



St. Tammany Parish, Louisiana Feasibility Study



Appendix G – Real Estate Plan

June 2021

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Section 1

Introduction

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division (MVD), New Orleans District (MVN) Real Estate Division has prepared this Real Estate Plan (REP) in support of the Draft Integrated Feasibility Report (DIFR) with Draft Environmental Impact Statement (EIS) for St. Tammany Parish, Louisiana.

The St. Tammany Parish, Louisiana Feasibility Study is a comprehensive investigation and feasibility study of both Coastal Storm Risk Management (CSRМ) and Flood Risk Management (FRM) problems and solutions. The Non Federal Sponsor (NFS) for the study is the Coastal Protection Restoration Authority Board (CPRAB) (refer to Section 2 for further discussion).

1.1 PROJECT AUTHORIZATION

The St. Tammany Parish, Louisiana Feasibility Study was authorized as a part of the 2016 Water Infrastructure Improvements Act, which included as part of the legislation the Water Resources Development Act of 2016. Subsequently, the Bipartisan Budget Act of 2018 (Public Law 115-123) appropriated supplemental funds for the study. More information regarding project authorization is provided in the DIFR, Section 1.2.

1.2 STUDY AREA

The study area encompasses all of St. Tammany Parish, which is approximately 1,124 square miles and located in southeastern Louisiana (see Figure 1-2). St. Tammany Parish is located on the northeast shore of Lake Pontchartrain and is home to over 258,110 residents. The parish is uniquely located at the crossroads of three interstates (I-10, I-12, and I-59) and transportation waterways to the Gulf of Mexico.

The State of Mississippi with the Pearl River creates the eastern boundary of the study area. Lake Pontchartrain serves as the southern border and is one of the largest estuaries in the United States.

The Southeastern Louisiana National Wildlife Refuge Complex Headquarters in Lacombe is also located near the southern boundary. Tangipahoa Parish is located along the western boundary and Washington Parish is located to the north. Most of St. Tammany Parish's population resides along the edge of Lake Pontchartrain, and many commute into New Orleans, with Mandeville, Slidell, and Covington serving as residential communities. Major communities in the study area include Slidell, Mandeville, Covington, Abita Springs, Pearl River, and Madisonville. St. Tammany Parish is the fastest-growing parish in Louisiana and one of the fastest-growing communities in the nation. Major industries in the study area are health care and social assistance, retail trade, professional, scientific, and technical services, construction, finance, and insurance.

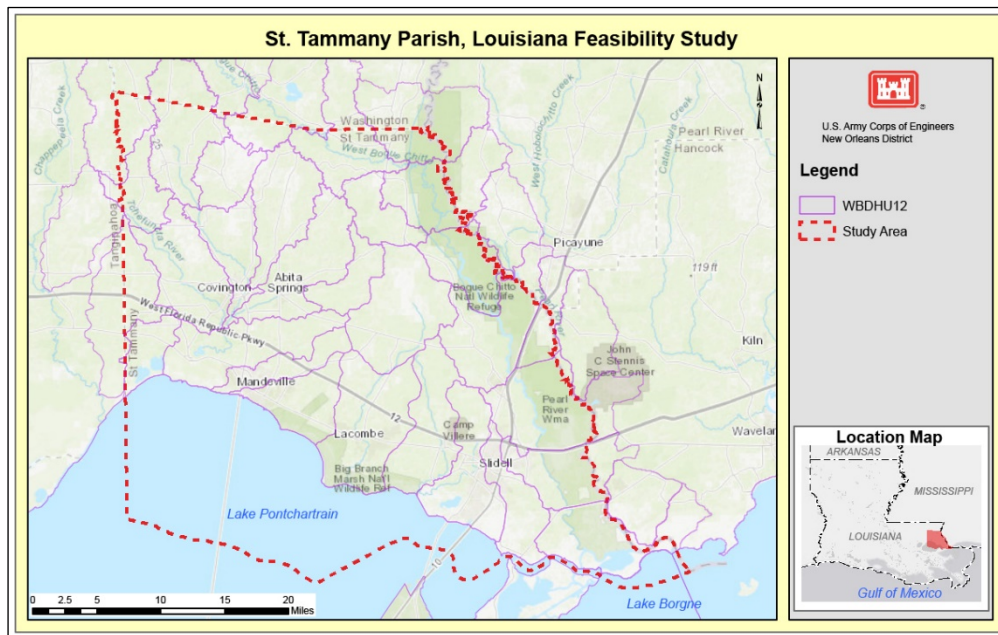


Figure G:1-1 St. Tammany Parish Feasibility Study Area

1.3 TENTATIVELY SELECTED PLAN

The Tentatively Selected Plan (TSP) is a comprehensive plan to address flooding parish-wide, which includes CSRM, FRM, and nonstructural features.

The TSP comprises these measures:

- Alignment that includes levee and floodwall sections in west and south Slidell.
- Bayou Patassat channel improvements in Slidell.
- Mile Branch channel improvements in Covington. Nonstructural home elevations and floodproofing for the rest of the parish based on structures located in the 50-year flood plain (residual risk)

Figure G:1-2 below shows an overview of the TSP features.

If the TSP is authorized for construction and implemented, the NFS will be required to execute a model structural FRM Project Partnership Agreement (PPA) with the Department of the Army. This model PPA provides numerous items of local cooperation required to be provided by the NFS. The PPA requires, among other things, that the NFS provide all real property interests, placement area improvements, and relocations required for construction, operation, and maintenance of the project. The NFS must also prevent obstructions or encroachments on the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) that might reduce the level of flood risk reduction the project affords, hinder operation and maintenance of the project,

or interfere with the project's proper function. In addition, the NFS is responsible for undertaking any investigations to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601-9675), that may exist in, on, or under real property interests required for construction, operation, and maintenance of the project. As between the Government and the NFS, the NFS shall be considered the operator of the project for purposes of CERCLA liability.

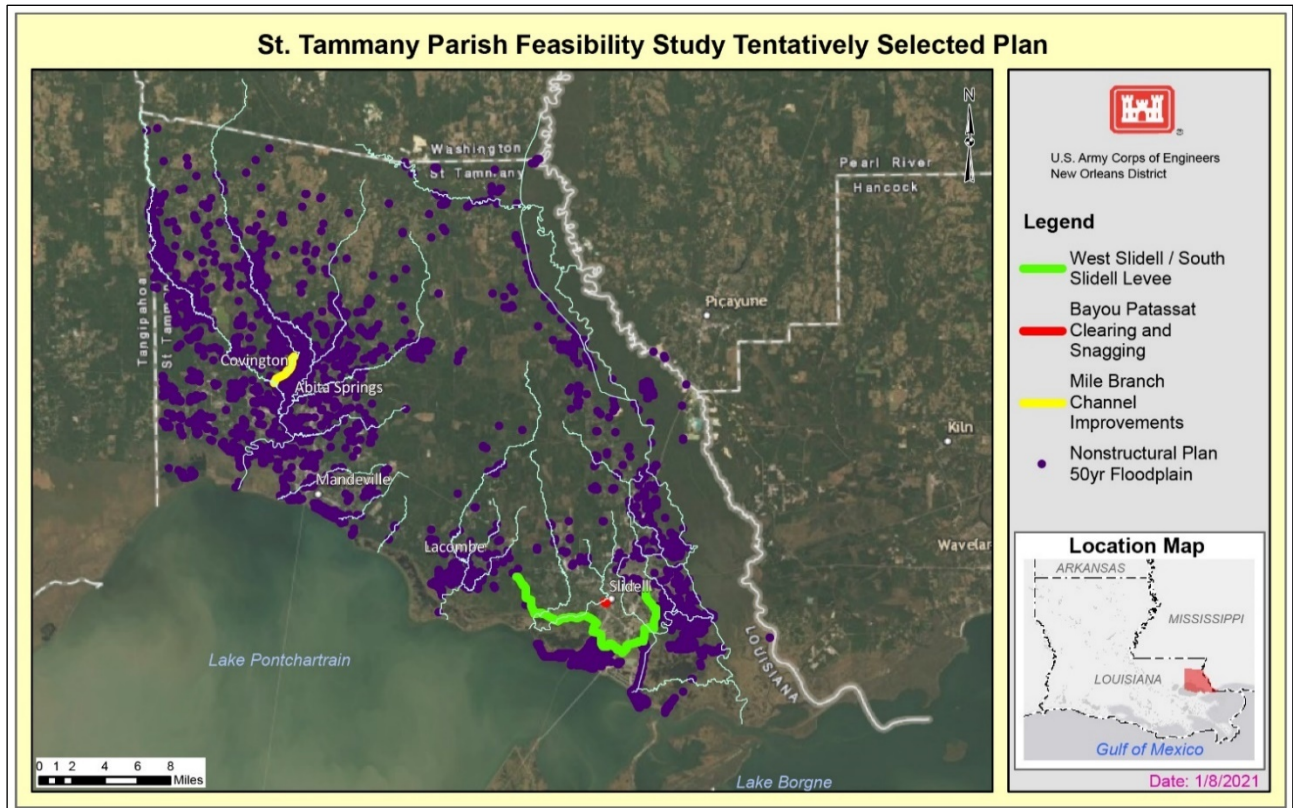


Figure G:1-2 St. Tammany Parish Feasibility Study Tentatively Selected Plan

The Tentatively Selected Plan (TSP) is a comprehensive plan to address flooding parish-wide, which includes CSRM, FRM, and nonstructural measures.

- South Slidell and West Slidell Levees (from Alternative 6c)

The levee comprises approximately 16.3 miles (85,900 feet) of alignment with a combination of 14 miles of levees (73,700 feet) and 2.3 miles (12,200 feet) of floodwall. The I-10 would be raised to the preliminary design elevation of 15 feet. The levee and floodwall alignment would impact approximately 162,173 acres of construction area. The levee alignment would require approximately 1,528,000 cubic yards of fill. A more detailed description of the levee alignment is provided later in this section. There would be five pump stations, four gate complexes, and one channel

floodgate. There would also be a total of three sluiceways, seven vehicular gates, one railroad gate, and seven ramps. Refer to Appendix D – Engineering Appendix for a detailed description of the additional structural features.

- Bayou Patassat Clearing and Snagging (from Alternative 5)

Bayou Patassat is a small tributary of Bayou Bonfouca also located in Slidell, Louisiana. The preliminary design of the channel improvements assumes an existing bank elevation of 1 foot, and a 10 foot bottom width at elevation (-) 5 feet. The bank is at 1V:3H slope. The work will be located between Bayou Vincent pump station and Highway 11. Approximately 0.17 miles (900 feet) of clearing and snagging will occur in Bayou Patassat. A more detailed description of this measure is provided later in this section.

- Mile Branch Channel Improvements (from Alternative 8)

The Mile Branch channel improvements start at the intersection of Mile Branch and Highway 190, crossing Highway 190 Business, and end at the intersection of Mile Branch and the Tchefuncte River. This alternative consists of channel improvements on the lower 2.15 miles (11,341 feet channel) of Mile Branch in Covington. The preliminary design assumes an existing bank elevation of 1 foot, and a 10-foot bottom width at elevation (-) 5 feet. The bank is at 1V:3H slope. The improvements include clearing and grubbing and mechanical dredging of the channel. The channel bottom will be lowered by 5 feet. Approximately 20 acres of channel will be cleared and grubbed prior to mechanical dredging. An assumed maximum of 130,000 cubic yards of material may be mechanically dredged from the channel. A more detailed description of this measure is provided later in this section.

- Nonstructural Elevations and Flood Proofing (from Alternative 2)

A total of 8,498 homes will be elevated to the future 100-year stage up to 13 feet and non-residential structures floodproofed up to 3 feet. The floodproofing of these structures addresses the structures in the 50-year floodplain that are not included in the areas benefitted from the structural features of the TSP. It is estimated that 6,643 homes will be elevated and 1,855 structures floodproofed. These structures counts are preliminary and will continue to be evaluated and refined. A more detailed description of this measure is provided later in this section.

An estimated 67 private landowners would be impacted by the implementation of the structural features of the TSP. The necessary estates and acreages that would be acquired if the TSP is implemented are in Section 3 (Table G:3-1).

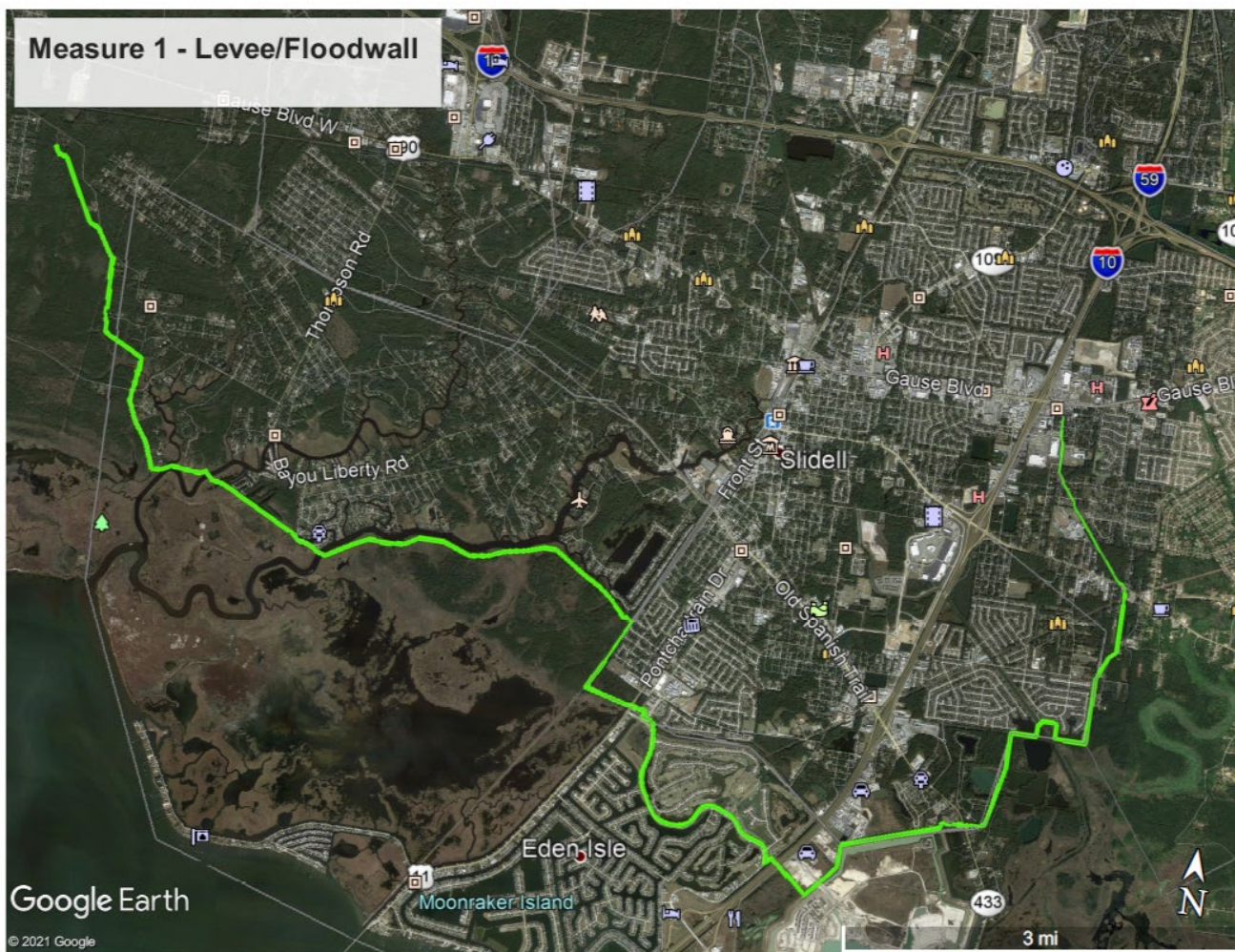


Figure G:1-3 Measure 1 Levee/Floodwall

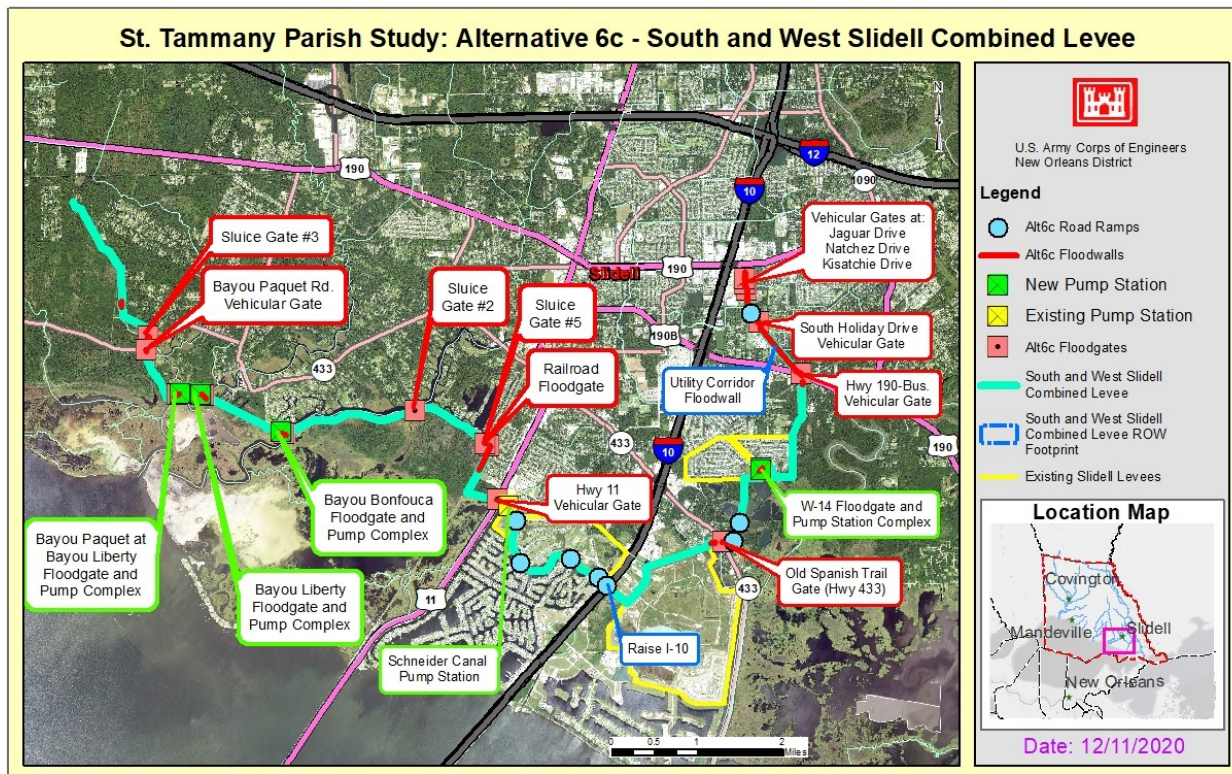


Figure G:1-4 Combined Levee and Project Structural Feature Locations

1.3.1 TSP Measure 1: South Slidell and West Slidell Levee and Floodwall System-Federal Hurricane and Storm Risk Reduction Levee and Floodwall.

Measure 1 provides a total of 16.3 miles (85,900 feet) of hurricane and storm risk reduction to the southern and western portion of the city of Slidell. The necessary estates and acreages that would be acquired if the TSP is implemented are discussed in Section 3 (Table G:3-1).

The Measure includes a proposed total of approximately 14 miles (73,700 feet) of federal hurricane protection levees constructed in two separate (non-continuous) federal levee segments (Segment 1 and Segment 2 of the levee).

In addition, there will be 2.3 miles (12,200 feet) of two separate (non-continuous) segments of a floodwall (Segment 1 and Segment 2 of the floodwall) of a hurricane protection floodwall in the City of Slidell, Louisiana.

Starting on the western side, the new federal levee alignment would commence on the south side of US Highway 190 from southwest of Bayou Paquet. This new western alignment would consist of a levee with a floodwall segment on the east side of Bayou Paquet Road.

The new alignment would cross Bayou Liberty and Bayou Bonfouca, along the northern perimeter of the Big Branch Marsh National Wildlife Refuge and would meet the Norfolk Southern Railway Corp railroad tracks west of US Highway 11 in the vicinity of Delwood Pump Station in Slidell.

The new alignment would continue across the railroad tracks into South Slidell. Then the new alignment would transition into a floodwall running on the east side of the railroad track from Delwood Pump Station (Sun Valley Drive) in a north to south direction. The new floodwall would transition into a new levee just south of the First Baptist Church Christian School, where it would turn east and then south.

This reach would consist of a new levee alignment with new floodwall segments. This reach would include the Schneider Canal Pump Station improvements (which are assumed to remain within the same footprint as the existing facility).

The new levee would tie to a segment of the existing Oak Harbor levee along Oak Harbor Boulevard (existing levee would be raised to Elevation 15 feet), and then the I-10 would be raised to ramp over the new levee section.

The new levee would tie to a section of the northern perimeter of the existing Lakeshore Estates levee (existing levee would be raised to Elevation 15 feet). The new levee would cross LA Highway 433 and turn north and would tie to a section of the existing King's Point west levee (existing levee would be raised to Elevation 15 feet).

The new alignment would connect to the new pump station at the W-14 canal and would tie to the existing King's Point east levee (existing levee would be raised to Elevation 15 feet). The new levee would continue north towards US Highway 190 Business (Fremaux Ave). The new levee would cross US Highway 190 Business (Fremaux Ave) and would transition into a floodwall across US Highway 190 Business.

This levee alignment would require 1,528,000 cubic yards of fill (borrow material) (includes 30 percent contingency).

The new floodwall would run on the west side of the CLECO Corporate Holdings, LLC utility corridor and cross South and North Holiday Drives. The new floodwall would exit the utility corridor to run on the east side of Carol Drive, would continue north on the east side of Yaupon Drive, and would terminate at Manzella Drive (one block south of Gause Boulevard).

The I-10 would be raised to ramp over the new levee section by constructing ramps to the preliminary design elevation of 15 feet. The existing elevation of the I-10 at the proposed location is approximately 12.8 feet as per LIDAR raster dataset. This proposed location is the highest elevation of the I-10 in the vicinity of the proposed alignment. The I-10 elevation is lower (approximately 10 feet) on the adjacent areas. This feature would be designed in the feasibility level of design for the study.

The new floodwall segments would be as follows. Starting on the west:

- 0.07 miles (350 feet) floodwall segment passing through several properties. Top of wall elevation of 17 feet. The construction area would be 0.4 acres.

On the east side of the railroad tracks:

- 0.3 miles (1,600 feet) of T-wall along Railroad between Delwood Pump Station and First Baptist Church
- 0.06 miles (300 feet) Old Spanish Trail Floodwall segment (construction area would be 0.3 acres).
- Across from LA Highway 433, there would be 0.09 miles (450 feet) Old Spanish Trail Floodwall segment by Espirit du Lac Street (construction area would be 0.5 acres).
- 0.04 miles (200 feet) floodwall segment near Belaire Drive (construction area would be 0.2 acres).
- The next floodwall segment would be along the north side of US Highway 190 Business (Fremaux Ave) for 0.08 miles (430 feet) and then the new floodwall would turn into the CLECO Corporate Holdings, LLC utility corridor for approximately 1.4 miles (7,200 feet) and would terminate at Manzella Drive. The total length of this new floodwall alignment would be 1.5 miles (7,700 feet) long (total construction area would be 9 acres).

The total levee alignment would impact approximately 162 acres of construction area. This levee alignment would require approximately 1,528,000 cubic yards of fill. The 2 Floodwall segments will encompass approximately 11 acres.

The proposed pump stations and control structures included in this Measure will encompass an approximate 63 acres. There will be a total of three sluice gates, seven vehicular gates, one railroad gate, and seven ramps included in the combined levee and floodwall alignment.

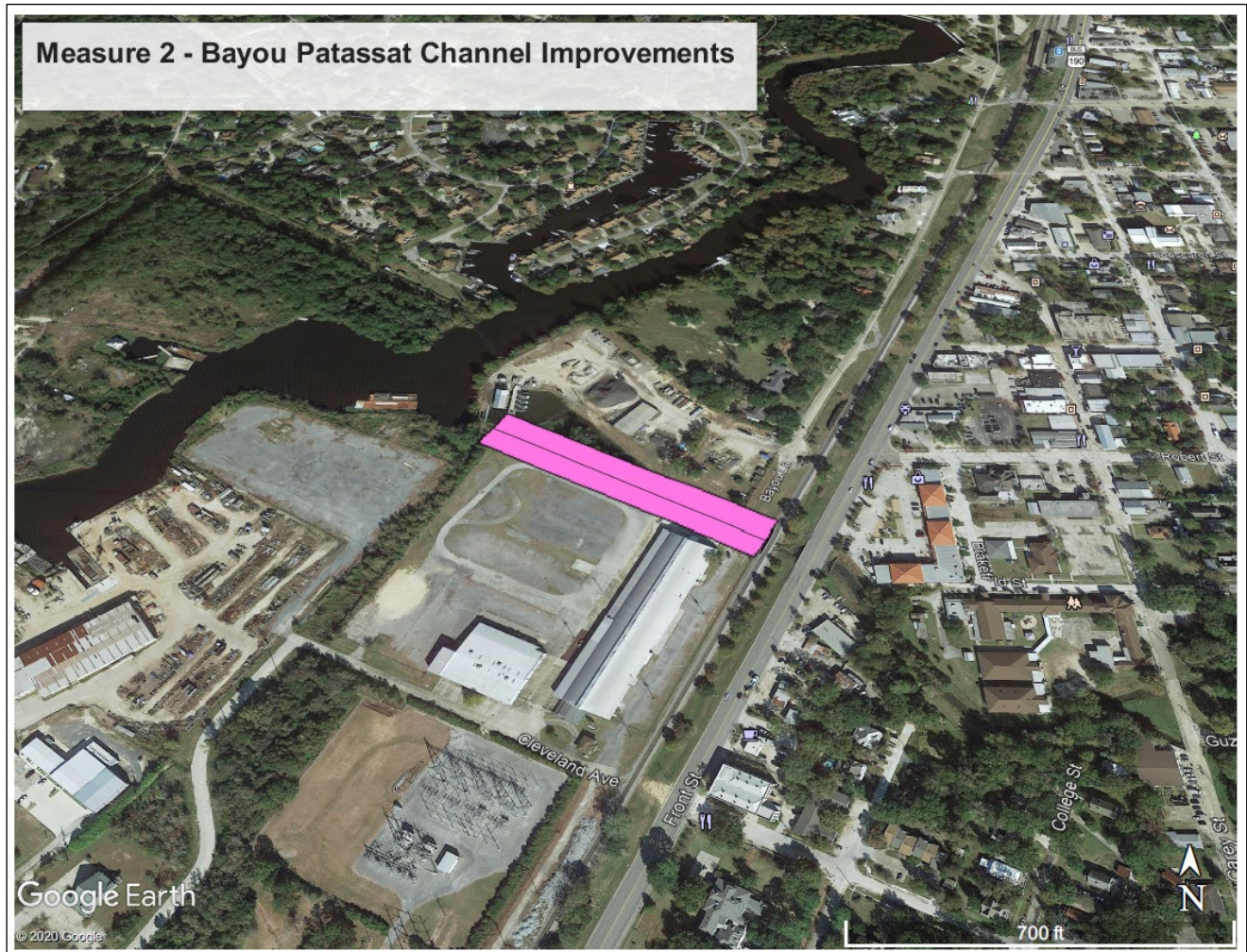


Figure G:1-5 Bayou Patassat Channel Improvements

1.3.2 TSP Measure 2: Bayou Patassat Channel Improvements in Slidell, LA.

The Bayou Patassat Channel Improvements would be performed between Bayou Vincent Pump Station and US Highway 11. Bayou Patassat is a small tributary of Bayou Bonfouca. The preliminary design of the channel improvements assumes an existing bank elevation of 1 foot, a 10-foot bottom width at elevation (-) 5 feet, and bank slopes at 1V:3H slope. The work would be located between Bayou Vincent Pump Station and US Highway 11. Land access to the site would be through Bayou Lane or the existing pump station access road.

The lands required for the implementation of this Measure are all public property and owned by either St. Tammany Parish or the city of Slidell, LA. Possible staging areas would include the city-owned land around the bayou and the Bayou Vincent pump station or at the grassy area at the end of Bayou Lane. It is assumed that access to the bayou would be via the city-

owned property along the channel. Note that there is enough right-of-way (ROW) for two-way access on the northside of the channel. If necessary, a temporary culvert could be placed in the channel to allow for crossing over to the southernmost bank.

Approximately 0.17 miles (900 feet) of clearing and snagging would occur in the channel. Material removed may include trees, debris, trash, or other obstructions within the waterway. For the channel improvement, approximately 2 acres of ROW would be needed within the Bayou Patassat Channel. In addition, another approximate 0.6 acres of ROW would be tree-clearing, with the majority of the work taking place on the southernmost bank. All trees and debris cleared would likely be chipped on site and then hauled to the nearest landfill. The nearest landfills are the Slidell Landfill (east of Interstate 10 and south of LA Highway 433) and Waste Management (2685 Gause Boulevard West, Slidell, LA 70460). The assumed haul distance is 15 miles.

The necessary estates and acreages that would be acquired if the TSP is implemented are discussed in Section 3 (Table G:3-1).

1.3.3 TSP Measure 3: Mile Branch Channel Improvements in Covington, LA.



Figure G:1-6 Mile Branch Channel Improvements

The Mile Branch channel improvements would start at the intersection of Mile Branch and US Highway 190, cross US Highway 190 Business, and would end at the intersection of Mile Branch and the Tchefuncte River. This measure would consist of channel improvements on the lower 2.15 miles (11,341 feet channel) of Mile Branch in Covington, LA.

The improvements would include clearing and grubbing and mechanical dredging of the channel. The channel bottom would be lowered by 5 feet. Approximately 20 acres of channel would be cleared and grubbed prior to mechanical dredging. An assumed maximum of 130,000 cubic yards of material may be mechanically dredged from the channel. The preliminary design assumes an existing bank elevation of 1 foot, and a 10-foot bottom width. The bank would be at 1V:3H slope. Material removed may include sediment, trees, debris, or other obstructions within the waterway.

The Mile Branch channel improvements may include bridge replacements or culverts (starting from north to south) at 29th, 28th, 25th, 23rd, 21st, 19th, and 18th Avenues. No work is anticipated at the 15th and 11th Avenue channel crossings as those bridges were replaced prior to this study (and the new bridges were designed to safely pass higher flows on Mile Branch).

The necessary estates and acreages that would be acquired if the TSP is implemented are discussed in Section 3 (Table G:3-1).

1.3.4 TSP Measure 4: Nonstructural Elevations and Flood Proofing

The TSP includes the implementation of nonstructural measures to reduce the risk of damages from flooding to residential and non-residential structures that have first floor elevations at or below the 50-year flood plain based on hydrological predictions. Structure modification would be on a case-by-case basis across the 50-year floodplain.

Nonstructural measures differ from structural measures because they focus on reducing consequences of flooding instead of focusing on reducing the probability of flooding. A total of 8,498 structures are included in the nonstructural project measure. An estimated 6,643 residential homes in St. Tammany Parish, LA would be elevated to the future 100-year flood stage up to 13 feet. In addition, 1,855 non-residential structures would be flood proofed up to 3 feet. The elevation and flood proofing of these structures addresses the structures in the 50-year flood plain that are not included in the areas benefitted from the structural features of the TSP (Figure G:1-6).

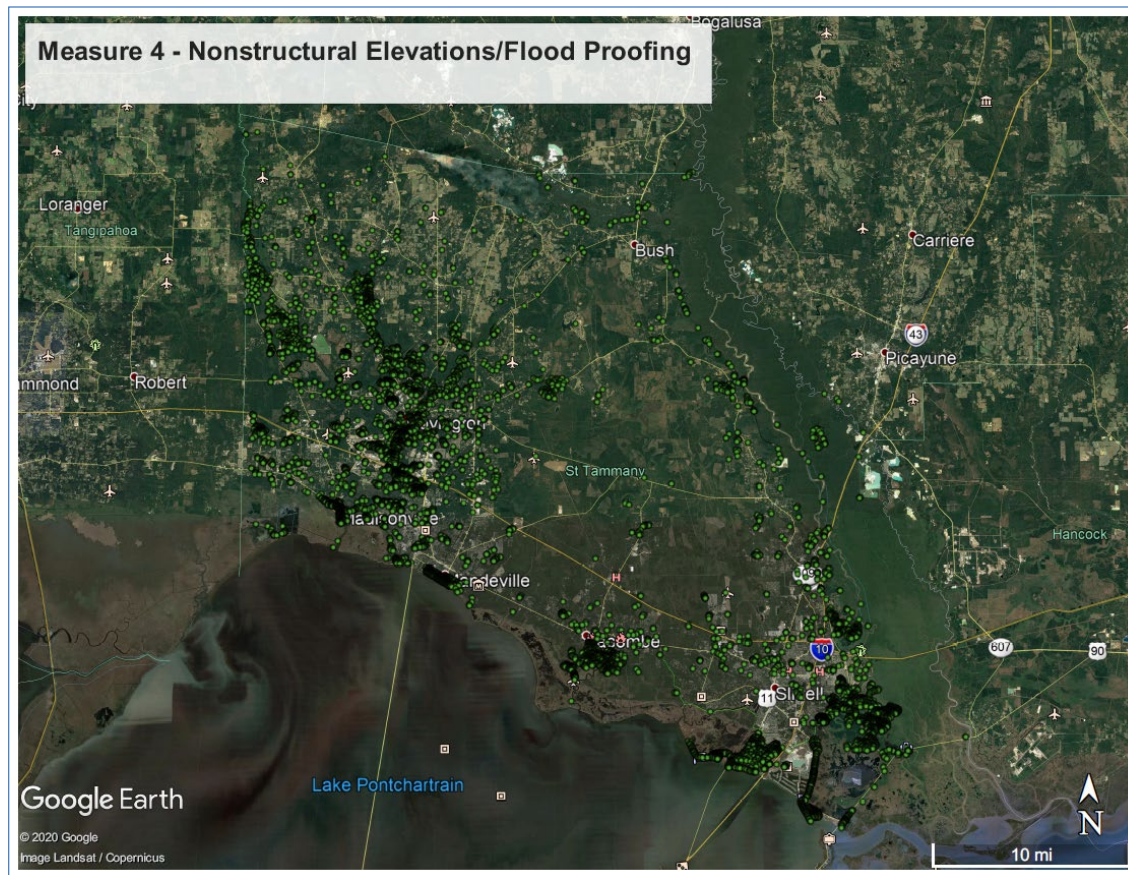


Figure G:1-7 Nonstructural Elevations/Flood Proofing

The Nonstructural Plan consists of these flood proofing measures:

- Elevation of eligible residential structures. Elevation of 6,643 structures to an elevation no greater than 13 feet above grade. Elevation of the entire structure or the habitable area of a structure would allow floodwaters to flow and recede underneath.
- Floodproofing of eligible non-residential structures. Floodproofing 1,585 structures up to 3 feet to reduce flood risk. Floodproofing would ensure that floodwaters cannot get inside by making walls, doors, windows, and other openings impermeable to water penetration up to three feet above grade.

The US Army Corps of Engineers (USACE), Mississippi Valley Division (MVD), and New Orleans District (CEMVN) has prepared a Nonstructural Implementation Plan, which provides details regarding a possible method of program implementation (refer to Appendix H of the DIFR and EIS).

It is assumed that all properties have legal access by way of public streets or existing public ROW. Further, it is assumed that residential and non-residential properties participating in the project would have sufficiently large sites to accommodate staging of material and equipment. For the purposes of this report, the assumption is that no further real estate

rights need to be acquired for access to the properties or staging. Should additional ROW be necessary, a standard Temporary Work Area Easement would be acquired. There are no required borrow and disposal areas for the TSP nonstructural features.

1.3.5 Mitigation

A Mitigation Plan is currently being developed that may include purchasing mitigation bank credits or construction of bottom land hardwood and marsh sites. During feasibility level design, a Wetland Value Assessment will be performed in coordination with the U.S. Fish and Wildlife Service to refine initial mitigation estimates. If USACE constructed mitigation sites would be necessary, additional acres would be needed and acquired by Fee Estate, Excluding Oil & Gas. The acreages needed for potential mitigation sites have not yet been determined, and real estate costs for mitigation are not included in this draft REP. This information will be addressed in the final IFR and EIS and the final REP.

Section 2

Non-Federal Sponsor

CPRAB is a state entity that is established, authorized, and empowered to carry out any and all functions necessary to serve as the single entity responsible to act as the local sponsor for construction, operation, and maintenance of the hurricane, storm damage reduction and flood control projects in areas under its jurisdiction, including Greater New Orleans and southeast Louisiana.

2.1 ASSESSMENT OF NON-FEDERAL SPONSOR CAPABILITY

An assessment of the legal and professional capability of the NFS, and its experience to acquire and provide the LERRDs for construction, operation, and maintenance of the TSP has been included as **Attachment A** to this REP. The NFS has worked with USACE on numerous other projects and has been capable of performing the responsibilities of LERRDs acquisition.

2.2 NON-FEDERAL SPONSOR RISK NOTIFICATION

During feasibility level design, the NFS will be notified in writing of the risks of acquiring LERRD before the execution of a PPA. This letter will be attached to the final REP.

Section 3

Lands Required for the Project

3.1 LANDS, EASEMENTS, AND RIGHTS-OF-WAY (LER)

3.1.1 Measure 1: Federal Hurricane and Storm Risk Reduction Levee and Floodwall.

This alignment would impact approximately 67 private landowners. An estimated six structure improvements would be impacted.

This Measure would require the temporary acquisition of an approximate total of 62 acres by the NFS using USACE standard temporary easements estates for the construction of the project, if it is implemented. This Measure would require the permanent acquisition of an approximate total of 236 acres by the NFS using USACE standard estates for the construction of the project, if it is implemented.

At the western portion of the proposed levee alignment, a portion of the proposed new federal levee footprint lies within Big Branch Marsh National Wildlife Refuge (Figure G:4-2 in Section 4). Refer to Section 4.3, Federally Owned Lands, for more information. The NFS would acquire Authorization for Entry for construction of project features that are owned by state, parish, or city governments. Table G:3-1 shows the privately owned LERRDs acreages and estates required for the structural features of the TSP:

Table G:3-1. LER – Alignment for Measure 1

Project Feature	Acres	Estate
Measure 1 Levee/Floodwall	173	Perpetual Flood Protection Levee Easement
Measure 1 Flood Gates & Pump Stations	63	Fee, Excluding Minerals
Measure1 Borrow	62	Temporary Work Area Easement (Borrow)
Improvements		Fee, Excluding Minerals

Construction access and staging areas would be needed along the alignment for all elements of TSP. However, access and staging areas required on privately owned lands have not been identified for Measure 1. Additionally, potential borrow sites have been identified, but a determination of exact locations has not been made. This information will be refined during feasibility level design.

3.1.2 Measure 2: Bayou Patassat Channel Improvements

The lands required for the implementation of this Measure are all assumed to be public property and owned by either St. Tammany Parish or the city of Slidell, LA. Approximately 3 acres of ROW will be required if the TSP is constructed. If it is determined that privately owned lands are required for the project, the standard Channel Improvement Easement or Snagging and Clearing Easement may be acquired where needed.

Possible staging areas would include the city-owned land around the bayou and the Bayou Vincent pump station or at the grassy area at the end of Bayou Lane. It is assumed that access to the bayou would be via the city-owned property along the channel.

The existing ROW of the Bayou Patassat Channel is owned by St. Tammany Parish. The parish would provide Authorization for Entry for construction to the NFS.

3.1.3 Measure 3: Mile Branch Channel Improvements

The existing ROW of the Mile Branch Channel is owned by St. Tammany Parish. The parish would provide Authorization for Entry for construction to the NFS.

Specifically, approximately 20 acres of ROW would be required within the Mile Branch Channel.

A temporary roadway may be required for access to the project, as well as temporary work areas adjacent to the channel. This measure would require the temporary acquisition of an approximate total of 34 acres by the NFS using USACE standard temporary easements estates for construction of the project, if it is implemented. Approximately 41 private landowners would be impacted.

The Table G:3-2 provides the privately owned LERRDs acreages and estates required for construction of this project feature.

Table G:3-2. LER – Mile Branch Channel Improvement

Project Feature	Acres	Estate
Mile Branch – Access/Staging Areas	34	Temporary Work Area Easement; Temporary Road Easement
Improvements		Fee, Excluding Minerals

3.2 ESTATES TO BE ACQUIRED

The following standard estates would be acquired from private landowners. The use of non-standard estates is not anticipated. Temporary estate duration would be 5 years.

Road Easement (temporary [five years] and perpetual)

A (perpetual [exclusive] [non-exclusive] and assignable) (temporary) easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the location, construction, operation, maintenance, alteration replacement of (a) road(s) and appurtenances thereto; together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions and other vegetation, structures, or obstacles within the limits of the right-of-way; (reserving; however, to the owners, their heirs and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B); subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Flood Protection Levee Easement (Perpetual)

A perpetual and assignable right and easement in (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) to construct, maintain, repair, operate, patrol and replace a flood protection levee, floodwall, gate closure, including all appurtenances thereto; reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Temporary Work Area Easement (borrow) [five years]

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), for a period not to exceed Five years, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a borrow area, including the right to borrow and/or deposit fill, spoil and waste material thereon and to perform any other work necessary and incident to the construction of the **St. Tammany Parish, Louisiana** Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Temporary Work Area Easement (staging) [five years]

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____), for a period not to exceed Five years, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a work area, including the right to move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and

incident to the construction of the **St. Tammany Parish, Louisiana** Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Fee Excluding Minerals (With Restriction on Use of the Surface)

The fee simple title to the land, subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines; excepting and excluding all oil and gas in and under said land and all appurtenant rights for the exploration, development, production and removal of said oil and gas, but without the right to enter upon or over the surface of said land for the purpose of exploration, development, production and removal therefrom said oil and gas.

Channel Improvement Easement

A perpetual and assignable right and easement to construct, operate, and maintain channel improvement works on, over and across (the land described in Schedule A) (Tracts Nos. _____, _____ and _____) for the purposes as authorized by the Act of Congress approved _____, including the right to clear, cut, fell, remove and dispose of any and all timber, trees, underbrush, buildings, improvements and/or other obstructions therefrom; to excavate: dredge, cut away, and remove any or all of said land and to place thereon dredge or spoil material; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

Snagging And Clearing Easement

A perpetual and assignable right and easement on, over and across (the land described in Schedule A)(Tract(s) No(s). _____, _____ and _____,) for the purposes of occasionally conducting snagging and clearing operations along the banks of the _____, including the right to trim, cut, fell, remove and dispose of any and all trees, brush, obstacles or other vegetation, except trees having a diameter-exceeding 8 inches measured at _____ height; reserving, however, to the landowners, their heirs and assigns all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

3.3 NON-STANDARD ESTATE – NONSTRUCTURAL PROJECT FEATURE

For properties that are eligible for elevation or flood proofing, an agreement would be executed between the NFS and the landowner, which would serve as right-of-entry for the NFS and the U.S. for construction, inspection and OMRR&R of the project. The agreement, as well as any required curative documents, subordination or release agreement(s), shall be recorded by the NFS in the public records of the parish in which the property is located prior to commencement of the nonstructural improvements on the property.

The Flood Proofing Agreement would authorize USACE, the NFS, or their contractors to enter the property for purposes of implementing the flood proofing action and for inspection and enforcement purposes, and would include the agreement of the property owners to hold harmless the NFS and USACE for any damages arising from the flood proofing work, and a covenant running with the land shall be executed by all owners of the property.

Elevation and flood proofing of eligible structures would require that the NFS acquire an easement as a part of the agreement, which runs with the land, and prohibits conversion or occupancy of any part of the structure located below the lowest habitable finished floor for human habitation and prohibits the alteration of the structure in any way to impede the movement of flood waters under the structure. The easement language included would also prohibit the construction of any other structure in a manner that would impede the movement of floodwaters under the structure. The draft easement language will be submitted through CEMVD to CEHQ-RE as a request for approval of a Non-Standard Estate.

3.4 FACILITY/UTILITY RELOCATIONS

There is one natural gas pipeline, owned by ExxonMobil, located within the levee footprint, which would be relocated via Up-and-Over Pipeline relocation during construction. There is one transmission line owned by CLE which would not be relocated, but would be de-energized during construction. The total estimated cost of facility/utility relocations is \$887,000.

Any conclusion or categorization contained in this report that an item is a utility or facility relocation to be performed by the NFS as part of its LERRD responsibilities is preliminary only. The government will make a final determination of the relocations necessary for the construction, operation and maintenance of the project after further analysis and completion and approval of a Final Attorney's Opinion of Compensability for each of the impacted utilities and facilities.

Section 4

Federal Lands

4.1 EXISTING FEDERAL PROJECTS

There are numerous Federal projects located within the study area.

4.1.1 USACE Southeast Louisiana Urban Flood Control Project

Seven projects were authorized under USACE's Southeast Louisiana Urban Flood Control Project (SELA) program in St. Tammany Parish in 1996, pending a study (known as a 533d report) to confirm they are technically sound, environmentally acceptable and economically justifiable, and include: Schneider Canal Hurricane Protection; Mandeville Hurricane Protection; Lacombe Area Plan; Abita Area Plan; Mile Branch Plan; Bayou Chinchuba Plan; and Slidell Area Plan (W-13, W-14, and W-15 Canals). Figure G:4-1 shows these seven projects within St. Tammany Parish.

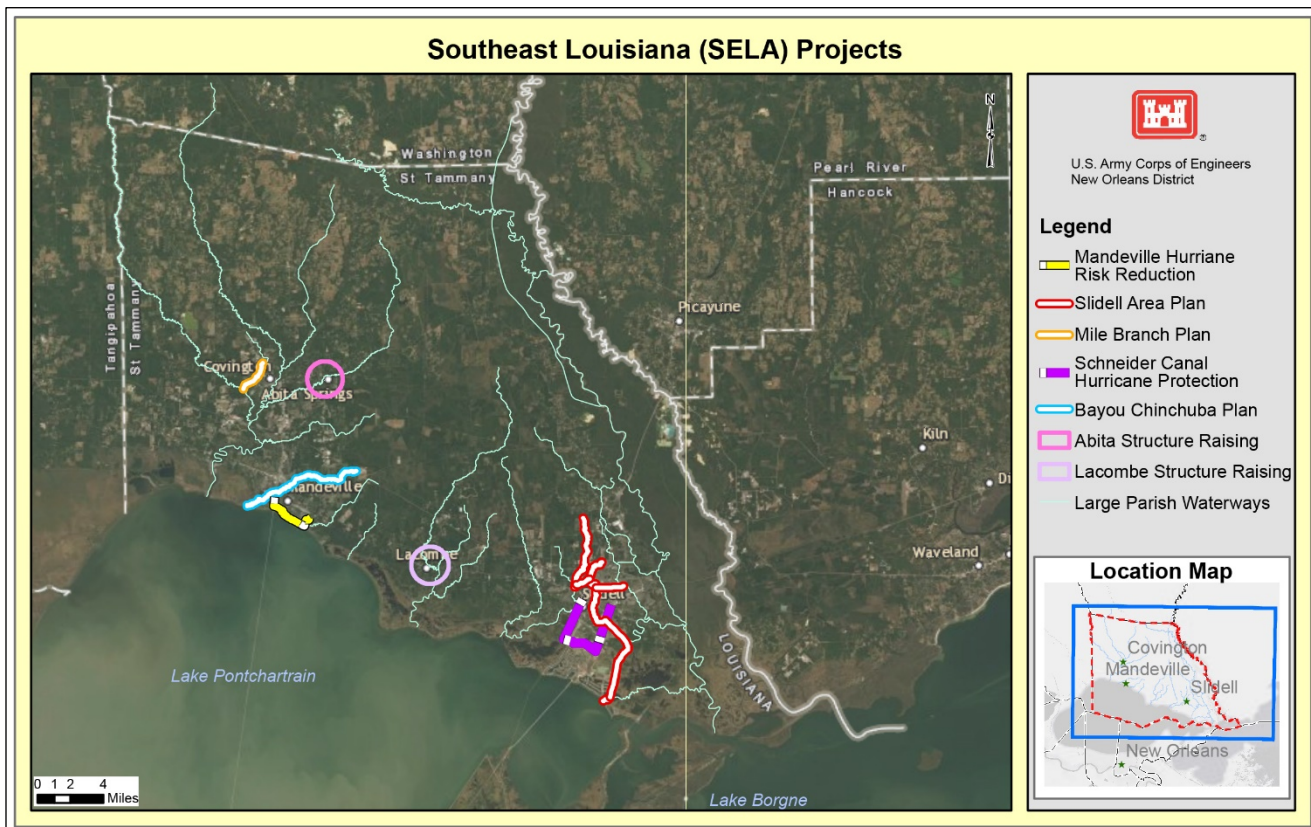


Figure G:4-1. Southeast Louisiana (SELA) Projects

Only the W-14 project in Slidell has an approved report from March 2012 confirming it is technically sound, environmentally acceptable, and economically justifiable (533d report).

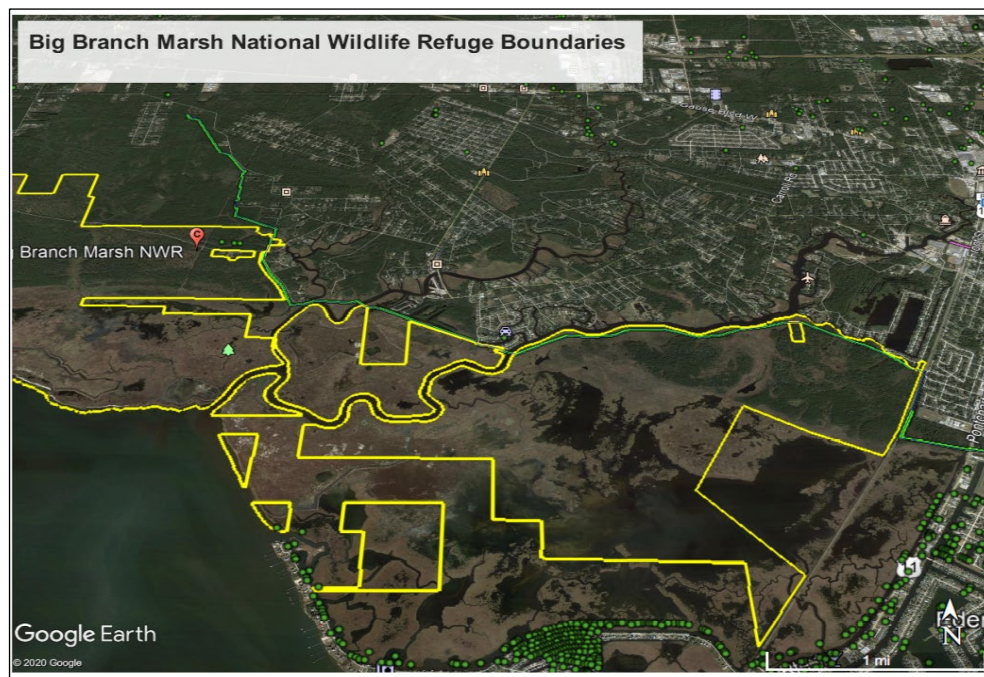
Because the W-14 project had an approved 533d report it was excluded from plan formulation under this study. Analysis of the other six projects were included as part of plan formulation because the original SELA projects were over 30 years old and it was expected that conditions in the study area might have changed.

After this study initiated, efforts to begin to prepare a 533d report for the Schneider Canal project were subsequently funded. There is overlap in the study area for this project with the smaller authorized study area for the SELA Schneider Canal project. This study will continue to evaluate a comprehensive plan for the parish; however, the SELA Schneider Canal Hurricane Projection project is more limited in scope and project area and is evaluating the recommended alignment included in the authorizing language. Coordination between the project teams, Office of Counsel, and leadership is ongoing and will continue to determine the linkages between the two studies.

4.2 FEDERALLY OWNED LANDS

The United States owns fee title to lands within the Big Branch Marsh National Wildlife Refuge, located on the western reach of the levee alignment for Measure 1 (Figure G:4-2). The U.S. Fish and Wildlife Service (USFWS) is the managing agency for the lands. The NFS would acquire from the USFWS the necessary real estate interests required for the project.

Figure G:4-2. Big Branch Marsh NWR – Alt 6c Levee Alignment



4.3 NAVIGATION SERVITUDE

The federal navigation servitude is the dominant right of the Federal Government under the Commerce Clause of the U.S. Constitution to use, control, and regulate the navigable waters of the United States and submerged lands thereunder for various commerce-related purposes including navigation and flood control. In tidal areas, the servitude extends to all lands below the mean high water mark. In non-tidal areas, the servitude extends to all lands within the bed and banks of a navigable stream that lie below the ordinary high water mark. The federal navigation servitude is not available in the implementation of the TSP.

Section 5

Induced Flooding

Based on the ADCIRC modeling of other systems, it was estimated that it may be possible to see increases of 1-3 feet in the 1 percent AEP water level on the floodside of the measures in the TSP. The proposed structural measures of the TSP are not expected to cause significant changes to storm surge levels for the Lake Pontchartrain and Vicinity system in the Greater New Orleans Hurricane & Storm Damage Risk Reduction System (HSDRRS) nor to the West Shore Lake Pontchartrain system.

The potential for induced flooding will be further investigated during feasibility-level design. If the induced flooding is confirmed, the TSP would be refined to appropriately address the issue which could include things as additional nonstructural actions or refinement of TSP measures.

If it is determined that structures outside of the proposed levee and floodwall alignment are impacted, a Takings Analysis would be prepared to assess the impacts and a plan would be developed to mitigate the potential impacts.

Section 6

Uniform Relocations Assistance (P.L. 91-646, Title II as Amended)

The availability of relocation assistance benefits for persons within the structural and nonstructural features of the TSP would be determined pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (“Uniform Act”), and its implementing regulations at 49 C.F.R. Part 24 (“Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs”). Approximately 10 residential and non-residential structures are located within the footprint of the structural features. Approximately 6,643 residential and 1,585 non-residential structures are located within the nonstructural feature of the TSP. Because the nonstructural plan is voluntary in nature, Uniform Act assistance for nonstructural measures would be provided only to tenants. The estimated costs for the relocation assistance benefits are included in Section 8, Real Estate Costs.

Section 7

Other Impacts to Lands Required for the Project

7.1 TIMBER/MINERALS/ROW CROP ACTIVITY

The Louisiana Department of Natural Resources provides a Strategic Online Natural Resources Information System (SONRIS), which contains up-to-date information on oil and gas activity in the state of Louisiana. A review of the information maintained by SONRIS indicates that although there are oil and gas wells within the study area, there are no wells located within the footprint of the TSP. Furthermore, there are no crops or merchantable timber affected by the TSP.

7.2 OYSTER LEASES

A review of SONRIS by Louisiana Department of Natural Resources indicates there are no oyster leases within the TSP project area. As such, no oyster leases would be acquired as a result of this project.

7.3 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE

An abridged Phase I Environmental Site Assessment was conducted to assess the potential for Hazardous, Toxic, and Radioactive Waste (HTRW) materials within the proposed TSP footprints for each of the Measures. As a result of this investigation, it was determined that the probability of encountering HTRW during construction would be low. It was recommended that a Full Phase I ESA be conducted prior to construction. However, it is not anticipated that there would be impacts to the real estate acquisition process and the LER value estimate due to known or suspected presence of contaminants within the LER required for project construction. Further discussion of these environmental investigations and findings can be found in Section 3.2.1.7 of the DIFR and DEIS.

7.4 ZONING IN LIEU OF ACQUISITION

There would be no application or enactment of zoning ordinances in lieu of, or to facilitate, acquisition of real estate interests in connection the structural features, or implementation of the nonstructural features. The nonstructural measures are voluntary in nature and would be available only to existing eligible structures as defined within the TSP. During PED, planning and zoning regulations would be further reviewed and discussions would be conducted with the NFS regarding the development and adoption of land use regulations for future activities within the project area. The NFS would be required to coordinate these matters with local planning commissions.

Section 8

Real Estate Costs

8.1 REAL ESTATE COSTS – STRUCTURAL PROJECT FEATURES

The Cost Estimate provided in Table G:8-1 are for the estimated LERRDs required for construction, operation, and maintenance, for all of the TSP measures. This estimate also includes lands and administrative costs for borrow acquisition. This estimate does not include estimated cost of acquisition of lands for staging, access, or mitigation for Measure 1. This information will be refined during feasibility level design.

Table G:8-1. Estimated Real Estate Costs for the TSP - Structural

01 Real Estate Total	\$15,968,660
02 Facility & Utility Relocations Total	\$887,000

This Rough Order of Magnitude cost estimate is restricted use and not intended to comply with Uniform Standards of Professional Appraisal Practice (USPAP). Inspection of the property was made by aerial photography and appraiser utilized online information from local assessor offices. Property values were determined based on comparable sales and listings on file at the time of this report, as well as discussions with active market participants.

8.2 REAL ESTATE COST – NONSTRUCTURAL PROJECT FEATURES

Rough Order of Magnitude level cost estimates were prepared based on the assumption that there are a total of 8,498 structures to be included within the plan (6,643 residential elevations, 1,855 non-residential flood proofing). Real estate costs for the TSP include administrative costs for the execution of the agreement between the NFS and the landowner, administrative costs associated with the elevation of residential structures and flood proofing of non-residential structures, and relocation assistance costs for tenants. Some associated administrative requirements would be for obtaining right-of-entry, title research, execution of Flood Proofing Agreements and curative documents, filing of the servitude running with the land, and coordination and oversight of relocations. Costs of elevating and flood proofing the structures are construction costs, and are not included as real estate costs. Table G:8-2 shows the estimated real estate costs for the nonstructural TSP measures:

Table G:8-2. Estimated Real Estate Costs for the TSP - Nonstructural

	RESIDENTIAL ELEVATIONS	NON- RESIDENTIAL FLOOD PROOFING	TOTAL
ESTIMATED # OF STRUCTURES	6,643	1,855	8,498
TOTAL REAL ESTATE COSTS	\$139,436,253	\$35,895,787	\$175,332,040

These cost estimates are subject to revision during feasibility level design.

Section 9

Real Estate Acquisition Schedule

9.1 REAL ESTATE SCHEDULE – STRUCTURAL PROJECT FEATURES

The following acquisition schedule is based on the premise that the structural features of the project would impact approximately 67 private landowner(s). A detailed acquisition schedule will be prepared once the 95 percent plans and specifications for the project are prepared. The schedule below provides the total amount of time to complete the acquisition of real estate rights for the construction of the project based on the information available at this time. This schedule is only for purposes of the feasibility study.

TOD, Mapping	2 months
Obtain Title & Appraisals	6 months
Negotiations	18 months
Closing	6 months
Eminent Domain Proceedings (if needed)	12 months

9.2 REAL ESTATE SCHEDULE – NONSTRUCTURAL PROJECT FEATURES

The nonstructural project elevations and flood proofing features would require execution of an agreement between the landowner and the NFS. In addition, the following administrative functions, among others, would be required: title research, HTRW analysis, and structural condition analysis, and additional property inspections to determine eligibility. Temporary rights of entry would have to be obtained from the owners in order to perform some of these administrative duties. (Refer to Appendix H of the DIFR and EIS for more detailed discussion of the non-structural implementation plan.)

Tasks shown below would likely vary by property; therefore, the schedule shown is the overall anticipated time for the total number of structures and assumes an overlap of tasks. The schedule is dependent upon a defined nonstructural implementation plan and assumes that project funding would be available every year. Therefore, this estimated schedule is expected to be refined as more information becomes available during PED and implementation of the TSP.

Obtain Right-of-Entry for Investigations (To Determine Eligibility)	6-12 months
Title research	40-60 months
Preliminary Investigations (i.e. HTRW, structural, surveys, etc.)	36-60 months
Execution of agreement between landowner/NFS & curative documents for elevations or non-residential flood proofing	12-24 months
Filing Agreement between landowner and NFS	12 months
Relocation of Displaced Tenants	12-24 months

Section 10

Landowner Concerns

At the time of this draft REP, there have been no concerns expressed by landowners regarding the TSP. Additional public meetings will be held to discuss the TSP and we will receive more information regarding landowner concerns.

Section 11

Review and Approval

Date: May 10, 2021

USACE - New Orleans District

Prepared by: Reviewed by: Approved by:

Karen Vance-Orange
Realty Specialist

Huey J. Marceaux
Chief, Appraisal and
Planning Branch

Judith Y. Gutierrez
Chief, Real Estate Division
Real Estate Contracting Officer

ATTACHMENT A
ASSESSMENT OF NON-FEDERAL SPONSOR CAPABILITY

**ASSESSMENT OF NON-FEDERAL SPONSOR'S
REAL ESTATE ACQUISITION CAPABILITY
ST TAMMANY PARISH FEASIBILITY STUDY**

**COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA), IMPLEMENTATION
ARM OF THE COASTAL PROTECTION AND RESTORATION AUTHORITY BOARD
(CPRAB)**

I. Legal Authority:

- a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes?
YES
- b. Does the sponsor have the power of eminent domain for this project? **Yes, however, Act No. 199 (HB 144) signed by the Governor of the State of Louisiana on 6/14/2017, limits the power of eminent domain; it states that “no full ownership interest in property shall be acquired for integrated coastal protection through any method by the state of Louisiana, the Coastal Protection and Restoration Authority, a levee district, a levee authority, a sponsoring authority, a political subdivision, or any other state, local, or federal entity, or their agents or employees, including but not limited to compensatory mitigation and ecosystem restoration purposes, unless such interest is voluntarily offered and agreed to in writing by owners with at least seventy-five percent ownership in the property or such entity seeking to acquire the property proves by clear and convincing evidence in a court of competent jurisdiction that a full ownership interest is the minimum interest necessary to carry out the purposes of integrated coastal protection for the specific project for which it is acquired.” Furthermore, access rights, rights of use, servitudes, easements, or other property interests for coastal protection projects shall only be for fixed terms and shall not be acquired in perpetuity unless such acquisition is offered voluntarily by owners with at least seventy-five percent ownership in the property.**
- c. Does the sponsor have “quick-take” authority for this project? **NO** CPRAB does not directly have quick take authority. However, pursuant to La. R.S. 49:214.5.2 and 38:301.1, CPRAB may enter into an agreement to use the authority of a coastal area levee district or parish governing authority to use the quick take authority of those entities to acquire real property interests for project purposes.
- d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? **NO**
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **See “b” above.**

II. Human Resource Requirements:

- a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? **NO**
- b. If the answer to II.a. is “yes,” has a reasonable plan been developed to provide such training? **N/A**
- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **YES**
- d. Is the sponsor's projected in-house staffing level sufficient considering its other workload, if any, and the project schedule? **YES**
- e. Can the sponsor obtain contractor support, if required in a timely fashion? **YES**
- f. Will the sponsor likely request USACE assistance in acquiring real estate? **NO**

III. Other Project Variables:

- a. Will the sponsor's staff be located within reasonable proximity to the project site? **YES**
- b. Has the sponsor approved the project/real estate schedule/milestones? **YES**

IV. Overall Assessment:

- a. Has the sponsor performed satisfactorily on other USACE projects? **YES**
- b. With regard to this project, the sponsor is anticipated to be: (highly capable/fully capable/moderately capable marginally capable/insufficiently capable). The NFS is anticipated to be highly capable of acquiring the real estate interests required for the project.

V. Coordination:

- a. Has this assessment been coordinated with the sponsor? **YES**
- b. Does the sponsor concur with this assessment? **YES**

Prepared by:



Karen Vance-Orange
Realty Specialist
US Army Corps of Engineers

Approved by:



David A. Peterson
General Counsel
Coastal Protection and Restoration Authority