JOHN BEL EDWARDS
GOVERNOR

CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

JUL 30 2020

Marshall K. Harper
US Army Corps of Engineers, New Orleans District
Planning, Programs and Project Management Division
CEMVN-PDN-CEP
7400 Leake Avenue
New Orleans, Louisiana 70118

AI No.: 101235
Activity No.: CER20200005

RE: US Army Corps of Engineers, New Orleans District
East Baton Rouge Flood Risk Management Project, Clearing and Snagging of Lower Jones Creek, Lower Bayou Fountain and Lower Ward Creek, East Baton Rouge Parish, Louisiana
Water Quality Certification WQC 200721-02
East Baton Rouge Parish

Dear Mr. Harper:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to clear and snag approximately 11.5 miles of streambed across the Lower Bayou Fountain, Lower Ward Creek, and Lower Jones Creek waterways to help reduce localized flooding in East Baton Rouge Parish.

The information provided in the application and the additional information received July 21, 2020, has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes that the discharge of fill will not violate water quality standards as provided for in LAC 33:IX.Chapter 11. Therefore, LDEQ hereby issues US Army Corps of Engineers, New Orleans District - East Baton Rouge Flood Risk Management Project, Clearing and Snagging of Lower Jones Creek, Lower Bayou Fountain and Lower Ward Creek, East Baton Rouge Parish, Louisiana Water Quality Certification, WQC 200721-02.

Should you have any questions concerning any part of this certification, please contact Jace Hood at (225) 219-2743 or by email at jace.hood@la.gov. Please reference Agency Interest (AI) number 101235 and Water Quality Certification 200721-02 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 Guilliams
Administrator
Water Permits Division

c: IO-W
Corps of Engineers – New Orleans District

ec: Marshall K. Harper
US Army Corps of Engineers, New Orleans District
Marshall.K.Harper@usace.army.mil

Louisiana Department of Natural Resources, Office of Coastal Management
dnrocmintake@la.gov

PUBLIC NOTICE TO RUN IN

THE ADVOCATE OF Baton Rouge

legal.ads@theadvocate.com
Phone: 225-388-0128

Contact: Kristi Bunch

Notice is hereby given that the United States Army Corps of Engineers, New Orleans District has applied for a 401 Water Quality Certification/Corps of Engineers 404 permit to clear and snag approximately 11.5 miles of streambed across the Lower Bayou Fountain, Lower Ward Creek, and Lower Jones Creek waterways to help reduce localized flooding in East Baton Rouge Parish. The United States Army Corps of Engineers, New Orleans District is applying to the Louisiana Department of Environmental Quality, Office of Environmental Services for a Water Quality Certification in accordance with statutory authority contained in the LAC 33:IX.1507.A-E and provisions of Section 401 of the Clean Water Act.

Comments concerning this application can be filed with the Water Permits Division within ten days of this notice by referencing WQC 200721-02, AI 101235 to the following address:

Louisiana Department of Environmental Quality
Water Permits Division
P.O. Box 4313
Baton Rouge, LA 70821-4313
Attn: Elizabeth Hill

A copy of the application is available for inspection and review at the LDEQ Public Records Center, on the first floor of the Galvez Building, Room 127 at 602 North Fifth Street, Baton Rouge, LA 70802, from 8:00 a.m. to 4:30 p.m.

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

Is not Likely to adversely effect those resources

Joseph A. 2 11Aug2020

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

Biological Assessment
East Baton Rouge Flood Risk Reduction
Clearing and Snagging of Lower Bayou Fountain, Lower Jones Creek and Lower Ward Creek, East Baton Rouge Parish Louisiana

Project Description

The proposed action consists of clearing and snagging a total of approximately 11.5 miles of streambed across the Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC) waterways in East Baton Rouge Parish, Louisiana.

Clearing and snagging for flood control is the removal of woody vegetation and debris from stream channels and banks to increase hydraulic capacity. The action involves removal of all obstructions from the channel (snagging) and to clear all significant vegetation within a specified width on both sides of the channel (clearing). The purpose of the proposed modifications is to help reduce localized flooding caused by out of bank stages that occur during heavy rain events.

Lower Bayou Fountain Improvements:

The proposed plan for LBF consists of clearing and snagging approximately 4.6 miles of channel. The proposed improvements begin at the mouth of Bayou Manchac and continue upstream to Burbank Drive and are designed to convey a 10-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding.

There are two (2) temporary staging areas associated with the LBF portion of the proposed action. LBF staging area #1 is approximately. 4.3 acres and can be accessed directly from Burbank Drive. This previously developed area has been converted to open grassland and is surrounded by a chainlink fence. The southern portion of the staging area would be cleared for direct access to the creek, impacting approximately 1 acre of bottomland hardwood (BLH) LBF staging Area #2 is approximately 4.7 acres and can be accessed directly from Highland Road. Access to LBF creek will be along the southern portion of the staging area. This area is located in an open area in the eastern end of the Highland Community Park, which is operated by BREC. An area along the southern portion of the staging area, located next to the creek, would need to be cleared for access directly to the creek, impacting approximately .52 acres of BLH.

Lower Jones Creek Improvements:

The proposed plan for LJC consists of clearing and snagging approximately 3.3 miles of channel. Proposed modifications begin at the mouth of the Amite River and continue upstream to O'Neal Lane and are designed to convey a 50-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding.

There are three (3) temporary staging areas associated with the LJC portion of the proposed action. LJC staging area #1 is approximately 2.0 acres and can be accessed directly from O'Neal Lane. This staging area would need to be cleared, which would impact approximately 2.0 acres of BLH. LJC staging area #2 is approximately 1.0 acres of grassland, fringed with BLH, positioned along the edge of Jones Creek. It is located on the western side of the Woodlake Drive Bridge. LJC staging area #3 is approximately 1.0 acre in size, located on the eastern side of the Woodlake Drive Bridge. LJC staging area #3 would need to be cleared which would impact approximately 1 acre of BLH. While both LJC staging area #2 and LJC staging area #3 can be accessed directly from Woodlake Drive, the area along the southern portion of each of these staging areas would be utilized for access directly to the creek for the purposes of debris removal.

Lower Ward Creek Improvements:

The proposed plan for LWC consists of clearing and snagging approximately 3.3 miles of channel. Proposed modifications begin 4,000 feet upstream of the mouth of Bayou Manchac and continue to 1,200 feet upstream of Pecue Lane and are designed to convey a 10-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding. The proposed improvements begin at station 40+00 (4,000 feet upstream of the mouth of Bayou Manchac) and continue upstream to station 211+65 (1,200 feet upstream of Pecue Lane).

There are four (4) temporary staging areas associated with the LWC portion of the proposed action. LWC staging areas #1 and #2 are located on either side of the Pecue Lane bridge, and measure approximately 3.0 acres and 5.2 acres respectively. Access directly to LW creek would occur on the southern portion of the staging areas, impacting approximately .50 and .80 acres of BLH respectively.

Staging area #3 is approximately 29.8 acres and is located behind Pecue Properties, LLC, off LeCrete Lane. In order to access the staging area, a 25 foot wide gravel access corridor would be established along the southern portion of the staging area. In addition to the access road, LWC staging area #3 would also be used for the storage of construction related equipment, materials, debris stockpiles, and office trailers. LWC staging area #3 would also include the temporary placement of stone gravel for parking, office pads, channel access points, and truck wash-down racks.

LWC staging area #4 is approximately 10.1 acres and can be accessed from Highland Road via a 100 foot access corridor located on the northwest side of the staging area or from Highway 61 via a 50 foot gravel access corridor located on the northeast side of the staging area.

ALL SITES:

The proposed actions within all streams involve the clearing, felling, trimming, and cutting of trees and other vegetation designated for removal, including downed timber, stumps, roots, brush, piling, riprap, abandoned structures, fencing, and similar debris. Clearing and snagging shall not impair bank stability. Cleared trees shall be cut off no more than two (2) inches from the natural ground surface and shall be felled in such a manner as to avoid damage to trees to be left standing and to existing structures and installations and to those areas under construction. Vegetation to be removed shall consist of crops, grass, bushes, and weeds. Close growing grass and other vegetation shall be mowed and shall not exceed two (2) inches above natural ground surface. All stumps and exposed roots, over 1-1/2 inches in diameter, shall be cut to two (2) inches above the natural ground surface. Herbicide, in accordance with the manufacturer's label, shall be applied to the top surface of stumps designated not to be removed.

Unless otherwise specified, all proposed work would be performed from within the channels, which vary between 90 feet and 120 feet wide (LBF), 100 feet and 160 feet (LJC) and 100 feet and 120 feet wide (LWC). I t is anticipated that the clearing and snagging work would be accomplished using chain saws, brush cutters, floating barges and excavators. The clearing and snagging activities would only occur within the channel from top of bank to top of bank. The top of bank is described as the point where an abrupt change in slope is evident. However, if a tree is growing in that area and its limbs are growing down into the channel (interfering with work or impeding flow) those limbs would be removed (not the whole tree). All injuries to bark, trunk, limbs, and roots of trees, on top of bank, would be repaired with bituminous based paint (of standard manufacture) specially formulated for tree wounds and would be applied in accordance with manufactures specifications. Debris removed would be hauled by truck to the parish landfill.

Work is expected to take approximately 410 days in LBF, 400 days in LJC and 280 in LWC. Across all three locations, a total of approximately 10 acres of BLH and 153.33 acres of water bottoms would be permanently impacted from the proposed clearing and snagging activities. Debris removed would be hauled by truck to the parish landfill. All temporary modifications associated with the proposed actions (i.e. staging areas, access corridors, wash-down racks, parking, and office pads) shall be restored to pre-construction conditions, to include seeding and fertilizing of all disturbed areas, upon completion of construction activities.

Description of Proposed Action Requiring Consultation

Implementation of the proposed action would result in direct impacts to approximately 160.30 acres of severely degraded waterbottoms. An additional approximately 25 acres of freshwater emergent wetlands would be temporarily impacted by the construction of access roads and staging areas. Staging areas and temporary access roads would be returned to preconstruction conditions upon project completion.

Action Area

The project areas are located in East Baton Rouge Parish, a 470 square mile area located in the State of Louisiana. The parish falls across four (4) watersheds; the Amite River watershed, the Comite River watershed, the Colyell watershed and the Bayou Manchac watershed, all of which are within the central portion of the Amite River Basin. EBR Parish is bordered on three sides by natural waterways. The Amite River marks the eastern boundary of the parish, and flows north to south, receiving all the water from Bayou Manchac and the Amite River watershed. The Mississippi River marks the western boundary and separates East Baton Rouge Parish from West Baton Rouge Parish. Bayou Manchac, formerly a tributary of the Mississippi River, is the southern boundary and drains much of the southern part of the parish. The Comite River, the largest tributary of the Amite River, also runs along the eastern portion of the parish and empties into the Amite River just north of US Route 190 (Florida Boulevard).

Species Considered and Critical Habitat

MVN has assessed the environmental impacts of the proposed action on threatened and endangered species in the project vicinity. There are three threatened or endangered species that are known to occur within the study area of East Baton Rouge Parish. Information regarding those species and their preferred habitats are provided below.

West Indian Manatee (*Trichechus manatus*)

The West Indian manatee is one of the largest coastal mammals in North America and it is listed as threatened under the ESA and the Marine Mammal Protection Act (MMPA). Manatees are large, elongated marine mammals, typically greyish in color, with paired flippers and a large, spoon-shaped tail. They can reach lengths of over 14 feet and weights of over 3,000 pounds. Preferred habitats include areas near the shore featuring underwater vegetation like seagrass and eelgrass thus can be found in inland rivers, coastal estuaries, seagrass beds, and marinas (Marmontel et al., 1997). They feed along grass bed margins with access to deep water channels.

Manatees are classified as a marine species but they inhabit marine, brackish, and freshwater systems in coastal and riverine areas from Florida to the Greater Antilles and suitable habitats in Central and South America. During the summer, manatees expand their range, and on rare occasions are seen as far north as Massachusetts on the Atlantic coast and as far west as Texas on the Gulf coast. The manatee has been observed in the coastal waters of Louisiana and occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September).

Manatees can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm as they are unable to tolerate water temperatures below 68 degrees Fahrenheit for extended periods of time. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have

been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. During the winter months, colder temperatures keep the population concentrated in peninsular Florida. (USFWS) Many manatees rely on the warm water from natural springs and they are known to sometimes congregate in and around water control structures and the warm wastewater discharge of power plants.

Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution. Encounters with recreational and commercial watercraft significantly reduced the population levels of manatees along the Gulf coast and in 1967, the manatee was listed under the Endangered Species Act with critical habitat designated in 1976.

In 2017, the manatee was reclassified from “endangered” to “threatened” in response to a rebound in population. Manatees are also protected under the Marine Mammal Protection Act, which prohibits the take (i.e., harass, hunt, capture, or kill) of all marine mammals.

It is unlikely that they would be found in the project areas due to lack of vegetation for foraging and the shallow water depths in the area which would hinder movement.

Should manatee be encountered during in-water work in areas that could potentially support manatee, all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.

Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable. We will include the following measures into construction plans and specifications to minimize potential impacts to manatees in areas where they are potentially present:

- All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in- water work can resume under careful observation for manatee(s).

- If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

- If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

Atlantic Sturgeon (*Acipenser oxyrinchrus oxyrinchrus*)

The Atlantic sturgeon (Gulf species) is an anadromous fish that was listed as threatened throughout its range on September 30, 1991. It has five rows of bony plates known as scutes that run along its body. The snout has four slender, soft tissue projections, called barbels, in front of its mouth and the tail is like a shark's where one side, or lobe, is larger than the other. Atlantic sturgeon are slow-growing and late-maturing, and have been recorded to reach up to 14 feet in length and up to 60 years of age.

Atlantic sturgeon live in all saltwater habitats, except during the winter when it is found in rivers that empty into the Gulf of Mexico. They are bottom feeders and primarily prey on insects, crustaceans, mollusks, annelids (worms), and small fishes. They are found from the Mississippi River delta east to Suwannee River, Florida. In Louisiana, most occurrence records have been in the Pearl, Bogue Chitto, and Tchfefuncte Rivers. They are likely to be found also in any large river located within the Lake Pontchartrain drainage

Atlantic sturgeon adults and subadults typically spend the three to four of the coolest months of the year foraging in estuaries or Gulf of Mexico waters before migrating into coastal rivers to spawn and spend the warm summer months. This migration typically occurs from mid-February through April. Most adults arrive in the rivers when temperatures reach 70 degrees Fahrenheit and spend eight to nine months each year in the rivers before returning to estuaries or the Gulf of Mexico by the beginning of October.

On March 19, 2003, the FWS and the National Marine Fisheries Service (NMFS) published a final rule in the Federal Register (Volume 68, No. 53) designating critical habitat for the Gulf sturgeon in Louisiana, Mississippi, Alabama, and Florida. The proposed project however, does not occur within nor would it impact designated sturgeon critical habitat.

Inflated (Alabama) Heelsplitter (*Potamilus inflatus*)

The inflated heelsplitter is a large freshwater mussel listed as threatened by the USFWS. It has an oval, compressed to moderately inflated, thin shell with a maximum length of 5 ½ inches. The heelsplitter is brown to black in color with pink to purple nacre. Young individuals may exhibit green rays in their coloring. This species prefers a soft, stable substrate in slow to moderate currents. It has been found in sand, mud, silt and sandy-

gravel, but not in large or armored gravel. They are filter feeders that extract plankton and detritus by pumping water through their siphons.

Historically, the heelsplitter has been reported as occurring in the Tangipahoa River as well as the Amite River in Louisiana. It has not been reported as occurring in the Comite River. The range of the inflated heelsplitter consists of Alabama, Louisiana, and Mississippi. As with other mussel species, fish hosts are likely required. The species which may serve as hosts are unknown.

Conversion of habitat by impoundment, sand and gravel mining in the Amite River and, to a limited extent, by channel maintenance, has reduced the range of this species. It could be extirpated from the Amite River if sand and gravel mining activities continue to affect habitat quality in the stream channel to the degree that mussel beds are covered with dredge disposal. The occasional inflated heelsplitter that is taken by a dredge is probably of little consequence to the entire population of this species.

The section between the juncture of the Amite River and LJC to Woodlake Drive has been identified as suitable habitat for the Inflated heelsplitter; however there are no reports of specimens in this location.

Species of Special Interest

There are no known species of special interest in the study area or the named project areas.

Migratory Birds and Other Trust Resources

MVN has assessed the environmental impacts of the proposed action on species potentially found in the project area that are protected under the Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act of 1918 (MBTA), and Migratory Bird Conservation Act of 1929.

Bald Eagle (*Haliaeetus leucocephalus*)

Although it was officially delisted from the List of Endangered Species on August 8, 2007, the bald eagle is still protected by the Bald and Golden Eagle Protection Act (BGEA) and the Migratory Bird Treaty Act (MBTA). Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead).

The bald eagle is a large bird of prey weighing between 8 and 14 pounds, with a wingspan between 5 and a half and 8 feet. Both male and female adult eagles have a dark brown body and wings, a white head and tail and a yellow beak. Juvenile bald eagles have mottled brown and while plumage, gradually acquiring their signature adult plumage by the age of five.

Bald eagles nest in Louisiana from October through mid-May in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water in the southeastern parishes. Nest sites typically include at least one perch with a clear view of the water or area where the eagles usually forage. Habitats suitable for use by the bald eagle are present throughout coastal Louisiana, and can be found in the project area.

Breeding bald eagles occupy "territories" that they will typically defend against intrusion by other eagles, and that they likely return to each year. Eagles exhibit nest site fidelity and will use a productive nest year after year adding new material to it each year. A pair of eagles may use a nest until the nest itself becomes so large that the tree can no longer support it. In such a case, the pair might build a nest in the same territory, nearby the previous nest. Potential nest trees within a nesting territory may, therefore, provide important alternative bald eagle nest sites. Bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during this critical period may lead to nest abandonment, cracked or unincubated eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

There were no nests observed during site visits performed in 2019, however there may be nests present that were not visible from access points or are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries.

The USFWS developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at:
http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf.

Those Guidelines recommend:

(1) Maintaining a specified distance between the activity and the nest (buffer area);
(2) Maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and
(3) Avoiding certain activities during the breeding

Birds

As the study area is located within the Mississippi Flyway, it supports various species of shore birds, wading birds and songbirds and experiences significant seasonal migrations of waterfowl species, which are of particular interest to recreational hunters. However, as the project areas are highly developed, there would be no recreational hunting taking place in the areas.

In a recent survey conducted by MVN biologists, the following species were identified as utilizing the shrubs and/or waters adjacent to the proposed project sites: great egret, snowy egret and cattle egret as well as various feeder birds. Foraging and roosting were

the only activities exhibited during the duration of the surveys. MVN has determined that, the proposed action would have no adverse impacts on protected birds.

Conclusion and Determination of Effects

Based on the above information, the CEMVN has determined that while the inflated heelsplitter could be in the vicinity of the project, the proposed action would not likely adversely affect the species as erosion control measures will be implemented during clearing activities to avoid adverse effects to the species. The CEMVN has also determined that the proposed action is not likely to adversely affect the West Indian manatee or the Atlantic Sturgeon or their critical habitat; and would not adversely impact other protected species or species of interest that could potentially be found in the project area. Please provide your opinion on our determination.

Literature Cited

Conner, W.H., and J. W. Day, Jr. 1988. Rising water levels in coastal Louisiana: Implications for two coastal forested wetland areas in Louisiana. Journal of Coastal Research, 4(4), 589-596. Charlottesville, (Virginia). ISSN 0749—208.

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Flores and Eddleman, 1995. California black rail use of habitat in southwestern Arizona. Jour. Wildlife Man. Vol. 59, No.2. pp. 357-363.

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Science. Vol. 267, Issue 5206. pp. 1987-90.

Preparers

This BA was prepared by Patricia Naquin, U.S. Army Corps of Engineers, Planning Division, Environmental Planning Branch, Coastal Section: CEMVN-PDS-C with assistance from Ronald Paille, U.S. Department of the Interior, Fish and Wildlife Service, Louisiana Ecological Services Office.

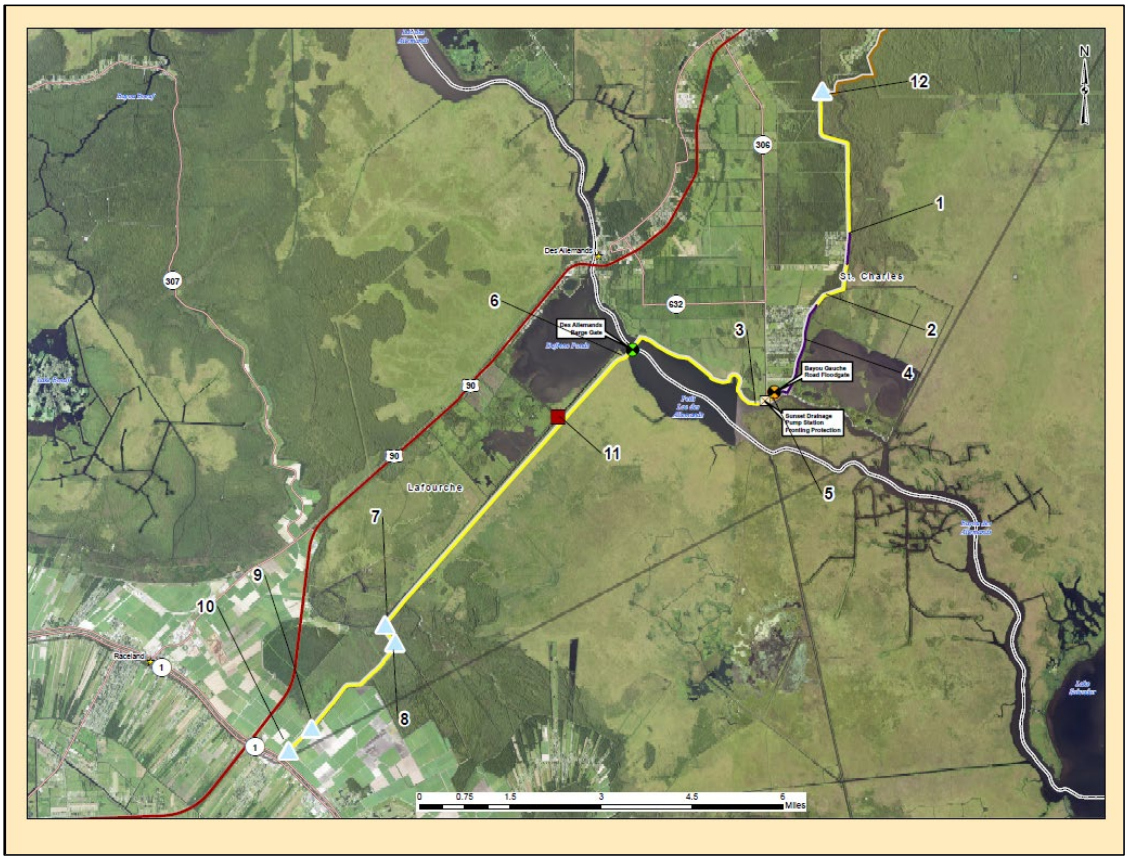


Figure 1: Upper Barataria Project Alignment

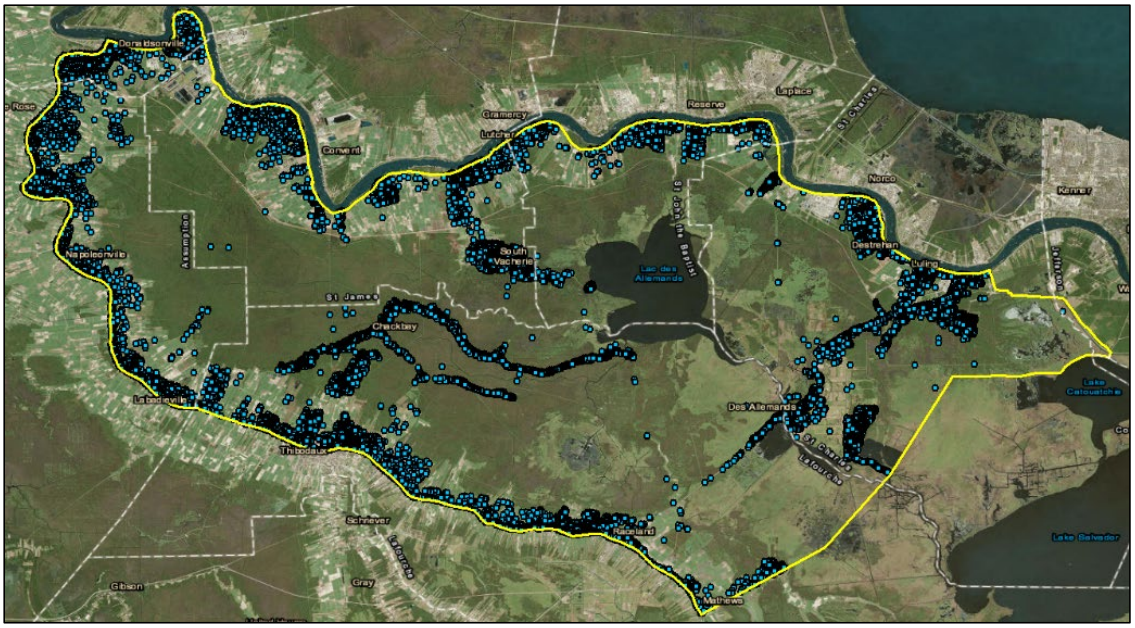


Figure 2: Upper Barataria Basin

U.S. Fish and Wildlife Service, Ecological Services
200 Dulles Drive, Lafayette, LA 70506
(337) 291-3100, FAX (337) 291-3139

MEMORANDUM

DATE: July 15, 2020

TO: U.S. Army Corps of Engineers (NOD)

FROM: U.S. Fish and Wildlife Service (Service)

SUBJECT: Project Information Sheet for the Bottomland Hardwood Wetland Value Assessment (WVA) for the proposed East Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Bayou Fountain, Lower Jones and Lower Ward Creeks.

The proposed East Baton Rouge Parish Flood Risk Management Project consists of clearing and snagging a total of approximately 11.5 miles of streambed across the Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC) waterways in East Baton Rouge Parish, Louisiana. Approximately 9.7 acres of BLH forest would be impacted

The USACE-certified Wetland Value Assessment (WVA) Bottomland Hardwood Model (version 1.2) as well as the Hurricane and Storm Risk Reduction System (HSDRRS) for BLH mitigation [LPV & WBV]Mitigation Assumption Guide (Revised/Updated: 3 March 2012) were used to evaluate impacts. Target Years (TY) were set as follow: 0, 1, 20 and 50.
.
WVA's were broken down by site and staging area (SA). If staging areas were in close proximity to one another, had similar habitat type and surrounding land use, they were lumped together and a single WVA was performed on the site.

Lower Bayou Fountain:

1. Staging Area 1 = 1.0 acres of BLH impacted
2. Staging Area 2 = 0.50 acres of BLH impacted

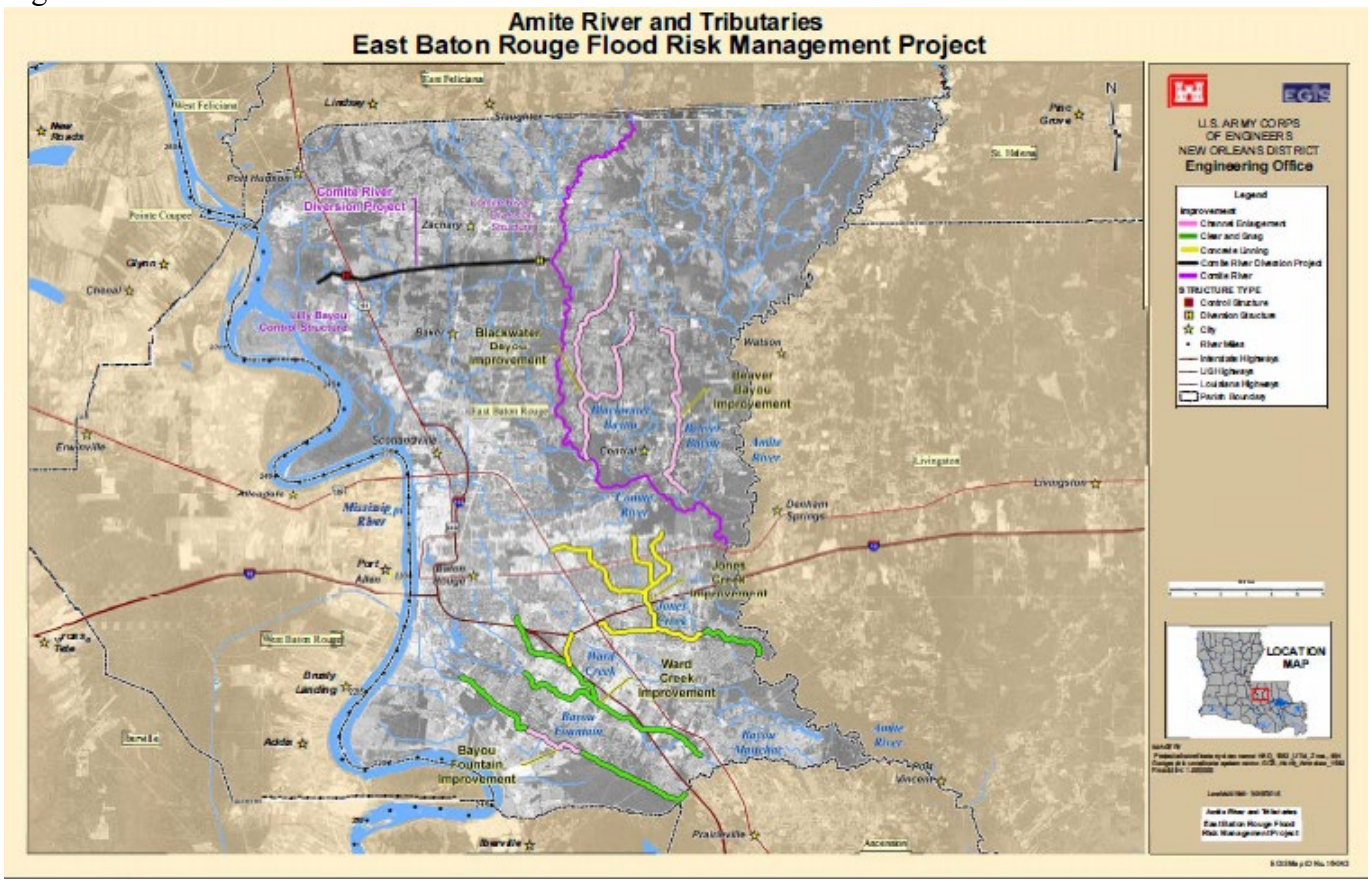
Lower Jones Creek:

1. Staging Area 1 = 2.0 acres of BLH impacted
2. Staging Area 2&3 = 2.0 acres of BLH impacted

Lower Ward Creek:

1. Staging Area 1&2 = 1.50 acres BLH impacted
2. Staging Area 3 = 1.87 acres BLH impacted
3. Staging Area 4 = 0.83 acres of BLH impacted

Figure 1. Amite River and Tributaries



Variable V_1 – Tree Species Association

FWOP- Due to the inability to perform field work at this time, all proposed staging sites were assigned a Class 5 through all FWOP target years. The land cover is not expected to change.

Class 5: Greater than 50% of overstory canopy consists of mast or other edible-seed producing trees, and hard mast producers constitute more than 20% of the canopy.

FWP- Proposed planting would consist of a mix of 60 percent hard-mast producing species and 40 percent soft-mast producing species. It is assumed that this species composition will remain static over the length of analysis. Plantings will occur in TY1 post construction. All tress will be approximately 1 year of age at initial planting. It is assumed that a Class 5 composition will be achieved at year 20 and will remain constant for all subsequent target years. FWP class levels were determined as follows for each TY:

TY 0 - Class 1
TY 1- Class 1 (Planted seedlings are 1 year old at the time of planting.)
TY 20- Class 5 (Planted trees are 20 years old.)
TY 50- Class 5 (Planted trees are 50 years old.)

Variable V_2 – Stand Maturity

FWOP- Due to the inability to perform field work at this time, it is assumed that the average age of canopy-dominant and canopy-codominant trees is 50 years old or greater. An age of 50 (when maximum SI = 1.0 is achieved) was entered for all target years for FWOP (except LJC SA 1).

Lower Jones Creek Staging Area 1 was last cleared in 2002 and therefore could be aged accordingly.

Lower Jones Creek Staging Area 1:

TY 0 - Age 18
TY 1 - Age 19
TY 20- Age 39
TY 50- Age 69

FWP- Stand maturity is based upon the average age or dbh of canopy-dominant and canopy-codominant trees. For the FWP scenario, the ages are set as follows:

TY 0 - Age 0
TY 1 - Age 1 (Planted seedlings are 1 year old.)
TY 20 - Age 20
TY 50 - Age 50

Variable V_3 – Understory/Midstory

FWOP- Due to the inability to perform field work at this time, HSDRRS assumptions for a 50-year old site were applied to all locations for all target years (except LJC SA 1).

TY 50 - Understory = 35% // Midstory = 30%

Since stand maturity was established for the Lower Jones Creek Staging Area 1, HSDRRS assumptions were applied using a linear relation to establish the understory/midstory coverage of the site.

Lower Jones Creek Staging Area 1:

TY 0 – Understory = 33% // Midstory = 54%
TY 1 – Understory = 29% // Midstory = 57%
TY 20 – Understory = 31% // Midstory = 41%
TY 50 – Understory = 35% // Midstory = 30%

FWP- Standard HSRDRSS assumptions were applied to all sites as follows:

TY 0 – Understory = 0% // Midstory = 0%
TY 1 – Understory = 100% // Midstory = 0%
TY 20 – Understory = 25% // Midstory = 60%
TY 50 – Understory = 35% // Midstory = 30%

Variable V_4 – Hydrology

FWOP- Due to hydric soil, site elevations and historic records of seasonal flooding, all locations (TY0-50) were classified as follows:

Flooding Duration= Moderate and Flow/Exchange= Seasonal.

FWP- Site alternations such as clearing, felling, trimming, and cutting of trees and other vegetation designated for removal, could improve overall habitat. Conditions are expected to remain constant.

FWP conditions are as follows: Flooding Duration= Moderate and Flow/Exchange= Temporary.

Variable V_5 – Size of Contiguous Forested Area

FWOP-Corridors over 75 feet wide constitute a break in the forested area contiguity and are considered fragmented. Tracts >500 acres in size are optimal.

Class 1	0 to 5 acres
Class 2	5.1 to 20 acres
Class 3	20.1 to 100 acres
Class 4	100.1 to 500 acres
Class 5	> 500 acres

Sites varied in size of contiguous forested area. Some sites had optimal contiguity, offering higher quality habitat. While other sites lacked forested habitat and created a fragmented nature of the surrounding land cover. Conditions are assumed to remain constant throughout all target years.

FWOP conditions are as follows:

Lower Bayou Fountain SA 1: Class 5
Lower Bayou Fountain SA 2: Class 5

Lower Jones Creek SA 1: Class 5
Lower Jones Creak SA 2&3: Class 5

Lower Ward Creek SA 1&2: Class 3
Lower Ward Creek SA 3: Class 1
Lower Ward Creek SA 4: Class 4

FWP- Sites are considered "forested" when trees have reached 20 years of age. If existing habitat conditions and surrounding land cover remain unchanged, then following classes will be achieved at year 20 and will remain constant for all subsequent target years:

Lower Bayou Fountain SA 1: Class 5
Lower Bayou Fountain SA 2: Class 5

Lower Jones Creek SA 1: Class 5
Lower Jones Creak SA 2&3: Class 5

Lower Ward Creek SA 1&2: Class 3
Lower Ward Creek SA 3: Class 1
Lower Ward Creek SA 4: Class 4

Variable V_6 – Suitability and Traversability of Surrounding Land Uses

To measure the effects of surrounding land use, a 0.5 mile buffer was created around the perimeter of the site polygon. Utilizing Google Earth imagery, visual estimates were used to determine the percentage of land use. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Lower Bayou Fountain SA 1:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	35%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	10%
Active agriculture	15%
Non-habitat: linear, residential, commercial, industrial development, etc.	40%

Lower Bayou Fountain SA 2:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	65%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	19%
Active agriculture	2%
Non-habitat: linear, residential, commercial, industrial development, etc.	14%

Lower Jones Creek SA 1:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	20%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	5%
Active agriculture	5%
Non-habitat: linear, residential, commercial, industrial development, etc.	70%

Lower Jones Creek SA 2&3:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	30%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	0%
Active agriculture	10%
Non-habitat: linear, residential, commercial, industrial development, etc.	60%

Lower Ward Creek SA 1&2:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	15%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	25%
Active agriculture	5%
Non-habitat: linear, residential, commercial, industrial development, etc.	55%

Lower Ward Creek SA 3:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	20%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	25%
Active agriculture	5%
Non-habitat: linear, residential, commercial, industrial development, etc.	50%

Lower Ward Creek SA 4:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	20%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	25%
Active agriculture	5%
Non-habitat: linear, residential, commercial, industrial development, etc.	50%

Variable V_7 – Disturbance

The effect of disturbance is a factor of the average distance and the type of disturbance and therefore both are factored into the SI formula. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Distance Class	Disturbance Type Class
Class 1. 0 to 50 ft.	**Class 1.** Constant/Major. (Major highways, industrial, commercial, major navigation.)
Class 2. 50.1 to 500 ft.	**Class 2.** Frequent/Moderate. (Residential development, moderately used roads, waterways commonly used by small to mid-sized boats).
Class 3. > 500 ft.	**Class 3.** Seasonal/Intermittent. (Agriculture, aquaculture.)
	Class 4. Insignificant. (Lightly Used roads and waterways, individual homes, levees, rights of way).

Lower Bayou Fountain SA 1: Distance Class 2 and Type Class 2
Lower Bayou Fountain SA 2: Distance Class 2 and Type Class 2

Lower Jones Creek SA 1: Distance Class 2 and Type Class 2
Lower Jones Creak SA 2&3: Distance Class 2 and Type Class 2

Lower Ward Creek SA 1&2: Distance Class 1 and Type Class 2
Lower Ward Creek SA 3: Distance Class 1 and Type Class 2
Lower Ward Creek SA 4: Distance Class 1 and Type Class 2

Project Impact Summary

Lower Bayou Fountain SA 1

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	0.87
B. Future With Project AAHUs	=	0.59
Net Change (FWP - FWOP)	=	**-0.28**

Lower Bayou Fountain SA 2

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	0.45
B. Future With Project AAHUs	=	0.31
Net Change (FWP - FWOP)	=	**-0.14**

Lower Jones Creek SA 1

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	1.51
B. Future With Project AAHUs	=	1.13
Net Change (FWP - FWOP)	=	**-0.38**

Lower Jones Creak SA 2&3

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	1.71
B. Future With Project AAHUs	=	1.16
Net Change (FWP - FWOP)	=	**-0.55**

Lower Ward Creek SA 1&2

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	1.17
B. Future With Project AAHUs	=	0.79
Net Change (FWP - FWOP)	=	**-0.37**

Lower Ward Creek SA 3

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future Without Project AAHUs	=	1.37
B. Future With Project AAHUs	=	0.93
Net Change (FWP - FWOP)	=	**-0.44**

Lower Ward Creek SA 4

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	0.67
B. Future With Project AAHUs =	0.45
Net Change (FWP - FWOP) =	**-0.21**

U.S. Fish and Wildlife Service, Ecological Services
200 Dulles Drive, Lafayette, LA 70506
(337) 291-3100, FAX (337) 291-3139

MEMORANDUM

DATE: September 25, 2020

TO: U.S. Army Corps of Engineers (NOD)

FROM: U.S. Fish and Wildlife Service (Service)

SUBJECT: Project Information Sheet for the Bottomland Hardwood Wetland Value Assessment (WVA) for the proposed East Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Bayou Fountain, Lower Jones and Lower Ward Creeks.

The proposed East Baton Rouge Parish Flood Risk Management Project consists of clearing and snagging a total of approximately 11.5 miles of streambed across the Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC) waterways in East Baton Rouge Parish, Louisiana. Approximately 100 acres of BLH forest would be impacted by clearing the proposed projects footprint.

The USACE-certified Wetland Value Assessment (WVA) Bottomland Hardwood Model (version 1.2) as well as the Hurricane and Storm Risk Reduction System (HSDRRS) for BLH mitigation [LPV & WBV]Mitigation Assumption Guide (Revised/Updated: 3 March 2012) were used to evaluate impacts. Target Years (TY) were set as follow: 0, 1, 20 and 50.

WVA models were previously performed for the East Baton Rouge staging areas. This supplemental PIS addresses additional impacts associated with the clearing and snagging of the right of ways (ROW) in the project vicinity.

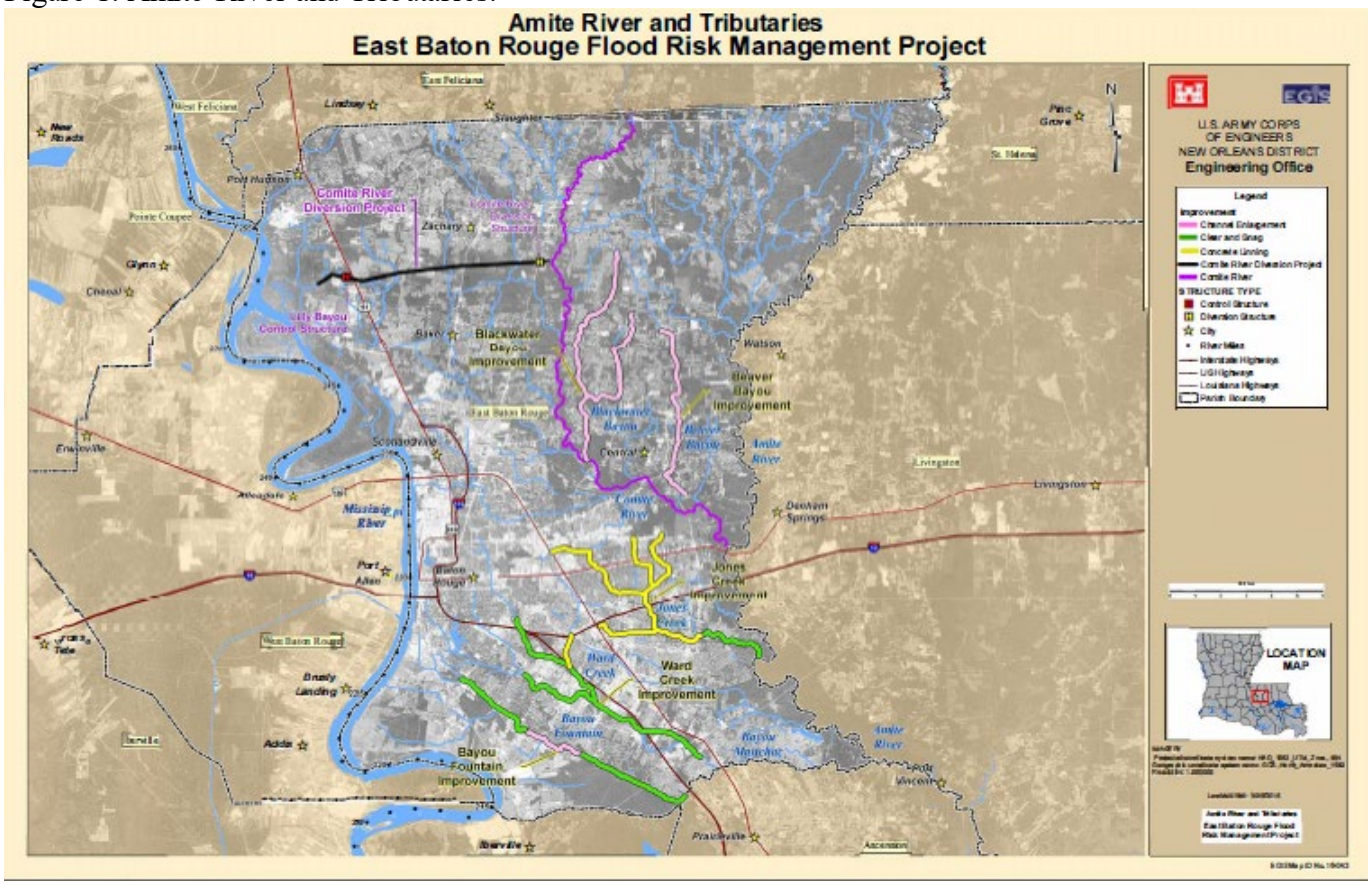
Project associated impacts:

Lower Bayou Fountain:
Footprint = ~ 37.0 acres of BLH impacted

Lower Jones Creek:
Footprint = ~32.0 acres of BLH impacted

Lower Ward Creek:
Footprint = ~31.0 acres BLH impacted

Figure 1. Amite River and Tributaries.



Variable V_1 – Tree Species Association

FWOP- Due to the inability to perform field work at this time, all proposed staging sites were assigned a Class 5 through all FWOP target years. The land cover is not expected to change.

Class 5: Greater than 50% of overstory canopy consists of mast or other edible-seed producing trees, and hard mast producers constitute more than 20% of the canopy.

FWP- The clearing of the ROW will be maintained through all target years; therefore, it is assumed that a Class 1 composition will remain constant.

Variable V_2 – Stand Maturity

FWOP- Due to the inability to perform field work at this time, it is assumed that the average age of canopy-dominant and canopy-codominant trees is 50 years old or greater. An age of 50 (when maximum SI = 1.0 is achieved) was entered for all target years for FWOP.

FWP- Stand maturity is based upon the average age or dbh of canopy-dominant and canopy-codominant trees. The clearing of the ROW will maintained through all target years; therefore, it is assumed that an age Class 0 will remain constant.

Variable V_3 – Understory/Midstory

FWOP- Due to the inability to perform field work at this time, HSDRRS assumptions for a 50-year old site were applied to all locations for all target years.

TY 50 - Understory = 35% // Midstory = 30%

FWP- The clearing of the ROW will maintained through all target years; therefore, it is assumed that 100% understory will remain constant.

TY 0 – Understory = 100%
TY 1 – Understory = 100%
TY 20 – Understory = 100%
TY 50 – Understory = 100%

Variable V_4 – Hydrology

FWOP- Due to hydric soil, site elevations and historic records of seasonal flooding, all locations (TY0-50) were classified as follows:

Flooding Duration= Moderate and Flow/Exchange= Seasonal.

FWP- Site alternations such as clearing, felling, trimming, and cutting of trees and other vegetation designated for removal, could improve overall flooding conditions. Conditions are expected to remain constant.

Flooding Duration= Moderate and Flow/Exchange= Temporary.

Variable V_5 – Size of Contiguous Forested Area

FWOP- Corridors over 75 feet wide constitute a break in the forested area contiguity and are considered fragmented. Tracts >500 acres in size are optimal.

Class 1	0 to 5 acres
Class 2	5.1 to 20 acres
Class 3	20.1 to 100 acres
Class 4	100.1 to 500 acres
Class 5	> 500 acres

Sites varied in size of contiguous forested area. Some sites had optimal contiguity, offering higher quality habitat. While other sites lacked forested habitat and created a fragmented nature of the surrounding land cover. Conditions are assumed to remain constant throughout all target years.

FWOP conditions are as follows:

Lower Bayou Fountain: Class 5
Lower Jones Creek: Class 5
Lower Ward Creek: Class 4

FWP-. If existing habitat conditions and surrounding land cover remain unchanged, then following classes will remain constant for all subsequent target years:

Lower Bayou Fountain: Class 1
Lower Jones Creek: Class 1
Lower Ward Creek: Class 1

Variable V_6 – Suitability and Traversability of Surrounding Land Uses

To measure the effects of surrounding land use, a 0.5 mile buffer was created around the perimeter of the site polygon. Utilizing Google Earth imagery, visual estimates were used to determine the percentage of land use. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Lower Bayou Fountain:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	55%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	0%
Active agriculture	4%
Non-habitat: linear, residential, commercial, industrial development, etc.	41%

Lower Jones Creek:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	20%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	0%
Active agriculture	5%
Non-habitat: linear, residential, commercial, industrial development, etc.	75%

Lower Ward Creek:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	15%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	5%
Active agriculture	0%
Non-habitat: linear, residential, commercial, industrial development, etc.	80%

Variable V_7 – Disturbance

The effect of disturbance is a factor of the average distance and the type of disturbance and therefore both are factored into the SI formula. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Distance Class	Disturbance Type Class
Class 1. 0 to 50 ft.	**Class 1.** Constant/Major. (Major highways, industrial, commercial, major navigation.)
Class 2. 50.1 to 500 ft.	**Class 2.** Frequent/Moderate. (Residential development, moderately used roads, waterways commonly used by small to mid-sized boats).
Class 3. > 500 ft.	**Class 3.** Seasonal/Intermittent. (Agriculture, aquaculture.)
	Class 4. Insignificant. (Lightly Used roads and waterways, individual homes, levees, rights of way).

Disturbance Type:
Lower Bayou Fountain: Distance Class 2 and Type Class 2
Lower Jones Creak: Distance Class 2 and Type Class 2
Lower Ward Creek: Distance Class 1 and Type Class 1

Project Impact Summary

Lower Bayou Fountain

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	32.72
B. Future With Project AAHUs =	0.33
Net Change (FWP - FWOP) =	**-32.39**

Lower Jones Creek

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	26.56
B. Future With Project AAHUs =	0.27
Net Change (FWP - FWOP) =	**-26.30**

Lower Ward Creek

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	23.95
B. Future With Project AAHUs =	0.24
Net Change (FWP - FWOP) =	**-23.71**

U.S. Fish and Wildlife Service, Ecological Services
200 Dulles Drive, Lafayette, LA 70506
(337) 291-3100, FAX (337) 291-3139

MEMORANDUM

DATE: October 01, 2020

TO: U.S. Army Corps of Engineers (NOD)

FROM: U.S. Fish and Wildlife Service (Service)

SUBJECT: Project Information Sheet for the Bottomland Hardwood Wetland Value Assessment (WVA) for the proposed East Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Bayou Fountain, Lower Jones and Lower Ward Creeks.

The proposed East Baton Rouge Parish Flood Risk Management Project consists of clearing and snagging a total of approximately 11.5 miles of streambed across the Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC) waterways in East Baton Rouge Parish, Louisiana. Approximately 2.1 acres of BLH forest would be impacted by clearing the proposed projects access corridors in the Lower Bayou Fountain and the Lower Ward Creek.

The USACE-certified Wetland Value Assessment (WVA) Bottomland Hardwood Model (version 1.2) as well as the Hurricane and Storm Risk Reduction System (HSDRRS) for BLH mitigation [LPV & WBV]Mitigation Assumption Guide (Revised/Updated: 3 March 2012) were used to evaluate impacts. Target Years (TY) were set as follow: 0, 1, 20 and 50.

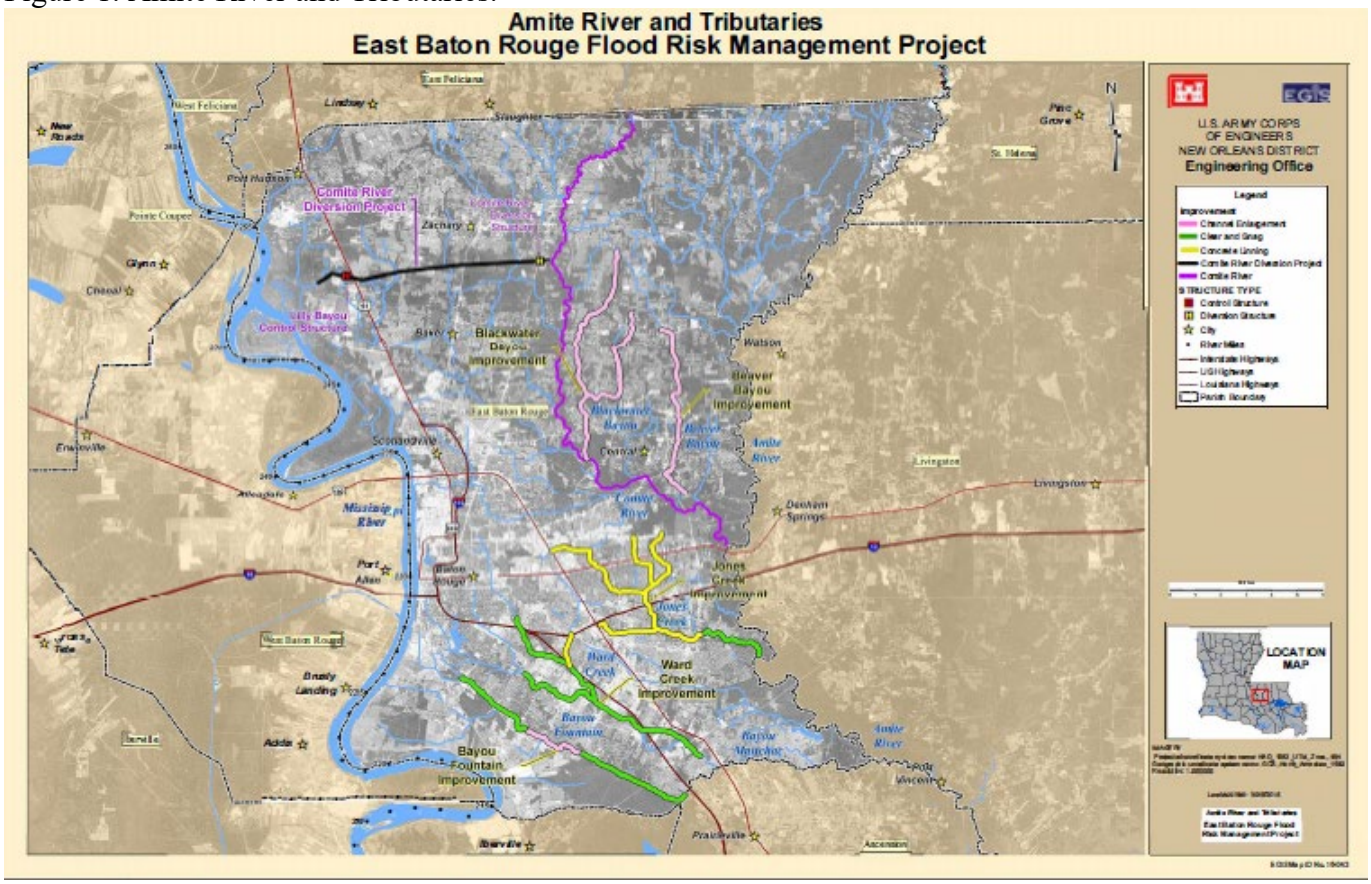
WVA models were previously performed for the East Baton Rouge staging areas and the projects right of ways. This supplemental PIS addresses additional impacts associated with the clearing and snagging of the access corridors for Lower Bayou Fountain and Lower Ward Creek.

Project associated impacts:

Lower Bayou Fountain:
Access corridor = ~ 1.6 acres of BLH impacted

Lower Ward Creek:
Access corridor = ~0.50 acres BLH impacted

Figure 1. Amite River and Tributaries.



Variable V_1 – Tree Species Association

FWOP- Due to the inability to perform field work at this time, all proposed staging sites were assigned a Class 5 through all FWOP target years. The land cover is not expected to change.

Class 5: Greater than 50% of overstory canopy consists of mast or other edible-seed producing trees, and hard mast producers constitute more than 20% of the canopy.

FWP- Proposed planting would consist of a mix of 60 percent hard-mast producing species and 40 percent soft-mast producing species. It is assumed that this species composition will remain static over the length of analysis. Plantings will occur in TY1 post construction. All tress will be approximately 1 year of age at initial planting. It is assumed that a Class 5 composition will be achieved at year 20 and will remain constant for all subsequent target years. FWP class levels were determined as follows for each TY:

TY 0 - Class 1
TY 1- Class 1 (Planted seedlings are 1 year old at the time of planting.)
TY 20- Class 5 (Planted trees are 20 years old.)
TY 50- Class 5 (Planted trees are 50 years old.)

Variable V_2 – Stand Maturity

FWOP- Due to the inability to perform field work at this time, it is assumed that the average age of canopy-dominant and canopy-codominant trees is 50 years old or greater. An age of 50 (when maximum SI = 1.0 is achieved) was entered for all target years for FWOP.

FWP- Stand maturity is based upon the average age or dbh of canopy-dominant and canopy-codominant trees. For the FWP scenario, the ages are set as follows:

TY 0 - Age 0
TY 1 - Age 1 (Planted seedlings are 1 year old.)
TY 20 - Age 20
TY 50 - Age 50

Variable V_3 – Understory/Midstory

FWOP- Due to the inability to perform field work at this time, HSDRRS assumptions for a 50-year old site were applied to all locations for all target years.

TY 50 - Understory = 35% // Midstory = 30%

FWP- Standard HSRDRSS assumptions were applied to all sites as follows:

TY 0 – Understory = 0% // Midstory = 0%
TY 1 – Understory = 100% // Midstory = 0%
TY 20 – Understory = 25% // Midstory = 60%
TY 50 – Understory = 35% // Midstory = 30%

Variable V_4 – Hydrology

FWOP- Due to hydric soil, site elevations and historic records of seasonal flooding, all locations (TY0-50) were classified as follows:

Flooding Duration= Moderate and Flow/Exchange= Seasonal.

FWP- Site alternations such as clearing, felling, trimming, and cutting of trees and other vegetation designated for removal, could improve overall flooding conditions. Conditions are expected to remain constant.

Flooding Duration= Moderate and Flow/Exchange= Temporary.

Variable V_5 – Size of Contiguous Forested Area

FWOP- Corridors over 75 feet wide constitute a break in the forested area contiguity and are considered fragmented. Tracts >500 acres in size are optimal.

Class 1	0 to 5 acres
Class 2	5.1 to 20 acres
Class 3	20.1 to 100 acres
Class 4	100.1 to 500 acres
Class 5	> 500 acres

Sites varied in size of contiguous forested area. Some sites had optimal contiguity, offering higher quality habitat. While other sites lacked forested habitat and created a fragmented nature of the surrounding land cover. Conditions are assumed to remain constant throughout all target years.

FWOP conditions are as follows:

Lower Bayou Fountain: Class 5
Lower Ward Creek: Class 4

FWP- Sites are considered "forested" when trees have reached 20 years of age. If existing habitat conditions and surrounding land cover remain unchanged, then following classes will be achieved at year 20 and will remain constant for all subsequent target years:

Lower Bayou Fountain: Class 5
Lower Ward Creek: Class 4

Variable V_6 – Suitability and Traversability of Surrounding Land Uses

To measure the effects of surrounding land use, a 0.5 mile buffer was created around the perimeter of the site polygon. Utilizing Google Earth imagery, visual estimates were used to determine the percentage of land use. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Lower Bayou Fountain:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	75%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	0%
Active agriculture	3%
Non-habitat: linear, residential, commercial, industrial development, etc.	22%

Lower Ward Creek:

LAND USE	Percent of 0.5-mile circle
BLH, other forested areas, marsh habitat, etc.	25%
Abandoned agriculture, overgrown fields, dense cover, etc.	0%
Pasture, hayfields, etc.	20%
Active agriculture	10%
Non-habitat: linear, residential, commercial, industrial development, etc.	45%

Variable V_7 – Disturbance

The effect of disturbance is a factor of the average distance and the type of disturbance and therefore both are factored into the SI formula. Existing conditions are not expected to change through the life of the project and will remain constant for the FWOP and FWP.

Distance Class	Disturbance Type Class
Class 1. 0 to 50 ft.	**Class 1.** Constant/Major. (Major highways, industrial, commercial, major navigation.)
Class 2. 50.1 to 500 ft.	**Class 2.** Frequent/Moderate. (Residential development, moderately used roads, waterways commonly used by small to mid-sized boats).
Class 3. > 500 ft.	**Class 3.** Seasonal/Intermittent. (Agriculture, aquaculture.)
	Class 4. Insignificant. (Lightly Used roads and waterways, individual homes, levees, rights of way).

Disturbance Type:
Lower Bayou Fountain: Distance Class 2 and Type Class 2
Lower Ward Creek: Distance Class 1 and Type Class 1

Project Impact Summary

Lower Bayou Fountain

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	1.44
B. Future With Project AAHUs =	0.98
Net Change (FWP - FWOP) =	**-0.46**

Lower Ward Creek

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future Without Project AAHUs =	0.33
B. Future With Project AAHUs =	0.22
Net Change (FWP - FWOP) =	**-0.10**

From: Section106
To: Emery, Jason A CIV USARMY CEMVN (USA)
Subject: [Non-DoD Source] Re: USACE Section 106 Consultation: East Baton Rouge Parish FRM Consultation
Date: Tuesday, October 20, 2020 10:34:46 AM

Jason A. Emery, RPA
MVD Cultural Resources RTS and MVN District Tribal Liaison
Cultural & Social Resources Analysis Section (CEMVN-PDS-N)
Regional Planning and Environment Division, South

Mr. Emery,

Thank you for your correspondence in reference to the Proposed E. Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Jones, Lower Bayou Fountain, and Lower Ward Creek in E. Baton Rouge Parish, LA. The project area is located outside of our area of interest. We respectfully defer to the other tribes who have been contacted for comments. Should you need additional information please call me at (918) 732-7624 or email at djproctor@mcn-nsn.gov.

David J. Proctor
Historic and Cultural Preservation Department | Traditional Cultural Advisor
Muscogee (Creek) Nation
P.O. Box 580 | Okmulgee, OK 74447
T 918.732.7624 | F 918.758.0649
djproctor@mcn-nsn.gov
MuscogeeNation-nsn.gov

From: Emery, Jason A CIV USARMY CEMVN (USA) <Jason.A.Emery@usace.army.mil>
Sent: Friday, October 9, 2020 4:13 PM
To: Section106 <Section106@mcn-nsn.gov>
Subject: [WARNING: UNSCANNABLE EXTRACTION FAILED]USACE Section 106 Consultation: East Baton Rouge Parish FRM Consultation

Corina:

Attached, please find a consultation letter and attachments.

RE: Section 106 Review Consultation
Undertaking: East Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Jones, Lower Bayou Fountain and Lower Ward Creeks
East Baton Rouge Parish, Louisiana.
Non-federal Sponsors (NFS): City of Baton Rouge; Parish of East Baton Rouge.
Determination: **No Historic Properties Affected, with conditions**

Please let me if you have any questions.

Jason

Jason A. Emery, RPA
MVD Cultural Resources RTS and MVN District Tribal Liaison
MVD Regional Planning Division, South
New Orleans District (MVN)

United States Army Corps of Engineers
New Orleans District (CEMVN-PDS-N)
7400 Leake Ave.
New Orleans, LA 70118-3651

Office: (504) 862-2364
FAX: 504-862-1375
Email: jason.a.emery@usace.army.mil

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

No known historic properties will be affected by this undertaking subject to the conditions detailed within the consultation letter. 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

Kristin P. Sanders
State Historic Preservation Officer
Date 11/09/2020

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

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

RE: Section 106 Review Consultation
Undertaking: East Baton Rouge Parish Flood Risk Management Project, Clearing and Snagging of Lower Jones, Lower Bayou Fountain and Lower Ward Creeks
East Baton Rouge Parish, Louisiana.
Non-federal sponsors (NFS): City of Baton Rouge; Parish of East Baton Rouge.
Determination: **No Historic Properties Affected, with conditions**

Dear Ms. Sanders:

The U.S. Army Corps of Engineers, New Orleans District (CEMVN) is evaluating the clearing and snagging a total of approximately 11.5 miles of streambeds across the Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC) waterways in East Baton Rouge Parish (EBR), Louisiana (Undertaking) (Figure 1, Appendix B). As part of CEMVN's evaluation and in partial fulfillment of responsibilities under the National Environmental Policy Act and Section 106 of the National Historic Preservation Act, CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in this letter to affect historic properties. Additionally, in accordance with the of responsibilities of Executive Order 13175, CEMVN offers Federally-recognized Tribes the opportunity to review and comment on the potential of the proposed undertaking described in this letter to significantly affect protected tribal resources, tribal rights, or tribal lands.

Project Authority

The Amite River and Tributaries, Louisiana, East Baton Rouge Parish Watershed flood risk management project within East Baton Rouge Parish, Louisiana was authorized by Section 101 (21) of the Water Resources Development Act of 1999, Public Law 106-53, as modified by Division D, Section 116 of the Consolidated Appropriations Resolution of 2003, Public Law 108-7, and Section 3074 of the Water Resources Development Act of 2007, Public Law 110-114. The approved project was based on the USACE feasibility study for East Baton Rouge, completed in February of 1995. The funding for the project comes from the Bipartisan Budget Act of 2018, H. R. 1892—13, Title IV, Corps of

Engineers—Civil, Department of the Army, Investigations, based on the 2016 Flooding in East Baton Rouge and other parishes declared as a major disaster pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.) in 2016.

Description of the Undertaking

The proposed action consists of clearing and snagging a total of approximately 11.5 miles of streambed across the ***Lower Bayou Fountain (LBF), Lower Ward Creek (LWC) and Lower Jones Creek (LJC)*** waterways in East Baton Rouge Parish, Louisiana. (Figure 1, Appendix B). The three (3) project areas, LBF, LWC and LJC, are located in the southern portion of EBR, south of Interstate 12. All three streams ultimately empty into the Amite River. Jones Creek flows directly into the Amite, while Ward Creek and Bayou Fountain flow into Bayou Manchac. Bayou Manchac flows into the Amite River. Clearing and snagging for flood control is the removal of woody vegetation and debris from stream channels and banks to increase hydraulic capacity. The action involves removal of all obstructions from the channel (snagging) and to clear all significant vegetation within a specified width on both sides of the channel (clearing). The purpose of the proposed modifications is to help reduce localized flooding caused by out of bank stages that occur during heavy rainfall events.

The proposed actions within all streams involve the clearing, felling, trimming, and cutting of trees and other vegetation designated for removal, including downed timber, stumps, roots, brush, piling, riprap, abandoned structures, fencing, and similar debris. Clearing and snagging shall not impair bank stability provided methods that will be used that are further described in this section. Cleared trees shall be cut off no more than two (2) inches from the natural ground surface and shall be felled in such a manner as to avoid damage to trees to be left standing and to existing structures and installations and to those areas under construction. Vegetation to be removed shall consist of crops, grass, bushes, and weeds. Close growing grass and other vegetation shall be mowed and shall not exceed two (2) inches above natural ground surface. All stumps and exposed roots, over 1-1/2 inches in diameter, shall be cut to two (2) inches above the natural ground surface. Herbicide, in accordance with the manufacturer's label, shall be applied to the top surface of stumps designated not to be removed.

Unless otherwise specified, all proposed work would be performed from within the channels, which vary between 90 feet and 120 feet wide (LBF), 100 feet and 160 feet (LJC) and 100 feet and 120 feet wide (LWC). It is anticipated that the clearing and snagging work would be accomplished using chain saws, brush cutters, floating barges and excavators. The clearing and snagging activities would only occur within the channel from top of bank to top of bank. The top of bank is described as the point where an abrupt change in slope is evident. However, if a tree is growing in that area and its limbs are growing down into the channel (interfering with work or impeding flow) those limbs would be removed (not the whole tree). All injuries to bark, trunk, limbs, and roots of trees, on top of bank, would be repaired with bituminous based paint (of standard manufacture)

specially formulated for tree wounds and would be applied in accordance with manufactures specifications. Debris removed would be hauled by truck to the parish landfill. All temporary modifications associated with the proposed actions (i.e. staging areas, access corridors, wash-down racks, parking, and office pads) shall be restored to pre-construction conditions, to include seeding and fertilizing of all disturbed areas, upon completion of construction activities.

Lower Bayou Fountain

The proposed plan for LBF consists of clearing and snagging approximately 4.6 miles of channel. The proposed improvements begin at the mouth of Bayou Manchac and continue upstream to Burbank Drive and are designed to convey a 10-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding (Figure 2, Appendix B).

There are two (2) temporary staging areas associated with the LBF portion of the proposed action. LBF staging area #1 is approximately 4.3 acres and can be accessed directly from Burbank Drive. This previously developed area has been converted to open grassland and is surrounded by a chain-link fence. (Figure 3, Appendix B) The southern portion of the staging area would be cleared for direct access to the creek, impacting approximately 1 acre. LBF staging Area #2 is approximately 4.7 acres and can be accessed directly from Highland Road. (Figure 4, Appendix B) Access to LBF creek will be along the southern portion of the staging area. This area is located in an open area in the eastern end of the Highland Community Park, which is operated by the Recreation and Park Commission for the Parish of East Baton Rouge (BREC). An area along the southern portion of the staging area, located next to the creek, would need to be cleared for access directly to the creek.

Lower Jones Creek

The proposed plan for LJC consists of clearing and snagging approximately 3.3 miles of channel. Proposed modifications begin at the mouth of the Amite River and continue upstream to O'Neal Lane and are designed to convey a 50-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding (Figure 5, Appendix B).

There are three (3) temporary staging areas associated with the LJC portion of the proposed action. LJC staging area #1 is approximately 2.0 acres and can be accessed directly from O'Neal Lane. (Figure 6, Appendix B) This staging area would need to be cleared. LJC staging area #2 is approximately 1.0 acres of grassland, fringed with BLH, positioned along the edge of Jones Creek. It is located on the western side of the Woodlake Drive Bridge. LJC staging area #3 is approximately 1.0 acre in size, located on the eastern side of the Woodlake Drive Bridge. LJC staging area #3 would need to be cleared. While both LJC staging area #2 and LJC staging area #3 can be accessed directly from Woodlake Drive, the area along the southern portion of each of these staging

areas would be utilized for access directly to the creek for the purposes of debris removal (Figure 7, Appendix B).

Lower Ward Creek

The proposed plan for LWC consists of clearing and snagging approximately 3.3 miles of channel. Proposed modifications begin 4,000 feet upstream of the mouth of Bayou Manchac and continue to 1,200 feet upstream of Pecue Lane and are designed to convey a 10-year storm event within the streambank and reduce out-of-bank stages of those larger rain events which could induce localized flooding. The proposed improvements begin at station 40+00 (4,000 feet upstream of the mouth of Bayou Manchac) and continue upstream to station 211+65 (1,200 feet upstream of Pecue Lane) (Figure 8, Appendix B).

There are six (6) temporary staging areas associated with the LWC portion of the proposed action. LWC staging areas #1 and #2 are located on either side of the Pecue Lane Bridge, and measure approximately 3.0 acres and 5.2 acres respectively (Figure 9, Appendix B). Access directly to LW creek would occur on the southern portion of the staging areas.

Staging area #3 is approximately 29.8 acres and is located behind Pecue Properties, LLC, off LeCrete Lane (Figure 10, Appendix B). In order to access the staging area, a 25 foot wide gravel access corridor would be established along the southern portion of the staging area. In addition to the access road, LWC staging area #3 would also be used for the storage of construction related equipment, materials, debris stockpiles, and office trailers. LWC staging area #3 would also include the temporary placement of stone gravel for parking, office pads, channel access points, and truck wash-down racks.

LWC staging area #4 is approximately 10.1 acres and can be accessed from Highland Road via a 100 foot access corridor located on the northwest side of the staging area or from Highway 61 via a 50 foot gravel access corridor located on the northeast side of the staging area (Figure 11, Appendix B).

LWC staging areas #5 and #6 are small areas used to pass by a private bridge (#5- 0.37 acres) or as a potential access point (#6 – 0.46 acres).

Area of Potential Effects (APE)

The APE for direct and indirect effects is represented in Figure 1 through 14. The APE is confined to the maximum limits of the Right-of-Way (ROW), with the addition of staging areas and access roads, as necessary, for each of the channel areas. The ROW is between 45 ft. and 60 ft. from the centerline of the channel (between 90 ft. and 120 ft in total width) for 11.5 miles in total length (LJC 3.3 miles; LBF 4.6 miles; LWC 3.3 miles). The direct and indirect APE for the channel work is estimated to be 167 acres (67.5 ha), with 153.33 acres of permanent channel impacts with the addition of eleven (11) individual staging areas totaling 56.88 acres (23 ha); see Table 1 for individual acreage, Figure #,

and KMZ FID. Therefore, the total APE for direct and indirect effects measures 223.88 acres (95 ha) in size.

Table 1. Staging Area Designations, Acreage and Locational References.

Waterway	Staging Area #	Acreage	Figure Reference	KMZ Reference
Lower Bayou Fountain	LBF #1	4.3 acres	Figures 2 and 3	FID 129
Lower Bayou Fountain	LBF #2	4.7 acres	Figures 2 and 4	FID 130
Lower Jones Creek	LJC #1	1.9 acres	Figures 5 and 6	FID 149
Lower Jones Creek	LJC#2	1 acres	Figures and 7	FID 147
Lower Jones Creek	LJC#3	1 acre	Figures 5 and 7	FID 148, FID 155 (access)
Lower Ward Creek	LWC#1	3 acres	Figures 8 and 9	FID 153
Lower Ward Creek	LWC#2	5 acres	Figures 8 and 9	FID 154
Lower Ward Creek	LWC#3	25 acres	Figures 8 and 10	FID 152
Lower Ward Creek	LWC #4	10.1 acres	Figures 8 and 11	FID 160; FID 158 (access); FID 159 (access)
Lower Ward Creek	LWC#5	.37 acres	Figure 13	FID 156
Lower Jones Creek	LWC#6	.49 acres	Figure 14	FID 157
	Total	56.88 ac (23.01 ha)		

Identification and Evaluation

Background and literature review was conducted by CEMVN staff in June 2020 and September 2020. Historic properties in the project vicinity were identified based on a review of the National Register of Historic Places (NRHP) database, the Louisiana Cultural Resources Map, historic map research, and a review of cultural resources survey reports. The literature review revealed that there has been an extensive reconnaissance level cultural resources survey of the majority of the APE in 1997, 1998, and 2000 (Wells and Lee 1997, 22-2068; Roberts 1998, 22-2197; and Hinks et al.1990, 22-1467). This

work was done for the originally considered, larger-scope East Baton Rouge flood protection project. Subsequent to these survey efforts, there have been several more intensive survey efforts, which are detailed below. The staging areas were not subjected to any survey. CEMVN has currently (September 2020) contracted Coastal Environments, Inc. to review and conduct survey at each of the 11 staging and access areas; the results of which are forthcoming.

The project areas are presented individually below, reporting the historic properties in the vicinity of the channel clearing activity. CEMVN's research indicates there are no historic properties within the channel clearing portions of the projected APE (see below for specifics).

Bayou Fountain

In the vicinity of the project, there were two reconnaissance surveys: Harlan and Smith 2008 surveyed 6.5 acres (2.6 ha) of a proposed housing development north of the bayou (LDOA Report # 22-3137) and Saltus and Green 2010 surveyed areas towards the west end of the project (LDOA Report #22-3547). Intensive surveys have been undertaken also in the vicinity of Bayou Fountain. Wells and Lee 1997 conducted an intensive cultural resources survey along a 2.6 mile long corridor 200 feet wide, that did not identify any significant cultural resources (Wells and Lee 1 SHPO report 22-2068). Those to the south of the bayou include a 12 acre (5 ha.) survey of the proposed Williams subdivision (McLaughlin 1993 LDOA report # 22-1733), an 87 acre (35 ha.) survey along Burbank Drive (Shuman and Shuman 2017 LDOA report # 22-5709), a 45 acre (18 ha.) residential complex on Burbank at Lee (Parish et al. 2011 LDOA report # 22-3862), another survey on Burbank totaling 33 acres (13 ha.) (Mendoza and Shuman 2018 LDOA report # 22-6034), and a 9,000 foot (2743 meter) long force main by Shuman and Taylor in 2010 (LDOA report # 3441). Intensive surveys on roads that cross Fountain Bayou were conducted on South Starling Lane and Burbank Drive by Shuman and Jones in 2007 (LDOA report # 22-2940). There are 17 archaeological sites within one mile of Bayou Fountain (Table 2), but all of these sites are outside of the proposed project area and would be avoided by project related activities.

National Register properties within 1-mile of the APE (Table 2) from east to west are: Mount Hope Plantation House, Planter's Cabin (removed from listing 12/8/2016), Joseph Petitpierre-Kleinpeter House, and Broussard House (Table1). The Mount Hope Plantation House was constructed in the mid-nineteenth century. Galleries extend along three sides of this farm house and the few modifications are in keeping with the original style. Due to the expansion of suburbia along Highland road, the National Register boundaries were set close to the house to exclude modern out buildings. The Planter's Cabin is a one and a half story Creole structure built about 1810. Although it was moved a short distance in the 1940s, it retains original context of a bousillage cabin and is better preserved of the two that remain in East Baton Rouge Parish. The Petitpierre House is a Creole plantation house that was built between 1800 and 1820. Even though it was

moved 3.5 miles to the west in the 1980s it has undergone extensive renovation to emulate original style. Broussard House was built in 1927. It is one and half stories with a winding staircase in the turret. There have been few alterations since original construction and was listed on the NRHP on July 10, 2003. None of the recorded historic structures are within the project footprint.

Table 2. Lower Bayou Fountain, Archaeological Sites and Standing Structures within 1-mile of the APE.

Site Number/Address	*Name or Site Type*	*NRHP Status*
16EBR001		Undetermined
16EBR003	Mitchell village	Undetermined
16EBR004	Prehistoric cemetery Knox Place	Eligible
16EBR005		Undetermined
16EBR018		Undetermined
16EBR022	Prehistoric cemetery	Eligible
16EBR031		Undetermined
16EBR036		Undetermined
16EBR051	Lee Site	NRHP LISTED
16EBR065	Klein Peter-Knox house	Eligible
16EBR067	Sarah Peralta site	NRHP LISTED
16EBR077		Undetermined
16EBR089		Undetermined
16EBR100		Undetermined
16EBR190	Highland Cemetery	Eligible
16EBR196		Undetermined
16EBR198	Longwood Historic Cemetery	Eligible
16EBR202		Ineligible
16EBR216	Arlington Baptist Church (demolished)	Ineligible
cemetery	Laboring Society Cemetery	Eligible
4512 Highland Road	Broussard House -	report 22-1467
5544 Highland Road	Joseph Petitpierre-Kleinpeter House	Eligible
7815 Highland Road	Planter's Cabin	removed 12/6/2016
8151 Highland Road	Mount Hope Plantation House	Eligible

Additionally, a reconnaissance cultural resources assessment conducted throughout the APE (Hinks et al. 1990 LDOA Report # 22-1467) did not locate any archaeological sites, standing structures, or other historic properties in the APE. The two proposed staging areas would be investigated for the presence of cultural resources prior to construction.

Jones Creek

In the vicinity of the project, Pye et al. 2016 (LDOA Report # 22-5907) conducted a survey that crossed Lively Bayou, Old Hammond Highway, and South Flannery Road. Intensive survey of two proposed drainage improvements by Roberts (1998 SHPO report 22-2197) included shovel testing and auger boring at 16EBR13 (discussed in the context of the APE) and 16EBR26. Additionally, a fragment of a mastodon tooth has been uncovered from the river bed near the Episcopal High School and recorded as site

16EBR200 (Table 3). The site is approximately 1.5 miles from the proposed project and would be avoided. Additionally, reconnaissance survey has also been undertaken on Weiner Creek (22-1467) from the Jones confluence eastward to Airline Highway (US 61). Also, all the recorded structures within 1-mile of the APE, are of undetermined NRHP-eligibility, but would not be affected by the proposed project's affects.

Table 3. Lower Jones Creek
Archaeological Sites and Standing Structures within 1-mile of the APE.

Site Number/Address	*Name or Site Type*	*NRHP Status*
16EBR013	Jones Creek Site	Not Eligible in Channel Area
16EBR026	Palmer site	Not Eligible in Channel Area
16EBR188		Undetermined
16EBR200	Mastodon Jones Creek bed	Undetermined
cemetery	Knox cemetery	Undetermined
17-01776/ Old Hammond Highway	LA 426 Lively Bayou Bridge, Historic Bridge built in1958	Undetermined
17-01777/ Old Hammond Highway	LA 426 Jones Creek Bridge, Historic Bridge built in1958	Undetermined
17-01778/ South Flannery Road	Lively Bayou Bridge, Historic Bridge built in 1965	Undetermined
17-01779/ 12380 Old Hammond Highway	House built ca. 1929	Undetermined
17-01780/ 2124 Elwick Drive	House built circa 1953-1963	Undetermined
17-01781/12451 Old Hammond Highway	House built ca. 1900-1925	Undetermined
17-01782/12923 Old Hammond Highway	built ca. 1953-1963 moved > 1939	Undetermined
17-01783/ 13035 Old Hammond Highway	House built circa 1950s	Undetermined
17-01784/13045 Old Hammond Highway	House built circa 1953-1963	Undetermined
17-01785/13279 Old Hammond Highway	House built circa 1950-1960	Undetermined
17-01786/14120 Old Hammond Highway	Used Auto Sales Lot circa 1945-1953	Undetermined
17-01787/ 14110 and 14130 Old Hammond Hwy.	Commercial Bldg. circa 1953-1963	Undetermined
17-01788/14142 Old Hammond Highway	House built circa 1953-1963	Undetermined
17-10789/ 14212 Old Hammond Highway	House built circa 1953-1963	Undetermined
17-01790/ 14216 Old Hammond Highway	House built circa 1953-1963	Undetermined
17-01791/ 14286 Old Hammond Highway	House built circa 1953-1963	Undetermined
17-01792/ 1180 South Flannery Road	Sherwood Church built ca. 1953-1970	Undetermined
17-01793/ 1240 South Flannery Road	House built circa 1950-1960	Undetermined
17-01794/ 1260 South Flannery Road	House built circa 1953-1963	Undetermined
17-01795/ 1280 Flannery Road	House built circa 1950-1960	Undetermined
17-02395/1359 Wellington Drive	House built 1969	Undetermined
17-02407/382 Ponderosa Drive	House built circa1968	Undetermined
17-02414/ 867 Ponderosa Drive	House built circa1963	Undetermined
17-02506/3612 Lake Lauberge Court	Weiner Creek structure	Undetermined

Reconnaissance survey has been undertaken throughout the entire Jones Creek reach of the APE (Hinks et al. 1990, LDOA Report # 22-1467) locating several archaeological sites (Table 3). Following the initial effort, CEMVN contracted Coastal Environments, Inc. (Roberts 1998, LDOA Report # 2197) to conduct an intensive phase I survey of two archaeological sites that were identified in/adjacent to the Jones Creek channel. One of these sites, the Jones Creek Site (16EB13), is located within the APE (Figure 1, Letter). While the site is currently listed as "undetermined" on the NRHP-

database maintained by the Louisiana Division of Archaeology, CEMVN reviewed the findings in the report and continues to maintain the determination that the portions of the site within the channel/project area are Not Eligible for the National Register of Historic Places. Further, there is indications in the report that the LA SHPO concurred with that determination in 1998. The three proposed staging areas would be investigated for the presence of cultural resources prior to construction.

Figure 1, Letter. Archaeological Site 16EBR13 vicinity.

Ward Creek

In the vicinity of the project, intensive surveys have been conducted on highways that cross Ward Creek along Highland Road (Shuman and Jones 2007, LDOA Report # 22-2940), and a more extensive investigation along Pecue Lane and Interstate 10 (Parrish et al. 2015, LDOA Report # 22-5151). Intensive survey was undertaken also on I-10 across Ward Creek and Essen Lane by Atkins et al. 2018 (LDOA Report # 22-6013). Survey for a communication tower covered a small area (0.063 acres) on the North Branch (Spry 2010, LDOA Report # 22-3688).

There are nine recorded archaeological sites within 1-mile of Ward Creek (Table 4). Test excavations were conducted in 1996 at the Ward Creek Ridge site (16EBR77). That investigation was undertaken on a 1.2 acre (0.49 ha) part of the site to be impacted by borrow pits and outfall channels (Shuman, et al. 1996 LDOA Report # 22-2002). While that part of the site on the Mall of Louisiana property was deemed ineligible for the NRHP, much of the site has yet to be evaluated. Survey of the Picardy Avenue extension three years later produced artifacts at 16EBR77 (Kistler 1999, LDOA Report # 22-2233). That part of Picardy Avenue proposed for the center of 16EBR77 was shovel tested. Shovel tests produced historic artifacts and only a single flake was recovered and that from the surface. All of these sites are outside of the proposed project area and would not be impacted by the proposed action.

**Table 4. Lower Ward Creek,
Archaeological Sites and Standing Structures within 1-mile of the APE.**

Site Number/Address	*Name or Site Type*	*NRHP Status*
16AN023		Undetermined
16EBR036		Undetermined
16EBR077		Undetermined
16EBR078		Undetermined
16EBR093		Undetermined
16EBR199	Bible and Little Misery cemetery	Undetermined
16EBR202		NRHP ineligible
16EBR212		Undetermined
16EBR213		Undetermined
17-01595/ 4912 Essen Lane	House built circa 1965	Undetermined
17-01596/4898 Essen Lane	Pump Station 58 built 1961	Undetermined
17-02363/8675 Sholar Drive	House built circa 1960-1970	Undetermined
17-02408/3911 Chelsea Drive	House built circa 1956	Undetermined
17-02409/3931 Chelsea Drive	House built circa 1969	Undetermined
17-02410/3954 Chelsea Drive	House built circa 1957	Undetermined
17-02415/ 9084 South Contour Drive	House built circa 1960	Undetermined
17-02506/ 3612 Lake Lauberge Court	Weiner Creek structure	Undetermined
cemetery	Cann Cemetery	Undetermined

Throughout the Ward Creek reach APE a cultural resources reconnaissance was conducted (Hinks et al.1990, LDOA Report # 22-1467). No historic properties were recorded within the APE. The six proposed staging areas (Table 1) will be investigated for the presence of cultural resources prior to construction.

In summary, a literature search for historic properties that includes the proposed action has been undertaken for Bayou Fountain, Jones Creek, and Ward Creek and no NRHP-eligible historic properties were located within the current APE. Under the proposed Undertaking, necessary cultural resource surveys of the proposed staging areas are being carried out. Aside from the staging areas, it is unlikely that any additional intact historic or pre-contact archaeological deposits or cultural resources are within the APE.

Assessment of Effects

Based on the information presented in this letter, CEMVN has determined that there are no historic properties, as defined in 36 CFR 800.16 (l) in the APE. Therefore, CEMVN is making a finding of **No Historic Properties Affected** for this undertaking and submitting it to you for review and comment. However, CEMVN also recognizes that survey of a portion of the Undertaking's APE has not been completed, based on that, CEMVN is applying an avoidance/minimization condition. The condition is:

- Should any archaeological deposits be located through the phase I survey effort, the delineated boundaries of the resource will either be avoided by not using that portion of the staging area, or timber matting will be used to avoid impacting the archaeological deposits.

In addition the condition of avoidance/matting, this project will be subject to the standard change in scope of work, unexpected discovery, and unmarked human burial sites act provisions. CEMVN requests your comments within 30 days.

We look forward to your concurrence with this determination. Should you have any questions or need additional information with this undertaking, please contact Jason A. Emery, Archaeologist and Tribal Liaison at (504) 862-2364 or jason.a.emery@usace.army.mil.

Sincerely,

for MARSHALL K. HARPER
Chief, Environmental Planning Branch

CC: File
LA SHPO
An electronic copy of this letter with enclosures will be provided to the Section 106 Inbox, section106@crt.la.gov.

Enclosures