



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

Regional Planning and
Environment Division South

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

**MISSISSIPPI RIVER AND TRIBUTARIES,
MISSISSIPPI RIVER CHANNEL IMPROVEMENT
DUNCAN POINT WASHOUT AREA
EAST BATON ROUGE PARISH, LOUISIANA**

ENVIRONMENTAL ASSESSMENT #541

Description of the Proposed Action

The U.S. Army Corps of Engineers (USACE), New Orleans District proposes to repair and reinforce a washout area on the east bank of the Mississippi River near Duncan Point in East Baton Rouge Parish, Louisiana. In mid-2015, after a prolonged high water period on the Mississippi River, flood waters on the river began to rapidly recede during August. Over a six day period, approximately 45 million gallons of water drained through a relatively small area of river bank on the east bank of the Mississippi River near Duncan Point. This rapid drawdown washed out a large quantity of sandy material on the east bank of the river creating two deep cuts in the river bank. Of the two cuts, the northern-most cut is approximately 12-feet deep, in relation to the adjacent land, and the southern-most cut is approximately 20-feet deep. The topography and hydrology of the area is such that the washout area is the single point of confluence of receding flood waters from a 45-acre borrow pit/sand pit operation located just downstream from the washout area.

The proposed action will be to repair and reinforce the washout area by grading the bank to a 1 vertical on 8 horizontal slope down to the river's edge, utilizing the graded material to fill in the two cuts, covering the area with a protective geotextile material, and then armoring the graded bank with stone to prevent additional scour and facilitate future draining of flood waters. Prior to grading the bank, bulldozers and other land-based excavation equipment will be used to clear vegetation on approximately 2.5 acres of river bank beginning at the Low Water Reference Plane and proceeding to the 31-foot contour line at the top of the bank. Trees and vegetation will be cut, trimmed and pushed against the existing tree line at either end of the project area clearing. The river bank would then be graded to the required slope. The excess graded material would be used to fill in the two cuts and a protective geotextile material would then be

placed on top of the area. Approximately 8,000 tons of one-foot sized stone would be used to armor the bank.

In addition to clearing trees at the washout area, excavation equipment would also be utilized to clear an approximately half acre strip of forested land on the east bank of the river located approximately 0.75 miles upstream of the washout area. The half-acre site will be utilized as a barge offloading site for the approximately 8,000 tons of stone. Barges will be unable to access the washout area directly due to the shallow water adjacent to the site. An existing scour hole associated with one of the Redeye Crossing dikes will allow work barges and rock barges to get close to the riverbank for unloading. A barge with crane would be positioned closest the bank along with a rock barge on the river-side of it. Trucks would back up as close as possible to the crane barge and be directly loaded. It is possible that due to river levels, the stone may need to be double handled in order to load the trucks. In such case, the stone would be deposited on the river bank and then loaded onto trucks by a second crane positioned on the river bank. The trucks would travel on a temporary haul road from the riverbank to the flood side levee maintenance corridor and then travel the maintenance corridor to the washout site.

Factors Considered in Determination

This office has assessed the impacts of the Federal action on important resources including: wetlands; aquatic resources/fisheries; wildlife; threatened and endangered species; cultural resources; air quality; and water quality. The no action alternative was also assessed. The USACE concluded that the proposed repair and reinforcement of the washout area on the east bank of the Mississippi River near Duncan Point would not result in any significant adverse impacts to the previously listed resources. Additionally, the risk of encountering hazardous, toxic and radioactive waste is considered low. While vegetation will be temporarily cleared along the sections of river bank near the washout area, stabilization of the bank is essential to insure that bank failure and additional land loss do not occur within these areas. Bank failure could result in permanent loss of habitat and potential catastrophic failure of the adjacent river levee leading to the loss of lives and property for the residents of East Baton Rouge Parish.

Environmental compliance for the Federal action has been achieved based upon the following actions. Due to the limited time frame for low water remaining in the Mississippi River and the critical need to prevent additional scouring of the washout area prior to the coming high river which typically occurs during winter and spring, the USACE provided an expedited 15-day public review and comment period. On November 6, 2015, draft Environmental Assessment #541 and associated draft Finding of No Significant Impact were mailed out for public review and comment. No adverse comments were received during the review period. Similarly, a Section 404(b)(1) Public Notice was issued on November 6, 2015 and also provided an expedited 15-day public review and comment period. No adverse comments were received during the review

period. A Section 404(b)(1) short form evaluation was signed on November 23, 2015. In a letter dated October 21, 2015, the U.S. Fish and Wildlife Service concurred with the USACE's determination that the proposed action is not likely to adversely affect any threatened or endangered species or critical habitat. The State of Louisiana, Department of Environmental Quality amended Water Quality Certificate 140307-01 (AI 101235/CER20150004) for the proposed project by e-mail dated October 28, 2015. All project areas discussed for the Duncan Point washout site have been coordinated with the Louisiana State Historic Preservation Office (SHPO). The SHPO concurred with the USACE's determination of "no historic properties affected," and returned a copy of the USACE's letter with their official stamp of concurrence dated November 20, 2015. In accordance with responsibilities under Executive Order 13175, the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA), in letters dated November 6, 2015, the USACE offered federally-recognized Tribes the opportunity to review and comment on the potential of the proposed action to significantly affect protected tribal resources, tribal rights, or Indian lands. The November 6, 2015 letter also documented USACE's "no historic properties affected" finding, as set forth in §800.4(d)(1) and §800.11(d). The 30-day review period of the effect finding under Section 106 will conclude on December 6, 2015, at which time USACE's responsibilities under Executive Order 13175, the NEPA, and Section 106 of the NHPA will be fulfilled if no objections to the effect finding are received. No objections to the effect finding have been received.

Environmental Design Commitments

The following commitments are an integral part of the proposed action:

- 1 Trees, shrubs, and other vegetation removed during clearing and grubbing would be windrowed within the limits of work for the project.
- 2 The USACE proposes to facilitate the re-establishment of vegetation at the temporarily cleared sites by planting an assortment of bare-root and 1-2 gallon potted seedlings of mixed bottomland hardwood tree species typical of this locale (e.g., water oak (*Quercus nigra*), nuttals oak (*Q. nuttalii*), American elm (*Ulmus americana*), hackberry/sugarberry (*Celtis laevigata*), green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), etc.). It is anticipated that the planted vegetation and natural recruitment of other adjacent bottomland hardwood species will lead to the re-establishment of the cleared areas within a few years.
- 3 If the proposed action is changed significantly or is not implemented within one year, the USACE will reinitiate consultation with the U.S. Fish and Wildlife Service to ensure that the proposed action would not adversely affect any Federally-listed threatened or endangered species, critical habitat or trust resources.

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

Conclusion

This office has assessed the potential environmental impacts of the proposed action. Based on this assessment (incorporated herein by reference), a review of the comments made on draft Environmental Assessment #541, and the implementation of the environmental design commitments listed above, a determination has been made that the proposed action would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

24 November 2015
Date

Richard L. Hansen
Richard L. Hansen
Colonel, US Army
District Commander

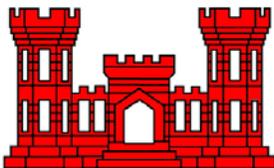
ENVIRONMENTAL ASSESSMENT

**MISSISSIPPI RIVER AND TRIBUTARIES PROJECT,
MISSISSIPPI RIVER CHANNEL IMPROVEMENT**

DUNCAN POINT WASHOUT AREA

EAST BATON ROUGE PARISH, LOUISIANA

EA #541



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

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ENVIRONMENTAL ASSESSMENT

MISSISSIPPI RIVER AND TRIBUTARIES PROJECT, MISSISSIPPI RIVER CHANNEL IMPROVEMENT,

DUNCAN POINT WASHOUT AREA

EAST BATON ROUGE PARISH, LOUISIANA

EA #541

1. INTRODUCTION

1.1. The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, Regional Planning and Environmental Division South, has prepared this Environmental Assessment for the New Orleans District to evaluate the potential impacts of repairing and reinforcing a washout area on the east bank of the Mississippi River near Duncan Point in East Baton Rouge Parish, Louisiana. In mid-2015, after a prolonged high water period on the Mississippi River, flood waters on the river began to rapidly recede during August. Over a six day period, approximately 45 million gallons of water drained through a relatively small area of river bank on the east bank of the Mississippi River near Duncan Point. This rapid drawdown washed out a large quantity of sandy material on the east bank of the river creating two deep cuts in the river bank. Of the two cuts, the northern-most cut is approximately 12-feet deep, in relation to the adjacent land, and the southern-most cut is approximately 20-feet deep. The topography and hydrology of the area is such that the washout area is the single point of confluence of receding flood waters from a 45-acre borrow pit/sand pit operation located just downstream from the washout area.

1.2. This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act of 1969 and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation ER 200-2-2. This Environmental Assessment provides sufficient information on the potential adverse and beneficial environmental effects to allow the District Commander, New Orleans District, to make an informed decision on the appropriateness of an Environmental Impact Statement or a Finding of No Significant Impact.

1.3. PROPOSED ACTION

1.3.1. The USACE proposes to repair and reinforce the washout area by grading the bank to a 1 vertical on 8 horizontal slope down to the river's edge, utilizing the graded material to fill in the two cuts, covering the area with a protective geotextile material, and then armoring the graded bank with stone to prevent additional scour and facilitate future draining of flood waters. Prior to grading the bank, bulldozers and other land-based excavation equipment will be used to clear vegetation on approximately 2.5 acres of river bank beginning at the Low Water Reference Plane and proceeding to the 31-foot contour line at the top of the bank. Trees and vegetation will

be cut, trimmed and pushed against the existing tree line at either end of the project area clearing. The river bank would then be graded to the required slope. The excess graded material would be used to fill in the two cuts and a protective geotextile material would then be placed on top of the area. Approximately 8,000 tons of one-foot sized stone would be used to armor the bank.

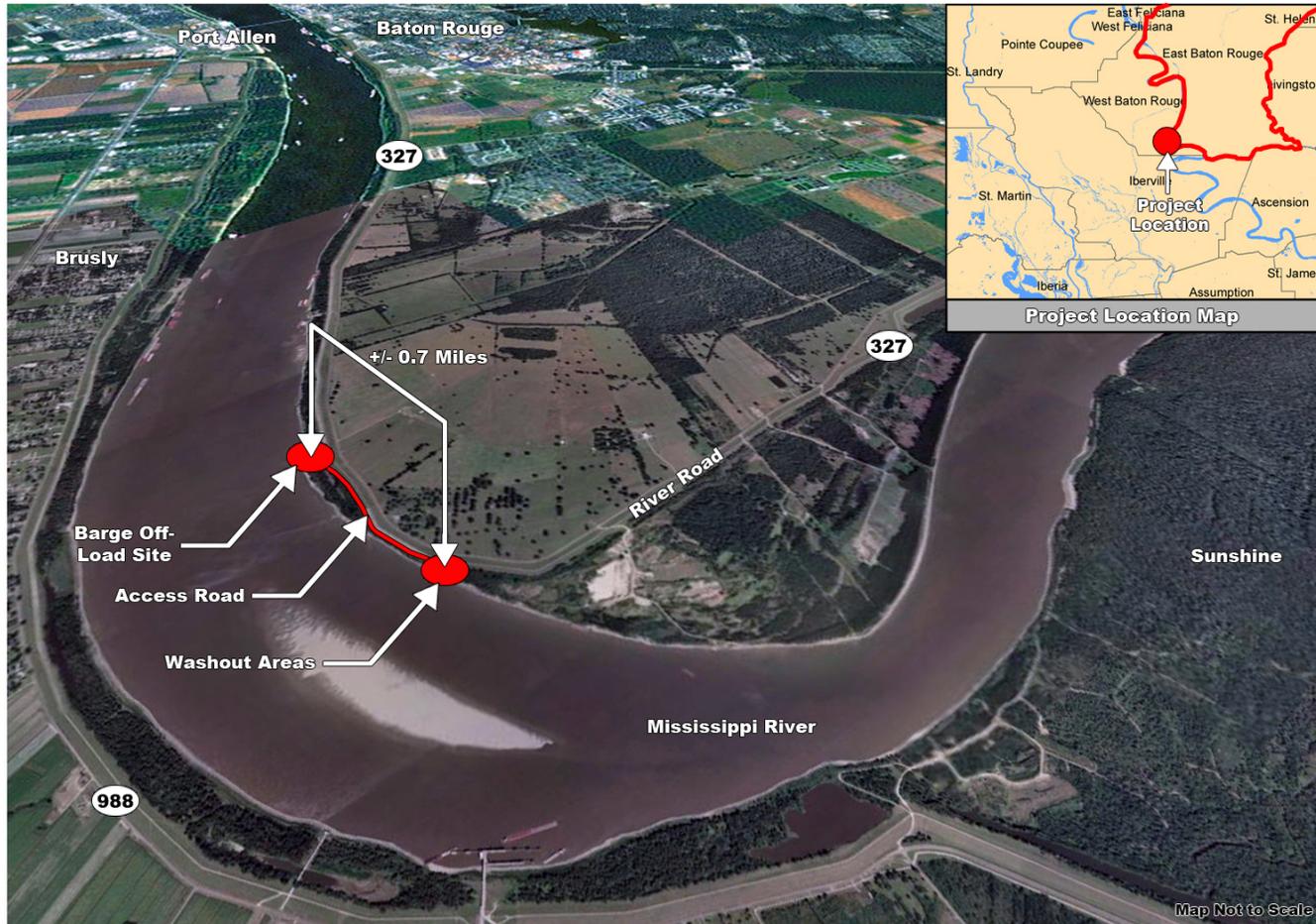
1.3.2. In addition to clearing trees at the washout area, excavation equipment would also be utilized to clear an approximately half acre strip of forested land on the east bank of the river located approximately 0.75 miles upstream of the washout area. The half-acre site will be utilized as a barge offloading site for the approximately 8,000 tons of stone. Barges will be unable to access the washout area directly due to the shallow water adjacent to the site. An existing scour hole associated with one of the Redeye Crossing dikes will allow work barges and rock barges to get close to the riverbank for unloading. A barge with crane would be positioned closest the bank along with a rock barge on the river-side of it. Trucks would back up as close as possible to the crane barge and be directly loaded. It is possible that due to river levels, the stone may need to be double handled in order to load the trucks. In such case, the stone would be deposited on the river bank and then loaded onto trucks by a second crane positioned on the river bank. The trucks would travel on a temporary haul road from the riverbank to the flood side levee maintenance corridor and then travel the maintenance corridor to the washout site (Figures 1 and 2).

1.3.3. While vegetation will be cleared along the riverbank at the washout area, prevention of future erosion of the washout area is essential to ensure that bank failure and land loss do not occur within that area which could result in permanent loss of habitat. All temporarily cleared locations, once the project is completed, will be left in a condition comparable to its current state. In order to facilitate the re-establishment of vegetation within the temporarily cleared areas of riverbank, the USACE proposes to plant an assortment of bare-root and 1-2 gallon potted seedlings of mixed bottomland hardwood tree species typical of this locale (e.g., water oak (*Quercus nigra*), Nuttall oak (*Q. nuttalii*), American elm (*Ulmus americana*), hackberry/sugarberry (*Celtis laevigata*), green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), etc.). It is anticipated that the planted vegetation and natural recruitment of other adjacent bottomland hardwood species will lead to the re-establishment of the cleared areas within a few years.

1.4. PURPOSE AND NEED FOR THE PROPOSED ACTION

1.4.1. The purpose of the proposed action is to repair and reinforce the previously described washout area and facilitate future draining of flood waters thereby preventing further erosion of the riverbank. Continued erosion would eventually reach the adjacent river levee or cause the levee to become unstable, potentially resulting in a levee failure that would endanger the lives and property of residents within East Baton Rouge Parish. Additionally, the Mississippi River is the primary route for commercial shipping to major ports along the river. There is a national interest in providing progressive channel stabilization in order to prevent any alteration of the river flow that could potentially pose a navigation threat for large vessels transiting these sections of the river.

Project Vicinity Map



Duncan Point Washout Areas East Baton Rouge Parish, Louisiana



Figure 1. Duncan Point washout area, East Baton Rouge Parish, Louisiana, Project Vicinity Map.

Detail Project Map



Duncan Point Washout Areas East Baton Rouge Parish, Louisiana



Figure 2. Duncan Point washout area, East Baton Rouge Parish, Louisiana, Project Area.

1.4.2. There is also widespread public support for the protection of environmental resources and flood control along the Mississippi River. The flood control plan of the Mississippi River and Tributaries Project is designed to reduce the risk associated with the “Project Design Flood,” and includes several features that work in concert to protect a large part of the alluvial valley from the Project Design Flood.

1.5. AUTHORITY

1.5.1. The Mississippi River and Tributaries Project was authorized by the Flood Control Act of 1928 (PL 391-71), as amended, including but not limited to, the Flood Control Act of 1936 (PL 678-74 and PL 738-74), the Flood Control Act of 1938 (PL 671-75), the Flood Control Act of 1941 (PL 228-77), the Flood Control Act of 1944 (PL 534-78), the Flood Control Act of 1946 (PL 526-79), the Flood Control Act of 1950 (PL 516-81), the Flood Control Act of 1954 (PL 780-83), the Flood Control Act of 1962 (PL 85-874), the Flood Control Act of 1965 (PL 89-298), the Flood Control Act of 1968 (PL 90-483), and the Water Resources Development Act of 1986 (PL 99-662).

1.5.2. The comprehensive Mississippi River and Tributaries Project has four major elements: (1) levees and floodwalls to contain flood flows; (2) floodways to pass excess flows past critical Mississippi River reaches; (3) channel improvement and stabilization to provide efficient navigation alignment, increased flood-carrying capacity and protection of the levee system; and (4) tributary basin improvements. The Mississippi River and Tributaries Project in the alluvial valley between Cape Girardeau, Missouri, and Head of Passes, Louisiana, provides protection from floods by means of levees, floodwalls, floodways, reservoirs (in Yazoo and St. Francis Basins), bank stabilization and channel improvements in and along the River and its tributaries and outlets, insofar as affected by backwater of the Mississippi River.

1.6. PRIOR REPORTS

1.6.1. The *Mississippi River and Tributaries, Mississippi River Levees and Channel Improvement* Environmental Impact Statement (EIS) of 1976 was filed with the Council on Environmental Quality in April 1976. The Statement of Findings was signed on April 4, 1976. As addressed in the 1976 EIS, the use of channel improvements included the placement of Articulated Concrete Mattress (ACM) and stone bank paving (revetment), and construction of dikes to protect the adjacent river levees. Typical revetment construction, including use of ACM and stone bank paving, serves to stabilize a particular segment of riverbank that is currently experiencing ongoing erosion that if left unmanaged could affect the stability of the adjacent river levees.

1.6.2. Environmental Assessment (EA) #182, titled, *Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana, Channel Training, Soft Dike Demonstration Project, East Baton Rouge Parish, Louisiana*, addressed impacts associated with construction of six “soft” (underwater sand-filled geotextile bags) dikes at Red Eye Crossing along the east bank of the Mississippi River, approximately 10 miles south of Baton Rouge, Louisiana. The six dikes serve to constrict the effective width of the river to about 2,000 feet at the Red Eye Crossing, and provide a self-maintaining, deep water passage by inducing increased flow in the main channel while reducing

sediment deposition and subsequent maintenance dredging costs. A Finding of No Significant Impact for EA #182 was signed on March 26, 1993.

1.6.3. Environmental Assessment (EA) #189, titled, *Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana, Channel Training, Soft Dike Demonstration Project, Additional Borrow Areas, East Baton Rouge Parish, Louisiana*, addressed impacts associated with designation of two additional borrow areas for construction of the six soft dikes located at Red Eye Crossing along the east bank of the Mississippi River. The designated borrow areas, approximately 32 acres and 49 acres, supplied additional sand borrow material and were located along the east bank of the Mississippi River between dikes #4 and #5 and #5 and #6, respectively. A Finding of No Significant Impact for EA #189 was signed on June 3, 1993.

2. ALTERNATIVES TO THE PROPOSED ACTION

2.1. ALTERNATIVE 1 – NO ACTION

2.1.1. The “no-action” alternative to the proposed action was considered. In the future without project condition (a.k.a no-action), the proposed action would not be constructed, and future high water events within the Mississippi River would continue to contribute to draining floodwaters washing out additional unprotected material along the east bank of the river near Duncan Point. Eventual de-stabilization of the riverbank would alter the river flow and navigation channel, and would eventually reach the adjacent river levees. The result would be a potential threat to commercial navigation for large vessels and failure of the river levees. Depending upon the extent of the levee failure, flooding could result in catastrophic loss of lives and property within East Baton Rouge Parish.

3. AFFECTED ENVIRONMENT

3.1. ENVIRONMENTAL SETTING

3.1.1. East Baton Rouge Parish is located in the southeastern part of Louisiana. The parish has a total area of 470 square miles, with approximately 455 square miles comprised of land and the remaining 15 square miles consisting of water. The central and southern portions of the parish are mostly developed, to include a mix of urban, residential and industrial, with more rural and agricultural developments situated in the northeastern parts of the parish. There are four incorporated areas, Baton Rouge, Baker, Zachary, and Central City that are located throughout the parish, with Baton Rouge serving as the state capital of Louisiana. The Mississippi River meanders along the western border of the parish and flows from north to south. Higher elevations within the parish are typically closer to the river with the overall drainage pattern of the parish sloping toward the southeast. The Comite River drains the north-central and northwestern parts, the Amite River drains the eastern part, and Bayou Manchac drains the southern part. According to U.S. Census data, the parish had a population of 440,171 in 2010, and is the most populous parish in the state.

3.1.2. The project area is located within the Mississippi River deltaic plain, with the Mississippi River acting as the primary influence on geomorphic processes in the delta region. The

Mississippi River channel improvement features such as articulated concrete mattress, stone bank paving (revetment) and dikes serve to ensure proper alignment and depth of the navigation channel and to protect the integrity of the adjacent river levees.

3.2. DESCRIPTION OF THE WATERSHED

3.2.1. A watershed is an area of land drained by a particular set of streams and rivers. Of the twelve major watersheds within Louisiana, the washout site is located within the Mississippi River watershed along the east bank of the Mississippi River in East Baton Rouge Parish, Louisiana (Figure 3). The Mississippi River has the third largest drainage basin in the world, exceeded in size only by the watersheds of the Amazon and Congo Rivers. The entire Mississippi River basin covers more than 1,245,000 square miles and includes all or parts of 31 states and two Canadian provinces. The topography of the basin ranges from more than 300 feet above sea level in the rolling hills along the Louisiana and Mississippi state line to sea level throughout the coastal wetlands to more than 10 feet below sea level in some areas of New Orleans. Fresh water is introduced through regional drainage and diversion canals. Land use within this basin is varied, ranging from high-density urban areas that drain through metropolitan Baton Rouge and New Orleans drainage canals to rural pastures and dairies in the Florida Parishes (i.e., East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, and Washington (LaCoast 2005).

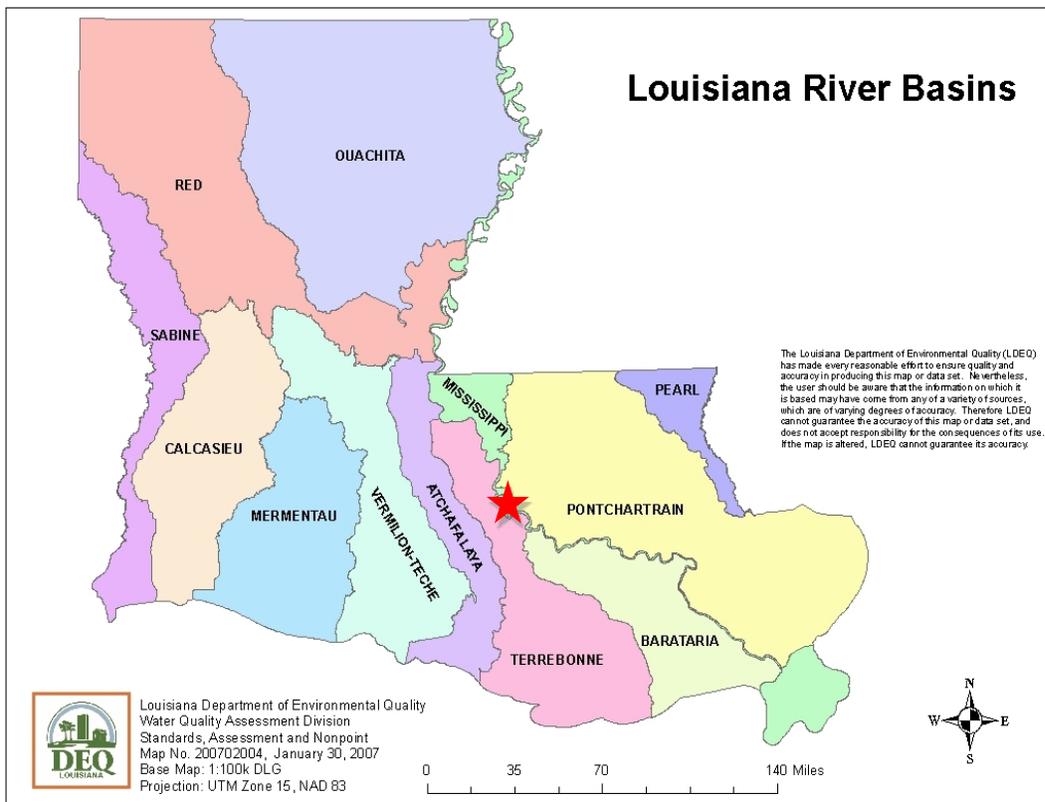


Figure 3. Louisiana River Basins (Map provided by Louisiana Department of Environmental Quality. The Mississippi River Basin is shown in green. The location of the Duncan Point washout area is represented by a red star.

3.4. RELEVANT RESOURCES

3.4.1. This section contains a description of relevant resources that could be impacted by the proposed levee enlargement work. The important resources described in this section are those recognized by laws, executive orders, regulations, and other standards of National, state, or regional agencies and organizations; technical or scientific agencies, groups, or individuals; and the general public. Table 1 provides summary information of these resources.

Resource	Institutionally Relevant	Technically Relevant	Publicly Relevant
Wetlands	Clean Water Act of 1977, as amended; Executive Order 11990 of 1977, Protection of Wetlands; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968., EO 11988, and Fish and Wildlife Coordination Act.	They provide necessary habitat for various species of plants, fish, and wildlife; they serve as ground water recharge areas; they provide storage areas for storm and flood waters; they serve as natural water filtration areas; they provide protection from wave action, erosion, and storm damage; and they provide various consumptive and non-consumptive recreational opportunities.	The high value the public places on the functions and values that wetlands provide. Environmental organizations and the public support the preservation of marshes.
Aquatic Resources/ Fisheries	Fish and Wildlife Coordination Act of 1958, as amended.	They are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of the various freshwater and marine habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Wildlife	Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918	They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Threatened and Endangered Species	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.	USACE, USFWS, NMFS, NRCS, USEPA, LDWF, and LADNR cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.
Cultural Resources	National Historic Preservation Act of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979	State and Federal agencies document and protect sites. Their association or linkage to past events, to historically important persons, and to design and construction values; and for their ability to yield important information about prehistory and history.	Preservation groups and private individuals support protection and enhancement of historical resources.
Air Quality	Clean Air Act of 1963, Louisiana Environmental Quality Act of 1983.	State and Federal agencies recognize the status of ambient air quality in relation to the NAAQS.	Virtually all citizens express a desire for clean air.
Water Quality	Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Mgt Act of 1972, and La State & Local Coastal Resources Act of 1978.	USACE, USFWS, NMFS, NRCS, USEPA, and State DNR and wildlife/fishery offices recognize value of fisheries and good water quality. the national and state standards established to assess water quality	Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water.

3.4.2. The following resources have been considered and found to not be affected by the alternative under consideration: estuarine water bodies; Gulf water bottoms; beaches; estuarine or marine fisheries resources, including essential fish habitat; terrestrial resources, including prime and/or unique farmlands; recreation; aesthetics; socio-economic resources; and environmental justice.

3.5. WETLANDS

3.5.1. General Existing Conditions. Wetlands occurring within the Mississippi River Basin are typically confined to the riverside of the existing Mississippi River levee, specifically between the riverside toe of the levee and bank line of the river. The washout area is located specifically within wetland habitat typically classified as bottomland hardwood forest. Floral communities that currently exist within the project areas consist of scrub-shrub vegetation along the outer limits of the project area with mature hardwood trees comprising the majority of the interior of the site (Figures 4 and 5). Scrub-shrub vegetation observed at the site includes blackberry, trumpet creeper, pepper vine, canary grass, torpedo grass, and poison ivy. The mature tree species primarily consist of faster growing species such as black willow and red maple, along with some interspersed green ash, Chinese tallow, sycamore and sugarberry. Existing conditions at the washout site are such that severe erosion of the river bank has eliminated portions of the mature bottomland hardwood forest that typically subsists within these areas.



Figure 4. North washout showing existing vegetation, Duncan Point washout project area.



Figure 5. South washout showing existing vegetation, Duncan Point washout project area.

3.6. AQUATIC RESOURCES/FISHERIES

3.6.1. General Existing Conditions. Aquatic habitat in the project vicinity is provided by the Mississippi River. This vast area is inherently low in primary productivity on a per acre basis because of high turbidity and has relatively poor benthic productivity due to shifting substrates and high current velocities in the area.

3.6.2. The aquatic habitat averaging less than a couple feet in depth paralleling the bank line of the river within this area of East Baton Rouge Parish represents a limited percentage of the river's total aquatic habitat but is importantly productive for all trophic levels. Factors that serve to increase the productivity include reduced current velocity, increased availability of cover, and shallow substrates allowing photosynthesis to support communities of submerged aquatic vegetation and algae growth. During annual high river season, typically from March – May, riverine aquatic resources (fish, shellfish, etc.) move onto the flooded river bank to take forage on detritus (rotting vegetation), insects, insect larvae, worms and various other food items. Some species use this high water period to spawn in the flooding areas.

3.6.3. Large predaceous fishes, plankton feeders and a group of omnivorous species inhabit the deep main river channel. Minnow, catfishes, carp, carpsuckers and sunfishes are some of the

various types of fishes that may be found during the annual high river season in the project area. Clams, dipterans and mayflies are some of the area's representative invertebrates.

3.7. WILDLIFE

3.7.1. General Existing Conditions. Species adapted to periodically wet riparian or early successional hardwood habitat are likely to inhabit or frequent the project area and include a great variety of mammals, birds, reptiles, and amphibians. Mammals inhabiting the area likely include raccoon, skunks, rabbits, squirrels, armadillos, and a variety of smaller mammals.

3.7.2. Various raptors such as barred owls, red-shouldered hawks, northern harriers (marsh hawks), American kestrel, and red-tailed hawks may be present. Passerine birds in the areas may include sparrows, vireos, warblers, mockingbirds, grackles, red-winged blackbirds, wrens, blue jays, cardinals, and crows. Many of these birds are present primarily during periods of spring and fall migrations.

3.7.2. Reptiles and amphibians that likely inhabit the project area typically include cottonmouth, rat snake, western and southern water snake, snapping turtle, eastern box turtle, eastern mud turtle, green frog, squirrel tree frog, and Gulf coast toad.

3.8. THREATENED AND ENDANGERED SPECIES

3.8.1. General Existing Conditions. Five federally threatened, endangered, or candidate species are either known to or may possibly occur in East Baton Rouge Parish, Louisiana: West Indian manatee (*Trichechus manatus*) (endangered); pallid sturgeon (*Scaphirhynchus albus*) (endangered); Gulf sturgeon (*Acipenser oxyrinchus desotoi*) (threatened); Alabama heelsplitter mussel (*Potamilus inflatus*) (endangered); and Sprague's pipit (*Anthus spragueii*) (candidate) (USFWS 2013).

3.8.2. West Indian manatees can be found in shallow, slow-moving rivers, estuaries, salt-water bays, canals, and coastal areas (LDWF, 2012a). West Indian manatees are typically found in waters with dense submerged aquatic beds or floating vegetation where the species grazes on a variety of aquatic plants. This species has been known to occasionally enter Lake Pontchartrain and associated coastal waters from June through September. Manatees have been reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of Louisiana. They have also been occasionally observed elsewhere along the Louisiana Gulf coast. The manatee has declined in numbers due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

3.8.3. The pallid sturgeon only occurs in large rivers within the Mississippi and Missouri River Basins from Montana to Louisiana. This includes the Mississippi River and Atchafalaya River in south Louisiana. The pallid sturgeon tends to select main channel habitats in the Mississippi River (LDWF 2012b, USFWS 1990). Aquatic habitats in the Mississippi River have been modified though the construction of flood control levees and channel modification through time, and some changes resulting from those modifications have likely been detrimental to pallid sturgeon. Although the River flows unobstructed for about 2,000 river miles from Gavins Point

Dam in the middle Missouri River to the Gulf of Mexico, tributary impoundments, bendway cutoffs and dike and levee construction have each changed localized patterns of channel erosion and deposition in the Mississippi River. Collectively, they have resulted in a channel degradation trend throughout most of the system. Effects of these changes on pallid sturgeon are unknown, because there are no historical data for comparison. The Pallid Sturgeon Lower Basin Recovery Workgroup has identified information gaps essential to the consultation and recovery processes in the Lower Mississippi River Basin. These include: relative abundance of pallid sturgeon; demographics; feeding habits; habitat use; hybridization ratios; presence of fish diseases in the wild; population anomalies; and reliable separation and identification of pallid sturgeon, shovelnose sturgeon, and hybrids. While recent publications have contributed to filling many of these data gaps (e.g., Killgore et al. 2007), there are still concerns on the degree of hybridization and introgression of pallid and shovelnose sturgeon, which may be a naturally occurring process for these two sympatric species. As noted in the November 2013 Entrainment Studies of Pallid Sturgeon Associated with Water Diversions in the Lower Mississippi River Study, field sampling of sturgeon in the lowermost reach of the Mississippi River between river miles 0 and 320 has been ongoing since 2001. Results of that study indicated that a total of 51 pallid sturgeon, 319 shovelnose sturgeon, and 84 young-of-year sturgeon were collected between 2001 and 2010 below river mile 320 (ERDC-EL 2013). Under general direction provided by Section 7(a)(1) of the Endangered Species Act, the USACE prepared a Conservation Plan in 2013 which addresses effects of the Mississippi River and Tributaries, Channel Improvement Program on pallid sturgeon and on two other endangered species that occur upriver from the proposed work (Killgore et al. 2014). The Conservation Plan documented that river engineering actions and restoration activities of the USACE have significantly benefitted the habitat baselines of endangered species associated with the Lower Mississippi River channel, and it incorporates strategies and actions to continue and further improve endangered species habitat in the Lower Mississippi River. Based on the outcome of the Conservation Plan, the USFWS issued a non-jeopardy Biological Opinion in December of 2014 for pallid sturgeon in the Lower Mississippi River under Section 7(a)(2) of the Endangered Species Act. USACE agreed to continue working with partners to diversify habitat using innovative river engineering practices techniques and monitor the status and trends of the endangered species

3.8.4. The Gulf sturgeon is an anadromous fish that occurs in many rivers, streams, and estuarine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida (USFWS 2003). In Louisiana, the Gulf sturgeon has been reported at Rigolets Pass, rivers and lakes of the Pontchartrain Basin, and adjacent estuarine areas, including the Mississippi River Gulf Outlet inland reach. Spawning occurs in coastal rivers between late winter and early spring (*i.e.*, March to May). Gulf sturgeon are more likely to be in the inland reach of the Mississippi River Gulf Outlet during the winter months, (*i.e.*, November 1 through March 31). Gulf sturgeon less than 2 years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations, poor water quality, hurricanes, toxic spills and over-fishing, have negatively affected this species.

3.8.5. The Alabama heelsplitter, which is referred to as the inflated heelsplitter in the species recovery plan (Hartfield 1988), is a large (sometimes reaching over 140 mm in length) freshwater mussel with a brown to black shell with green rays in young individuals

(Hartfield 1988). Like other freshwater mussels, the Alabama heelsplitter feeds by filtering food particles from the water column. In Louisiana, the Alabama heelsplitter has been reported in the Amite and Tangipahoa Rivers. This species prefers soft, stable substrata in slow to moderate currents. It has been found in sand, mud, silt and sandy-gravel, but not in large or armored gravel (Hartfield 1988).

3.8.6. The Sprague's pipit is a relatively small passerine endemic to the North American grasslands. It has a plain buff colored face with a large eye-ring. The Sprague's pipit is a ground nester that breeds and winters on open grasslands (Jones 2010). It feeds mostly on insects and spiders and some seeds. The Sprague's pipit is closely tied with native prairie habitat and breeds in the north-central United States in Minnesota, Montana, North Dakota and South Dakota as well as south-central Canada. Wintering occurs in the southern states of Arizona, Texas, Oklahoma, Arkansas, Mississippi, Louisiana, and New Mexico (Jones 2010). The project area location places it within the wintering area of the pipit. Therefore, consideration should be given to the forage habits of the Sprague's pipits. They typically forage alone throughout the day in all seasons. They walk or run while gleaning food from the ground surface or grasses, typically in grass that is several centimeters tall.

3.9. CULTURAL RESOURCES

3.9.1. General Existing Conditions. The surrounding area of the Duncan Point Washout Area has been surveyed for cultural resources, and no significant cultural resources exist (Irion et al. 1993, Jones et al. 1993, Shenkel 1977). The exact and full boundary of the washout area has not been examined for cultural resources, but documentation and discussion provided within the aforementioned cultural reports argue that the affected land has been recently deposited by natural processes and does not present a likely probability for unknown cultural resources. A letter of coordination dated October 27, 2015 was sent to the Louisiana State Historic Preservation Office concluding a "no historic properties affected" determination for the Duncan Point Washout Area.

3.10. AIR QUALITY

3.10.1. General Existing Conditions. The U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards has set National Ambient Air Quality Standards for six principal pollutants, called "criteria" pollutants. They are carbon monoxide, nitrogen dioxide, ozone, lead, particulates of 10 microns or less in size (PM-10 and PM-2.5), and sulfur dioxide. Ozone is the only parameter not directly emitted into the air but forms in the atmosphere when three atoms of oxygen (O₃) are combined by a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents are some of the major sources of nitrogen and volatile organic compounds, also known as ozone precursors. Strong sunlight and hot weather can cause ground-level ozone to form in harmful concentrations in the air. The Clean Air Act General Conformity Rule (58 FR 63214, November 30, 1993, Final Rule, Determining Conformity of General Federal Actions to State or Federal Implementation Plans) dictates that a conformity review be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more National Ambient Air Quality

Standards. A conformity assessment would require quantifying the direct and indirect emissions of criteria pollutants caused by the Federal action to determine whether the proposed action conforms to Clean Air Act requirements and any State Implementation Plan.

3.10.2. The general conformity rule was designed to ensure that Federal actions do not impede local efforts to control air pollution. It is called a conformity rule because Federal agencies are required to demonstrate that their actions “conform with” (i.e., do not undermine) the approved State Implementation Plan for their geographic area. The purpose of conformity is to (1) ensure Federal activities do not interfere with the air quality budgets in the State Implementation Plans; (2) ensure actions do not cause or contribute to new violations, and (3) ensure attainment and maintenance of the National Ambient Air Quality Standards.

3.10.3. East Baton Rouge Parish is one of five Baton Rouge area parishes that were designated by the Environmental Protection Agency as ozone non-attainment areas under the 8-hour standard effective June 15, 2004. Currently none of the five parishes are in attainment of National Ambient Air Quality Standards for ozone. The five parish area has been classified as marginal, which is the least severe classification. This classification is the result of area-wide air quality modeling studies, and the information is readily available from Louisiana Department of Environmental Quality, Office of Environmental Assessment and Environmental Services.

3.10.4. Federal activities proposed in East Baton Rouge Parish may be subject to the State’s general conformity regulations as promulgated under LAC 33:III.14.A, Determining Conformity of General Federal Actions to State or Federal Implementation Plans. A general conformity applicability determination is made by estimating the total of direct and indirect volatile organic compound (VOC) and nitrogen oxide (NO_x) emissions caused by the construction of the project. Prescribed *de minimis* levels of 100 tons per year per pollutant are applicable in East Baton Rouge Parish. Projects that would result in discharges below the *de minimis* level are exempt from further consultation and development of mitigation plans for reducing emissions.

3.11. WATER QUALITY

3.11.1. General Existing Conditions. Water quality in the project area is affected by both point source and non-point source discharges. Point sources include mainly industrial, municipal, and sewer discharges. Non-point sources include storm water runoff, industrial discharges, landscape maintenance activities, forestry, agriculture, and natural sources.

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

3.11.3. The Louisiana Department of Environmental Quality surface water monitoring program is designed to measure progress towards achieving water quality goals at state and national levels, to gather baseline data used in establishing and reviewing the state water quality

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

3.11.4. The Louisiana Department of Environmental Quality (LDEQ) Section 305(b) and 303(d) Reports for 2014, included in the Water Quality Inventory Integrated Report, lists one water body that is located adjacent to the project areas, the Mississippi River. The assigned sub-segment code for the Mississippi River is LA070301. Sub-segment Code LA070301 boundaries are described as Mississippi River – from Monte Sano Bayou to Head of Passes. Available LDEQ records indicate that prior to the 2004 Water Quality Inventory (WQI) Report, suspected causes of impairment for the Mississippi River are listed as mercury, nitrate/nitrite (nitrite + nitrate as N), pesticides, phosphorous, priority organics (including dioxin) and total fecal coliforms (LDEQ 2014).

3.11.5. Utilizing the 2014 U.S. Environmental Protection Agency Integrated Report methodology guidance categories, which categorize water body/pollutant combinations, the LDEQ 2014 report no longer assigns the LA070301 (Mississippi River) segment an Integrated Report Category number since they are fulfilling all standards (LDEQ 2014).

4. ENVIRONMENTAL CONSEQUENCES

4.1. WETLANDS

4.1.1. Future Conditions with No Action Alternative. With no action, continued erosion of the river bank at the site would cause further loss of hardwood forested habitat both within and adjacent to the project area as well as any potential habitat opportunities.

4.1.2. Future Conditions with Proposed Action. With the proposed action, existing scrub-shrub habitat and hardwood forested habitat would be directly impacted, as clearing and grubbing operations would temporarily clear a combined total of approximately 3-acres of this habitat. The temporary loss is considered minimal, as similar habitat is readily available within the vicinity of the proposed project area. Additionally, the remaining habitat available at each site has been somewhat diminished due to severe erosion of the river bank and would ultimately be completely lost if the proposed action is not constructed.

4.1.3. The proposed action would have indirect benefits, as the bank stabilization features would provide protection to the riverbank, as well for any remaining hardwood trees within the project area not removed during clearing and grubbing operations. In addition, the trees removed and windrowed along the top of the bank would indirectly benefit wildlife species by providing cover habitat.

4.1.4. All temporarily cleared locations, once the project is completed, will be left in a condition comparable to its current state. In order to facilitate the re-establishment of vegetation within the temporarily cleared areas of riverbank, the USACE proposes to plant an assortment of bare-root and 1-2 gallon potted seedlings of mixed bottomland hardwood tree species typical of this locale

(e.g., water oak, Nuttall oak, American elm, hackberry/sugarberry, green ash, red maple, etc.). It is anticipated that the planted vegetation and natural recruitment of other adjacent bottomland hardwood species will lead to the re-establishment of the cleared areas within a few years.

4.2. AQUATIC RESOURCES /FISHERIES

4.2.1. Future Conditions with No Action Alternative. With no action, continued erosion of the river bank could potentially result in a levee failure, and redirect part of the river flow through a breach. Fisheries resources caught in the flow would be transported to adjacent areas and other water bodies within the flood area. Those species that survive would have new habitat opportunities in the other water bodies.

4.2.2. Future Conditions with Proposed Action. With the proposed action, it is possible that some adjacent existing fisheries resources could be indirectly impacted from the bank grading activities along the river bank. It is expected that there would be a temporary increase in turbidity within the river directly surrounding the bank grading and placement of stone material. The initial increases in turbidity would likely be diminished by the swift moving currents of the river, and any free floating sediment would likely settle downstream. Direct impacts to aquatic resources would include the temporary relocation to adjacent available water habitat during construction. Direct impacts to benthic (bottom dwelling) species such as mussels, mayfly larvae, and various worms, would likely be minimal and temporary due to increases in turbidity within the river during bank grading activities and would not result in any permanent loss of habitat. These negative impacts would be short lived and expected to return to pre-project conditions shortly after construction is complete.

4.3. WILDLIFE

4.3.1. Future Conditions with No Action Alternative. With no action, wildlife that presently exists within the riverside forested habitat would continue to inhabit the area. However, continued erosion of the river bank at each site would ultimately lead to a reduced availability of habitat for any wildlife species. It is expected that there would continue to be direct impacts to existing wildlife resources with loss of available habitat under the no action alternative.

4.3.2. Future Conditions with the Proposed Action. With the proposed action, a combined total of approximately 3-acres of trees, shrubs, and other vegetation would be cleared from the riverbank, causing a direct loss of potential habitat opportunities (i.e., nesting, perching, cover, foraging) for area wildlife. The direct loss would be considered temporary and minimal, due to the similar habitat available adjacent to the proposed project areas. Additional minimal impacts would result from equipment noise and movements that would temporarily displace most wildlife species from the site.

4.3.3. The proposed action would have some indirect, beneficial impacts on wildlife species, including erosion protection for the existing habitat. The vegetation cleared from the riverbank would be windrowed at the top of the bank within the limits of work and would provide cover habitat for wildlife species. Turtles and snakes are known to sun on exposed rock outcrops along a waterway, and the exposed stone would serve as exposed rock outcrops along the river. During

periods of high water, fisheries, including baitfish, would be attracted to calm waters at the site, providing potential forage opportunities for wildlife species.

4.4. THREATENED AND ENDANGERED SPECIES

4.4.1. Future Conditions with No Action Alternative. With no action, threatened and endangered species and their habitats would not be affected. The proposed project would not be constructed, and impacts to threatened and endangered species in the area would not likely change from current conditions.

4.4.2. Future Conditions with the Proposed Action. With implementation of the proposed action, it is anticipated that there would be no direct or indirect impacts to threatened or endangered species. No critical habitat for any threatened, endangered, or candidate species has been designated within the project area or adjacent water body (Mississippi River), and none of these species is known to breed within the project vicinity. While Pallid Sturgeon have been previously found within the flooded bank of the Mississippi River near the project area, it is anticipated that there would be no impact to this species as construction would only occur during periods of low water in the Mississippi River.

4.4.3. The U.S. Fish and Wildlife Service concurred by letter dated October 21, 2015 with the USACE's determination that the proposed project is not likely to adversely affect any Federally listed threatened or endangered species.

4.4.4. The USACE concluded that no threatened or endangered species or designated critical habitat under the purview of the National Marine Fisheries Service, Protected Resources Division, exist within the proposed project area and that the project would result in a no adverse effect.

4.5. CULTURAL RESOURCES

4.5.1. Future Conditions with No Action Alternative. If the repair is not undertaken, then riverbank failure could occur and chances of levee failure are increased. If levee failure would occur, then chances increase that flooding of urban land area could occur. This increases the chance that a known or undiscovered cultural resource could be damaged by flood water.

4.5.2. Future Conditions with the Proposed Action. The proposed action will decrease future potential that flooding of urban land area could occur. No impact to known or unknown cultural resources is expected to occur as a result of the proposed action. The USACE concluded that there are no historic properties affected by this project. The Louisiana State Historic Preservation Office concurred with the USACE's determination of "no historic properties affected," and returned a copy of the USACE's letter with their official stamp of concurrence dated November 20, 2015.

4.6. AIR QUALITY

4.6.1. Future Conditions with No Action Alternative. With no action, the status of non-attainment of air quality for East Baton Rouge Parish would remain unchanged from current conditions.

4.6.2. Future Conditions with the Proposed Action. Under the proposed action, it is expected that there would be minimal short term direct impacts to air quality surrounding the immediate project area during construction activities. For the proposed clearing and grubbing, grading and stone placement activities, it is expected that portable and stationary equipment such as bulldozers, barges, barge-mounted cranes and dump trucks would likely be responsible for the bulk increase in air pollution temporarily directly impacting the surrounding project area.

4.6.4. In East Baton Rouge Parish, on-site construction activities are expected to produce less than 5 tons per year of VOC emissions and less than 50 tons per year of NOx emissions (less than the *de minimis* level of 100 tons per year per pollutant). Thus, the ambient air quality would not noticeably change from current conditions, and the status of attainment for the parish would not be altered.

4.7. WATER QUALITY

4.7.1. Future Conditions with No Action Alternative. With no action, no new direct or indirect impacts to water quality would not be expected to occur.

4.7.2. Future Conditions with the Proposed Action. With implementation of the proposed action, it is expected that there would be an indirect impact to water quality through a temporary increase in turbidity within the river directly surrounding any construction activity areas. Any increases in turbidity would likely be diminished by the swift moving currents of the river, and any free floating sediment would likely settle downstream. Additional impacts of the stone placement would be to redirect and/or slow the drainage of flood water past this area, reducing the potential for additional sediment runoff into the river.

4.7.3. A Section 404(b)(1) public notice was circulated for public comment with this Environmental Assessment. A Section 404(b)(1) short form evaluation was signed on November 23, 2015. Additionally, amended Water Quality Certificate 140307-01 (AI 101235/CER20150004) was issued by the Louisiana Department of Environmental Quality by email dated October 28, 2015.

4.8. HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

4.8.1. USACE is obligated under Engineer Regulation (ER) 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste (HTRW) contamination within the vicinity of proposed actions. ER 1165-2-132 identifies that HTRW policy is to avoid the use of project funds for HTRW removal and remediation activities. An ASTM E 1527-05 Phase 1 Environmental Site Assessment (ESA), HTRW 15-13 dated November 6, 2015 has been completed for the project area. Copies of the Phase 1 ESA will be

maintained on file at the USACE, New Orleans District. Based upon the results of the Phase I ESA, HTRW 15-13, the probability of encountering HTRW for the proposed action is considered low. If a recognized environmental condition is identified in relation to the work site, the USACE would take the necessary measures to avoid the recognized environmental condition so that the probability of encountering or disturbing HTRW would continue to be low.

4.9. CUMULATIVE IMPACTS

4.9.1. The Council on Environmental Quality's (CEQ) regulations (40 CFR 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.) define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7)". Cumulative Effects can result from individually minor but collectively significant actions taking place over a period of time."

4.9.2. The direct, indirect, and cumulative impacts from associated projects were previously addressed in the Prior Reports Section, above. These reports also provided an evaluation of the direct, indirect, and cumulative impacts associated with the levee enlargement and borrow pit construction in the work areas. The discussions of potential cumulative impacts contained in the cited documents are incorporated herein by reference.

4.9.3. Channel stabilization and protection of the Mississippi River bank are part of an overall comprehensive plan for the Mississippi River and Tributaries project. The proposed project would accomplish these objectives by repairing and reinforcing the existing river bank, thereby insuring the integrity of the adjacent river levee. The preferred alternative would accomplish flood risk reduction objectives, which are of great importance in the Lower Mississippi Valley, and provide for the preservation and enhancement of the very significant fish, wildlife, and other natural resources of the basin. Overall, the proposed action, in comparison to past, present, and reasonably foreseeable future USACE actions, would not incrementally contribute adversely to the general project area. The cumulative impacts of the proposed action are expected to have long-term benefits by reducing the risk of flood damage to the environment on the land side of the levee, thus protecting the lives and property of residents of East Baton Rouge Parish, and reducing the threat to the commercial navigation and trade that is vital for various local and state economies.

5. COORDINATION

5.1. Preparation of this Environmental Assessment and Finding of No Significant Impact has been coordinated with appropriate Congressional, Federal, state, local interests, and Indian Tribes, as well as environmental groups and other interested parties. The following Federal and state agencies, non-governmental organizations, as well as other interested parties will receive copies of this draft Environmental Assessment and the draft Finding of No Significant Impact:

U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency, Region VI
U.S. Department of Commerce, National Marine Fisheries Service
U.S. Natural Resources Conservation Service, State Conservationist
U.S. Department of Homeland Security, Federal Emergency Management Agency
Advisory Council on Historic Preservation
Louisiana Department of Wildlife and Fisheries
Louisiana Department of Natural Resources (LADNR), Coastal Management Division
Louisiana Department of Environmental Quality
Louisiana State Historic Preservation Officer

6. MITIGATION

6.1. The proposed project would reduce ongoing erosion and provide bank stabilization of the Mississippi River in the vicinity of the washout area near Duncan Point. Only temporary and minimal environmental impacts are expected, and none are expected to have any significant adverse impacts on the important resources described in this draft Environmental Assessment.

6.2. A relatively small segment of forested habitat located within the project area would be directly impacted, as clearing and grubbing operations would temporarily clear a total of approximately 3-acres of riparian habitat. The temporary loss is considered minimal, as similar habitat is readily available within the vicinity of the proposed project area. Additionally, what remaining forested habitat is available at the site has been somewhat diminished due to severe erosion of the river bank, and would ultimately be completely lost if the proposed action is not constructed. The temporary loss of forested habitat would also be offset by the re-establishment of vegetation within the temporarily cleared areas of riverbank. The USACE proposes to facilitate the re-establishment of vegetation by planting an assortment of bare-root and 1-2 gallon potted seedlings of mixed bottomland hardwood tree species typical of this locale at the temporarily cleared sites (e.g., water oak, Nuttall oak, American elm, hackberry/sugarberry, green ash, red maple, etc.). It is anticipated that the planted vegetation and natural recruitment of other adjacent bottomland hardwood species will lead to the re-establishment of the cleared areas within a few years. Site preparation, specific quantities of trees, and appropriate planting spacing intervals will be determined through on-site assessment by USACE personnel upon completion of the project. It is anticipated that management and maintenance efforts will be limited, and would primarily involve the eradication and control of invasive and nuisance plant species during construction. The schedule and frequency of invasive/nuisance plant eradication events will be determined through qualitative observations made by USACE personnel during future site visits.

6.3. The project, as proposed, will ultimately benefit both fisheries and wildlife resources by creating additional habitat opportunities, as previously noted. Therefore, no impacts have been identified that would require compensatory mitigation.

7. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

7.1. Environmental compliance for the Federal action has been achieved based upon the following actions. Due to the limited time frame for low water remaining in the Mississippi River and the critical need to prevent additional scouring of the washout area prior to the coming high river which typically occurs during winter and spring, the USACE provided an expedited 15-day public review and comment period. On November 6, 2015, draft Environmental Assessment #541 and associated draft Finding of No Significant Impact were mailed out for public review and comment. No adverse comments were received during the review period. Similarly, a Section 404(b)(1) Public Notice was issued on November 6, 2015 and also provided an expedited 15-day public review and comment period. No adverse comments were received during the review period. A Section 404(b)(1) short form evaluation was signed on November 23, 2015. In a letter dated October 21, 2015, the U.S. Fish and Wildlife Service concurred with the USACE's determination that the proposed action is not likely to adversely affect any threatened or endangered species or critical habitat. The State of Louisiana, Department of Environmental Quality amended Water Quality Certificate 140307-01 (AI 101235/CER20150004) for the proposed project by e-mail dated October 28, 2015. All project areas discussed for the Duncan Point washout site have been coordinated with the Louisiana State Historic Preservation Office (SHPO). The SHPO concurred with the USACE's determination of "no historic properties affected," and returned a copy of the USACE's letter with their official stamp of concurrence dated November 20, 2015. In accordance with responsibilities under Executive Order 13175, the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA), in letters dated November 6, 2015, the USACE offered federally-recognized Tribes the opportunity to review and comment on the potential of the proposed action to significantly affect protected tribal resources, tribal rights, or Indian lands. The November 6, 2015 letter also documented USACE's "no historic properties affected" finding, as set forth in §800.4(d)(1) and §800.11(d). The 30-day review period of the effect finding under Section 106 will conclude on December 6, 2015, at which time USACE's responsibilities under Executive Order 13175, the NEPA, and Section 106 of the NHPA will be fulfilled if no objections to the effect finding are received. No objections to the effect finding have been received.

8. CONCLUSION

8.1. The proposed action consists of repairing and reinforcing a washout area on the east bank of the Mississippi River near Duncan Point by grading the bank to a 1 vertical on 8 horizontal slope down to the river's edge, utilizing the graded material to fill in the two cuts, covering the area with a protective geotextile material, and then armoring the graded bank with approximately 8,000 tons of stone to prevent additional scour and facilitate future draining of flood waters. This office has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no impact upon cultural resources and no impact would occur to threatened or endangered species.

8.2. The proposed project has been found to have an overall beneficial effect on the human environment by insuring adequate flood risk reduction along the flood prone lower Mississippi River. While there would be temporary clearing of approximately 3-acres of bottomland

hardwood habitat, these impacts would be considered temporary and minimal as similar habitat is readily available within the vicinity of the proposed project. Additionally, in order to facilitate the re-establishment of vegetation within the temporarily cleared areas of riverbank, the USACE proposes to plant an assortment of bare-root and 1-2 gallon potted seedlings of mixed bottomland hardwood tree species typical of this locale (e.g., water oak, Nuttall oak, American elm, hackberry/sugarberry, green ash, red maple, etc.). It is anticipated that the planted vegetation and natural recruitment of other adjacent bottomland hardwood species will lead to the re-establishment of the cleared areas within a few years.

9. PREPARED BY

9.1. Environmental Assessment #541 and the associated Finding of No Significant Impact were prepared by Mr. Mark Lahare, Environmental Protection Specialist, with relevant sections and contributions prepared by: Mr. Joseph Musso (HTRW and Air Quality); Dr. Paul Hughbanks (Cultural Resources); and Mr. Kelly McCaffrey (Visuals). The address of the preparers is: U.S. Army Corps of Engineers, New Orleans District; Regional Planning Division South, Environmental Compliance Branch, Coastal Environmental Compliance Section, CEMVN-PDC-CEC; P.O. Box 60267; New Orleans, Louisiana 70160-0267.

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