improve the overall drainage in the watershed for any given storm event. Per the H&H study report, these improvements would have no adverse effects on downstream areas, existing stormwater conveyance systems, either manmade or natural channel that traverse through the basin or affect off-site drainage areas. Based on these results, the proposed project would alleviate flooding in the Bayou Stumpy watershed. A more detailed analysis of the impacts and mitigation efforts for this project are in Section 4.0 of the EA. Permanent impacts would occur to wetlands under the Preferred Action Alternative; however, mitigation credits have been purchased to compensate for the unavoidable wetlands impacts. The Subrecipient purchased 26.4 ac. of bottomland hardwood mitigation credits at Avoca Island Mitigation Bank, for unavoidable impacts associated with work authorized under Permit MVN-2021-00271-CQ that satisfy the permittee's obligation to the USACE to compensate for wetland impacts occurring as a result of permittee's activities involving the proposed project.

The Subrecipient must comply with all State, Special, General, and Regional Conditions listed in the required Standard Permit (MVN-2021-00271-CQ) issued on August 19, 2022, which will expire on September 30, 2027. The Subrecipient is required to coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized. Per 44 CFR 9.11(d), mitigation or minimization standards must be applied, where possible. Per 44 CFR 9.11(d)(4), there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the WSE of the base flood more than one (1) ft. at any point within the community. Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. Should the site plans (including drainage design) change, the Subrecipient must submit changes to the FEMA EHP for review and approval prior to the start of construction. New construction must be compliant with current codes and standards.

The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved USEPA construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions.

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**STEP NO. 5                      Minimize the potential adverse impacts and support to or within floodplains/wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains/wetlands; (44 CFR §9.11)**

**YES**    **NO**

Were flood hazard reduction techniques applied to the proposed action to minimize the flood impacts if site location is in the 100- or 500-Year floodplain/wetlands?

**N/A** Remarks:

YES  NO

Were avoidance and minimization measures applied to the proposed action to minimize the short and long term impacts on the 100-Year floodplain/wetlands?

If no, identify measures required as a condition of the grant:

N/A Remarks:

YES  NO

Were measures implemented to restore and preserve the natural and beneficial values of the floodplain/wetlands.

If no, identify measures required as a condition of the grant:

N/A Remarks:

YES  NO

Is new construction or substantial improvement in a floodway, and new construction in a coastal high hazard area proposed?

**If YES:** Is the activity considered as functionally dependent use or a structure or facility which facilitates an open space use?

YES  NO

The Preferred Action Alternative would substantially lower the WSE along Bayou Stumpy, provide increased freeboard and storage throughout the channel during higher stage conditions, and restore and improve the overall drainage in the watershed for any given storm event.

The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved USEPA construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions. Any adverse impacts to adjacent wetlands resulting from the construction of this project would jeopardize receipt of federal funding. This includes equipment storage and staging of construction to ensure that wetlands are not adversely impacted per the Clean Water Act (CWA) and Executive Order (E.O.) 11990. All fill would consist of clean uncontaminated fill material and shall be stored and stockpiled within upland locations.

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## STEP NO. 6

**Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain/wetlands values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5. (44 CFR §9.9)**

YES  NO

The action is still practicable at a floodplain/wetland site in light of the exposure to flood risk and ensuing disruption of natural values;

YES  NO

The floodplain/wetlands site is the only practicable alternative.

YES  NO

There is no potential for limiting the action to increase the practicability of previously rejected non-floodplain/wetlands sites and alternative actions.



YES  NO

Minimization of harm to or within the floodplain/wetlands can be achieved using all practicable means.

YES  NO

The action in a floodplain/wetland clearly outweighs the requirement of E.O. 11988/11990.

**FEMA shall not act in a floodplain/wetland unless it is the only practicable location.**

The Preferred Action Alternative is the only practicable alternative based upon a review of possible adverse effects on the floodplain/wetland areas and community and socioeconomic expectations. Further, these actions are modifications to an affected stream. The actions proposed are located in the only practicable location. There are no other practicable alternate locations outside the floodplain available.

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**STEP NO. 7**

**Prepare and provide the public with a finding and public explanation of any final decision that the floodplain/wetland is the only practicable alternative; and (44 CFR §9.12)**

Check if the Initial Public Notice serves as the Final Public Notice or a Cumulative Public Notice was published. No condition required.

Check if the condition was added to the REC indicating that "For actions located in the floodplain and/or wetlands, the applicant must issue a final public notice per 44 CFR Part 9.12(e) at least 15 days prior to the start of work. The final notice shall include the following: (1) A statement of why the proposed action must be located in an area affecting or affected by a floodplain or a wetland; (2) A description of all significant facts considered in making this determination; (3) A list of the alternatives considered; (4) A statement indicating whether the action conforms to applicable state and local floodplain protection standards; (5) A statement indicating how the action affects or is affected by the floodplain and/or wetland, and how mitigation is to be achieved; (6) Identification of the responsible official or organization for implementation and monitoring of the proposed action, and from whom further information can be obtained; and (7) A map of the area or a statement that such map is available for public inspection, including the location at which such map may be inspected and a telephone number to call for information."

Project Specific Notice (e.g. EA, newspaper, public meeting, etc):

Type of Public Notice: The Advocate, Westside Journal

Date: The Advocate for five (5) days, Tuesday, January 10, 2023, through Saturday, January 14, 2023, and the journal of record, the Westside Journal, for two (2) days on Thursday, January 12, 2023, and Thursday, January 19, 2023.

EA Notice of Availability will serve as the Final Public Notice.

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**STEP NO. 8**

**Review the implementation and post - implementation phases of the proposed action to ensure that the requirements stated in Section 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes. (44 CFR §9.11)**

**YES**  **NO**

Was Grant conditioned on review of implementation and post-implementation phases to insure compliance of EO 11988?

**Failure to comply with conditions enumerated in the Record of Environmental Consideration may jeopardize federal funding.**



**FEMA**

**U.S. Department of Homeland Security**  
Federal Emergency Management Agency  
Region VI  
Louisiana Integration and Recovery Office  
1500 Main Street  
Baton Rouge, Louisiana 70802

**FINDING OF NO SIGNIFICANT IMPACT  
FOR THE WEST BATON ROUGE PARISH GOVERNMENT  
BAYOU STUMPY WATERSHED RESTORATION THROUGH  
CHANNEL BOTTOM WIDENING IMPROVEMENTS FROM THE  
NORTHERN PARISH BOUNDARY TO LA HIGHWAY 76  
LOCATED IN WEST BATON ROUGE PARISH, LOUISIANA  
HAZARD MITIGATION GRANT PROGRAM  
*HMGP 4277-0022/DR-4277-LA***

**BACKGROUND**

The West Baton Rouge Parish Government, the Subrecipient, through the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) (Recipient), has requested federal funding through the Federal Emergency Management Agency’s (FEMA) Hazard Mitigation Grant Program (HMGP) to reduce flood risk and restore drainage within the Bayou Stumpy watershed during and after major storm events.

Bayou Stumpy and its tributaries are generally insufficient in size and confine the flows generated by moderate and major storms, resulting in overflow. In the past, Bayou Stumpy has experienced numerous overflows of its natural banks that has caused flooding in the surrounding residential, commercial, and agricultural lands. In order to reduce flooding in the Bayou Stumpy watershed, the Subrecipient proposes to widen and deepen sections of the bayou to address hydraulic deficiencies. Currently, there is reduced channel capacity in Bayou Stumpy due to siltation, obstructions, and insufficient size of the drainage systems. The proposed project is essential to the mitigation of the ongoing flooding of residences and property served by the drainage system.

The specific need of this project is to effectively alleviate flooding experienced during and after major storm events due to the reduction in channel depth in the bayou. The alternatives considered include: 1) No Action Alternative, and 2) the Preferred Action Alternative, Dredging, Clearing Obstructions, and Removal of Vegetative Debris within Bayou Stumpy to Reduce Flood Risks and Restore Drainage in the Bayou Stumpy Watershed to the 100-Year Storm.

The Preferred Action Alternative would implement drainage improvements to the existing drainage system to reduce water surface height during storm events. Components of this project involve clearing existing obstructions, removing sediment deposits, and grading of the channel bottom to enhance the rate of flow.

The proposed project would allow the conveyance channel to flow in steady state conditions, while also adding more capacity to the channel and increasing freeboard. A complete description of these alternatives is included in the SEA, which is incorporated by reference in this document.

The United States Army Corps of Engineers (USACE), as the lead federal agency, conducted the original National Environmental Policy Act (NEPA) analysis and completed an Environmental Assessment (EA), 404(b)(1) Guidelines Evaluation, as applicable, and Public Interest Review for the Bayou Stumpy Watershed Restoration through Channel Bottom Widening Improvements Project from the Northern Parish Boundary to LA Highway (Hwy.) 76 in Port Allen, LA (Bayou Stumpy Watershed Drainage Improvements Project). On August 16, 2022, the USACE issued a Finding of No Significant Impact (FONSI), Environmental Assessment (EA), and Statement of Findings for the MVN 2021-00271-CQ Standard Individual Permit Application. FEMA plans to adopt the USACE's EA and has also provided supplemental information. A Supplemental Environmental Assessment (SEA) was prepared in accordance with FEMA Instruction 108-1-1 and the Department of Homeland Security (DHS) Instruction 023-01-001-01, Rev. 1, pursuant to Section 102 of the National Environmental Policy Act of 1969 (NEPA), as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR], Parts 1500-1508). This SEA supplements the existing USACE EA and FONSI dated August 16, 2022. Together, these documents evaluate the hazard mitigation proposal funding action and related potential impacts that would result from implementing the project. The purpose of the SEA was to analyze the potential environmental impacts associated with the proposed work and alternatives, and to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

## **FINDINGS**

FEMA has evaluated the proposed project for significant adverse impacts to physical resources (air quality), water resources (protection of wetlands, hydrology and floodplains, and groundwater), and historic and cultural resources. The results of these evaluations as well as consultations and input from other federal and state agencies are presented in the SEA.

## **CONDITIONS AND MITIGATION MEASURES**

The following conditions must be met as part of the implementation of the project. Failure to comply with these conditions may jeopardize federal funds.

- The Subrecipient is required to obtain and comply with all local, state, and federal permits, approvals, and requirements prior to initiating work on this project.
- If fill is stored on site, the contractor would be required to appropriately cover it.
- Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to avoid generating airborne dust (i.e., particulate air emissions).
- To reduce potential short-term effects to air quality from construction-related activities, the contractor would be responsible for using best management practices (BMP) to reduce fugitive dust generation and diesel emissions. Emissions from the burning of fuel by



internal combustion engines would temporarily increase the levels of some of the criteria pollutants, including carbon dioxide (CO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and non-criteria pollutants such as Volatile Organic Compounds (VOCs). To reduce these emissions, running times for fuel-burning equipment should be kept to a minimum and engines should be properly maintained.

- If any change to the scope of work (SOW) is located in wetlands or other areas subject to the jurisdiction of the U. S. Army Corps of Engineers (USACE), the Subrecipient should contact the USACE directly regarding permitting issues. If a USACE permit is required, part of the application process may involve a water quality certification (WQC) from the Louisiana Department of Environmental Quality (LDEQ).
- Proper signage is required to clearly identify the adjacent wetland boundaries to avoid potentially adverse impacts from construction vehicles/equipment/supplies that accidentally leave the boundaries of the approved rights-of-way (ROW).
- Any adverse impacts to adjacent wetlands resulting from the construction of this project would jeopardize receipt of federal funding. This includes equipment storage and staging of construction to ensure that wetlands are not adversely impacted per the Clean Water Act (CWA) and Executive Order (E.O.) 11990.
- All fill would consist of clean uncontaminated fill material and shall be stored and stockpiled within upland locations.
- Any changes or modifications to the proposed project would require a revised wetland jurisdictional determination.
- The Subrecipient shall properly install adequate erosion/siltation control measures around construction areas that require land-based earthwork (i.e. excavation and/or deposition of fill materials, land contouring, machinery rutting, fill maneuvering and redistribution, etc.) to aid in preventing project related sediment, debris, and other pollutants from entering adjacent wetlands or waters. Acceptable measures include but are not limited to the proper use and positioning of temporary silt fences, straw bales, fiber/core logs, wooden barriers, seeding or sodding of exposed soils, or other approved U. S. Environmental Protection Agency (USEPA) construction site stormwater runoff control and best management practices. Control techniques shall be installed prior to the commencement of earthwork activities and maintained until the project is complete and/or the subject areas are stabilized. Ensure that the Subrecipient provides adequate and appropriate mitigation for impacts to wetland functions.
- The Subrecipient must comply with all State, Special, General, and Regional Conditions listed in the required Standard Permit (MVN-2021-00271-CQ) issued on August 19, 2022, expiring on September 30, 2027.

- The Subrecipient is required to coordinate with the local floodplain administrator, obtain required permits prior to initiating work, and comply with any conditions of the permit to ensure harm to and from the floodplain is minimized.
- Per 44 CFR 9.11(d), mitigation or minimization standards must be applied, where possible.
- Per 44 CFR 9.11(d)(4), there shall be no encroachments, including fill, new construction, substantial improvements of structures or facilities, or other development within a designated regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the base floodplain unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation (WSE) of the base flood more than one (1) foot (ft.) at any point within the community.
- Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the National Flood Insurance Program (NFIP).
- Should the site plans (including drainage design) change, the Subrecipient must submit changes to the Federal Emergency Management Agency (FEMA) Environmental and Historic Preservation (EHP) for review and approval prior to the start of construction.
- New construction must be compliant with current codes and standards.
- If the project results in a discharge to waters of the State, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas greater than or equal to one (1) acre. The Subrecipient must contact the LDEQ Water Permits Division at 225-219-9371 to determine if the proposed project requires a permit.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting additional wastewater.
- If the project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application of Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information: (<http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx>) or by contacting the LDEQ Water Permits Division at 225-219-9371.
- Water softeners generate wastewaters that may require special limitations depending on local water quality considerations. If water system improvements include water softeners,

contact LDEQ Water Permits to determine if special water quality-based limitations will be necessary.

- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at 225-219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.
- All precautions should be observed to protect the groundwater of the region. BMPs should be implemented to ensure groundwater is protected.
- Extreme care must be taken during the construction process through the appropriate use and maintenance of BMPs.
- If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (Revised Statute [RS] 8:671, et seq.) is required. The Subrecipient shall notify the law enforcement agency of the jurisdiction where the remains are located within 24 hours of the discovery. The Subrecipient shall also notify FEMA and the Louisiana Division of Archaeology (LDOA) at 225-342-8170 within 72 hours of the discovery (Louisiana Unmarked Human Burial Sites Preservation Act).
- If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Subrecipient shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Subrecipient shall inform their Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) State Applicant Liaison and Hazard Mitigation Assistance contacts at FEMA, who will in turn contact FEMA Historical Preservation (HP) staff. The Subrecipient will not proceed with work until FEMA HP completes consultation with the State Historic Preservation Office (SHPO), and others as appropriate (Inadvertent Discovery Clause).
- All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Subrecipient must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.
- Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, the Subrecipient shall handle, manage, and dispose of

petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

- All debris would be disposed of at a permitted landfill.
- Any renovation or remodeling must comply with Louisiana Administrative Code (LAC) 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If the project will involve the removal or disturbance of any soils which may have contaminant concentrations that exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.
- The Subrecipient must take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- All coordination pertaining to these activities and Subrecipient compliance with any conditions should be documented and copies forwarded to correspondence to the GOHSEP and the FEMA as part of the permanent project files.

## CONCLUSIONS

Based upon the incorporated SEA, and in accordance with Presidential Executive Orders 12898 (Environmental Justice), 11988 (Floodplain Management), and 11990 (Wetland Protection), FEMA has determined that the implementation of the proposed action with the conditions and mitigation measures outlined above and in the SEA would not result in significant adverse effects on the quality of the natural and human environment. In addition, the proposed project does not appear to have the potential for significant cumulative effects when combined with past, present, and reasonably foreseeable future actions. As a result of this FONSI, an Environmental Impact Statement (EIS) will not be prepared (FEMA Instruction 108-1-1) and the Preferred Action Alternative as described in the SEA may proceed.



## APPROVALS

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Kevin Jaynes Date  
FEMA Region VI  
Regional Environmental Officer

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Brianne Schmidtke Date  
FEMA Region VI  
HMA Branch Chief-Mitigation