Appendix VII - Agency Coordination

Annex A: Draft Fish and Wildlife Coordination Act Report

United States Department of the Interior

FISH AND WILDLIFE SERVICE
200 Dulles Drive
Lafayette, Louisiana 70506

March 12, 2020

Colonel Stephen Murphy
District Commander
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, LA 701118-3651

Dear Colonel Murphy:

Please reference the "West Shore Lake Pontchartrain, Hurricane and Storm Damage Risk Reduction Construction Project." The U.S. Army Corps of Engineers (USACE) Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared a Supplemental Environmental Impact Statement (SEIS) for the New Orleans District (MVN) to evaluate impacts to the structural alignment levee and its associated mitigation in St. John the Baptist and St. Charles Parishes, Louisiana (LA), as described in the West Shore Lake Pontchartrain (WSLP) Environmental Impact Statement (USACE, 2016 WSLP EIS; http://www.mvn.usace.army.mil/About/Projects/West-Shore-Lake-Pontchartrain/. The Record of Decision (ROD) for the 2016 WSLP EIS was signed by the Assistant Secretary of the Army on September 14, 2016. Funding for the construction of the WSLP project was appropriated via Public Law 115-123, the Bipartisan Budget Act of 2018 (BBA-18) which was signed into law February 9, 2018. Changes to the WSLP levee alignment in St. John the Baptist and St. Charles Parishes would occur outside of the Right of Way (ROW) described in the 2016 WSLP EIS. The Fish and Wildlife Service (Service) has prepared two Fish and Wildlife Coordination Act Reports for the WSLP Feasibility Study Environmental Impact Statement in April 2014 and Surveys and Borings EA in May 2019, one comment letter on the Chief of Engineers Report in Feb 2015, five Planning-aid Reports dated January 21, 1985, June 30, 1987, April 3, 1997, May 4, 2001, and October 9, 2012, for previous reconnaissance studies, and one letter for a Notice of Intent dated January 9, 2009.

This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of the proposed project and provides recommendations to minimize adverse project impacts while maximizing beneficial project impacts on those resources. This draft report has been prepared by the Fish and Wildlife Service (USFWS) under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and a copy of the report will be provided to the National Marine Fisheries Service (NMFS) and the Louisiana Department of Wildlife and Fisheries (LDWF) for review and their comments will be included in our final report. This Draft Report does not constitute the report of the Secretary of

the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA, 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

We appreciate the cooperation of your staff on this project. Should your staff have any questions regarding the enclosed report, please have them contact Ms. Catherine Breaux (504/862-2689) of this office.

Sincerely,

Joseph A. Ranson
Field Supervisor
Louisiana Field Office

Attachment

cc: EPA, Dallas, TX
NMFS, Baton Rouge, LA
CPRA, Baton Rouge, LA
LDWF, Baton Rouge, LA

WEST SHORE LAKE PONTCHARTRAIN CONSTRUCTION PROJECT,

Hurricane and Storm Damage Risk Reduction in Ascension, St. Charles, St. James, and St. John the Baptist Parishes, Louisiana

FISH AND WILDLIFE COORDINATION ACT REPORT

U.S. FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES

LAFAYETTE, LOUISIANA

MARCH 2020

WEST SHORE LAKE PONTCHARTRAIN CONSTRUCTION PROJECT,
Hurricane and Storm Damage Risk Reduction in Ascension, St. Charles, St. James, and St. John the Baptist Parishes, Louisiana

FISH AND WILDLIFE COORDINATION ACT REPORT

SUBMITTED TO

NEW ORLEANS DISTRICT

U.S. ARMY CORPS OF ENGINEERS

NEW ORLEANS, LOUISIANA

PREPARED BY

CATHERINE BREAUX, FISH AND WILDLIFE BIOLOGIST

U.S. FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES

LAFAYETTE, LOUISIANA

MARCH 2020

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (USACE) Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared a Supplemental Environmental Impact Statement (SEIS) for the New Orleans District (MVN) to evaluate impacts to the structural alignment levee and its associated mitigation in St. John the Baptist and St. Charles Parishes, Louisiana (LA), as described in the West Shore Lake Pontchartrain (WSLP) Environmental Impact Statement (USACE, 2016 WSLP EIS; http://www.mvn.usace.army.mil/About/Projects/West-Shore-Lake-Pontchartrain/. The Record of Decision (ROD) for the 2016 WSLP EIS was signed by the Assistant Secretary of the Army on September 14, 2016. Funding for the construction of the WSLP project was appropriated via Public Law 115-123, the Bipartisan Budget Act of 2018 (BBA-18) which was signed into law February 9, 2018. Changes to the WSLP levee alignment in St. John the Baptist and St. Charles Parishes would occur outside of the Right of Way (ROW) described in the 2016 WSLP EIS. The Fish and Wildlife Service (Service) has prepared two Fish and Wildlife Coordination Act Reports for the WSLP Feasibility Study Environmental Impact Statement in April 2014 and Surveys and Borings EA in May 2019, one comment letter on the Chief of Engineers Report in Feb 2015, five Planning-aid Reports dated January 21, 1985, June 30, 1987, April 3, 1997, May 4, 2001, and October 9, 2012, for previous reconnaissance studies, and one letter for a Notice of Intent dated January 9, 2009. These reports are herein incorporated by reference.

This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of the proposed project and provides recommendations to minimize adverse project impacts while maximizing beneficial project impacts on those resources. This draft report has been prepared by the Fish and Wildlife Service (USFWS) under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and a copy of the report will be provided to the National Marine Fisheries Service (NMFS) and the Louisiana Department of Wildlife and Fisheries (LDWF) for review and their comments will be included in our final report. This Draft Report does not constitute the report of the Secretary of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA, 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Construction, and related activities, for the WSLP project will result in the direct loss of approximately 1,137 acres (-598 AAHUs) of swamp and 242 acres (-169 AAHUs) of BLH and Indirect impacts to 9,754 acres (-354 AAHUs) of swamp and 4,635 acres (-124 AAHUs) of BLH. Said another way, there will be 1,379 acres (-767 AAHUs) of unavoidable Direct (levee and access road footprints) construction adverse impacts to forested wetlands and 14,390 acres (-478 AAHUs) of Indirect (enclosed and exterior wetlands) habitat value losses on forested wetlands associated with levee construction resulting in the total Direct and Indirect impacts of 15,769 acres and -1,244 AAHUs of forested wetlands.

Of the total losses, there are direct losses on the MSWMA of approximately 312 acres (-156 AAHUs) of swamp and 101 acres (-72 AAHUs) of BLH and indirectly impacts 1,775 acres (-89 AAHUs) of swamp and 512 acres (-25 AAHUs) of BLH. Total direct loss to the MSWMA is 413 acres (-228 AAHUs) and indirect loss of 2,287 acres (-114 AAHUs) of combined forested wetlands. The total loss (Direct and Indirect) to the MSWMA is 2,700 acres and -342 AAHUs of Direct and Indirect impacts to forested wetlands.

The Service does not oppose construction of the WSLP Project provided that the fish and wildlife conservation recommendations are included and adequately addressed in the design report and related authorizing documents.

The Service requests the following recommendations are implemented concurrently with project construction:

1. Any impacts occurring on LDWF owned and managed property should only be mitigated on LDWF owned and managed property. In this case, impacts occurring on Maurepas Swamp WMA should be mitigated on the WMA. As required by the conveyance documents, tracts of land located on the WMA are restricted in use and should be preserved in their natural state. Any action which damages or diminishes the property's natural state should be subject to enhancement, restoration, or replacement in kind and contiguous with the WMA. Adequate and appropriate mitigation should be planned with and approved by LDWF.

2. Full, in-kind compensation (quantified as Average Annual Habitat Units) is recommended for 1,379 acres (-767 AAHUs) of unavoidable Direct (levee and access road footprints) construction adverse impacts and14,390 acres (-478 AAHUs) of Indirect (enclosed and exterior wetlands) habitat value losses on forested wetlands associated with levee construction. To help ensure that the proposed mitigation features meet their goals, the Service provides the following recommendations.

    a. If applicable, a General Plan should be developed by USACE, LDWF, and the Service in accordance with Section 3(b) of the Fish and Wildlife Coordination Act for mitigation lands.
    b. The proposed BBA-18 Mitigation proposal, Joyce WMA Swamp Enhancement project is located on LDWF's Joyce WMA. This proposed mitigation project has been planned without prior consultation with appropriate LDWF staff. LDWF, the Service and other interested resource agencies need to be consulted in order for staff to determine whether or not the project is acceptable.
    c. Mitigation measures should be constructed concurrently with the flood damage reduction features that they are mitigating (i.e., mitigation construction should be initiated no later than 18 months after levee construction has begun).
    d. If mitigation is not implemented concurrent with levee construction, the amount of mitigation needed should be reassessed and adjusted to offset temporal losses.
    e. USACE should remain responsible for the required mitigation until the mitigation is demonstrated to be fully compliant with interim success and performance criteria. At a minimum, this should include compliance with the requisite vegetation, elevation, acreage, and dike gapping criteria.
    f. The acreage restored and/or managed for mitigation purposes, and adjacent affected wetlands, should be monitored over the project life. This monitoring

should be used to evaluate mitigation project impacts, the effectiveness of the compensatory mitigation measures, and the need for additional mitigation should those measures prove insufficient.

3. The levee alignment could potentially have impacts to the Maurepas Swamp Diversion project (Maurepas Diversion). The WSLP project impacts may potentially be mitigated for by the Maurepas Diversion project. The Service recommends close coordinate with the planning objectives and planning team of the restoration project and that any potential impacts to the Maurepas Diversion project be addressed. In addition, the Service recommends close coordination with the Service and LDWF if the use of the Maurepas Diversion for mitigation for the WSLP project impacts is undertaken.

4. If USACE declares the enclosed wetlands will be used as a flood storage area, the Service recommends that USACE and the nonfederal sponsor be responsible for preservation and maintaining the enclosed wetlands as the flood storage area within the levee system.

5. Due to concerns that the construction of the levee may alter natural periods of inundation or soil saturation in the impounded and exterior wetlands and could prove detrimental to their function and longevity (e.g., maintain existing water exchange in regard to water depth, delays in water movement, water stacking, and impacts to water quality), the Service recommended additional investigations prior to authorization. USACE responded that the determination of number and locations of hydrologic gauges will be developed during PED phase and is part of the overall Operations and Maintenance (O&M) cost. To date this has not been completed during the PED phase. Therefore the Service again makes the following recommendations:
    a. USACE undertake, as necessary, hydrologic adaptions, such as gapping, both in the interior and exterior swamp to allow for adequate water exchange;
    b. USACE undertake, as necessary, the installation of additional culverts and/or water control structures in the levee to ensure adequate water exchange while maintaining that all structures should be closed only in advance of tropical storms;
    c. That USACE ensures that all structures should be closed only in advance of named tropical storms.
    d. That hydrologic gauges be placed and maintained in appropriate locations to assist in determining future impacts to enclosed and exterior forested wetlands. These gauges could be supported or cost-shared through existing activities such as through the US Geological Survey (USGS) or CRMS.
    e. Additionally, the Service recommends a biomass study be conducted to help determine impacts to the forested wetlands.

    If USACE has decided to not undertake the above recommendations the Service would like to meet and discuss a future course of action to ensure adequate mitigation for those impacts. That meeting should occur prior to the approval of the proposed changes.

6. The WSLP levee crosses four separate tracts of Maurepas Swamp WMA (i.e., Mellon, MC Davis, Rogers 1, Rogers 2). Each individual Act of Sale or Act of Donation requires property alienated by WSLP levee construction to be exchanged for other property of equal or greater wetland ecological function and value.

7. Operational plans for floodgates and water control structures should be developed to maximize the open cross-sectional area for as long as possible. Water control structure operation manuals or plans should be developed in coordination with the Service and other natural resource agencies.

8. To aid in water quality improvements, any pumping stations associated with the project should not discharge directly into canals or other open water bodies, but rather into wetland systems that can assimilate nutrients being discharged.

9. The trigger for structure closures would be tropical storm events. Therefore, the project would not close the system more often due to higher day-to-day sea level rise impacts. If the sponsor/operator sees a higher level of sea level rise and starts to see increased soil saturation/flooding in developed areas, they may want to change the operations to close the structures at high tides. A change in operations would be considered a separate project purpose and authorization and would require a new NEPA documentation and/or approval for this operational change. It is unknown at present how water levels within the system would be managed if a change in operation due to RSLR is realized. Hence, there is a potential for substantial additional indirect impacts to swamp and fish and wildlife resources to occur. If the system is closed more often due to higher RSLR impacts, the Service recommends additional impacts be evaluated and mitigated.

10. If it becomes necessary to use borrow sources other than the previously proposed environmentally cleared sites, the Service recommends USACE begin investigating potential borrow sources in coordination with the Service. Borrow sites to be considered should have minimal impacts to fish and wildlife resources. The Service provided a list of such sites via a September 9, 2008, letter and identified a priority selection process for borrow sites in our August 7, 2006, letter to USACE regarding the Greater New Orleans Hurricane and Storm Damage Risk Reduction project (Appendix A). That prioritization process should be utilized if additional borrow sites are needed (please contact Cathy Breaux (504)862-2689 or David Walther (337)291-3122 for more information).

11. The Service recommends that enough money be set aside for adaptive management to address potential impacts of the enclosed and exterior wetlands. The Service, LDWF, and other natural resource agencies should be coordinated with in the development of plans and specifications for all mitigation features and any monitoring and/or adaptive management plans. In addition, the Service recommends the Monitoring and Adaptive

Management Plan, as it is further developed, be provided to the Service and LDWF for review, comment, and input.

12. In order to avoid adverse impacts to bald eagles and their nesting activities the Service and LDWF recommend that a qualified biologist continue to inspect the construction site for the presence of new or undocumented bald eagle nest within 1,500 feet of the levee construction area.

13. In order to avoid adverse impacts to nesting wading bird colonies the Service and LDWF recommend that a qualified biologist continue to inspect the construction site for the presence of undocumented nesting colonies during the nesting season (i.e., September 1 through February 15 for wading bird nesting colonies and October through mid-May for bald eagles.

14. West Indian manatees occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). During in-water work in areas that potentially support manatees 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. For more detail on avoiding contact with manatee contact this office. Should a proposed action directly or indirectly affect the West Indian manatee, further consultation with this office will be necessary.

15. Construction of the WSLP levee will occur partly within the boundaries of Maurepas Swamp Wildlife Management Area. Please continue coordinate all activities within the WMA with LDWF. Please contact Cornelius Williams at 225-763-8807 or cjwilliams@wlf.la.gov for more information about appropriate WMA authorizations.

16. The Service recommends that the USACE contact the Service for additional consultation if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made and or finalized.

We appreciate the cooperation of your staff on this study. We look forward to our continued coordination with you to further protect fish and wildlife resources. If you need additional assistance or have questions regarding this letter, please contact Cathy Breaux (504/862-2689) of this office.

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INTRODUCTION

The U.S. Army Corps of Engineers (USACE) Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared a Supplemental Environmental Impact Statement (SEIS) for the New Orleans District (MVN) to evaluate impacts to the structural alignment levee and its associated mitigation in St. John the Baptist and St. Charles Parishes, Louisiana (LA), as described in the West Shore Lake Pontchartrain (WSLP) Environmental Impact Statement (USACE, 2016 WSLP EIS; http://www.mvn.usace.army.mil/About/Projects/West-Shore-Lake-Pontchartrain/. The Record of Decision (ROD) for the 2016 WSLP EIS was signed by the Assistant Secretary of the Army on September 14, 2016. Funding for the construction of the WSLP project was appropriated via Public Law 115-123, the Bipartisan Budget Act of 2018 (BBA-18) which was signed into law February 9, 2018. Changes to the WSLP levee alignment in St. John the Baptist and St. Charles Parishes would occur outside of the Right of Way (ROW) described in the 2016 WSLP EIS. The Fish and Wildlife Service (Service) has prepared two Fish and Wildlife Coordination Act Reports for the WSLP Feasibility Study Environmental Impact Statement in April 2014 and Surveys and Borings EA in May 2019, one comment letter on the Chief of Engineers Report in Feb 2015, five Planning-aid Reports dated January 21, 1985, June 30, 1987, April 3, 1997, May 4, 2001, and October 9, 2012, for previous reconnaissance studies, and one letter for a Notice of Intent dated January 9, 2009. These reports are herein incorporated by reference.

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PROPOSED ACTION

The levee system location and features are similar to what was proposed in the 2016 WSLP EIS with a few modifications. It would begin at the upper guide levee of the Bonnet Carré Spillway - (BCS), north of an underground utility pipeline right-of way (ROW) and Highway (Hwy) 61. The levee system would then continue northwest paralleling a pipeline ROW and pass under Interstate (I) 10. West of I-10 the levee system would enclose the I-10 and I-55 interchange and cross Hwy 51. It would then track north of I-10 paralleling a large pipeline transmission corridor. Past the Belle Terre I-10 exit, the levee system would pass back under I-10 and parallel the pipeline corridor until it crosses Hope Canal. The levee system would then turn south; cross the same pipeline transmission corridor it paralleled, extending to the Mississippi River Levee

(MRL). The majority of the levee system would be constructed in coastal swamp and bottomland hardwood forests.

The levee system would be between approximately 570 – 650 feet wide in the reach from the upper guide levee of the BCS to near the crossing at Hwy 61. West of that crossing, it would decrease to approximately 300 feet wide. A hypothetical corridor representing the maximum size of the levee system is shown n Figure 1. The larger ROW corridor indicates the location in which the levee system could occur. This corridor would allow for slight shifts in alignment during further engineering and design, and construction of the levee system, but would not allow for an increase in size beyond the hypothetical corridor. It would also allow for impacts to the River Reintroduction into Maurepas Swamp Project to be minimized, if it is constructed.

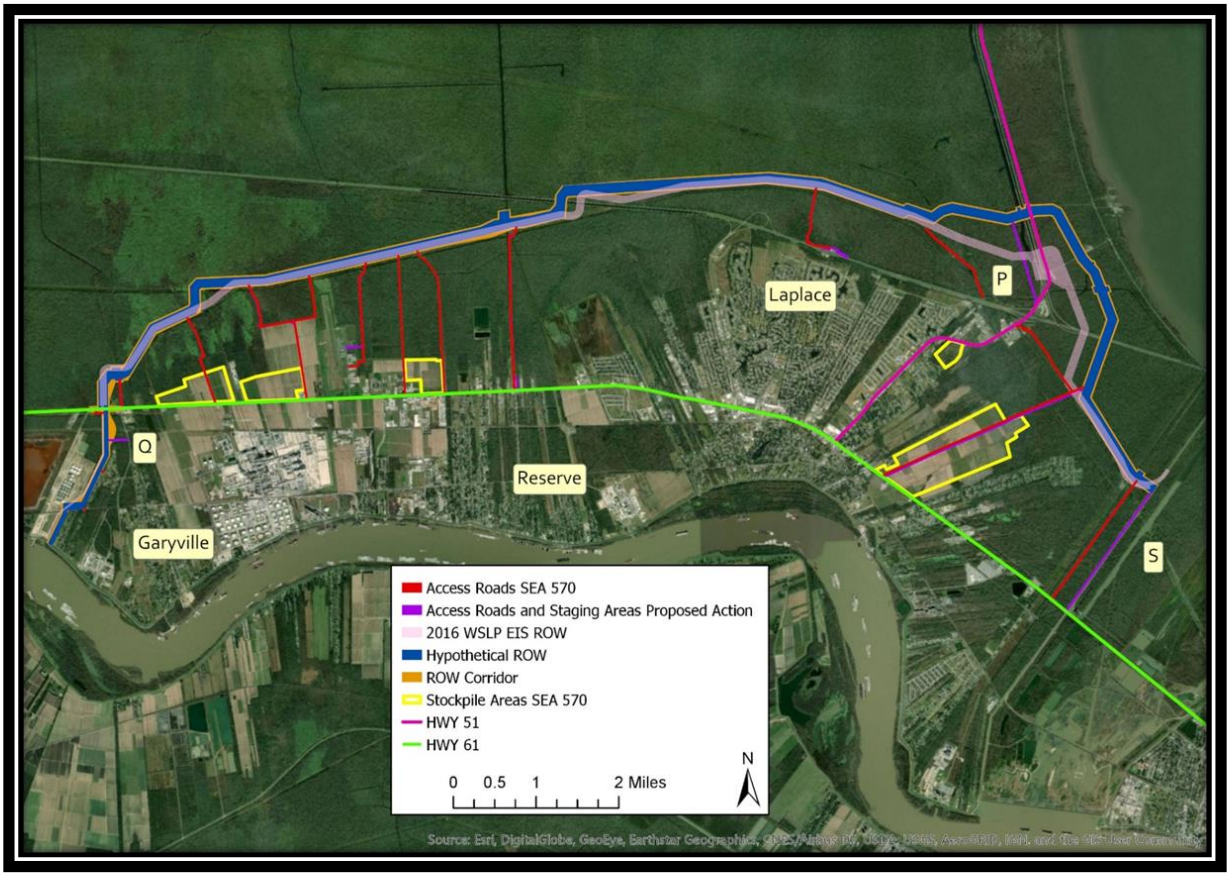

Figure 1. Map showing WSLP Levee System ROW Corridor and Hypothetical ROW and Impact areas evaluated.

Borrow plan

The borrow materials (clay and sand) used to construct the subject levee would be obtained from designated clay and sand sources in the BCS tailbay and forebay, as described in the 2016 WSLP EIS and the 1985 Supplemental Information Report. The material would be excavated and stockpiled at designated stockpile sites in the BCS or within the Stockpile Areas discussed in

Supplemental Environmental Assessment (SEA) 570. Suitable material excavated during construction of the interior drainage canal may be stockpiled and used for levee construction. The contractor could also be allowed to obtain clay and sand from permitted commercial sources. Additionally, borrow material could be excavated from within the stockpile areas described in SEA 570 and shown in Figure 1.

Access road locations and plans

All access roads described in SEA 570, as well as Access Road P, Q, and the BCS upper guide levee berm, could be used for temporary construction and/or permanent access between US Highways 51 or 61 to the levee ROW (Figure 1). Construction of permanent access roads could be either improvement to existing roads or construction of new roads. The new access roads would provide an approximately 30 foot drivable width for a two-way haul access road within an approximately 40 foot wide ROW from Hwy 61 or Hwy 51 to the levee ROW. To maintain adjoining wetlands flow, culverts under the access roads would be constructed as needed within the 40 foot ROW. Additional ROW of approximately 0.1 acres would be needed for the installation of each culvert. Access road designs would include culverts, sluice gates or other means, such as a bridges, to maintain existing flow within any waterway crossings, to the extent practicable.

Project Feature Details

Levees and Floodwalls: Levees and floodwalls would be the primary features of the hurricane and storm risk reduction system. The levees would be designed to USACE Hurricane and Storm Damage Risk Reduction System requirements and would be constructed of suitable clay including stability berms as required. Initial levee elevations would range from approximately 8.5 feet to 15 feet North American Vertical Datum of 1988 (NAVD88). All floodwalls would be constructed to elevations which would provide the required level of risk reduction throughout the project life, taking into consideration projected sea level rise and subsidence over 50 years. Initial floodwall elevations would range from approximately 16 feet to 19 feet. Future levee lifts would increase the levee's elevation in order to maintain the required level of risk reduction throughout the 50-year life of the project, as described in the 2016 WSLP EIS. An approximately 10 foot wide surfaced road would be constructed on the levee crown, floodside berm, or protected side berm for inspection vehicles. Bridges would be constructed on either the floodside or protected side of the station at the drainage structures and pump station crossings.

New Drainage Canals: An interior and exterior drainage canal would be located parallel to the earthen levee section for the majority of the levee system ROW. Both canals would be built within the limits of the hypothetical ROW shown in Figure 1. The interior canal is expected to have a maximum of approximately 100 foot top width, 40 foot bottom width, and -10 foot NAVD88 bottom elevation. The interior canal would be designed to minimize direct impacts to forested wetlands, existing hydrology, and drainage. The exterior canal is expected to have a maximum of 40 foot top width, 5 foot bottom width, and -5foot NAVD88 bottom elevation.

Western Section: The western section of the levee system would be from the Hope Canal to the MRL. The Louisiana Coastal Protection and Restoration Authority (CPRA) could design and construction some or part of the levee system components of the western section of the levee system; however, USACE would determine the final alignment of this section. Design and location of the western section of the levee system may be co-located with the eastern guide levee of the River Reintroduction into Maurepas Swamp Project. The earthen levee sections between these stations would be from approximately 300 feet up to 600 feet wide.

Additional Gates and T-wall Features: The project would also require construction of T-walls across pipeline corridors and below the three interstate crossings. A 10 foot-wide access road would run along the protected side of the T-walls across the pipeline corridors that would include additional sand and crushed stone to reduce pressures for maintenance vehicles crossing the pipelines.

Drainage Structures and Pumping Stations: All Drainage structures and pump stations would occur within the limits of the ROW as shown in Table 1. Drainage structures would be located along the alignment near the Canadian National Railroad, Hope Canal, Mississippi Bayou, Reserve Relief Canal, Perriloux Canal, Ridgefield Canal, I-55 canal, Montz Canal north and south, and Prescott Canal. All but one of the drainage structures would contain sluice gates that would be approximately 16 feet wide by 16 feet high with a bottom elevation of approximately -10 feet NAVD88. The sluice gate at the Canadian National Railroad would be approximately 5 feet wide x 5 feet high. An 18 foot wide bridge would be constructed across the structure to carry maintenance and inspection vehicles. Four to six pumping stations would be located along the alignment adjacent to the drainage structures at four to six of the following locations: Ridgefield, Hope Canal, Reserve Relief Canal, Montz South, I-55, and Prescott Canal. The maximum number of pump stations, sizes of the drainage structures and range of pumping station capacities are listed below:

Table 1. Location and capacity of the West Shore Lake Pontchartrain Project drainage structures and pump stations

Location	Number of Sluice Gates	Pump Station Capacity Range
Canadian National Railroad	1	
Hope Canal	2	400-800 cfs
Mississippi Bayou	2	-
Reserve Relief Canal	1	1200-2000 cfs
Perriloux	1	-
Ridgefield	1	800 cfs
I-55 Canal	5	1200-2000 cfs
Montz North Canal	1	-
Montz South Canal	1	800 cfs
Prescott Canal	1	400-800 cfs

In addition to the sluice gate at Reserve Relief Canal, an adjacent navigable gate would be constructed within the canal to allow for the passage of recreational boats.

Staff gages would be provided at the flood side and protected side of the pump stations and drainage structures. The drainage structures would remain open at all times except when they would be closed for tropical storm events. Closure for tropical storm events would be the same as described in the 2016 WSLP EIS. Pumping would only occur during the threat of tropical storm events to preclude flooding when the floodgates are closed. Canals and drainage structures would be used to reduce impacts to hydrology and allow for connectivity between protected and unprotected areas. The amount of time the gates would remain closed would depend on a given storm's characteristics such as forward speed, rainfall, and storm track which impact water levels, and could remain closed for approximately 8.5 days on average. The days per year of system closure would vary by year and be dictated by tropical storm activity.

Alterations of Spoil Banks: Gapping of existing spoil banks would be considered within the vicinity of the project if such gapping would be necessary or desirable to facilitate drainage and/or maintain existing water flows within the project area.

Sand base placement plan: A 70 foot to 100 foot wide sand base would be constructed using sand hauled in from either the sand stockpile referenced in Section 1 or from a contractor furnished commercial sand source. The material would be back dumped and spread by a bull dozer in order to force soft material outward from the levee section. Any displaced soft material formed by construction of the sand base would remain within the alignment ROW, but removed from the levee design section. The sand would be placed until it has reached the minimum elevation of approximately 3 feet NAVD88.

FISH AND WILDLIFE RESOURCES

See Appendix A for scientific names of species.

The dominant forested habitat types in the study area are bottomland hardwoods and swamp. Vegetation commonly found in these wetland areas includes sugarberry, red maple, sweetgum, American elm, black willow, green and pumpkin ash, and water oak, in the bottomland hardwood habitat and bald cypress, tupelo gum, lizard's tail, swamp lily, buttonbush, and duckweeds in the swamp habitat. Scattered portions of upland hardwoods, scrub/shrub uplands, and scrub/shrub wetlands also are found along and within the developed areas. Except for Lake Pontchartrain, Lake Maurepas, and the Mississippi River, which border the study area, most of the open water within the study area consists mainly of tidal streams, canals, and ditches. The shallower open water areas may support submerged and/or floating aquatic vegetation such as alligator weed, dollar weed, coontail, frog bit, naiads, water hyacinth, American lotus, and pondweeds.

Development for residential, commercial, and industrial purposes is located immediately adjacent to U.S. 61 and along the Mississippi River levee. Agriculture, primarily sugarcane

production, is also extensive within that portion of the study area. Residential and commercial development is also becoming extensive between U.S. 61 and I-10, as wetlands are drained and/or filled to accommodate growth. Most of U.S. 61 and portions of I-10 are located on earthen embankments thus impacting the hydrology of those swamps. The wetland complex they cross is part of the largest contiguous forested wetland area in Louisiana.

The fresh water of the study area supports many commercially and recreationally important fishes such as largemouth bass, black crappie, sunfishes, catfishes, freshwater drum, buffalos, and gars. Decaying plant material (detritus) is carried by surface runoff and tidal action from the study area wetlands into the adjacent estuarine waters, substantially contributing to the detritus-based food web that supports a high level of finfish and shellfish productivity.

The coastal marshes and forested wetlands of the Lake Pontchartrain Basin have been identified by the North American Waterfowl Management Plan (NAWMP), Gulf Coast Joint Venture (GCJV): Mississippi River Coastal Wetlands Initiative as a key waterfowl wintering area. The Gulf Coast is the terminus of the Central and Mississippi Flyways and is therefore one of the most important waterfowl areas in North America, providing both wintering and migration habitat for significant numbers of the continental duck and goose populations that use both flyways. The Mississippi River Coastal Wetlands Initiative area is dominated by coastal marsh, forested swamps, and seasonally flooded bottomland hardwoods that provide habitat for several species of wintering waterfowl. Wood ducks are the primary waterfowl species in forested wetlands, while other ducks (e.g., mallard, American widgeon, gadwall, and lesser scaup) use those forested habitats to a lesser degree. One strategy to achieving the goals and objectives of the GCJV is to maintain the existing functions and values of those habitats and prevent additional losses and degradation of those wetlands (Wilson 2002). Numerous other game birds are present in or adjacent to the study area, including American coot, rails, gallinules, common snipe, and American woodcock. Non-game bird species also utilize the study area marshes, including least bittern, pied-billed grebe, black-necked stilt, American avocet, killdeer, black-bellied plover, willet, and various species of sandpipers and gulls. The study area supports many resident and transient hawks and owls including red-shouldered hawk, barn owl, common screech owl, great horned owl, and barred owl. Winter residents include red-tailed hawk, northern harrier, and American kestrel, while the Mississippi kite, swallow-tailed kite and broad-winged hawk are common summer residents. In addition, the project area supports many species of resident and migratory passerine birds. Some neo-tropical migrants that are currently experiencing a population decline (e.g., white-eyed vireo, northern parula) are dependent on large forested acreage to successfully reproduce. Also, present are cuckoos, swifts, hummingbirds, nighthawks, woodpeckers, and the belted kingfisher.

Important game mammals occurring in the project area include white-tailed deer, eastern cottontail, swamp rabbit, gray squirrel, and fox squirrel. Commercially important furbearers include muskrat, nutria, river otter, raccoon, and mink. Other mammals expected include various species of insectivores, bats, rodents, and the nine-banded armadillo.

Numerous amphibians are expected to occur on stream and lake edges, ponds, and in forested wetlands of the study area including lesser siren, three-toed amphiuma, Gulf Coast toad, eastern

narrow-mouthed toad, spring peeper, green treefrog, cricket frog, and bullfrog. Commercially important reptiles found in the streams, canals, and open water areas include American alligator, snapping turtle, alligator snapping turtle, smooth softshell turtle, and spiny softshell turtle. Other reptiles commonly found in the project area include red-eared turtle, painted turtle, Mississippi mud turtle, stinkpot, green anole, broad-headed skink, various water snakes, western ribbon snake, speckled kingsnake, and the western cottonmouth.

Endangered and Threatened Species

To aid the USACE in complying with their proactive consultation responsibilities under the Endangered Species Act (ESA), the Service provided a concurrence letter for threatened and endangered species and their critical habitats (May 2014).

Federally-listed threatened and endangered species that could be encountered in the project area are the threatened Atlantic sturgeon, and the threatened West Indian manatee. USACE should consult with the NMFS regarding sea turtles.

The Service provides the following additional information and guidance on best management practices (BMPs) for construction of the project:

The Atlantic sturgeon, federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine and marine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. In Louisiana, Atlantic sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain Basin, the Pearl River System, and adjacent estuarine and marine areas. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May). Adults and sub-adults may be found in those rivers and streams until November, and in estuarine or marine waters during the remainder of the year. Atlantic sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations such as those caused by water control structures and navigation projects that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species.

On March 19, 2003, the Service and the National Marine Fisheries Service (NMFS) published a final rule in the Federal Register (Volume 68, No. 53) designating critical habitat for the Atlantic sturgeon in Louisiana, Mississippi, Alabama, and Florida. In Louisiana, the designation includes portions of the Pearl and Bogue Chitto Rivers and Lake Pontchartrain east of the Lake Pontchartrain Causeway, as well as Little Lake, The Rigolets, Lake St. Catherine, and Lake Borgne in their entirety. The primary constituent elements essential for the conservation of Gulf sturgeon, which should be considered when determining potential project impacts, are those habitat components that support feeding, resting, sheltering, reproduction, migration, and physical features necessary for maintaining the natural processes that support those habitat components. The primary constituent elements for Atlantic sturgeon critical habitat include:

- abundant prey items within riverine habitats for larval and juvenile life stages, and within estuarine and marine habitats for juvenile, sub-adult, and adult life stages;

- riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;

- riverine aggregation areas, also referred to as resting, holding and staging areas, used by adult, sub-adult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths, believed necessary for minimizing energy expenditures during freshwater residency and possibly for osmoregulatory functions;

- a flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging; and necessary for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larvae staging;

- water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages;

- sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and,

- safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., a river unobstructed by a permanent structure, or a dammed river that still allows for passage).

Further consultation with this office will be necessary if the proposed action may directly or indirectly affect the Atlantic sturgeon. In addition, should the proposed action involve federal implementation, funding, or a federal permit and directly or indirectly affects designated critical habitat, further consultation with this office or the NMFS will be necessary. As part of the critical habitat designation, the Service and NMFS consultation responsibility was divided by project location and Federal action agency. In riverine waters, the Service is responsible for all consultations regarding Atlantic sturgeon and critical habitat, while in marine waters the NMFS is responsible for consultation. For estuarine waters, the Service is responsible for consultations with the Department of Transportation (DOT), the Environmental Protection Agency (EPA), the U.S. Coast Guard (USCG), and the Federal Emergency Management Agency (FEMA). All other Federal agencies should consult with the NMFS office (Ms. Cathy Tortorici at 727.209.5953).

The threatened West Indian manatee is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have

been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees may also infrequently be observed in the Mississippi River and coastal areas of southwestern Louisiana. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

During in-water work in areas that potentially support manatees 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.

- 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.

- Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: “CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT”. A second temporary sign measuring 8½ " X 11” should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: “CAUTION: MANATEE AREA/ EQUIPMENT MUST BE

SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".

- Collisions with, injury to, or sightings of manatees should be immediately reported to the Service's Louisiana Ecological Services Office (337-291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225-765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

- To ensure manatees are not trapped due to construction of containment or water control structures, we recommend that the project area be surveyed prior to commencement of work activities. Should a manatee be observed within those areas, the contractor should immediately contact the Service's Louisiana Ecological Services Office (337-291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225-765-2821).

Should a proposed action directly or indirectly affect the West Indian manatee, further consultation with this office will be necessary.

Essential Fish Habitat

The project may be located within an area identified as Essential Fish Habitat (EFH) by the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA, Magnuson-Stevens Act; P.L. 104-297). USACE should consult with the NMFS regarding EFH.

Species of Concern

Species of fish, wildlife, and plants labeled as "S1" and S2" by the Louisiana Department of Wildlife and Fisheries are extremely and very rare species, respectively, that are vulnerable to extirpation in Louisiana. Some of these species may also be referred to as at-risk species; the USFWS has defined at-risk species as those species that have either been proposed for listing, are candidates for listing, or have been petitioned for listing. These species, along with those identified as priority species by the Gulf Coast Joint Venture are species of management concern. Continued population declines could result in these species becoming candidates for listing under the Endangered Species Act. Species of concern that would use study area's swamp, bottomland hardwood, and fresh wetland habitats include the glossy ibis, golden warbler, and the peregrine falcon.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) and the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-

d) offer protection to many bird species within the project area including colonial nesting birds, osprey, and the bald eagle . We continue to recommend that a qualified biologist inspect proposed work sites for the presence of undocumented colonial nesting colonies during the nesting season (e.g. February through September depending on the species). If colonies exist, work should not be conducted within 1,000 feet of the colony during the nesting season.

On-site personnel should also be informed of the possible presence of nesting bald eagles and ospreys within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest is located within 660 feet of the proposed activities, USACE should complete an on-line evaluation (http://www.fws.gov/southeast/birds/Eagle/tamain.html) to determine potential disturbance to nesting bald eagles and any protective measures necessary. A copy of that evaluation should be provided to this office. If assistance is needed in completing the evaluation please contact this office.

Managed Areas and Restoration Projects

The LDWF operates the Maurepas Swamp Wildlife Management Area (MSWMA) which encompasses over 100,000 acres of wetlands in and around the study area. Unavoidable direct and indirect impacts to the MSWMA should be mitigated for on the WMA. In addition, the MSWMA could be considered for mitigation of unavoidable impacts to other swamp areas. For all activities occurring on the MSWMA (excluding previously authorized survey activities) the USACE shall obtain a Letter of Authorization from LDWF. Please contact Cornelius Williams by phone at 225-763-8807 or via email at cjwilliams@wlf.la.gov for further additional information regarding any additional permits that may be required to perform work on that WMA.

In addition, two federally approved wetland mitigation banks are located within the study area including the Sawgrass Bayou Mitigation Area owned by Blind River Properties (Mr. Dale Martin, 225/698-2700), and the Lake Maurepas Mitigation Area owned by Stream Properties, LLC (Mr. Jeff Peterson, 337/433-1055, ext. 20). If the proposed project entails work within or adjacent to those bank sites, or if an alternative could potentially alter the hydrology of those sites, then the bank sponsors and the mitigation interagency review team should be contacted.

The Mississippi River Reintroduction into the Maurepas Swamp Project (Maurepas Diversion) and has been approved for funding once engineering and design (current phase) and permitting are complete. The west end of the WSLP levee project is adjacent to the Maurepas Diversion project. Close coordination needs to be maintained throughout the construction of both projects. In addition, the Maurepas Diversion is being considered in part as potential mitigation for the WSLP project impacts along with other the Bipartisan Budget Act of 2018 project impacts including Flood Control, Amite River and Tributaries, Louisiana, Comite Riverr Basin, Comite River Diversion Project and the East Baton Rouge Flood Risk Reduction Project.

Subsidence, sea level rise, and hydrologic modifications coupled with the isolation of project area wetlands from the natural overflow of the Mississippi River that formerly sustained these

wetlands, is causing the degradation of the quality and quantity of project area wetlands. Projects such as the above Maurepas Diversion have the goal of restoring some of the natural Mississippi River overflow processes.

EVALUATION METHODOLOGY

The Wetland Value Assessment (WVA) model for Civil Works Version 2.0 (Swamp WVA) and the WVA Bottomland Hardwoods Community Model for Civil Works Version 1.2 (BLH WVA) models were used to assess direct and indirect impacts for WSLP project features proposed for construction. These models are approved for regional use on USACE Civil Works projects. In the WVA habitat quality and quantity are measured for baseline conditions and predicted for future without-project (FWOP) and future with-project (FWP) conditions. WVA allows a numeric comparison of each future condition and provides a quantitative estimate of project-related impacts to fish and wildlife resources. Results are annualized over the project life to determine the Average Annual Habitat Units (AAHUs) available for each habitat type. The change (increase or decrease) in AAHUs between FWP and FWOP scenarios provide a measure of anticipated impacts. A net gain in AAHUs indicates that the project is beneficial to the habitat being evaluated; a net loss of AAHUs indicates that the project is damaging to that habitat type. For more information on how the WVA was used for this project please contact Cathy Breaux of this office (504-862-2689) for the WSLP WVA spreadsheets and accompanying WVA Assumptions Document.

The Service define impacts as effects relative to the affected fish and wildlife resources. Impacts may be direct or indirect. Direct impacts are all project-related direct (construction) impacts. Indirect impacts are impacts from an action that occur later in time or farther removed in distance and they may have landscape-scale implications.

Impact areas used for evaluation are shown on Figure 2.

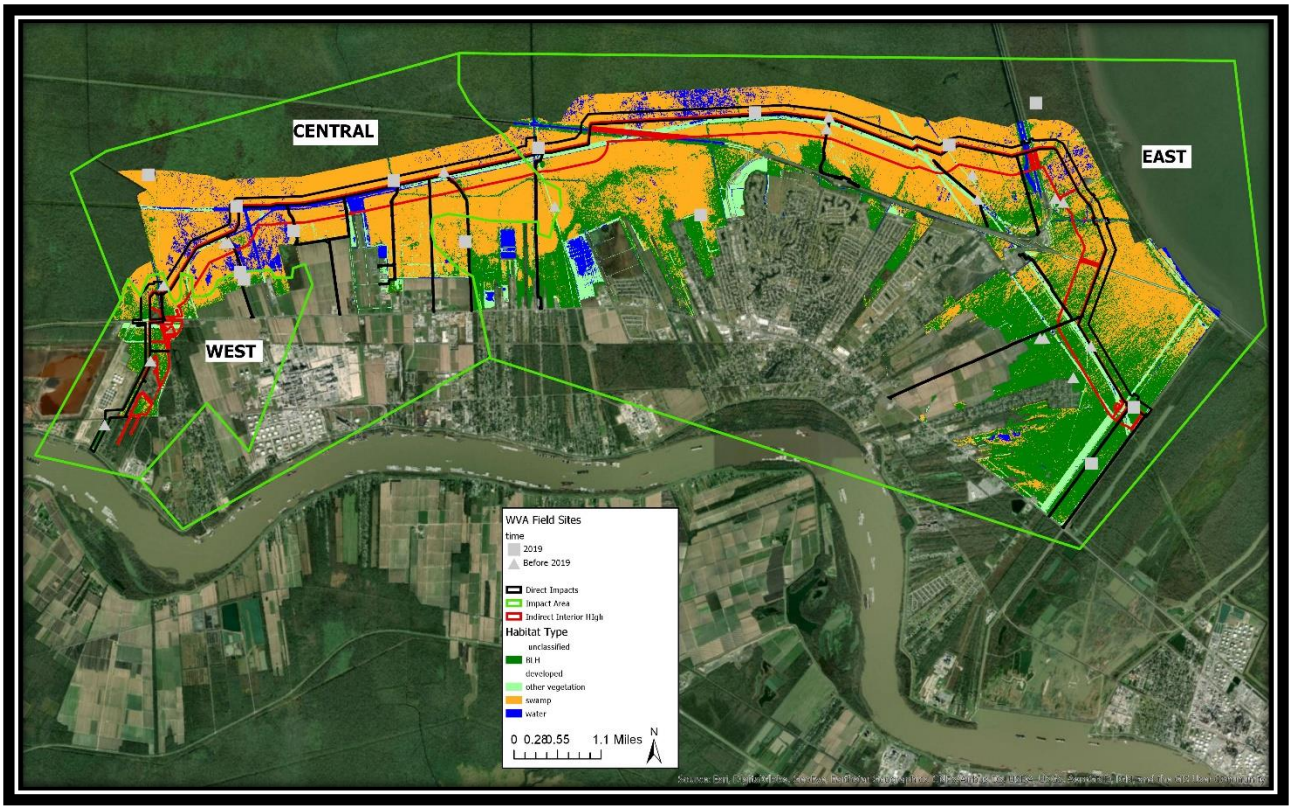

Figure 2. The 3 floristic quality sections: East, Central, and West are within the green polygons. Habitat types (swamp, BLH, etc) are shown for impact areas (Direct and Indirect) only. The Direct Levee and Access Road impact areas are shown in black. The Indirect Exterior impact area is from the north side of Direct Levee to the Exterior (mostly north) edge of habitat type. The Interior Indirect High impact area is shown in red. The Interior Indirect Low impact area is the remaining area between the red (Indirect High) and the developed area to the south. Wetland Value Assessment Plots from the Feasibility Study are shown as squares and from summer 2019 are shown as circles.

The U.S. Army Engineer Research and Development Center's (ERDC) Remotely Sensed Habitat Assessment and Geographic Information Systems (GIS) data (ERDC RS/GIS data) was used to determine areas of similarity based on health of forested wetlands. Based on the results, the project area was separated into three geographically distinct areas - the East, Central, and West (Figure 3).

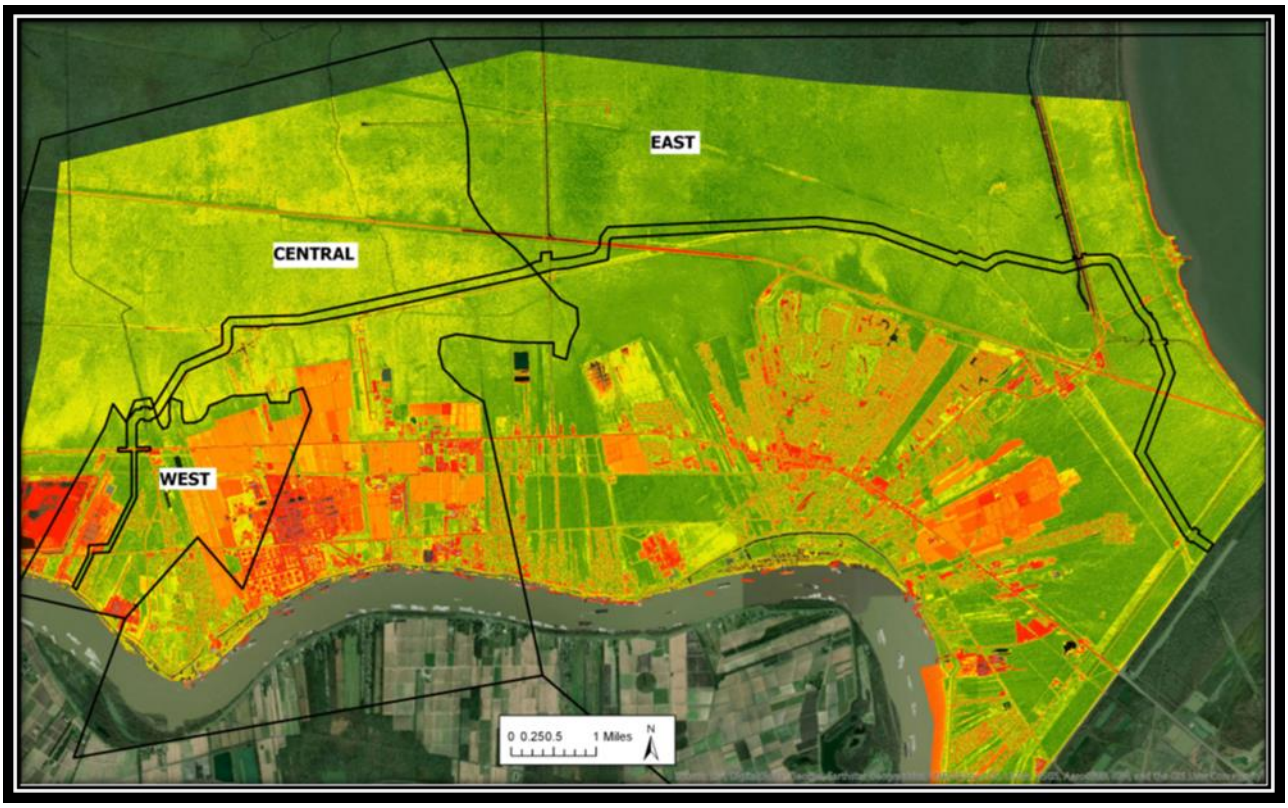

Figure 3. ERDC GIS/RS NDVI raster data with east, west, and central areas for the West Shore Lake Pontchartrain Project.

Within those three geographic areas, impacts were classified as either Direct (Direct Levee and Access Road Footprints), Indirect Interior (area between the levee alignment and the developed area), and Indirect Exterior (area outside of and adjacent to the levee system) areas (Figure 2). The Direct Levee and Access Road (Direct) impact areas are shown in black. Indirect Exterior (Indirect Exterior) impact area is from the north side of the Direct to the Exterior (mostly north) edge of habitat type. The Indirect Interior High (Indirect High) impact area is shown in red. The Interior Indirect Low (Indirect Low) impact area is the remaining area between the red (Indirect High) and the developed area to the south.

HEC-RAS 2D modeling (both with and without an intermediate RSLR) revealed that a slight increase in inundation occurred in some locations near the levee alignment. Indirect impact areas were determined based on the project-induced hydrology changes. The Indirect Exterior and High areas were delineated to capture the project-induced hydrologic changes (Figures 2, 4 and 5). The Indirect Low impact area was not anticipated to have hydrology impacts (Figures 2, 4 and 5).

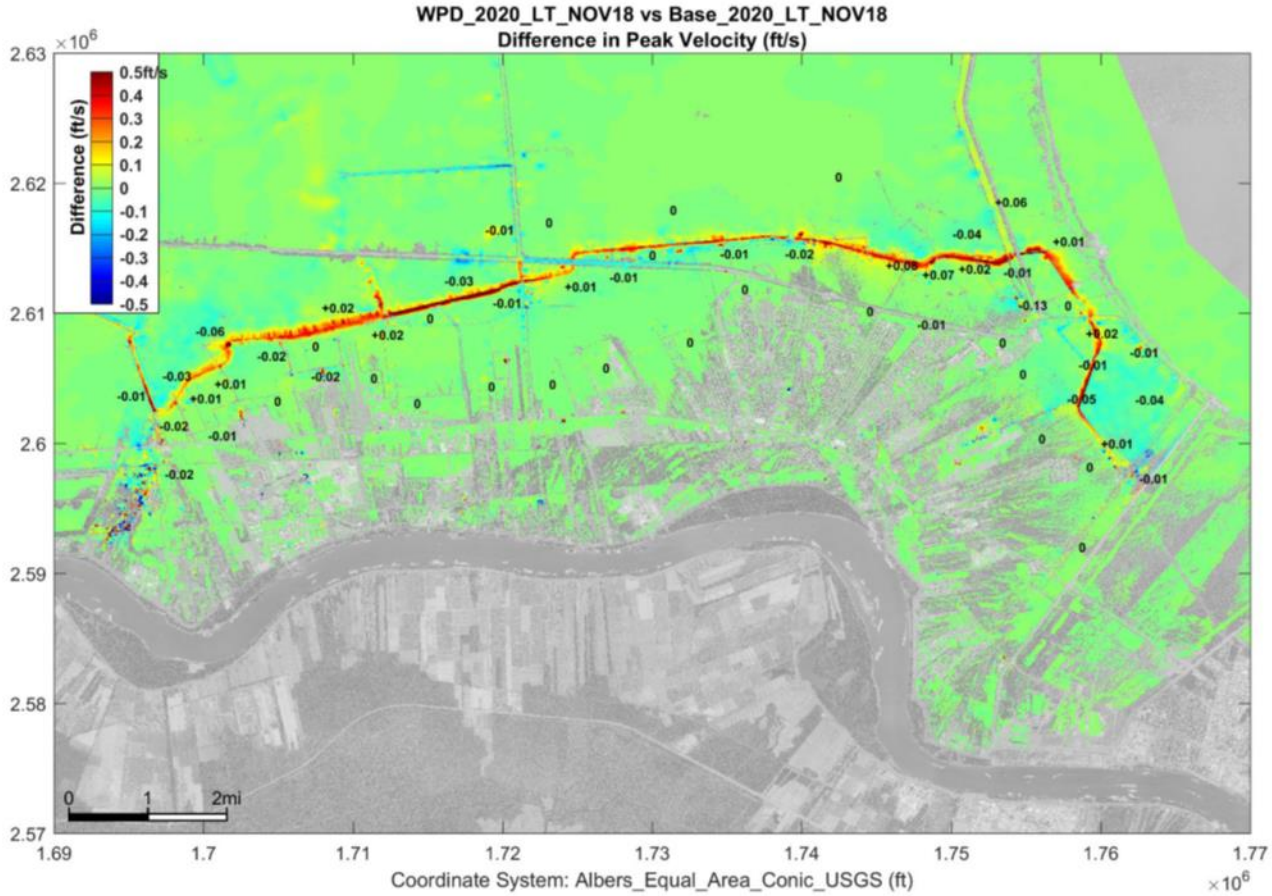

Figure 4. Maximum water velocity difference between West Shore Lake Pontchartrain with and without project for simulation set B1 (B1 is a simulation from November 1, 2018 to November 30, 2018 of observed tidal time-series for Average water surface elevation 0.55foot). Blues and yellows indicate areas of change due to the project while orange to dark indicate the levee alignment.

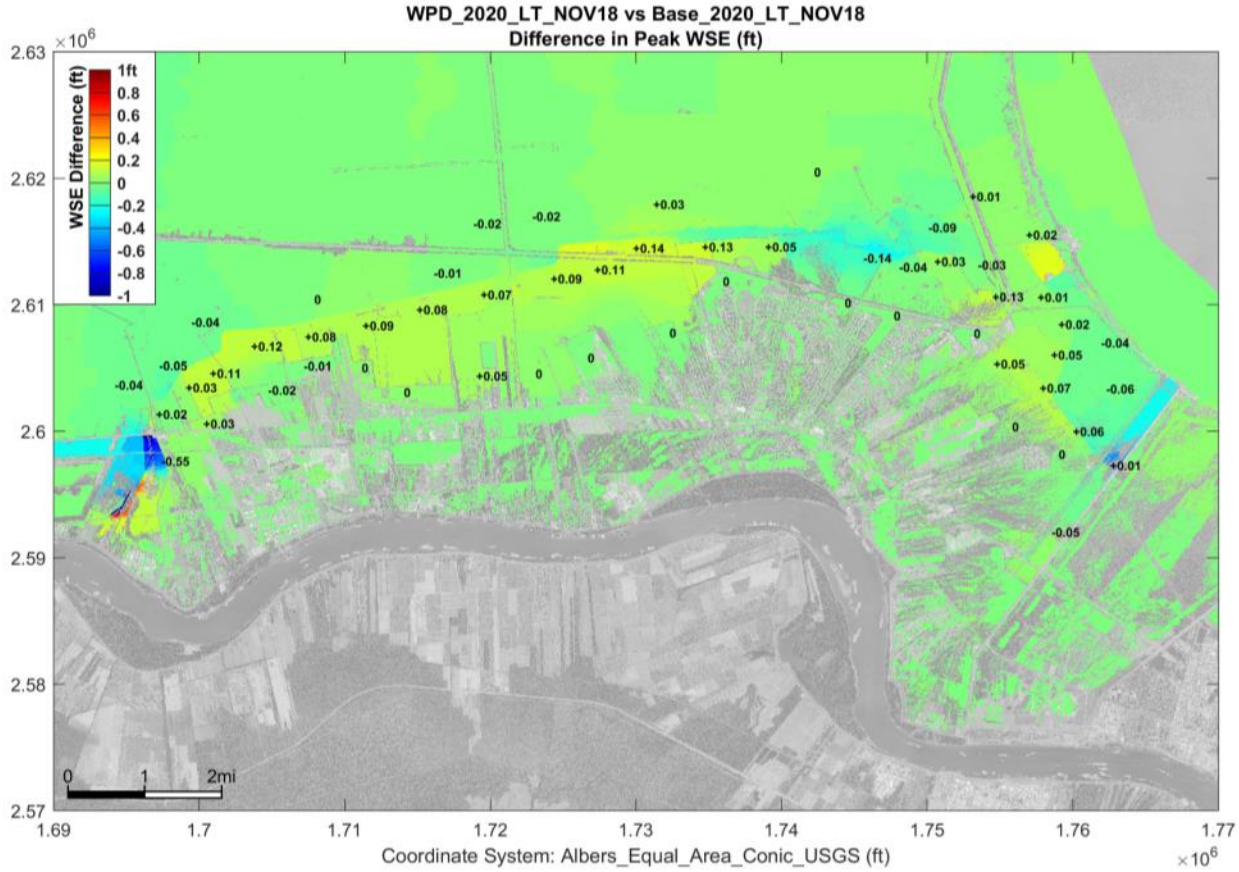

Figure 5. Maximum water surface elevation difference between West Shore Lake Pontchartrain with and without project for simulation set B1 (B1 is a simulation from November 1, 2018 to November 30, 2018 of observed tidal time-series for Average water surface elevation 0.55foot). Blues and yellows indicate areas of change due to the project while orange to dark indicate the levee alignment.

Swamp and BLH were considered together as a large contiguous forest. The ERDC GIS/RS data, 2016 National Land Cover Database (NLCD) data, NWI, and available imagery were used to determine sizes of contiguous forested (V5 Size of Contiguous Forested Area), to categorize surrounding land uses (V6 Suitability and Traversability of Surrounding Land Uses), and to classify the disturbance type (V7 Disturbance) for each area evaluated. The levee footprint changed to non-forested habitat for all FWP scenarios. Access roads were considered to be too small to fit criteria since they were all a maximum of 40 feet wide.

A Habitat Evaluation Team (HET) was formed to assist with and concur on the methodology and quantification of environment impacts.

HEC-RAS 2D modeling indicated there were minor project-induced hydrology changes (Figures 4 and 5). To minimize hydrology impacts to enclosed wetlands, the project includes features such as interior drainage canals, water control structures within the levee system and pumping stations (See Project Feature Details Section). Proposed pumping stations would only operate

during the threat of tropical storm events when floodgates are closed. Canals and drainage structures would be used to reduce impacts to hydrology and allow for connectivity between protected and unprotected areas.

Despite inclusion of project features to avoid hydrology impacts, the HEC-RAS modeling revealed that a slight increase in inundation occurred in some locations near the levee alignment (in the Indirect Exterior and Indirect High areas). Increased water depth can reduce the transfer of oxygen to roots. Depth increases indicate a with-project reduction in water exchange which might lead to water quality deterioration. The combined effects of these changes to water movement might stress previously healthy swamps and result in a reduction in forest diversity and productivity (Krauss et. al. 2009). The reduction in forest diversity and productivity can be seen through a reduction of soft mast production and by limiting the development of stand structure (overstory, midstory, and understory) which are important for provide resting, foraging, breeding, nesting, and nursery habitat.

A Digital Elevation Model (DEM) created from LIDAR data was used to generate initial elevation conditions for the HEC-RAS hydrologic model. LIDAR data does not typically provide accurate estimates of ground elevations in turbid flooded wetlands, especially those with floating aquatic vegetation which is very common in the project area. Additionally, minor typography/bathymetry features which can effect hydrology, are sometimes not captured in LIDAR based DEMs. Thus the HET is concerned that the HEC-RAS hydrologic model may not accurately reflect restrictions in hydrologic surface-flow post-construction. Based on the DEM issues and associated modeling inaccuracies, and the HETs knowledge and experience associated with swamp habitats and the project area, the HET agreed that additional indirect impacts to swamp habitats beyond what was indicated in the HEC-RAS 2D models are likely.

Coastwide Reference Monitoring System (CRMS) CRMS0059 and CRMS5373 station data indicated the substrate was flooded all or most of the time at those sites. Based on U.S. Army Engineer Research and Development Center's (ERDC) Remotely Sensed Habitat Assessment and Geographic Information Systems (GIS) data (ERDC RS/GIS data), WVA field observations, hydrologic model results, and CRMS data from 2007 or 2012 to 2019, the level of inundation was determined to vary from zero to 3 feet or deeper. Floating aquatic vegetation was observed during field site visits. Portions of the Project Area swamps are presently severely inundated and stressed. Though the Indirect High swamp were found on average to be fairly healthy. Even though FWP all Indirect Exterior and Indirect High swamp may experience changes in water movement, only the healthier Indirect High swamp were evaluated to have additional impacts beyond that indicated by hydrologic modeling results.

Hydrologic impacts were captured in the WVA for these two impact areas (Indirect Exterior and Indirect High) in the WVAs Swamp V3 Water Regime and Bottomland Hardwood V4 Hydrology variables. These variables consider the flooding duration and amount of water flow/exchange. Although the hydrologic modeling results indicated a slight with-project increase in inundation, the HET chose not to apply WVA impacts due to increased inundation. Instead, the HET assumed that near the levee alignment there would be a reduction in water flow/exchange. Therefore, the flow/exchange part of the variable was reduced by one increment

at FWP target year (TY) 1 near the levee alignment (Indirect Exterior and Indirect High) to account for the hydrology changes predicted by hydrologic modeling.

A delayed response to the with-project hydrology changes is also captured in the WVA Stand Structure variable (V1) for Indirect High FWP starting at TY10 by dropping one class level (Table 2). The Indirect High area is where the HET expected to see the greatest impact due to changes in hydrology because these healthier swamps would be more susceptible to elevated stress levels from restrictions in hydrologic surface-flow post-construction. The Indirect Exterior area on average was already stressed thus not likely to add significant additional stress with the project. The Indirect Low area was considered to be too far removed to have hydrologic impacts with the project.

The Indirect Low impact area was selected because the HET assumed that slight development impacts would occur in this area. These impacts were captured by WVA variables V5-V7 (size of contiguous forested area, surrounding land uses, and disturbance). No hydrology impacts were anticipated in this area (Figure 2)**.**

Table 2. V1 Stand Structure Class for Indirect High Swamp Impacts.

East and West Indirect High Inside		
	FWOP Class	FWP Class
TY0	6	6
TY1	6	6
TY5	6	6
TY10	6	5
TY40	5	4
TY50	5	4

Central Indirect High Inside		
	FWOP Class	FWP Class
TY0	4	4
TY1	4	4
TY5	4	4
TY10	4	3
TY40	3	2
TY50	3	2

IMPACTS OF PROJECT CONSTRUCTION

The WSLP project will provide levee protection for Laplace, Reserve, and Garyville. Modeling and other data indicated there were minor project-induced hydrology changes near the alignment. Based on WVA of all direct and indirect areas the WSLP project will have unavoidable impacts to 10,892 acres of swamp and 4,877 acres of BLH (Table 3). Of these impacts, 2,087 acres of swamp and 613 acres of BLH on the MSWMA will be impacted (Table 3).

Construction, and related activities, for the WSLP project will result in the direct loss of approximately 1,137 acres of swamp (-598 AAHUs) and 242 acres of BLH (-169 AAHUs) and indirectly impacts 9,754 acres of swamp (-354 AAHUs) and 4,635 acres of BLH (-124 AAHUs). The WSLP project results in the total direct and indirect impacts of 15,769 acres and -1,244 AAHUs of forested wetlands (Table 3).

Of these total losses, specific to the MSWMA, there are direct losses of approximately 312 acres (-156 AAHUs) of swamp and 101 acres (-72 AAHUs) of BLH and indirectly impacts to 1,775 acres (-89 AAHUs) of swamp and 512 acres (-25 AAHUs) of BLH. The total loss to MSWMA is 2,700 acres and -342 AAHUs of direct and indirect impacts to forested wetlands (Table 3).

Table 3. Direct and indirect impacts to swamp and bottomland hardwood resulting from the West Shore Lake Pontchartrain Levee Project. Direct impacts include all project-related construction impacts. Indirect Exterior and Indirect High impacts are greater indirect impacts near the levee alignment. Indirect Low are lesser indirect impacts further away from the levee alignment.

Total Swamp	Acres	AAHUs
Direct	1,137	-598
Indirect Interior High	1,707	-153
Indirect Interior Low	4,561	-33
Indirect Exterior	3,486	-168
Total	10,892	-951

Total Swamp	Acres	AAHUs
Direct	1,137	-598
Indirect	9,754	-354
Total	10,892	-951

LDWF Swamp	Acres	AAHUs
LDWF Direct	312	-156
LDWF Indirect Interior High	241	-20
LDWF Indirect Interior Low	128	-1
LDWF Indirect Exterior	1,405	-68
Total	2,087	-245

LDWF Swamp	Acres	AAHUs
Direct	312	-156
Indirect	1,775	-89
Total	2,087	-245

BLH	Acres	AAHUs
Direct	242	-169
Indirect Interior High	503	-24
Indirect Interior Low	3,467	-70
Indirect Exterior	666	-30
Total	4,877	-293

Total BLH	Acres	AAHUs
Direct	242	-169
Indirect	4,635	-124
Total	4,877	-293

LDWF BLH	Acres	AAHUs
LDWF Direct	101	-72
LDWF Indirect Interior High	199	-11
LDWF Indirect Interior Low	100	-2
LDWF Indirect Exterior	213	-11
Total	613	-96

LDWF BLH	Acres	AAHUs
Direct	101	-72
Indirect	512	-25
Total	613	-96

In addition to the potential impact to water exchange, the Service is concerned about reduced future water exchange due to Relative Sea Level Rise (RSLR) requiring increased structure closures. As stated in the 2016 WSLP EIS "Hydrologic connectivity would be maintained to the extent practicable through water control structures except during closure for hurricanes or tropical storms. When the system is closed, pumps would operate on average for 1.7 storms per year, which equates to a closure of structures on average 8.5 days per year. This expected rate of closure would be the same regardless of the actual rate of RSLR as closure of the system is tied to tropical storm events and the elevation trigger would be adjusted as sea level rises. The risk reduction system is only authorized to address storm surge caused by hurricane and tropical storm events. It is not authorized to mitigate for or reduce impacts caused by higher day-to-day

water levels brought about by increases in sea level rise. Rainfall events and high tides could still cause significant flooding of the swamps within the levee-enclosed area. All drainage features through the levee system were sized to match the existing gravity drainage system, and would mimic the existing drainage patterns when the system is not closed. Any operational changes implemented to address changing SLR conditions or for any other non-project-related purpose would be considered a separate project purpose requiring separate authorization, new NEPA documentation, and/or permit approvals."

The project is not authorized to close the system more often due to higher day-to-day flooding impacts caused by RSLR. Because WSLP is authorized this way, impact analysis to the WSLP project area forested wetlands were evaluated assuming structures would not be closed more often than allowed by the stated triggers. However, if the sponsor/operator sees a higher level of sea level rise and starts to see increased soil saturation/flooding in developed areas due to RSLR, they may want to change the operations to close the structures more frequently, such as at high tides. A change in operation would be outside of the current project authorization and not the way the project was analyzed for impacts. With a change from the authorized operation, there may be an increase in frequency and duration of gate closures due to area-wide stage increases caused by RSLR thereby leading to potential substantial negative impacts to wetlands enclosed by as well as on the floodside of the levee system not estimated for the current WVAs. If a change in operation due to RSLR is realized, at present, it is unknown how water levels within the system would be managed so there is a potential for substantial additional and unaccounted for indirect impacts to forested wetlands and fish and wildlife resources. These additional impacts would need to be evaluated and mitigated for if changes in structure operations changes occur.

If the proposed levee and/or operation of structures increases flood frequency and water depth the bald cypress swamp will become increasingly stressed which could result in a reduction in diversity and productivity (Krauss et. al. 2009). Increased water depth can also reduce the transfer of oxygen to roots. The reduction in forest diversity and productivity can be seen through a reduction of soft mast production and by limiting the development of stand structure (overstory, midstory, and understory) which are important for provide resting, foraging, breeding, nesting, and nursery habitat. Over time, a stressed swamp could convert to marsh and/or open water. Reduced water exchange in the enclosed wetlands would lead to further water quality deterioration in the Lake Pontchartrain Basin by eliminating or reducing the filtering capacity of those wetlands. The potential wetland habitat impact to the largest remaining continuous forested wetlands in Louisiana would result in the some reduction of resident fish and wildlife, reduced important wintering habitat for waterfowl and other migratory birds that use the Central and Mississippi Flyways, and reduced nursery habitat and detritus input important to the maintenance of estuarine-dependent fish and shellfish production.

Developmental pressures on enclosed forested wetlands would likely increase with levee construction due to the reduced threat of flooding in the area but that would also be dependent on the proposed operation of pumps. According to the Corps Civil Works Program Five-Year Development Plan for Fiscal Year 2011 to Fiscal Year 2015, national flood damages are increasing and that is attributed to population migration to the coasts and development of

floodplains, thus creating apparent contradiction between flood damage reduction investments and national flood damages (Corps of Engineers, 2011). Induced development of the protected-side wetlands would not be conducive with the Corps' plan to reduce flood damages and also utilize this area for flood storage capacity during storms exceeding the project design. Another apparent inconsistency between programs is the planning of restoration projects while at the same time levees are being proposed to enclose floodplain habitat and permits are issued for development in these floodplains. More consistency between these programs needs to address the conflicting approaches between restoration and future development. Therefore, the Corps and local sponsor should acquire adequate protection of the enclosed wetlands to ensure and maintain preservation of those areas in perpetuity via the purchase of non-development easements and local flood zoning ordinances.

THE SERVICE POSITION AND RECOMMENDATIONS

We define impacts as effects relative to fish and wildlife resources. Impacts may be direct or indirect. Direct impacts include all project-related construction impacts. Indirect impacts are impacts from an action that occur later in time or farther removed in distance and may have landscape-scale implications. Indirect Exterior and Indirect High impacts are greater indirect impacts near the levee alignment. Indirect Low are lesser indirect impacts further away from the levee alignment.

Construction, and related activities, for the WSLP project will result in the direct loss of approximately 1,137 acres (-598 AAHUs) of swamp and 242 acres (-169 AAHUs) of BLH and Indirect impacts to 9,754 acres (-354 AAHUs) of swamp and 4,635 acres (-124 AAHUs) of BLH. Said another way, there will be 1,379 acres (-767 AAHUs) of unavoidable Direct (levee and access road footprints) construction adverse impacts to forested wetlands and 14,390 acres (-478 AAHUs) of Indirect (enclosed and exterior wetlands) habitat value losses on forested wetlands associated with levee construction resulting in the total Direct and Indirect impacts of 15,769 acres and -1,244 AAHUs of forested wetlands.

Of the total losses, there are direct losses on the MSWMA of approximately 312 acres (-156 AAHUs) of swamp and 101 acres (-72 AAHUs) of BLH and indirectly impacts 1,775 acres (-89 AAHUs) of swamp and 512 acres (-25 AAHUs) of BLH. Total direct loss to the MSWMA is 413 acres (-228 AAHUs) and indirect loss of 2,287 acres (-114 AAHUs) of combined forested wetlands. The total loss (Direct and Indirect) to the MSWMA is 2,700 acres and -342 AAHUs of Direct and Indirect impacts to forested wetlands.

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested wetlands for fish and wildlife and the relative scarcity of that habitat type on a basin-wide scale, that habitat type is designated as Resource Category 2, the mitigation goal for which is no net loss of in-kind habitat value.

The Service does not oppose construction of the WSLP Project provided that the fish and wildlife conservation recommendations are included and adequately addressed in the design report and related authorizing documents.

The Service requests the following recommendations are implemented concurrently with project construction:

1. Any impacts occurring on LDWF owned and managed property should only be mitigated on LDWF owned and managed property. In this case, impacts occurring on Maurepas Swamp WMA should be mitigated on the WMA. As required by the conveyance documents, tracts of land located on the WMA are restricted in use and should be preserved in their natural state. Any action which damages or diminishes the property's natural state should be subject to enhancement, restoration, or replacement in kind and contiguous with the WMA. Adequate and appropriate mitigation should be planned with and approved by LDWF.

2. Full, in-kind compensation (quantified as Average Annual Habitat Units) is recommended for 1,379 acres (-767 AAHUs) of unavoidable Direct (levee and access road footprints) construction adverse impacts and14,390 acres (-478 AAHUs) of Indirect (enclosed and exterior wetlands) habitat value losses on forested wetlands associated with levee construction. To help ensure that the proposed mitigation features meet their goals, the Service provides the following recommendations.

    a. If applicable, a General Plan should be developed by USACE, LDWF, and the Service in accordance with Section 3(b) of the Fish and Wildlife Coordination Act for mitigation lands.
    b. The proposed BBA-18 Mitigation proposal, Joyce WMA Swamp Enhancement project is located on LDWF's Joyce WMA. This proposed mitigation project has been planned without prior consultation with appropriate LDWF staff. LDWF, the Service and other interested resource agencies needs to be consulted in order for staff to determine whether or not the project is acceptable.
    c. Mitigation measures should be constructed concurrently with the flood damage reduction features that they are mitigating (i.e., mitigation construction should be initiated no later than 18 months after levee construction has begun).
    d. If mitigation is not implemented concurrent with levee construction, the amount of mitigation needed should be reassessed and adjusted to offset temporal losses.
    e. USACE should remain responsible for the required mitigation until the mitigation is demonstrated to be fully compliant with interim success and performance criteria. At a minimum, this should include compliance with the requisite vegetation, elevation, acreage, and dike gapping criteria.
    f. The acreage restored and/or managed for mitigation purposes, and adjacent affected wetlands, should be monitored over the project life. This monitoring should be used to evaluate mitigation project impacts, the effectiveness of the

compensatory mitigation measures, and the need for additional mitigation should those measures prove insufficient.

3. The levee alignment could potentially have impacts to the Maurepas Swamp Diversion project (Maurepas Diversion). The WSLP project impacts may potentially be mitigated for by the Maurepas Diversion project. The Service recommends close coordinate with the planning objectives and planning team of the restoration project and that any potential impacts to the Maurepas Diversion project be addressed. In addition, the Service recommends close coordination with the Service and LDWF if the use of the Maurepas Diversion for mitigation for the WSLP project impacts is undertaken.

4. If USACE declares the enclosed wetlands will be used as a flood storage area, the Service recommends that USACE and the nonfederal sponsor be responsible for preservation and maintaining the enclosed wetlands as the flood storage area within the levee system.

5. Due to concerns that the construction of the levee may alter natural periods of inundation or soil saturation in the impounded and exterior wetlands and could prove detrimental to their function and longevity (e.g., maintain existing water exchange in regard to water depth, delays in water movement, water stacking, and impacts to water quality), the Service recommended additional investigations prior to authorization. USACE responded that the determination of number and locations of hydrologic gauges will be developed during PED phase and is part of the overall Operations and Maintenance (O&M) cost. To date this has not been completed during the PED phase. Therefore the Service again makes the following recommendations:

    a. USACE undertake, as necessary, hydrologic adaptions, such as gapping, both in the interior and exterior swamp to allow for adequate water exchange;
    b. USACE undertake, as necessary, the installation of additional culverts and/or water control structures in the levee to ensure adequate water exchange while maintaining that all structures should be closed only in advance of tropical storms;
    c. That USACE ensures that all structures should be closed only in advance of named tropical storms.
    d. That hydrologic gauges be placed and maintained in appropriate locations to assist in determining future impacts to enclosed and exterior forested wetlands. These gauges could be supported or cost-shared through existing activities such as through the US Geological Survey (USGS) or CRMS.
    e. Additionally, the Service recommends a biomass study be conducted to help determine impacts to the forested wetlands.

    If USACE has decided to not undertake the above recommendations the Service would like to meet and discuss a future course of action to ensure adequate mitigation for those impacts. That meeting should occur prior to the approval of the proposed changes.

6. The WSLP levee crosses four separate tracts of Maurepas Swamp WMA (i.e., Mellon, MC Davis, Rogers 1, Rogers 2). Each individual Act of Sale or Act of Donation requires

property alienated by WSLP levee construction to be exchanged for other property of equal or greater wetland ecological function and value.

7. Operational plans for floodgates and water control structures should be developed to maximize the open cross-sectional area for as long as possible. Water control structure operation manuals or plans should be developed in coordination with the Service and other natural resource agencies.

8. To aid in water quality improvements, any pumping stations associated with the project should not discharge directly into canals or other open water bodies, but rather into wetland systems that can assimilate nutrients being discharged.

9. The trigger for structure closures would be tropical storm events. Therefore, the project would not close the system more often due to higher day-to-day sea level rise impacts. If the sponsor/operator sees a higher level of sea level rise and starts to see increased soil saturation/flooding in developed areas, they may want to change the operations to close the structures at high tides. A change in operations would be considered a separate project purpose and authorization and would require a new NEPA documentation and/or approval for this operational change. It is unknown at present how water levels within the system would be managed if a change in operation due to RSLR is realized. Hence, there is a potential for substantial additional indirect impacts to swamp and fish and wildlife resources to occur. If the system is closed more often due to higher RSLR impacts, the Service recommends additional impacts be evaluated and mitigated.

10. If it becomes necessary to use borrow sources other than the previously proposed environmentally cleared sites, the Service recommends USACE begin investigating potential borrow sources in coordination with the Service. Borrow sites to be considered should have minimal impacts to fish and wildlife resources. The Service provided a list of such sites via a September 9, 2008, letter and identified a priority selection process for borrow sites in our August 7, 2006, letter to USACE regarding the Greater New Orleans Hurricane and Storm Damage Risk Reduction project (Appendix A). That prioritization process should be utilized if additional borrow sites are needed (please contact Cathy Breaux (504)862-2689 or David Walther (337)291-3122 for more information).

11. The Service recommends that enough money be set aside for adaptive management to address potential impacts of the enclosed and exterior wetlands. The Service, LDWF, and other natural resource agencies should be coordinated with in the development of plans and specifications for all mitigation features and any monitoring and/or adaptive management plans. In addition, the Service recommends the Monitoring and Adaptive Management Plan, as it is further developed, be provided to the Service and LDWF for review, comment, and input.

12. In order to avoid adverse impacts to bald eagles and their nesting activities the Service and LDWF recommend that a qualified biologist continue to inspect the construction site

for the presence of new or undocumented bald eagle nest within 1,500 feet of the levee construction area.

13. In order to avoid adverse impacts to nesting wading bird colonies the Service and LDWF recommend that a qualified biologist continue to inspect the construction site for the presence of undocumented nesting colonies during the nesting season (i.e., September 1 through February 15 for wading bird nesting colonies and October through mid-May for bald eagles.

14. West Indian manatees occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). During in-water work in areas that potentially support manatees 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. For more detail on avoiding contact with manatee contact this office. Should a proposed action directly or indirectly affect the West Indian manatee, further consultation with this office will be necessary.

15. Construction of the WSLP levee will occur partly within the boundaries of Maurepas Swamp Wildlife Management Area. Please continue coordinate all activities within the WMA with LDWF. Please contact Cornelius Williams at 225-763-8807 or cjwilliams@wlf.la.gov for more information about appropriate WMA authorizations.

16. The Service recommends that the USACE contact the Service for additional consultation if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made and or finalized.

We appreciate the cooperation of your staff on this study. We look forward to our continued coordination with you to further protect fish and wildlife resources. If you need additional assistance or have questions regarding this letter, please contact Cathy Breaux (504/862-2689) of this office.

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APPENDIX A

SCIENTIFIC NAMES FOR SPECIES DISCUSSED IN REPORT

VEGETATION

Trees

Cypress	*Taxodium distichum*
Tupelo	*Nyssa aquatica*
Red maple	*Acer rubrum* var. *drummondii*
Black willow	*Salix nigra*
Green ash	*Fraxinus pennsylvanica*
American elm	*Ulmus americana*
Sweet gum	*Liquidambar styraciflua*
Water oak	*Quercus nigra*
Hackberry	*Celtis laevigata*
Box elder	*Acer negundo*
Pumpkin ash	*Fraxinus profunda*

BLH and Swamp understory

Button bush	*Cephalanthus occidentalis*
Lizard's tail	*Saururus cernuus*
Swamp spider lily	*Crinum asiaticum*

Floating Aquatics

American lotus	*Nelumbo lutea*
Water hyacinth	*Eichhornia crassipes*
Alligator weed	*Alternanthera philoxeroides*
Dollar weed	*Hydrocotyle* spp.
Duckweed	*Lemna minor*
Water lily	Nymphaeaceae
Coontail	*Ceratophyllum demersum*
Widgeongrass	*Ruppia maritime*
Southern naiad	*Najas guadalupensis*
Frog bit	*Limnobium spongia*

THREATENED AND ENDANGERED SPECIES AND SPECIES OF CONCERN

West Indian manatee	*Trichechus manatus*
Atlanta Sturgeon	*Acipenser oxyrhynchus desotoi*
Bald eagle	Haliaeetus leucocephalus
Glossy ibis	*Plegadis falcinellus*
Peregrine falcon	*Falco peregrinus*

FISH

Alligator gar	*Lepisosteus spatula*

Bigmouth buffalo	*Ictiobus cyprinellus*
Black crappie	*Pomoxis nigromaculatus*
Blue catfish	*Ictalurus furcatus*
Channel catfish	*Ictalurus punctatus*
Freshwater drum	*Aplodinotus grunniens*
Largemouth bass	*Micropterus salmoides*
Redear sunfish	*Lepomis microlophus*
Spotted gar	*Lepisosteus oculatus*

AMPHIBIANS

American bullfrog	*Rana catesbeiana*
Eastern narrow-mouthed toad	*Gastrophryne carolinensis*
Green treefrog	*Hyla cinerea*
Gulf coast toad	*Bufo quercicus*
Lesser siren	*Siren intermedia*
Northern cricket frog	*Acris crepitans*
Spring peeper	*Pseudacris crucifer*
Three-toed amphiuma	*Amphiuma tridactylum*

REPTILES

Alligator snapping turtle	*Macroclemys temminckii*
American alligator	*Alligator mississipppiensis*
Broadhead skink	*Eumeces laticeps*
Green anole	*Anolis carolinensis*
Gulf coast ribbon snake	*Thamnophis proximus orarius*
Mississippi mud turtle	*Kinosternon subrubrum*
painted turtle	*Chrysemys picta*
Red-eared turtle	*Trachemys scripta*
smooth softshell turtle	*Apalone mutica*
snapping turtle	*Chelydra serpentina*
spring softshell turtle	*Apalone spinifera*
stinkpot,turtle	*Sternotherus odoratus*
western ribbon snake	*Thamnophis proximus*
Speckled kingsnake	*Lampropetis getulus*
Water snakes	*Nerodia* spp.
Western cottonmouth	*Agkistrodon piscivorus*

BIRDS

American avocet	*Recurvirostra americana*
American coot	*Fulica americana*
American kestrel	*Falco sparverius*

American wigeon	*Anas americana*
American woodcock	*Recurvirostra americana*
Barn owl	*Tyto alba*
Barred owl	*Strix varia*
Belted kingfisher	*Ceryle alcyon*
Broad-winged hawk	*Buteo platypterus*
Black-bellied plover	*Pluvialis squatarola*
Black-necked stilt	*Himantopus mexicanus*
Clapper rail	*Rallus longirostris*
Common gallinule	*Gallinula chloropus*
Common nighthawk	*Chordeiles minor*
Common screech owl	*Otus asio*
Common snipe	*Bubulcus ibis*
Cuckoos	*Cuculidae* spp.
Gadwall	*Anas strepera*
Great horned owl	*Bubo virginianus*
Hummingbirds	*Trochilidae* spp.
Killdeer	*Charadrius vociferus*
King rail	*Rallus elegans*
Laughing gull	*Leucophaeus atricilla*
Least bittern	*Ixobrychus exilis*
Lesser scaup	*Aythya affinis*
Mallard	*Anas platyrhynchos*
Marsh hark (Northern harrier)	*Circus cyaneus*
Mississippi kite	*Ictinia mississippiensis*
Mottled duck	*Anas fulvigula*
Northern parula	*Setophaga americana*
Pied-billed grebe	*Podilymbus podiceps*
Purple gallinule	*Porphyrula martinica*
Red-bellied woodpecker	*Melanerpes carolinus*
Red-headed woodpecker	*Melanerpes erythrocephalus*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
Sandpipers	*Actitis* spp.
Seaside sparrow	*Ammodramus maritimus*
Sora	*Porzana carolina*
Swifts	*Apodidae* spp.
Swallow-tailed kite	*Elanoides forficatus*
White-eyed vireo	*Vireo griseus*
Willet	*Tringa semipalmata*
Wood duck	*Aix sponsa*

MAMMALS

Armadillo	*Dasypus novemcinctus*

Bobcat	*Lynx rufus*
Cotton mouse	*Peromyscus gossypinus*
Eastern cottontail rabbit	*Sylvilagus floridanus*
Gray fox	*Urocyon cinereoargenteus*
Fox squirrel	*Sciurus niger*
Grey squirrel	*Sciurus carolinensis*
Hispid cotton rat	*Sigmodon hispidus*
House mouse	*Mus musculus*
Mink	*Mustela vison*
Muskrat	*Ondatra zibethicus rivalicius*
Northern raccoon	*Procyon lotor*
Nutria	*Myocaster coypus*
Red fox	*Vulpes vulpes*
River Otter	*Lutra canadensis*
Swamp rabbit	*Sylvaligus aquaticus*
Virginia opossum	*Didelphis virginiana*
White-tailed deer	*Odocoileus virginianus*
Seminole bat	*Lasiurus seminolus*
Northern Yellow bat	*Lasiurus intermedius*
Marsh rice rat	*Oryzomys palustris*

Annex B: Department of Environmental Quality, Water Quality Certificate

Annex C: Draft 404(b)(1) determination

The following short form 404(b)(1) evaluation follows the format designed by the Office of the Chief of Engineers, (OCE). As a measure to avoid unnecessary paperwork and to streamline regulation procedures while fulfilling the spirit and intent of environmental statutes, New Orleans District is using this format for all proposed project elements requiring 404 evaluation, but involving no adverse significant impacts.

PROJECT TITLE. West Shore Lake Pontchartrain, Hurricane Protection System, St. John the Baptist and St. Charles Parish, Louisiana

PROJECT DESCRIPTION. The Project Area is located within St. John the Baptist and St. Charles Parishes in southeastern Louisiana, between the Mississippi River and Lakes Maurepas and Pontchartrain. The towns of Montz, Laplace, Reserve, and Garyville are communities found within the Project Area. The Project Area occupies a portion of one of the oldest delta complexes in the Mississippi River Deltaic Plain. It is in the lower Mississippi River alluvial plain in the Pontchartrain Basin and includes residential and commercial developments south of Interstate 10 (I-10). West of Laplace, a majority of the developed areas in the Project Area are found between U.S. Highway 61 (US-61) and the Mississippi River levee. Much of the undeveloped area consists of forested wetlands, including swamp and bottomland hardwood forests. The State of Louisiana's Maurepas Swamp Wildlife Management Area (MSWMA) lies north of I-10, within the Project Area.

The Proposed Action will now include modifications to the structural alignment of the levee system in St. John the Baptist and St. Charles Parishes, Louisiana described in the 2016 WSLP EIS, and modifications to features described in SEA 576. The modifications proposed herein would be in a similar location with similar features as described in the 2016 WSLP EIS and SEA 576. Nowhere within the proposed action levee system alignment would there be 100% overlap with the 2016 WSLP EIS, because of an increase in size and because of a shift in the entire levee system to accommodate for the recent installation of a new pipeline. The levee system would be between approximately 20 – 100 feet wider from the upper guide levee of the BCS to near the crossing at Hwy 61 where it would decrease to approximately the same width as described in the 2016 WSLP EIS. The proposed action also includes additional ROW for pump station construction. Approximately 30-40% of the current levee system ROW is co-located with the 2016 WSLP EIS levee system ROW (Figure 1).

The exact location of the levee system ROW could shift slightly within a corridor, but no less than approximately 30% of it would be co-located with the 2016 WSLP EIS. A hypothetical corridor representing the maximum size of the levee system is shown in Figure 1. The larger ROW corridor indicates the location extent in which the levee system could occur. This corridor would allow for slight shifts in alignment during further engineering and design, and during construction of the levee system. Additionally, the levee system corridor would not be larger in size beyond the hypothetical corridor.

There are four shifts, other than the increase in size and slight shift due to installation of a new pipeline that are being considered. Three shifts that could aid in the constructability, improve the engineering, and decrease the utility relocations needed for the alignment are being considered

(Figure 2). A fourth shift would accommodate the River Reintroduction into Maurepas Swamp Project (PO-0029).

Other parts of the proposed action described in this section include:

1. Updated borrow plan
2. Modifications to access roads
3. Addition of new access roads
4. Sand placement plan
5. Updated drainage structure design
6. Addition of new drainage structures
7. Updated pump station design
8. Addition of new pump stations
9. Updated transportation plan
10. Potential for the NFS to design and build the western section of the levee system
11. Potential to alter existing spoil banks in the Project Area and vicinity

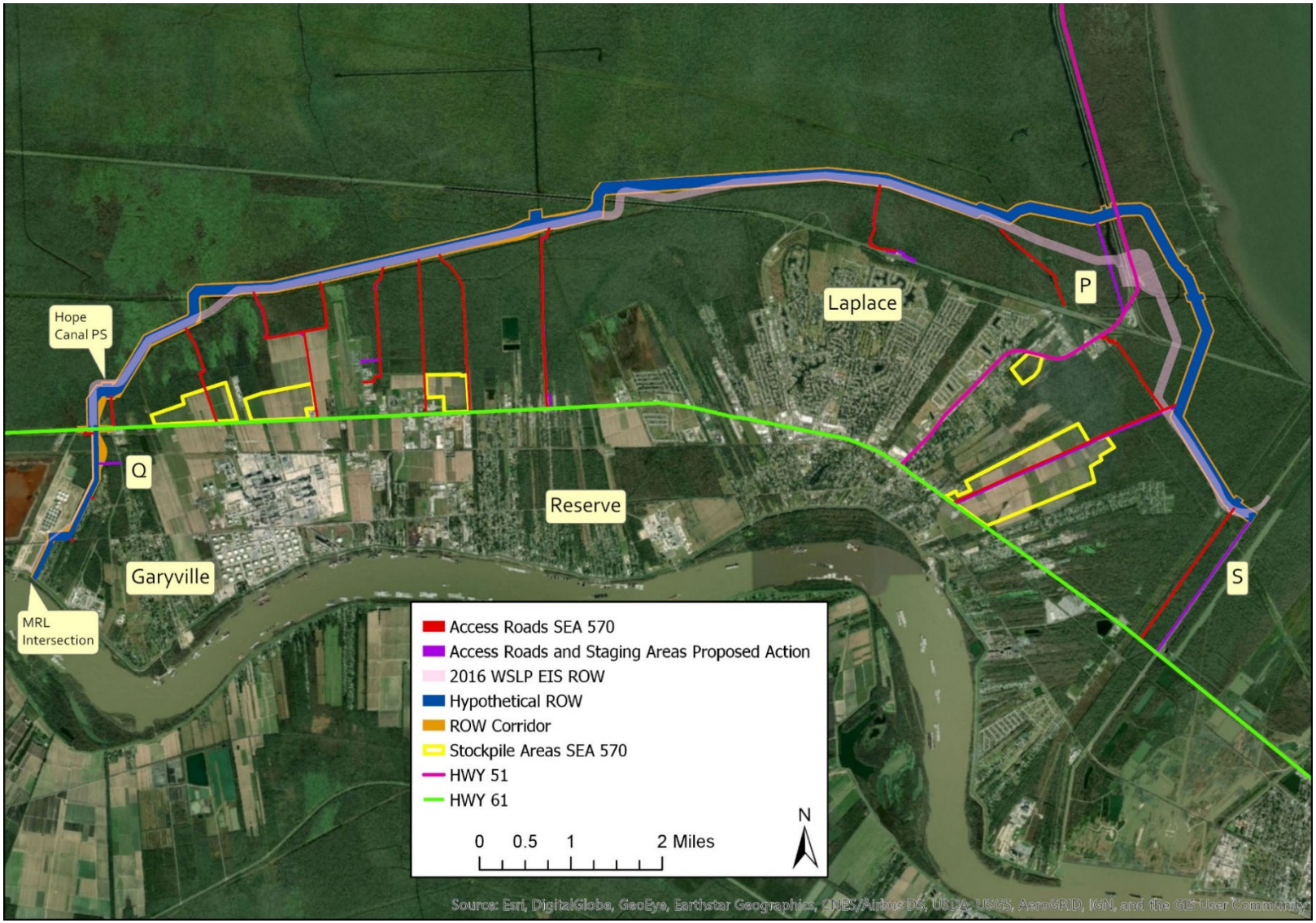

Figure 1 – Project Area, Stockpile/Borrow Areas, Access Road, and the Proposed Action. Access Roads that were not identified in SEA 570 are labeled

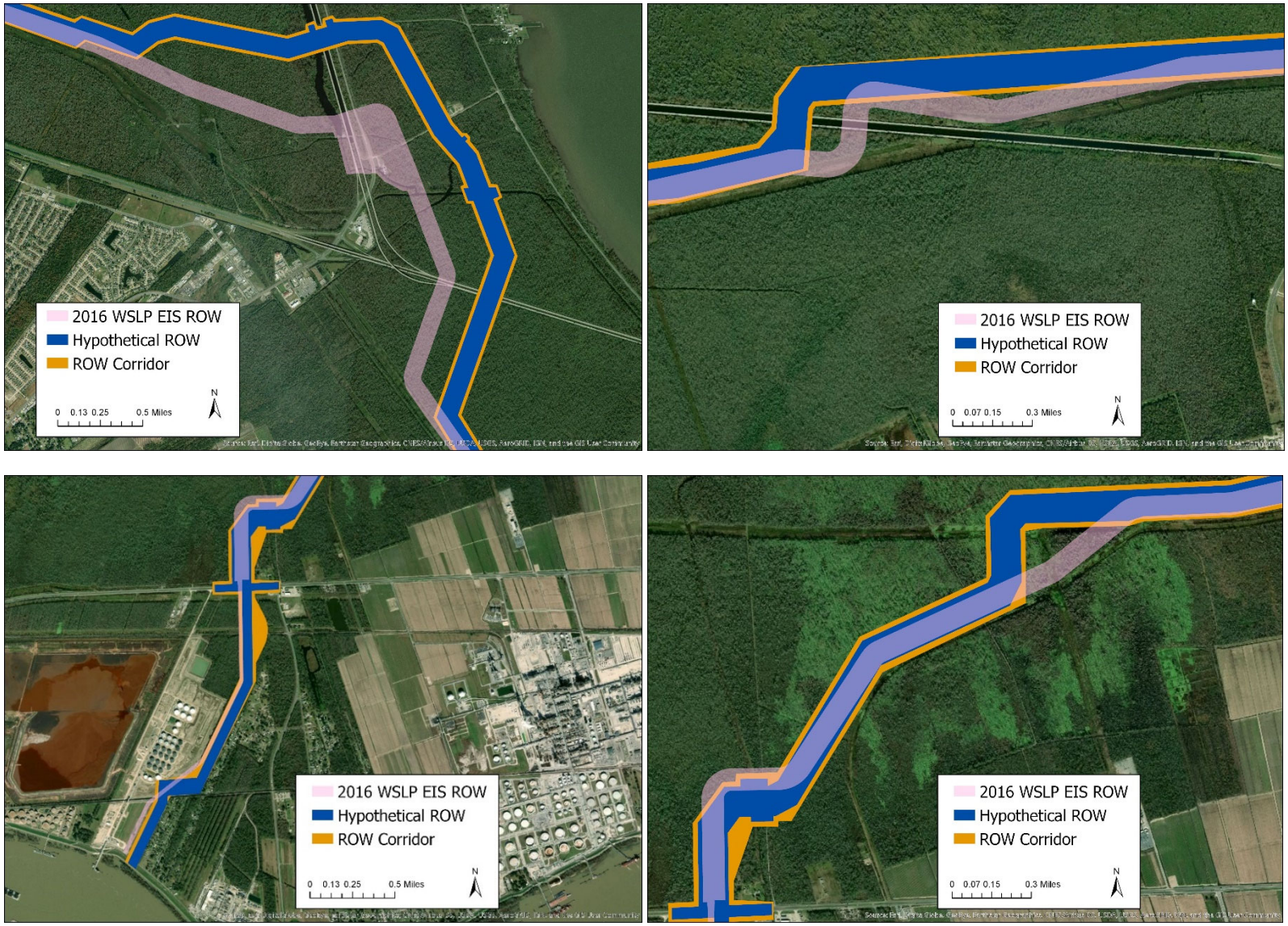

Figure 2 – Areas with potential levee system shifts. Clockwise from top left: I-55 and I-10 interchange (pump station ROW increases at Montz north and south, and I-55 can be seen), second I-10 crossing, large transmission corridor crossing, and western section (pump station ROW increase at Hope Canal can be seen)

Borrow plan

In addition to sources mentioned in the 2016 WSLP EIS, borrow materials (clay and sand) used to construct the levee system could be obtained from within the stockpile areas described in SEA 570, or it could be obtained from permitted commercial sources. Any material purchased from a commercial source would be currently licensed by the Parish (if in Louisiana) or State (if in Mississippi) entity. It would also have all appropriate permits and would meet all submittal requirements outlined in Appendix II.

Access road locations and plans.

All access roads described in SEA #570, as well as Access Road P, Q, and S, which is located within the Bonnet Carré Spillway (BCS) upper guide levee berm, could be used for temporary construction and/or permanent access from Hwy 51 or Hwy 61 to the levee system ROW (Figure 1). Further engineering and design of some access roads discussed in SEA 570 indicate a larger ROW would be required for features such as additional width around corners and to allow for culverts for cross drainage. Construction of permanent access roads could be either improvements to existing roads or construction of new roads. Access roads located along existing roadways would be improved primarily through placement of geotextile fabric, sand and rock to provide an approximately 30 foot drivable width for a two-way haul access road within an approximately 40 foot wide ROW along straight sections from Hwy 61 or Hwy 51 to the levee ROW. As discussed in SEA 570, a 60-foot road width would be allowed, if needed, for access roads within underground transmission and utility ROWs to allow for protection features such as pipelines. Construction of new access roads would require clearing and grubbing in addition to material placement. Additional ROW of approximately 0.1 acres would be needed for the installation of each culvert. More ROW than previously described in SEA 570 would be allowed around bends, corners, and at intersections with public roads to facilitate safe traffic. Some features may be constructed such as traffic lights or wider shoulders and turn lanes where access roads intersect main roads, such as Hwy 61. Coordination with Louisiana Department of Transportation and Development (LA DOTD) and the US Federal Highway Administration (FHWA) is ongoing to determine the best methods and features for safe intersections while minimizing environmental impacts to the extent practicable. The total increase in impact area for access road construction beyond what was described in SEA #570, would be approximately 19 acres. The majority of these impacts would be to forested wetlands (swamp and BLH), and existing roads.

Construction Details

Sand base placement plan. Sand would be used to construct an approximately 70 foot to 100 foot wide sand base within the levee alignment ROW. The material would be back dumped and spread by a bull dozer in order to force soft material outward from the levee section. Any displaced soft material formed by construction of the sand base would remain within the alignment ROW, but removed from the levee design section. Sand would be placed until it has reached the minimum elevation of approximately 3 feet NAVD88.

Levees and Floodwalls. Levee and floodwall system would be built to USACE Hurricane and Storm Damage Risk Reduction System standards in a similar location with similar features and crown elevations as described in the 2016 WSLP EIS. As such, typical cross sections provided in this document are still representative. The ROW width would be between 20 and 100 feet wider and four re-alignments (Figure 2) would increase its length by about 0.5 miles (18.27 miles in the 2016 WSLP EIS to 18.8 miles including the proposed action). Slight deviations in location of the Proposed Action levee system (i.e., Hypothetical corridor in Figure 2) would be allowed, but the maximum ROW size increase would be limited to approximately 0.5 miles longer and approximately 150 additional acres (Figures 1 and 2). An approximately 10 foot wide surfaced road would be constructed on the levee crown, floodside berm, or protected side berm for inspection vehicles. Where levee transitions to a floodwall, a 10 foot wide surfaced road would be provided along the protected side of the floodwall. Bridges would be constructed on either the floodside or protected side of the station at the drainage structures and pump station crossings.

Drainage Canals. Interior and exterior drainage canals would be located parallel to the earthen levee section for the majority of the levee system ROW. These canals would be built to the approximate dimensions described in the 2016 WSLP EIS, but would be shifted to parallel the levee system alignment. Both canals would be built within the limits of the hypothetical ROW shown in Figure 1. Where the interior canal intersects pipeline crossings, the depth of the canal would be restricted. The interior drainage canal would widen to 100 feet and would be shallow enough to avoid impacts to pipelines. Any material excavated for canal construction and deemed unsuitable for levee construction could be spread evenly along the project length between the levee and the interior drainage canal.

Western Section. The western section, refers to the levee system from the Hope Canal pump station to the Mississippi River Levee (MRL; Figure 1, Figure 2). The Louisiana Coastal Protection and Restoration Authority (CPRA) could design and construct some or part of the levee system components of the western section of the levee system; however, the USACE would determine the final alignment of this section. Design and location of the western section of the levee system may be co-located with the eastern guide levee of CPRA's River Reintroduction into Maurepas Swamp Project. The earthen levee sections between these stations would be from approximately 300 feet up to 600 feet wide. As the total length and width of levee would be approximately the same whether or not it is aligned to provide for the potential future construction of the River Reintroduction into Maurepas Swamp Project, no additional cost would be incurred by the Federal government. This portion of the project would include a highway ramp at US Highway 61 constructed to an elevation of approximately 16 feet NAVD88. Two lanes of traffic would be maintained in either direction during construction of the ramp. This would require widening the existing highway to maintain two lanes of traffic in either direction. Swing type floodgates would be provided at the Kansas City Southern and Canadian National Railway crossings. A swing type floodgate would also be located across LA Highway 44.

Additional Gates and T-wall Features. The levee system would also require construction of T-walls across pipeline corridors. These locations would be slightly shifted due to the levee system alignment changes. A 10 foot wide access road would run along the land side of the T-walls

across the pipeline corridors that would include additional sand and crushed stone to reduce pressures for maintenance vehicles crossing the pipelines. As described in the 2016 WSLP EIS, T-walls would also be located below the three interstate crossings to include the western I-10 crossing, I-55 crossing, and the eastern I-10 crossing. A surfaced access road would only be provided below the eastern I-10 crossing. There would be no bridge crossing at the western I-10 crossing and the I-55 crossing because of insufficient height clearance requirements.

Drainage Structures and Pumping Stations. Additional drainage structures and pumping stations would be considered. Updated sluice gate designs to the Hope Canal, Mississippi, Reserve Relief Canal, Perriloux Canal, Ridgefiled, and Montz South are shown in Table 1. A new drainage structure with a 16 feet wide by 16 foot wide sluice gate is proposed where the levee system crosses Prescott Canal. A new sluice gate at the Canadian National Railroad is also being considered that would be approximately 5 feet wide x 5 feet high. An 18 foot wide bridge would be constructed across the structure to carry maintenance and inspection vehicles.

Two new pump stations could be constructed at Prescott Canal and Interstate 55. Pump capacities being considered at these and updated pump station capacities for the four pump stations included in the 2016 WSLP EIS are shown in Table 1.

Table 1: Pumping station and Drainage Structures

Station Name	Number of 16 x 16 foot drainage structures	Pump capacity
Canadian National Railroad	1*	No pumps
Hope Canal	2	400-800 cfs
Mississippi Bayou	2	No pumps
Reserve Relief Canal	1	1200-2000 cfs
Perriloux	1	No pumps
Ridgefield	1	800 cfs
I-55 Canal	5	1200-2000 cfs
Montz North Canal**	1	No pumps
Montz South Canal	1	800 cfs
Prescott Canal	1	400-800 cfs

*drainage structure would be 5 x 5 feet
**under consideration; may not be necessary

Pump station complexes would include a pump station, the size of which would depend on the capacity (Table 1), with an adjacent drainage structure within an existing canal. These structures would tie into the levee system with T-walls on either side of the pump station/drainage structure complex. All pumps would be driven by diesel engines. Several fuel tanks would be located at each station with enough fuel to run the station for five days. A water well would be located at each station to provide potable water for drinking, showers, sprinkler system, and to lubricate the pumps. A surface parking area would also be provided at each station. In order to construct the structures within the existing canals without impeding existing canal flows, a temporary bypass channel would be constructed at each structure site with dimensions that would allow for the same flow capacity as the existing canal. In addition to the sluice gate at Reserve Relief Canal, an adjacent navigable gate would be constructed within the canal to allow for the passage of recreational boats.

Staff gages would be provided at the flood side and protected side of the pump stations and drainage structures. The drainage structures would remain open at all times except when they would be closed for tropical storm events. Closure for tropical storm events would be the same as described in the 2016 WSLP EIS. The amount of time the gates would remain closed would depend on a given storm's characteristics such as forward speed, rainfall, and storm track which impact water levels, and could remain closed for approximately 8.5 days on average. The days per year of system closure would vary by year and be dictated by tropical storm activity.

Estimated Quantities and Transportation Plans. As stated in the 2016 WSLP EIS, approximately 9,000,000 cubic yards of material would be needed for construction. Approximately 2,000,000 cubic yards of sand would be used to construct the sand base. Approximately 7,000,000 cubic yards of clay would be used to provide approximately 3,500,000 million cubic yards of in-place compacted clay necessary for levee system construction. These materials would be truck hauled to the levee alignment ROW with on-road dump trucks. It is estimated that 750,000 truckloads of sand and clay would be required for levee construction, utilizing triaxle and tandem dump trucks. Primary routes for clay fill would be via the BCS to Hwy 61, to the closest off-road access road. Commercial sand suppliers are generally located on the flood side of the MRL and transportation routes are expected to be from LA Highway 626 to Hwy 61 and from Hwy 61 to the closest designated off-road access road to the levee system ROW. Commercial clay sources may be utilized but exact pit locations are not currently known. Traffic control plans would be implemented for all construction-related transportation to minimize impacts to existing traffic patterns and would rely upon use of highways to the extent practicable.

Pump stations, T-Walls, floodgates, and drainage structure construction would require use of a variety of commercial vehicles to bring materials, including but not limited to formwork, concrete, structural steel, engines, pumps, fuel, supplies, building materials and foundation piles. The types of vehicles could include, but may not be limited to, concrete mix trucks, flatbed trailers, freight trucks, service trucks, fuel trucks, as well as lowboy trailers to transport cranes, backhoes, forklifts, excavators, and bulldozers. Routes to the construction site would generally be from commercial manufactures and suppliers. Likely routes would be from a combination of I-10, I-55, Louisiana Highway 628, Hwy 51 or Louisiana Highway 3188 to Hwy 61 to the access roads. The estimated number of delivery trips for this portion of the construction is 4,000.

Staging Locations and Plans. Stockpile areas described in SEA #570, or within the immediate vicinity of access roads, will be used in this project. In general, such staging areas would be approximately 200 feet x 200 feet. Any staging areas utilized outside of the levee system ROW would be limited to existing developed sites and would avoid impacts to cultural, recreational, socioeconomic, farmland, environmental justice, and wetlands and other environmentally sensitive areas.

Alternations in Spoil Bank. Gapping of existing spoil banks would be considered within the vicinity of the levee system and other project features, as shown in Figure 1, if such gapping would be necessary or desirable to facilitate drainage and/or maintain existing water flows within the project area. These projects would be performed to maintain existing hydrology and would not have net negative impacts to vegetation resources. Any impacts to other resources would be

minimized to the maximum extent practicable. Coordination with resource agencies regarding potential spoil bank gapping plans has occurred and would continue.

1. Review of Compliance (§230.10 (a)-(d)).	Preliminary[1]		Final[2]	
A review of this project indicates that:				
a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);	YES	NO*	YES	NO
b. The activity does not appear to: (1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; (2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and (3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies);	FOR (1) ONLY YES	NO*	YES	NO
c. The activity will not cause or contribute to significant degradation of waters of the United States including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2);	YES	NO*	YES	NO
d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5).	YES	NO*	YES	NO

2. Technical Evaluation Factors (Subparts C-F).	N/A	Not Significant	Significant*
a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).			
(1) Substrate impacts.		X	
(2) Suspended particulates/turbidity impacts.		X	
(3) Water column impacts.		X	
(4) Alteration of current patterns and water circulation.		X	
(5) Alteration of normal water fluctuations/ hydroperiod.		X	
(6) Alteration of salinity gradients.		X	
b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).			
(1) Effect on threatened/endangered species and their habitat.		X	
(2) Effect on the aquatic food web.		X	
(3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).		X	
c. Special Aquatic Sites (Subpart E).			
(1) Sanctuaries and refuges.		X	
(2) Wetlands.		X	
(3) Mud flats.		X	
(4) Vegetated shallows.		X	
(5) Coral reefs.	X		
(6) Riffle and pool complexes.	X		
d. Human Use Characteristics (Subpart F).			
(1) Effects on municipal and private water supplies.		X	
(2) Recreational and commercial fisheries impacts.		X	
(3) Effects on water-related recreation.		X	
(4) Esthetic impacts.		X	
(5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.		X	
Remarks. Where a check is placed under the significant category, the preparer has attached explanation in Encl 2.			

3. Evaluation of Dredged or Fill Material (Subpart G).[3]

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material.

(1) Physical characteristics X
(2) Hydrography in relation to known or anticipated sources of contaminants.. X
(3) Results from previous testing of the material or similar material in the vicinity of the project .....
(4) Known, significant sources of persistent pesticides from land runoff or percolation .....
(5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances X
(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources X
(7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities .....
(8) Other sources (specify) .....

Appropriate references: See memorandum (Encl 2)

b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or the material meets the testing exclusion criteria.

YES NO*

4. Disposal Site Delineation (§230.11(f)).

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

(1) Depth of water at disposal site X
(2) Current velocity, direction, and variability at disposal site .....
(3) Degree of turbulence X
(4) Water column stratification X
(5) Discharge vessel speed and direction .....
(6) Rate of discharge .....
(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities) X
(8) Number of discharges per unit of time .....
(9) Other factors affecting rates and patterns of mixing (specify) .....

Appropriate references:

b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or size of mixing zone are acceptable.

YES NO*

5. Actions to Minimize Adverse Effects (Subpart H).

All appropriate and practicable steps have been taken, through application of the recommendations of §230.70-230.77 to ensure minimal adverse effects of the proposed discharge.

YES NO*

6. Factual Determination (§230.11).

A review of appropriate information as identified in items 2-5 above indicates that there is minimal potential for short- or long-term environmental effects of the proposed discharge as related to:

a. Physical substrate at the disposal site (review sections 2a, 3, 4, and 5 above). YES NO*

b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5). YES NO*

c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5) YES NO*

d. Contaminant availability (review sections 2a, 3, and 4). YES NO*

e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5). YES NO*

f. Disposal site (review sections 2, 4, and 5). YES NO*

g. Cumulative impact on the aquatic ecosystem. YES NO*

h. Secondary impacts on the aquatic ecosystem. YES NO*

*A negative, significant, or unknown response indicates that the project may not be in compliance
with the Section 404(b)(1) Guidelines.

[1]Negative responses to three or more of the compliance criteria at this stage indicates that the proposed projects may not be evaluated using this "short form procedure". Care should be used in assessing pertinent portions of the technical information of items 2a-d, before completing the final review of compliance.
[2]Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.
[3]If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility.

a. This evaluation was prepared by:
Name: Shannon Kelly
Position: Hydraulic Engineer
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: 19 November, 2019

Name: Patrick Smith
Position: Biologist
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: 09 April, 2020

b. This evaluation was reviewed by:
Name: Whitney Hickerson
Position: Hydraulic Engineer
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: 20 November, 2019

Name: Elizabeth Behrens
Position: Biologist Supervisor
Organization: U.S. Army Corps of Engineers, New Orleans District
Date: 13 April 2020

8. Findings.

a. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines ..... **X**

b. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the following conditions .....___

c. The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s):

(1) There is a less damaging practicable alternative .....___
(2) The proposed discharge will result in significant degradation of the aquatic ecosystem .....___
(3) The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem .....___

Date: _____

_____
Chief, Environmental Planning and Compliance Branch

Annex D: Department of Natural Resources, Coastal Zone Consistency – In accordance with Section 307, a Consistency Determination is being prepared for the Proposed Action and will be finalized prior to signing of the FONSI.

Annex E: Endangered Species Act

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. P 25 Mar 2020

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

To: Joseph Ranson, USFWS
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

From: Patrick Smith
Date: March 24, 2020

Subject: Protected, Threated and Endangered Species Determination for the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Levee System St. Charles and St. John the Baptist Parishes, Louisiana

Dear Mr. Ranson:

Attention: David Walther

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South, has prepared Supplemental Environmental Assessment 571 (SEA 571) for the New Orleans District (CEMVN) to evaluate the impacts associated with potential changes to the levee system in St. John the Baptist and St. Charles Parishes, Louisiana (LA), as described in the West Shore Lake Pontchartrain Environmental Impact Statement (2016 WSLP EIS). Additionally, the SEA also re-evaluates associated levee alignment features described in the 2016 WSLP EIS and SEA 570. The Record of Decision for the 2016 WSLP EIS was signed by the Assistant Secretary of the Army on September 14, 2016. The Finding of No Significant Impact for SEA 570 was signed by the CEMVN Commander on May 13, 2019. The USFWS determined that the project, as described in the 2016 WSLP EIS, was not likely to adversely affect Federal trust resources currently protected by the Endangered Species Act of 1973 via letter dated May 7, 2014. The USFWS determined that impacts associated with surveys and borings, as described in SEA 570, was not likely to adversely affect Federal trust resources currently protected by the Endangered Species Act of 1973 via letter dated March 27, 2019.

A project description; occurrence of protected, threatened and endangered species; impacts to protected, threatened and endangered species; and CEMVN's determination of effect on these species is included below. Based on review of existing data, field surveys, the rarity of occurrences, and the use of best management practices, CEMVN has determined that the proposed action is not likely to adversely affect any of the listed species, bald eagles or colonial nesting water birds.

Project Description

The Proposed Action would include modifications to the structural alignment of the levee system in St. John the Baptist and St. Charles Parishes, Louisiana described in the 2016 WSLP EIS, and modifications to features described in SEA 570. The modifications proposed herein would be in a similar location with similar features as described in the 2016 WSLP EIS and SEA 570. Nowhere within the proposed action levee system alignment/footprint would there be a 100% overlap with the 2016 WSLP EIS levee system alignment/footprint. This is due to an increase in the levee footprint where the results of field investigations and advanced engineering and design have found it necessary, and a shift in the entire levee system to accommodate for the recent installation of a new pipeline. The levee system would be between approximately 20 – 100 feet wider from the upper guide levee of the BCS to near the crossing at Hwy 61 where it would decrease to approximately the same width as described in the 2016 WSLP EIS. The proposed action also includes additional ROW for pump station construction. Approximately 30-40% of the current levee system ROW is co-located with the 2016 WSLP EIS levee system ROW (Figure 2).

A hypothetical corridor representing the maximum size of the levee system is shown in Figure 2. The corridor indicates the location extent within which the levee system could occur. This corridor would allow for slight shifts in alignment during further engineering and design, and during construction of the levee system. The exact location of the levee system ROW could shift slightly within the corridor, but no less than approximately 30% of it would be co-located with the 2016 WSLP EIS. Additionally, the levee system ROW would not exceed the size of the hypothetical corridor.

There are four shifts, other than the increase in size and slight shift due to installation of a new pipeline that are being considered. Three shifts that could aid in the constructability, improve the engineering, and decrease the utility relocations needed for the alignment are being considered (Figure 3). A fourth shift would accommodate CPRA's River Reintroduction into Maurepas Swamp Project.

Other parts of the proposed action described in this section include:

1. Updated borrow plan
2. Modifications to access roads
3. Addition of new access roads
4. Sand placement plan
5. Updated drainage structure design
6. Addition of new drainage structures
7. Updated pump station design
8. Addition of new pump stations
9. Updated transportation plan
10. Potential for the NFS to design and build the western section of the levee system
11. Potential to alter existing spoil banks in the Project Area and vicinity

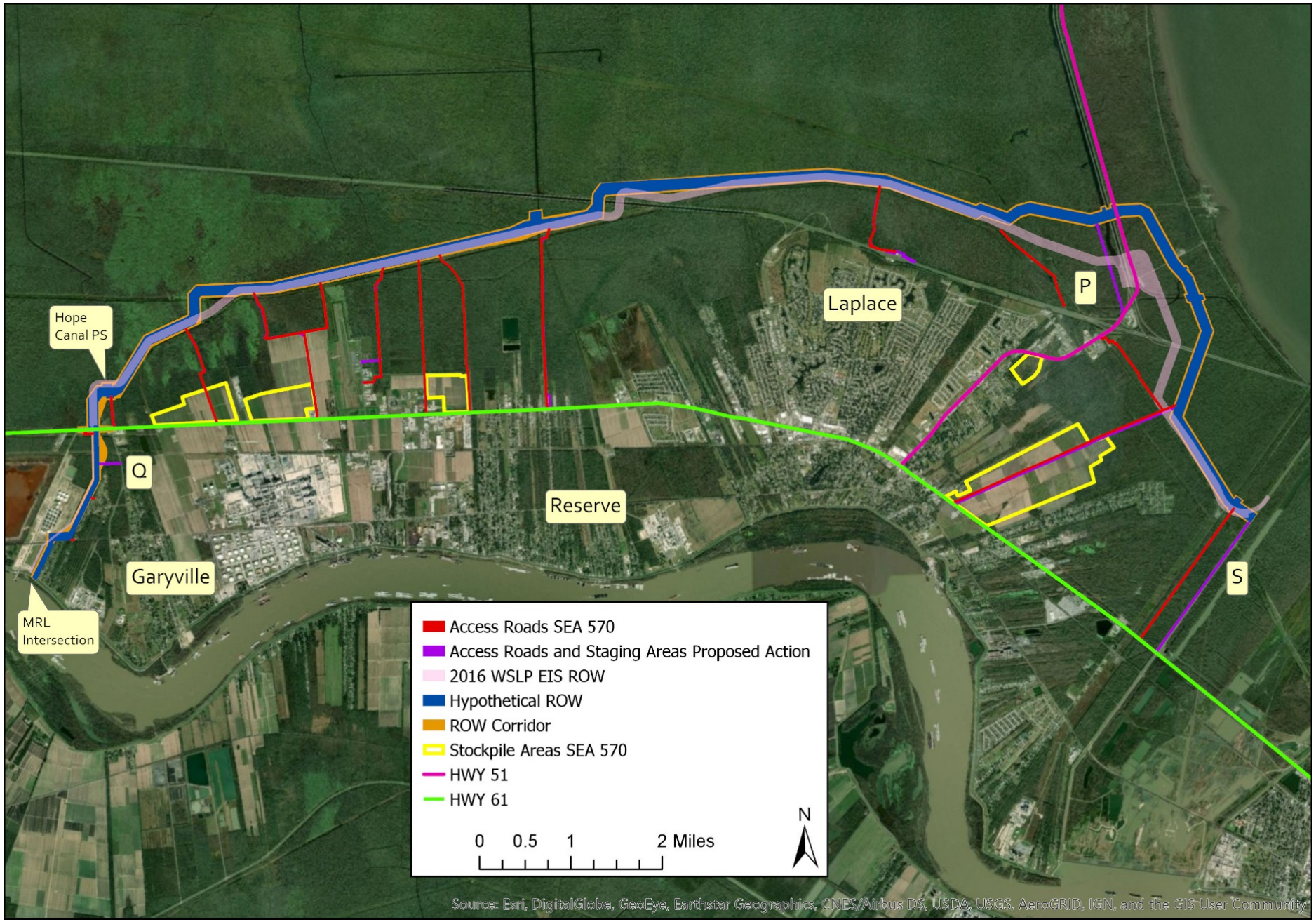

Figure 2: Map showing the Proposed Action. Access Roads that were not identified in SEA 570 are labeled.

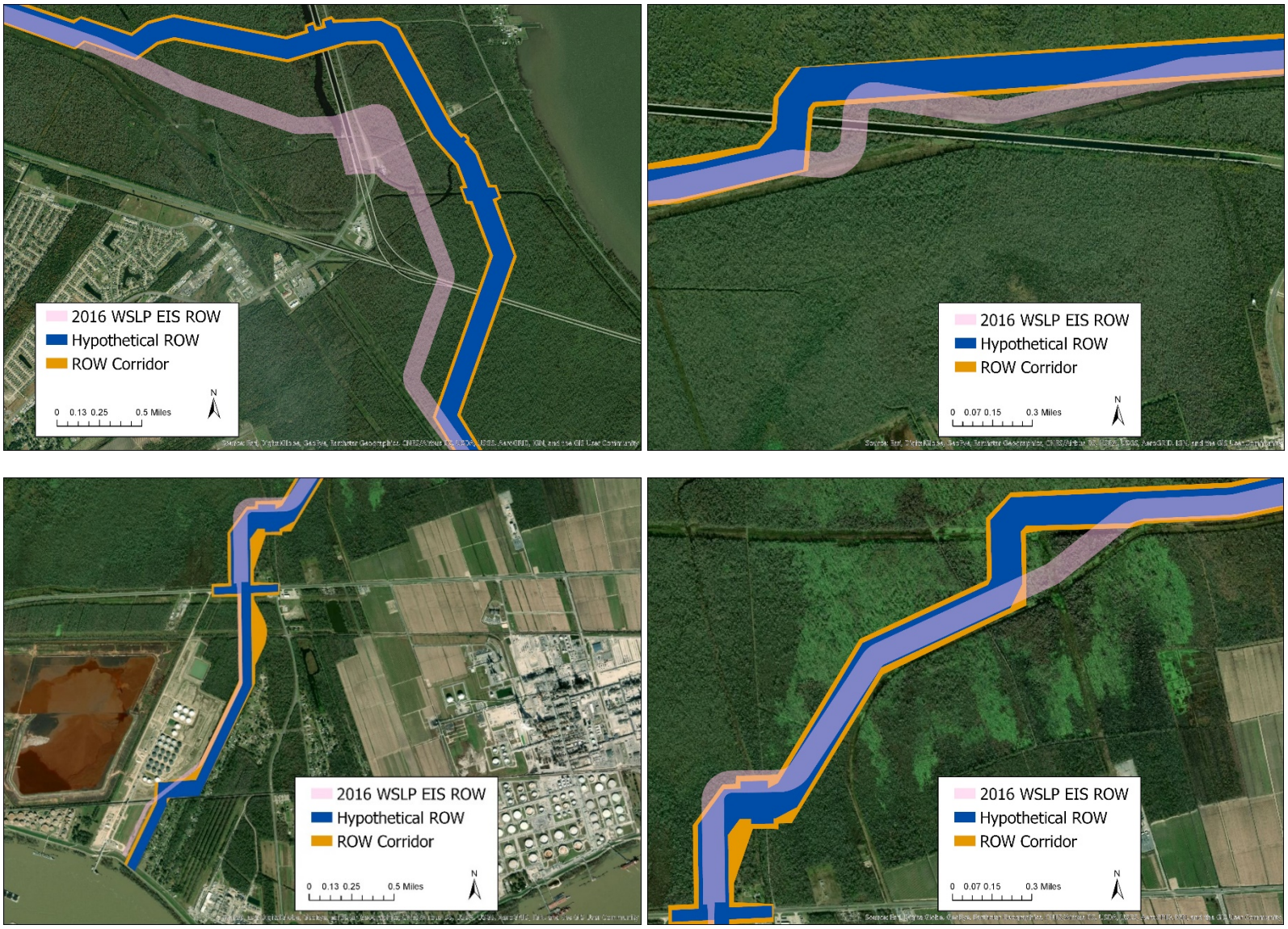

Figure 3. Areas with potential levee system shifts. Clockwise from top left: I-55 and I-10 interchange (pump station ROW increases at Montz north and south, and I-55 can be seen), second I-10 crossing, large transmission corridor crossing, and western section (pump station ROW increase at Hope Canal can be seen).

Borrow Plan

In addition to sources mentioned in the 2016 WSLP EIS, borrow materials (clay and sand) used to construct the levee system could be obtained from within the stockpile areas described in SEA 570 (Figure 2), or it could be obtained from permitted commercial sources.

Access Roads

All access roads described in SEA #570, as well as Access Road P, Q, and S, which is located within the Bonnet Carré Spillway (BCS) upper guide levee berm, could be used for temporary construction and/or permanent access from Hwy 51 or Hwy 61 to the levee system ROW (Figure 2). Further engineering and design of some access roads discussed in SEA 570 indicate a larger ROW would be required for features such as additional width around corners and to allow for culverts for cross drainage. Construction of permanent access roads could be either improvements to existing roads or construction of new roads. Access roads located along existing roadways would be improved primarily through placement of geotextile fabric, sand and rock to provide an approximately 30 foot drivable width for a two-way haul access road within an approximately 40 foot wide ROW along straight sections from Hwy 61 or Hwy 51 to the levee ROW. As discussed in SEA 570, a 60-foot road width would be allowed, if needed, for access roads within underground transmission and utility ROWs to allow for protection features such as pipelines. Construction of new access roads would require clearing and grubbing in addition to material placement. Additional ROW of approximately 0.1 acres would be needed for the installation of each culvert. More ROW than previously described in SEA 570 would be allowed around bends, corners, and at intersections with public roads to facilitate safe traffic. Some features may be constructed such as traffic lights or wider shoulders and turn lanes where access roads intersect main roads, such as Hwy 61. Coordination with Louisiana Department of Transportation and Development (LA DOTD) and the US Federal Highway Administration (FHWA) is ongoing to determine the best methods and features for safe intersections while minimizing environmental impacts to the extent practicable. The total increase in impact area for access road construction beyond what was described in SEA #570, would be approximately 19 acres. The majority of these impacts would be to forested wetlands (swamp and BLH), and existing roads.

Sand Base Placement

Sand would be used to construct an approximately 70 foot to 100 foot wide sand base within the levee alignment ROW. The material would be back dumped and spread by a bull dozer in order to force soft material outward from the levee section. Any displaced soft material formed by construction of the sand base would remain within the alignment ROW, but removed from the levee design section. Sand would be placed until it has reached the minimum elevation of approximately 3 feet NAVD88.

Levees and Floodwalls

Levee and floodwall system would be built to USACE Hurricane and Storm Damage Risk Reduction System standards in a similar location with similar features and crown elevations as described in the 2016 WSLP EIS. As such, typical cross sections provided in this document are still representative. The ROW width would be between 20 and 100 feet wider and four re-alignments (Figure 3) would increase its length by about 0.5 miles (18.27 miles in the 2016 WSLP EIS to 18.8 miles including the proposed action). Slight deviations in location of the Proposed Action levee system (i.e., Hypothetical corridor in Figure 2) would be allowed, but the maximum ROW size increase would be limited to approximately 0.5 miles longer and approximately 150 additional acres (See section 2.2 and Figure 2 for details).

An approximately 10 foot wide surfaced road would be constructed on the levee crown, floodside berm, or protected side berm for inspection vehicles. Where levee transitions to a

floodwall, a 10 foot wide surfaced road would be provided along the protected side of the floodwall. Bridges would be constructed on either the floodside or protected side of the station at the drainage structures and pump station crossings for maintenance access.

Drainage Canals

Interior and exterior drainage canals would be located parallel to the earthen levee section for the majority of the levee system ROW. These canals would be built to the approximate dimensions described in the 2016 WSLP EIS, but would be shifted to parallel the levee system alignment. Both canals would be built within the limits of the hypothetical ROW shown in Figure 2. Where the interior canal intersects pipeline crossings, the depth of the canal would be restricted. The interior drainage canal would widen to 100 feet and would be shallow enough to avoid impacts to pipelines. Any material excavated for canal construction and deemed unsuitable for levee construction could be spread evenly along the project length between the levee and the interior drainage canal.

Western Section

The western section, as described in this section, refers to the levee system from the Hope Canal pump station to the Mississippi River Levee (MRL; Figure 2, Figure 3). The Louisiana Coastal Protection and Restoration Authority (CPRA) could design and construct some or part of the levee system components of the western section of the levee system; however, the USACE would determine the final alignment of this section. Design and location of the western section of the levee system may be co-located with the eastern guide levee of CPRA's River Reintroduction into Maurepas Swamp Project. The earthen levee sections between these stations would be from approximately 300 feet up to 600 feet wide. As the total length and width of levee would be approximately the same whether or not it is aligned to provide for the potential future construction of the River Reintroduction into Maurepas Swamp Project, no additional cost would be incurred by the Federal government. This portion of the project would include a highway ramp at US Highway 61 constructed to an elevation of approximately 16 feet NAVD88. Two lanes of traffic would be maintained in either direction during construction of the ramp. This would require widening the existing highway to maintain two lanes of traffic in either direction. Swing type floodgates would be provided at the Kansas City Southern and Canadian National Railway crossings. A swing type floodgate would also be located across LA Highway 44.

Additional Gates and T-wall Features

The levee system would also require construction of T-walls across pipeline corridors. These locations would be slightly shifted due to the levee system alignment changes. A 10 foot wide access road would run along the land side of the T-walls across the pipeline corridors that would include additional sand and crushed stone to reduce pressures for maintenance vehicles crossing the pipelines. As described in the 2016 WSLP EIS, T-walls would also be located below the three interstate crossings to include the western I-10 crossing, I-55 crossing, and the eastern I-10 crossing. A surfaced access road would only be provided below the eastern I-10 crossing. There would be no bridge crossing at the western I-10 crossing and the I-55 crossing because of insufficient height clearance requirements.

Drainage Structures and Pumping Stations

Additional drainage structures and pumping stations would be considered. Updated sluice gate designs to the Hope Canal, Mississippi, Reserve Relief Canal, Perriloux Canal, Ridgefiled, and Montz South are shown in Table 2. A new drainage structure with a 16 feet wide by 16 foot wide sluice gate is proposed where the levee system crosses Prescott Canal. A new sluice gate at the Canadian National Railroad is also being considered that would be approximately 5 feet wide x 5 feet high. An 18 foot wide bridge would be constructed across the structure to

carry maintenance and inspection vehicles.

Two new pump stations could be constructed at Prescott Canal and Interstate 55. Pump capacities being considered at these and updated pump station capacities for the four pump stations included in the 2016 WSLP EIS are shown in Table 2.

Table 2: Pumping station and Drainage Structures

Station Name	Number of 16 x 16 foot drainage structures	Pump capacity
Canadian National Railroad	1*	No pumps
Hope Canal	2	400-800 cfs
Mississippi Bayou	2	No pumps
Reserve Relief Canal	1	1200-2000 cfs
Perriloux	1	No pumps
Ridgefield	1	800 cfs
I-55 Canal	5	1200-2000 cfs
Montz North Canal**	1	No pumps
Montz South Canal	1	800 cfs
Prescott Canal	1	400-800 cfs

*drainage structure would be 5 x 5 feet
**under consideration; may not be necessary

Pump station complexes would include a pump station, the size of which would depend on the capacity (Table 2), with an adjacent drainage structure within an existing canal. These structures would tie into the levee system with T-walls on either side of the pump station/drainage structure complex. All pumps would be driven by diesel engines. Several fuel tanks would be located at each station with enough fuel to run the station for five days. A water well would be located at each station to provide potable water for drinking, showers, sprinkler system, and to lubricate the pumps. A surface parking area would also be provided at each station. In order to construct the structures within the existing canals without impeding existing canal flows, a temporary bypass channel would be constructed at each structure site with dimensions that would allow for the same flow capacity as the existing canal. In addition to the sluice gate at Reserve Relief Canal, an adjacent navigable gate would be constructed within the canal to allow for the passage of recreational boats.

Staff gages would be provided at the flood side and protected side of the pump stations and drainage structures. The drainage structures would remain open at all times except when they would be closed for tropical storm events. Closure for tropical storm events would be the same as described in the 2016 WSLP EIS. The amount of time the gates would remain closed would depend on a given storm's characteristics such as forward speed, rainfall, and storm track which impact water levels, and could remain closed for approximately 8.5 days on average. The days per year of system closure would vary by year and be dictated by tropical storm activity.

Estimated Quantities and Transportation Plans

As stated in the 2016 WSLP EIS, approximately 9,000,000 cubic yards of material would be needed for construction. Approximately 2,000,000 cubic yards of sand would be used to construct the sand base described in Section 2.2.3. Approximately 7,000,000 cubic yards of clay would be used to provide approximately 3,500,000 million cubic yards of in-place

compacted clay necessary for levee system construction described in 2.2.4. These materials would be truck hauled to the levee alignment ROW with on-road dump trucks. It is estimated that 750,000 truckloads of sand and clay would be required for levee construction, utilizing triaxle and tandem dump trucks. Primary routes for clay fill would be via the BCS to Hwy 61, to the closest off-road access road as described in Section 1. Commercial sand suppliers are generally located on the flood side of the MRL and transportation routes are expected to be from LA Highway 626 to Hwy 61 and from Hwy 61 to the closest designated off-road access road to the levee system ROW. Commercial clay sources may be utilized but exact pit locations are not currently known. Traffic control plans would be implemented for all construction-related transportation to minimize impacts to existing traffic patterns and would rely upon use of highways to the extent practicable.

Pump stations, T-Walls, floodgates, and drainage structure construction would require use of a variety of commercial vehicles to bring materials, including but not limited to formwork, concrete, structural steel, engines, pumps, fuel, supplies, building materials and foundation piles. The types of vehicles could include, but may not be limited to, concrete mix trucks, flatbed trailers, freight trucks, service trucks, fuel trucks, as well as lowboy trailers to transport cranes, backhoes, forklifts, excavators, and bulldozers. Routes to the construction site would generally be from commercial manufactures and suppliers. Likely routes would be from a combination of I-10, I-55, Louisiana Highway 628, Hwy 51 or Louisiana Highway 3188 to Hwy 61 to the access roads described in Section 2.2.2. The estimated number of delivery trips for this portion of the construction is 4,000.

Staging Locations and Plans

Stockpile areas described in SEA #570, or within the immediate vicinity of access roads. In general, such staging areas would be approximately 200 feet x 200 feet. Any staging areas utilized outside of the levee system ROW would be limited to existing developed sites and would avoid impacts to cultural, recreational, socioeconomic, farmland, environmental justice, and wetlands and other environmentally sensitive areas.

Alterations in Spoil Banks

Gapping of existing spoil banks would be considered within the vicinity of the levee system and other project features, as shown in Figure 2, if such gapping would be necessary or desirable to facilitate drainage and/or maintain existing water flows within the project area. These gappings would be performed to maintain existing hydrology and would not have net negative impacts to vegetation resources. Any impacts to other resources would be minimized to the maximum extent practicable. Coordination with resource agencies regarding potential spoil bank gapping plans has occurred and would continue.

Occurrence of Protected, Threatened and Endangered Species

Two threatened species, the Gulf sturgeon (*Acipenser oxyrhynchus desotoi*) and the West Indian manatee (*Trichechus manatus*), and one delisted species, the bald eagle (*Haliaeetus leucocephalus*), are known to occur or may occasionally enter the vicinity of the proposed action. The area is also known to support colonial nesting waterbirds (e.g., herons, egrets, and others), which are protected under the Migratory Bird Treaty Act (MBTA).

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. In Louisiana, Gulf sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain basin, and adjacent estuarine areas. While sturgeon have been

documented in nearby waterways, the vicinity of the proposed action does not contain Gulf sturgeon critical habitat.

West Indian manatees occasionally enter Lakes Pontchartrain and Maurepas, and associated coastal waters and streams during the summer months (i.e., June through September). Substantial food sources (submerged or floating aquatic vegetation) have not been observed in the vicinity of the proposed action. Given the extensive areas of relatively undisturbed wetlands in the region and the paucity of food sources in the vicinity, it is considered unlikely for the manatee to frequent and utilize waterways affected by the proposed action, although manatees could pass through this area while transiting the lake.

The Project Area was surveyed for colonial waterbird activity and bald eagle nests via six field surveys (December 10, 2018, January 24, 2019, February 14, 2019, February 25, 2019, February 27, 2019), including one helicopter survey (February 25, 2019). In addition, eight WVA field survey days were also conducted in 2019 (May 30, June 28, August 16, August 21, August 22, August 26, September 18, and October 1). No evidence of colonial waterbird nesting (or pre-nesting) activities, or active bald eagle nests were observed on any field visit. There are existing bald eagle nests documented in the area; however, based on information provided by USFWS, all nests are beyond 650 feet from features of the proposed action. Two potentially active water bird rookeries exist within 1,000 feet of the proposed alignments. All of these locations were inspected during the field surveys described in this paragraph.

Impacts to Protected, Threatened and Endangered Species

The proposed action would directly impact (destroy) approximately 27 less acres of swamp (25 less AAHUs) and 166 more acres of BLH (53 more AHHUs). The Proposed Action would indirectly impact approximately 1,322 acres of swamp (141 less AAHUs) and 4,546 acres of BLH (121 more AAHUs). All impacts to wetlands would be offset through either the purchase of mitigation bank credits or the construction of new, restored or enhanced habitats to replace the lost habitats in accordance with the Clean Water Act, Section 404(b)(1) and the Water Resources Development Act of 1986, Section 906, as amended. The mitigation plan is described in SEA 576.

Even though much of the adjacent area in the vicinity of the project is forested wetlands and swamp habitats, some man made waterways are found in the area. Although the threatened West Indian manatee and the Gulf sturgeon may seasonally utilize Lake Maurepas and could move into these adjacent man-made waterways, due to the shallow nature of the waterways, these species are not anticipated to occur in the project area. While passage within these man-made waterways will be maintained through the project's drainage features, the West Indian manatee and the Gulf sturgeon may be unwilling to utilize them resulting in a loss of access to portions of these waterways. However, these waterways do not support quality foraging habitat, migratory pathways, spawning habitat, or places of refuge for these species. As such, the loss of them would have minimal impact to the species, if any. To avoid any possibility of direct impact to manatees, manatee projection measures would be implemented during construction.

Bald eagles and colonial waterbirds frequent the vicinity of the proposed action. The alteration of habitat and potential relocation of BGEPA and MBTA trust species as a result of the proposed action could have population level impacts if the abundant, adjacent forested wetlands are at or near carrying capacity; however, such impacts are not expected. Best management practices, including continued monitoring, use of recommended buffers, and development of a nesting prevention plan for colonial nesting waterbirds would minimize impacts to bald eagles

and colonial waterbirds. Additionally, upon completion of mitigation measures, similar habitat would be created for BGEPA and MBTA trust species to once again utilize. Therefore, it is expected that only minor indirect impacts to BGEPA or MBTA trust species would be incurred from construction of the proposed action.

A Nesting Prevention Plan is being developed, in coordination with the USFWS and the Louisiana Department of Wildlife and Fisheries to deter colonial nesting water birds from establishing active nesting colonies in the vicinity. If measures to prevent colonial nesting bird populations are not successful in the area, activities that would occur within 1,000 feet of a colony could be restricted to the non-nesting period, which in this region generally extends from September 1 to February 15, depending on the species present. If waterbird nesting colonies become established in the area, the 1,000 foot buffer would be maintained unless coordination with the USFWS indicates that the buffer zone may be reduced based on the species present or an agreement is reached with USFWS that allows a modified process to be adopted.

During in-water work in areas that potentially support manatees, all personnel associated with the project would be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel would 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.

CEMVN Determination

Based on review of existing data, field surveys, the rarity of occurrences, and the use of best management practices documented in Appendix A, Annex N of the 2016 WSLP EIS and described above, CEMVN has determined that the proposed action is not likely to adversely affect any of the listed species, bald eagles or colonial nesting water birds. USFWS guidelines would be utilized during construction of the proposed action to avoid any impacts to the species described above, if encountered. If there are any questions about the project or if any additional information is needed please contact Patrick Smith by phone at (504) 862-1544 or by email at Patrick.W.Smith@usace.army.mil.

Annex F: National Marine Fisheries Service Essential Fish Habitat letter

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

October 1, 2013 F/SER46/LA:jk
225/389-0508

Ms. Joan Exnicios, Chief
Environmental Planning and Compliance Branch
New Orleans District, U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Exnicios:

NOAA's National Marine Fisheries Service (NMFS) has received your letter dated August 23, 2013, transmitting the Integrated Draft Feasibility Report and Environmental Impact Statement (EIS) titled "**West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Study**." The U.S. Army Corps of Engineers (USACE) is evaluating alternatives to provide hurricane and tropical storm surge protection to residents in St. Charles, St. John the Baptist, and St. James Parishes, Louisiana.

The Corps has identified Alternative C as the Tentatively Selected Plan (TSP). Alternative C consists of approximately 18 miles of levees spanning from the West Guide Levee of the Bonnet Carré Spillway, along Interstate Highway 10, and terminating at the Mississippi River levee near Garyville, Louisiana. The TSP would directly impact approximately 775 acres and enclose 8,424 acres of forested wetlands and swamp habitats.

NMFS believes there are environmental concerns and requests additional information be included in the Final EIS. The following comments identify areas where additional information is necessary to demonstrate compliance with applicable laws and regulations pertaining to mitigation and the National Environmental Policy Act (NEPA).

General Comments

NMFS does not object to hurricane protection to reduce risk to life or property, or to the proposed levee alignment. However, we find the draft EIS lacks information necessary to demonstrate adverse wetland impacts would be fully offset through the implementation of an adequate mitigation plan. Specifically, adverse wetland impacts are not quantified by the Wetland Value Assessment methodology determined acceptable under USACE guidelines for Louisiana habitats. In addition, the mitigation plan included in Appendix A, Annex K, proposes conceptual mitigation ideas only which also have not been assessed or quantified to determine benefits. Lacking an assessment of impacts and benefits, it is unclear how the USACE can determine wetland impacts would be fully offset in compliance with the Clean Water Act. Lacking an adequate assessment of mitigation benefits, or a discussion which clearly identifies the potential for long term wetland impacts if mitigation is inadequate, it is unclear how the draft

EIS fully complies with NEPA requirements. Finally, the proposed mitigation plan does not have sufficient information to demonstrate compliance with the 12 "items" required by mitigation regulations. This information is necessary for project planning purposes, including alternatives analysis, and equally important for public disclosure of the type and location of the mitigation.

NMFS is concerned the source of more than 3 million cubic yards of borrow material for levee construction is not identified, and associated impacts discussed, in the draft EIS. Unless there is a commitment to not obtain borrow from wetlands or other sensitive habitats, NMFS believes failure to discuss or disclose what could be a significant environmental impact is a violation of NEPA. We encourage the USACE to use non-wetland borrow locations to the maximum extent practicable. If the USACE determines wetland impacts associated with borrow sources are unavoidable, a discussion and quantification of such wetland impacts (and mitigation costs) should be included in a supplemental draft EIS for this project.

While direct wetland impacts have been quantified for the TSP in terms of acreage, NMFS does not agree sufficient information has been provided to demonstrate indirect impacts to more than 8,000 acres of enclosed wetlands would not occur. The draft Adaptive Management and Monitoring Plan has not been finalized, but at present, only includes monitoring of mitigation plan success and corrective actions to be taken if such actions do not result in anticipated benefits. The draft Adaptive Management and Monitoring Plan does not include efforts to evaluate whether project implementation results in adverse impacts to enclosed wetlands. The final EIS should include an Adaptive Management and Monitoring Plan, developed in coordination with the natural resource agencies, which evaluates the impact of levee construction and water control structure operations on enclosed wetlands. NMFS recommends sufficient funds be included in the overall cost projection to sufficiently address adaptive management and monitoring needs for the enclosed wetlands and the mitigation areas.

According to the draft EIS, under both intermediate and high sea level rise scenarios, in 50 years all structures providing drainage between enclosed wetlands and exterior waters would be closed the vast majority of the time. However, no discussion is provided to identify how water levels in enclosed wetlands would be managed. The final EIS should identify and discuss this issue.

Specific Comments

Chapter 2
Section 2.4.5 Essential Fish Habitat

Page 2-24. NMFS agrees project implementation would not adversely impact essential fish habitat (EFH). As such, an EFH assessment is unnecessary. NMFS recommends this section be deleted from the final EIS. Likewise, NMFS recommends Section 4.3.5 also be removed from the final EIS.

Chapter 4
Section 4.3.2 Vegetation Resources

Page 4-12. Wording in the second paragraph indicates Alternative C would directly impact 719 acres of wetlands, while Table 4-2 indicates 775 acres of wetlands would be impacted. The correct numbers should be provided in the final EIS.

We appreciate the opportunity to review and comment on the Integrated Draft Feasibility Report and EIS. If you have questions regarding comments provided above, please direct your questions to Lisa Abernathy at lisa.abernathy@noaa.gov or by phone at (225) 389-0508, extension 209.

Sincerely,

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:
FWS, Lafayette, Walther
EPA, Dallas, Keeler, Ettinger
LA DNR, Consistency, Haydel
F/SER46, Swafford
F/SER4, Rolfes
Files

Annex G: Programmatic Agreement among The United States Army Corps of Engineers, Louisiana State Historic Preservation Officer, and The Advisory Council on Historic Preservation regarding the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction System

Programmatic Agreement
among
The United States Army Corps of Engineers,
Louisiana State Historic Preservation Officer,
and
The Advisory Council on Historic Preservation
regarding the
West Shore Lake Pontchartrain Hurricane and
Storm Damage Risk Reduction System

WHEREAS, historically, residents and businesses of St. Charles, St. John the Baptist, and St. James Parishes, Louisiana have suffered major damage as a result of storms and hurricanes. Recent hurricanes that have impacted the area include Hurricanes Katrina and Rita in 2005, Hurricanes Gustav and Ike in 2008, and Hurricane Isaac in 2012, which caused a storm surge in the area that threatened lives and damaged more than 7,000 homes; and

WHEREAS, the U.S. Congress recognized the need for a hurricane and storm damage risk reduction project in the area with two Congressional resolutions to authorize its study. The first was adopted on July 29, 1971 by the U.S. House of Representatives Committee on Public works.

“RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE HOUSE OF REPRESENTATIVES, UNITED STATES, that the Board of Engineers for Rivers and Harbors is hereby requested to review the report of the Chief of Engineers on Lake Pontchartrain and Vicinity, Louisiana, published as House Document No. 231, 89th Congress, First Session, and other pertinent reports, with a view to determining whether modifications to the recommendations contained therein are advisable at this time, with particular reference to providing additional levees for hurricane protection and flood control in St. John the Baptist Parish and that part of St. Charles Parish west of the Bonnet Carré Spillway."

The U.S. Senate Committee on Public Works adopted a resolution on September 20, 1974.

“RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, that the Board for Rivers and Harbors is hereby requested to review the report of the Chief of Engineers on Lake Pontchartrain and Vicinity, Louisiana, published as House Document No. 231, 89th Congress, First Session, and other pertinent reports, with a view to determining whether modifications to the recommendations contained therein are advisable at this time, for hurricane protection and flood control in St. James Parish."

WHEREAS, the United States Army Corps of Engineers (USACE) has been working with state and local officials to study potential solutions to reduce

damage caused by hurricane and tropical storm surge in the three-parish area. This study has come to be known as the West Shore Lake Pontchartrain (WSLP) Hurricane and Storm Damage Risk Reduction Study; and

WHEREAS, the USACE has determined that the WSLP project is an "Undertaking" pursuant to the National Historic Preservation Act of 1966 (16 U.S.C. 470), as amended, (NHPA), and may have an adverse effect on properties included or eligible for inclusion in the National Register of Historic Places (NRHP); and

WHEREAS, the USACE has elected to fulfill its obligations under Section 106 of the NHPA through the execution and implementation of a Programmatic Agreement (this Agreement) as provided in 36 CFR 800.14(b); and

WHEREAS, the USACE notified the Advisory Council on Historic Preservation (ACHP) of the potential for this undertaking to adversely affect historic properties pursuant to the ACHP's implementing regulations (36 CFR Part 800); and

WHEREAS, the ACHP accepted the invitation to participate in consultation to develop this Agreement and to seek ways to avoid, minimize, or mitigate adverse effects on historic properties; and

WHEREAS, the USACE consulted with the Louisiana State Historic Preservation Officer (LA SHPO), Tribal Historic Preservation Officers (THPO) and federally recognized Indian Tribes as defined under 36 CFR 800.16(m) (Tribes), and other appropriate consulting parties in developing this Agreement in order to define efficient and cost effective processes for taking into consideration the effects of the WSLP project upon historic properties pursuant to 36 CFR 800.14(b); and

WHEREAS, the USACE acknowledges Tribes as sovereign nations which have a unique government-to-government relationship with the federal government and its agencies; USACE further acknowledges its Trust Responsibility to those Tribes; and

WHEREAS, the USACE made a reasonable and good faith effort to identify any Tribes that may attach religious and cultural significance to historic properties that may be affected by the undertaking; and

WHEREAS, the USACE has invited the Alabama-Coushatta Tribe of Texas, Caddo Nation of Oklahoma, Chitimacha Tribe of Louisiana, Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Quapaw Tribe of Oklahoma, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and the Tunica-Biloxi Tribe of Louisiana to consult in the development of this Agreement. The Quapaw Tribe of Oklahoma and the Seminole Tribe of Florida have independently determined that

the undertaking is not within their tribe's area of interest and do not wish to comment; and

WHEREAS, the USACE will invite any interested Tribe who participates in the development of this Agreement to sign this Agreement as an Invited Signatory Party, and those Tribes not requesting to sign this Agreement as an Invited Signatory Party will be invited to sign as a Concurring Party; and

WHEREAS, the USACE has involved the public through the National Environmental Policy Act (NEPA) process, which affords all persons, organizations and government agencies the right to review and comment on proposed major federal actions that are evaluated by a NEPA document. Public meetings to collect input during planning were held in January 2009, February 2011, November 2012, April 2013, and May 2013. On August 23, 2013, the USACE released an Integrated Draft Feasibility Report and Environmental Impact Statement for the WSLP project (Draft Report) to the public for a review period of forty-five (45) calendar days. The public review period was extended an additional 14 days to October 22, 2013 as compensation for Federal Government shutdown of 2013. This document included a general discussion of cultural resources within the study area. Public hearings of the Draft Report were held on September 10, September 17, and November 2, 2013. Comments received during the 59-day review and the public hearings are being incorporated into the Integrated Final Feasibility Report and Environmental Impact Statement; and

WHEREAS, the USACE has taken appropriate measures to identify other parties that may be interested specifically in the development of this Agreement, by notification to the Parish Presidents of St. James, St. John the Baptist, and St. Charles Parishes, as well as to four (4) historical associations within these three parishes, and has invited such parties to participate in the development and execution of this Agreement; and

WHEREAS, the USACE has also taken steps to notify the wider public with newspaper announcements in the Times-Picayune of New Orleans, and NOLA.com of New Orleans. The USACE will furthermore take appropriate steps to involve and notify parties, as appropriate, during the implementation of the terms of this Agreement; and

WHEREAS, the Louisiana Coastal Protection and Restoration Authority Board (CPRAB) is a local sponsor for WSLP project and has participated in the development of this Agreement and will be invited to sign this Agreement as a Concurring Party. Any additional local sponsors for the WSLP project will also be invited to sign this Agreement as a Concurring Party; and

NOW, THEREFORE, the USACE, ACHP, and LA SHPO agree that the implementation of the following stipulations will evidence that the USACE has taken into account the effects of the WSLP project upon historic properties.

STIPULATIONS

The USACE shall adhere to the process and protocols set forth in this Agreement.

I. Correspondence

Electronic mail (email) will serve as the official correspondence method for all communications regarding this Agreement and its provisions. See Appendix A for a list of contacts and email addresses. Contact information in Appendix A may be updated as needed without an amendment to this Agreement. It is the responsibility of each signatory to immediately inform the USACE of any change in name, address, email address, or phone number of any point-of-contact. The USACE will forward this information to all signatories by email. Failure of any party to this Agreement to notify the USACE of any change to a point-of-contact's information shall not be grounds for asserting that notice of a proposed action was not received.

A. All standard response timeframes established by 36 CFR Part 800 will apply to this Agreement, unless an alternative response timeframe is agreed to by the LA SHPO and Tribes. The USACE may request expedited review by the LA SHPO and Tribes on a case by case basis. Such expedited review period shall not be less than 10 working days.

II. Tribal Consultation

A. The Chitimacha Tribe of Louisiana, the Choctaw Nation of Oklahoma, and the Coushatta Tribe of Louisiana participated in the development of this Agreement and will sign this Agreement as an Invited Signatory Party.

B. The Mississippi Band of Choctaw Indians participated in the development of this Agreement and will be invited to sign this Agreement as a Concurring Party.

C. The Alabama-Coushatta Tribe of Texas, Caddo Nation of Oklahoma, Jena Band of Choctaw Indians, Seminole Nation of Oklahoma, and the Tunica-Biloxi Tribe of Louisiana will be invited to sign this Agreement as a Concurring Party.

D. The Seminole Tribe of Florida and the Quapaw Tribe of Oklahoma have independently determined that the undertaking is not within their tribe's area of interest and they have elected not to consult further in connection with the WSLP project.

E. The USACE shall make a reasonable and good faith effort to identify any additional Tribes that might attach religious and cultural significance to historic properties in the area of potential effects (APE) for the WSLP project.

F. The USACE shall consult with Tribes that are invited to sign this Agreement as Invited Signatory Parties and Tribes that are invited to sign this agreement as Concurring Parties, as well as any other Tribe that requests in writing to be a consulting party (collectively, “Consulting Tribes”).

G. The USACE will provide the Consulting Tribes with an executed copy of this Agreement and with copies of all plans, determinations, and findings provided to the LA SHPO.

III. Public Involvement

A. The USACE, in consultation with the LA SHPO, shall continue to identify and provide members of the public likely to be interested in the effects of the WSLP project upon historic properties with a description of the undertaking and the provisions of this Agreement.

B. Specific cultural resources data will not be released to the general public or become released as part of NEPA documents.

C. To the extent permitted under applicable federal laws and regulations (e.g., Section 304 of the NHPA, Section 9 of the Archaeological Resources Protection Act [ARPA]), the USACE will release to the public, documents developed pursuant to this Agreement, effects determinations, and Interim Progress Reports.

IV. Other Consulting Parties

A. Any member of the public expressing an interest in the effects of this undertaking on historic properties, may become a consulting party by submitting a written request to USACE.

B. The USACE, in consultation with the LA SHPO, will continue efforts during the duration of this Agreement to identify other parties with demonstrated interests in the preservation of historic properties.

C. The USACE will document the consulting parties in the consultation process for the WSLP project and maintain it as part of the administrative record.

D. If any dispute arises about the right to be recognized as a consulting party, the USACE will contact the ACHP and provide all appropriate documentation. The ACHP will participate in the resolution of the issue.

V. Identification, Evaluation, and Assessment of Effects Determinations

A. The USACE, in consultation with the LA SHPO and Consulting Tribes, will define and document the geographic areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist, referred to as an area of potential effects (APE). Because WSLP contains borrow sources and mitigation areas that are spatially distinct from the risk reduction system, there will be multiple APE (collectively, the WSLP APE). Each APE will assist in identifying the potential for direct, indirect, and cumulative effects upon historic properties. The reasonable and good faith identification and evaluation efforts will be limited to the identified WSLP APE.

B. WSLP APE are defined at this time to include areas that may be directly or indirectly impacted by:

1. A 55-foot wide and 18.27-mile long levee to be constructed in St. John the Baptist Parish, including its associated features (i.e., pump stations, canals, and drainage structures), as well as activities associated with construction (i.e., access roads and staging areas);

2. Three (3) 20-foot wide berms enclosing three residential communities located in St. James Parish with a combined total length of approximately 7 miles;

3. Installation of 145 flap gates on existing culverts below Highway 3125.

C. Borrow sources and mitigation sites are not yet fully defined, and will be coordinated for purposes of defining the APE by the USACE, LA SHPO, and Consulting Tribes. Additional areas of the WSLP APE will be identified as necessary.

D. Following the delineation of final WSLP APE components, the USACE will conduct a reasonable and good faith effort to identify historic properties located within the WSLP APE. Level of survey to be conducted within the APE and methodology will be developed in consultation with the LA SHPO and

Consulting Tribes, in a manner equivalent to the Section 106 Process of NHPA and equivalent to Reconnaissance or Phase I Investigations required by the Louisiana Division of Archaeology. Areas that are inaccessible or are determined to possess a low probability for containing historic properties may be excluded from survey after consultation with the LA SHPO and Consulting Tribes.

E. The USACE will ensure that the results of identification efforts are documented in reports that meet the standards of the Louisiana Division of Archaeology, and will ensure that the reports are submitted to the LA SHPO and Consulting Tribes for review and comment. The USACE will ensure that the comments provided by the LA SHPO and Consulting Tribes are addressed and incorporated into a final report.

F. The USACE will consult with the LA SHPO and Consulting Tribes on the eligibility of any properties identified during the identification effort. For any properties determined not eligible for nomination to the NRHP, no further consideration will be required under the terms of this Agreement. For those properties determined eligible for nomination, the USACE will proceed in accordance with Stipulation VI. For those properties whose eligibility for the NRHP cannot be determined on the basis of the identification effort, the USACE will consult with the LA SHPO and Consulting Tribes to determine if the proposed project can avoid the properties. If the properties can be avoided, the USACE will proceed as in Stipulation VI. If the properties cannot be avoided, the USACE will ensure that additional investigations to evaluate each property's eligibility for nomination will be undertaken.

G. The USACE will ensure that the results of the evaluation efforts are documented in reports that meet the standards of the Louisiana Division of Archaeology and will ensure that the reports are submitted to the LA SHPO and Consulting Tribes for review and comment. The USACE will ensure that the comments provided by the LA SHPO and Consulting Tribes are addressed and incorporated into a final report.

H. The USACE will consult with the LA SHPO and Consulting Tribes on the eligibility of the properties assessed during the evaluation effort. For any properties determined not eligible for nomination to the NRHP, no further consideration will be required. For those properties determined eligible for nomination, the USACE will proceed in accordance with Stipulation VII.

I. In the event of disagreement between the USACE, LA SHPO, and/or Consulting Tribes concerning the eligibility of a property for listing in the NRHP under 36 CFR Part 60, the USACE shall request a formal determination of eligibility for that property from the Keeper of the NRHP (Keeper). The determination by the Keeper will serve as the final decision regarding the NRHP eligibility of the property.

VI. Coordination of Effects Determinations

A. The USACE shall evaluate the effects of a project activity on historic properties in a holistic manner and will not segment activities. In the event the USACE determines that any aspect of the project activity will have an effect or adverse effect on a historic property within the WSLP APE, the entire project activity will be reviewed accordingly.

B. Consultation under this Agreement will be concluded for USACE findings of *no historic properties affected* and *no adverse effect* when the LA SHPO and Consulting Tribes have been provided the opportunity to review and comment on the written documentation and either concur or do not object within 30 days of receipt of the USACE finding, and subject to the provisions of this Agreement.

C. Following submission of written documentation to the LA SHPO and Consulting Tribes, the USACE may propose a finding of *no adverse effect with conditions*, as appropriate. Such conditions may include, but are not limited to:

1. Avoidance and/or preservation-in-place of historic properties;

2. Modifications or conditions to ensure consistency with the Secretary of Interior's Standards for the Treatment of Historic Properties and applicable guidelines.

D. In the event of an objection by the LA SHPO, Consulting Tribes or other consulting parties regarding the USACE’s findings of *no historic properties affected*, findings of *no adverse effect*, and findings of *no adverse effect with conditions*, the USACE shall seek to resolve such objection through consultation in accordance with procedures outlined in Stipulation XII.

VII. Resolution of Adverse Effects

A. In the event that the USACE, in consultation with the LA SHPO and Consulting Tribes, determines that the implementation of a project activity may result in an adverse effect to historic properties (as defined in 36 CFR 800.5(a)(1) and (2) of the ACHP's regulations), the USACE shall notify the ACHP, LA SHPO, Consulting Tribes, other consulting parties and the public. If the project activity will affect a National Historic Landmark, USACE shall also notify the National Park Service (NPS). The notification of adverse effect shall include the following documentation, subject to the confidentiality provisions of 36 CFR 800.6:

1. Summary description of the activity area;

2. Summary of identification efforts in accordance with this agreement;

3. Summary analysis of effects to historic properties;

4. Summary of alternatives considered to avoid or reduce adverse effects;

5. Proposed mitigation measures in accordance with Stipulation VIII when adverse effects cannot be avoided or conditioned to reach a determination of no adverse effect; and

6. Request for ACHP comment and involvement, as appropriate.

B. The ACHP, LA SHPO, Consulting Tribes, and any additional consulting parties, including the NPS, as appropriate, shall be afforded an opportunity to review and to comment on the adverse effect notification for a period of thirty (30) calendar days after receipt of the adverse effect notification.

C. Should the USACE, LA SHPO, and Consulting Tribes disagree on the proposed mitigation measures, the USACE shall seek to resolve such objection through consultation in accordance with Stipulation XII.

VIII. Standard Mitigation Measures

A. The USACE, in coordination with the ACHP, LA SHPO, Consulting Tribes, and other consulting parties, will identify standard mitigation measures for adverse effects to historic properties. Standard mitigation measures will be tailored to the significance of the historic property, and may include, but are not necessarily limited to, one or more of the following:

1. Public Interpretation;

2. Documentation consistent with the Level II Standards of the Historic American Building Survey/Historic American Engineering Record (HABS/HAER);

3. Historical, Architectural or Archeological Monographs;

4. Rehabilitation of historic buildings in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68);

5. Off-site mitigation, including acquisition of property or preservation easements on property, as appropriate and legal, containing threatened resources of comparable significance in circumstances where there is an imminent need to proceed with construction activity and it is in the public interest;

6. Ethnographic studies;

7. Studies of traditional cultural properties;

8. Relocation of historic properties to sites approved by the LA SHPO as possessing similar overall character; and

9. Data recovery for archeological properties.

B. In the event that the ACHP, LA SHPO, and/or Consulting Tribes determine that standard mitigation measures are not adequate or appropriate to resolve adverse effects, the USACE, LA SHPO, and Consulting Tribes will consult to negotiate additional mitigation measures. Other consulting parties may express their concerns regarding mitigation measures through written comments submitted to any of the signatories to the Agreement.

C. Once the USACE, ACHP, LA SHPO, and/or Consulting Tribes agree to the terms of the mitigation, such agreement will be formalized through an MOA executed and implemented pursuant to 36 CFR 800.6(c). Such MOA shall be forwarded to all signatories to this Agreement. If there is a disagreement that cannot be resolved, the formal dispute provisions at Stipulation XII will be implemented.

IX. Curation

The USACE will ensure that all collections and associated records retrieved or created during the life of this Agreement are curated in accordance with 36 CFR Part 79.

X. Unanticipated Discoveries and Effects

A. In the event that the USACE discovers a previously unidentified cultural resource, including but not limited to archeological sites, standing structures, human remains, and properties of traditional religious and cultural significance to Tribes, during the execution of the project, the USACE immediately shall secure the immediate jobsite by the most appropriate quickly available means, to include but not necessarily limited to a 50-foot radius buffer around the unexpected discovery, and suspend work in that buffered area of the affected resource. The USACE shall immediately notify the LA SHPO, Consulting Tribes, and additional consulting parties, as appropriate, of the finding. Any previously unidentified cultural resource will be treated as though it is eligible for the NRHP until other determination may be made. If consulting parties agree that the cultural resource is not eligible for the NRHP, then suspension of work will end. If consulting parties agree that the cultural resource is eligible for the NRHP, then the USACE, in consultation with the LA SHPO and Consulting Tribes, will develop a treatment plan or Standard Mitigation Measures agreement in accordance with Stipulation VIII. USACE will implement the plan or Standard Mitigation Measures agreement once approved by the LA SHPO, Consulting Tribes, and additional consulting parties, as appropriate. If there is a disagreement that cannot be resolved, the formal dispute provisions at Stipulation XII will be implemented.

B. In the event that the USACE is notified of a previously unidentified archaeological property on federal or tribal land during the execution of any of the undertakings, the USACE will ensure that procedures established by ARPA 1979 (Public Law

96-95; 16 U.S.C. 470aa-mm), as amended, and implementing regulations (43 CFR Part 7) will be followed.

C. The USACE shall insure that all contractors are made aware of the requirements of this Agreement. Language of Stipulation X shall be included in Construction Plans and Specifications. In the event that a contractor discovers a previously unidentified cultural resource, the contractor shall immediately notify the USACE and refrain from further project activities within a minimum of 50 feet from the discovery (50-foot radius no work buffer), and shall take reasonable efforts to avoid and minimize harm to the cultural resource. The USACE shall implement any additional measures thought necessary to secure the historic property for safety and security concerns.

D. In the event that previously unidentified effects to historic properties are identified following the completion of work within an activity area, any party may provide the USACE with evidence of such effects for a period of twelve (12) months from the completion of the affecting work. The USACE, in consultation with the LA SHPO, Consulting Tribes, and ACHP, as appropriate, will review and if determined necessary will develop a treatment plan or Standard Mitigation Measures agreement in accordance with Stipulation VIII.

E. If the USACE, LA SHPO, and/or Consulting Tribes cannot agree on an appropriate course of action to address the discovery situation, the USACE shall initiate the dispute resolution process set forth in Stipulation XII.

XI. Discovery of Human Remains

A. Language of Stipulation XI shall be included in Construction Plans and Specifications, to offer fullest knowledge of the importance therein.

B. When human remains or indications of a burial are discovered, the individual(s) who made the discovery shall immediately notify the local law enforcement and the USACE, New Orleans District. All work shall cease within a minimum of 50 feet from the discovery (50-foot radius no work buffer) until and unless determined otherwise in consultation according to this Agreement.

C. The USACE may authorize the activity in the direct discovery areas to resume, following the completion of all necessary steps as outlined below.

D. In the event that the USACE is notified of a previously unidentified burial, including burial sites, human skeletal remains, or burial artifacts, on private or state land during the execution of any of the Undertakings, the USACE will ensure that the procedures established in the Louisiana Unmarked Human Burial Sites Preservation Act (La. R.S. 8:671-681) will be followed.

E. In the event that the USACE is notified of a previously unidentified burial, including burial sites, human remains or funerary objects, on federal or tribal land during the execution of any of the undertakings, the USACE will ensure that procedures established by ARPA 1979 (Public Law 96-95; 16 U.S.C. 470aa-mm), as amended, and implementing regulations (43 CFR Part 7) will be followed.

F. In the event that the USACE is notified of a previously unidentified American Indian burial, including burial sites, human remains or funerary objects, on federal or tribal land during the execution of any of the undertakings, the USACE will ensure that procedures established by the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 and the regulations that implement it (43 CFR Part 10) will be followed.

G. The USACE shall have an archaeologist immediately survey or resurvey the general area where the remains were found to determine the nature of the remains and evaluate the possibility of preserving the remains in place or whether they will need to be exhumed/moved. Tribes likely to have a cultural affiliation with the remains will be notified by telephone immediately in accordance with 43 CFR Part 10.4(b). If possible, Tribal representative(s) shall be present to advise on appropriate treatment of the exposed remains and on the most appropriate long-term solution.

H. The USACE shall provide information collected on the nature of the remains and a recommended plan of action pursuant to 43 CFR 10.5(e) within five (5) working days to the Consulting Tribes and the LA SHPO. The USACE shall consult with all relevant parties to determine the appropriate course of action with regard to the human remains and any accompanying artifacts, grave goods, or funerary objects.

I. All signatories agree that the most appropriate treatment, if feasible, is to protect the remains and permanently preserve the burial in situ.

J. If the USACE, after consultation, determines that protection, avoidance, or repair is not feasible, disinterment shall be conducted in accordance with methods and procedures developed in accordance with the appropriate federal and state laws and in consultation with the Consulting Tribes and the LA SHPO.

XII. Dispute Resolution

A. Except for the resolution of eligibility issues, as set forth in Stipulation V, should the LA SHPO, Consulting Tribes, or a member of the public disagree on the implementation of the provisions of this agreement, they will notify the USACE, who will seek to resolve such objection through consultation.

B. If the dispute cannot be resolved through consultation, the USACE shall forward all documentation relevant to the dispute to the ACHP, including any proposed resolution identified during consultation. Within seven (7) calendar days after receipt of all pertinent documentation, the ACHP may:

1. Provide the USACE with recommendations to take into account in reaching final decision regarding the dispute; or

2. Notify the USACE that it will comment pursuant to 36 CFR 800.7(c) and provide formal comments within twenty-one (21) calendar days.

C. Any recommendation or comment provided by the ACHP will be understood to pertain only to the subject of the dispute, and the USACE's responsibilities to fulfill all actions that are not subject of the dispute will remain unchanged.

D. If the ACHP does not provide the USACE with recommendations or notification of its intent to provide formal comments within seven (7) calendar days, the USACE may assume that the ACHP does not object to its recommended approach and it will proceed accordingly.

XIII. Administration, Effect, and Duration of this Agreement

A. This Agreement will be signed in counterparts and shall take effect upon execution by the ACHP, USACE, and LA SHPO.

B. This Agreement will remain in effect for ten (10) years from the date of execution, unless extended for a two-year period by written agreement negotiated by all signatories.

C. All signatories to this Agreement shall meet annually to evaluate the effectiveness of this Agreement, beginning one (1) year after the date of execution. The USACE shall coordinate such annual meetings following the execution of this Agreement. At each annual meeting, held in manner and location as mutually agreed upon by all signatories, the effectiveness of the Stipulations of this Agreement shall be discussed. After five (5) years, all signatories will begin the discussion to consider any cumulative effects as discussed by Stipulation XIV.

XIV. Comprehensive Review

A. Upon completion of the construction activities for the WSLP project, the USACE will analyze the undertaking holistically to identify cumulative effects upon historic properties. Cumulative effects are those coincident effects on specific resources of all related activities, not just the proposed actions governed by the Stipulations of this Agreement.

B. The USACE, in consultation with the signatories to this Agreement, shall identify and implement additional mitigation measures to address adverse cumulative effects, as appropriate. If there is a disagreement that cannot be resolved, the formal dispute provisions at Stipulation XII will be implemented.

C. Measures to address adverse cumulative effects shall be documented in a report that meets the standards of the Louisiana Division of Archaeology and will be submitted to the LA SHPO and Consulting Tribes for review and comment. The final cumulative report shall be distributed to the signatories to this Agreement, as well as any additional consulting parties.

XV. Amendment and Termination

A. Notwithstanding any provision of this Agreement, USACE, ACHP, LA SHPO, and Invited Signatory Parties may request that it be amended, whereupon these parties will consult to consider such amendment. The USACE will facilitate such consultation within thirty (30) days of receipt of the written request. Any amendment will be in writing and will be signed by the USACE, ACHP, LA SHPO, and Invited Signatory Parties, and shall be effective on the date of the final signature.

B. Any Invited Signatory Party may withdraw its participation in this Agreement by providing thirty (30) days advance written notification to all other parties. In the event of withdrawal by one Invited Signatory Party, the Agreement will remain in effect for the other signatories.

C. The Agreement may be terminated in accordance with 36 CFR Part 800. Any party requesting termination of this Agreement shall provide thirty (30) days advance written notification to all other signatories.

Execution of this Agreement by the ACHP, USACE, and LA SHPO and implementation of its terms, evidences that the USACE has taken into account the effects of the WSLP project upon historic properties and has afforded the ACHP an opportunity to comment.

Programmatic Agreement
among
The United States Army Corps of Engineers,
Louisiana State Historic Preservation Officer,
and
The Advisory Council on Historic Preservation
regarding the
West Shore Lake Pontchartrain Hurricane and
Storm Damage Risk Reduction System

Execution of this Agreement by the ACHP, USACE, and LA SHPO and implementation of its terms, evidences that the USACE has taken into account the effects of the WSLP project upon historic properties and has afforded the ACHP an opportunity to comment.

Signatory:

United States Army Corps of Engineers

By: Richard L. Hansen Date: 5/15/14
Richard L. Hansen
Colonel, U.S. Army
District Commander

Programmatic Agreement
among
The United States Army Corps of Engineers,
Louisiana State Historic Preservation Officer,
and
The Advisory Council on Historic Preservation
regarding the
West Shore Lake Pontchartrain Hurricane and
Storm Damage Risk Reduction System

Execution of this Agreement by the ACHP, USACE, and LA SHPO and implementation of its terms, evidences that the USACE has taken into account the effects of the WSLP project upon historic properties and has afforded the ACHP an opportunity to comment.

Signatory:

Louisiana State Historic Preservation Officer

By: Pam Breaux Date: 5-15-14

Pam Breaux
Louisiana State Historic Preservation Officer
Louisiana Office of Cultural Development

Programmatic Agreement
among
The United States Army Corps of Engineers,
Louisiana State Historic Preservation Officer,
and
The Advisory Council on Historic Preservation
regarding the
West Shore Lake Pontchartrain Hurricane and
Storm Damage Risk Reduction System

Execution of this Agreement by the ACHP, USACE, and LA SHPO and implementation of its terms, evidences that the USACE has taken into account the effects of the WSLP project upon historic properties and has afforded the ACHP an opportunity to comment.

Signatory:

Advisory Council on Historic Preservation

By: John M. Fowler Date: 5/16/14
John M. Fowler
Executive Director
Advisory Council on Historic Preservation

Programmatic Agreement
among
The United States Army Corps of Engineers,
Louisiana State Historic Preservation Officer,
and
The Advisory Council on Historic Preservation
regarding the
West Shore Lake Pontchartrain Hurricane and
Storm Damage Risk Reduction System

Invited Signatory Party:

Chitimacha Tribe of Louisiana

By: John Paul Darden Date: 6-25-14
John Paul Darden, Chairman

APPENDIX A
CONTACT INFORMATION

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Coastal Protection and Restoration Authority Board
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DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

February 27, 2014

Regional Planning and
Environment Division, South
New Orleans Environmental Branch

Reid Nelson, Director
Office of Federal Agency Programs
Advisory Council on Historic Preservation
Old Post Office
1100 Pennsylvania Ave., NW, Suite 809
Washington, D.C. 20004

Dear Mr. Nelson:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), is consulting for development of a Programmatic Agreement (PA) for the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction System (WSLP) Study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate.

The proposed undertakings of the WSLP Study have the potential to effect historic properties. The WSLP Study was first authorized in 1971 and experienced many variations and delays, but now finds further development to be directed by the USACE SMART Feasibility Study Process. A draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study is available for review at http://www.mvn.usace.army.mil/Portals/56/docs/PD/Projects/WSLP/WSLPFINAL.pdf.

The CEMVN is currently funding a cultural resources survey for an approximately 18.5 mile, 550-foot wide, proposed levee corridor (TSP C) (to include construction, adjacent drainage ditch reservoirs, and Right-of-Way), that is the largest single component of the WSLP study. This levee corridor is immediately adjacent to previous cultural resource surveys (as per Louisiana SHPO files) with negative findings, for approximately 10 linear miles. Approximately 1.8 miles of levee corridor pass through or adjacent to cultural resource site 16SJB68 (Angelina Plantation) near the Mississippi River. This site received extensive cultural resources survey in 2012 (Louisiana Site Report 22-4288), and did not locate National Register of Historic Places (NRHP) eligible resources within the proposed levee corridor. Remaining areas of corridor that remain unsurveyed are within seasonally wet lands not conducive to recoverable human activity or preserved cultural resources. No other cultural resources have been recorded within 1 miles of the TSP C levee corridor. It is anticipated that any previously unrecorded cultural resource will be located by the current survey underway for the WSLP study.

Remaining undertakings of the WSLP Study are defined as "non-structural" and were not sufficiently designated in time to be included within the currently-conducted cultural resources survey, but are thought to be similarly low-probability to affect cultural resources. Existing Louisiana Highway 3125 has an elevated roadway, and will serve as a low berm to prevent storm water from affecting any resources to its south. A series of flap gates will be integrated under the roadway to allow natural water-flow as necessary and not artificially create flood damages. Site 16SJ1 is a prehistoric mound site on private property, considered eligible for the NRHP and approximately 600 feet south of Highway 3125. Two other sites located within 1000 feet of 16SJ1 are 16SJ50 (prehistoric midden; NRHP eligibility undetermined) and 16SJ51 (prehistoric mound; NRHP eligibility undetermined), located approximately 500 feet and 250 feet south of Highway 3125, respectively. The other recorded cultural resource within ½ mile of Highway 3125 within WSLP system is 16SJ56 (historic trash dump; NRHP ineligible according to SHPO). Highway 3125 also crossed the property boundaries of Wilton (16SJ20) and Helvetia (16SJ21) Plantations, portions of which are considered eligible for the NRHP; however according to cultural resources survey in 2011 (Louisiana Site Report 22-3017) no NRHP eligible portion is located in areas of potential effect by proposed flap gates under Highway 3125.

Protective low berms will be built around residences in the small communities of Gramercy and Grand Point, and similarly were not sufficiently designated in time to receive a cultural resources survey. A total of 3 berms with approximate 15-foot basal footprint are proposed. Total length of berms proposed is approximately 6.5 miles. These berm footprints are also thought to be of low probability to affect cultural resources because of: 1) their distance (ca. 1.4, 1.5, and 2.5 miles at closest) to the Mississippi River natural levee and its more stable soils; 2) their closer proximity to seasonally wet soils; 3) the lack of an identified cultural resource by any proximate cultural resources survey; and 4) their overlap on previously developed land likely to have disturbed any previously existing cultural resource.

The SMART Feasibility Study Process implemented by USACE designates that the WSLP Study should next seek Congressional approval for construction and move to Preliminary Engineering Design (PED) of proposed features, using information and risks now extant. Discussion for a Programmatic Agreement to be formed is considered as follows:

1) Any cultural resource that may be found during the currently ongoing cultural resources survey will not have opportunity for NRHP testing if such is required by findings.
2) Borrow Material for the TSP C levee is expected to come from Bonnet Carre Spillway and has been previously coordinated for Section 106. Any change of borrow source must be coordinated for Section 106.
3) Mitigation for swamp or bottomland hardwoods that may be destroyed during construction activities, is proposed for an area near the Amite River Diversion canal. This location has not been coordinated for Section 106, and therefore must be coordinated for Section 106.

4) Although considered low potential lands to contain cultural resources, the flap gates to be placed along Highway 3125 are not sufficiently configured to determine if they may impact a cultural resource. PED should designate that no construction take place within agreed distance from sites 16SJ1, 16SJ50, and 16SJ51. Section 106 coordination should be agreed once offset from previously-existing Highway 3125 is known.
5) Although considered low potential lands to contain a cultural resource, the protective berms around Gramercy and Grand Point have not been coordinated for Section 106, and therefore must be coordinated for Section 106.
6) Currently proposed features leave approximately 80 homes outside of the WSLP system. 33 of these homes are calculated to require lifting to include them within the desired protection from a 100-year storm event. Any homes to be raised should be examined to determine if raising would adversely affect any existing NRHP status.

Maps and information that are helpful to familiarize with project area, are enclosed. A teleconference has been scheduled for March 6, 2014, at 10 a.m. central time, and the agenda and call-in information will be provided by email.

The point of contact at the CEMVN is Dr. Paul Hughbanks. You can reach him at the above address or by phone at (504) 862-1100 or by e-mail at Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter will be submitted to Dr. Tom McCulloch, tmcculloch@achp.gov.

Sincerely,

Sandra Sills

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

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

REPLY TO
ATTENTION OF:

February 27, 2014

Regional Planning and
Environment Division, South
New Orleans Environmental Branch

Ms. Pam Breaux
State Historic Preservation Officer
Department of Culture, Recreation, & Tourism
P.O. Box 44247
Baton Rouge, LA 70804

Dear Ms. Breaux:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), is consulting for development of a Programmatic Agreement (PA) for the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction System (WSLP) Study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate.

The proposed undertakings of the WSLP Study have the potential to effect historic properties. The WSLP Study was first authorized in 1971 and experienced many variations and delays, but now finds further development to be directed by the USACE SMART Feasibility Study Process. A draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study is available for review at http://www.mvn.usace.army.mil/Portals/56/docs/PD/Projects/WSLP/WSLPFINAL.pdf.

The CEMVN is currently funding a cultural resources survey for an approximately 18.5 mile, 550-foot wide, proposed levee corridor (TSP C) (to include construction, adjacent drainage ditch reservoirs, and Right-of-Way), that is the largest single component of the WSLP study. This levee corridor is immediately adjacent to previous cultural resource surveys (as per Louisiana SHPO files) with negative findings, for approximately 10 liner miles. Approximately 1.8 miles of levee corridor pass through or adjacent to cultural resource site 16SJB68 (Angelina Plantation) near the Mississippi River. This site received extensive cultural resources survey in 2012 (Louisiana Site Report 22-4288), and did not locate National Register of Historic Places (NRHP) eligible resources within the proposed levee corridor. Remaining areas of corridor that remain unsurveyed are within seasonally wet lands not conducive to recoverable human activity or preserved cultural resources. No other cultural resources have been recorded within 1 miles of the TSP C levee corridor. It is anticipated that any previously unrecorded cultural resource will be located by the current survey underway for the WSLP study.

Remaining undertakings of the WSLP Study are defined as "non-structural" and were not sufficiently designated in time to be included within the currently-conducted cultural resources survey, but are thought to be similarly low-probability to affect cultural resources. Existing Louisiana Highway 3125 has an elevated roadway, and will serve as a low berm to prevent storm water from affecting any resources to its south. A series of flap gates will be integrated under the roadway to allow natural water-flow as necessary and not artificially create flood damages. Site 16SJ1 is a prehistoric mound site on private property, considered eligible for the NRHP and approximately 600 feet south of Highway 3125. Two other sites located within 1000 feet of 16SJ1 are 16SJ50 (prehistoric midden; NRHP eligibility undetermined) and 16SJ51 (prehistoric mound; NRHP eligibility undetermined), located approximately 500 feet and 250 feet south of Highway 3125, respectively. The other recorded cultural resource within ½ mile of Highway 3125 within WSLP system is 16SJ56 (historic trash dump; NRHP ineligible according to SHPO). Highway 3125 also crossed the property boundaries of Wilton (16SJ20) and Helvetia (16SJ21) Plantations, portions of which are considered eligible for the NRHP; however according to cultural resources survey in 2011 (Louisiana Site Report 22-3017) no NRHP eligible portion is located in areas of potential effect by proposed flap gates under Highway 3125.

Protective low berms will be built around residences in the small communities of Gramercy and Grand Point, and similarly were not sufficiently designated in time to receive a cultural resources survey. A total of 3 berms with approximate 15-foot basal footprint are proposed. Total length of berms proposed is approximately 6.5 miles. These berm footprints are also thought to be of low probability to affect cultural resources because of: 1) their distance (ca. 1.4, 1.5, and 2.5 miles at closest) to the Mississippi River natural levee and its more stable soils; 2) their closer proximity to seasonally wet soils; 3) the lack of an identified cultural resource by any proximate cultural resources survey; and 4) their overlap on previously developed land likely to have disturbed any previously existing cultural resource.

The SMART Feasibility Study Process implemented by USACE designates that the WSLP Study should next seek Congressional approval for construction and move to Preliminary Engineering Design (PED) of proposed features, using information and risks now extant. Discussion for a Programmatic Agreement to be formed is considered as follows:

1) Any cultural resource that may be found during the currently ongoing cultural resources survey will not have opportunity for NRHP testing if such is required by findings.
2) Borrow Material for the TSP C levee is expected to come from Bonnet Carre Spillway and has been previously coordinated for Section 106. Any change of borrow source must be coordinated for Section 106.
3) Mitigation for swamp or bottomland hardwoods that may be destroyed during construction activities, is proposed for an area near the Amite River Diversion canal. This location has not been coordinated for Section 106, and therefore must be coordinated for Section 106.

4) Although considered low potential lands to contain cultural resources, the flap gates to be placed along Highway 3125 are not sufficiently configured to determine if they may impact a cultural resource. PED should designate that no construction take place within agreed distance from sites 16SJ1, 16SJ50, and 16SJ51. Section 106 coordination should be agreed once offset from previously-existing Highway 3125 is known.
5) Although considered low potential lands to contain a cultural resource, the protective berms around Gramercy and Grand Point have not been coordinated for Section 106, and therefore must be coordinated for Section 106.
6) Currently proposed features leave approximately 80 homes outside of the WSLP system. 33 of these homes are calculated to require lifting to include them within the desired protection from a 100-year storm event. Any homes to be raised should be examined to determine if raising would adversely affect any existing NRHP status.

Maps and information that are helpful to familiarize with project area, are enclosed. A teleconference has been scheduled for March 6, 2014, and the agenda and call-in information will be provided by email.

The point of contact at the CEMVN is Dr. Paul Hughbanks. You can reach him at the above address or by phone at (504) 862-1100 or by e-mail at Paul.J.Hughbanks@usace.army.mil. An electronic cop of this letter is also being sent to Section106@crt.la.gov.

Sincerely,

for Sandra Stiles
Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

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

REPLY TO
ATTENTION OF:

February 27, 2014

Regional Planning and
Environment Division, South
New Orleans Environmental Branch

Mr. Jerome Zeringue, Executive Director
Coastal Protection and
Restoration Authority Board of Louisiana
P.O. Box 94004
Office of Governor-Coastal, 4th Floor
Baton Rouge, LA 70804

Dear Mr. Zeringue:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), is consulting for development of a Programmatic Agreement (PA) for the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction System (WSLP) Study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate.

The proposed undertakings of the WSLP Study have the potential to effect historic properties. The WSLP Study was first authorized in 1971 and experienced many variations and delays, but now finds further development to be directed by the USACE SMART Feasibility Study Process. A draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study is available for review at http://www.mvn.usace.army.mil/Portals/56/docs/PD/Projects/WSLP/WSLPFINAL.pdf.

The CEMVN is currently funding a cultural resources survey for an approximately 18.5 mile, 550-foot wide, proposed levee corridor (TSP C) (to include construction, adjacent drainage ditch reservoirs, and Right-of-Way), that is the largest single component of the WSLP study. This levee corridor is immediately adjacent to previous cultural resource surveys (as per Louisiana SHPO files) with negative findings, for approximately 10 linear miles. Approximately 1.8 miles of levee corridor pass through or adjacent to cultural resource site 16SJB68 (Angelina Plantation) near the Mississippi River. This site received extensive cultural resources survey in 2012 (Louisiana Site Report 22-4288), and did not locate National Register of Historic Places (NRHP) eligible resources within the proposed levee corridor. Remaining areas of corridor that remain unsurveyed are within seasonally wet lands not conducive to recoverable human activity or preserved cultural resources. No other cultural resources have been recorded within 1 miles of the TSP C levee corridor. It is anticipated that any previously unrecorded cultural resource will be located by the current survey underway for the WSLP study.

Remaining undertakings of the WSLP Study are defined as "non-structural" and were not sufficiently designated in time to be included within the currently-conducted cultural resources survey, but are thought to be similarly low-probability to affect cultural resources. Existing Louisiana Highway 3125 has an elevated roadway, and will serve as a low berm to prevent storm water from affecting any resources to its south. A series of flap gates will be integrated under the roadway to allow natural water-flow as necessary and not artificially create flood damages. Site 16SJ1 is a prehistoric mound site on private property, considered eligible for the NRHP and approximately 600 feet south of Highway 3125. Two other sites located within 1000 feet of 16SJ1 are 16SJ50 (prehistoric midden; NRHP eligibility undetermined) and 16SJ51 (prehistoric mound; NRHP eligibility undetermined), located approximately 500 feet and 250 feet south of Highway 3125, respectively. The other recorded cultural resource within ½ mile of Highway 3125 within WSLP system is 16SJ56 (historic trash dump; NRHP ineligible according to SHPO). Highway 3125 also crossed the property boundaries of Wilton (16SJ20) and Helvetia (16SJ21) Plantations, portions of which are considered eligible for the NRHP; however according to cultural resources survey in 2011 (Louisiana Site Report 22-3017) no NRHP eligible portion is located in areas of potential effect by proposed flap gates under Highway 3125.

Protective low berms will be built around residences in the small communities of Gramercy and Grand Point, and similarly were not sufficiently designated in time to receive a cultural resources survey. A total of 3 berms with approximate 15-foot basal footprint are proposed. Total length of berms proposed is approximately 6.5 miles. These berm footprints are also thought to be of low probability to affect cultural resources because of: 1) their distance (ca. 1.4, 1.5, and 2.5 miles at closest) to the Mississippi River natural levee and its more stable soils; 2) their closer proximity to seasonally wet soils; 3) the lack of an identified cultural resource by any proximate cultural resources survey; and 4) their overlap on previously developed land likely to have disturbed any previously existing cultural resource.

The SMART Feasibility Study Process implemented by USACE designates that the WSLP Study should next seek Congressional approval for construction and move to Preliminary Engineering Design (PED) of proposed features, using information and risks now extant. Discussion for a Programmatic Agreement to be formed is considered as follows:

1) Any cultural resource that may be found during the currently ongoing cultural resources survey will not have opportunity for NRHP testing if such is required by findings.
2) Borrow Material for the TSP C levee is expected to come from Bonnet Carre Spillway and has been previously coordinated for Section 106. Any change of borrow source must be coordinated for Section 106.
3) Mitigation for swamp or bottomland hardwoods that may be destroyed during construction activities, is proposed for an area near the Amite River Diversion canal. This location has not been coordinated for Section 106, and therefore must be coordinated for Section 106.

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5) Although considered low potential lands to contain a cultural resource, the protective berms around Gramercy and Grand Point have not been coordinated for Section 106, and therefore must be coordinated for Section 106.
6) Currently proposed features leave approximately 80 homes outside of the WSLP system. 33 of these homes are calculated to require lifting to include them within the desired protection from a 100-year storm event. Any homes to be raised should be examined to determine if raising would adversely affect any existing NRHP status.

Maps and information that are helpful to familiarize with project area, are enclosed. A teleconference has been scheduled for March 6, 2014, and the agenda and call-in information will be provided by email.

The point of contact at the CEMVN is Dr. Paul Hughbanks. You can reach him at the above address or by phone at (504) 862-1100 or by e-mail at Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter will be submitted to Ms. Elizabeth Jarrell, elizabeth.jarrell@la.gov and Ms. Elizabeth Davoli, elizabeth.davoli@la.gov.

Sincerely,

Sandra Stiles

for Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

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

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

MAY 0 3 2013

Ms. Pam Breaux
State Historic Preservation Officer
Department of Culture, Recreation and Tourism
Office of Cultural Development
P.O. Box 44247
Baton Rouge, Louisiana 70804

Re: West Shore Lake Pontchartrain Hurricane Protection Project, St. John the Baptist and St. Charles Parish, Louisiana.

Dear Ms. Breaux:

The U.S. Army Corps of Engineers, New Orleans District (The Corps) has been in process of collecting data to select an alignment for construction of a levee in St. Charles and St. John the Baptist Parish, intended to protect the citizens of these parishes from storm surges that have shown able to cause extreme flooding. No construction has yet taken place on the ground, and the Corps has developed three alignments that appear most suitable given the various interests of federal and local governments. Each of these alignments begins at the western guide levee of the Bonnet Carre Spillway, and then diverge in different paths to protect various amounts of land and urban settlement. An image showing each of these three alignments is enclosed in this letter, for your review.

The Corps has been studying the need for this protection levee for many years, and in 2001 requested that Earth Search, Inc. conduct a cultural resources survey of an alignment very similar to Alignment A (Report 22-2559; Wilson et al. 2003). No cultural resources were located as a result of this survey. Alignments C and D have not received specific cultural resources surveys, although the Corps has reviewed available records of previous surveys or previously recorded cultural resources, and found that large portions of these alignments have been partially covered by other surveys without finding cultural resources. However, the Corps does intend to continue collecting information as to the potential effects caused by the construction of any protection levee, as well as potential effects of weather events after any levee is in place. This information will continue to be compared to known cultural resource locations and surveys. The Corps will continue consultation in compliance with Section 106 of the National Historic Preservation Act.

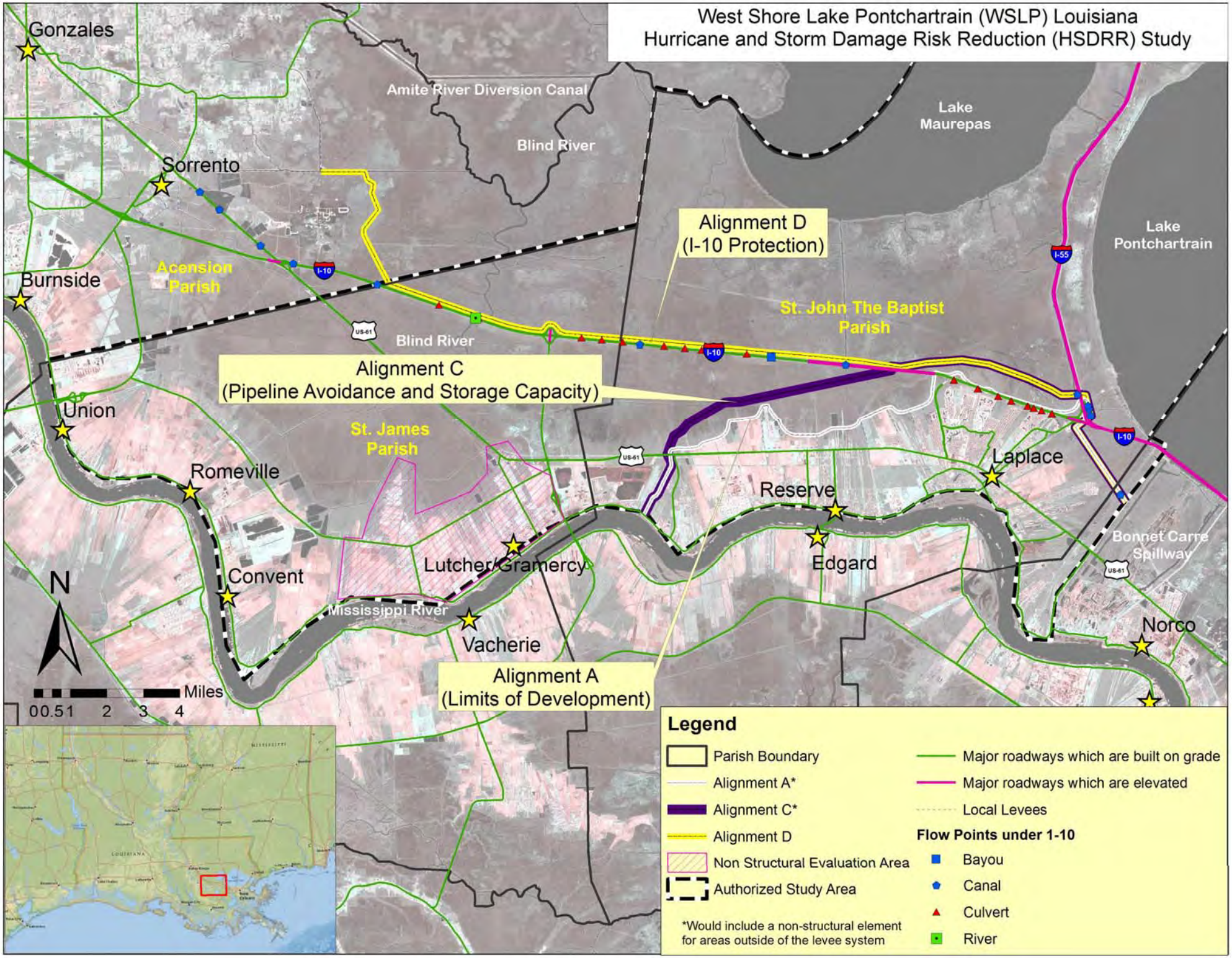
The Corps has sent this letter with intention to inform you of the current status of this project and our continuing efforts to be aware of any potential to affect historic resources. If you have concerns with this method and area of investigation, we invite you to notify us of those concerns so that we may be fully aware of them as this project proceeds. Please contact project archaeologist Dr. Paul Hughbanks, (504) 862-1100, Paul.J.Hughbanks@usace.army.mil, with any questions or comments.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures


West Shore Lake Pontchartrain (WSLP) Louisiana
Hurricane and Storm Damage Risk Reduction (HSDRR) Study
Gonzales
Amite River Diversion Canal
Blind River
Lake Maurepas
Lake Pontchartrain
Sorrento
Alignment D
(I-10 Protection)
Acension Parish
Burnside
St. John The Baptist Parish
Blind River
Alignment C
(Pipeline Avoidance and Storage Capacity)
Union
St. James Parish
Romeville
Laplace
Reserve
Bonnet Carre Spillway
Edgard
Lutcher/Gramercy
Convent
Mississippi River
Vacherie
Norco
Alignment A
(Limits of Development)
N
Miles
00.51 2 3 4
Legend
Parish Boundary
Alignment A*
Alignment C*
Alignment D
Non Structural Evaluation Area
Authorized Study Area
*Would include a non-structural element for areas outside of the levee system
Major roadways which are built on grade
Major roadways which are elevated
Local Levees
Flow Points under 1-10
Bayou
Canal
Culvert
River

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Carlos Bullock, Chairman
Alabama-Coushatta Tribe of Texas
571 State Park Rd 56
Livingston, TX 77351

Dear Chairman Bullock:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

The CEMVN has determined that implementation of the selected TSP for each study has the potential to cause effects on historic properties and proposes to develop two PAs to establish Section 106 consultation procedures tailored to the accelerated schedules required by the USACE SMART Feasibility Study Process. The undertakings have been summarized in previous Section 106 consultation correspondence and are detailed in the draft Integrated Feasibility Report and Programmatic Environmental Impact Statement for the SWC LA study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/SouthwestCoastal.aspx and the draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain.

A teleconference has been scheduled for March 10, 2014, and the agenda and call-in information will be provided by email. We request that you inform us of your desire to participate as a consulting party in these PAs. Given the accelerated schedules, CEMVN requests that consultation for the development of the PAs utilize a combination of email and teleconferences.

As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Mr. Bryant J. Celestine, Historic Preservation Officer, Alabama Coushatta Tribe of Texas, celestine.bryant@actribe.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Brenda Shemayme Edwards, Chairwoman
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Dear Chairwoman Edwards:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Mr. Robert Cast, Tribal Historic Preservation Officer, Caddo Nation of Oklahoma, rcast@caddonation.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

John Paul Darden, Chairman
Chitimacha Tribe of Louisiana
P.O. Box 661
Charenton, LA 70523

Dear Chairman Darden:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Mrs. Kimberly Walden, M. Ed., Cultural Director/Tribal Historic Preservation Officer, Chitimacha Tribe of Louisiana, kswalden@chitimacha.gov.

Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Gregory E. Pyle, Chief
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702-1210

Dear Chief Pyle:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

The CEMVN has determined that implementation of the selected TSP for each study has the potential to cause effects on historic properties and proposes to develop two PAs to establish Section 106 consultation procedures tailored to the accelerated schedules required by the USACE SMART Feasibility Study Process. The undertakings have been summarized in previous Section 106 consultation correspondence and are detailed in the draft Integrated Feasibility Report and Programmatic Environmental Impact Statement for the SWC LA study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/SouthwestCoastal.aspx and the draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain.

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As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Dr. Ian Thompson, Director/Tribal Historic Preservation Officer, Choctaw Nation of Oklahoma, ithompson@choctawnation.com.

Sincerely,

Joan M. Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Kevin Sickey, Chief
Coushatta Tribe of Louisiana
P.O. Box 818
Elton, LA 70532

Dear Chief Sickey:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

B. Cheryl Smith, Principal Chief
Jena Band of Choctaw Indians
P.O. Box 14
Jena, LA 71342

Dear Principal Chief Smith:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Ms. Dana Masters, Tribal Historic Preservation Officer, Jena Band of Choctaw Indians, jbc.thpo106@aol.com, and Ms. Lillie McCormick, Environmental Director, Jena Band of Choctaw Indians, lmmccormickjbc@centurytel.net.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Phyliss J. Anderson, Chief
Mississippi Band of Choctaw Indians
P.O. Box 6257
Choctaw, MS 39350

Dear Chief Anderson:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Mr. Kenneth H. Carleton, Tribal Historic Preservation Officer/ Archaeologist, Mississippi Band of Choctaw Indians, kcarleton@choctaw.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Leonard M. Harjo, Principal Chief
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Dear Principal Chief Harjo:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

The CEMVN has determined that implementation of the selected TSP for each study has the potential to cause effects on historic properties and proposes to develop two PAs to establish Section 106 consultation procedures tailored to the accelerated schedules required by the USACE SMART Feasibility Study Process. The undertakings have been summarized in previous Section 106 consultation correspondence and are detailed in the draft Integrated Feasibility Report and Programmatic Environmental Impact Statement for the SWC LA study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/SouthwestCoastal.aspx and the draft Integrated Feasibility Report and Environmental Impact Statement for the WSLP study, available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain.

A teleconference has been scheduled for March 10, 2014, and the agenda and call-in information will be provided by email. We request that you inform us of your desire to participate as a consulting party in these PAs. Given the accelerated schedules, CEMVN requests that consultation for the development of the PAs utilize a combination of email and teleconferences.

As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; rebecca.hill@usace.army.mil. An electronic copy of this letter and all future correspondence pertaining to the development of the PAs will be provided electronically to Ms. Natalie Harjo, Tribal Historic Preservation Officer, Seminole Nation of Oklahoma, harjo.n@sno-nsn.gov.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

James Billie, Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Dear Chairman Billie:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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Sincerely,

Joan M. Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

MARCH 7, 2014

REPLY TO
ATTENTION OF

Regional Planning and
Environment Division, South

Earl J. Barbry, Sr., Chairman
Tunica-Biloxi Tribe of Louisiana
P.O. Box 1589
Marksville, LA 71351

Dear Chairman Barbry:

The United States Army Corps of Engineers, New Orleans District (CEMVN), is continuing consultation to develop Programmatic Agreements (PAs) for two studies, the Southwest Coastal Louisiana (SWC LA) study and the West Shore Lake Pontchartrain (WSLP) study, in accordance with 36 CFR § 800.14(b) of the regulations implementing Section 106 of the National Historic Preservation Act. We invite you to participate in the consultation for the development of these two separate PAs.

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Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Carlos Bullock, Chairman
Alabama-Coushatta Tribe of Texas
571 State Park Rd 56
Livingston, TX 77351

Dear Chairman Bullock:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), has prepared an Integrated Draft Feasibility Report and Environmental Impact Statement (Integrated Draft Report) for the West Shore Lake Pontchartrain (WSLP) Hurricane and Storm Damage Risk Reduction Study. The Integrated Draft Report is available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain, and hard copies are available upon request.

In partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act, the CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in the Integrated Draft Report to significantly affect protected tribal resources, tribal rights, or Indian lands. Consultation for the proposed action was initiated in a letter dated May 3, 2013.

The Integrated Draft Report proposes potential solutions to reduce damages from hurricane and tropical storm surge for residents in St. Charles, St. John the Baptist and St. James Parishes, Louisiana. Without action, an estimated 62,900 residents and 20,000 residential structures; 1,900 non-residential structures; and 165 public and quasi-public facilities will be at risk to damage from hurricane and tropical storm surge damages.

Eleven management measures were crafted to address storm surge. Structural and nonstructural features included levees, elevating buildings, and restoring cypress swamp. Measures were combined into a dozen alternative plans. A focused array of four alternative plans was evaluated under SMART Planning. Alternatives A and C are comprised of non-structural measures and levee alignments. A third plan (Alternative D) consists of a levee and flood wall alignment. A no-action plan is the basis to compare benefits and environmental impacts.

Alternative C is the Tentatively Selected Plan (TSP). Feasibility-level design will commence after the SMART Planning Agency Decision Milestone and will finish before a Final

Report. The TSP is an 18.27-mile risk reduction system around the communities of Montz, Laplace, Reserve, and Garyville with non-structural components in St. James Parish. The alignment of the TSP is shown in Figure 3-6 of the Integrated Draft Report. The risk of storm surge damage would be reduced for over 7,000 structures and four miles of I-10 located in the system. Inclusion of this segment of I-10 would help maintain a major emergency evacuation and re-entry route for residents of southeast Louisiana, including residents in the New Orleans metropolitan area. The TSP also includes non-structural measures for 1,571 structures in the communities of Gramercy, Lutcher, and Grand Point that are located outside of the proposed levee system. It is estimated that these non-structural measures would include elevation of 1,481 structures and acquisition of 90 structures. Implementation of non-structural features will be developed in more detail during feasibility level of design and analysis during which time an economic analysis will be conducted based on economic reaches. In developing the plan, consideration with be given to community cohesion and the requirements of E.O. 12898.

The structural component of the system would consist of earthen levees, floodwalls (T-walls), floodgates, drainage structures, and pump stations located along the alignment. The preliminary level of design, based on modeling for a 1 percent AEP storm event includes levee elevations that would range from +13.5 NAVD88 on the eastern reaches near the Bonnet Carré Spillway to +7.0 NAVD88 in the western portion of the project area. They would be constructed with 3:1 side slopes with a 10-foot crown width. Construction of levees would involve the placement of 3,100,000 cubic yards of compacted and uncompacted clay (borrow) material on top of 3,400,000 square yards of geotextile fabric. Approximately 26,124 cubic yards of aggregate limestone would be used to build a road on the levee crown. A conveyance canal at a depth of - 10 ft. NAVD88 would be situated along the levee. Floodwalls would be located under the I-10/I- 55 interchange and other areas where space is limited. Nine floodwall sections would span 5,304 linear feet over the length of the system. The system would include 2,080 feet of drainage gates, 288 feet of roadway gates, two railway gates, and thirty-six pipeline crossings. Four pump stations would be located along the alignment to ensure the project does not adversely impact local drainage. Design parameters will be further refined during feasibility level design and analysis which may result in changes to the design parameters; however, the TSP is anticipated to reduce risk for at minimum a 1 percent AEP storm event but not exceed a 0.5 percent AEP storm event.

The TSP would maintain hydrologic connectivity to the extent practicable through the use of water control structures except during closure for hurricane and tropical storm surge events. When the system is closed, pumps would operate on average for 1.7 storm events per year, which equates to closure of structures on average 8.5 days per year. The structural alignment would directly convert approximately 856 acres to uplands including approximately 775 acres of hydric soils, 14.8 acres of water bottoms, and 55.4 acres of prime farmlands. Approximately 8,424 acres of wetlands could be indirectly impacted due to enclosing the project area within the levee system. Further investigation is required to determine if cultural resources are located

within any part of the footprint. Additional environmental investigations will be performed during feasibility-level design and analysis. The estimated cost of the TSP is $880,851,070. The BCR for the TSP is equal to 1.63 to 1 with annualized net benefits equal to approximately $23,000,000.

Section 106 Consultation

Formal Section 106 consultation pursuant to 36 CFR § 800.3(c) has been initiated with the Louisiana State Historic Preservation Officer (SHPO) and eleven federally-recognized Tribes with an interest in USACE undertakings within the boundaries of CEMVN. The Choctaw Nation of Oklahoma has requested additional information regarding the undertaking, and the CEMVN will continue consultation with the SHPO and federally-recognized Tribes. With selection of the TSP as presented in the Integrated Draft Report, the CEMVN will now proceed with the identification and evaluation of historic properties, the results of which will be coordinated with the SHPO and federally-recognized Tribes in a continuation of Section 106 consultation.

Integrated Draft Report

Finally, I would like to offer my apologies for an oversight resulting in an error on page 7-2 of the Integrated Draft Report. You may note that both federally-recognized Tribes and non-federally- recognized tribes are included in Table 7.1: List of report recipients, and that the Mississippi Band of Choctaw Indians was inadvertently omitted. No disrespect was intended, and actions have already been taken to ensure that this is corrected for the final report.

This is the first CEMVN study within the USACE SMART Planning framework, which organizes the planning process for feasibility studies around key decision points. Over the next few months a public comment period will be conducted along with technical, peer and policy reviews. Additional feasibility work remains to be completed on engineering, cost estimating, environmental, economic, real estate and construction elements of the plan. Results of the reviews and additional feasibility work will be incorporated into the final report, which will be made available for review before the Chief of Engineers makes a final recommendation on the project.

Please review the Integrated Draft Report and provide comments. The official closing date for receipt of comments will be 45 days from the date on which the Notice of Availability of the Draft EIS appears in the Federal Register. Please send comments or questions on the Draft Integrated Report the U.S. Army Corps of Engineers, New Orleans District, Attention: Dr. William P. Klein, Jr., P.O. Box 60267, New Orleans, Louisiana 70160-0267. Telephone: (504) 862-2540; FAX: (504) 862-2088. Comments may also be provided electronically to the study web site at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain.

As always, should you have any questions or concerns about the proposed action or the SMART Planning framework, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; Rebecca.Hill@usace.army.mil. You may also contact the project archaeologist Dr. Paul Hughbanks with any questions or comments at (504) 862-1100 or Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter will be provided to Mr. Bryant J. Celestine, Historic Preservation Officer, Alabama Coushatta Tribe of Texas, celestine.bryant@actribe.org.

Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Brenda Shemayme Edwards, Chairwoman
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Dear Chairwoman Edwards:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), has prepared an Integrated Draft Feasibility Report and Environmental Impact Statement (Integrated Draft Report) for the West Shore Lake Pontchartrain (WSLP) Hurricane and Storm Damage Risk Reduction Study. The Integrated Draft Report is available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain, and hard copies are available upon request.

In partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act, the CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in the Integrated Draft Report to significantly affect protected tribal resources, tribal rights, or Indian lands. Consultation for the proposed action was initiated in a letter dated May 3, 2013.

The Integrated Draft Report proposes potential solutions to reduce damages from hurricane and tropical storm surge for residents in St. Charles, St. John the Baptist and St. James Parishes, Louisiana. Without action, an estimated 62,900 residents and 20,000 residential structures; 1,900 non-residential structures; and 165 public and quasi-public facilities will be at risk to damage from hurricane and tropical storm surge damages.

Eleven management measures were crafted to address storm surge. Structural and nonstructural features included levees, elevating buildings, and restoring cypress swamp. Measures were combined into a dozen alternative plans. A focused array of four alternative plans was evaluated under SMART Planning. Alternatives A and C are comprised of non-structural measures and levee alignments. A third plan (Alternative D) consists of a levee and flood wall alignment. A no-action plan is the basis to compare benefits and environmental impacts.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

John Paul Darden, Chairman
Chitimacha Tribe of Louisiana
P.O. Box 661
Charenton, LA 70523

Dear Chairman Darden:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), has prepared an Integrated Draft Feasibility Report and Environmental Impact Statement (Integrated Draft Report) for the West Shore Lake Pontchartrain (WSLP) Hurricane and Storm Damage Risk Reduction Study. The Integrated Draft Report is available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain, and hard copies are available upon request.

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Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Gregory E. Pyle, Chief
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702-1210

Dear Chief Pyle:

The United States Army Corps of Engineers (USACE), New Orleans District (CEMVN), has prepared an Integrated Draft Feasibility Report and Environmental Impact Statement (Integrated Draft Report) for the West Shore Lake Pontchartrain (WSLP) Hurricane and Storm Damage Risk Reduction Study. The Integrated Draft Report is available electronically for review at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain, and hard copies are available upon request.

In partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act, the CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in the Integrated Draft Report to significantly affect protected tribal resources, tribal rights, or Indian lands. Consultation for the proposed action was initiated in a letter dated May 3, 2013.

The Integrated Draft Report proposes potential solutions to reduce damages from hurricane and tropical storm surge for residents in St. Charles, St. John the Baptist and St. James Parishes, Louisiana. Without action, an estimated 62,900 residents and 20,000 residential structures; 1,900 non-residential structures; and 165 public and quasi-public facilities will be at risk to damage from hurricane and tropical storm surge damages.

Eleven management measures were crafted to address storm surge. Structural and nonstructural features included levees, elevating buildings, and restoring cypress swamp. Measures were combined into a dozen alternative plans. A focused array of four alternative plans was evaluated under SMART Planning. Alternatives A and C are comprised of non-structural measures and levee alignments. A third plan (Alternative D) consists of a levee and flood wall alignment. A no-action plan is the basis to compare benefits and environmental impacts.

Alternative C is the Tentatively Selected Plan (TSP). Feasibility-level design will commence after the SMART Planning Agency Decision Milestone and will finish before a Final

Report. The TSP is an 18.27-mile risk reduction system around the communities of Montz, Laplace, Reserve, and Garyville with non-structural components in St. James Parish. The alignment of the TSP is shown in Figure 3-6 of the Integrated Draft Report. The risk of storm surge damage would be reduced for over 7,000 structures and four miles of I-10 located in the system. Inclusion of this segment of I-10 would help maintain a major emergency evacuation and re-entry route for residents of southeast Louisiana, including residents in the New Orleans metropolitan area. The TSP also includes non-structural measures for 1,571 structures in the communities of Gramercy, Lutcher, and Grand Point that are located outside of the proposed levee system. It is estimated that these non-structural measures would include elevation of 1,481 structures and acquisition of 90 structures. Implementation of non-structural features will be developed in more detail during feasibility level of design and analysis during which time an economic analysis will be conducted based on economic reaches. In developing the plan, consideration with be given to community cohesion and the requirements of E.O. 12898.

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Section 106 Consultation

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Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Kevin Sickey, Chief
Coushatta Tribe of Louisiana
P.O. Box 818
Elton, LA 70532

Dear Chief Sickey:

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

B. Cheryl Smith, Principal Chief
Jena Band of Choctaw Indians
P.O. Box 14
Jena, LA 71342

Dear Principal Chief Smith:

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Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Phyliss J. Anderson, Chief
Mississippi Band of Choctaw Indians
P.O. Box 6257
Choctaw, MS 39350

Dear Chief Anderson:

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Sincerely,

Joan M. Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

John Berrey, Chairman
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363

Dear Chairman Berrey:

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Leonard M. Harjo, Principal Chief
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Dear Principal Chief Harjo:

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

James Billie, Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Dear Chairman Billie:

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Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

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

AUGUST 23, 2013

REPLY TO ATTENTION OF

Regional Planning and
Environment Division, South

Earl J. Barbry, Sr., Chairman
Tunica-Biloxi Tribe of Louisiana
P.O. Box 1589
Marksville, LA 71351

Dear Chairman Barbry:

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The structural component of the system would consist of earthen levees, floodwalls (T-walls), floodgates, drainage structures, and pump stations located along the alignment. The preliminary level of design, based on modeling for a 1 percent AEP storm event includes levee elevations that would range from +13.5 NAVD88 on the eastern reaches near the Bonnet Carré Spillway to +7.0 NAVD88 in the western portion of the project area. They would be constructed with 3:1 side slopes with a 10-foot crown width. Construction of levees would involve the placement of 3,100,000 cubic yards of compacted and uncompacted clay (borrow) material on top of 3,400,000 square yards of geotextile fabric. Approximately 26,124 cubic yards of aggregate limestone would be used to build a road on the levee crown. A conveyance canal at a depth of - 10 ft. NAVD88 would be situated along the levee. Floodwalls would be located under the I-10/I- 55 interchange and other areas where space is limited. Nine floodwall sections would span 5,304 linear feet over the length of the system. The system would include 2,080 feet of drainage gates, 288 feet of roadway gates, two railway gates, and thirty-six pipeline crossings. Four pump stations would be located along the alignment to ensure the project does not adversely impact local drainage. Design parameters will be further refined during feasibility level design and analysis which may result in changes to the design parameters; however, the TSP is anticipated to reduce risk for at minimum a 1 percent AEP storm event but not exceed a 0.5 percent AEP storm event.

The TSP would maintain hydrologic connectivity to the extent practicable through the use of water control structures except during closure for hurricane and tropical storm surge events. When the system is closed, pumps would operate on average for 1.7 storm events per year, which equates to closure of structures on average 8.5 days per year. The structural alignment would directly convert approximately 856 acres to uplands including approximately 775 acres of hydric soils, 14.8 acres of water bottoms, and 55.4 acres of prime farmlands. Approximately 8,424 acres of wetlands could be indirectly impacted due to enclosing the project area within the levee system. Further investigation is required to determine if cultural resources are located

within any part of the footprint. Additional environmental investigations will be performed during feasibility-level design and analysis. The estimated cost of the TSP is $880,851,070. The BCR for the TSP is equal to 1.63 to 1 with annualized net benefits equal to approximately $23,000,000.

Section 106 Consultation

Formal Section 106 consultation pursuant to 36 CFR § 800.3(c) has been initiated with the Louisiana State Historic Preservation Officer (SHPO) and eleven federally-recognized Tribes with an interest in USACE undertakings within the boundaries of CEMVN. The Choctaw Nation of Oklahoma has requested additional information regarding the undertaking, and the CEMVN will continue consultation with the SHPO and federally-recognized Tribes. With selection of the TSP as presented in the Integrated Draft Report, the CEMVN will now proceed with the identification and evaluation of historic properties, the results of which will be coordinated with the SHPO and federally-recognized Tribes in a continuation of Section 106 consultation.

Integrated Draft Report

Finally, I would like to offer my apologies for an oversight resulting in an error on page 7-2 of the Integrated Draft Report. You may note that both federally-recognized Tribes and non-federally- recognized tribes are included in Table 7.1: List of report recipients, and that the Mississippi Band of Choctaw Indians was inadvertently omitted. No disrespect was intended, and actions have already been taken to ensure that this is corrected for the final report.

This is the first CEMVN study within the USACE SMART Planning framework, which organizes the planning process for feasibility studies around key decision points. Over the next few months a public comment period will be conducted along with technical, peer and policy reviews. Additional feasibility work remains to be completed on engineering, cost estimating, environmental, economic, real estate and construction elements of the plan. Results of the reviews and additional feasibility work will be incorporated into the final report, which will be made available for review before the Chief of Engineers makes a final recommendation on the project.

Please review the Integrated Draft Report and provide comments. The official closing date for receipt of comments will be 45 days from the date on which the Notice of Availability of the Draft EIS appears in the Federal Register. Please send comments or questions on the Draft Integrated Report the U.S. Army Corps of Engineers, New Orleans District, Attention: Dr. William P. Klein, Jr., P.O. Box 60267, New Orleans, Louisiana 70160-0267. Telephone: (504) 862-2540; FAX: (504) 862-2088. Comments may also be provided electronically to the study web site at http://www.mvn.usace.army.mil/About/Projects/WestShoreLakePontchartrain.

As always, should you have any questions or concerns about the proposed action or the SMART Planning framework, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; Rebecca.Hill@usace.army.mil. You may also contact the project archaeologist Dr. Paul Hughbanks with any questions or comments at (504) 862-1100 or Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter will be provided to Mr. Earl Barbry, Jr., Cultural Director, Tunica-Biloxi Tribe of Louisiana, earlii@tunica.org.

Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Carlos Bullock, Chairman
Alabama-Coushatta Tribe of Texas
571 State Park Rd 56
Livingston, TX 77351

Dear Chairman Bullock:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

The purpose of this letter is to initiate consultation for the WSLP LA HSDRR study, in partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act, and Section 106 of the National Historic Preservation Act. The CEMVN offers you the opportunity to review and comment on the potential of the proposed action to significantly affect protected tribal resources, tribal rights, or Indian lands.

Study Authority and History of Investigation

The WSLP LA HSDRR study was initiated by two authorizations, one by the House of Representatives in 1971 and another by the Senate in 1974. Several formulations and reports have been accomplished since the original authorizations. In 1996 Congress authorized funding for a general investigation into hurricane and flood protection in St. James, St. John the Baptist, and St. Charles parishes in the area west of the Bonne Carré Spillway as part of the Lake Pontchartrain and Vicinity, Louisiana Authority. Subsequently, a feasibility study was initiated and the preliminary findings were presented to the PLD and St. John Parish in 1998. One of the eight alignments from the preliminary findings and an additional alignment presented by the PLD were chosen for further investigation and in 2003, the USACE presented alignment and

cost options to the PLD and St. John the Baptist Parish for these two alternatives. No consensus could be reached on which alignment to pursue and the study was halted. In 2006, the PLD developed a third alignment for consideration by the USACE and St. John the Baptist Parish. A preliminary screening level analysis was completed in 2007, and the PLD and the USACE agreed to re-initiate the feasibility study and an EIS.

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Proposed Alignments

Thirty-two alignments were identified and screened based on objectives and constraints and local conditions, including pipeline avoidance and storage and infrastructure concerns, reducing the number of alignments to twelve. These twelve alignments were ranked based on their ability to meet the study objectives and avoid constraints, and the top four alignments that met evaluation criteria were carried forward for evaluation. An additional non-structural alternative was developed.

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Section 106 Consultation

This letter initiates formal Section 106 consultation pursuant to 36 CFR § 800.3(c). The majority of the authorized study area is within the Maurepas Swamp, although the study area also contains natural levee of the Mississippi River. Upon selection of the tentatively selected plan and the identification of historic properties, in accordance with 36 CFR § 800.4, the CEMVN will continue Section 106 consultation. Also enclosed is a copy of the 3 May 2013 CEMVN letter to the Louisiana State Historic Preservation Officer.

Your response to this letter, including any information your office may wish to provide at this time concerning the proposed undertaking and its potential to significantly affect protected tribal resources, tribal rights, or Indian lands is greatly appreciated. Please also notify us of any other interested party who may wish to participate in this consultation.

As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; Rebecca.Hill@usace.army.mil. You may also contact the project archaeologist Dr. Paul Hughbanks with any questions or comments at (504) 862-1100 or Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter with enclosures will be provided to Mr. Bryant J. Celestine, Historic Preservation Officer, Alabama Coushatta Tribe of Texas, celestine.bryant@actribe.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Brenda Shemayme Edwards, Chairwoman
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Dear Chairwoman Edwards:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

The purpose of this letter is to initiate consultation for the WSLP LA HSDRR study, in partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act, and Section 106 of the National Historic Preservation Act. The CEMVN offers you the opportunity to review and comment on the potential of the proposed action to significantly affect protected tribal resources, tribal rights, or Indian lands.

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Your response to this letter, including any information your office may wish to provide at this time concerning the proposed undertaking and its potential to significantly affect protected tribal resources, tribal rights, or Indian lands is greatly appreciated. Please also notify us of any other interested party who may wish to participate in this consultation.

As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; Rebecca.Hill@usace.army.mil. You may also contact the project archaeologist Dr. Paul Hughbanks with any questions or comments at (504) 862-1100 or Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter with enclosures will be provided to Mr. Robert Cast, Tribal Historic Preservation Officer, Caddo Nation of Oklahoma, rcast@caddonation.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

John Paul Darden, Chairman
Chitimacha Tribe of Louisiana
P.O. Box 661
Charenton, LA 70523

Dear Chairman Darden:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Gregory E. Pyle, Chief
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702-1210

Dear Chief Pyle:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Kevin Sickey, Chief
Coushatta Tribe of Louisiana
P.O. Box 818
Elton, LA 70532

Dear Chief Sickey:

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

B. Cheryl Smith, Principal Chief
Jena Band of Choctaw Indians
P.O. Box 14
Jena, LA 71342

Dear Principal Chief Smith:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

The purpose of this letter is to initiate consultation for the WSLP LA HSDRR study, in partial fulfillment of responsibilities under Executive Order 13175, the National Environmental Policy Act, and Section 106 of the National Historic Preservation Act. The CEMVN offers you the opportunity to review and comment on the potential of the proposed action to significantly affect protected tribal resources, tribal rights, or Indian lands.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Phyliss J. Anderson, Chief
Mississippi Band of Choctaw Indians
P.O. Box 6257
Choctaw, MS 39350

Dear Chief Anderson:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

John Berrey, Chairman
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363

Dear Chairman Berrey:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

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Sincerely,

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Leonard M. Harjo, Principal Chief
Seminole Nation of Oklahoma
P.O. Box 1498
Wewoka, OK 74884

Dear Principal Chief Harjo:

The United States Army Corps of Engineers (USACE) and the Pontchartrain Levee District (PLD) have initiated an investigation into the feasibility of providing hurricane and storm damage risk reduction to residents living in the area west of the Bonnet Carré Spillway between the Mississippi River and Lakes Pontchartrain and Maurepas and the St. James Parish line. The New Orleans District (CEMVN) is preparing a West Shore-Lake Pontchartrain (WSLP) Integrated Feasibility Study/Environmental Impact Statement (Integrated Report), which will describe all aspects of the WSLP Louisiana Hurricane and Storm Damage Risk Reduction (HSDRR) study, from its inception, through the evolution of the various alternatives, the discussion of potential impacts to all applicable natural, socioeconomic and cultural resources, to the decision to recommend a preferred alternative.

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Joan M Exnicios

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Chief, Environmental Planning Branch

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REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

James Billie, Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Dear Chairman Billie:

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Enclosures

REPLY TO
ATTENTION OF

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

May 3, 2013

Regional Planning and
Environment Division, South

Earl J. Barbry, Sr., Chairman
Tunica-Biloxi Tribe of Louisiana
P.O. Box 1589
Marksville, LA 71351

Dear Chairman Barbry:

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cost options to the PLD and St. John the Baptist Parish for these two alternatives. No consensus could be reached on which alignment to pursue and the study was halted. In 2006, the PLD developed a third alignment for consideration by the USACE and St. John the Baptist Parish. A preliminary screening level analysis was completed in 2007, and the PLD and the USACE agreed to re-initiate the feasibility study and an EIS.

Study Area

The WSLP LA HSDRR study area is located in St. Charles, St. John the Baptist and St. James parishes, Louisiana (see enclosed Figure 1). The study area is bounded on the east by the west guide levee of the Bonnet Carré Spillway, on the north by Lake Pontchartrain and Lake Maurepas, on the west by the St. James Parish line and on the south by the Mississippi River. The study area includes residential, commercial, industrial and undeveloped land. The southern portion of the study contains the communities of LaPlace, Reserve, Garyville, Gramercy, Lutcher and Convent. Most of the northern portion is occupied by the Maurepas Swamp Wildlife Management Area and includes sections of Interstate Highway 10 (I-10) and I-55.

Proposed Alignments

Thirty-two alignments were identified and screened based on objectives and constraints and local conditions, including pipeline avoidance and storage and infrastructure concerns, reducing the number of alignments to twelve. These twelve alignments were ranked based on their ability to meet the study objectives and avoid constraints, and the top four alignments that met evaluation criteria were carried forward for evaluation. An additional non-structural alternative was developed.

The final array of alternatives include the No Action Alternative; Alternative A: Spillway to Hope Canal/Mississippi River and Non-Structural Alternative; Alternative C: Spillway to Hope Canal/MS River (Pipeline Avoidance) and Non-Structural Alternative; Alternative D: Spillway to Ascension Parish (I-10 Protection) without Non-Structural Alternative; and Alternative E: Non-Structural Alternative (see enclosed Figure 2).

Section 106 Consultation

This letter initiates formal Section 106 consultation pursuant to 36 CFR § 800.3(c). The majority of the authorized study area is within the Maurepas Swamp, although the study area also contains natural levee of the Mississippi River. Upon selection of the tentatively selected plan and the identification of historic properties, in accordance with 36 CFR § 800.4, the CEMVN will continue Section 106 consultation. Also enclosed is a copy of the 3 May 2013 CEMVN letter to the Louisiana State Historic Preservation Officer.

Your response to this letter, including any information your office may wish to provide at this time concerning the proposed undertaking and its potential to significantly affect protected tribal resources, tribal rights, or Indian lands is greatly appreciated. Please also notify us of any other interested party who may wish to participate in this consultation.

As always, should you have any questions or concerns about the proposed action, you may contact Ms. Rebecca Hill; Archeologist/Tribal Liaison; U.S. Army Corps of Engineers, New Orleans District; (504) 862-1474; Rebecca.Hill@usace.army.mil. You may also contact the project archaeologist Dr. Paul Hughbanks with any questions or comments at (504) 862-1100 or Paul.J.Hughbanks@usace.army.mil. An electronic copy of this letter with enclosures will be provided to Mr. Earl Barbry, Jr., Cultural Director, Tunica-Biloxi Tribe of Louisiana, earlii@tunica.org.

Sincerely,

Joan M Exnicios

Joan M. Exnicios
Chief, Environmental Planning Branch

Enclosures

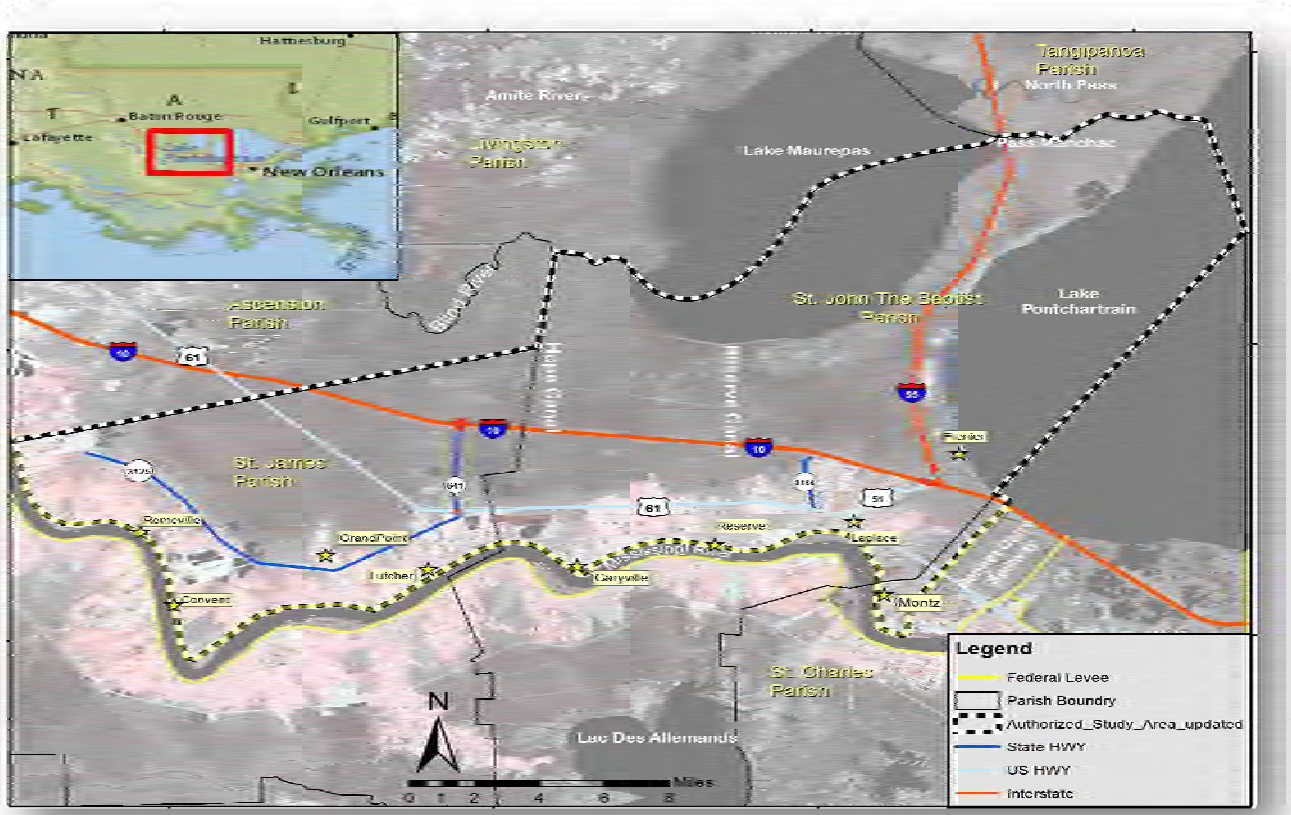

Figure 1. West Shore-Lake Pontchartrain Louisiana Hurricane and Storm Damage Risk Reduction Study Area.

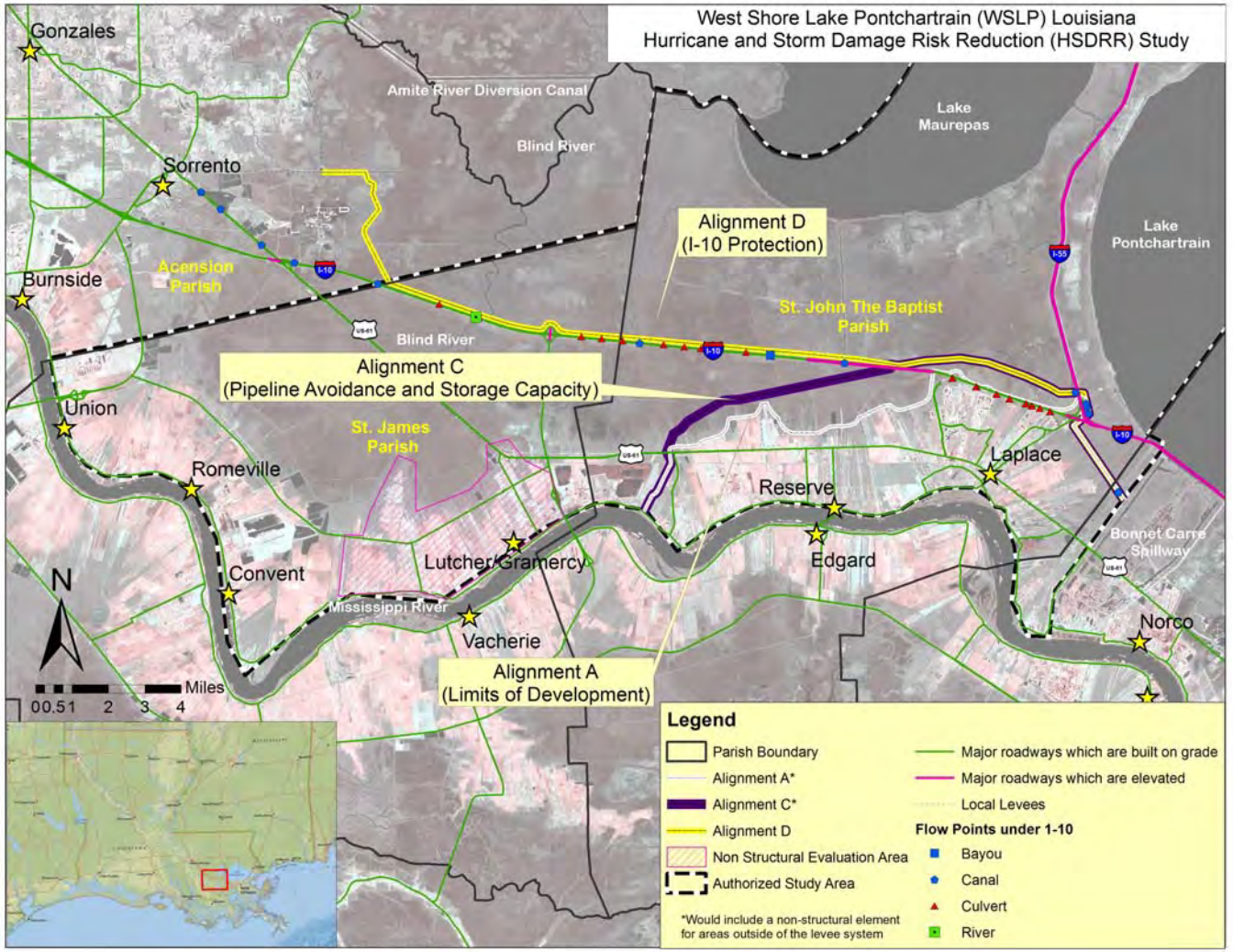

Figure 2. West Shore-Lake Pontchartrain Louisiana Hurricane and Storm Damage Risk Reduction Study Final Array of Alternatives.

Annex H: Floodplain Management

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

Regional Planning and Environment
Division South

APR 26 2019

Earl Matherne
Coastal Zone Management
P.O. Box 302
Hahnville, LA 70057

Dear Mr. Matherne:

This is in response to a comment letter postmarked on April 19, 2019 from the Mitigation Division of the Federal Emergency Management Agency Region 6 requesting that the community floodplain administrators for St. John the Baptist and St. Charles Parishes be contacted regarding the Supplemental Environmental Assessment #570, West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Structural Alignment Surveys and Borings Investigations, St. Charles and St. John the Baptist Parishes, Louisiana (SEA 570).

SEA 570 supplements the much more comprehensive West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Feasibility Study and Environmental Impact Statement (2016 WSLP EIS). Draft SEA 570 and its associated draft FONSI, the 2016 WSLP EIS, and the comment letter from FEMA Region 6 are all enclosed.

The proposed action, as described in SEA 570, is consistent with Executive Order (EO) 11990. All unavoidable impacts to wetlands associated with the proposed action would be fully mitigated to the full extent of the law.

The proposed action in SEA 570 would not occupy or modify the floodplain. Therefore, the proposed action, as described in SEA 570, is compliant with EO 11988. This determination is based on two reasons described below.

a. The proposed action is surveys and borings activities, stockpiling of materials, and to add the option of purchasing bottomland hardwoods mitigation bank credits to the mitigation plan described in the 2016 WSLP EIS. The proposed action does not involve the construction of WSLP Project features, such as the levee alignment described in the 2016 WSLP EIS. The surveys and borings activities, as described in SEA 570, are investigating a potential shift in the levee alignment described in the 2016 WSLP EIS. If the results of the investigations discussed in SEA 570 and further engineering and design of the WSLP levee suggests a levee alignment shift is

warranted, evaluation of the impacts associated with potential changes to the levee alignment identified in the 2016 WSLP EIS as well as any other construction related changes would be discussed in subsequent National Environmental Policy Act documentation. Re-evaluation of impacts associated with occupancy and modification of the floodplain would occur at that time.

b. SEA 570 supplements the 2016 WSLP EIS. Part of the Recommended Plan, as described in the 2016 WSLP EIS, includes construction of a levee alignment in St. John the Baptist and St. Charles Parishes. The 2016 WSLP EIS followed the eight-step process required in Section 2(a) of EO 11988 to demonstrate coordination and compliance with EO 11988. It was determined that the Recommended Plan, as described in the 2016 WSLP EIS, would avoid short-term and long-term adverse effects associated with the occupancy and the modification of the existing floodplain.

If you have any questions or concerns, please contact Patrick Smith, PhD by email at Patrick.W.Smith@usace.army.mil or by phone at (504) 862-1583.

Marshall K. Harper

4 Encls

MARSHALL K. HARPER
Chief, Environmental Planning Branch

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

Regional Planning and Environment
Division South

APR 26 2019

Rene Pastorek
Planning and Zoning Director
St. John the Baptist Parish
1811 W Airline Hwy
LaPlace, Louisiana 70068

Dear Mr. Pastorek:

This is in response to a comment letter postmarked on April 19, 2019 from the Mitigation Division of the Federal Emergency Management Agency Region 6 requesting that the community floodplain administrators for St. John the Baptist and St. Charles Parishes be contacted regarding the Supplemental Environmental Assessment #570, West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Structural Alignment Surveys and Borings Investigations, St. Charles and St. John the Baptist Parishes, Louisiana (SEA 570).

SEA 570 supplements the much more comprehensive West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Feasibility Study and Environmental Impact Statement (2016 WSLP EIS). Draft SEA 570 and its associated draft FONSI, the 2016 WSLP EIS, and the comment letter from FEMA Region 6 are all enclosed.

The proposed action, as described in SEA 570, is consistent with Executive Order (EO) 11990. All unavoidable impacts to wetlands associated with the proposed action would be fully mitigated to the full extent of the law.

The proposed action in SEA 570 would not occupy or modify the floodplain. Therefore, the proposed action, as described in SEA 570, is compliant with EO 11988. This determination is based on two reasons described below.

a. The proposed action is surveys and borings activities, stockpiling of materials, and to add the option of purchasing bottomland hardwoods mitigation bank credits to the mitigation plan described in the 2016 WSLP EIS. The proposed action does not involve the construction of WSLP Project features, such as the levee alignment described in the 2016 WSLP EIS. The surveys and borings activities, as described in SEA 570, are investigating a potential shift in the levee alignment described in the 2016 WSLP EIS. If the results of the investigations discussed in SEA 570 and further

engineering and design of the WSLP levee suggests a levee alignment shift is warranted, evaluation of the impacts associated with potential changes to the levee alignment identified in the 2016 WSLP EIS as well as any other construction related changes would be discussed in subsequent National Environmental Policy Act documentation. Re-evaluation of impacts associated with occupancy and modification of the floodplain would occur at that time.

b. SEA 570 supplements the 2016 WSLP EIS. Part of the Recommended Plan, as described in the 2016 WSLP EIS, includes construction of a levee alignment in St. John the Baptist and St. Charles Parishes. The 2016 WSLP EIS followed the eight-step process required in Section 2(a) of EO 11988 to demonstrate coordination and compliance with EO 11988. It was determined that the Recommended Plan, as described in the 2016 WSLP EIS, would avoid short-term and long-term adverse effects associated with the occupancy and the modification of the existing floodplain.

If you have any questions or concerns, please contact Patrick Smith, PhD by email at Patrick.W.Smith@usace.army.mil or by phone at (504) 862-1583.

Marshall K. Harper

4 Encls

MARSHALL K. HARPER
Chief, Environmental Planning Branch

ST. JOHN
THE BAPTIST PARISH

NATALIE ROBOTTOM
PARISH PRESIDENT

OFFICE OF THE PLANNING AND ZONING DEPARTMENT

RENE' PASTOREK
Director

1811 WEST AIRLINE HIGHWAY • LAPLACE, LOUISIANA 70068

May 7, 2019

Dr. Patrick Smith, PhD
United States Army Corps of Engineers, New Orleans District
7400 Leake Avenue
New Orleans, LA 70118-3651

RE: Draft Supplemental Environmental Assessment # 570 – West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Structural Alignment Surveys and Borings Investigations

Dear Dr. Smith:

As requested, the St. John the Baptist Parish Planning and Zoning Department has reviewed Supplemental Environmental Assessment (SEA) #570 for the West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Structural Alignment Surveys and Borings Investigations, including the stockpiling, staging, and construction of access roads associated with construction of this federal project. Following review, the Planning and Zoning Department has comments pertaining to potential flood impacts from those 5 stockpile/staging locations and access roads proposed to be located either partially or entirely within Special Flood Hazard Areas (SFHA). The Planning and Zoning Department requests the U.S. Army Corps of Engineers mitigate potential flood impacts of the proposed stockpile/staging locations and access roads located in SFHAs. More specifically, the proposed action, when combined with all other existing and anticipated development, must not increase the water surface elevation of the base flood more than one foot at any point within the Parish.

Should you have any questions concerning the comments detailed in this letter, please do not hesitate to contact me.

Sincerely,

René C. Pastorek
Planning and Zoning Director
St. John the Baptist Parish

cc: Natalie Robottom, Parish President
LaVerne Toombs, Chief Administrative Officer

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

10 MAR 2020

Regional Planning and Environment
Division South

Mr. René C. Pastorek
Planning and Zoning Director
St. John the Baptist Parish
1811 West Airline Highway
Laplace, Louisiana 70068

Dear Mr. Pastorek:

In response to your May 7, 2019 comment letter (Encl. 1) submitted on the Draft Supplemental Environmental Assessment # 570 – West Shore Lake Pontchartrain Hurricane and Storm Damage Risk Reduction Structural Alignment Surveys and Borings Investigations which states "the proposed action, when combined with all other existing and anticipated development, must not increase the water surface elevation of the base flood more than one foot at any point within the Parish." The US Army Corps of Engineers has conducted hydraulic modeling of the proposed West Shore Lake Pontchartrain Project and it's impacts on St. John the Baptist, St. James, and St. Charles Parishes (Encl. 2). This hydraulic model estimates existing conditions, conditions during construction, and future with project conditions. Results of this model indicate water surface elevations are not predicted to exceed one foot within the West Shore Lake Pontchartrain project area based on hydraulic modeling results. We hope this information allays your concerns in reference to this comment.

If you have any questions or concerns, please contact Patrick Smith, PhD by email at Patrick.W.Smith@usace.army.mil or by phone at (504) 862-1583.

Sincerely,

Marshall K. Harper

2 Encl.

MARSHALL K. HARPER
Chief, Environmental Planning Branch