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2017 Coastal Master Plan

Attachment A8: Project Fact Sheets

Report: Final

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Coastal Protection and Restoration Authority

This document was prepared in support of the 2017 Coastal Master Plan being prepared by the Coastal Protection and Restoration Authority (CPRA). CPRA was established by the Louisiana Legislature in response to Hurricanes Katrina and Rita through Act 8 of the First Extraordinary Session of 2005. Act 8 of the First Extraordinary Session of 2005 expanded the membership, duties, and responsibilities of CPRA and charged the new authority to develop and implement a comprehensive coastal protection plan, consisting of a master plan (revised every five years) and annual plans. CPRA's mandate is to develop, implement, and enforce a comprehensive coastal protection and restoration master plan.

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1.0 Purpose

Through the processes described in Appendix A, 209 candidate restoration, structural protection, and nonstructural risk reduction projects were identified for consideration in the 2017 Coastal Master Plan. This document is intended to provide project-specific fact sheets for each of the candidate projects considered in the 2017 Coastal Master Plan.

Project fact sheets include a location map, a brief description of the project's features, estimated project costs, estimates for the project's performance based on the master plan's two decision drivers: to build or maintain land and to reduce Expected Annual Damage (EAD), and a map showing the locations of nearby projects selected for inclusion in the master plan. An explanation of the fact sheet's layout and data is included in Section 2.0.

2.0 Description of Project Fact Sheets

The mock layout at the end of Section 2.0 is intended to provide explanations of the different data included in the project fact sheets. The mockup generally contains the same layout as the project fact sheets themselves for easy reference. The second pages of Structural Protection and Nonstructural Risk Reduction fact sheets have slightly different locations for the EAD Damage by Return Period data.

The following subsections explain how diversion influence areas, marsh creation projects, sediment diversions, and hydrologic restoration projects are represented on the maps.

2.1 Diversion Influence Areas

Brown areas on project maps signify the influence areas of sediment diversion projects. A diversion influence area is defined as the area over which a specific project results in changes to salinity values by more than one part per thousand at year 50 (with the exception of 001.DI.100, whose values were analyzed at year 47 due to its specific operational regime). Upland areas and leveed communities were removed from the influence areas since the landscape model is not designed to predict salinity in these areas. The outer bounds of the influence areas were limited to areas north of barrier islands.

2.2 Representation of Marsh Creation Projects

As described in Appendix A, large marsh creation projects were divided into smaller components to facilitate project evaluation and prioritization. The selection of marsh creation projects to include in the master plan was handled at the component level in the Planning Tool to ensure that large marsh creation projects would not be excluded simply because they were expensive and required a significant amount of the available funding. In some cases, all components of a marsh creation project were selected, whereas in others, only certain components were selected. To accurately reflect the geographic footprint of the components of projects selected, the project fact sheets employ black outlines to depict all portions of a given marsh creation project. The components shaded in green within the black outlines represent only those selected for inclusion in the master plan. In instances where only subcomponents of marsh creation projects were selected, only the component's cost is noted

on the fact sheet. In instances where all components or no components of a marsh creation project were selected, the overall project costs are reported.

2.3 Representation of Sediment Diversion and Hydrologic Restoration Projects

Sediment diversion and hydrologic restoration projects are often characterized by control structures and creation of or alterations to conveyance channels. Locations of structures (e.g., control structure, weir, channel closure, spoil bank modification, etc.) are represented by point icons. The portions of channels to be altered, whether through enlargement or constriction (and thus where cost and construction will occur), are depicted by the respective line types assigned to each project type. This method is consistent with all master plan maps depicting projects.

2.4 Layout of Project Fact Sheet

Project Name
Project Type
Project ID

Project-specific icon

Inset map of Louisiana showing the project location with respect to the entire state

This section shows a map of the specific project or project increment chosen for the 2017 Coastal Master Plan.

Description
This section provides a brief summary of the project, including features that are specific to a given project or project type. The **Implementation Period** (IP) on the border (right) corresponds to the year in which the project is started. Restoration projects have three IPs: IP I starts in year 1, IP II starts in year 11, and IP III starts in year 31. Nonstructural and Structural projects have two IPs: IP I starts in year 1 and IP II starts in year 31.

Project Cost Estimate
For Nonstructural projects, this section describes the count and cost of the mitigated structures for three voluntary measures: non-residential floodproofing, residential elevation, and residential acquisition. For all other project types, this section provides estimates of the costs of planning/engineering and design, construction, and operations and maintenance for the lifespan of the project. All costs are in 2015 USD and are based on standards developed by CPRA.[1]

Other Nearby Projects in the Master Plan
This section shows a map of all other projects chosen in the 2017 Coastal Master Plan that are in the same vicinity as the current project.

[1] Costs and features for some projects were adjusted between the Draft and Final 2017 Coastal Master Plan based on stakeholder feedback.
[2] In cases where no mitigation of structures is recommended in a nonstructural project area, statistics for LMI and SRL are shown as zero.

The Scale of Influence describes the magnitude of the project's effects.

Project Location
This section lists the parish(es) where the project is built.

Project Duration
This section provides an estimate on the time it will take to design and/or construct the project.

Land Area Built or Maintained
This section describes the acreage of land built or maintained by the project based on the high environmental scenario. This section is not applicable for Structural or Nonstructural projects.

Notes/Other Project Area Statistics
For Marsh Creation projects, this section provides details for any projects implemented in increments across multiple implementation periods. For Nonstructural and Structural projects, this section provides information about the population and the severe repetitive loss properties in a given project area. For Nonstructural projects, the "project area" is the entire nonstructural area of interest.[2] For Structural projects, the "project area" includes only the area protected by the project.

2017 Coastal Master Plan
Implementation Period I, II, or III

2017 Coastal Master Plan | Project Factsheet

Project Name

Project Type

Project ID

Project-specific icon

Economic Damage

Structural Protection and Nonstructural Risk Reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from a storm surge flooding event, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2) and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	FWOA	FWP	Difference

Critical Infrastructure

Table 1: Critical Infrastructure Counts

Asset Type	Protected	Total

Table 1 depicts the total count of strategic assets within a given Structural Protection project area. Additionally, it notes how many assets receive protection from a given project that would otherwise have flooded in the FWOA condition. On occasion, the "Protected" column for heavily urbanized areas could be 0. This may result from the fact that assets within those areas are projected to remain dry under present levels of protection. Strategic assets were compiled with input from the Governor's Office of Homeland Security (GOHSEP) and the Federal Emergency Management Agency's (FEMA's) Homeland Security Infrastructure Program (HSIP). This table is only pertinent to Structural Protection projects.

Table 3: Economic Damage by Return Period (at Year 50)

Year or Risk Region	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP
List of Years of Analysis or Risk Region Affected						
Total						

Table 2 shows a comparison of Future Without Action (FWOA) and Future With Project (FWP) values of Expected Annual Damage (EAD) in years 0, 25, and 50 of the plan's period of analysis. EAD values are not specific to a particular return period, but are calculated across all return periods analyzed. This table is only pertinent to Structural and Nonstructural Risk Reduction projects. Occasionally, EAD values decline over time in the FWOA case, which may seem counterintuitive. This is primarily due to projected patterns of population and asset shifts in the future.

Table 3 shows a comparison of Future Without Action (FWOA) and Future With Project (FWP) values of Economic Damage across 3 return periods (the 50, 100, and 500 year events; or in other terms, the 2%, 1%, and 0.2% recurrence intervals, respectively). For Nonstructural projects, the table summarizes values for years 0, 10, 25, and 50 of the plan's period of analysis, whereas for Structural projects, values are reported for each risk region affected. This table is only pertinent to Structural Protection and Nonstructural Risk Reduction projects.

3.0 Project Fact Sheet Index

Table 1: Project Fact Sheet Index.

Project Type	Project No.	Project Description	Implementation Period	Page
Southwest				
Projects Selected in the 2017 Coastal Master Plan				
Hydrologic Restoration	004.HR.06	Calcasieu Ship Channel Salinity Control Measures	Years 1-10	SW-1
Marsh Creation	03b.MC.03	Marsh Island Marsh Creation	Years 11-30	SW-2
	03b.MC.07	East Rainey Marsh Creation	Years 1-10	SW-3
	03b.MC.09	Point Au Fer Island Marsh Creation	Years 31-50	SW-4
	03b.MC.101	Southeast Marsh Island Marsh Creation	Years 11-30	SW-5
	004.MC.01	South Grand Chenier Marsh Creation	Years 11-30	SW-6
	004.MC.04	Mud Lake Marsh Creation	Years 11-30	SW-7
	004.MC.07	West Rainey Marsh Creation	Years 11-30	SW-8
	004.MC.10	Southeast Calcasieu Lake Marsh Creation	Years 11-30	SW-9
	004.MC.13	Cameron Meadows Marsh Creation	Years 11-30	SW-10
	004.MC.16	East Pecan Island Marsh Creation	Years 11-30	SW-11
	004.MC.19	East Calcasieu Lake Marsh Creation	Years 31-50	SW-12
	004.MC.23	Calcasieu Ship Channel Marsh Creation	Years 11-30	SW-13
	004.MC.100	Freshwater Bayou North Marsh Creation	Years 1-10	SW-14
	004.MC.101	Freshwater Bayou South Marsh Creation	Years 1-10	SW-15
	004.MC.102	White Lake Marsh Creation	Years 11-30	SW-16
	004.MC.103	Little Chenier Marsh Creation	Years 31-50	SW-17
	004.MC.104	Calcasieu Lake West Bank Marsh Creation	Years 31-50	SW-18
	004.MC.105	West Brown Lake Marsh Creation	Years 31-50	SW-19
	004.MC.107	West Sabine Refuge Marsh Creation	Years 11-50	SW-20
Nonstructural Risk Reduction	CAL.01N	Calcasieu Nonstructural Risk Reduction	Years 1-30	SW-21-1, 2
	CAM.01N	Cameron Nonstructural Risk Reduction	Years 1-30	SW-22-1, 2
	IBE.01N	Iberia - Lower Nonstructural Risk Reduction	Years 1-30	SW-23-1, 2
	IBE.02N	Iberia - Atchafalaya Nonstructural Risk Reduction	Years 1-30	SW-24-1, 2
	SMT.01N	St. Martin Nonstructural Risk Reduction	Years 1-30	SW-25-1, 2
	STM.01N	St. Mary - Morgan City Nonstructural Risk Reduction	Years 31-50	SW-26-1, 2
	STM.02N	St. Mary - Glencoe Nonstructural Risk Reduction	Years 31-50	SW-27-1, 2
	STM.03N	St. Mary - Patterson Nonstructural Risk Reduction	Years 31-50	SW-28-1, 2
	STM.04N	St. Mary - Franklin/Charenton Nonstructural Risk Reduction	Years 1-30	SW-29-1, 2
	STM.05N	St. Mary - Lower Nonstructural Risk Reduction	Years 1-30	SW-30-1, 2

Project Type	Project No.	Project Description	Implementation Period	Page
Nonstructural Risk Reduction	VER.01N	Vermilion Nonstructural Risk Reduction	Years 1-30	SW-31-1, 2
	VER.02N	Vermilion - Abbeville/Delcambre Nonstructural Risk Reduction	Years 1-30	SW-32-1, 2
Ridge Restoration	004.RC.02	Cheniere au Tigre Ridge Restoration	Years 31-50	SW-33
	004.RC.03	Pecan Island Ridge Restoration	Years 31-50	SW-34
Sediment Diversion	03a.DI.05	Atchafalaya River Diversion	Years 1-10	SW-35
	03b.DI.04	Increase Atchafalaya Flow to Terrebonne	Years 1-10	SW-36
Shoreline Protection	03b.SP.01	Freshwater Bayou Shoreline Protection (Belle Isle Canal to Lock)	Years 1-10	SW-37
	03b.SP.06a	Vermilion Bay and West Cote Blanche Bay Shoreline Protection (Critical Areas)	Years 1-10	SW-38
	004.SP.03	Freshwater Bayou Canal Shoreline Protection	Years 1-10	SW-39
	004.SP.05a	Gulf Shoreline Protection (Calcasieu River to Rockefeller)	Years 1-10	SW-40
Structural Protection	03b.HP.08	Amelia Levee Improvements	Years 1-30	SW-41-1, 2
	03b.HP.10	Morgan City Back Levee	Years 31-50	SW-42-1, 2
	03b.HP.12	Franklin and Vicinity	Years 31-50	SW-43-1, 2
	03b.HP.13	Bayou Chene	Years 1-30	SW-44-1, 2
	03b.HP.14	Iberia/St. Mary Upland Levee	Years 1-30	SW-45-1, 2
	004.HP.15	Abbeville and Vicinity	Years 31-50	SW-46-1, 2
Southwest				
Projects Not Selected in the 2017 Coastal Master Plan				
Bank Stabilization	004.BS.01	Grand Lake Bank Stabilization	N/A	SW-47
	004.BS.02	West Cove Bank Stabilization	N/A	SW-48
	004.BS.05	Sabine Lake Bank Stabilization	N/A	SW-49
Marsh Creation	03b.MC.100	Vermilion Bay Marsh Creation	N/A	SW-50
	004.MC.25	Kelso Bayou Marsh Creation	N/A	SW-51
	004.MC.106	Cameron Meadows and Vicinity Marsh Creation	N/A	SW-52
Nonstructural Risk Reduction	ACA.01N	Acadia Nonstructural Risk Reduction	N/A	SW-53-1, 2
	LFT.01N	Lafayette Nonstructural Risk Reduction	N/A	SW-54-1, 2
	JFD.01N	Jefferson Davis Nonstructural Risk Reduction	N/A	SW-55-1, 2
Ridge Restoration	004.RC.01	Grand Chenier Ridge Restoration	N/A	SW-56
	004.RC.05	Front Ridge Restoration	N/A	SW-57
Shoreline Protection	03b.SP.05	Gulf Shoreline Protection (Freshwater Bayou to Southwest Pass)	N/A	SW-58
	03b.SP.08	Southwest Pass Shoreline Protection (West Side)	N/A	SW-59
	03b.SP.100	Lost Lake Shoreline Protection	N/A	SW-60
	03b.SP.101	Southeast Marsh Island Shoreline Protection	N/A	SW-61
	004.SP.02	Schooner Bayou Canal Shoreline Protection	N/A	SW-62

Project Type	Project No.	Project Description	Implementation Period	Page
Shoreline Protection	004.SP.07	Northeast White Lake Shoreline Protection	N/A	SW-63
	004.SP.08	Calcasieu-Sabine Shoreline Protection - Component A	N/A	SW-64
	004.SP.100	White Lake Shoreline Protection	N/A	SW-65
	004.SP.102	Sabine Pass Shoreline Protection	N/A	SW-66
Central				
Projects Selected in the 2017 Coastal Master Plan				
Hydrologic Restoration	03a.HR.02	Central Terrebonne Hydrologic Restoration	Years 1-10	C-1
	03a.HR.100	Grand Bayou Hydrologic Restoration	Years 11-30	C-2
Marsh Creation	03a.MC.03p	Terrebonne Bay Rim Marsh Creation Study	Years 1-10	C-3
	03a.MC.07	Belle Pass-Golden Meadow Marsh Creation	Years 11-30	C-4
	03a.MC.09b	North Terrebonne Bay Marsh Creation - Component B	Years 11-30	C-5
	03a.MC.100	South Terrebonne Marsh Creation	Years 11-30	C-6
	03a.MC.101	North Lake Mechant Marsh Creation	Years 11-30	C-7
Nonstructural Risk Reduction	TER.01N	Terrebonne - Lower Nonstructural Risk Reduction	Years 1-30	C-8-1, 2
	TER.02N	Terrebonne - Houma Nonstructural Risk Reduction	Years 1-30	C-9-1, 2
Ridge Restoration	03a.RC.02	Bayou Dularge Ridge Restoration	Years 11-30	C-10
	03a.RC.04	Mauvais Bois Ridge Restoration	Years 1-10	C-11
	03a.RC.05	Bayou Terrebonne Ridge Restoration	Years 11-30	C-12
	03a.RC.06	Bayou Pointe Aux Chenes Ridge Restoration	Years 1-10	C-13
Sediment Diversion	03a.DI.01	Bayou Lafourche Diversion	Years 1-10	C-14
Shoreline Protection	03a.SP.100	North Lake Boudreaux Shoreline Protection	Years 11-30	C-15
Structural Protection	03a.HP.02b	Morganza to the Gulf	Years 1-30	C-16-1, 2
Central				
Projects Not Selected in the 2017 Coastal Master Plan				
Bank Stabilization	03a.BS.100	Leeville Bank Stabilization	N/A	C-17
Barrier Island Restoration	03a.BH.03	Isles Dernieres Barrier Island Restoration	N/A	C-18
	03a.BH.04	Timbalier Islands Barrier Island Restoration	N/A	C-19
Nonstructural Risk Reduction	ASC.01N	Ascension - Donaldsonville Nonstructural Risk Reduction	N/A	C-20-1, 2
	ASC.02N	Ascension - Prairieville/Sorrento Nonstructural Risk Reduction	N/A	C-21-1, 2
	ASU.01N	Assumption Nonstructural Risk Reduction	N/A	C-22-1, 2
	ASU.02N	Assumption - Amelia Nonstructural Risk Reduction	N/A	C-23-1, 2
	IBV.01N	Iberville Nonstructural Risk Reduction	N/A	C-24-1, 2
Ridge Restoration	03a.RC.01	Bayou Decade Ridge Restoration	N/A	C-25

Project Type	Project No.	Project Description	Implementation Period	Page
	03a.RC.03	Small Bayou LaPointe Ridge Restoration	N/A	C-26
Structural Protection	03a.HP.102	Morganza to the Gulf - LGM enhanced inducements	N/A	C-27-1, 2
	03a.HP.103	Morganza to the Gulf - LGM basic inducements	N/A	C-28-1, 2
Southeast				
Projects Selected in the 2017 Coastal Master Plan				
Hydrologic Restoration	001.HR.100	LaBranche Hydrologic Restoration	Years 1-10	SE-1
Marsh Creation	001.MC.05	New Orleans East Landbridge Restoration	Years 1-30	SE-2
	001.MC.06a	Breton Marsh Creation - Component A	Years 11-30	SE-3
	001.MC.07a	Lake Borgne Marsh Creation - Component A	Years 11-30	SE-4
	001.MC.08a	Central Wetlands Marsh Creation - Component A	Years 11-30	SE-5
	001.MC.101	Uhlan Bay Marsh Creation	Years 31-50	SE-6
	001.MC.102	Pointe a la Hache Marsh Creation	Years 11-50	SE-7
	001.MC.104	East Bank Land Bridge Marsh Creation	Years 11-30	SE-8
	001.MC.105	Spanish Lake Marsh Creation	Years 11-30	SE-9
	001.MC.106	St. Tammany Marsh Creation	Years 11-30	SE-10
	001.MC.107	Tiger Ridge/Maple Knoll Marsh Creation	Years 11-30	SE-11
	001.MC.108	Guste Island Marsh Creation	Years 1-10	SE-12
	001.MC.13	Golden Triangle Marsh Creation	Years 1-10	SE-13
	002.MC.04a	Lower Barataria Marsh Creation - Component A	Years 31-50	SE-14
	002.MC.05e	Large-Scale Barataria Marsh Creation - Component E	Years 11-30	SE-15
Nonstructural Risk Reduction	JEF.01N	Jefferson - Grand Isle Nonstructural Risk Reduction	Years 1-30	SE-16-1, 2
	JEF.02N	Jefferson - Lafitte/Barataria Nonstructural Risk Reduction	Years 1-30	SE-17-1, 2
	LAF.01N	Lafourche - Lower Nonstructural Risk Reduction	Years 1-30	SE-18-1, 2
	LAF.02N	Lafourche - Larose/Golden Meadow Nonstructural Risk Reduction	Years 1-30	SE-19-1, 2
	LAF.03N	Lafourche - Raceland Nonstructural Risk Reduction	Years 1-30	SE-20-1, 2
	ORL.01N	Orleans - Rigolets Nonstructural Risk Reduction	Years 1-30	SE-21-1, 2
	ORL.02N	Orleans - Lake Catherine Nonstructural Risk Reduction	Years 1-30	SE-22-1, 2
	PLA.01N	Plaquemines - West Bank Nonstructural Risk Reduction	Years 1-30	SE-23-1, 2
	PLA.02N	Plaquemines - Braithwaite Nonstructural Risk Reduction	Years 1-30	SE-24-1, 2
	PLA.03N	Plaquemines - Grand Bayou Nonstructural Risk Reduction	Years 1-30	SE-25-1, 2
	PLA.05N	Plaquemines - Phoenix/Pointe A La Hache Nonstructural Risk Reduction	Years 1-30	SE-26-1, 2
	SJB.03N	St. John the Baptist - Edgard Nonstructural Risk Reduction	Years 1-30	SE-27-1, 2
	STB.01N	St. Bernard - Yscloskey/Delacroix Nonstructural Risk Reduction	Years 1-30	SE-28-1, 2
	STB.02N	St. Bernard Nonstructural Risk Reduction	Years 1-30	SE-29-1, 2
	STC.01N	St. Charles - Hahnville/Luling Nonstructural Risk Reduction	Years 31-50	SE-30-1, 2

Project Type	Project No.	Project Description	Implementation Period	Page
	STC.05N	St. Charles - Salvador Nonstructural Risk Reduction	Years 1-30	SE-31-1, 2
Nonstructural Risk Reduction	STJ.02N	St. James - Vacherie Nonstructural Risk Reduction	Years 31-50	SE-32-1, 2
	STT.01N	St. Tammany Nonstructural Risk Reduction	Years 1-30	SE-33-1, 2
Ridge Restoration	001.RC.01	Bayou LaLoutre Ridge Restoration	Years 11-30	SE-34
	001.RC.100	Bayou Terre aux Boeufs Ridge Restoration	Years 1-10	SE-35
	001.RC.103	Carlisle Ridge Restoration	Years 1-10	SE-36
	002.RC.02	Spanish Pass Ridge Restoration	Years 11-30	SE-37
	002.RC.100	Red Pass Ridge Restoration	Years 11-30	SE-38
	002.RC.101	Adams Bay Ridge Restoration	Years 1-10	SE-39
	002.RC.102	Bayou Eau Noire Ridge Restoration	Years 1-10	SE-40
	002.RC.103	Grand Bayou Ridge Restoration	Years 1-10	SE-41
Sediment Diversion	001.DI.02	Lower Breton Diversion	Years 1-10	SE-42
	001.DI.100	Manchac Landbridge Diversion	Years 1-10	SE-43
	001.DI.101	Ama Sediment Diversion	Years 11-30	SE-44
	001.DI.102	Union Freshwater Diversion	Years 1-10	SE-45
	001.DI.104	Mid-Breton Sound Diversion	Years 1-10	SE-46
	001.DI.18	Central Wetlands Diversion	Years 1-10	SE-47
	001.DI.21	East Maurepas Diversion	Years 1-10	SE-48
	002.DI.102	Mid-Barataria Diversion	Years 1-10	SE-49
Shoreline Protection	001.SP.01	Manchac Landbridge Shoreline Protection	Years 1-10	SE-50
	001.SP.101	Unknown Pass to Rigolets Shoreline Protection	Years 1-10	SE-51
	001.SP.104	LaBranche Wetlands Shoreline Protection	Years 1-10	SE-52
	002.SP.100	Lake Hermitage Shoreline Protection	Years 1-10	SE-53
	002.SP.102	East Snail Bay Shoreline Protection	Years 1-10	SE-54
	002.SP.103	West Snail Bay Shoreline Protection	Years 11-30	SE-55
	002.SP.106	Bayou Perot Shoreline Protection	Years 1-10	SE-56
Structural Protection	001.HP.04	Greater New Orleans High Level	Years 31-50	SE-57-1, 2
	001.HP.05	West Shore Lake Pontchartrain	Years 1-30	SE-58-1, 2
	001.HP.08	Lake Pontchartrain Barrier	Years 1-30	SE-59-1, 2
	001.HP.13	Slidell Ring Levees	Years 1-30	SE-60-1, 2
	002.HP.06	Upper Barataria Risk Reduction	Years 1-30	SE-61-1, 2
	03a.HP.20	Larose to Golden Meadow	Years 1-30	SE-62-1, 2
Southeast				
Projects Not Selected in the 2017 Coastal Master Plan				

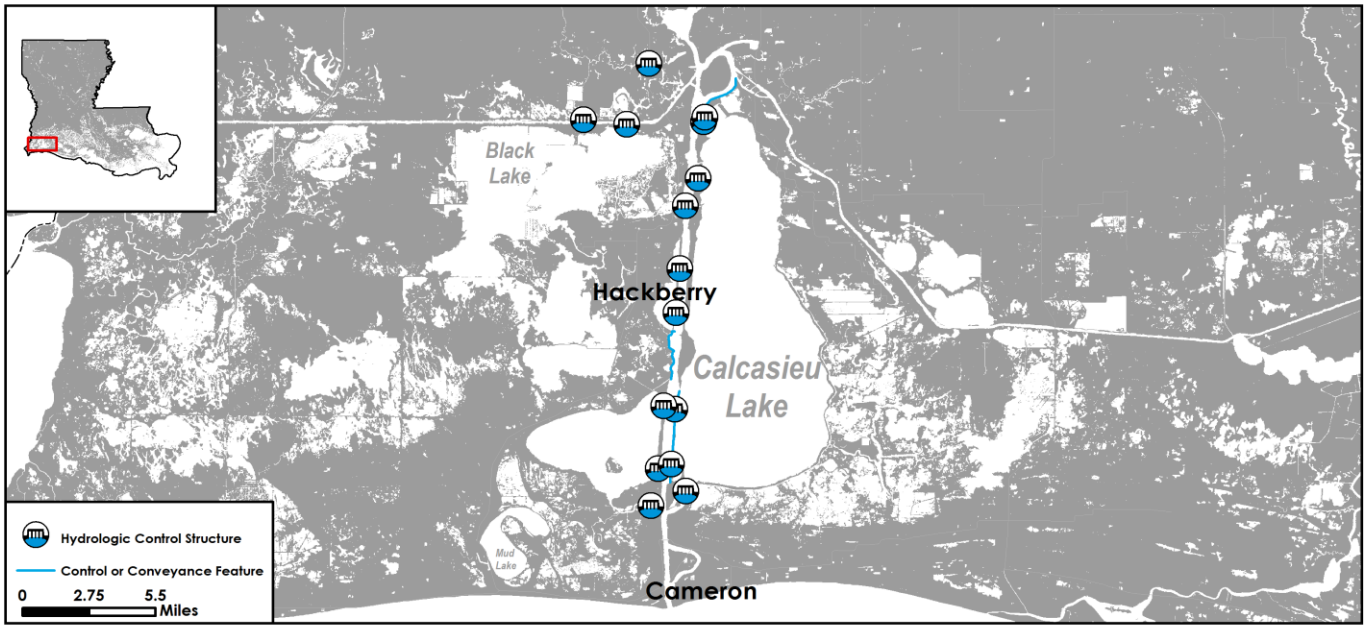
Project Type	Project No.	Project Description	Implementation Period	Page
Barrier Island Restoration	002.BH.04	Barataria Pass to Sandy Point Barrier Island Restoration	N/A	SE-63
Barrier Island Restoration	002.BH.05	Belle Pass to Caminada Pass Barrier Island Restoration	N/A	SE-64
Marsh Creation	001.MC.02	Hopedale Marsh Creation	N/A	SE-65
	001.MC.09	Biloxi Marsh Creation	N/A	SE-66
	001.MC.17	Eastern Lake Borgne Marsh Creation	N/A	SE-67
	001.MC.100	Sunrise Point Marsh Creation	N/A	SE-68
	001.MC.103	Fritchie North Marsh Creation	N/A	SE-69
	002.MC.07	Barataria Bay Rim Marsh Creation	N/A	SE-70
	002.MC.08	North Caminada Marsh Creation	N/A	SE-71
	002.MC.100	North Barataria Bay Marsh Creation	N/A	SE-72
Nonstructural Risk Reduction	JEF.03N	Jefferson - Kenner/Metairie Nonstructural Risk Reduction	N/A	SE-73-1, 2
	JEF.04N	Jefferson - Marrero/Gretna Nonstructural Risk Reduction	N/A	SE-74-1, 2
	LIV.01N	Livingston Nonstructural Risk Reduction	N/A	SE-75-1, 2
	ORL.03N	Orleans - New Orleans Nonstructural Risk Reduction	N/A	SE-76-1, 2
	ORL.04N	Orleans – Algiers Nonstructural Risk Reduction	N/A	SE-77-1, 2
	PLA.04N	Plaquemines - Belle Chasse Nonstructural Risk Reduction	N/A	SE-78-1, 2
	SJB.01N	St. John the Baptist - Laplace/Reserve Nonstructural Risk Reduction	N/A	SE-79-1, 2
	SJB.02N	St. John the Baptist – Garyville Nonstructural Risk Reduction	N/A	SE-80-1, 2
	STC.02N	St. Charles – Montz Nonstructural Risk Reduction	N/A	SE-81-1, 2
	STC.03N	St. Charles – Destrehan Nonstructural Risk Reduction	N/A	SE-82-1, 2
	STC.04N	St. Charles – Ama Nonstructural Risk Reduction	N/A	SE-83-1, 2
	STJ.01N	St. James – Convent Nonstructural Risk Reduction	N/A	SE-84-1, 2
	STT.02N	St. Tammany – Slidell Nonstructural Risk Reduction	N/A	SE-85-1, 2
	TAN.01N	Tangipahoa Nonstructural Risk Reduction	N/A	SE-86-1, 2
Oyster Barrier Reef	001.OR.01a	Biloxi Marsh Oyster Reef	N/A	SE-87
	001.OR.100	North Biloxi Marsh Oyster Reef	N/A	SE-88
Ridge Restoration	001.RC.102	Bayou Aux Chenes Ridge Restoration	N/A	SE-89
	002.RC.01	Bayou Long Ridge Restoration	N/A	SE-90
Sediment Diversion	001.DI.17	Upper Breton Diversion	N/A	SE-91
	001.DI.29	West Maurepas Diversion	N/A	SE-92
	001.DI.103	Upper Breton Diversion	N/A	SE-93
	002.DI.15	Lower Barataria Diversion	N/A	SE-94
Shoreline Protection	001.SP.03	Eastern Lake Borgne Shoreline Protection	N/A	SE-95
	001.SP.04	MRGO Shoreline Protection	N/A	SE-96
	001.SP.05	East New Orleans Landbridge Shoreline Protection	N/A	SE-97
	001.SP.100	Breton Sound Shoreline Protection	N/A	SE-98
	001.SP.102	North Lake Pontchartrain Shoreline Protection	N/A	SE-99

Project Type	Project No.	Project Description	Implementation Period	Page
	001.SP.103	Northeast Lake Pontchartrain Shoreline Protection	N/A	SE-100
Shoreline Protection	002.SP.101	Fifi Island Shoreline Protection	N/A	SE-101
	002.SP.104	South Little Lake Shoreline Protection	N/A	SE-102
	002.SP.105	North Little Lake Shoreline Protection	N/A	SE-103
	002.SP.107	South Lake Salvador Shoreline Protection	N/A	SE-104
	002.SP.108	Lake Salvador Shoreline Protection	N/A	SE-105
	002.SP.109	Lac Des Allemands Shoreline Protection	N/A	SE-106
Structural Protection	002.HP.07	Lafitte Ring Levee	N/A	SE-107-1, 2
	002.HP.100	Fort Jackson to Venice	N/A	SE-108-1, 2
	002.HP.101	St. Jude to City Price	N/A	SE-109-1, 2
	002.HP.102	Oakville to La Reussite	N/A	SE-110-1, 2
	03a.HP.101	Larose to Golden Meadow	N/A	SE-111-1, 2

Calcasieu Ship Channel Salinity Control Measures

Hydrologic Restoration

Project ID: 004.HR.06



Description

Construction of sill and wall structures in West Pass, East Pass, Lake Wall, Long Point Lake, Nine Mile Cut, Dugas Cut 1, Dugas Cut 2, Texaco Cut, Turner's Bay, Salt Ditch, Drainage Canal, and Choupique Bayou to prevent saltwater intrusion into the Calcasieu Ship Channel.

Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Calcasieu Parish; Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

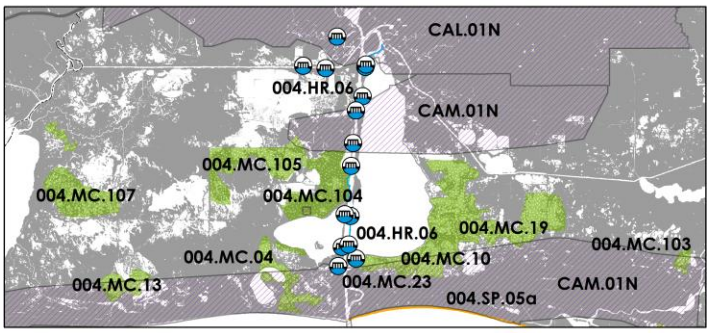
	Estimated Cost
Planning/Engineering & Design	$18,800,000
Construction	$234,700,000
Operations & Maintenance	$8,800,000
Total	**$262,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	-1,458 acres
Long Term (Year 50)	12,685 acres

**Based on the most recent project-specific modeling analysis.*

Other Nearby Projects in the Master Plan

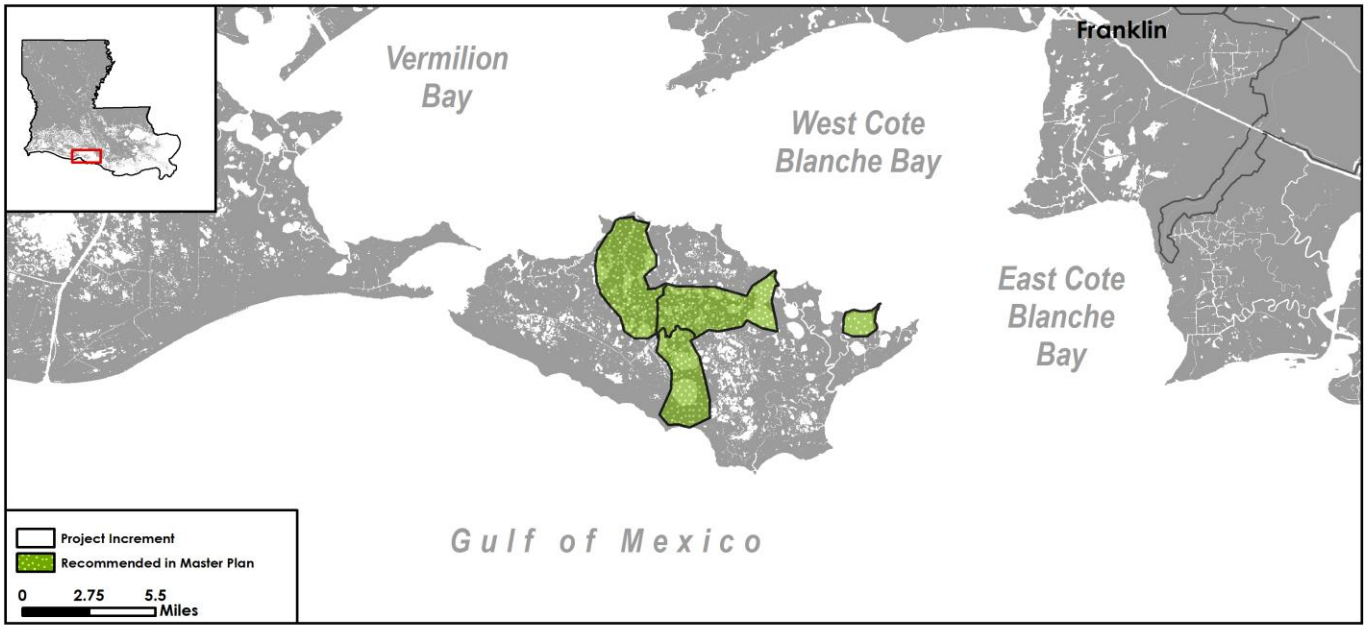


2017 Coastal Master Plan
Implementation Period 1

Marsh Island Marsh Creation

Marsh Creation

Project ID: 03b.MC.03



Description

Creation of approximately 13,500 acres of marsh on Marsh Island to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Iberia Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 8 years.

Project Cost Estimate

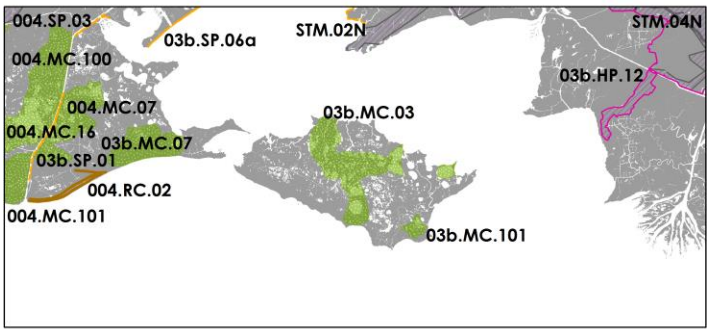
	Estimated Cost
Planning/Engineering & Design	$36,400,000
Construction	$454,600,000
Operations & Maintenance	$12,500,000
Total	**$503,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	5,645 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

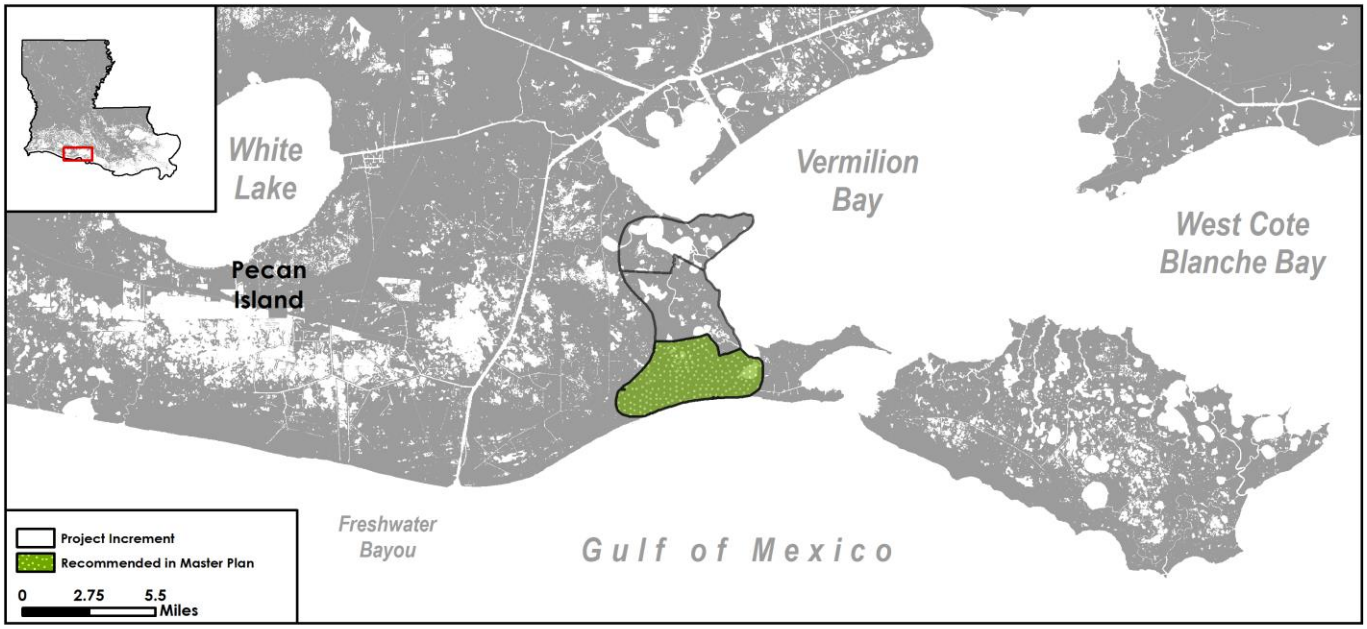


2017 Coastal Master Plan
Implementation Period II

East Rainey Marsh Creation

Marsh Creation

Project ID: 03b.MC.07



Description

Creation of approximately 6,300 acres of marsh in the eastern portion of Rainey Marsh to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

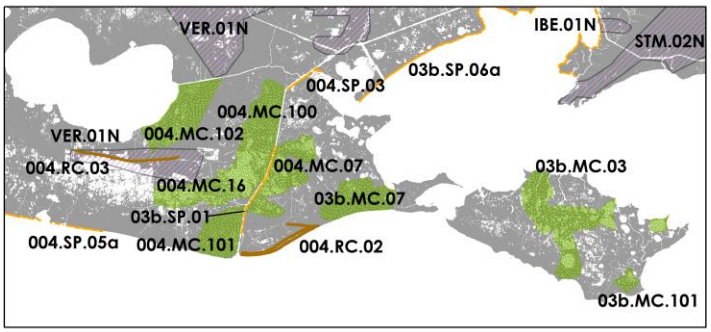
	Estimated Cost
Planning/Engineering & Design	$7,300,000
Construction	$91,100,000
Operations & Maintenance	$3,100,000
Total	**$101,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	942 acres
Long Term (Year 50)	3,842 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

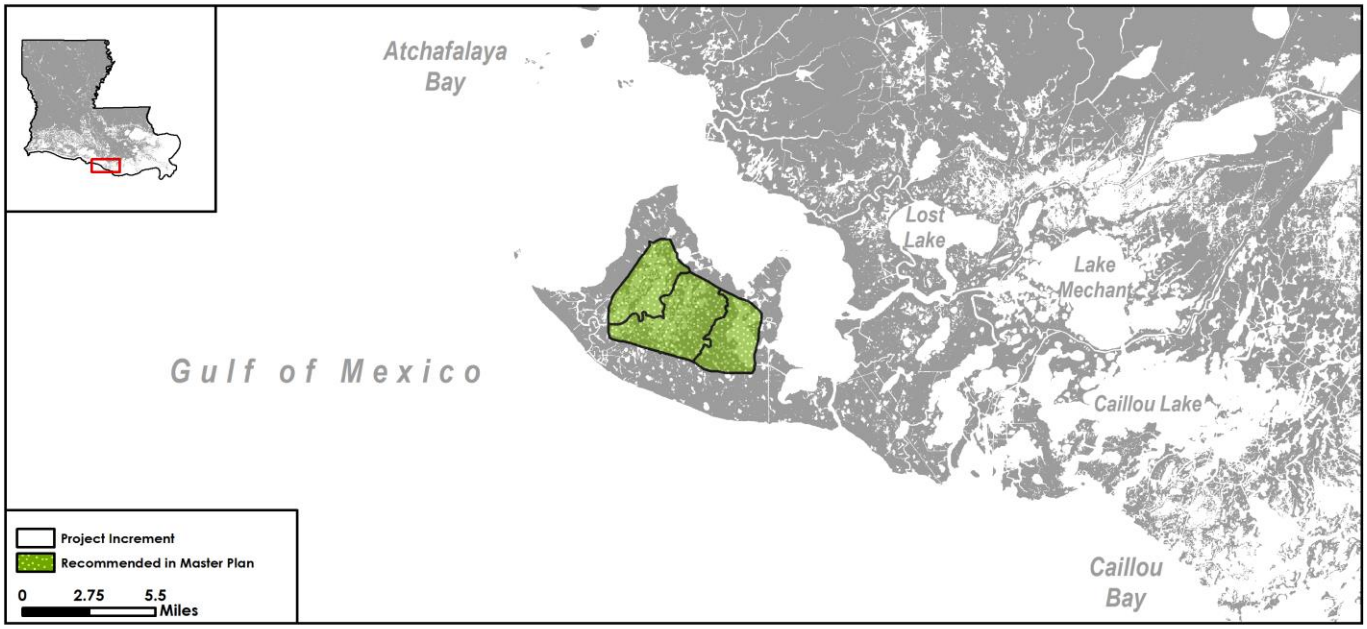
Only the highlighted project increment was recommended in the Master Plan.

2017 Coastal Master Plan
Implementation Period 1

Point Au Fer Island Marsh Creation

Marsh Creation

Project ID: 03b.MC.09



Description

Creation of approximately 13,000 acres of marsh on Point Au Fer Island to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Project Cost Estimate

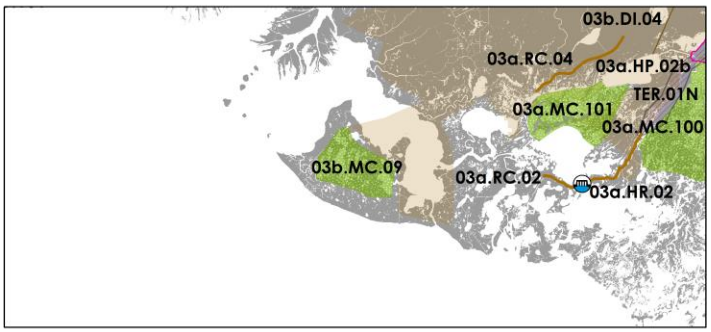
	Estimated Cost
Planning/Engineering & Design	$53,300,000
Construction	$666,800,000
Operations & Maintenance	$8,000,000
Total	**$728,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	6,139 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

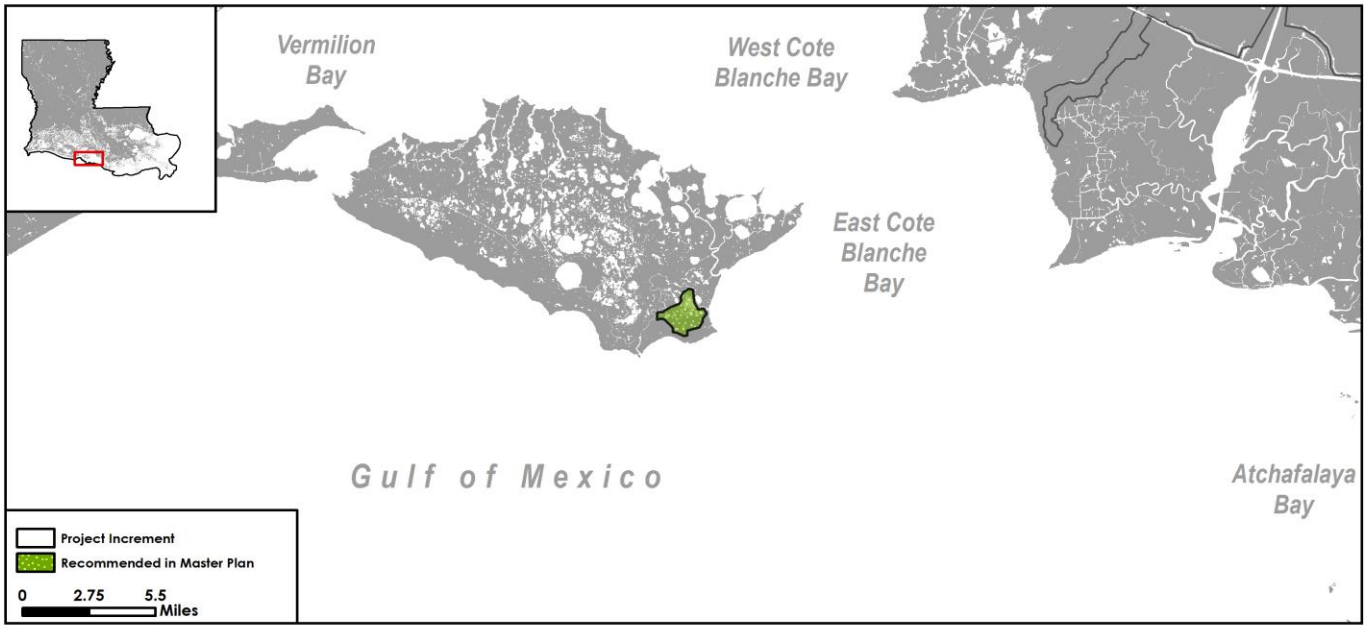


2017 Coastal Master Plan
Implementation Period III

Southeast Marsh Island Marsh Creation

Marsh Creation

Project ID: 03b.MC.101



Description

Creation of approximately 1,200 acres of marsh on the eastern tip of Marsh Island to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Iberia Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

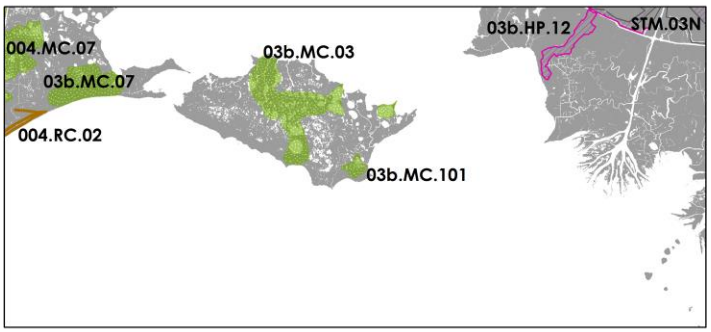
	Estimated Cost
Planning/Engineering & Design	$2,600,000
Construction	$32,400,000
Operations & Maintenance	$1,000,000
Total	**$36,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	451 acres
Long Term (Year 50)	-2,996 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

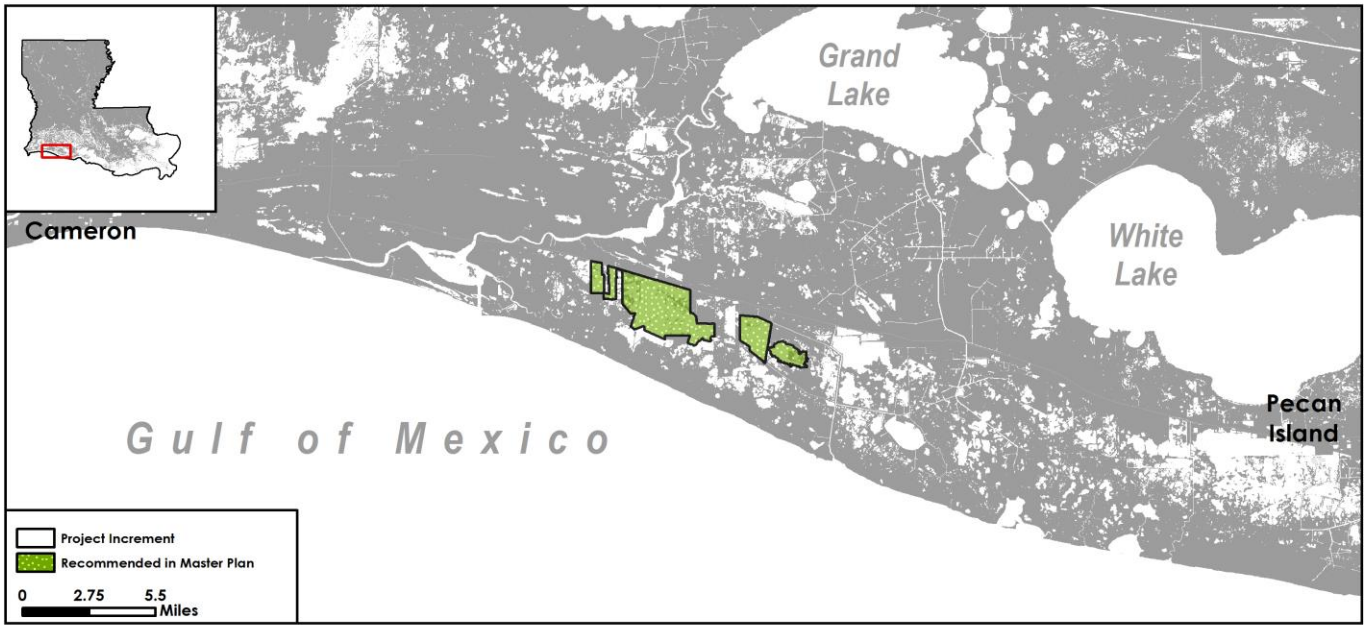


2017 Coastal Master Plan
Implementation Period II

South Grand Chenier Marsh Creation

Marsh Creation

Project ID: 004.MC.01



Description

Creation of approximately 6,600 acres of marsh south of Highway LA 82 near Grand Chenier to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

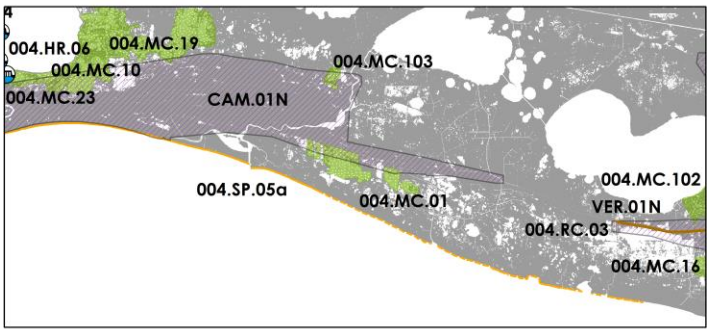
	Estimated Cost
Planning/Engineering & Design	$25,300,000
Construction	$315,900,000
Operations & Maintenance	$8,600,000
Total	**$349,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	5,803 acres
Long Term (Year 50)	2,068 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

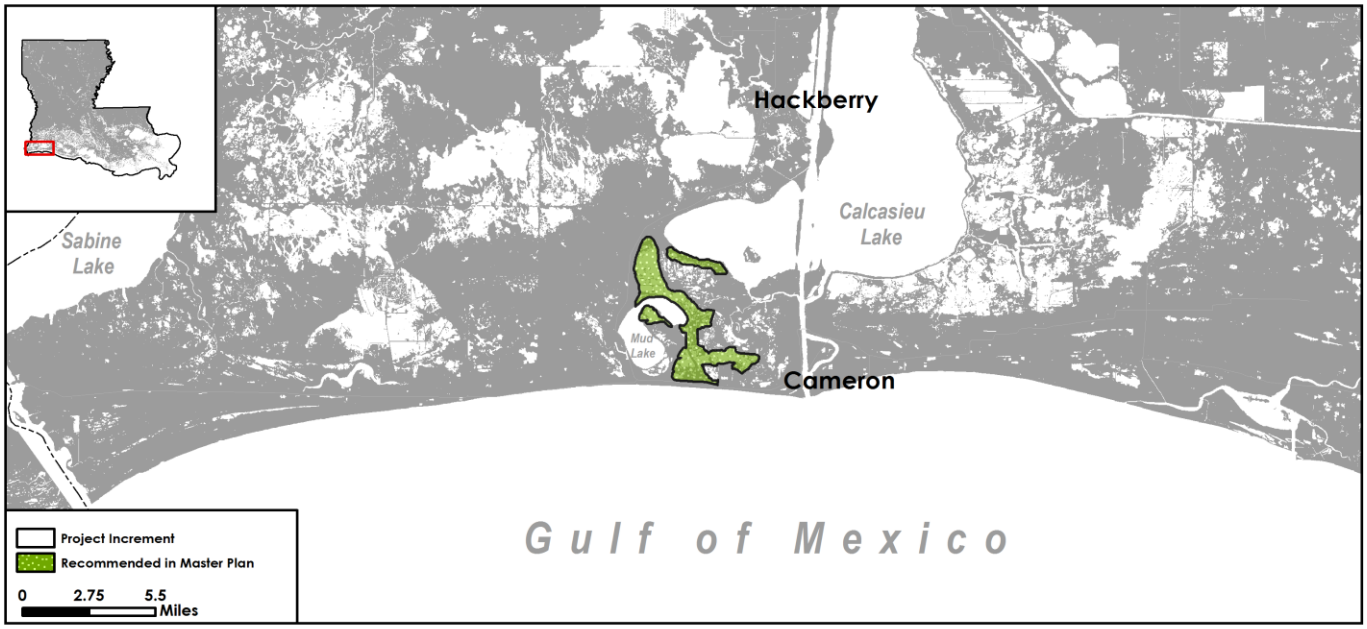


2017 Coastal Master Plan
Implementation Period II

Mud Lake Marsh Creation

Marsh Creation

Project ID: 004.MC.04



Description

Creation of approximately 5,200 acres of marsh at Mud Lake south of West Cove, Calcasieu Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

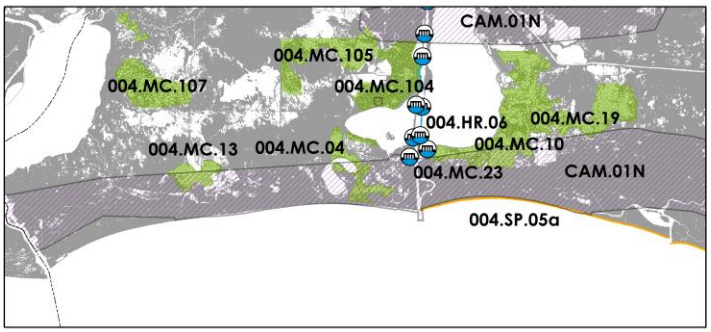
	Estimated Cost
Planning/Engineering & Design	$14,300,000
Construction	$178,200,000
Operations & Maintenance	$4,800,000
Total	**$197,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,418 acres
Long Term (Year 50)	79 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

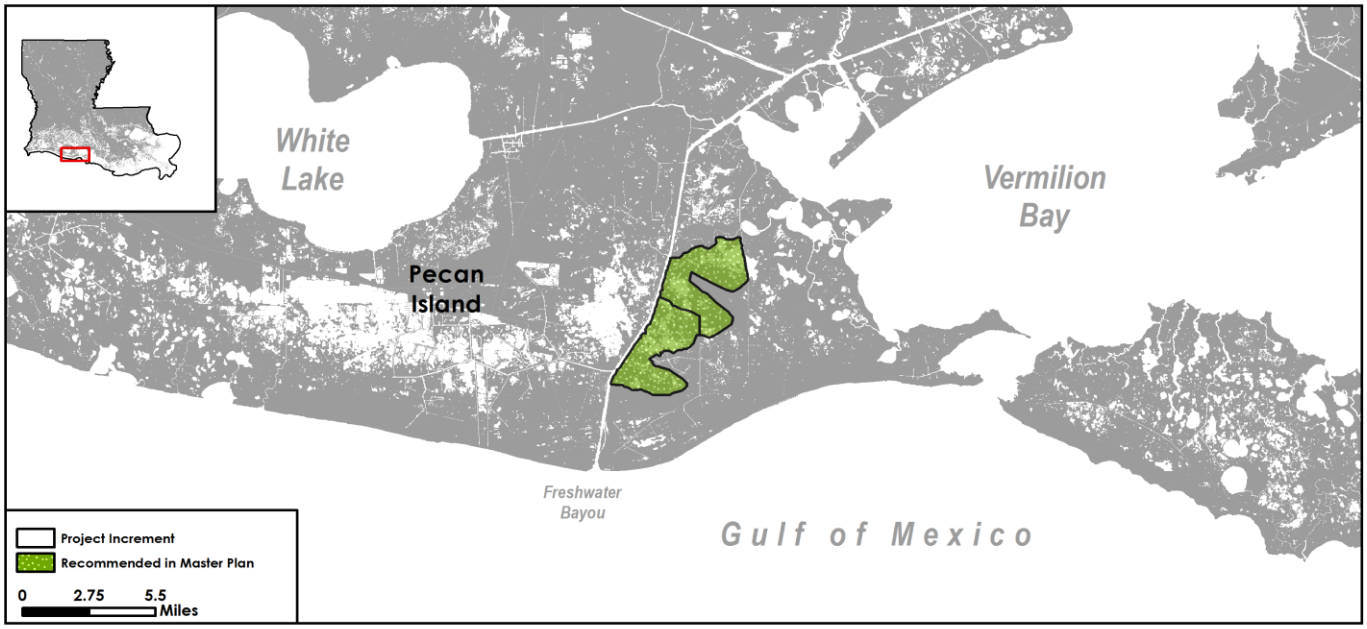


2017 Coastal Master Plan
Implementation Period II

West Rainey Marsh Creation

Marsh Creation

Project ID: 004.MC.07



Description

Creation of approximately 9,700 acres of marsh at Rainey Marsh near the southeast bank of the Freshwater Bayou Canal to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

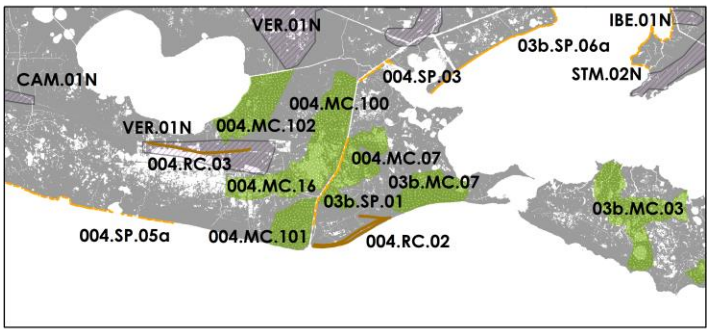
	Estimated Cost
Planning/Engineering & Design	$19,600,000
Construction	$244,800,000
Operations & Maintenance	$6,800,000
Total	**$271,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,876 acres
Long Term (Year 50)	-2,427 acres

**Based on the high environmental scenario.*

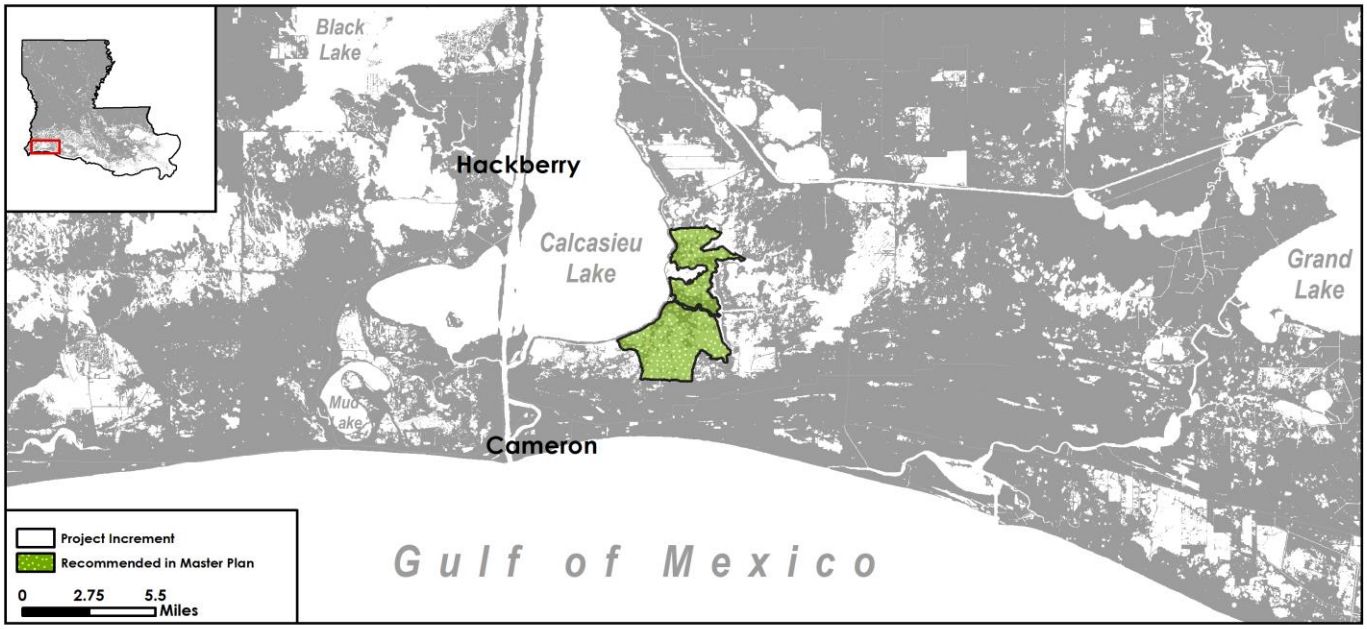
Other Nearby Projects in the Master Plan



Southeast Calcasieu Lake Marsh Creation

Marsh Creation

Project ID: 004.MC.10



Description

Creation of approximately 9,000 acres of marsh southeast of Calcasieu Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

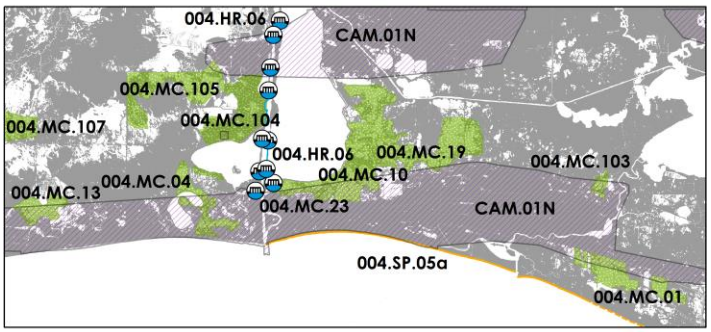
	Estimated Cost
Planning/Engineering & Design	$27,100,000
Construction	$338,200,000
Operations & Maintenance	$8,700,000
Total	**$374,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	5,970 acres
Long Term (Year 50)	173 acres

**Based on the high environmental scenario.*

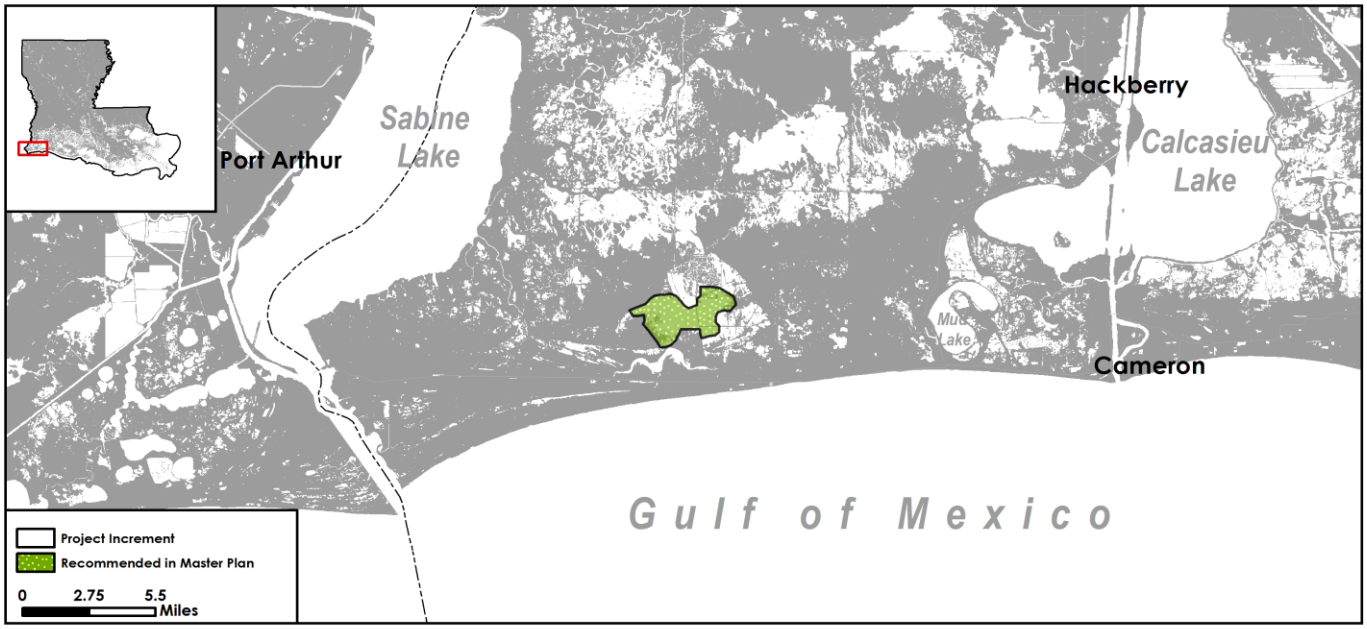
Other Nearby Projects in the Master Plan



Cameron Meadows Marsh Creation

Marsh Creation

Project ID: 004.MC.13



Description

Creation of approximately 3,700 acres of marsh at Cameron Meadows north of Johnsons Bayou to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

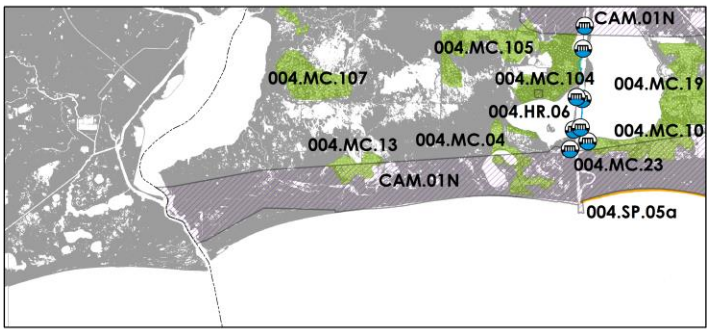
	Estimated Cost
Planning/Engineering & Design	$8,700,000
Construction	$108,300,000
Operations & Maintenance	$3,100,000
Total	**$120,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,029 acres
Long Term (Year 50)	41 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

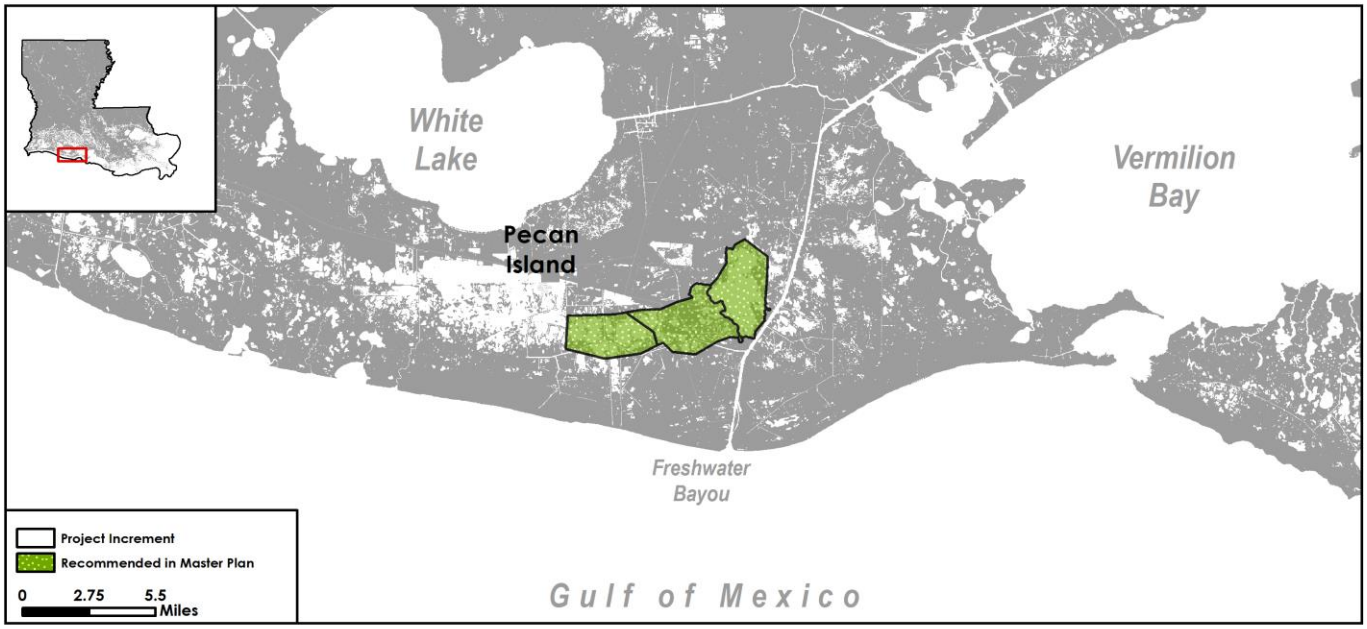


2017 Coastal Master Plan
Implementation Period II

East Pecan Island Marsh Creation

Marsh Creation

Project ID: 004.MC.16



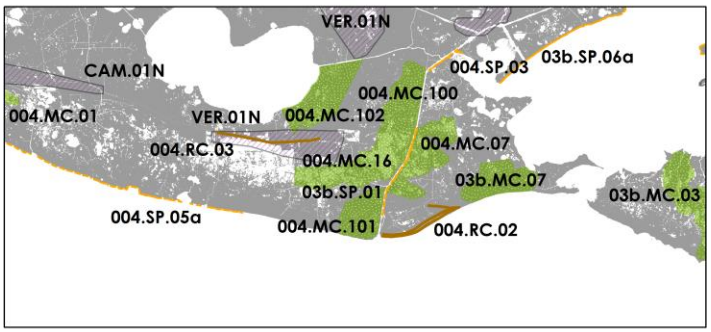
Description

Creation of approximately 10,200 acres of marsh between Pecan Island and the west bank of the Freshwater Bayou Canal to create new wetland habitat and restore degraded marsh.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$34,100,000
Construction	$426,000,000
Operations & Maintenance	$12,300,000
Total	**$472,400,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Land Area Built or Maintained*

Near Term (Year 20)	6,897 acres
Long Term (Year 50)	-124 acres

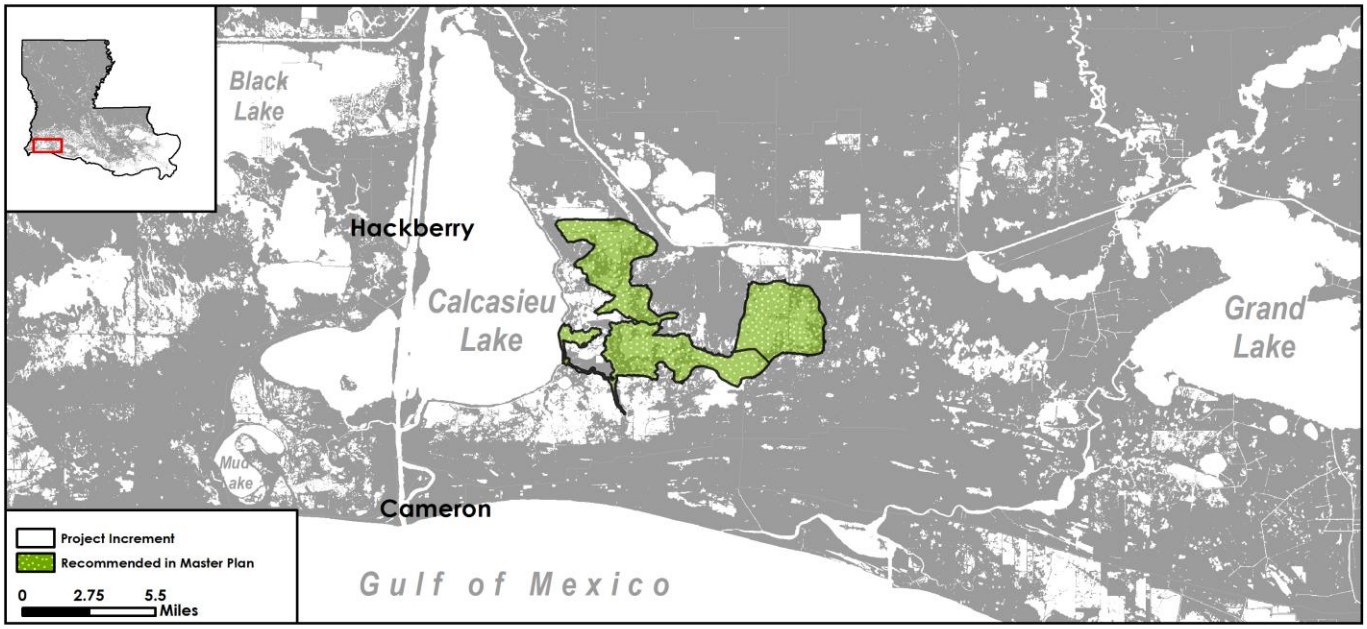
**Based on the high environmental scenario.*

2017 Coastal Master Plan
Implementation Period II

East Calcasieu Lake Marsh Creation

Marsh Creation

Project ID: 004.MC.19



Description

Creation of approximately 16,800 acres of marsh in the eastern Cameron-Creole watershed to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Project Cost Estimate

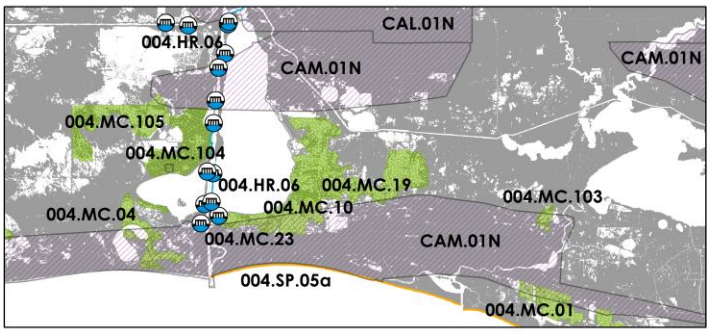
	Estimated Cost
Planning/Engineering & Design	$78,400,000
Construction	$980,500,000
Operations & Maintenance	$10,700,000
Total	**$1,069,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	11,862 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

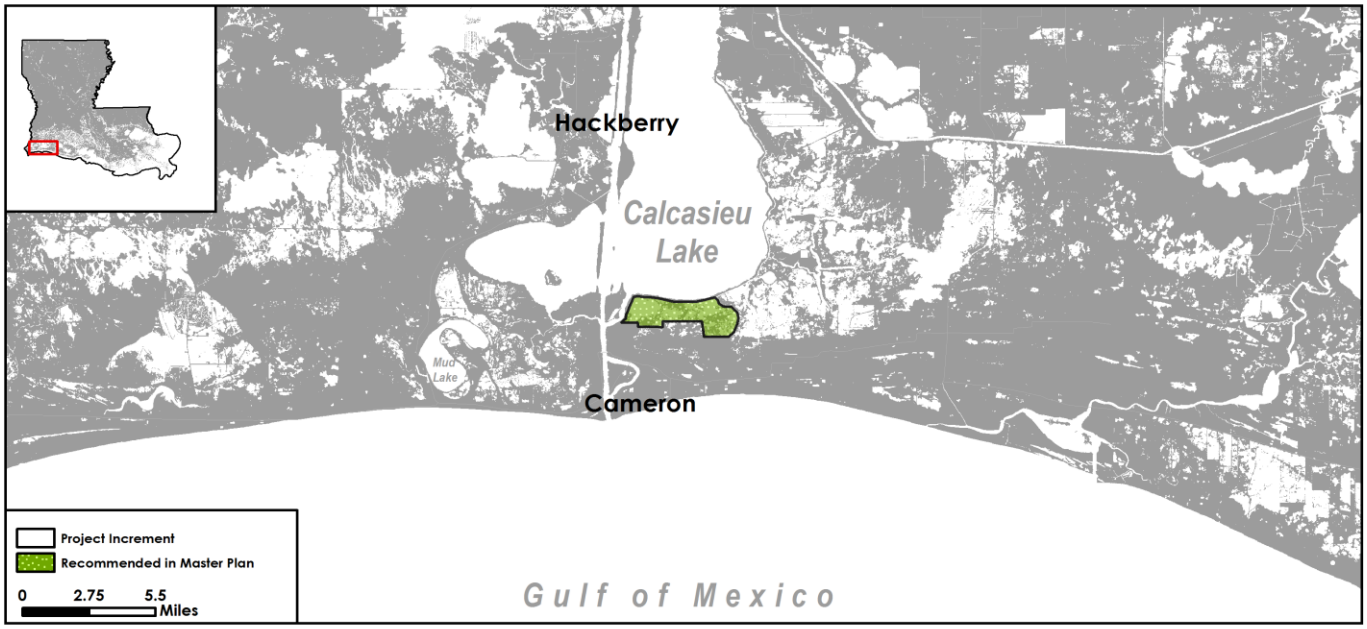


2017 Coastal Master Plan
Implementation Period III

Calcasieu Ship Channel Marsh Creation

Marsh Creation

Project ID: 004.MC.23



Description

Creation of approximately 3,100 acres of marsh south of Calcasieu Lake near Cameron to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

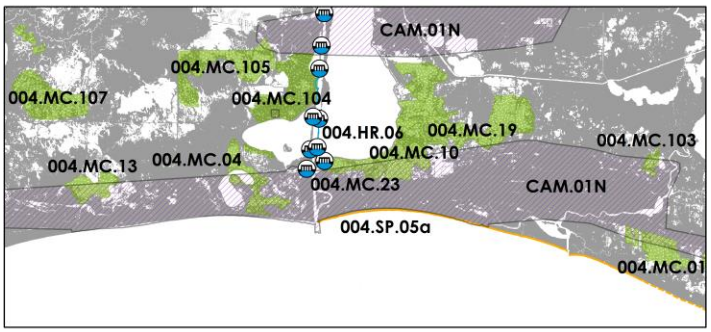
	Estimated Cost
Planning/Engineering & Design	$8,400,000
Construction	$105,400,000
Operations & Maintenance	$3,000,000
Total	**$116,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,866 acres
Long Term (Year 50)	7 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

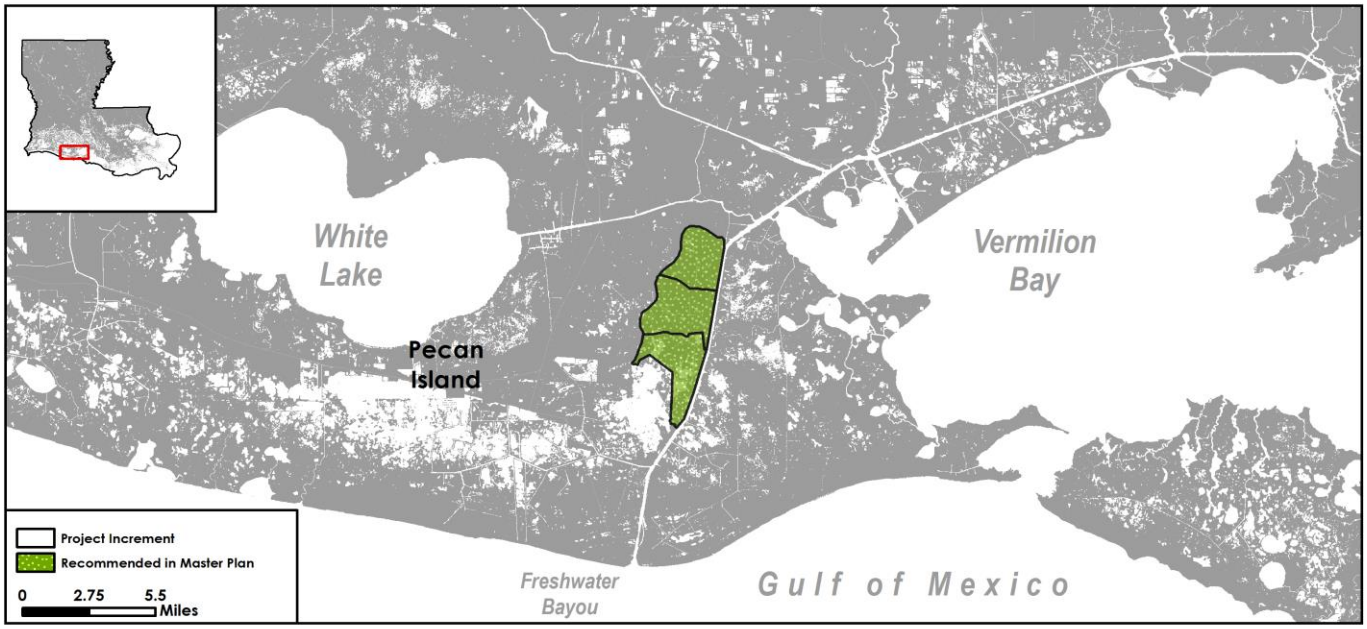


2017 Coastal Master Plan
Implementation Period II

Freshwater Bayou North Marsh Creation

Marsh Creation

Project ID: 004.MC.100



Description

Creation of approximately 8,900 acres of marsh in Vermilion Parish west of Freshwater Bayou to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

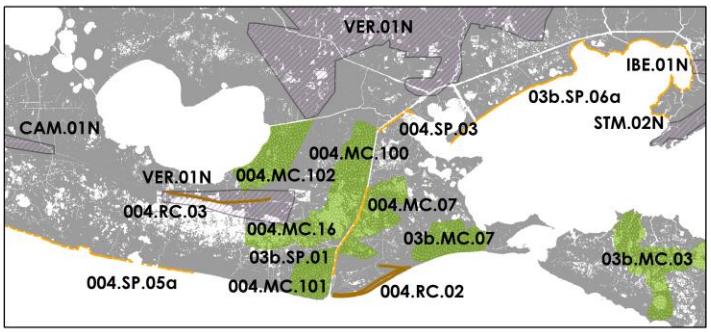
	Estimated Cost
Planning/Engineering & Design	$16,200,000
Construction	$202,400,000
Operations & Maintenance	$7,500,000
Total	**$226,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,613 acres
Long Term (Year 50)	9,131 acres

**Based on the high environmental scenario.*

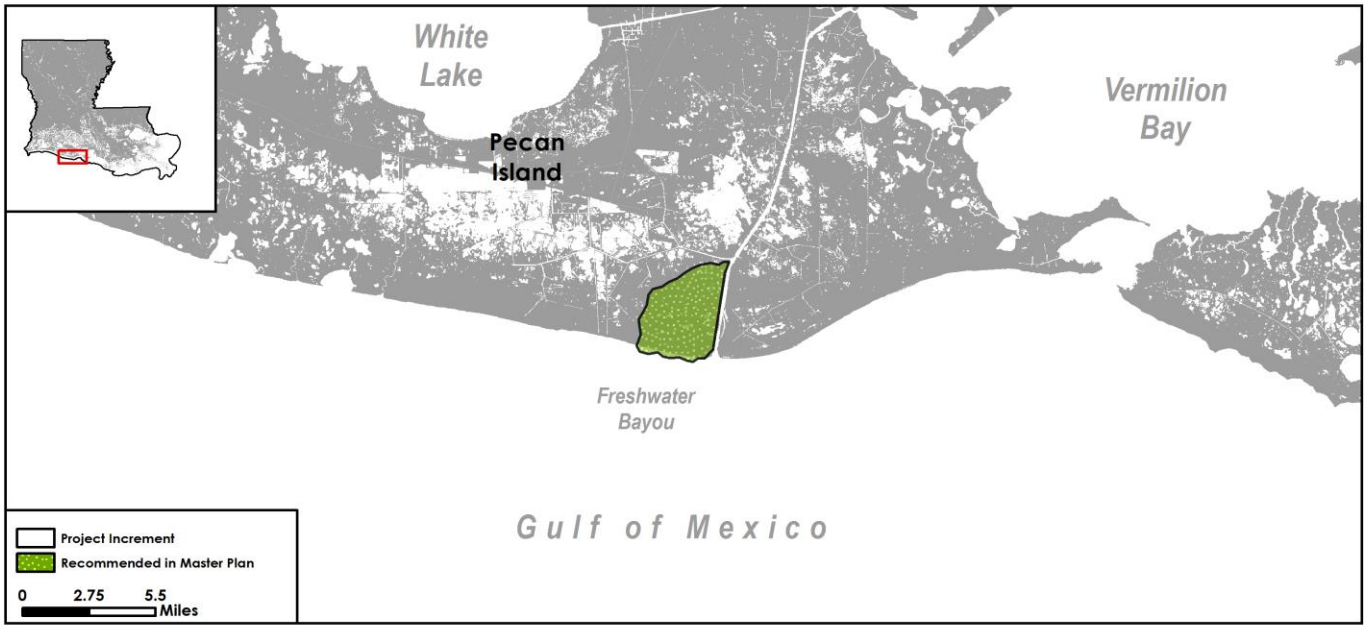
Other Nearby Projects in the Master Plan



Freshwater Bayou South Marsh Creation

Marsh Creation

Project ID: 004.MC.101



Description

Creation of approximately 6,800 acres of marsh in Vermilion Parish west of Freshwater Bayou to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

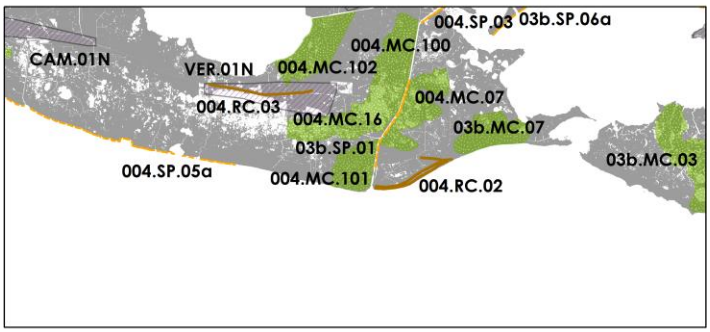
	Estimated Cost
Planning/Engineering & Design	$6,300,000
Construction	$78,300,000
Operations & Maintenance	$2,800,000
Total	**$87,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	377 acres
Long Term (Year 50)	9,894 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

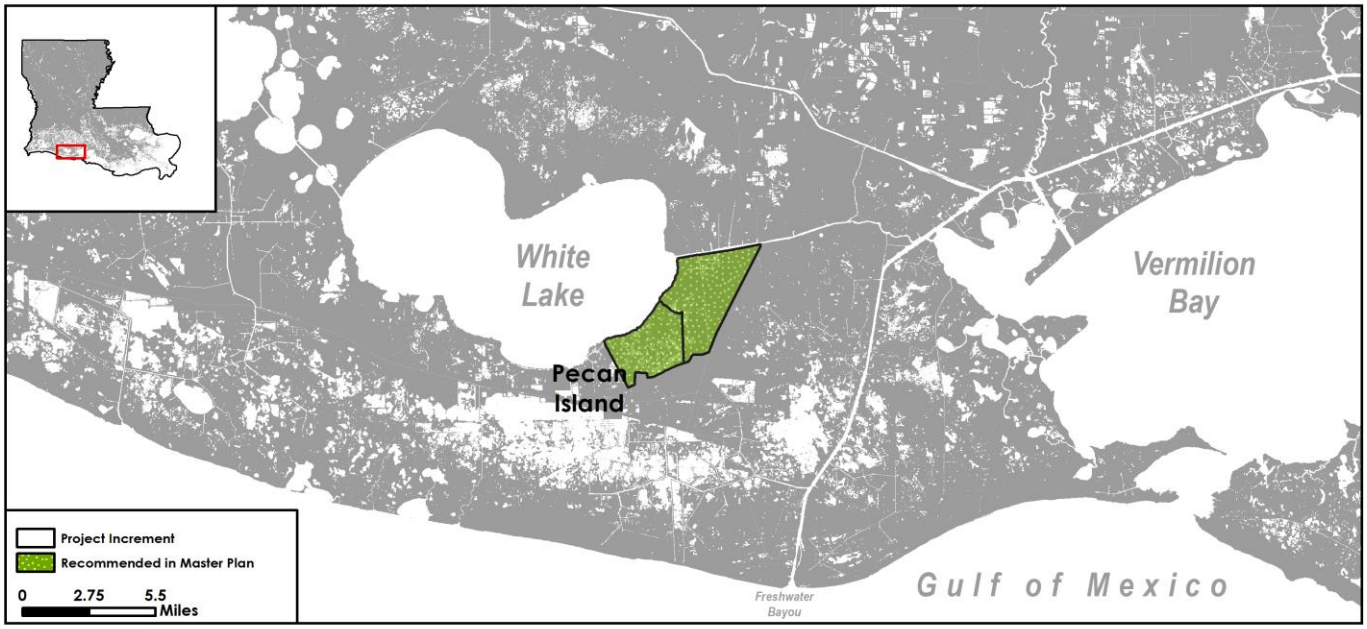


2017 Coastal Master Plan
Implementation Period 1

White Lake Marsh Creation

Marsh Creation

Project ID: 004.MC.102



Description

Creation of approximately 10,600 acres of marsh in Vermilion Parish east of White Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

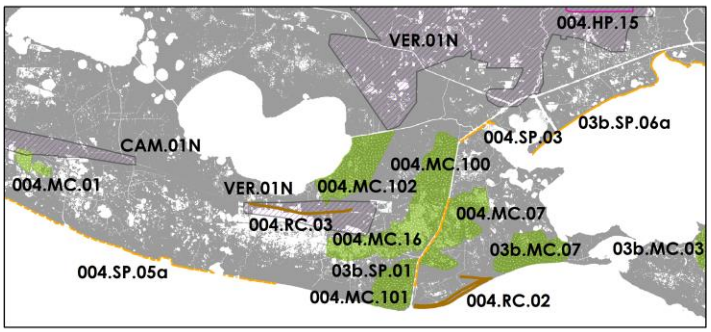
	Estimated Cost
Planning/Engineering & Design	$31,500,000
Construction	$393,700,000
Operations & Maintenance	$11,000,000
Total	**$436,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,583 acres
Long Term (Year 50)	5,694 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan
Implementation Period II

Little Chenier Marsh Creation

Marsh Creation

Project ID: 004.MC.103

Description

Creation of approximately 900 acres of marsh in Cameron Parish south of Grand Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

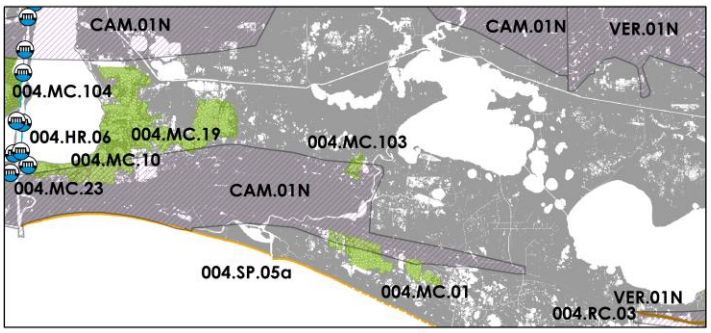
	Estimated Cost
Planning/Engineering & Design	$4,300,000
Construction	$54,200,000
Operations & Maintenance	$700,000
Total	**$59,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	332 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

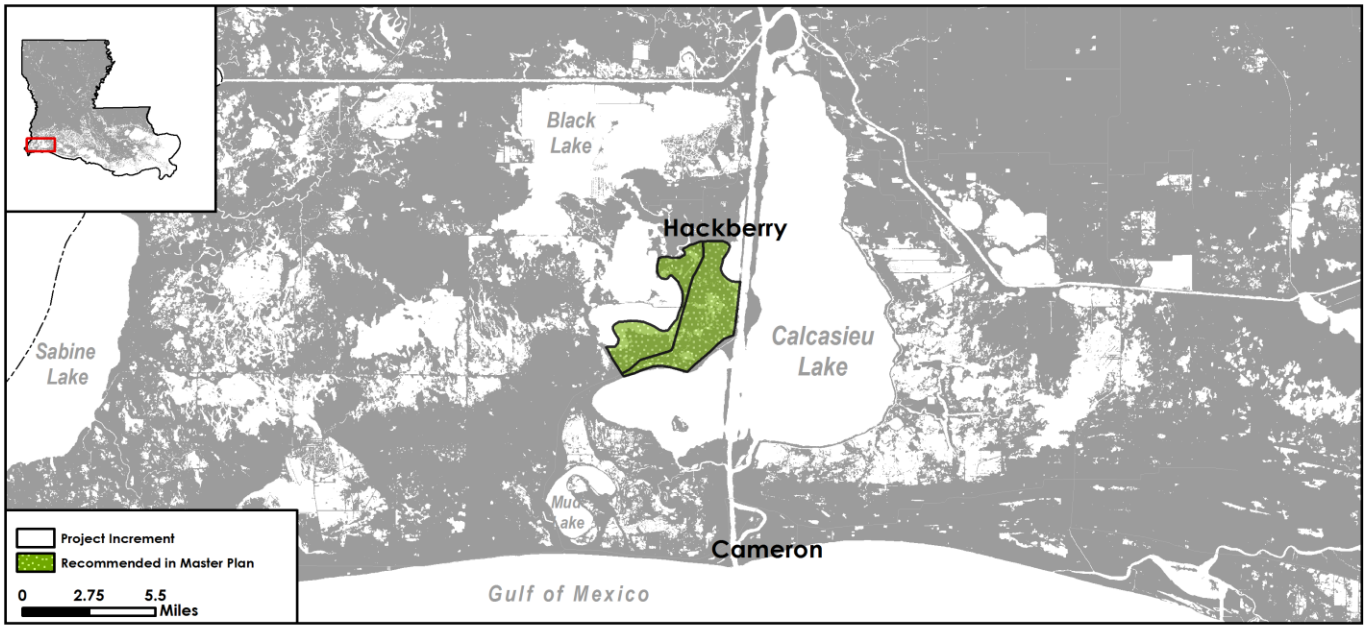


2017 Coastal Master Plan
Implementation Period III

Calcasieu Lake West Bank Marsh Creation

Marsh Creation

Project ID: 004.MC.104



Description

Creation of approximately 8,900 acres of marsh in Cameron Parish west of Calcasieu Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

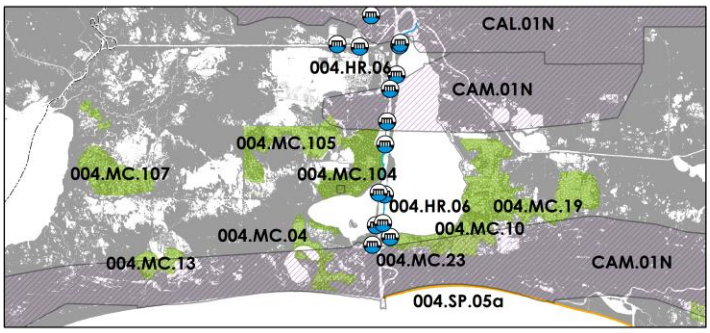
	Estimated Cost
Planning/Engineering & Design	$24,700,000
Construction	$308,300,000
Operations & Maintenance	$3,600,000
Total	**$336,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	2,886 acres

**Based on the high environmental scenario.*

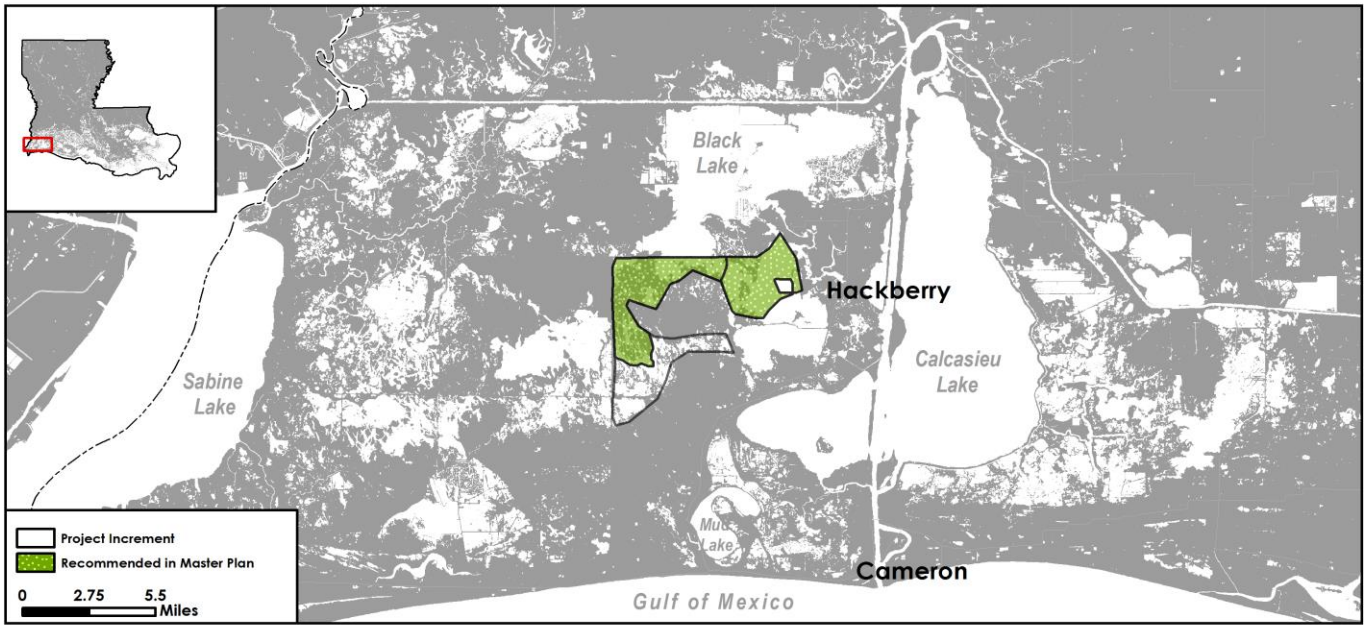
Other Nearby Projects in the Master Plan



West Brown Lake Marsh Creation

Marsh Creation

Project ID: 004.MC.105



Description

Creation of approximately 8,400 acres of marsh in Cameron Parish south of Black Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

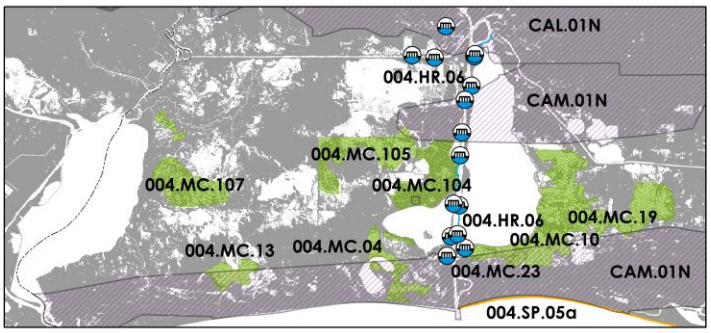
	Estimated Cost
Planning/Engineering & Design	$42,500,000
Construction	$531,500,000
Operations & Maintenance	$6,300,000
Total	**$580,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	4,575 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

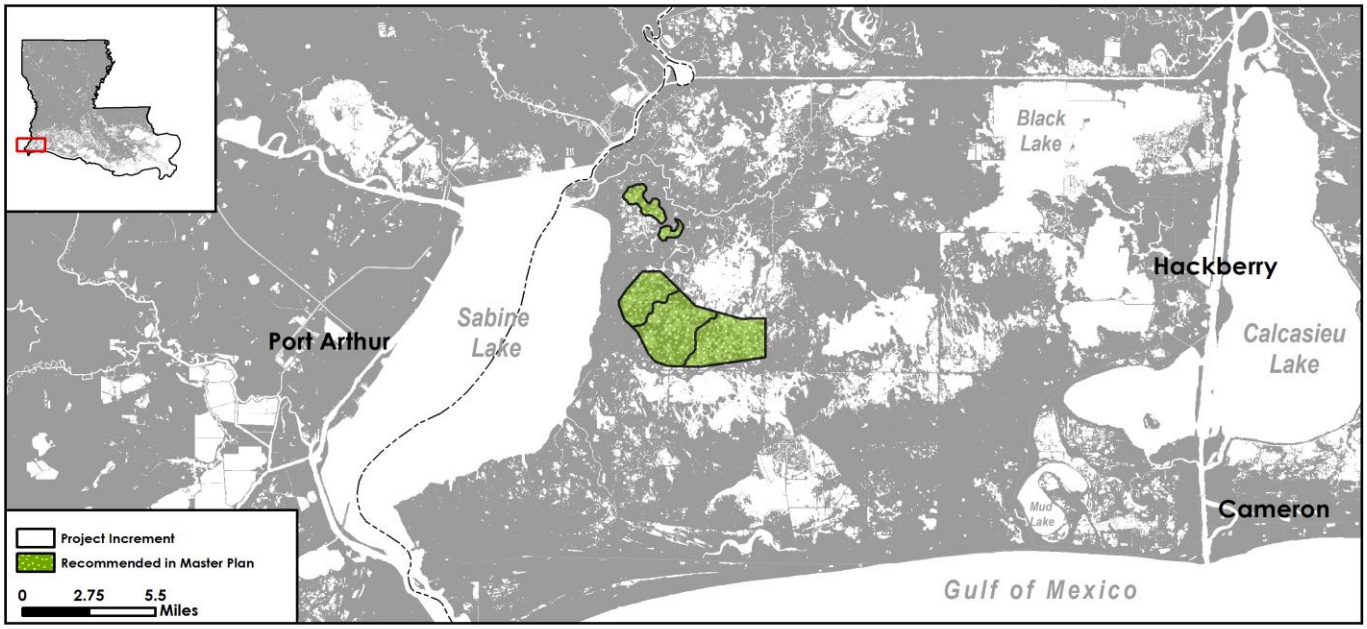
Only the highlighted project increments were recommended in the Master Plan.

2017 Coastal Master Plan
Implementation Period III

West Sabine Refuge Marsh Creation

Marsh Creation

Project ID: 004.MC.107



Description

Creation of approximately 10,300 acres of marsh east of Sabine Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

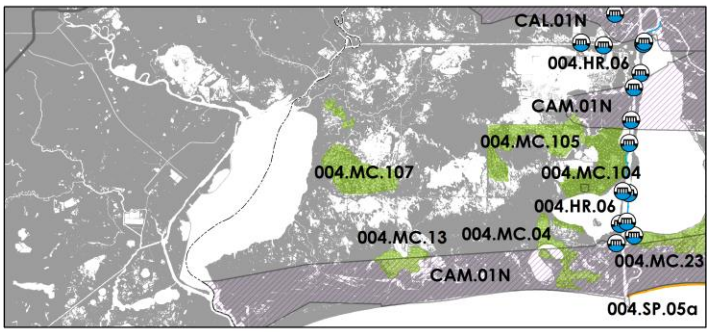
	Estimated Cost
Planning/Engineering & Design	$47,400,000
Construction	$592,900,000
Operations & Maintenance	$13,400,000
Total	**$653,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,862 acres
Long Term (Year 50)	1,940 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

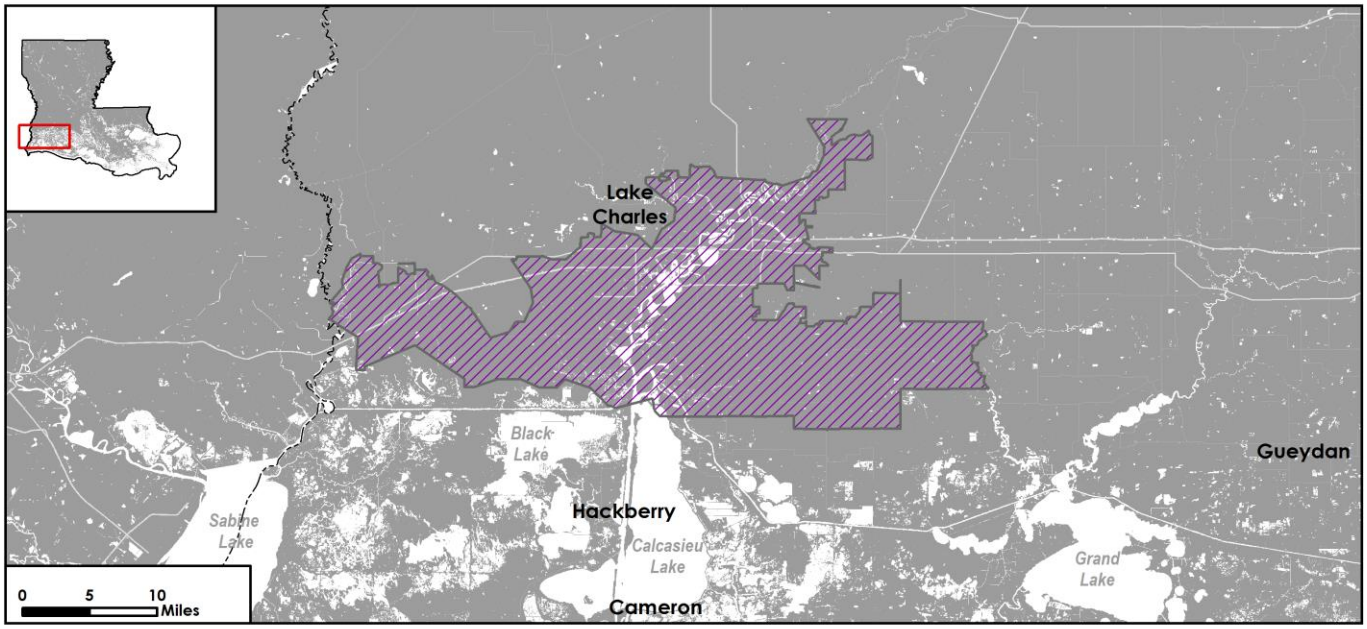
The first 2 increments of the project, consisting of 7,000 acres with a cost of $403 M, will be constructed in Implementation Period II. The remaining increment, consisting of 3,300 acres with a cost of $250 M, will be constructed in Implementation Period III.

2017 Coastal Master Plan
Implementation Period II / III

Calcasieu

Nonstructural Risk Reduction

Project ID: CAL.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Calcasieu Parish

Project Duration

Construction is estimated to take 3 years.

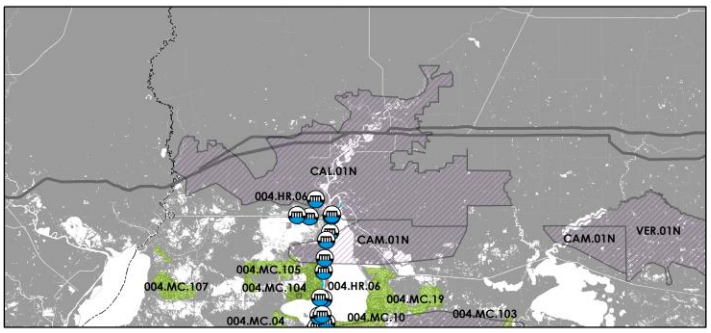
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	11	$11,300,000
Residential Elevation	143	$21,700,000
Residential Acquisition	83	$36,800,000
Total	**237**	**$69,800,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	164,935
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	29%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	144

2017 Coastal Master Plan
Implementation Period 1

Calcasieu
Nonstructural Risk Reduction
Project ID: CAL.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$33 M	-	-
10	$44 M	$39 M	**$5 M**
25	$76 M	$70 M	**$6 M**
50	$310 M	$299 M	**$10 M**

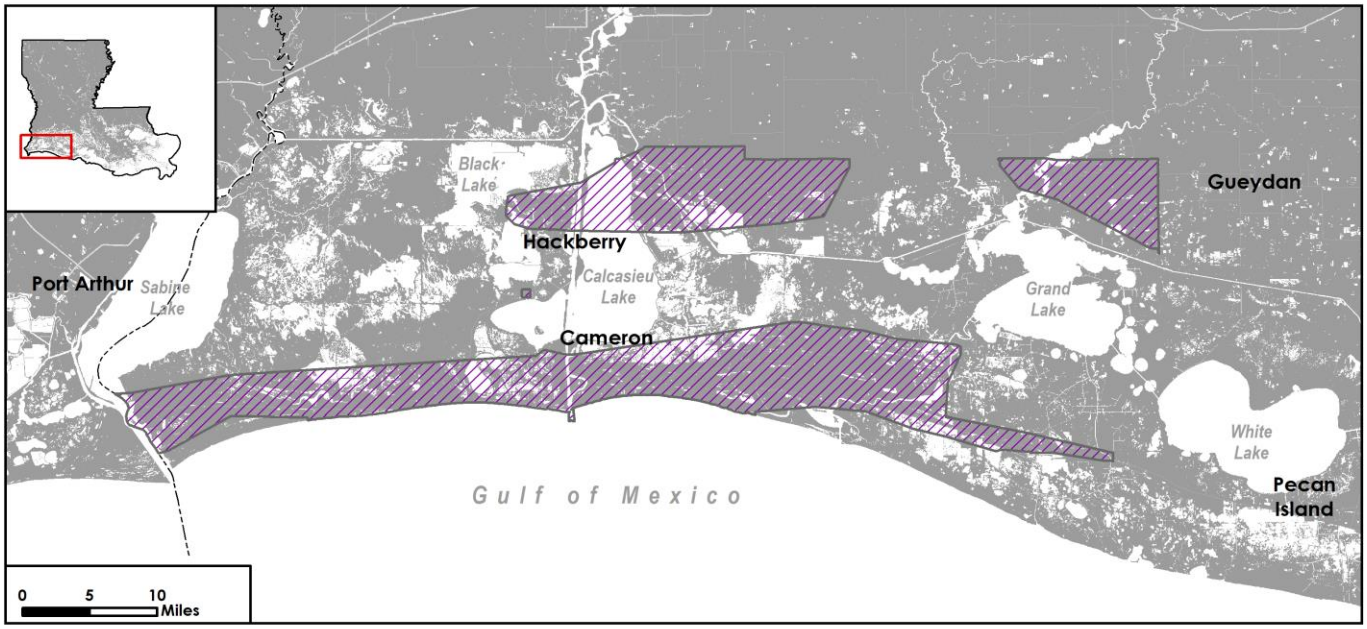
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$452 M	-	$716 M	-	$1,897 M	-
10	$476 M	$427 M	$907 M	$706 M	$2,562 M	$2,339 M
25	$841 M	$691 M	$1,658 M	$1,442 M	$4,888 M	$4,726 M
50	$3,872 M	$3,657 M	$16,542 M	$16,432 M	$18,508 M	$18,407 M

Cameron

Nonstructural Risk Reduction

Project ID: CAM.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Construction is estimated to take 4 years.

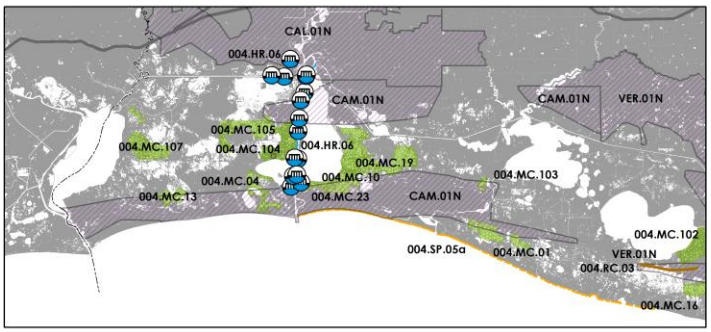
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	27	$26,200,000
Residential Elevation	437	$64,200,000
Residential Acquisition	114	$36,500,000
Total	**578**	**$126,900,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	6,966
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	35%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	245

2017 Coastal Master Plan
Implementation Period 1

Cameron
Nonstructural Risk Reduction
Project ID: CAM.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

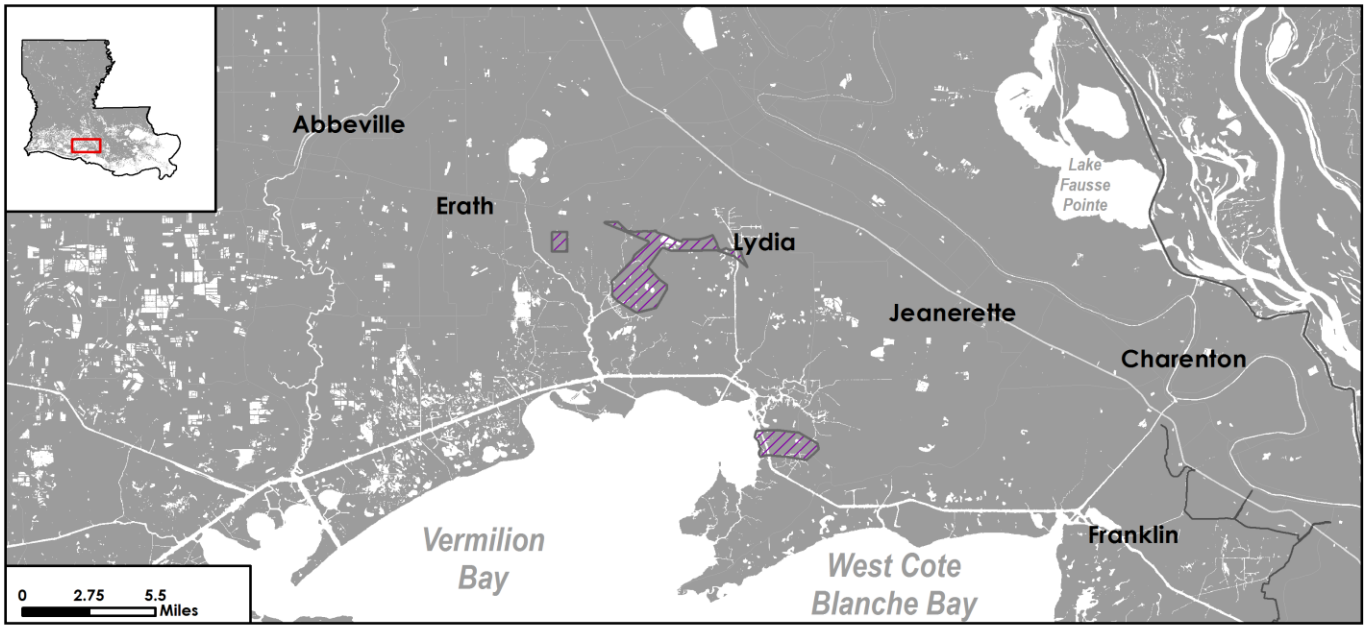
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$189 M	-	-
10	$232 M	$223 M	**$10 M**
25	$300 M	$287 M	**$13 M**
50	$407 M	$388 M	**$19 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$3,756 M	-	$5,827 M	-	$7,633 M	-
10	$4,517 M	$4,413 M	$6,573 M	$6,094 M	$7,975 M	$7,458 M
25	$5,857 M	$5,527 M	$7,451 M	$6,932 M	$8,138 M	$7,699 M
50	$6,647 M	$6,262 M	$7,217 M	$7,005 M	$7,320 M	$7,177 M

Iberia - Lower
Nonstructural Risk Reduction
Project ID: IBE.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Iberia Parish

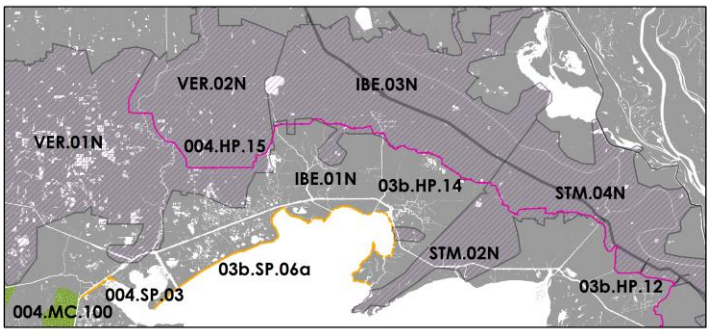
Project Duration
Construction is estimated to take 1 year.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	6	$1,000,000
Residential Acquisition	0	$0
Total	**6**	**$1,000,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	422
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	35%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	3

2017 Coastal Master Plan
Implementation Period 1

Iberia - Lower
Nonstructural Risk Reduction
Project ID: IBE.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

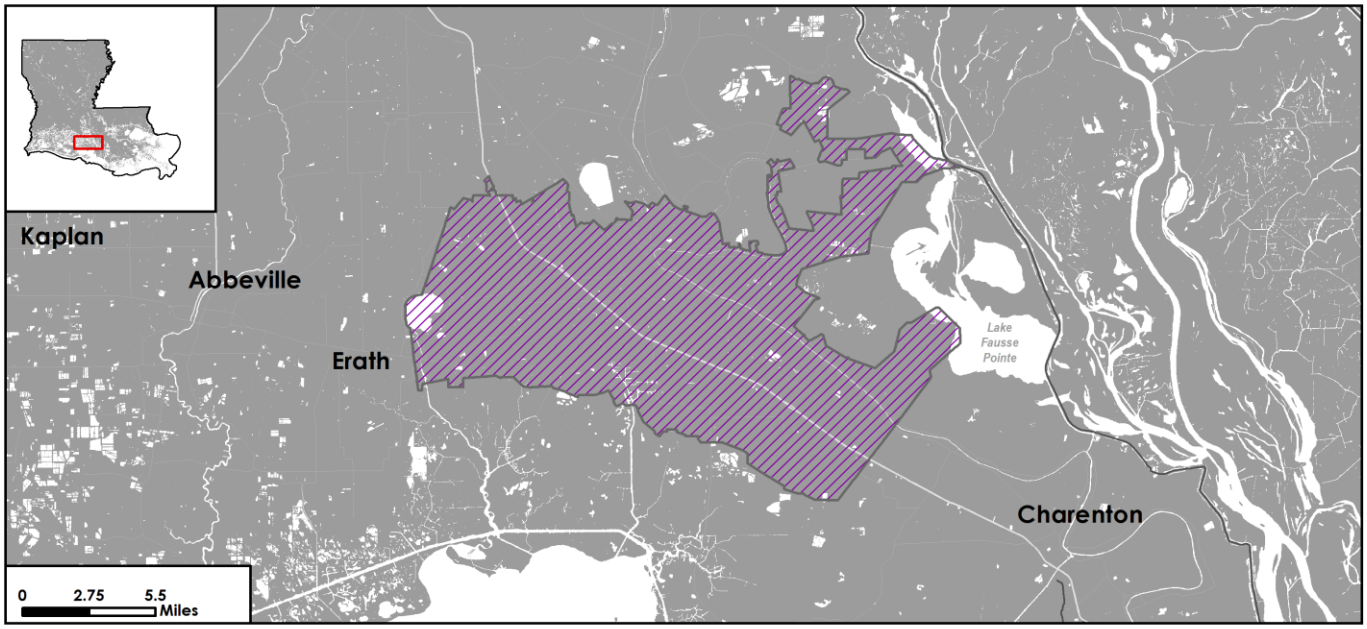
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$2 M	-	-
10	$2 M	$2 M	**< $1 M**
25	$4 M	$4 M	**< $1 M**
50	$5 M	$5 M	**< $1 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$56 M	-	$67 M	-	$68 M	-
10	$65 M	$63 M	$68 M	$65 M	$68 M	$66 M
25	$66 M	$64 M	$69 M	$67 M	$70 M	$68 M
50	$68 M	$68 M	$69 M	$69 M	$69 M	$69 M

Iberia - Atchafalaya
Nonstructural Risk Reduction
Project ID: IBE.02N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Iberia Parish

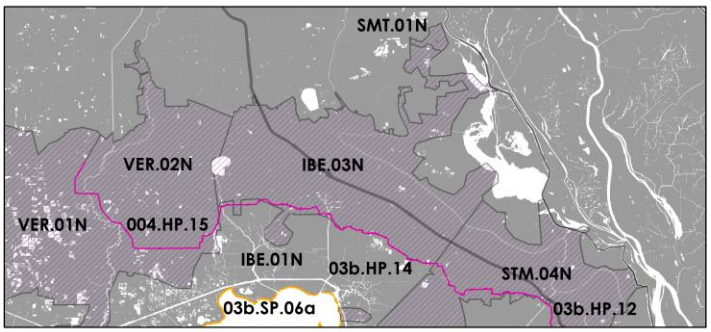
Project Duration
Construction is estimated to take 5 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	94	$74,000,000
Residential Elevation	1,398	$215,500,000
Residential Acquisition	0	$0
Total	**1,492**	**$289,500,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	70,368
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	28%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	132

2017 Coastal Master Plan
Implementation Period 1

Iberia - Atchafalaya
Nonstructural Risk Reduction
Project ID: IBE.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$56 M	-	-
10	$93 M	$70 M	**$23 M**
25	$133 M	$103 M	**$30 M**
50	$330 M	$285 M	**$45 M**

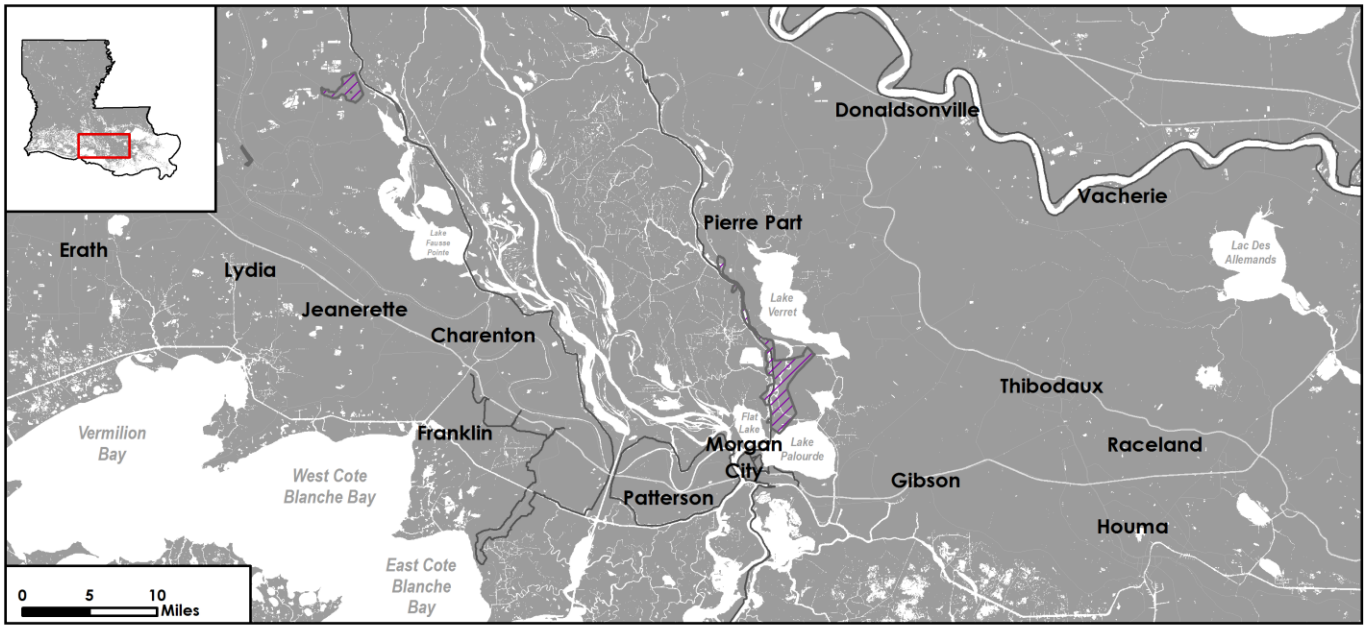
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$929 M	-	$2,551 M	-	$3,081 M	-
10	$2,065 M	$1,834 M	$4,242 M	$2,873 M	$4,665 M	$3,199 M
25	$3,283 M	$2,441 M	$5,347 M	$3,892 M	$5,864 M	$4,422 M
50	$7,731 M	$6,612 M	$9,537 M	$8,512 M	$11,179 M	$10,509 M

St. Martin

Nonstructural Risk Reduction

Project ID: SMT.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Martin Parish

Project Duration

Construction is estimated to take 2 years.

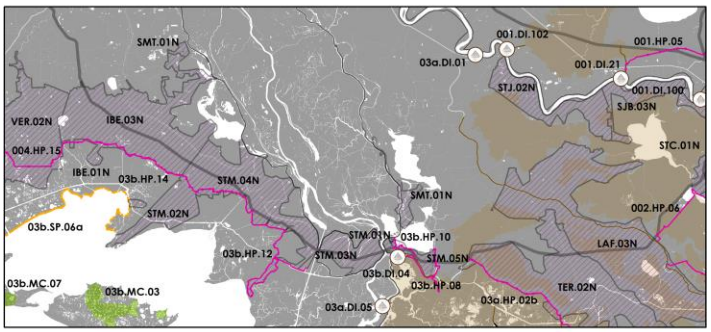
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	3	$4,300,000
Residential Elevation	58	$8,900,000
Residential Acquisition	0	$0
Total	**61**	**$13,200,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	2,786
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	26%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period 1

St. Martin
Nonstructural Risk Reduction
Project ID: SMT.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

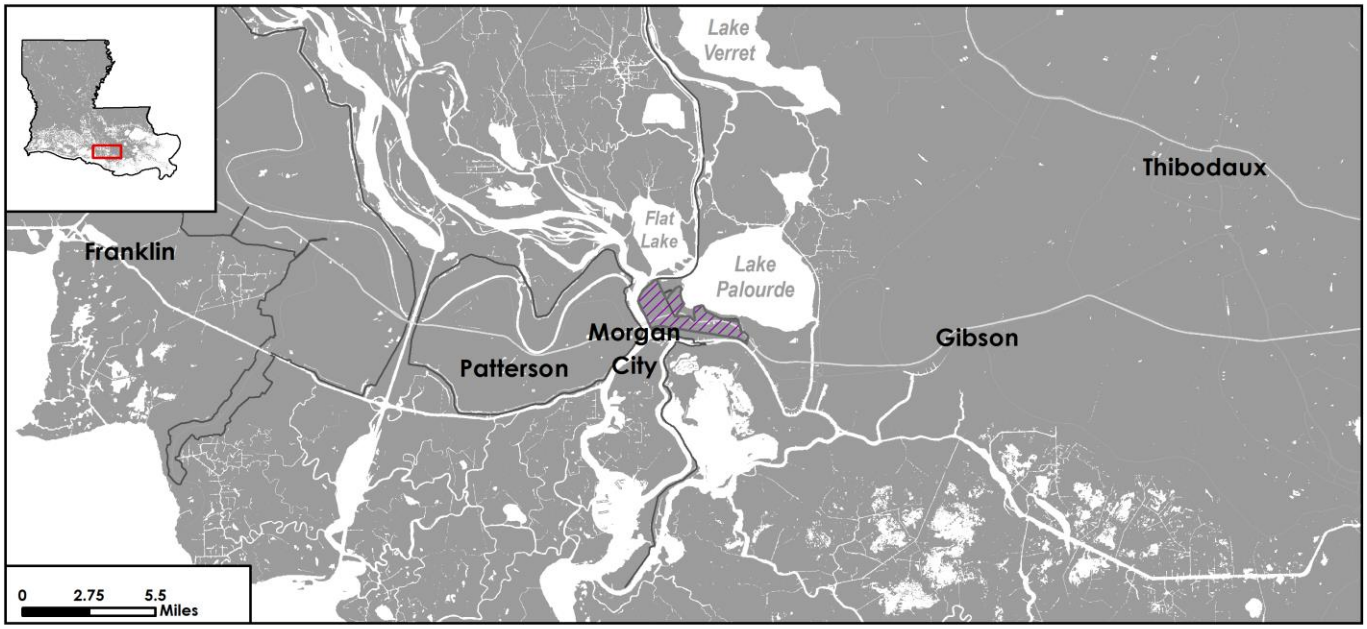
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$7 M	-	-
10	$11 M	$6 M	**$5 M**
25	$19 M	$12 M	**$7 M**
50	$43 M	$36 M	**$7 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$103 M	-	$116 M	-	$120 M	-
10	$187 M	$105 M	$214 M	$129 M	$222 M	$136 M
25	$277 M	$187 M	$284 M	$194 M	$299 M	$208 M
50	$642 M	$562 M	$648 M	$568 M	$653 M	$572 M

St. Mary - Morgan City
Nonstructural Risk Reduction
Project ID: STM.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
St. Mary Parish

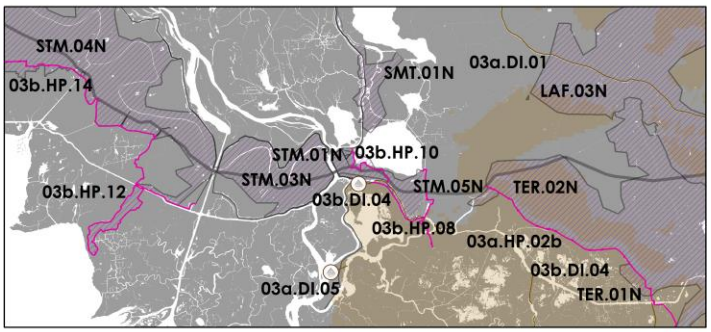
Project Duration
Construction is estimated to take 1 year.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	3	$4,200,000
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**3**	**$4,200,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	12,245
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period II

St. Mary - Morgan City
Nonstructural Risk Reduction
Project ID: STM.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$7 M	-	-
10	$14 M	$13 M	**$1 M**
25	$21 M	$19 M	**$2 M**
50	$952 M	$945 M	**$7 M**

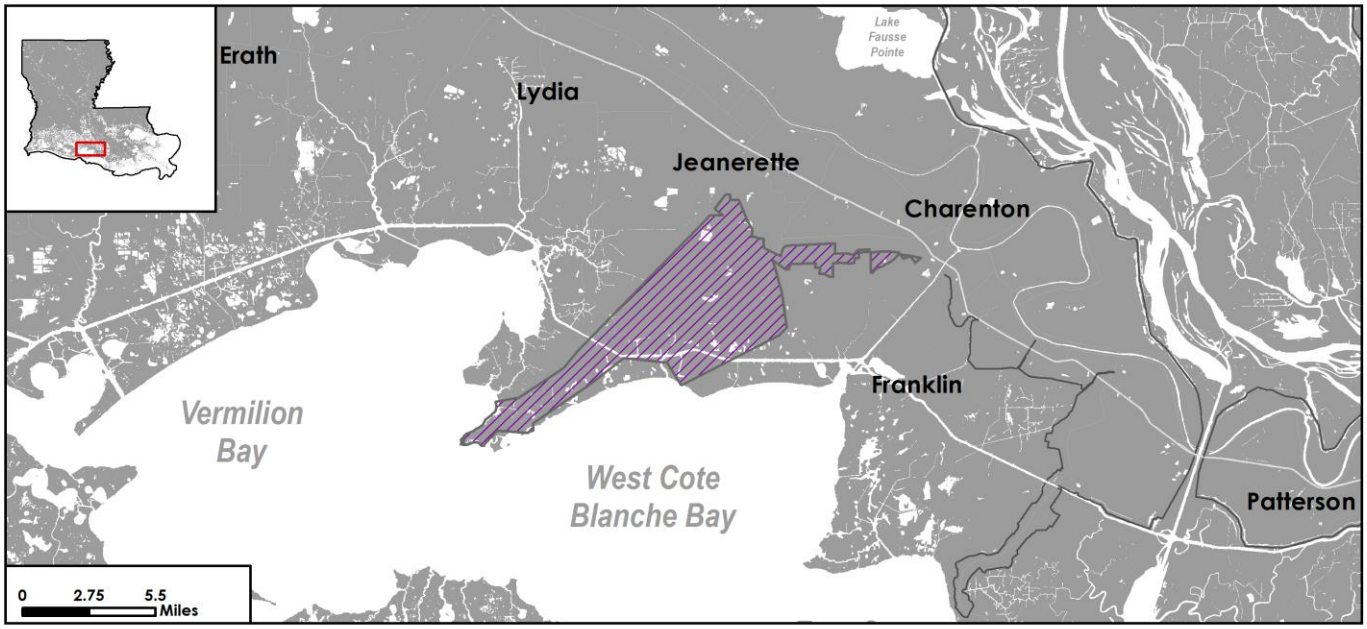
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	< $1 M	-	< $1 M	-	$1 M	-
10	$97 M	$62 M	$105 M	$66 M	$110 M	$68 M
25	$119 M	$80 M	$163 M	$101 M	$3,788 M	$3,696 M
50	$9,910 M	$9,865 M	$10,614 M	$10,569 M	$11,554 M	$11,507 M

St. Mary - Glencoe

Nonstructural Risk Reduction

Project ID: STM.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Mary Parish

Project Duration

Construction is estimated to take 2 years.

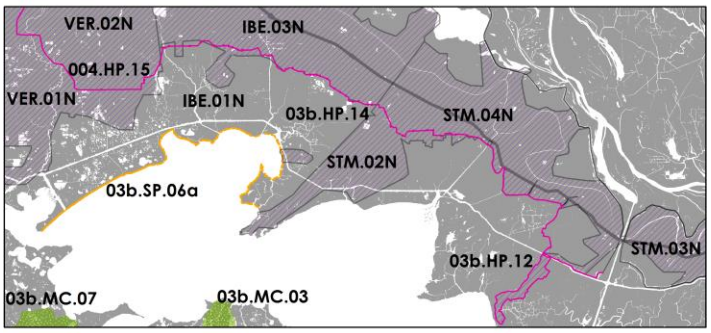
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	5	$1,400,000
Residential Elevation	69	$10,700,000
Residential Acquisition	8	$3,700,000
Total	**82**	**$15,800,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	492
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	58%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	13

2017 Coastal Master Plan
Implementation Period II

St. Mary - Glencoe
Nonstructural Risk Reduction
Project ID: STM.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$8 M	-	-
10	$9 M	$8 M	**< $1 M**
25	$10 M	$9 M	**$1 M**
50	$14 M	$12 M	**$2 M**

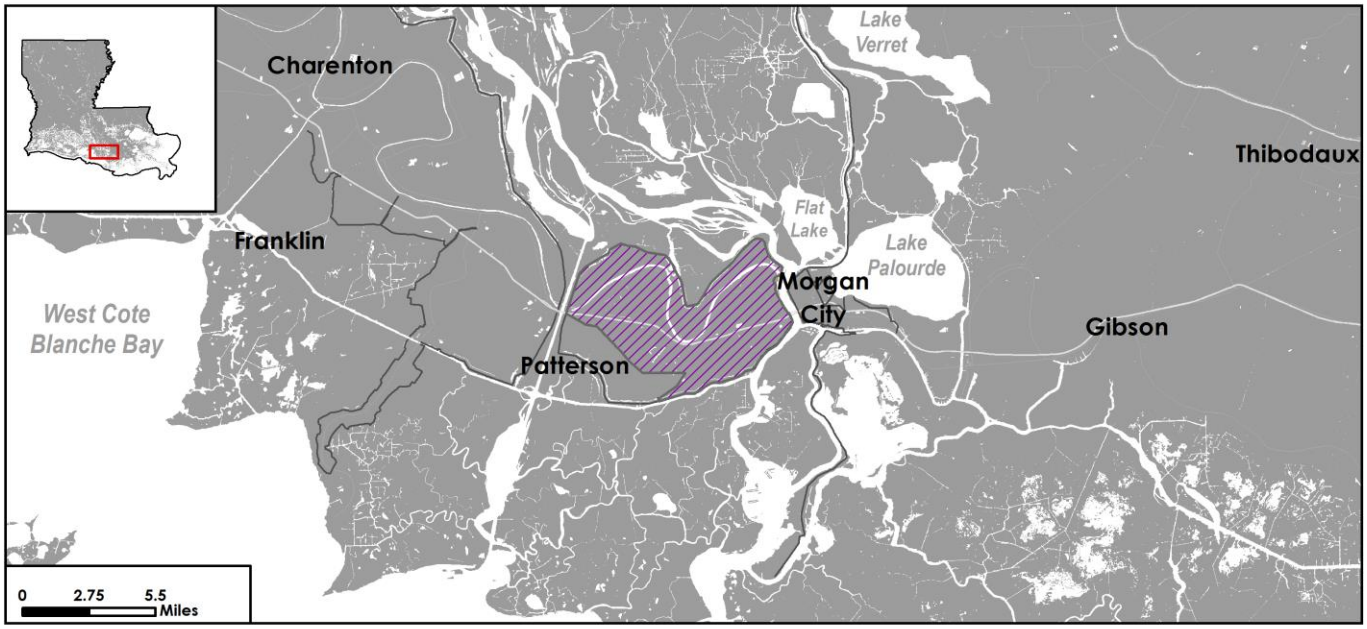
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$132 M	-	$168 M	-	$172 M	-
10	$163 M	$148 M	$202 M	$166 M	$219 M	$174 M
25	$160 M	$146 M	$219 M	$171 M	$228 M	$178 M
50	$233 M	$187 M	$241 M	$208 M	$243 M	$213 M

St. Mary - Patterson

Nonstructural Risk Reduction

Project ID: STM.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Mary Parish

Project Duration

Construction is estimated to take 1 year.

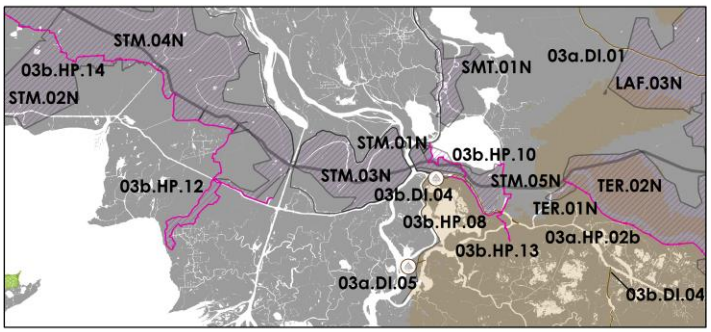
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	2	$1,200,000
Residential Elevation	9	$1,700,000
Residential Acquisition	0	$0
Total	**11**	**$2,900,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	18,090
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	45%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period II

St. Mary - Patterson
Nonstructural Risk Reduction
Project ID: STM.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1 M	-	-
10	$2 M	$1 M	**< $1 M**
25	$3 M	$2 M	**< $1 M**
50	$6 M	$5 M	**$1 M**

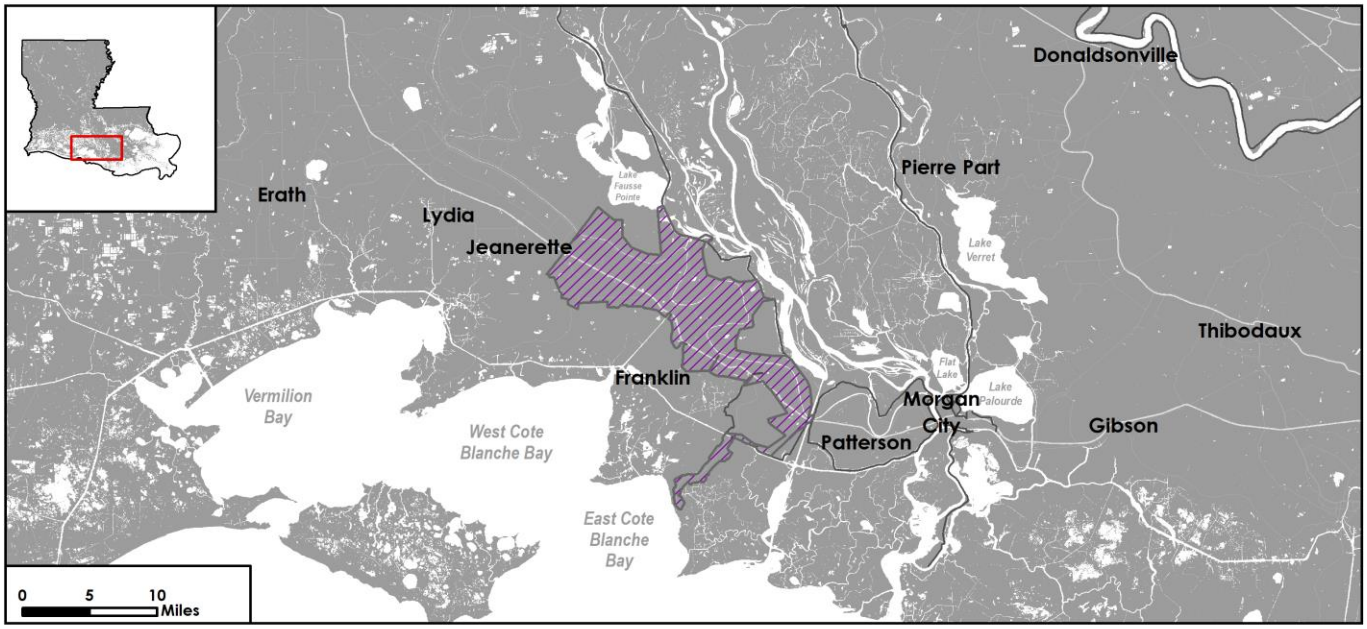
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$7 M	-	$13 M	-	$21 M	-
10	$27 M	$18 M	$73 M	$51 M	$80 M	$55 M
25	$75 M	$55 M	$92 M	$67 M	$95 M	$68 M
50	$111 M	$85 M	$112 M	$87 M	$113 M	$90 M

St. Mary - Franklin/Charenton

Nonstructural Risk Reduction

Project ID: STM.04N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Mary Parish

Project Duration

Construction is estimated to take 3 years.

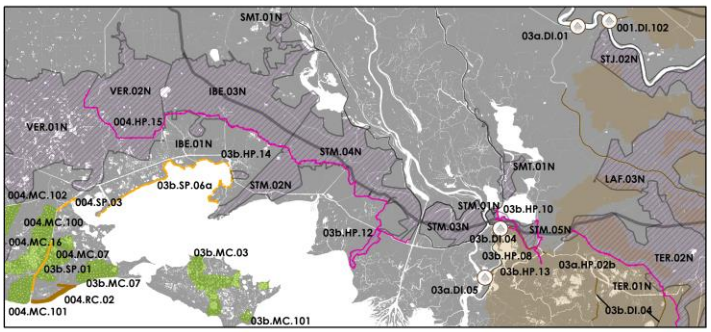
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	52	$37,300,000
Residential Elevation	290	$43,100,000
Residential Acquisition	0	$0
Total	**342**	**$80,400,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	20,879
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	48%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	18

2017 Coastal Master Plan
Implementation Period 1

St. Mary - Franklin/Charenton

Nonstructural Risk Reduction

Project ID: STM.04N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$14 M	-	-
10	$23 M	$15 M	**$8 M**
25	$55 M	$41 M	**$14 M**
50	$258 M	$230 M	**$28 M**

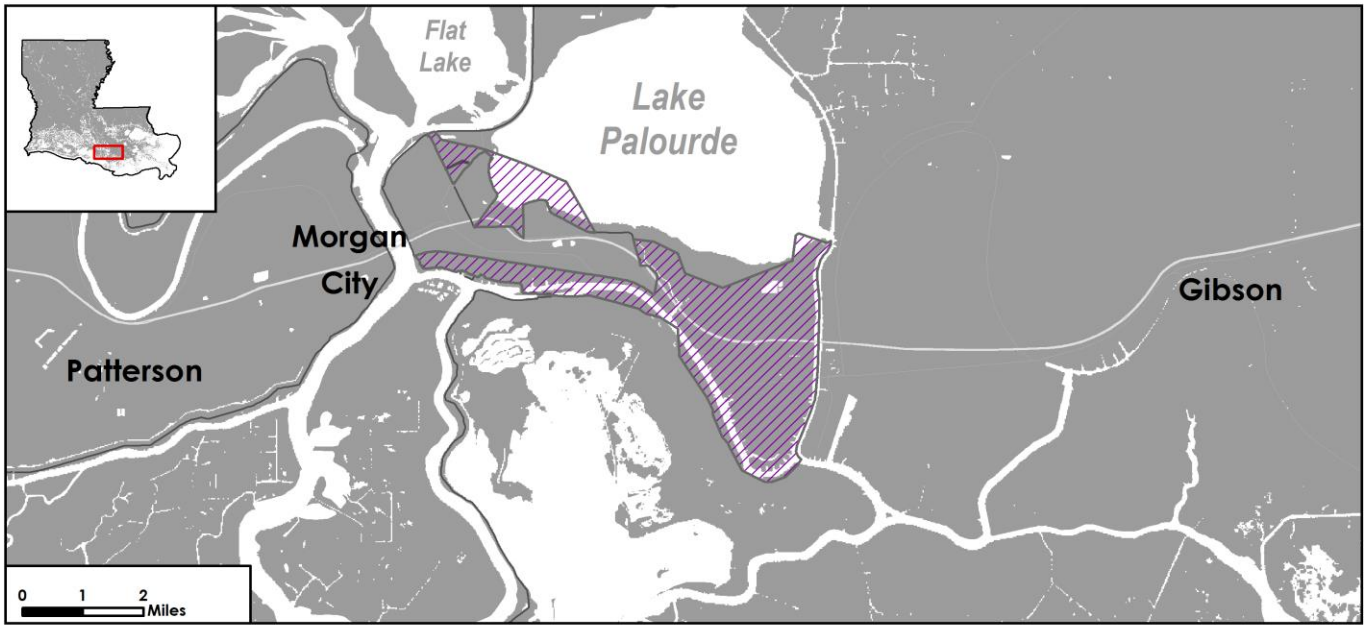
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$113 M	-	$437 M	-	$1,205 M	-
10	$175 M	$141 M	$1,039 M	$526 M	$1,753 M	$1,143 M
25	$863 M	$492 M	$2,484 M	$1,899 M	$2,955 M	$2,384 M
50	$5,613 M	$5,103 M	$7,790 M	$7,361 M	$8,733 M	$8,425 M

St. Mary - Lower

Nonstructural Risk Reduction

Project ID: STM.05N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Mary Parish

Project Duration

Construction is estimated to take 1 year.

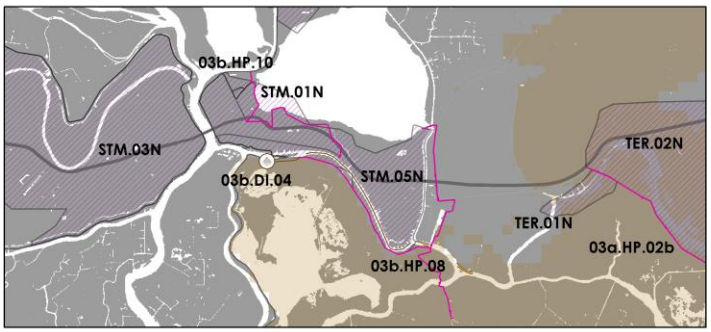
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	8	$6,400,000
Residential Elevation	4	$700,000
Residential Acquisition	0	$0
Total	**12**	**$7,100,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	3,522
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	56%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period 1

St. Mary - Lower
Nonstructural Risk Reduction
Project ID: STM.05N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$20 M	-	-
10	$26 M	$24 M	**$2 M**
25	$53 M	$49 M	**$4 M**
50	$257 M	$250 M	**$8 M**

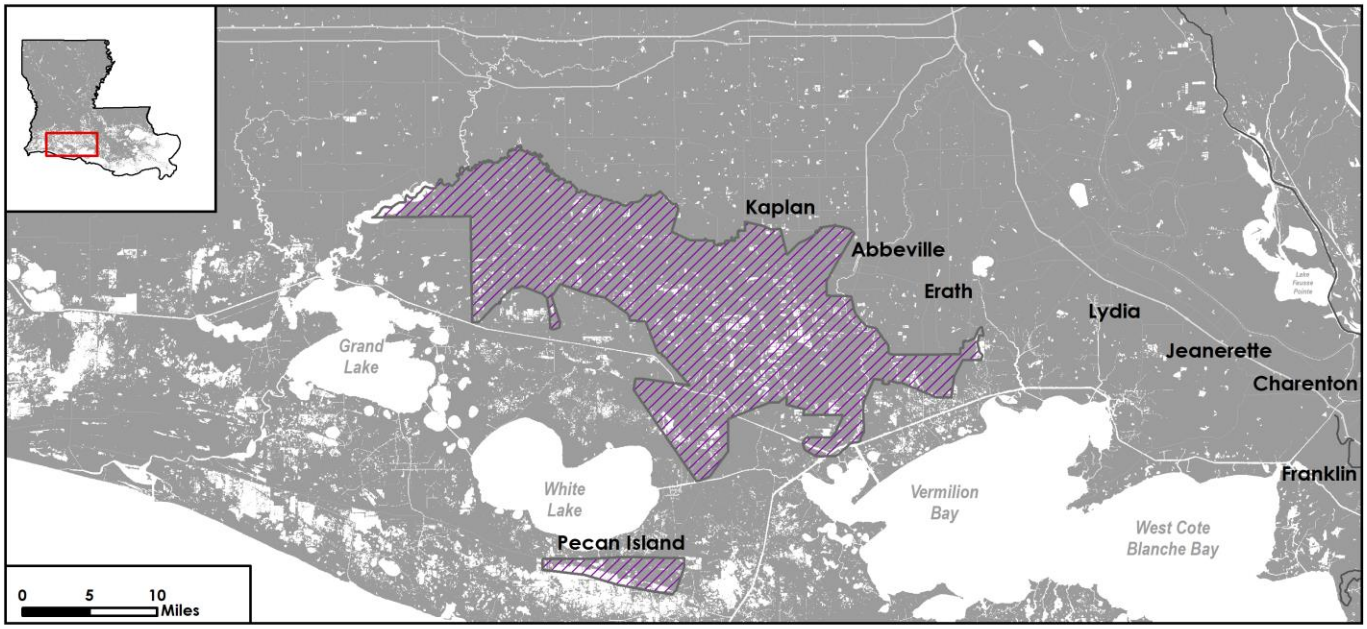
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$75 M	-	$87 M	-	$111 M	-
10	$331 M	$295 M	$492 M	$417 M	$660 M	$582 M
25	$977 M	$895 M	$1,238 M	$1,152 M	$1,882 M	$1,794 M
50	$4,364 M	$4,270 M	$4,544 M	$4,449 M	$4,758 M	$4,663 M

Vermilion

Nonstructural Risk Reduction

Project ID: VER.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermillion Parish

Project Duration

Construction is estimated to take 4 years.

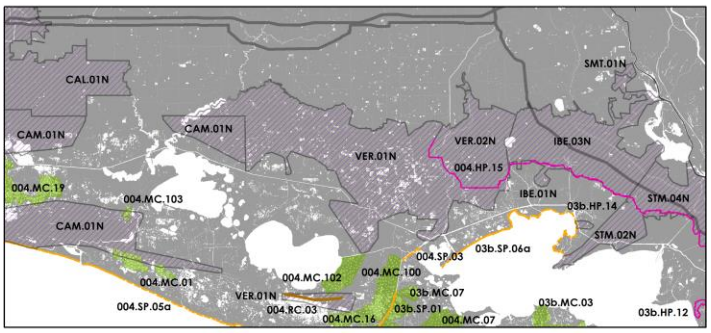
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	40	$35,700,000
Residential Elevation	448	$66,400,000
Residential Acquisition	20	$7,800,000
Total	**508**	**$109,900,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	18,558
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	35%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	63

2017 Coastal Master Plan
Implementation Period 1

Vermilion
Nonstructural Risk Reduction
Project ID: VER.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$139 M	-	-
10	$163 M	$153 M	**$9 M**
25	$210 M	$197 M	**$13 M**
50	$363 M	$338 M	**$25 M**

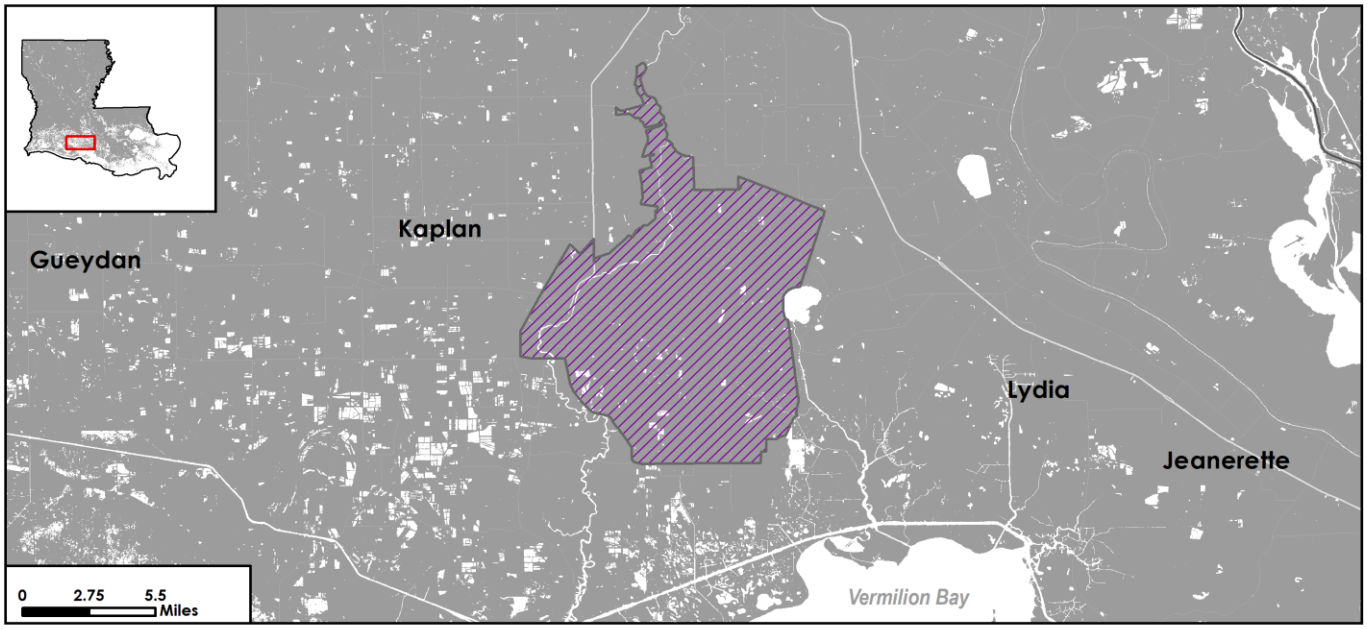
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$3,167 M	-	$4,083 M	-	$4,568 M	-
10	$3,829 M	$3,694 M	$4,621 M	$4,177 M	$5,227 M	$4,707 M
25	$4,408 M	$4,027 M	$5,446 M	$4,933 M	$5,748 M	$5,250 M
50	$6,989 M	$6,470 M	$8,814 M	$8,307 M	$9,189 M	$8,707 M

Vermilion - Abbeville/Delcambre

Nonstructural Risk Reduction

Project ID: VER.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermillion Parish

Project Duration

Construction is estimated to take 4 years.

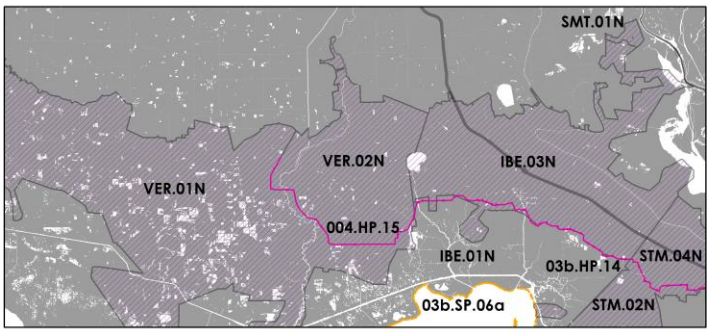
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	113	$92,300,000
Residential Elevation	635	$92,000,000
Residential Acquisition	14	$6,300,000
Total	**762**	**$190,600,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	34,281
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	40%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	193

2017 Coastal Master Plan
Implementation Period 1

Vermilion - Abbeville/Delcambre

Nonstructural Risk Reduction

Project ID: VER.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$45 M	-	-
10	$79 M	$55 M	**$24 M**
25	$127 M	$89 M	**$38 M**
50	$284 M	$238 M	**$46 M**

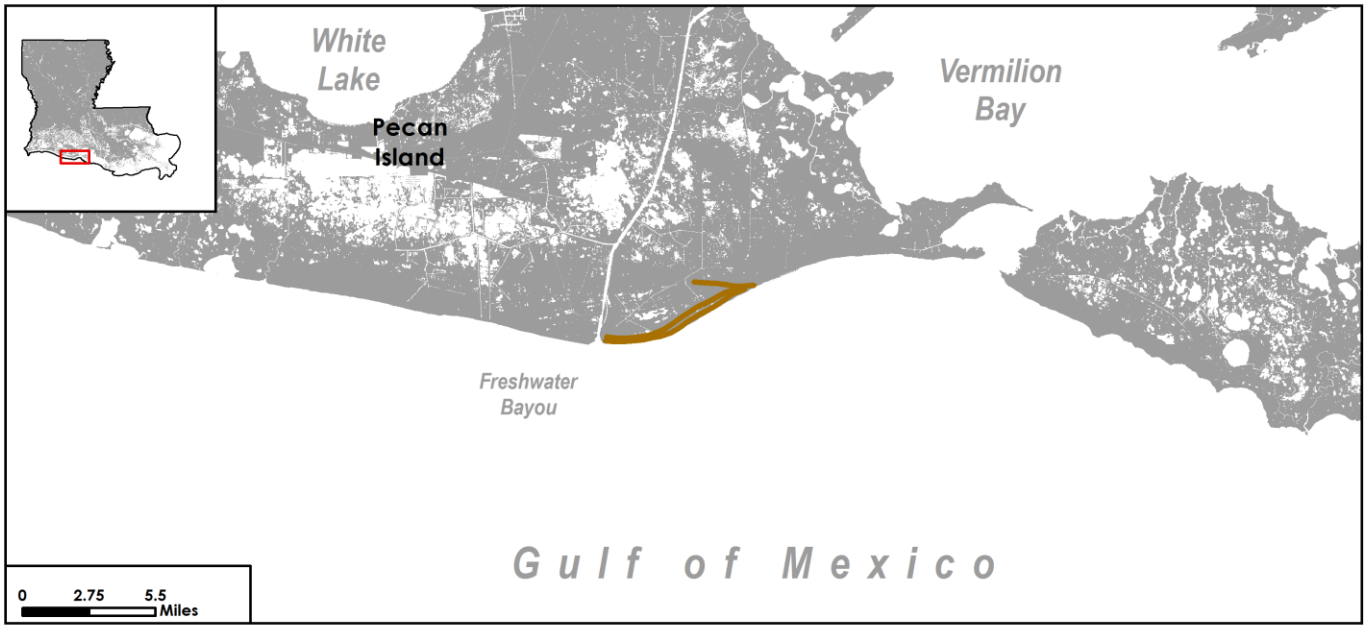
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$453 M	-	$2,175 M	-	$3,089 M	-
10	$1,438 M	$1,349 M	$4,072 M	$2,553 M	$5,054 M	$3,308 M
25	$4,121 M	$2,654 M	$5,624 M	$3,809 M	$6,232 M	$4,398 M
50	$7,026 M	$5,346 M	$10,039 M	$9,097 M	$12,706 M	$11,913 M

Cheniere au Tigre Ridge Restoration

Ridge Restoration

Project ID: 004.RC.02



Description

Restoration of approximately 77,800 feet of Bill and Cheniere au Tigre Ridges to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

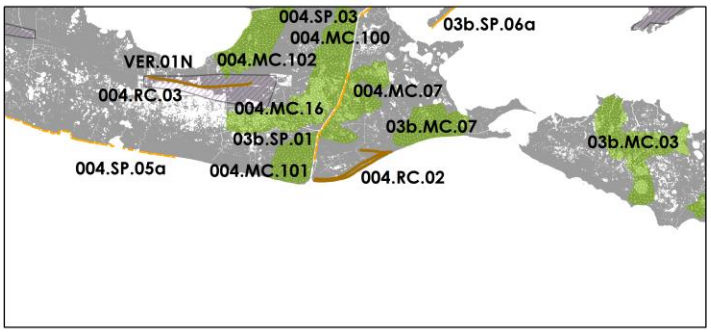
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,100,000
Operations & Maintenance	$800,000
Total	**$8,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	34 acres

**Based on the high environmental scenario.*

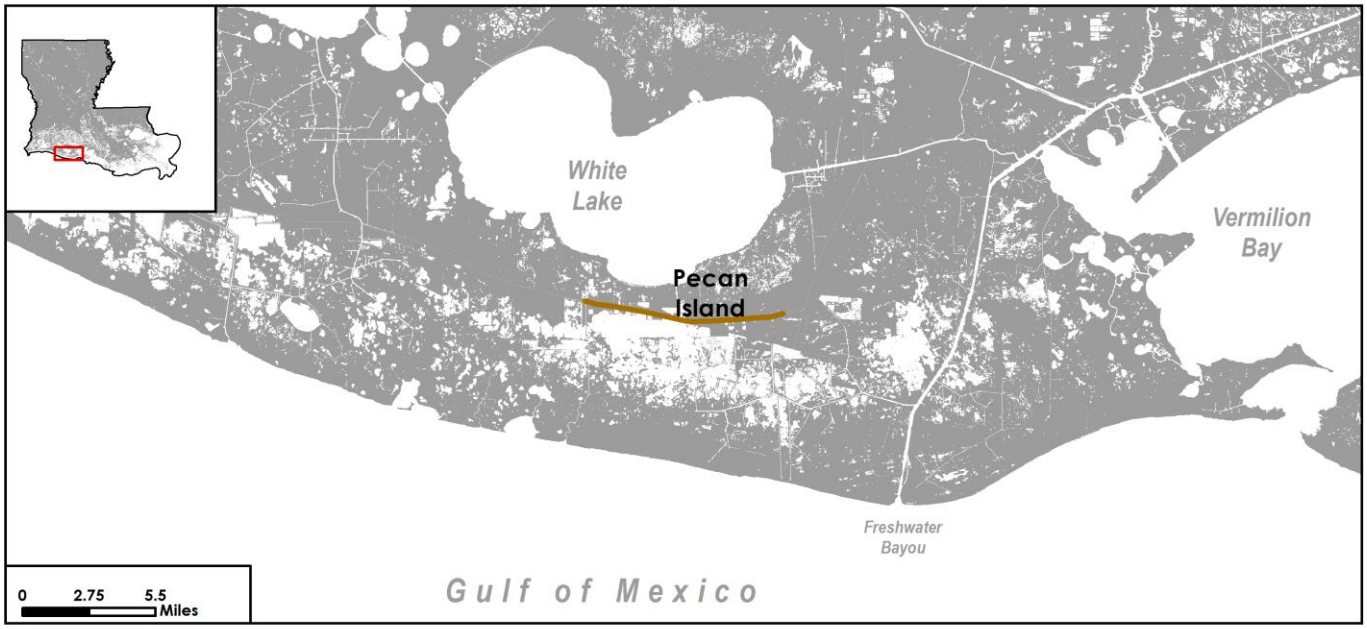
Other Nearby Projects in the Master Plan



Pecan Island Ridge Restoration

Ridge Restoration

Project ID: 004.RC.03



Description

Restoration of approximately 43,800 feet of Pecan Island Ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

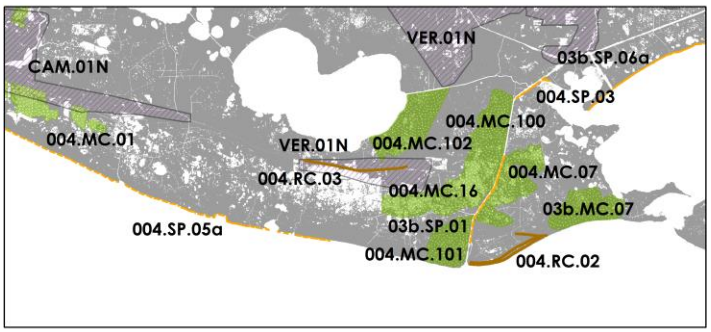
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$5,700,000
Operations & Maintenance	$600,000
Total	**$6,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	4 acres

**Based on the high environmental scenario.*

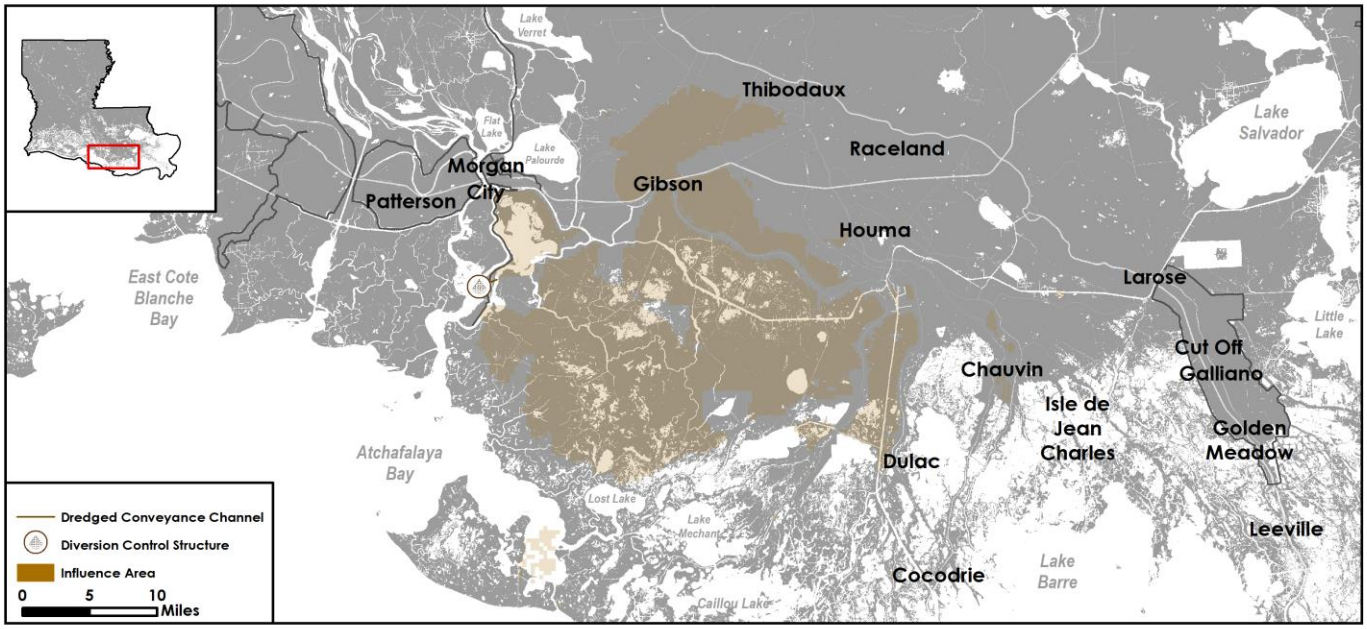
Other Nearby Projects in the Master Plan



Atchafalaya River Diversion

Sediment Diversion

Project ID: 03a.DI.05



Description

Sediment diversion off the Atchafalaya River to benefit the Penchant Basin and southwest Terrebonne marshes with 30,000 cfs capacity (modeled at 26% of the Atchafalaya River flow upstream of the confluence with Bayou Shaffer).

Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 6 years.
Construction is estimated to take 4 years.

Project Cost Estimate

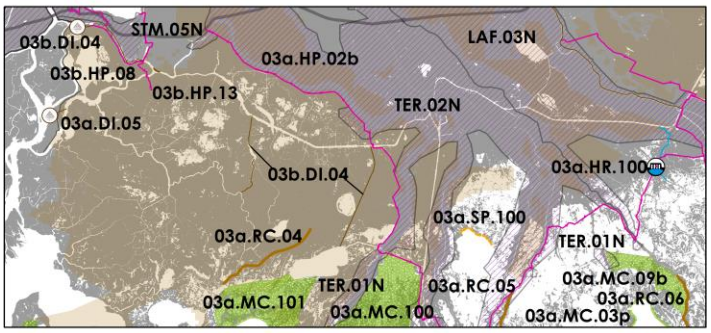
	Estimated Cost
Planning/Engineering & Design	$18,200,000
Construction	$228,100,000
Operations & Maintenance	$36,500,000
Total	**$282,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,589 acres
Long Term (Year 50)	10,743 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

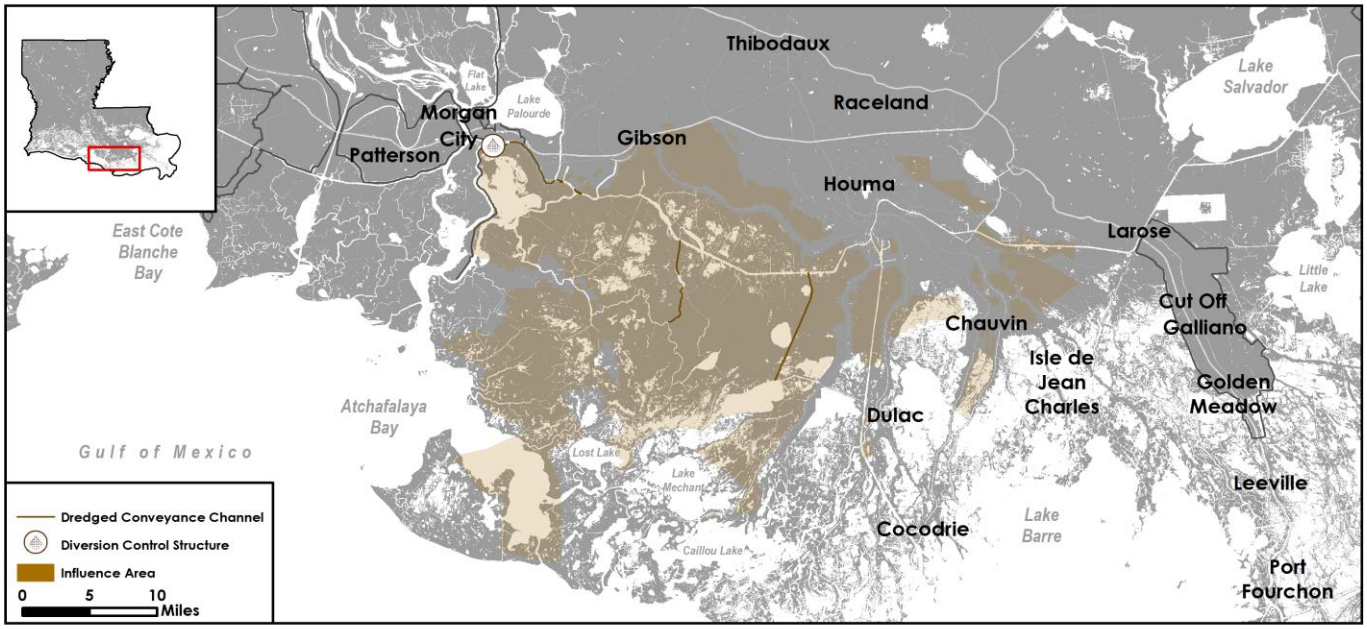


2017 Coastal Master Plan
Implementation Period 1

Increase Atchafalaya Flow to Terrebonne

Sediment Diversion

Project ID: 03b.DI.04



Description

Dredging of the Gulf Intracoastal Waterway (GIWW) and construction of a bypass structure at the Bayou Boeuf Lock from the Atchafalaya River to Terrebonne marshes with 20,000 cfs capacity.

Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Assumption Parish; St. Mary Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

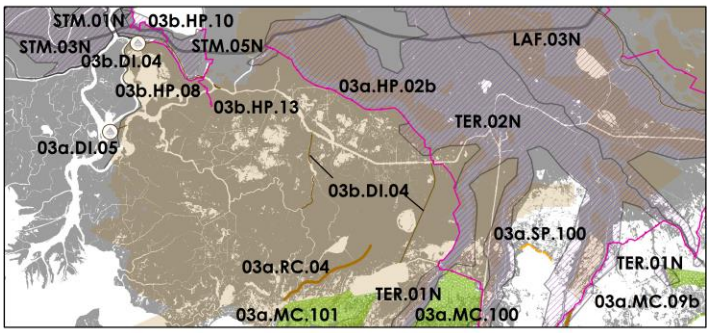
	Estimated Cost
Planning/Engineering & Design	$25,300,000
Construction	$316,800,000
Operations & Maintenance	$55,800,000
Total	**$397,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	12,000 acres
Long Term (Year 50)	19,000 acres

**Based on the most recent project-specific modeling analysis.*

Other Nearby Projects in the Master Plan

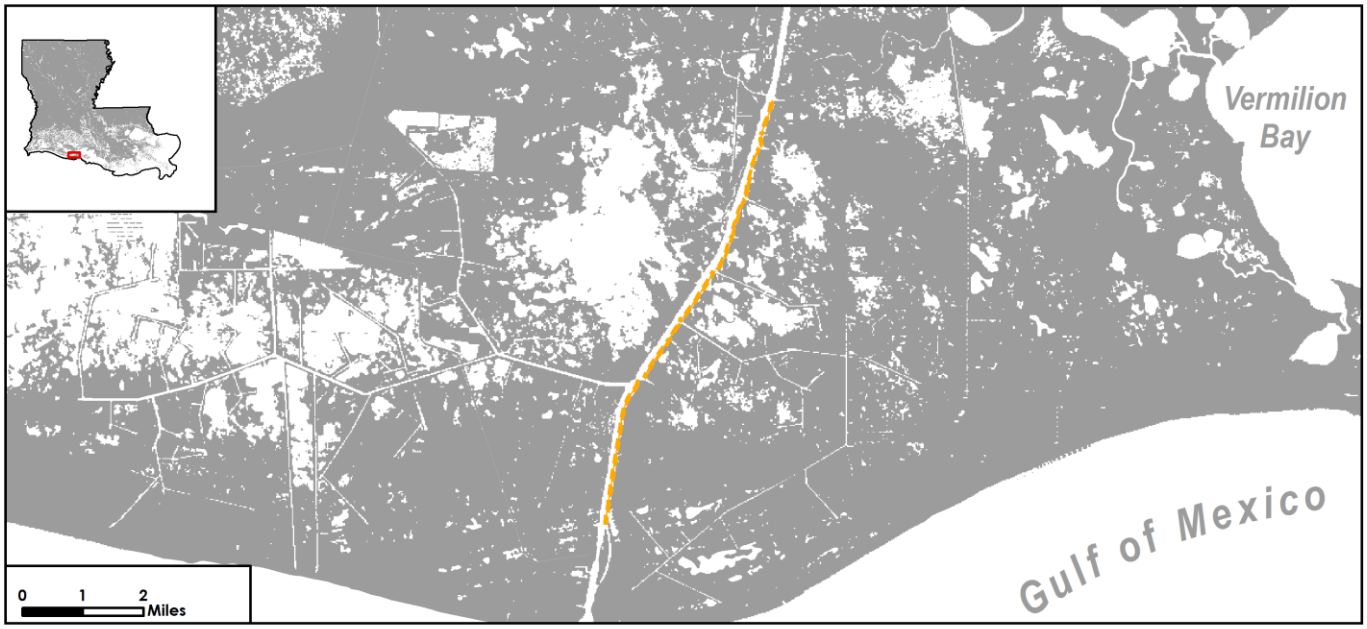


2017 Coastal Master Plan
Implementation Period I

Freshwater Bayou (Belle Isle Canal to Lock)

Shoreline Protection

Project ID: 03b.SP.01



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 36,000 feet of the east bank of Freshwater Bayou Canal from Belle Isle Canal to Freshwater Bayou Lock to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

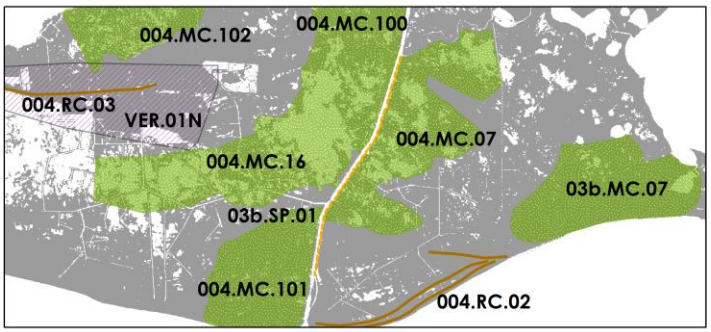
	Estimated Cost
Planning/Engineering & Design	$2,400,000
Construction	$29,900,000
Operations & Maintenance	$39,500,000
Total	**$71,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	-30 acres
Long Term (Year 50)	2,598 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

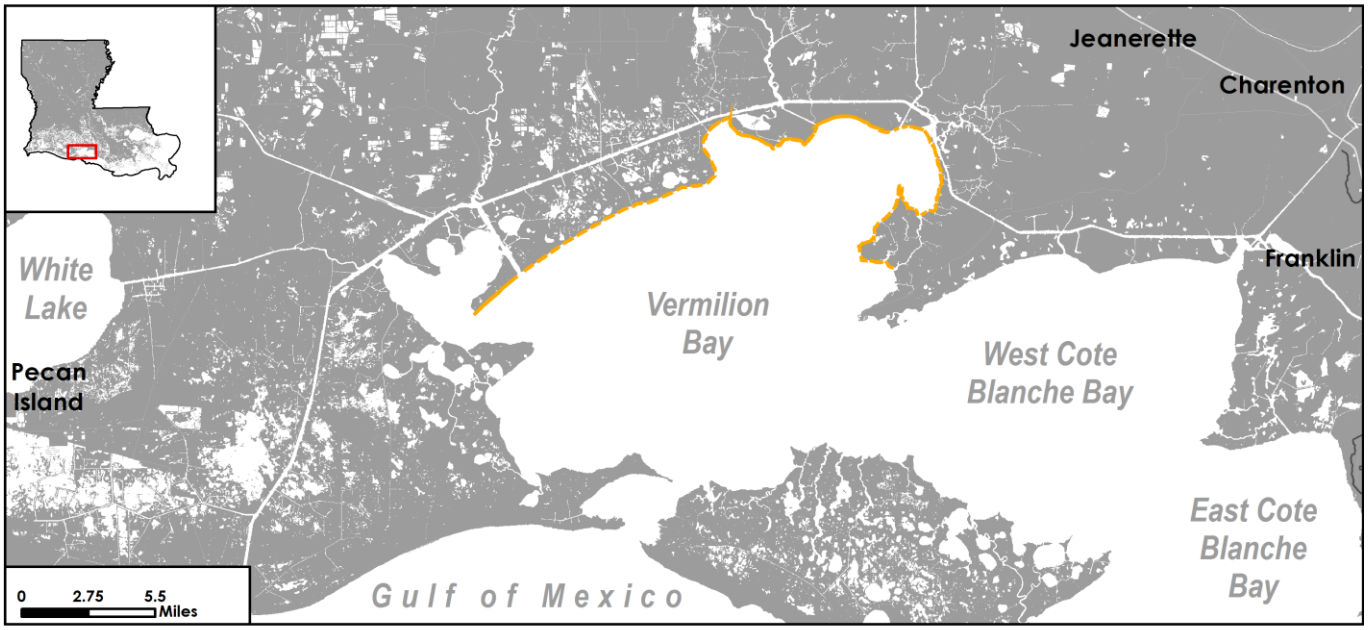


2017 Coastal Master Plan
Implementation Period 1

Vermilion Bay and West Cote Blanche Bay

Shoreline Protection

Project ID: 03b.SP.06a



Description

Shoreline protection through rock breakwaters of critical areas on the east shoreline of Vermilion Bay to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish; Iberia Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

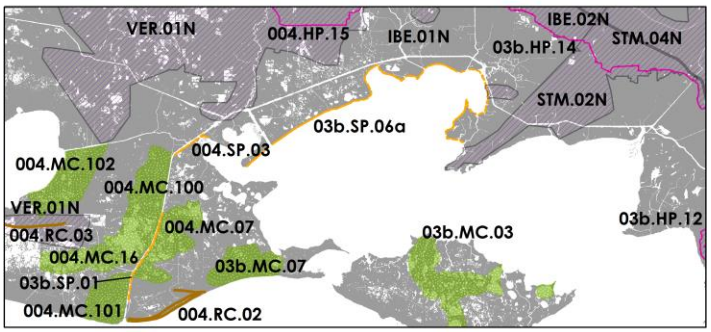
	Estimated Cost
Planning/Engineering & Design	$5,300,000
Construction	$65,900,000
Operations & Maintenance	$84,400,000
Total	**$155,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	582 acres
Long Term (Year 50)	-1,200 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan
Implementation Period 1

Freshwater Bayou Canal Shoreline Protection

Shoreline Protection

Project ID: 004.SP.03

Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 7,500 feet of the south bank of Freshwater Bayou Canal at Little Vermilion Bay to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

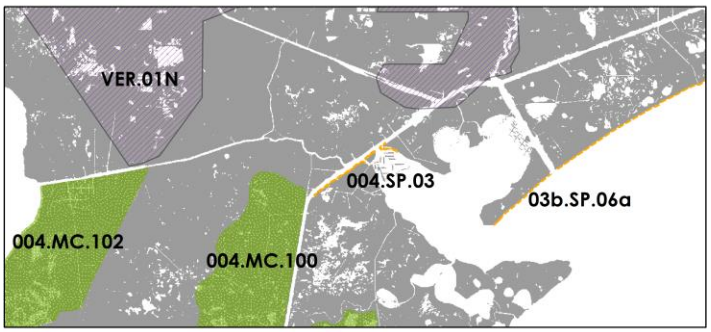
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$6,300,000
Operations & Maintenance	$8,200,000
Total	**$15,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	-3,360 acres
Long Term (Year 50)	14,949 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

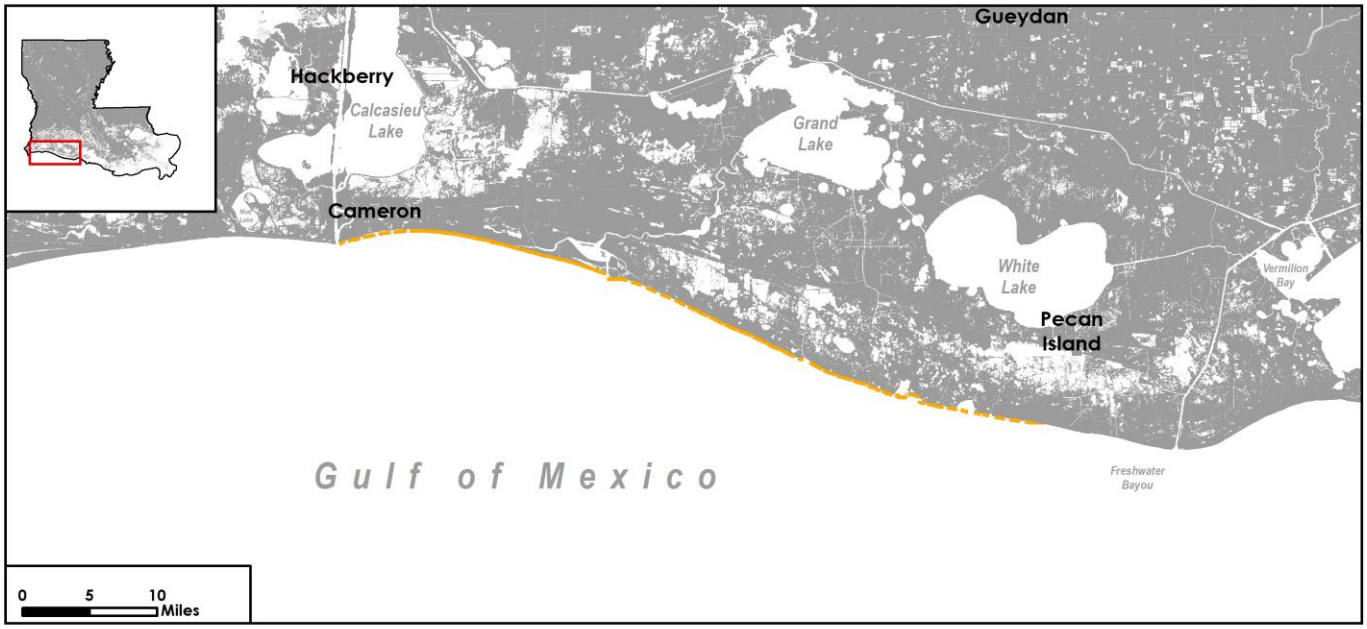


2017 Coastal Master Plan
Implementation Period 1

Gulf Shoreline Protection (Calcasieu River to Rockefeller)

Shoreline Protection

Project ID: 004.SP.05a



Description

Shoreline protection through rock breakwaters of critical areas designed to an elevation of 3.5 feet NAVD88 along the Gulf shoreline between Calcasieu River and Freshwater Bayou to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Cameron Parish; Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

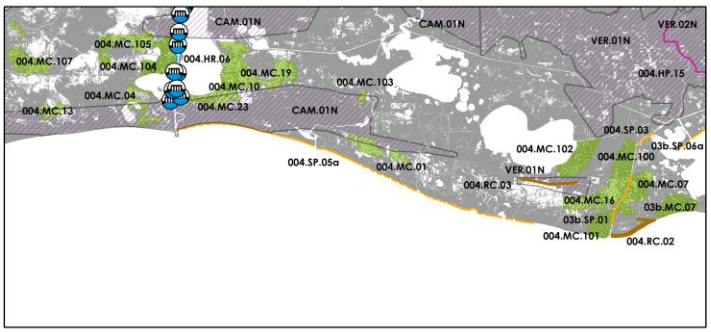
	Estimated Cost
Planning/Engineering & Design	$0
Construction	$459,600,000
Operations & Maintenance	$35,800,000
Total	**$495,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	57 acres
Long Term (Year 50)	-326 acres

**Based on the high environmental scenario.*

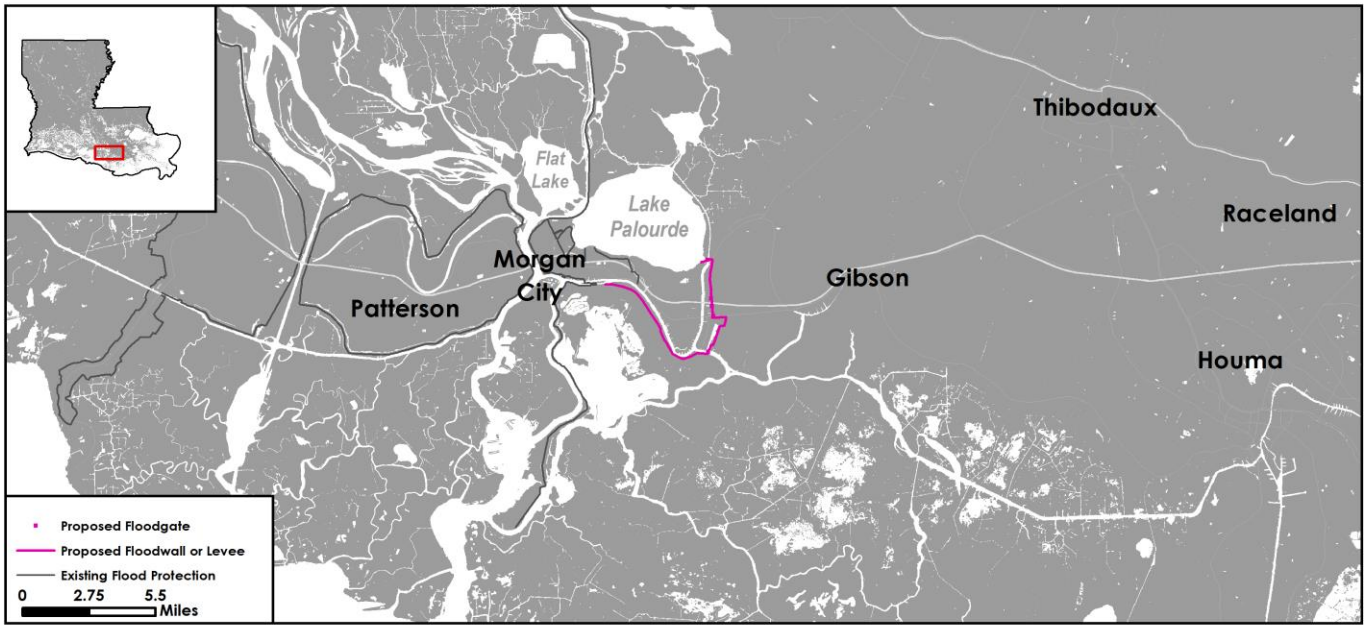
Other Nearby Projects in the Master Plan



Amelia Levee Improvements

Structural Protection

Project ID: 03b.HP.08



Description

Construction of a levee to an elevation of 18 feet NAVD88 along the GIWW between Lake Palourde and the Bayou Boeuf Lock near Amelia. Project features approximately 46,400 feet of earthen levee, approximately 13,400 feet of T-wall, (4) 40-foot roller gates, (1) 250-foot barge gate, (1) 110-foot barge gate, and a 5,000 cfs pump station.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Assumption Parish; St. Mary Parish

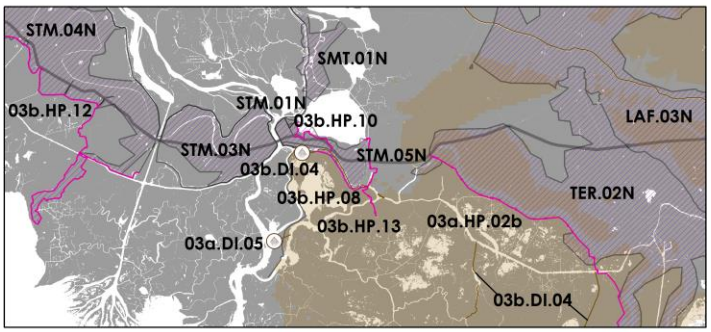
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 3 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$155,700,000
Construction	$808,400,000
Operations & Maintenance	$87,600,000
Total	**$1,051,700,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	25,500
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	40%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	72

2017 Coastal Master Plan
Implementation Period 1

Amelia Levee Improvements

Structural Protection

Project ID: 03b.HP.08

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$708 M	-	-
25	$2,408 M	$2,331 M	**$77 M**
50	$8,127 M	$7,635 M	**$492 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	1	22
Government/Military	-	-
Electric Power Substation	-	10
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	6
Electric Power Plant	1	12
Port	-	-
Petroleum Pump Station	-	4
Refinery	-	-
Water and Sewer	1	4
Strategic Petroleum Reserve	-	-
Total	**3**	**58**

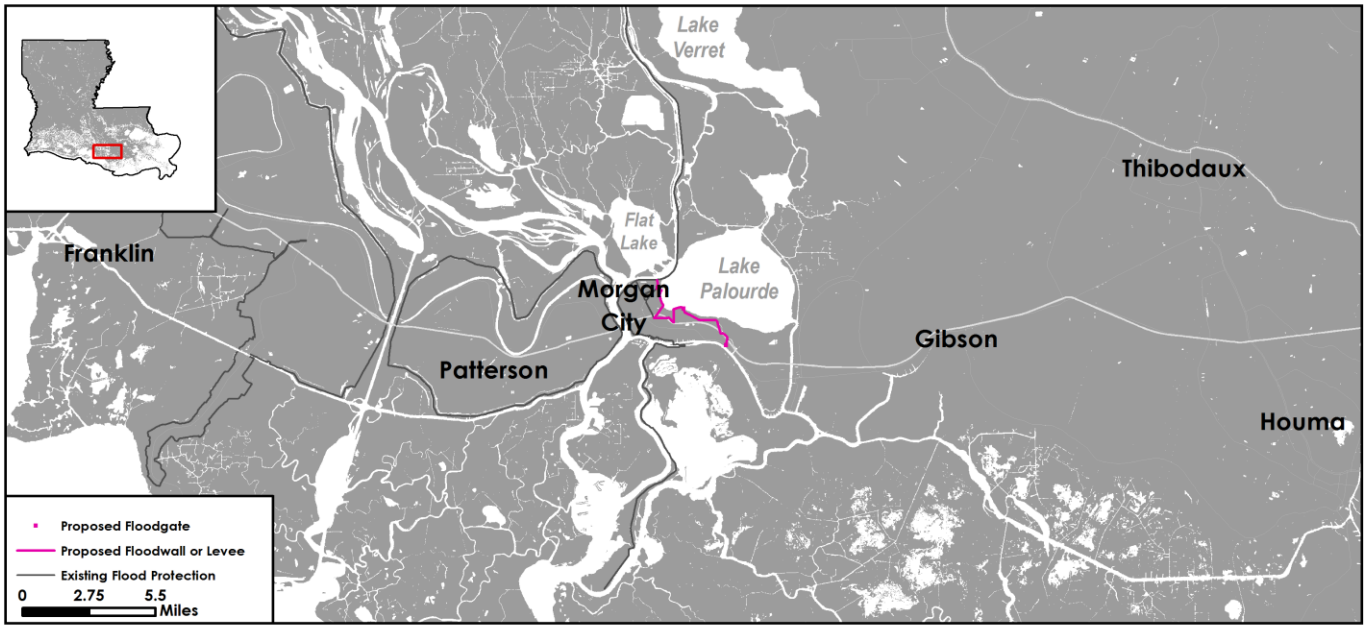
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$4,411 M	$3,559 M	$4,466 M	$3,734 M	$4,507 M	$3,869 M
Assumption - Amelia	$49 M	$46 M	$50 M	$46 M	$50 M	$47 M
St. Martin	$615 M	$530 M	$621 M	$574 M	$625 M	$583 M
St. Mary - Lower	$4,564 M	$2,754 M	$4,783 M	$2,880 M	$4,848 M	$3,197 M
St. Mary - Morgan City	$10,556 M	$7,654 M	$10,878 M	$7,705 M	$11,666 M	$7,959 M
Terrebonne - Lower	$1,129 M	$1,129 M	$1,138 M	$1,141 M	$1,150 M	$1,149 M
Total	**$21,324 M**	**$15,671 M**	**$21,935 M**	**$16,080 M**	**$22,845 M**	**$16,804 M**

Morgan City Back Levee

Structural Protection

Project ID: 03b.HP.10



Description

Construction of a levee to an elevation between 10 and 12 feet NAVD88 to protect the northern side of Morgan City. Project features approximately 30,600 feet of earthen levee, approximately 4,600 feet of T-wall, (1) 40-foot swing gate, (1) 30-foot barge gate, and (1) pump station with a total capacity of 1,604 cfs.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Mary Parish

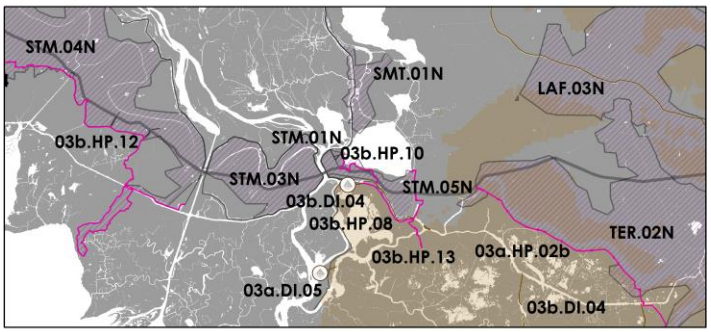
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 3 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$17,600,000
Construction	$121,900,000
Operations & Maintenance	$1,000,000
Total	**$140,500,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	12,400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	44%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	26

2017 Coastal Master Plan
Implementation Period II

Morgan City Back Levee

Structural Protection

Project ID: 03b.HP.10

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$24 M	-	-
25	$172 M	$164 M	**$8 M**
50	$1,472 M	$1,433 M	**$39 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

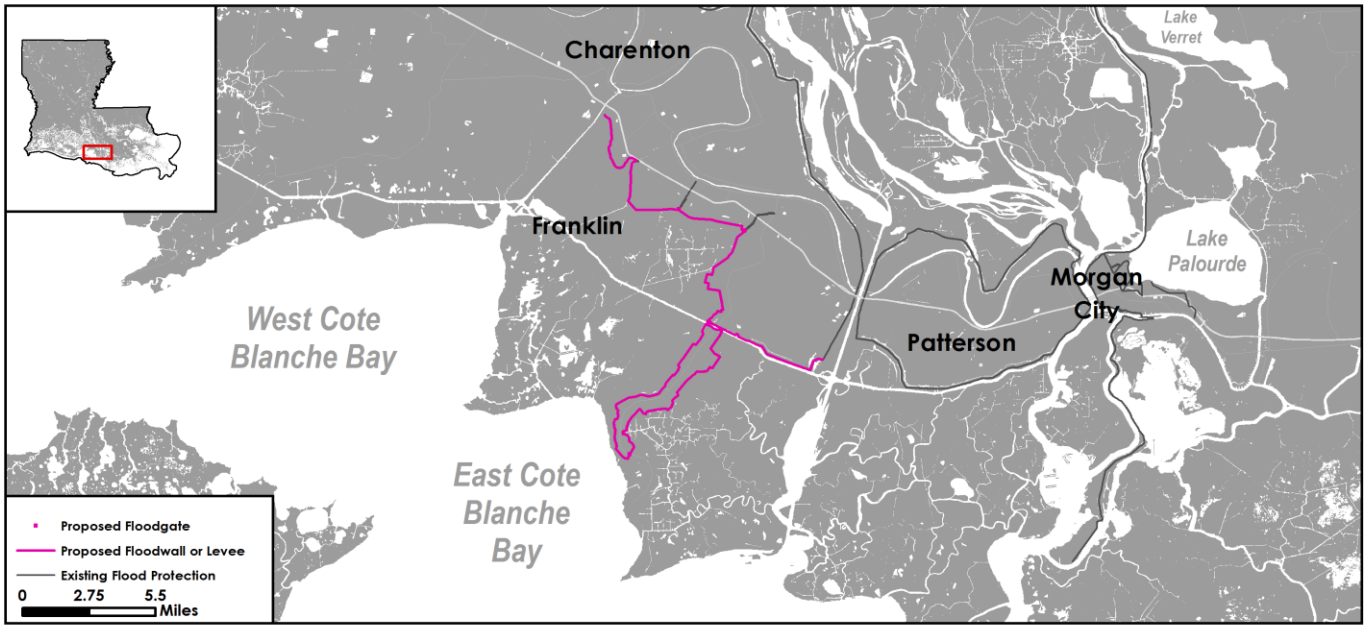
Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	-
Electric Power Substation	-	2
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	3
Electric Power Plant	-	3
Port	-	-
Petroleum Pump Station	-	-
Refinery	-	-
Water and Sewer	-	2
Strategic Petroleum Reserve	-	-
Total	**-**	**13**

Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$3,992 M	$3,937 M	$4,036 M	$3,981 M	$4,076 M	$4,031 M
Assumption - Amelia	$49 M	$49 M	$50 M	$50 M	$50 M	$50 M
St. Martin	$612 M	$611 M	$618 M	$617 M	$622 M	$621 M
St. Mary - Lower	$4,117 M	$4,304 M	$4,327 M	$4,376 M	$4,389 M	$4,423 M
St. Mary - Morgan City	$10,461 M	$11,913 M	$10,778 M	$13,151 M	$11,561 M	$14,742 M
Total	**$19,230 M**	**$20,815 M**	**$19,809 M**	**$22,175 M**	**$20,698 M**	**$23,867 M**

Franklin and Vicinity
Structural Protection
Project ID: 03b.HP.12



Description
Improvements of existing levees to an elevation between 12.5 and 18 feet NAVD88 from the Wax Lake Outlet to the Charenton Canal as well as the Bayou Sale polder. Project features approximately 204,600 feet of earthen levee, approximately 8,700 feet of T-wall, (2) 16-foot sluice gates, and (1) 40-foot roller gate.

Scale of Influence
Local **Sub-basin** Basin Regional

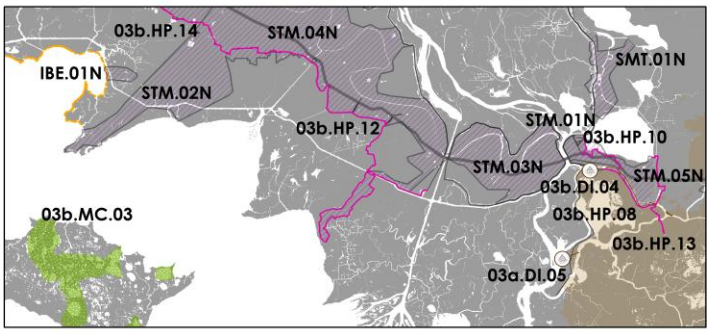
Project Location
St. Mary Parish

Project Duration
Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$57,700,000
Construction	$299,700,000
Operations & Maintenance	$23,200,000
Total	**$380,600,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	10,000
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	50%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	69

2017 Coastal Master Plan
Implementation Period II

Franklin and Vicinity
Structural Protection
Project ID: 03b.HP.12

Economic Damage
Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$51 M	-	-
25	$128 M	$107 M	**$21 M**
50	$445 M	$291 M	**$154 M**

Critical Infrastructure
The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

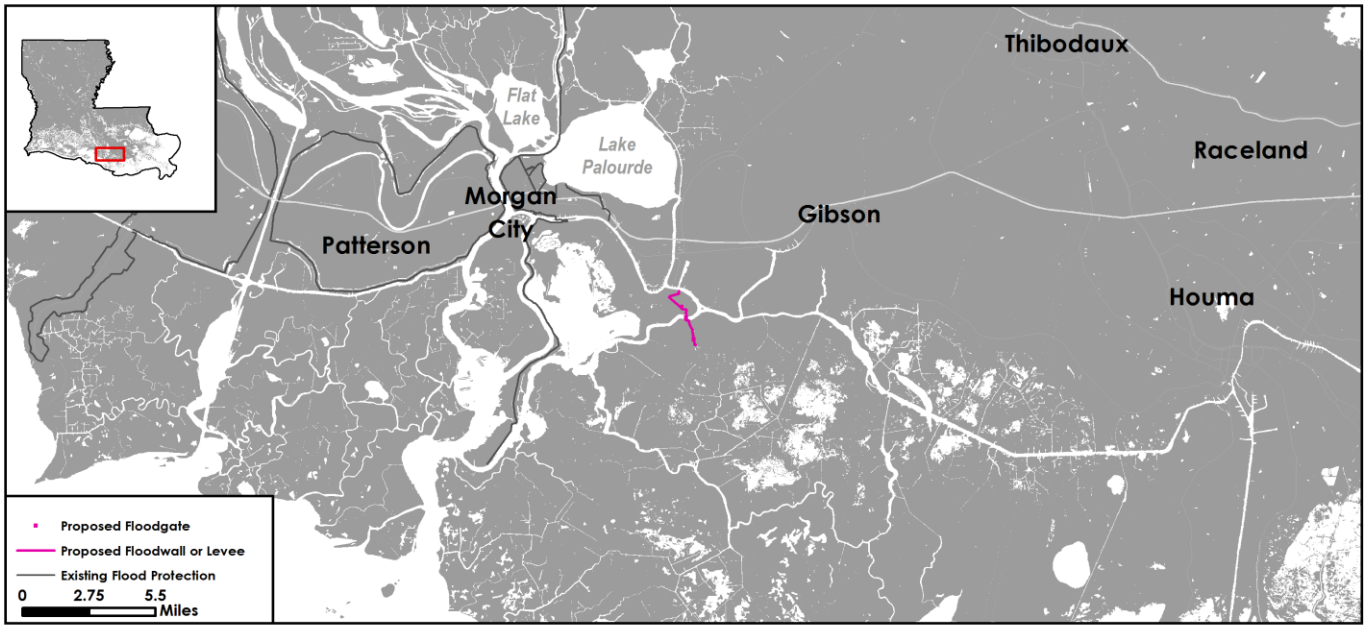
Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	1	12
Government/Military	-	-
Electric Power Substation	3	4
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	2	3
Electric Power Plant	3	10
Port	-	1
Petroleum Pump Station	-	4
Refinery	-	-
Water and Sewer	-	-
Strategic Petroleum Reserve	-	-
Total	**9**	**34**

Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Iberia - Lower	$41 M	$41 M	$42 M	$41 M	$42 M	$41 M
St. Mary - Franklin/Charenton	$7,295 M	$3,142 M	$9,381 M	$4,168 M	$10,484 M	$5,415 M
St. Mary - Glencoe	$230 M	$232 M	$238 M	$237 M	$240 M	$239 M
St. Mary - Lower	$579 M	$577 M	$592 M	$590 M	$615 M	$613 M
St. Mary - Morgan City	$95 M	$95 M	$99 M	$99 M	$100 M	$100 M
St. Mary - Patterson	$111 M	$111 M	$113 M	$113 M	$114 M	$116 M
Total	**$8,352 M**	**$4,199 M**	**$10,464 M**	**$5,249 M**	**$11,595 M**	**$6,526 M**

Bayou Chene
Structural Protection
Project ID: 03b.HP.13



Description
Construction of a structure across Bayou Chene near Amelia.

Scale of Influence
Local Sub-basin Basin Regional

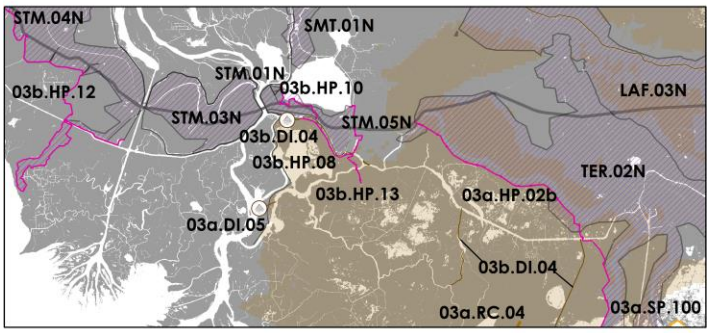
Project Location
St. Mary Parish; Terrebonne Parish

Project Duration
Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$0
Construction	$80,000,000
Operations & Maintenance	$0
Total	**$80,000,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	0
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	-
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period 1

Bayou Chene
Structural Protection
Project ID: 03b.HP.13

Economic Damage
Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$15 M	-	-
25	$95 M	$91 M	**$4 M**
50	$1,234 M	$1,249 M	**-$16 M**

Critical Infrastructure
The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	1
Government/Military	-	-
Electric Power Substation	-	1
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	3
Electric Power Plant	-	2
Port	-	-
Petroleum Pump Station	-	-
Refinery	-	-
Water and Sewer	-	2
Strategic Petroleum Reserve	-	-
Total	**-**	**9**

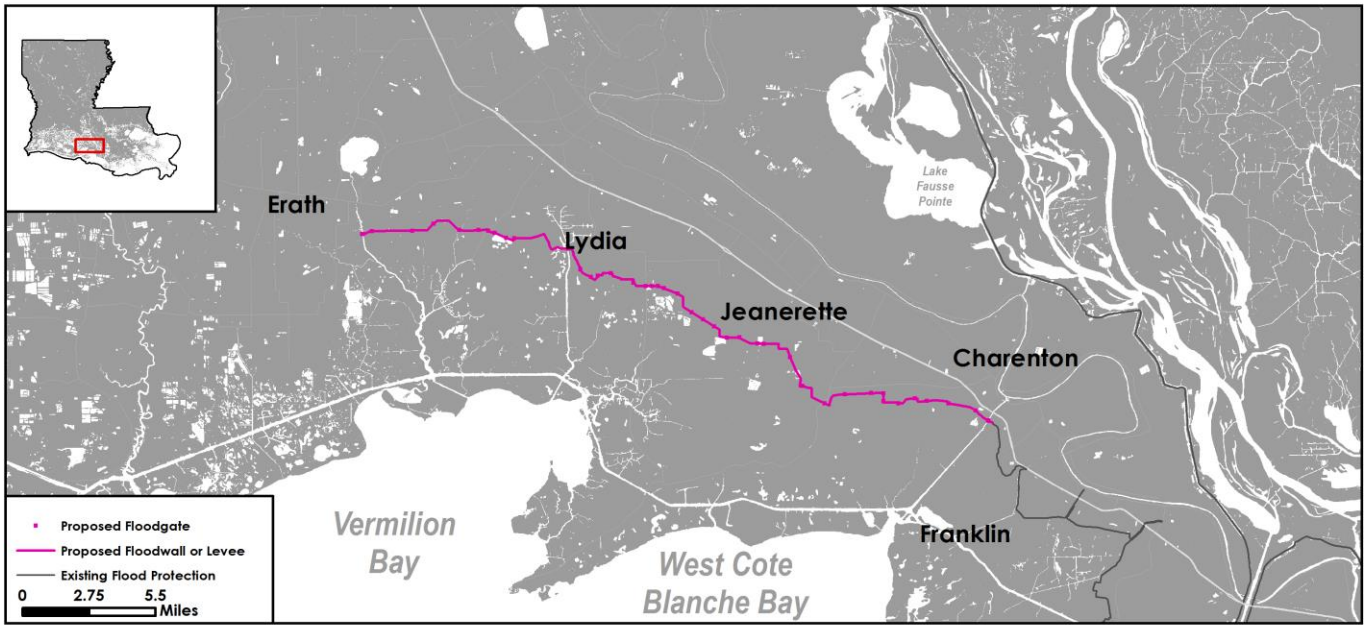
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$661 M	$666 M	$672 M	$676 M	$674 M	$679 M
St. Martin	$365 M	$365 M	$368 M	$367 M	$370 M	$370 M
St. Mary - Lower	$3,990 M	$4,097 M	$4,196 M	$4,179 M	$4,238 M	$4,231 M
St. Mary - Morgan City	$10,461 M	$10,599 M	$10,779 M	$11,007 M	$11,566 M	$12,193 M
Terrebonne - Lower	$2 M	$2 M	$2 M	$2 M	$2 M	$2 M
Total	**$15,479 M**	**$15,729 M**	**$16,016 M**	**$16,232 M**	**$16,850 M**	**$17,476 M**

Iberia/St. Mary Upland Levee

Structural Protection

Project ID: 03b.HP.14



Description

Construction of a levee to an elevation between 15.5 to 20 feet NAVD88 in Iberia and St. Mary Parishes between the Delcambre Canal and the Charenton Canal. Project features approximately 158,300 feet of earthen levee, approximately 15,100 feet of T-wall, (3) 110-foot barge gates, (5) 30-foot barge gates, (8) 24-foot sluice gates, (11) 16-foot sluice gates, (11) 8-foot sluice gates, (2) 40-foot swing gates, (2) 40-foot roller gates, and (7) pump stations with a total capacity of 16,320 cfs.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. Mary Parish; Iberia Parish

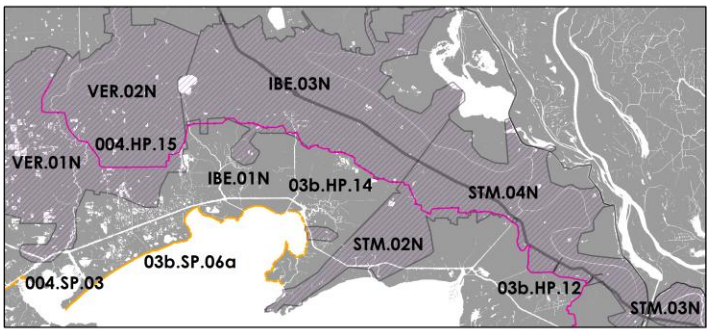
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$209,000,000
Construction	$1,086,500,000
Operations & Maintenance	$186,600,000
Total	**$1,482,100,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	83,400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	39%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	525

2017 Coastal Master Plan
Implementation Period 1

Iberia/St. Mary Upland Levee

Structural Protection

Project ID: 03b.HP.14

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$279 M	-	-
25	$617 M	$483 M	**$134 M**
50	$1,310 M	$1,057 M	**$253 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	30
Government/Military	-	-
Electric Power Substation	4	21
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	4
Electric Power Plant	1	9
Port	-	4
Petroleum Pump Station	-	9
Refinery	-	-
Water and Sewer	-	2
Strategic Petroleum Reserve	-	-
Total	**5**	**79**

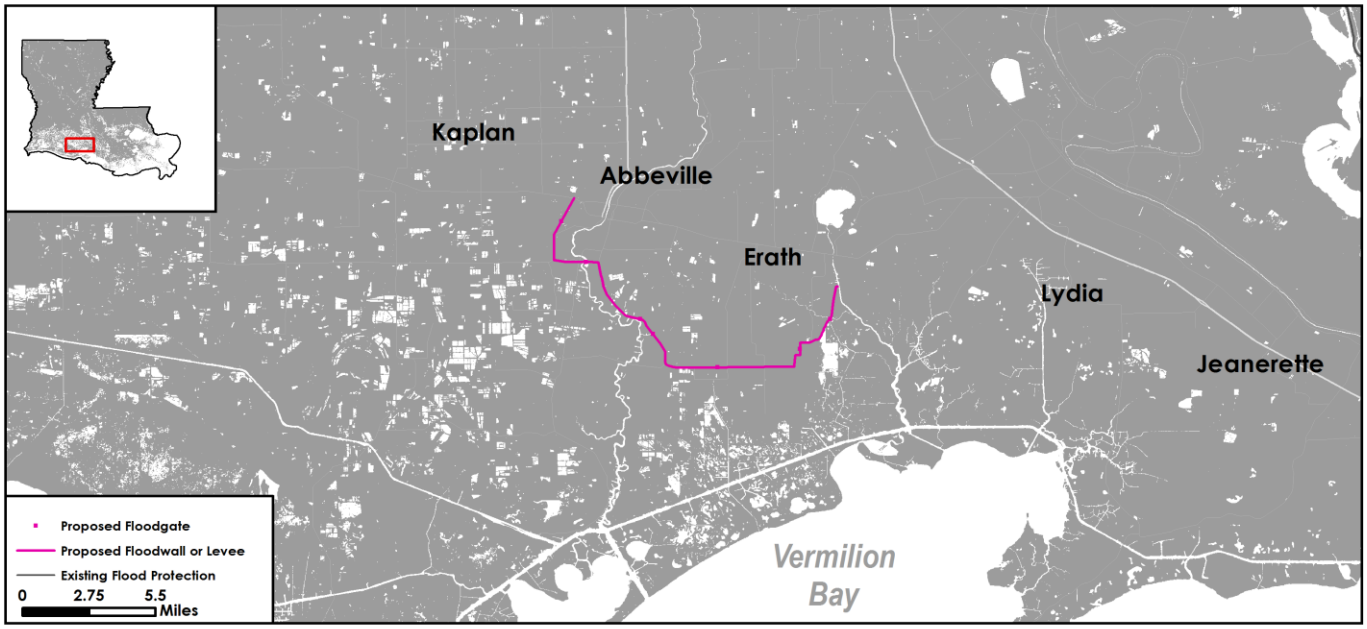
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Iberia - Atchafalaya	$7,766 M	$3,140 M	$9,612 M	$3,632 M	$11,158 M	$4,086 M
Iberia - Lower	$68 M	$69 M	$69 M	$69 M	$69 M	$70 M
Lafayette	$5 M	$4 M	$7 M	$5 M	$55 M	$7 M
St. Mary - Franklin/Charenton	$7,293 M	$5,818 M	$9,379 M	$8,093 M	$10,482 M	$9,347 M
St. Mary - Glencoe	$230 M	$245 M	$238 M	$249 M	$240 M	$251 M
St. Mary - Morgan City	$96 M	$99 M	$100 M	$103 M	$104 M	$105 M
Vermilion	$5,324 M	$5,366 M	$6,172 M	$6,196 M	$6,500 M	$6,549 M
Vermilion - Abbeville/Delcambre	$7,205 M	$7,194 M	$10,196 M	$9,983 M	$12,823 M	$12,657 M
Total	**$27,986 M**	**$21,933 M**	**$35,772 M**	**$28,331 M**	**$41,431 M**	**$33,071 M**

Abbeville and Vicinity

Structural Protection

Project ID: 004.HP.15



Description

Construction of a levee to an elevation of 23.5 feet NAVD88 in the area south of Delcambre, Erath, and Abbeville roughly following Highway 330. Project features approximately 102,700 feet of earthen levee, approximately 2,800 feet of T-wall, (2) 56-foot sector gates, (3) 30-foot stop logs, (1) 20-foot stop log, and (1) 20-foot sluice gate.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Iberia Parish; Vermilion Parish

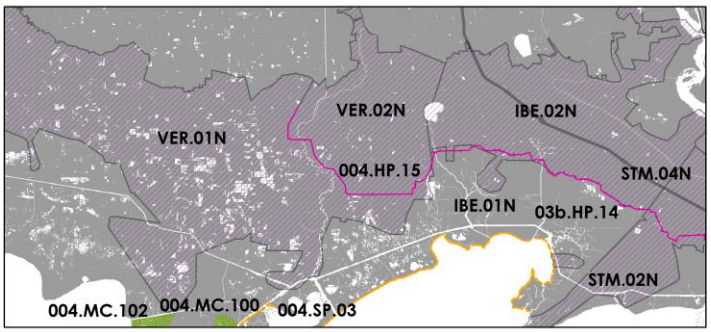
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$93,700,000
Construction	$647,200,000
Operations & Maintenance	$14,400,000
Total	**$755,300,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	19,500
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	41%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	341

2017 Coastal Master Plan
Implementation Period II

Abbeville and Vicinity

Structural Protection

Project ID: 004.HP.15

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$253 M	-	-
25	$565 M	$514 M	**$51 M**
50	$1,219 M	$1,087 M	**$132 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	22
Government/Military	-	-
Electric Power Substation	1	19
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	4
Electric Power Plant	-	8
Port	-	4
Petroleum Pump Station	1	9
Refinery	-	-
Water and Sewer	-	2
Strategic Petroleum Reserve	-	-
Total	**2**	**68**

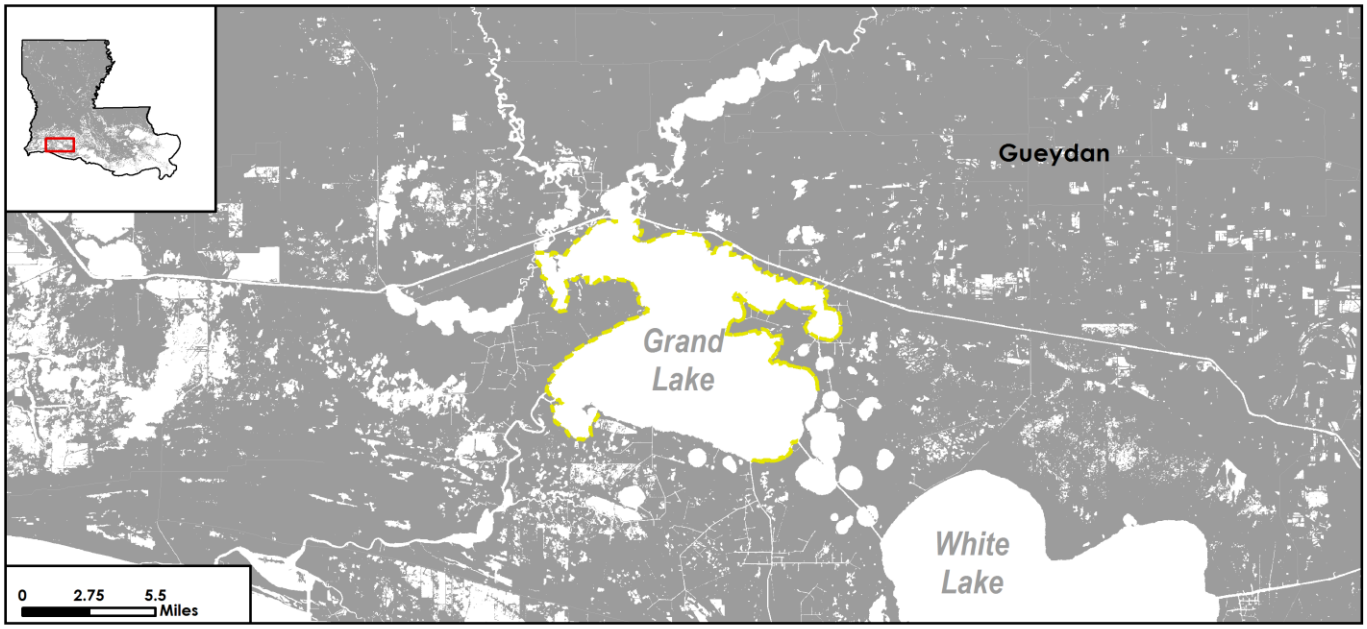
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Iberia - Atchafalaya	$7,766 M	$7,720 M	$9,612 M	$9,552 M	$11,158 M	$11,323 M
Iberia - Lower	$68 M	$68 M	$69 M	$68 M	$69 M	$69 M
Lafayette	$5 M	$5 M	$7 M	$5 M	$55 M	$24 M
St. Mary - Glencoe	$230 M	$233 M	$238 M	$238 M	$240 M	$240 M
Vermilion	$4,474 M	$4,552 M	$5,057 M	$5,146 M	$5,351 M	$5,430 M
Vermilion - Abbeville/Delcambre	$7,205 M	$4,512 M	$10,196 M	$4,882 M	$12,823 M	$5,801 M
Total	**$19,748 M**	**$17,090 M**	**$25,179 M**	**$19,892 M**	**$29,697 M**	**$22,886 M**

Grand Lake Bank Stabilization

Bank Stabilization

Project ID: 004.BS.01



Description

Bank stabilization through earthen fill placement, high performance turf reinforcement mats, and vegetative plantings to a design elevation of 4 feet NAVD88 around approximately 298,800 feet of perimeter shoreline at Grand Lake.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

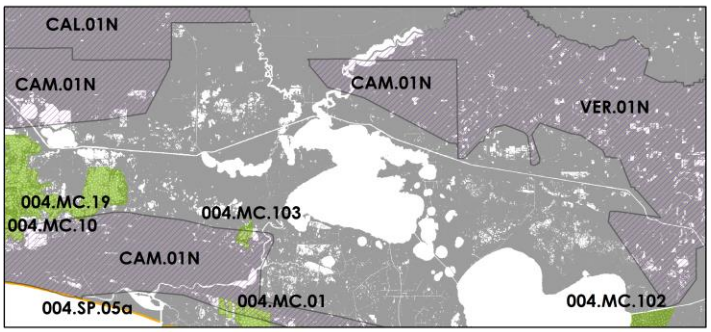
	Estimated Cost
Planning/Engineering & Design	$9,900,000
Construction	$124,300,000
Operations & Maintenance	$66,900,000
Total	**$201,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	54 acres
Long Term (Year 50)	-227 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

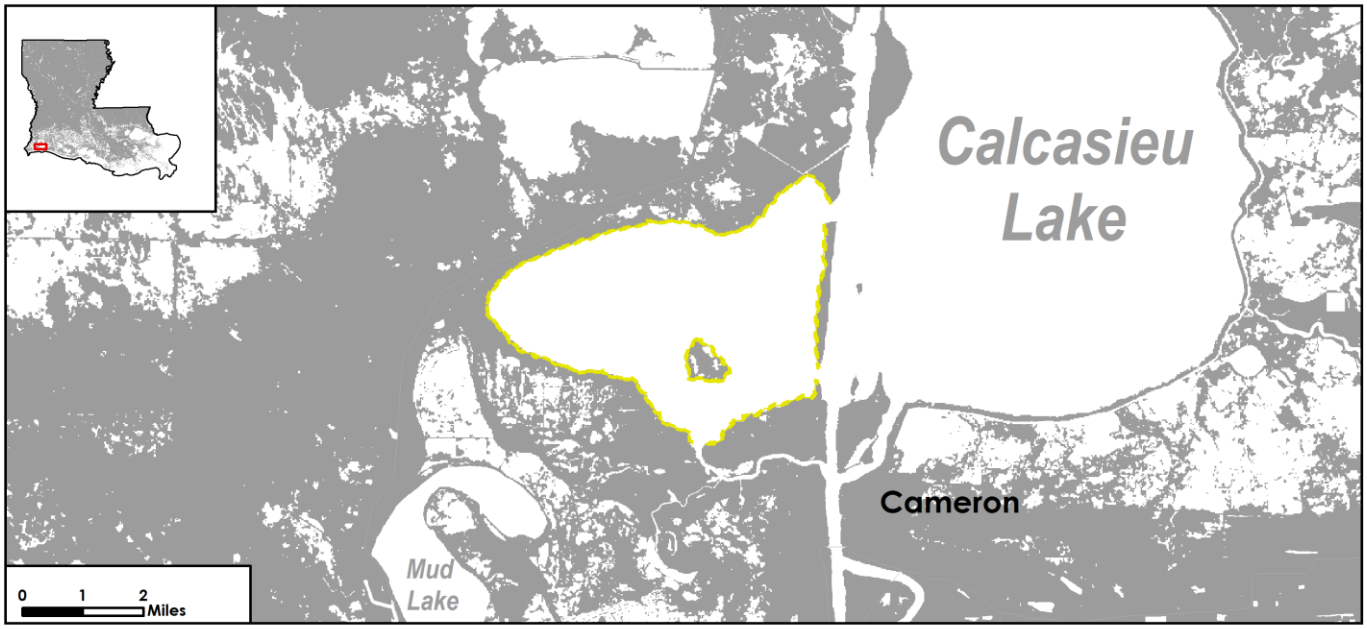


2017 Coastal Master Plan
Not Selected

West Cove Bank Stabilization

Bank Stabilization

Project ID: 004.BS.02



Description

Bank stabilization through earthen fill placement, high performance turf reinforcement mats, and vegetative plantings to a design elevation of 4 feet NAVD88 around approximately 97,900 feet of perimeter shoreline at West Cove of Calcasieu Lake.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 2 years.

Project Cost Estimate

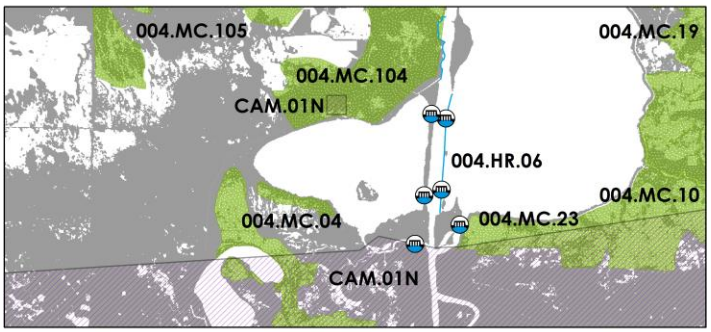
	Estimated Cost
Planning/Engineering & Design	$3,100,000
Construction	$38,900,000
Operations & Maintenance	$22,100,000
Total	**$64,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	-4 acres
Long Term (Year 50)	1 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

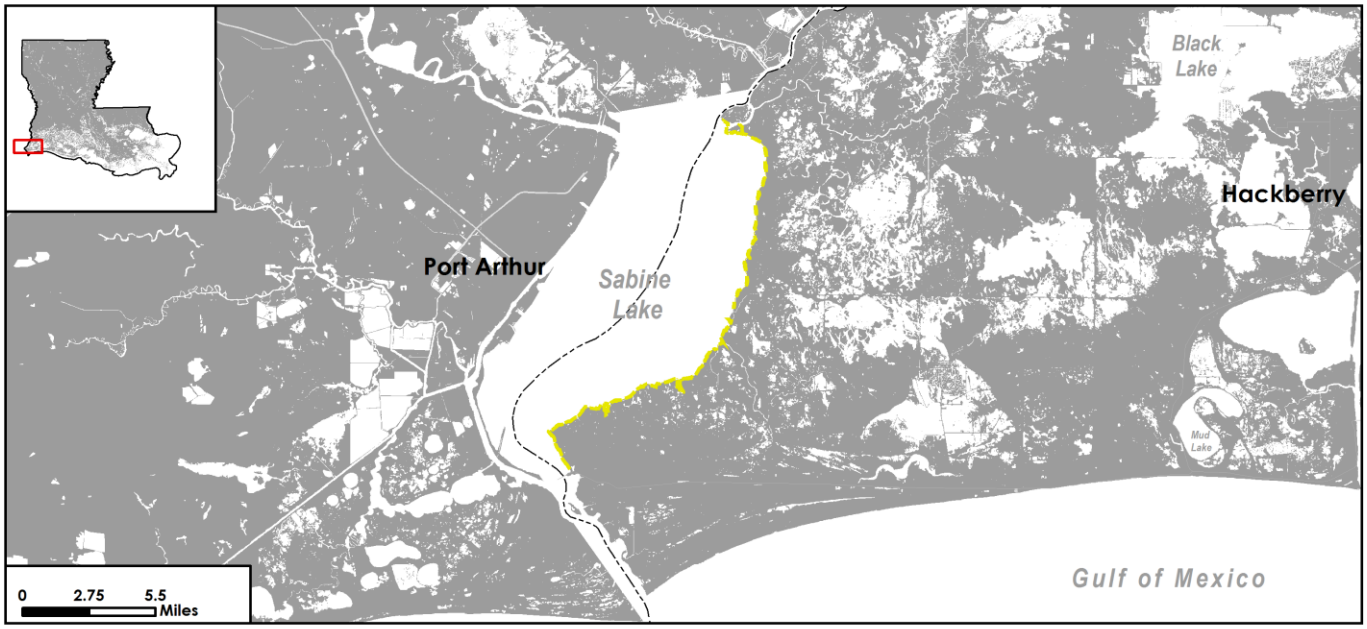


2017 Coastal Master Plan
Not Selected

Sabine Lake Bank Stabilization

Bank Stabilization

Project ID: 004.BS.05



Description

Bank stabilization through earthen fill placement, high performance turf reinforcement mats, and vegetative plantings to a design elevation of 4 feet NAVD88 along approximately 128,200 feet of perimeter shoreline at Sabine Lake.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 2 years.

Project Cost Estimate

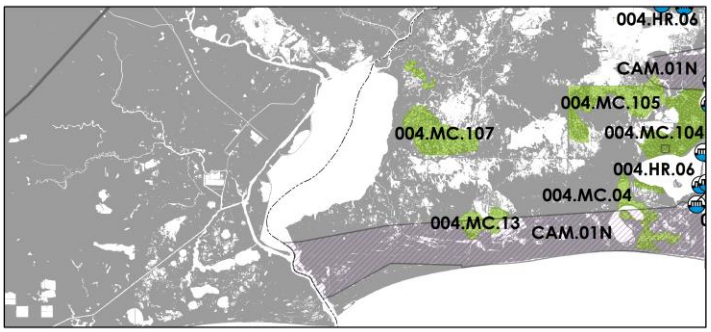
	Estimated Cost
Planning/Engineering & Design	$7,000,000
Construction	$87,800,000
Operations & Maintenance	$44,700,000
Total	**$139,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	7 acres
Long Term (Year 50)	-7 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

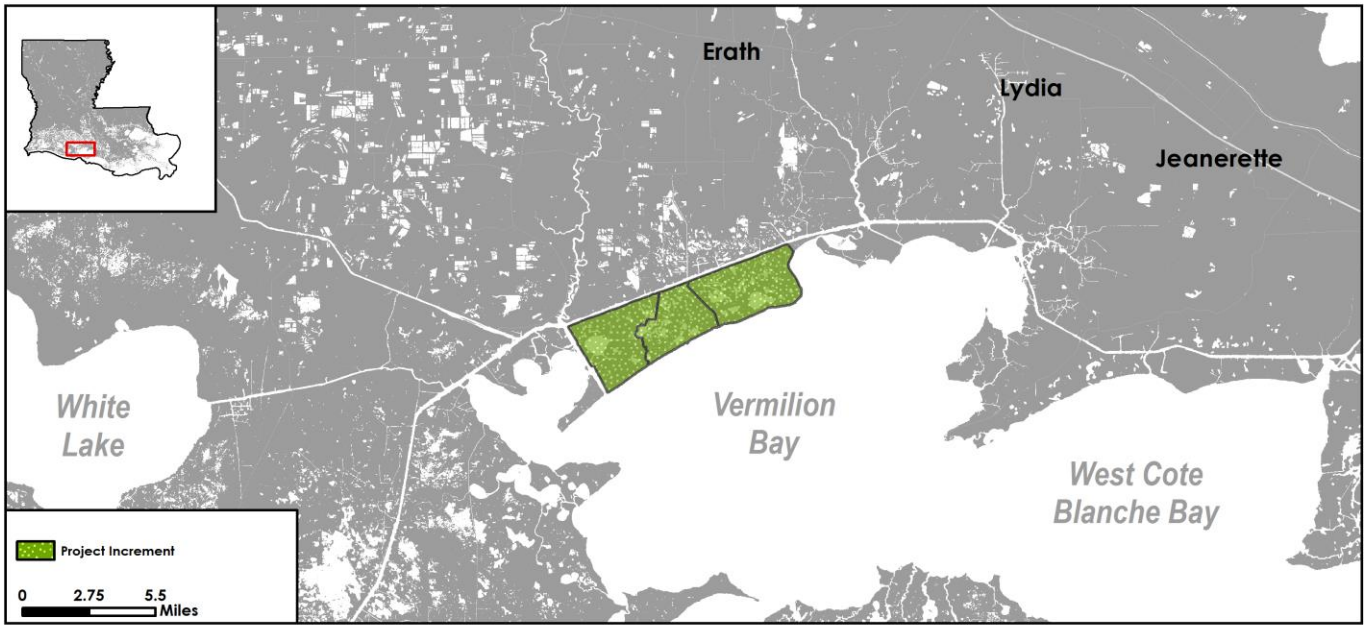


2017 Coastal Master Plan
Not Selected

Vermilion Bay Marsh Creation

Marsh Creation

Project ID: 03b.MC.100



Description

Creation of approximately 12,500 acres of marsh along Vermilion Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

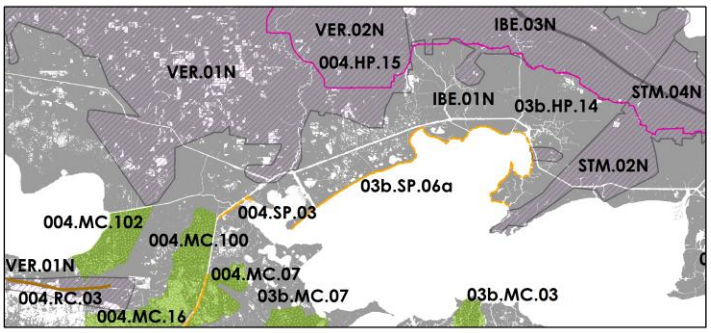
	Estimated Cost
Planning/Engineering & Design	$38,100,000
Construction	$476,100,000
Operations & Maintenance	$17,000,000
Total	**$531,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,349 acres
Long Term (Year 50)	9,060 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

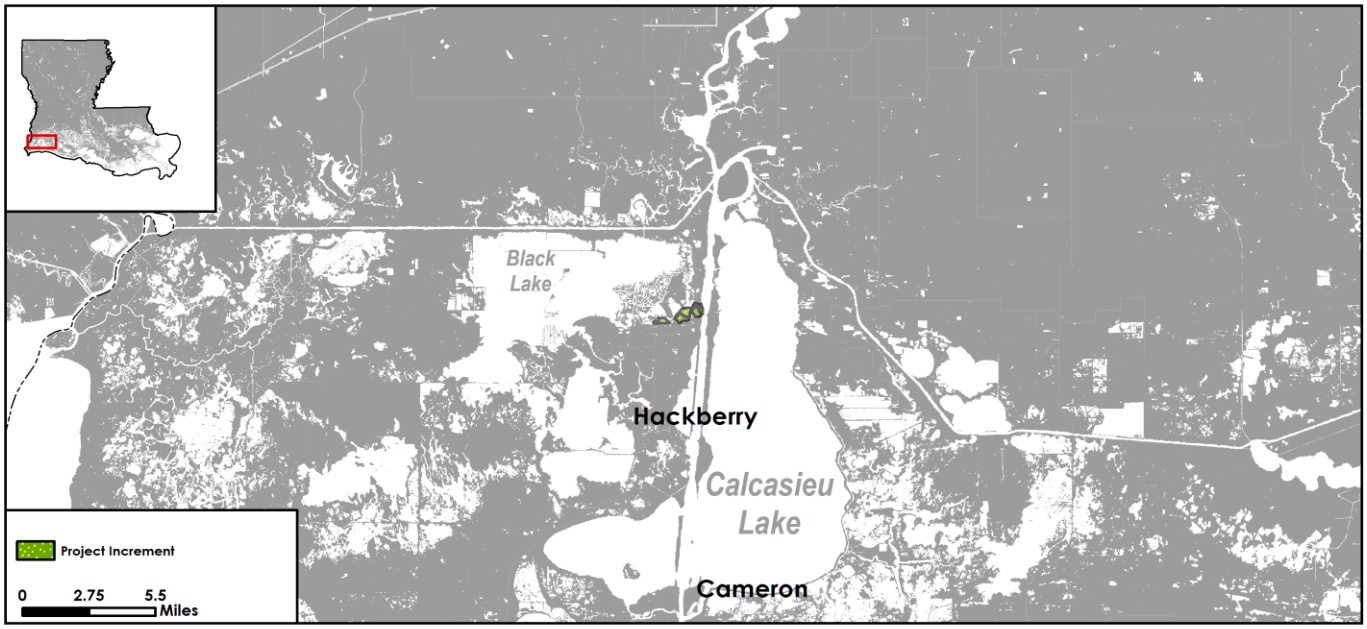


2017 Coastal Master Plan
Not Selected

Kelso Bayou Marsh Creation

Marsh Creation

Project ID: 004.MC.25



Description

Creation of approximately 300 acres of marsh at Kelso Bayou immediately west of Calcasieu Ship Channel to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

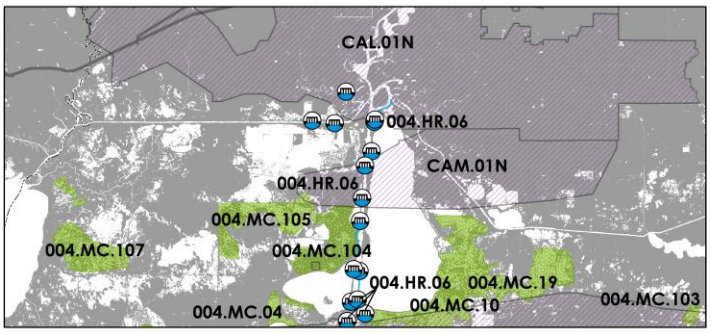
	Estimated Cost
Planning/Engineering & Design	$2,700,000
Construction	$34,100,000
Operations & Maintenance	$1,300,000
Total	**$38,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	273 acres
Long Term (Year 50)	-41 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



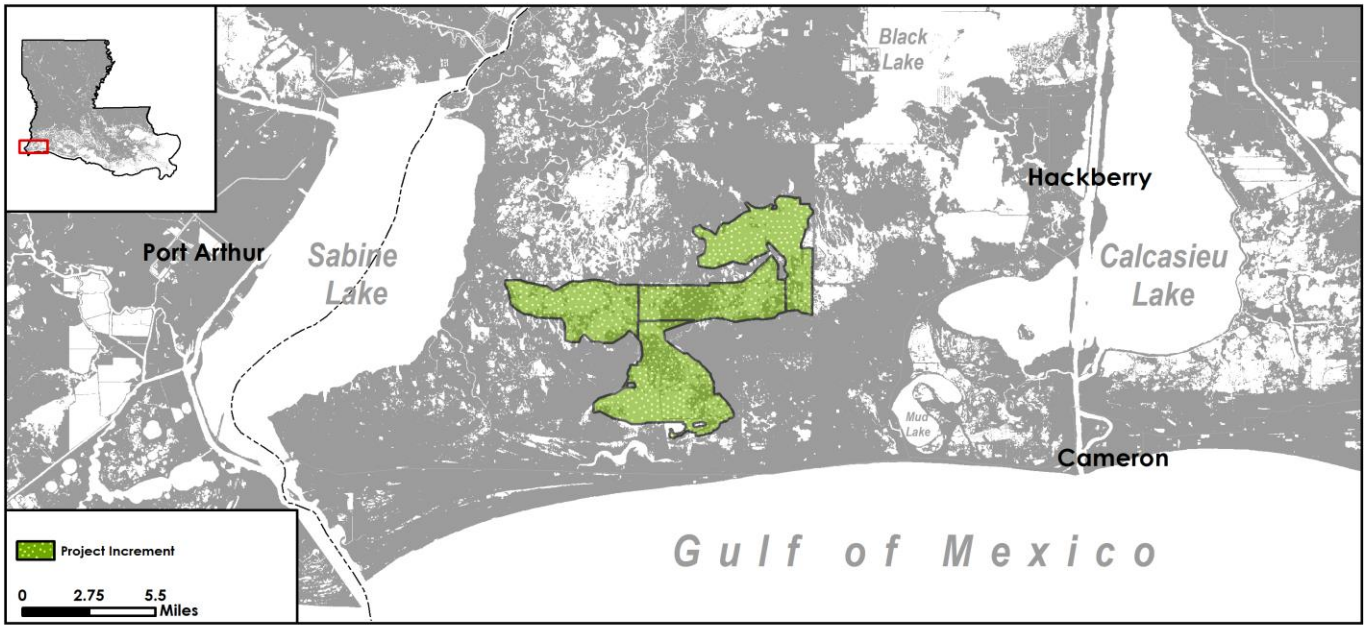
2017 Coastal Master Plan

Not Selected

Cameron Meadows and Vicinity Marsh Creation

Marsh Creation

Project ID: 004.MC.106



Description

Creation of approximately 27,100 acres of marsh in the vicinity of Cameron Meadows and Sabine National Wildlife Refuge to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 17 years.

Project Cost Estimate

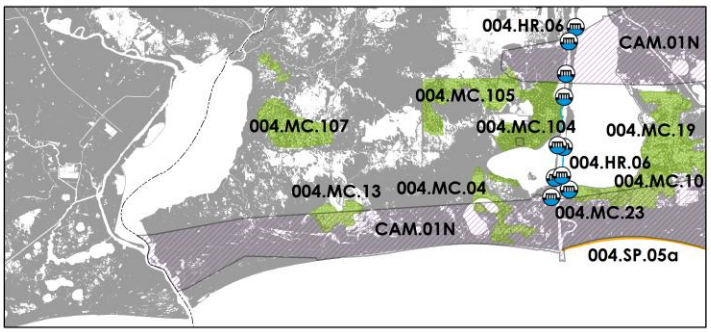
	Estimated Cost
Planning/Engineering & Design	$122,500,000
Construction	$1,531,700,000
Operations & Maintenance	$52,800,000
Total	**$1,707,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	263 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

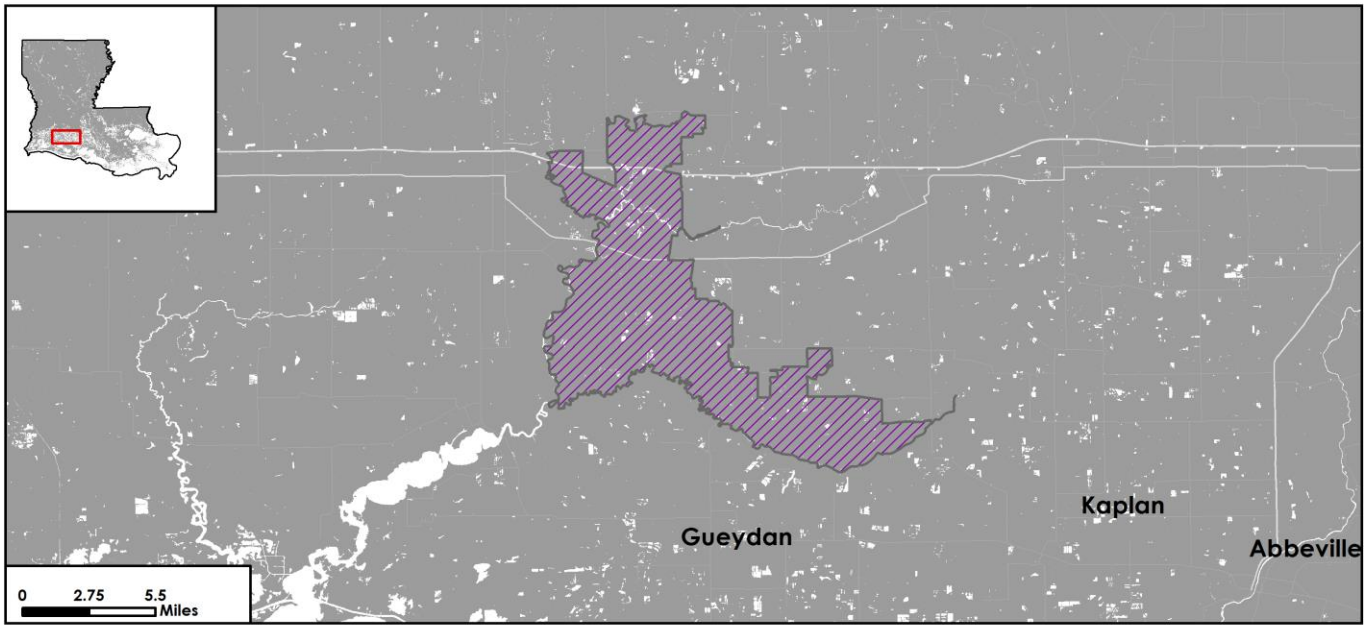


2017 Coastal Master Plan
Not Selected

Acadia

Nonstructural Risk Reduction

Project ID: ACA.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Acadia Parish

Project Duration

Construction is estimated to take 2 years.

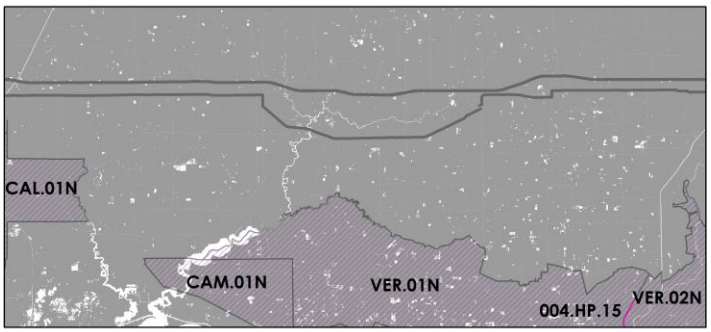
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	3	$2,700,000
Residential Elevation	32	$5,000,000
Residential Acquisition	0	$0
Total	**35**	**$7,700,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	4,683
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	36%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Acadia
Nonstructural Risk Reduction
Project ID: ACA.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	$1 M	< $1 M	**< $1 M**
25	$3 M	$2 M	**$1 M**
50	$12 M	$10 M	**$2 M**

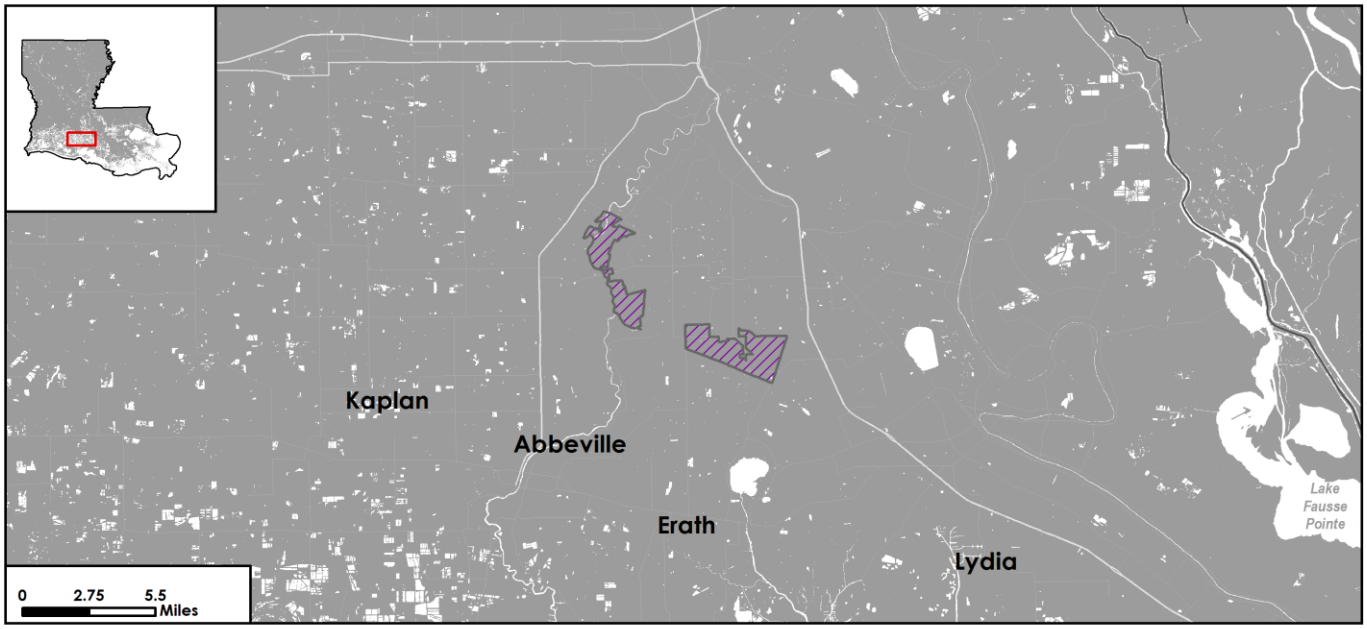
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$5 M	-	$59 M	-	$66 M	-
10	$48 M	$21 M	$64 M	$30 M	$72 M	$39 M
25	$57 M	$28 M	$119 M	$86 M	$145 M	$114 M
50	$176 M	$157 M	$438 M	$419 M	$530 M	$511 M

Lafayette

Nonstructural Risk Reduction

Project ID: LFT.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafayette Parish

Project Duration

No action required.

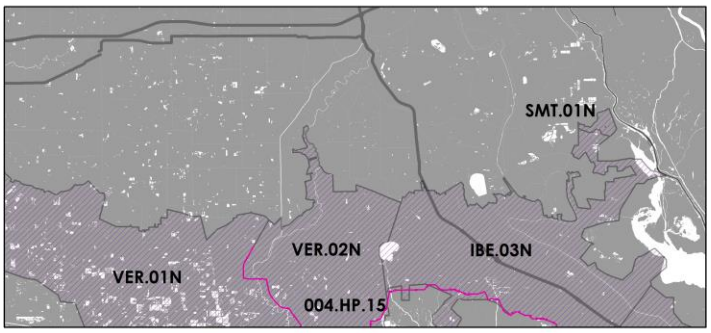
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	8,895
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Lafayette
Nonstructural Risk Reduction
Project ID: LFT.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	< $1 M	< $1 M	**$0 M**
50	< $1 M	< $1 M	**$0 M**

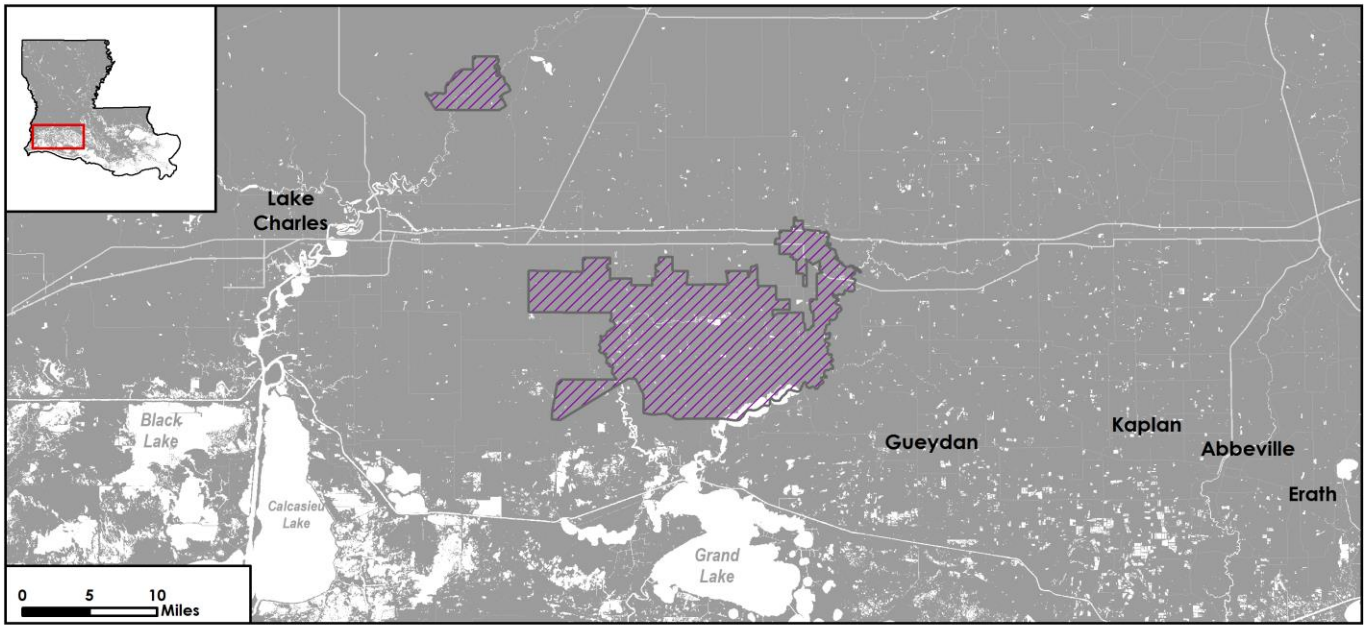
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$3 M	-	$3 M	-	$3 M	-
10	$3 M	$3 M	$3 M	$3 M	$3 M	$3 M
25	$3 M	$3 M	$3 M	$3 M	$3 M	$3 M
50	$5 M	$5 M	$7 M	$7 M	$52 M	$52 M

Jefferson Davis

Nonstructural Risk Reduction

Project ID: JFD.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Davis Parish

Project Duration

Construction is estimated to take 2 years.

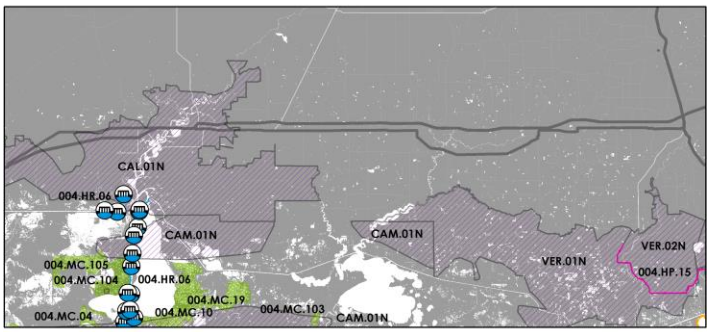
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	7	$4,400,000
Residential Elevation	185	$28,200,000
Residential Acquisition	0	$0
Total	**192**	**$32,600,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	19,194
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	44%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1

2017 Coastal Master Plan

Not Selected

Jefferson Davis
Nonstructural Risk Reduction
Project ID: JFD.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$5 M	-	-
10	$9 M	$7 M	**$2 M**
25	$19 M	$17 M	**$2 M**
50	$68 M	$63 M	**$5 M**

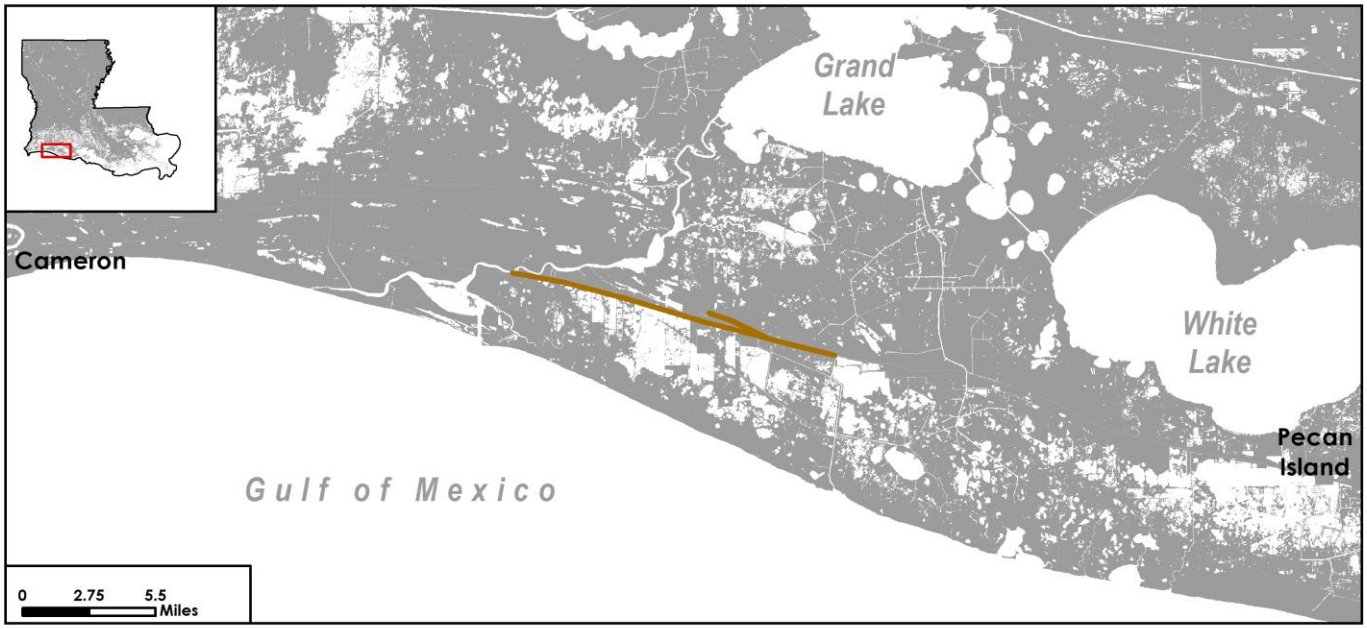
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$49 M	-	$225 M	-	$354 M	-
10	$181 M	$151 M	$365 M	$250 M	$514 M	$397 M
25	$261 M	$201 M	$771 M	$684 M	$896 M	$828 M
50	$1,459 M	$1,403 M	$2,259 M	$2,222 M	$2,320 M	$2,284 M

Grand Chenier Ridge Restoration

Ridge Restoration

Project ID: 004.RC.01



Description

Restoration of approximately 86,300 feet of the Grand Chenier Ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

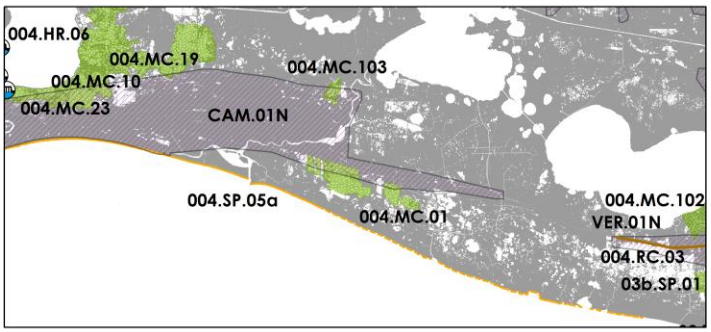
	Estimated Cost
Planning/Engineering & Design	$1,700,000
Construction	$17,500,000
Operations & Maintenance	$5,400,000
Total	**$24,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	10 acres
Long Term (Year 50)	-40 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



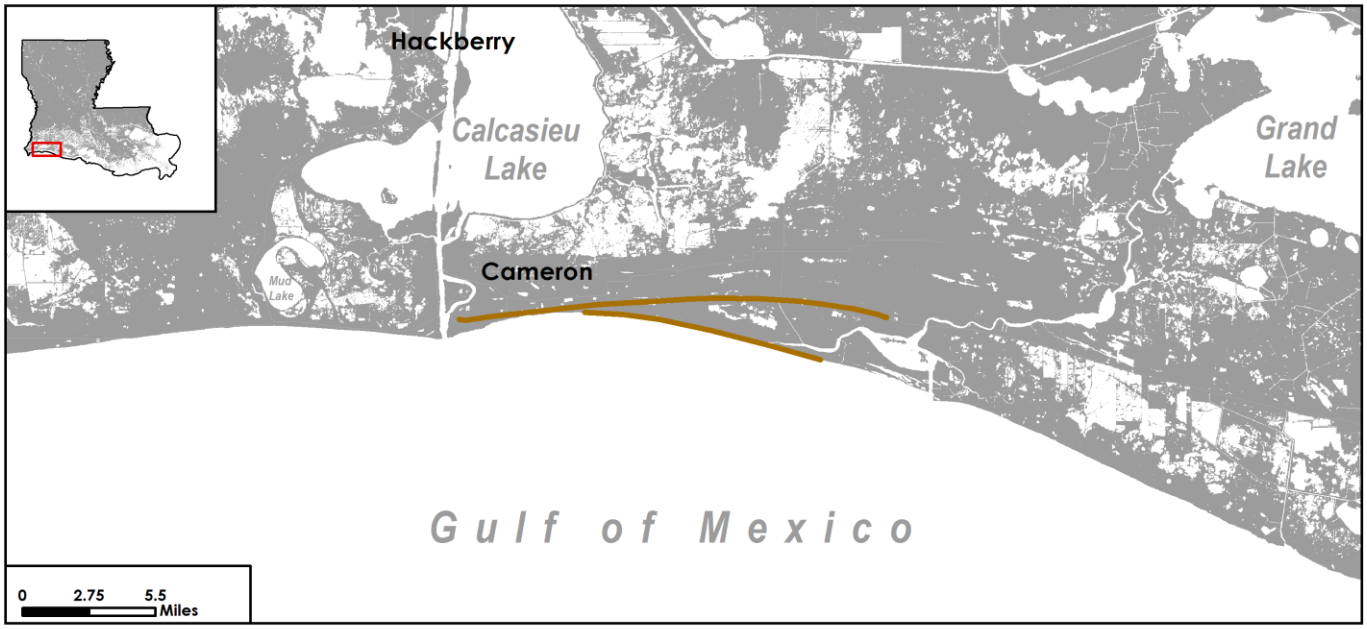
2017 Coastal Master Plan

Not Selected

Front Ridge Restoration

Ridge Restoration

Project ID: 004.RC.05



Description

Restoration of approximately 147,000 feet of Front Ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

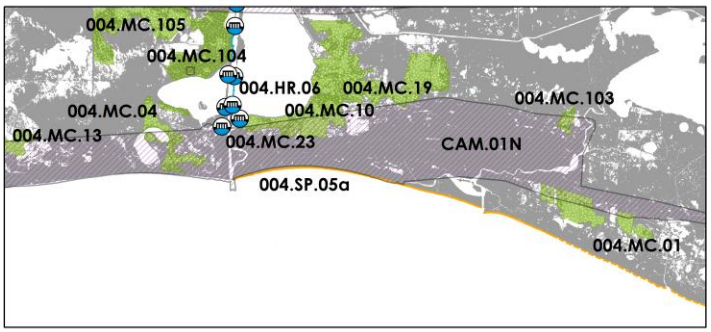
	Estimated Cost
Planning/Engineering & Design	$2,700,000
Construction	$28,400,000
Operations & Maintenance	$8,700,000
Total	**$39,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	47 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



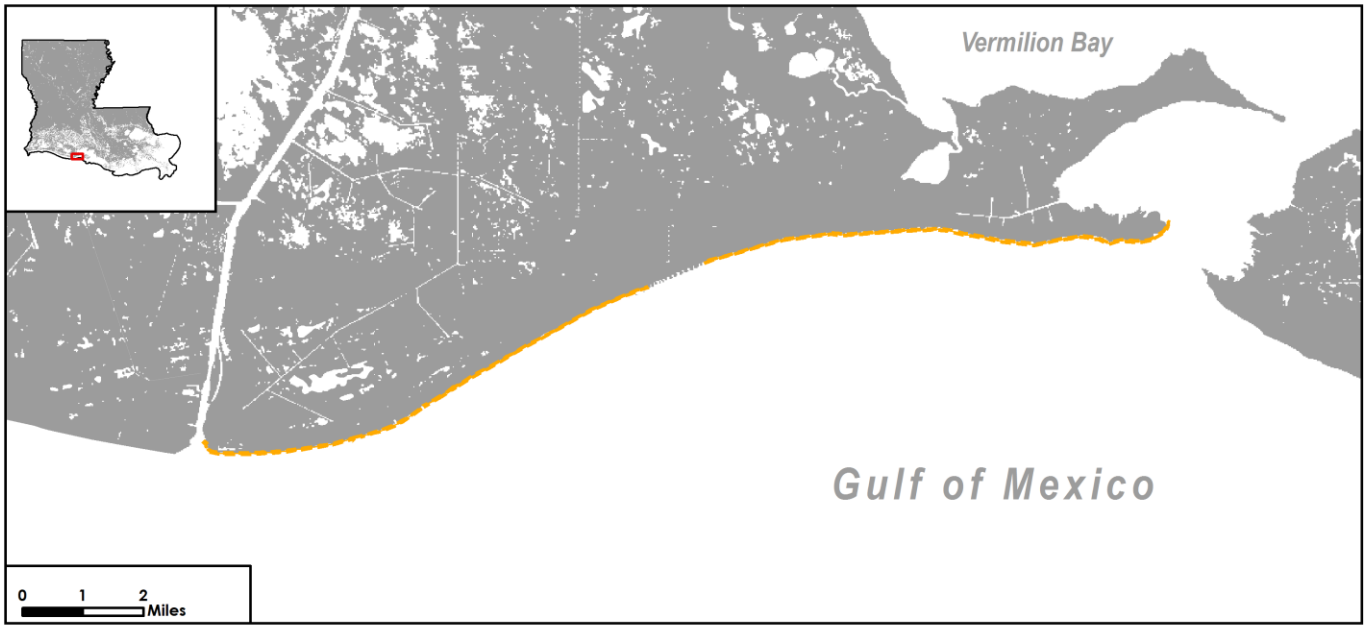
2017 Coastal Master Plan

Not Selected

Gulf Shoreline (Freshwater Bayou to Southwest Pass)

Shoreline Protection

Project ID: 03b.SP.05



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 79,800 feet of Gulf shoreline from Freshwater Bayou to Southwest Pass (near Marsh Island) to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

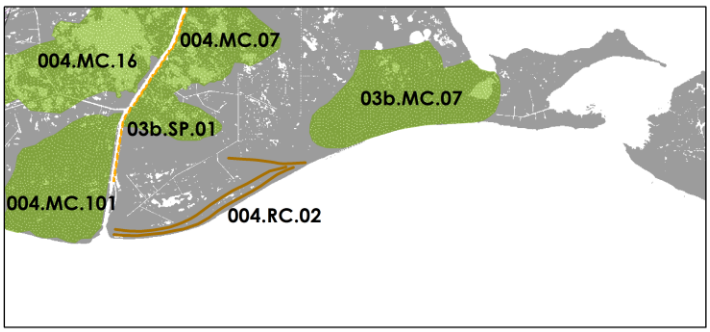
	Estimated Cost
Planning/Engineering & Design	$13,300,000
Construction	$166,400,000
Operations & Maintenance	$152,000,000
Total	**$331,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	8 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

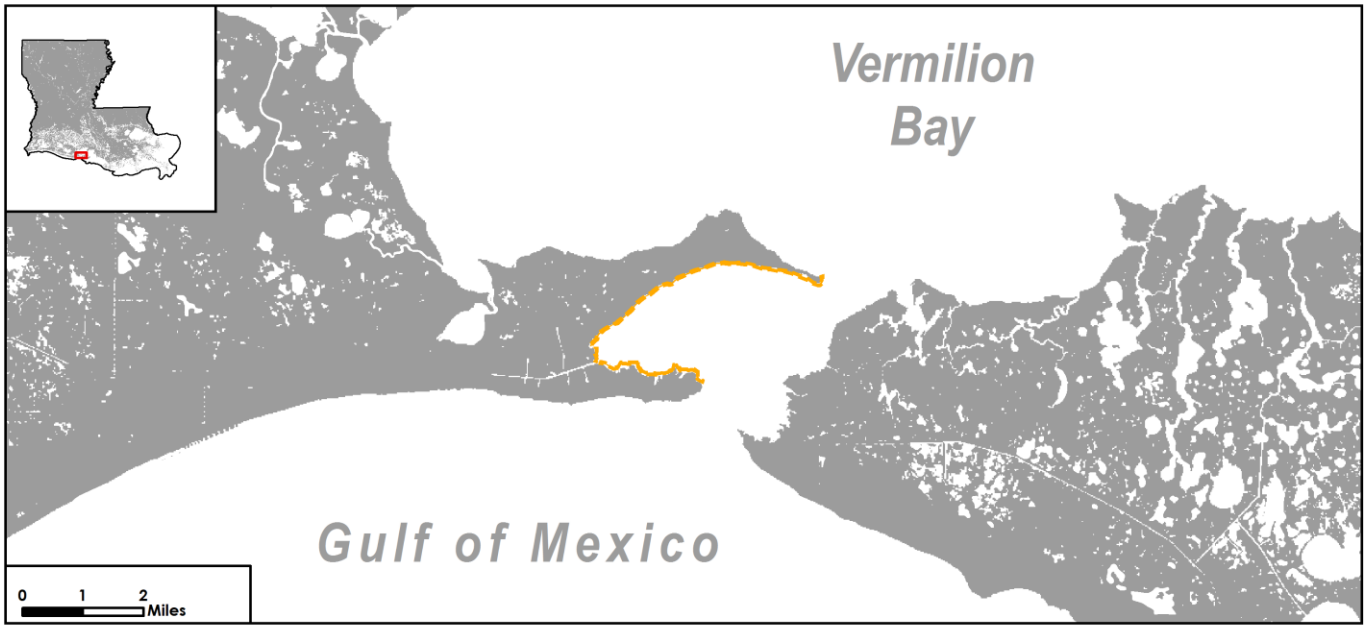


2017 Coastal Master Plan
Not Selected

Southwest Pass Shoreline Protection (West Side)

Shoreline Protection

Project ID: 03b.SP.08



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 34,400 feet of the west shoreline along Southwest Pass immediately west of Marsh Island to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

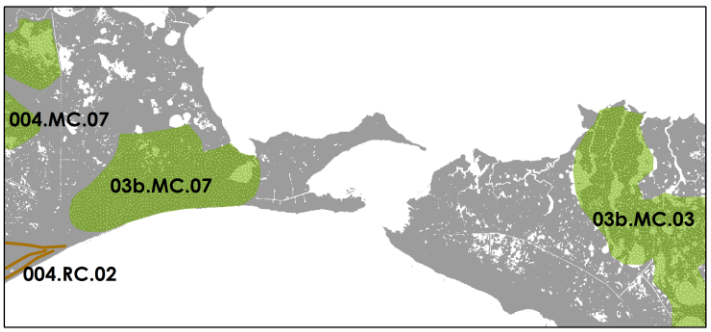
	Estimated Cost
Planning/Engineering & Design	$2,300,000
Construction	$28,400,000
Operations & Maintenance	$37,400,000
Total	**$68,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	654 acres
Long Term (Year 50)	-544 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

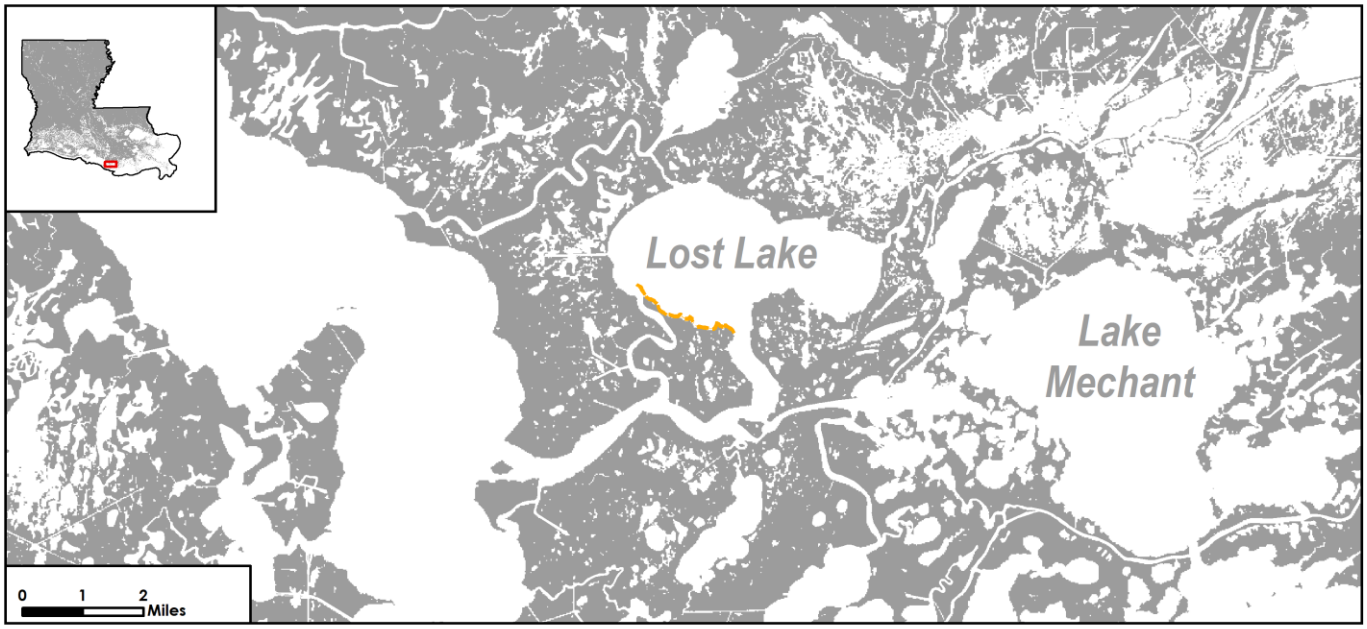


2017 Coastal Master Plan
Not Selected

Lost Lake Shoreline Protection

Shoreline Protection

Project ID: 03b.SP.100



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 10,600 feet of the southern shore of Lost Lake from Rice Bayou to Lost Lake Pass to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

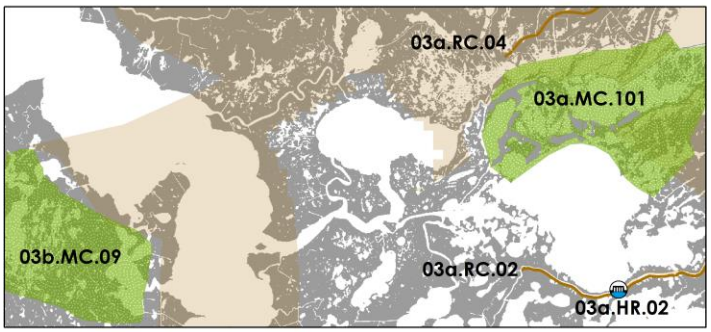
	Estimated Cost
Planning/Engineering & Design	$800,000
Construction	$9,600,000
Operations & Maintenance	$13,400,000
Total	**$23,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	-3 acres
Long Term (Year 50)	-83 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



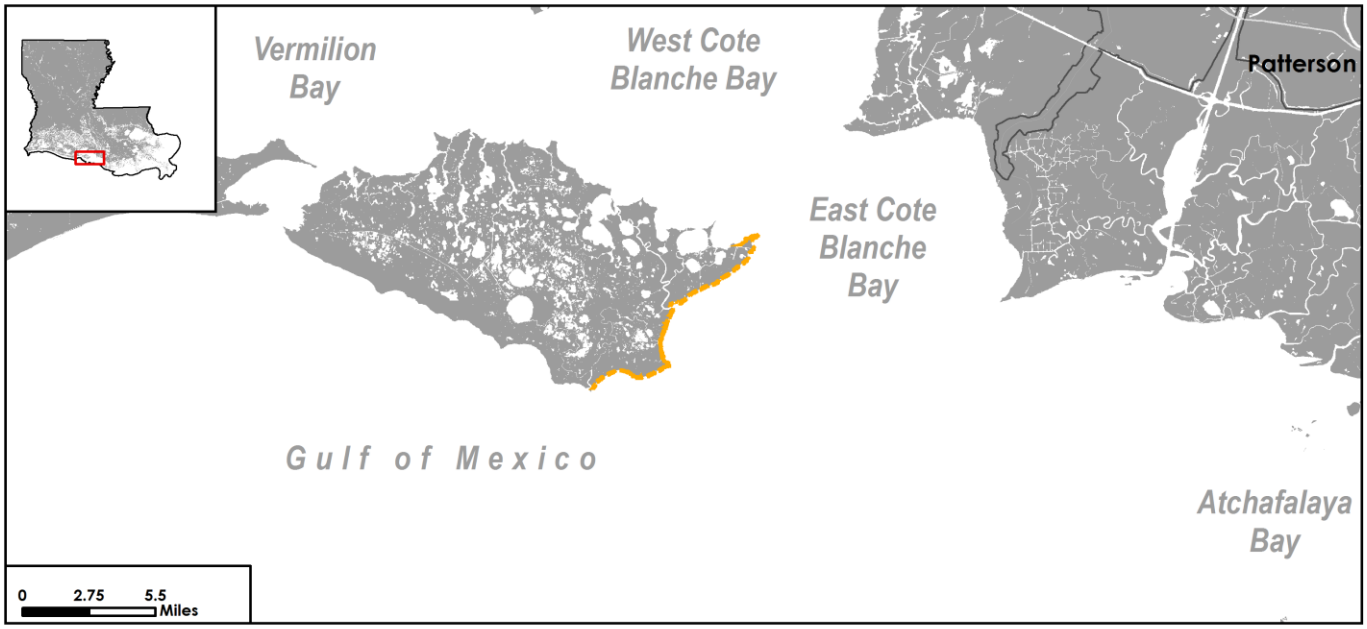
2017 Coastal Master Plan

Not Selected

Southeast Marsh Island Shoreline Protection

Shoreline Protection

Project ID: 03b.SP.101



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 65,900 feet along the eastern shoreline of Marsh Island to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Iberia Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

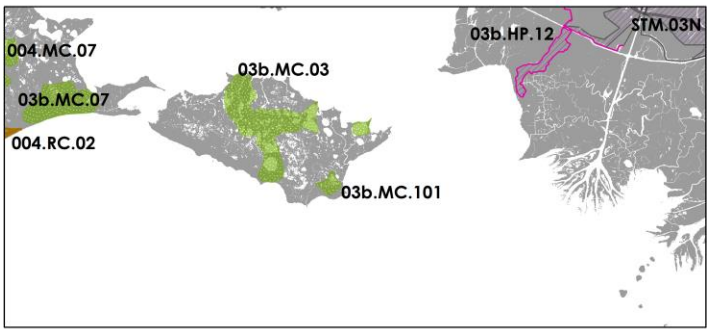
	Estimated Cost
Planning/Engineering & Design	$11,100,000
Construction	$138,200,000
Operations & Maintenance	$127,200,000
Total	**$276,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	-237 acres
Long Term (Year 50)	-274 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan
Not Selected

Schooner Bayou Canal Shoreline Protection

Shoreline Protection

Project ID: 004.SP.02

Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 17,900 feet of the south bank of Schooner Bayou Canal from Highway 82 to North Prong to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

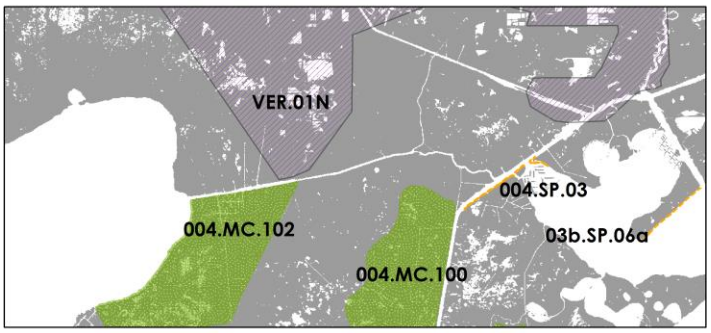
	Estimated Cost
Planning/Engineering & Design	$1,300,000
Construction	$15,700,000
Operations & Maintenance	$21,700,000
Total	**$38,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	7 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

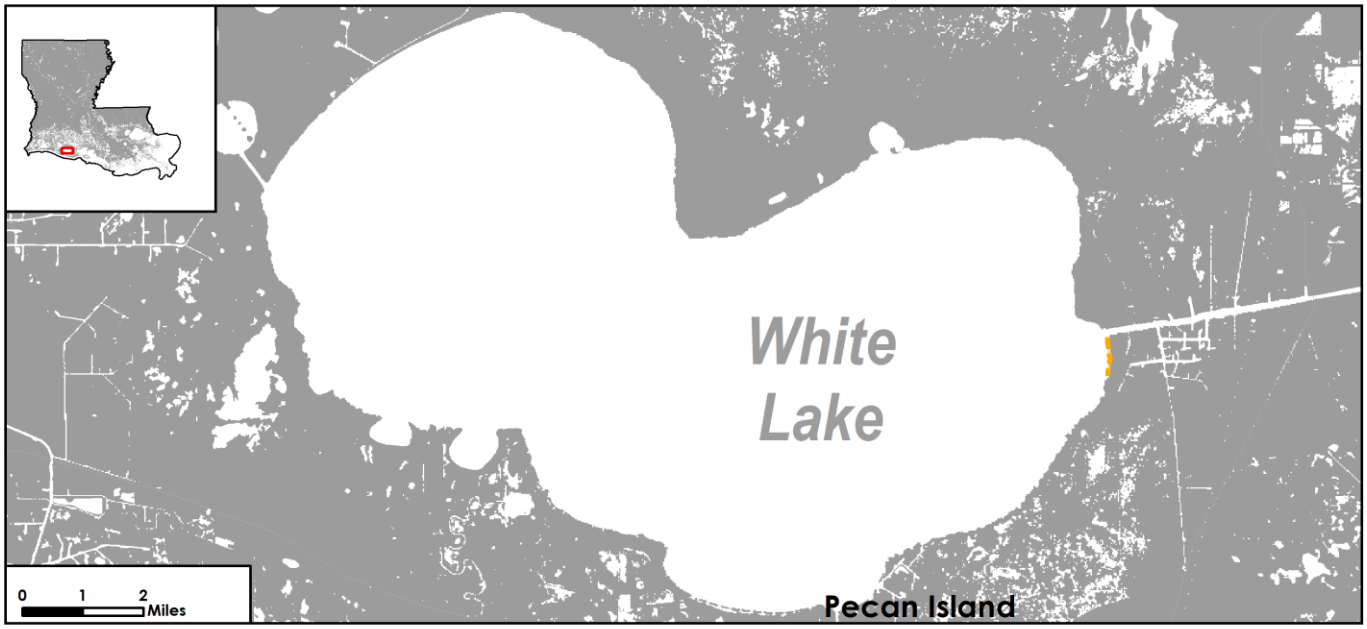


2017 Coastal Master Plan
Not Selected

Northeast White Lake Shoreline Protection

Shoreline Protection

Project ID: 004.SP.07



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 3,200 feet of the east side of White Lake near Schooner Bayou Canal to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

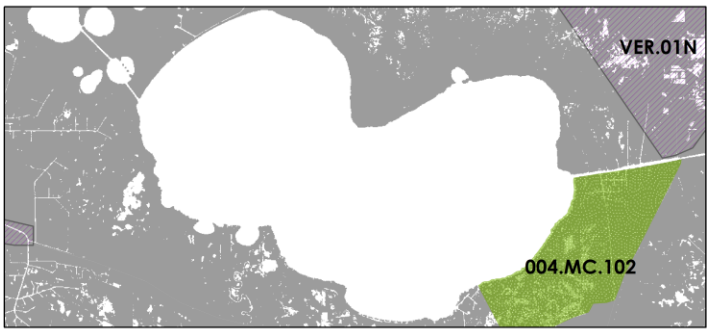
	Estimated Cost
Planning/Engineering & Design	$200,000
Construction	$2,800,000
Operations & Maintenance	$3,500,000
Total	**$6,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	-129 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

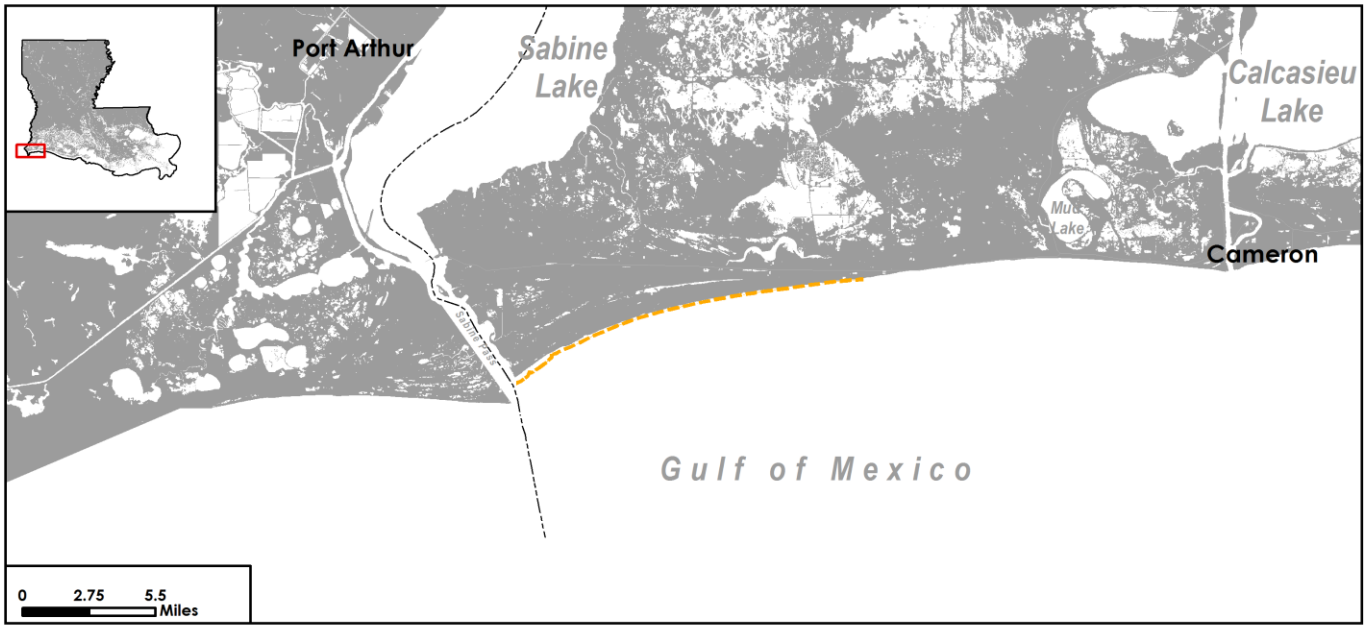


2017 Coastal Master Plan
Not Selected

Calcasieu-Sabine Shoreline Protection - Component A

Shoreline Protection

Project ID: 004.SP.08



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 75,400 feet of the Gulf shoreline east of Sabine River to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

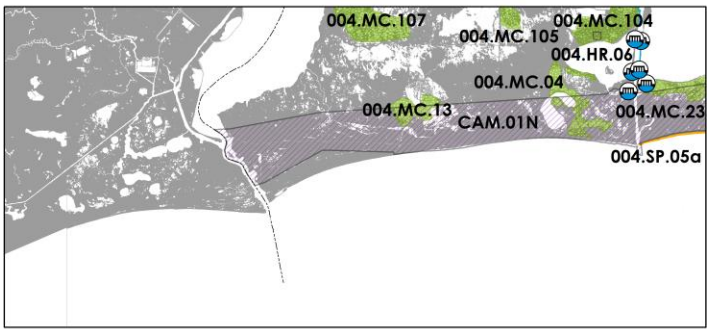
	Estimated Cost
Planning/Engineering & Design	$11,400,000
Construction	$142,600,000
Operations & Maintenance	$127,800,000
Total	**$281,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	-4 acres
Long Term (Year 50)	-4 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan
Not Selected

White Lake Shoreline Protection

Shoreline Protection

Project ID: 004.SP.100

Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 178,200 feet of the White Lake shoreline to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Cameron Parish; Vermilion Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

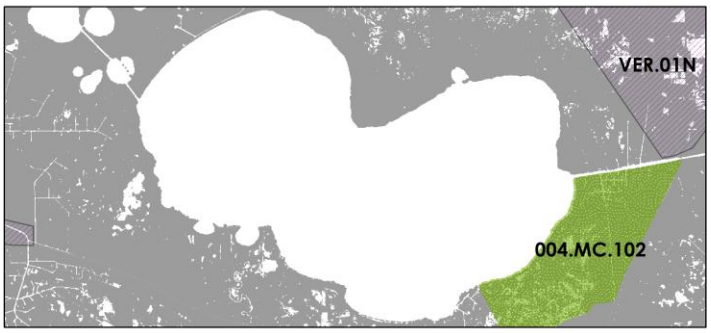
	Estimated Cost
Planning/Engineering & Design	$11,700,000
Construction	$146,800,000
Operations & Maintenance	$181,000,000
Total	**$339,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	58 acres
Long Term (Year 50)	-649 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

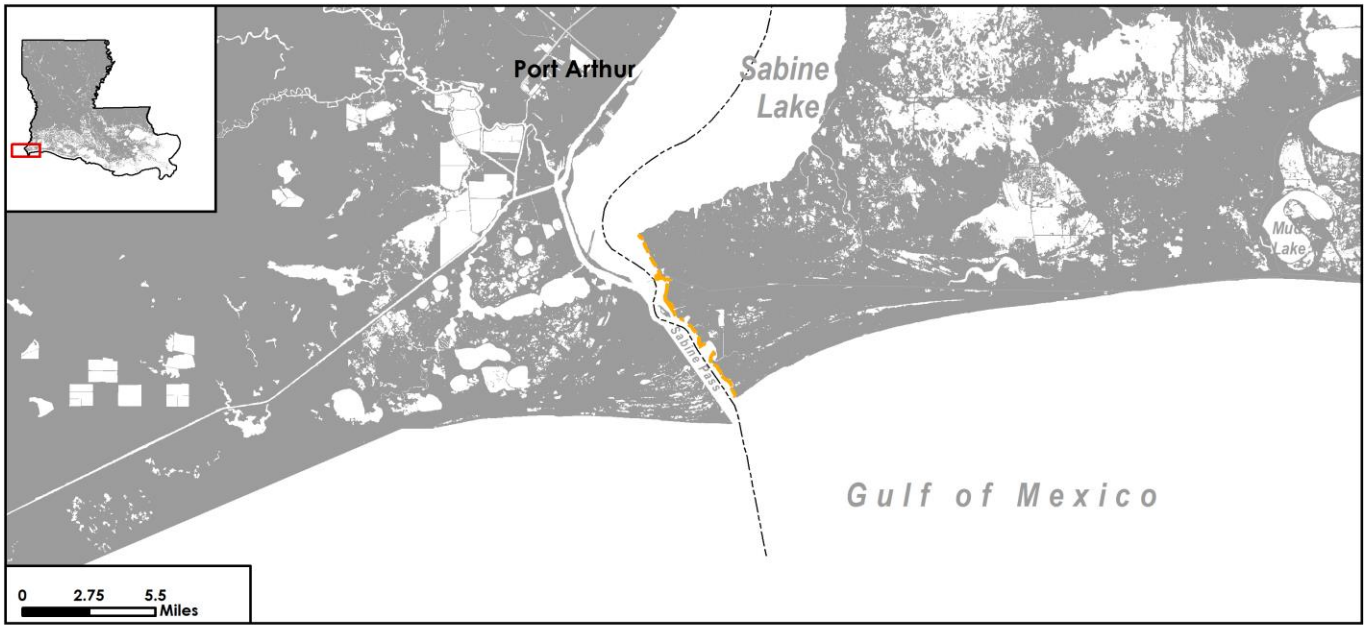


2017 Coastal Master Plan
Not Selected

Sabine Pass Shoreline Protection

Shoreline Protection

Project ID: 004.SP.102



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 41,900 feet of the east bank of Sabine Pass from the Gulf to Sabine Lake to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Cameron Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

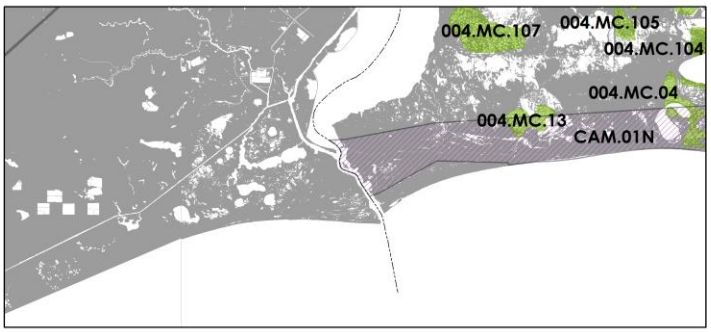
	Estimated Cost
Planning/Engineering & Design	$2,800,000
Construction	$34,600,000
Operations & Maintenance	$43,600,000
Total	**$81,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	4 acres
Long Term (Year 50)	-10 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



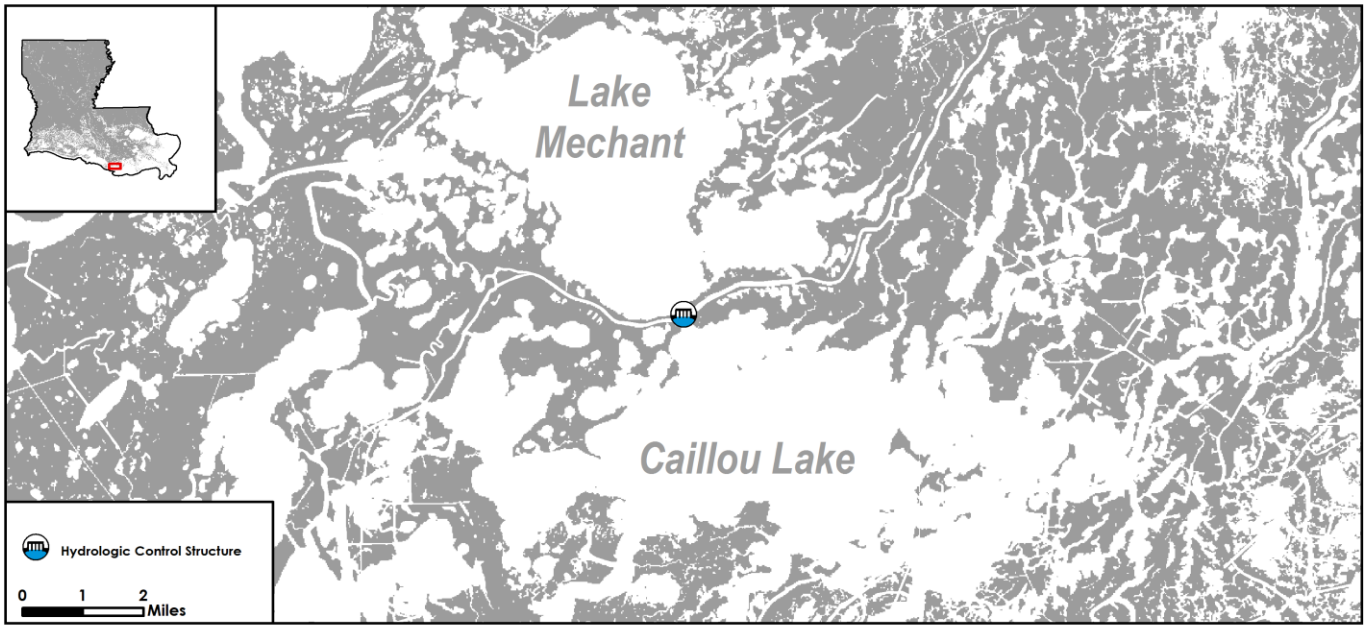
2017 Coastal Master Plan

Not Selected

Central Terrebonne Hydrologic Restoration

Hydrologic Restoration

Project ID: 03a.HR.02



Description

Construction of a rock plug in Grand Pass with a 150- foot by 15-foot navigable section to prevent saltwater intrusion from Caillou Lake into Lake Mechant.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

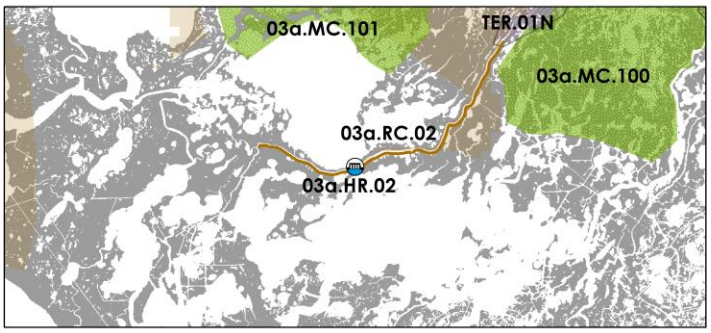
	Estimated Cost
Planning/Engineering & Design	$1,400,000
Construction	$17,000,000
Operations & Maintenance	$600,000
Total	**$19,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	-1,964 acres
Long Term (Year 50)	3,962 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

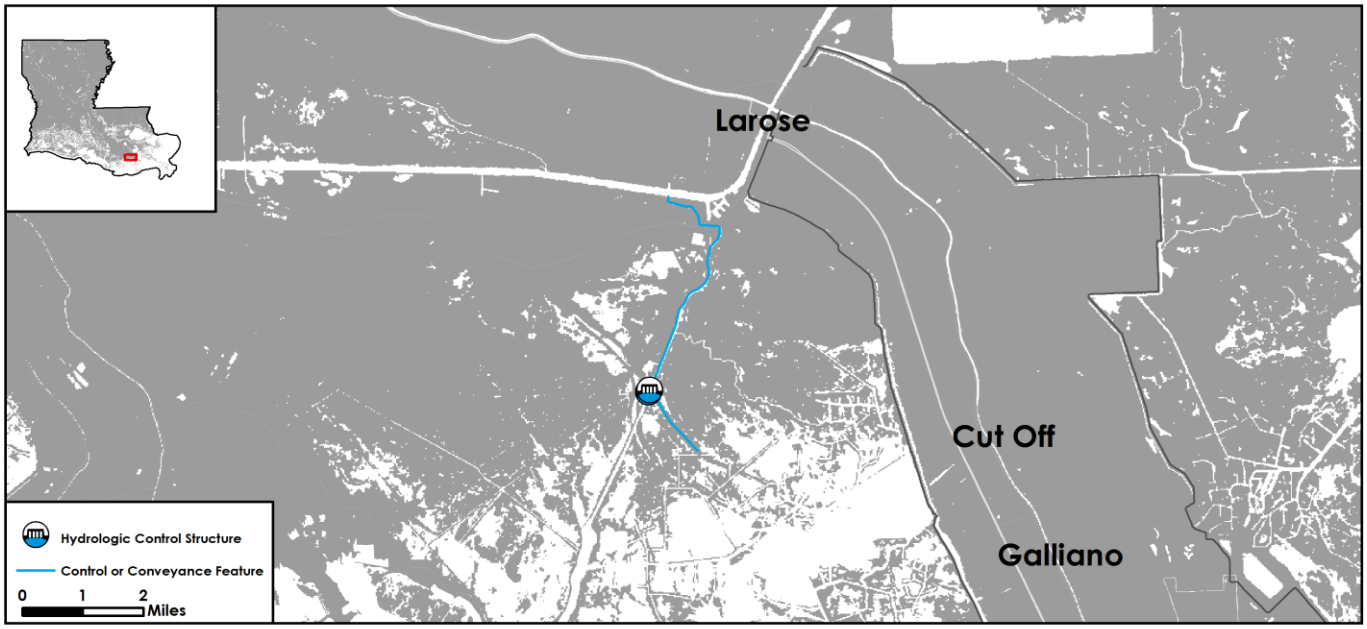


2017 Coastal Master Plan
Implementation Period 1

Grand Bayou Hydrologic Restoration

Hydrologic Restoration

Project ID: 03a.HR.100



Description

Dredging of Margaret's Bayou and Grand Bayou in conjunction with the construction of a fixed crest structure at Grand Bayou and the installation of (5) 48-inch flap-gated culverts on the western bank of Grand Bayou.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

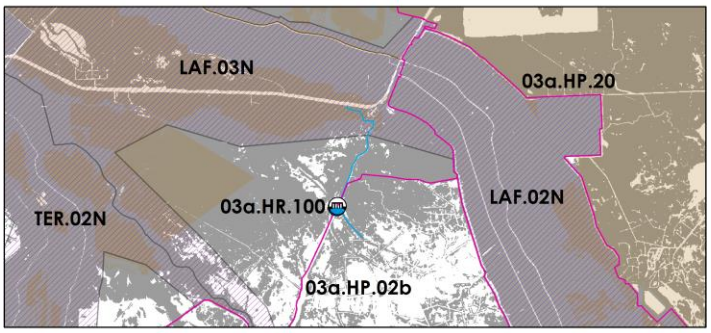
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$6,400,000
Operations & Maintenance	$1,700,000
Total	**$8,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	-546 acres
Long Term (Year 50)	869 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

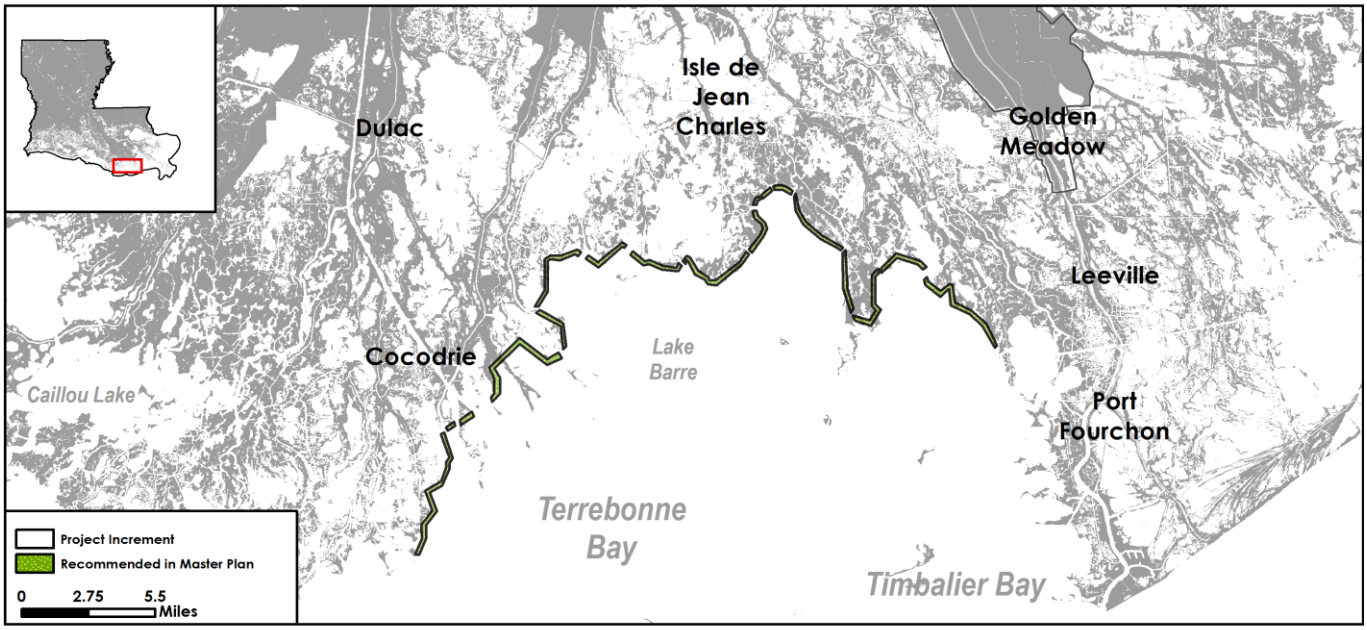


2017 Coastal Master Plan
Implementation Period II

Terrebonne Bay Rim Marsh Creation Study

Marsh Creation

Project ID: 03a.MC.03p



Description

Planning, engineering, and design of marsh creation features to provide benefits to communities in Terrebonne Parish and the Morganza to the Gulf protection system.

Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Lafourche Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.

Project Cost Estimate

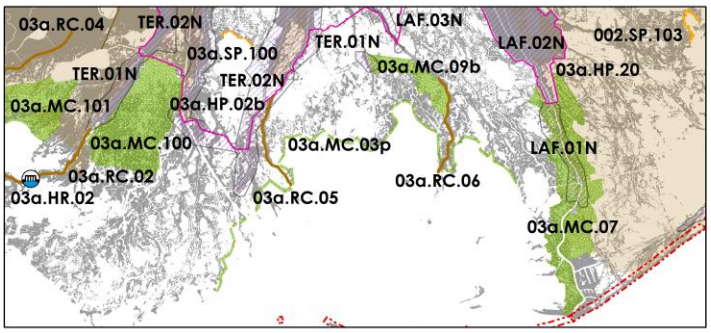
	Estimated Cost
Planning/Engineering & Design	$90,600,000
Construction	$0
Operations & Maintenance	$0
Total	**$90,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	N/A

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

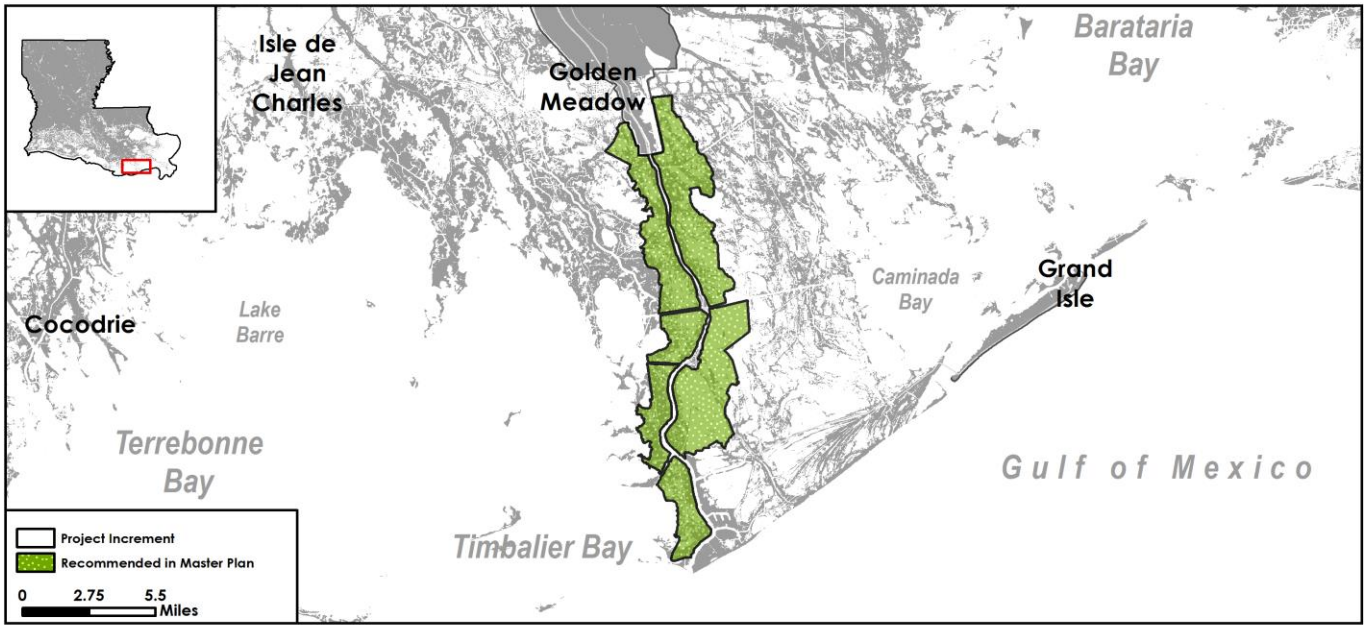


2017 Coastal Master Plan
Implementation Period I

Belle Pass-Golden Meadow Marsh Creation

Marsh Creation

Project ID: 03a.MC.07



Description

Creation of approximately 23,200 acres of marsh from Belle Pass to Golden Meadow to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 15 years.

Project Cost Estimate

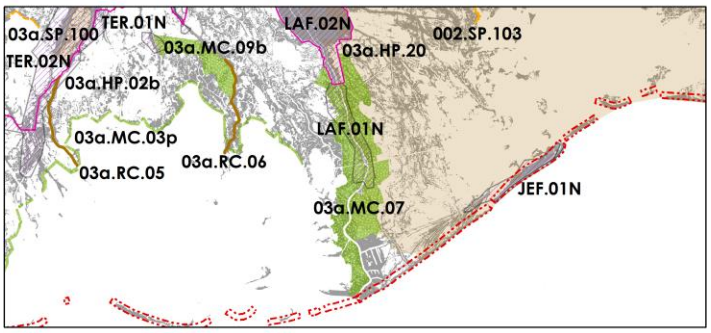
	Estimated Cost
Planning/Engineering & Design	$117,500,000
Construction	$1,469,200,000
Operations & Maintenance	$39,100,000
Total	**$1,625,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	21,449 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

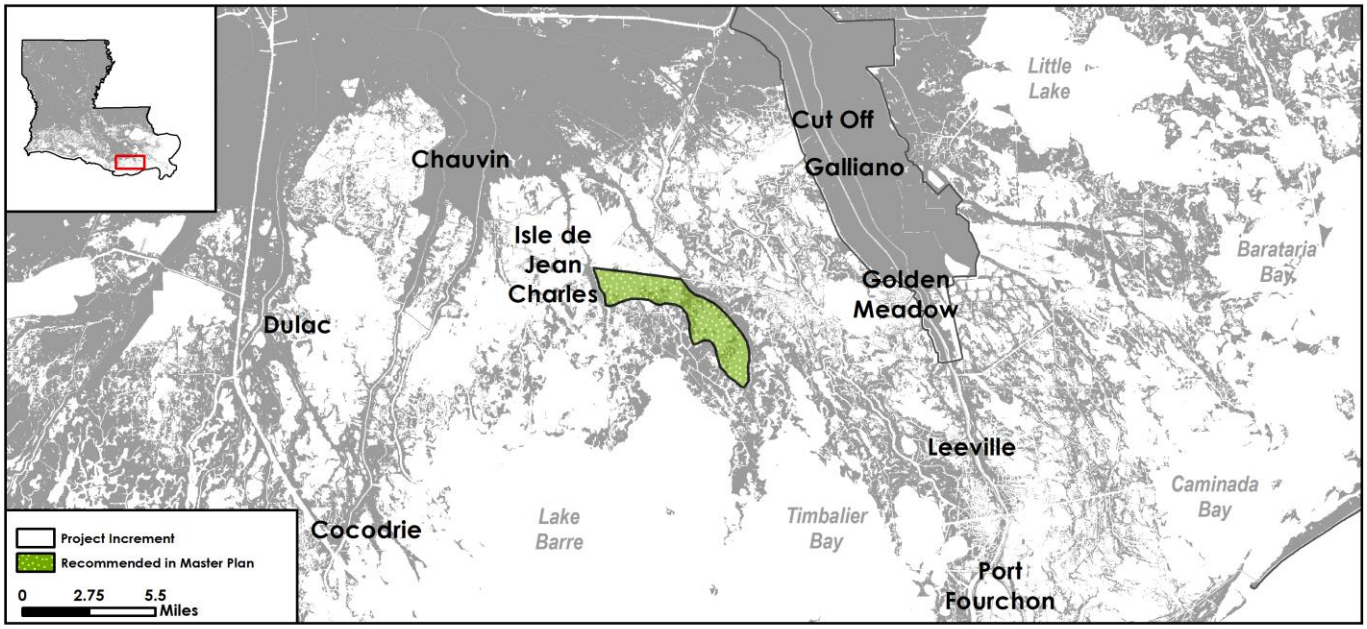


2017 Coastal Master Plan
Implementation Period II

North Terrebonne Bay Marsh Creation - Component B

Marsh Creation

Project ID: 03a.MC.09b



Description

Creation of approximately 5,400 acres of marsh south of Montegut between Bayou St. Jean Charles and Bayou Pointe Aux Chenes to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

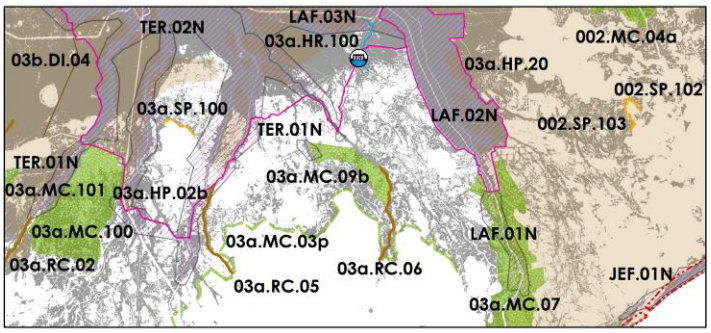
	Estimated Cost
Planning/Engineering & Design	$21,600,000
Construction	$270,200,000
Operations & Maintenance	$7,400,000
Total	**$299,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,268 acres
Long Term (Year 50)	4,755 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

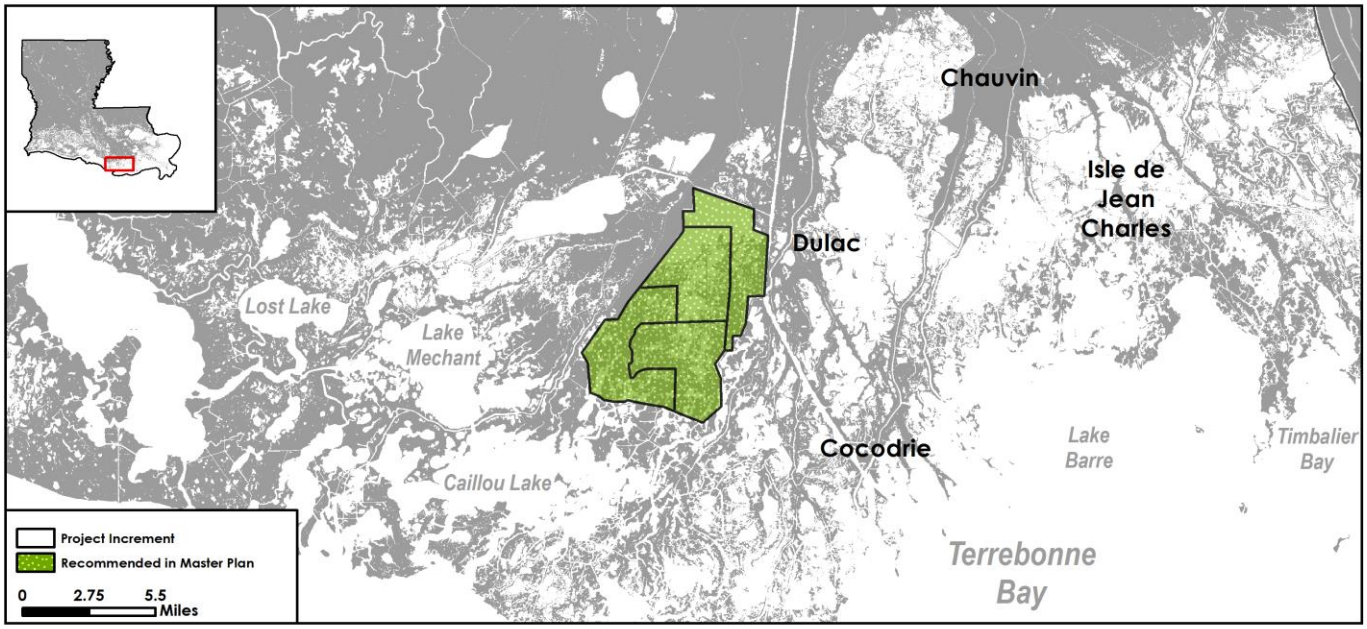


2017 Coastal Master Plan
Implementation Period II

South Terrebonne Marsh Creation

Marsh Creation

Project ID: 03a.MC.100



Description

Creation of approximately 23,600 acres of marsh south of Dulac between Bayou Dularge and Houma Navigation Canal to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 13 years.

Project Cost Estimate

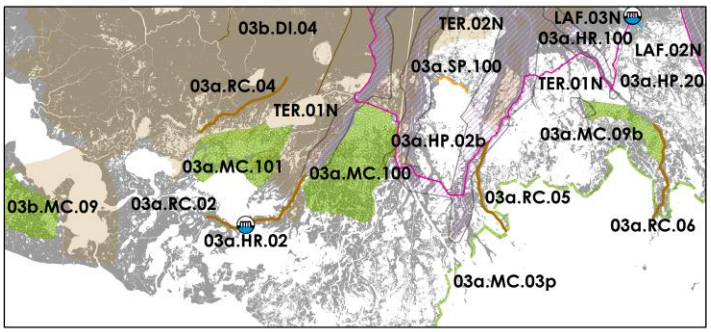
	Estimated Cost
Planning/Engineering & Design	$131,000,000
Construction	$1,637,900,000
Operations & Maintenance	$44,400,000
Total	**$1,813,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	24,324 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

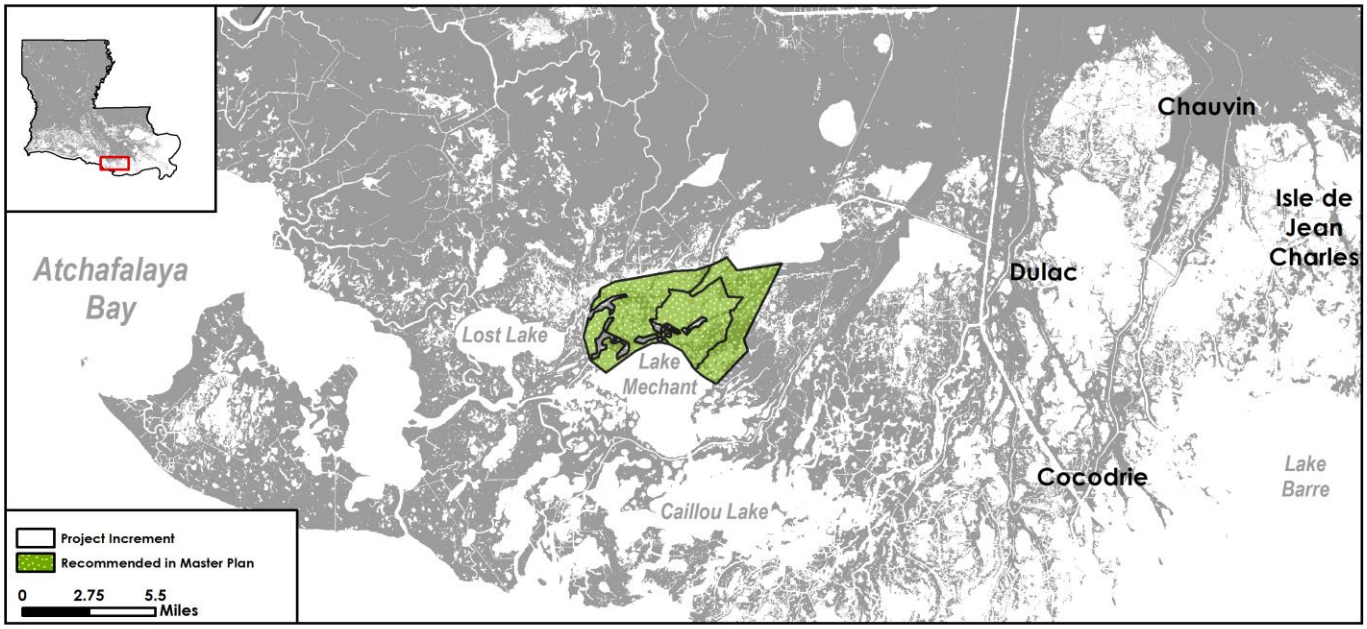


2017 Coastal Master Plan
Implementation Period II

North Lake Mechant Marsh Creation

Marsh Creation

Project ID: 03a.MC.101



Description

Creation of approximately 12,100 acres of marsh between Lake Decade and Lake Mechant to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

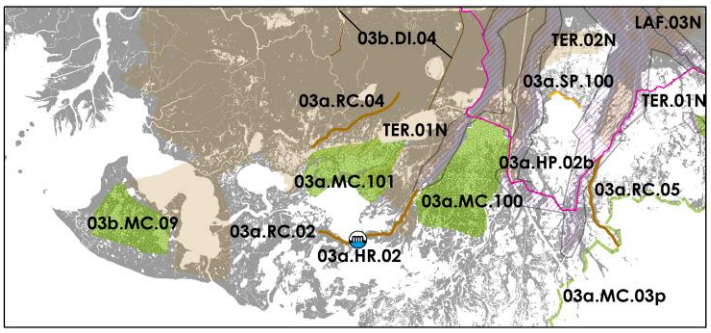
	Estimated Cost
Planning/Engineering & Design	$73,900,000
Construction	$923,500,000
Operations & Maintenance	$26,000,000
Total	**$1,023,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	11,644 acres

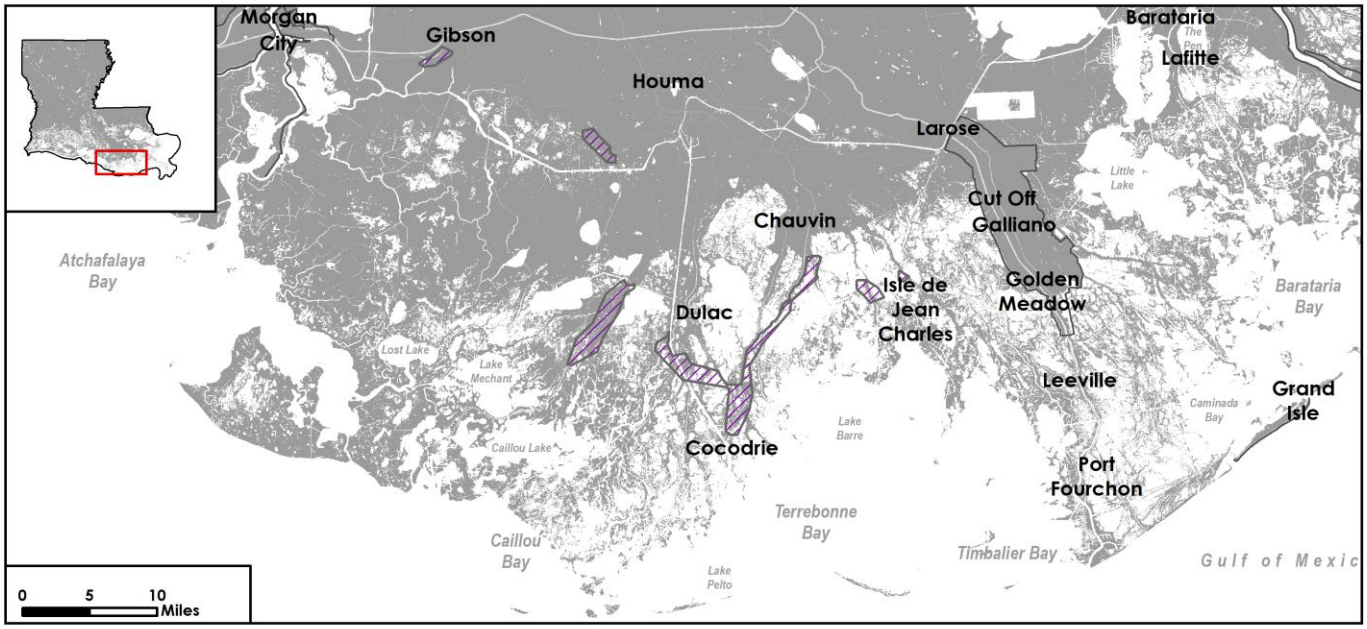
**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan
Implementation Period II

Terrebonne - Lower
Nonstructural Risk Reduction
Project ID: TER.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Terrebonne Parish

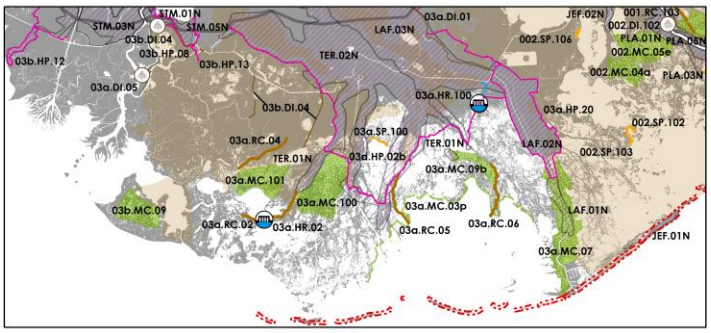
Project Duration
Construction is estimated to take 3 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	1	$1,000,000
Residential Elevation	261	$40,700,000
Residential Acquisition	120	$46,100,000
Total	**382**	**$87,800,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	2,838
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	61%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	91

2017 Coastal Master Plan
Implementation Period 1

Terrebonne - Lower
Nonstructural Risk Reduction
Project ID: TER.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

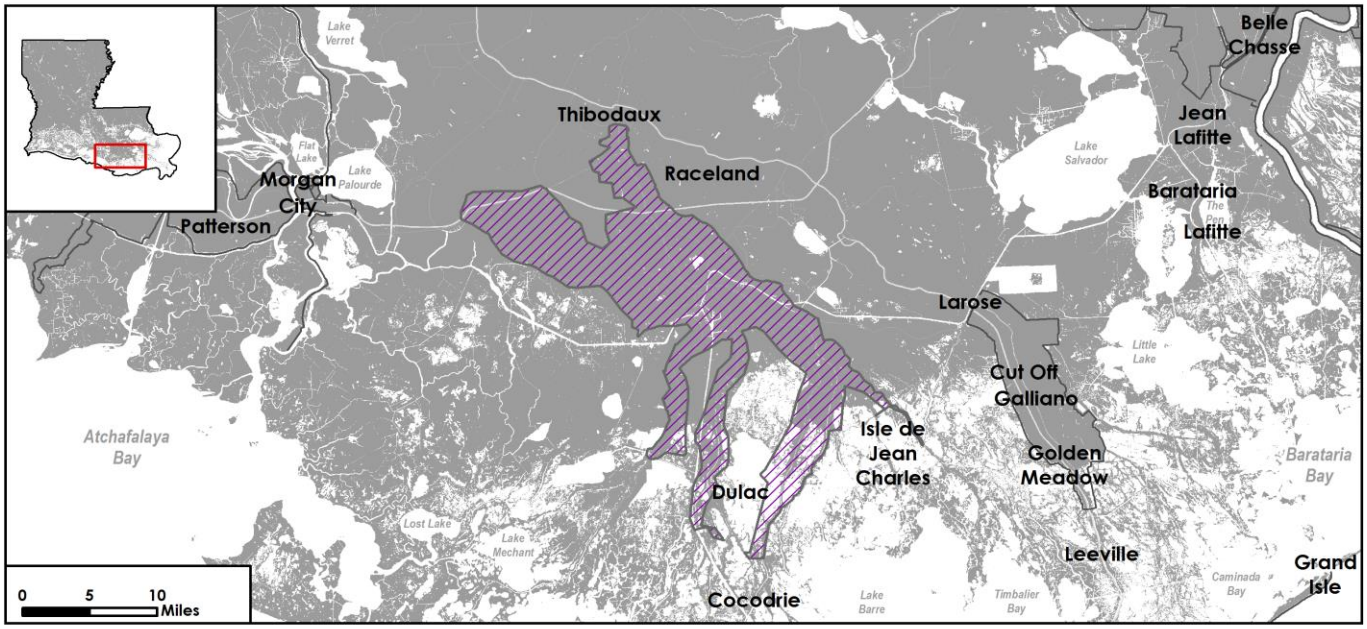
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$88 M	-	-
10	$88 M	$80 M	**$8 M**
25	$102 M	$93 M	**$9 M**
50	$123 M	$114 M	**$9 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1,395 M	-	$1,448 M	-	$1,506 M	-
10	$1,419 M	$1,289 M	$1,548 M	$1,374 M	$1,638 M	$1,497 M
25	$1,641 M	$1,469 M	$1,787 M	$1,625 M	$1,829 M	$1,715 M
50	$1,797 M	$1,685 M	$1,834 M	$1,727 M	$1,848 M	$1,777 M

Terrebonne - Houma
Nonstructural Risk Reduction
Project ID: TER.02N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Terrebonne Parish

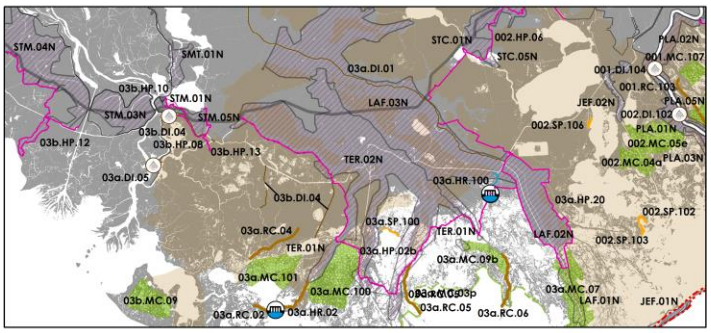
Project Duration
Construction is estimated to take 7 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	312	$278,600,000
Residential Elevation	5,307	$820,800,000
Residential Acquisition	477	$164,600,000
Total	**6,096**	**$1,264,000,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	115,701
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	48%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1,253

2017 Coastal Master Plan
Implementation Period 1

Terrebonne - Houma
Nonstructural Risk Reduction
Project ID: TER.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$514 M	-	-
10	$833 M	$716 M	**$117 M**
25	$1,505 M	$1,303 M	**$201 M**
50	$4,732 M	$4,411 M	**$321 M**

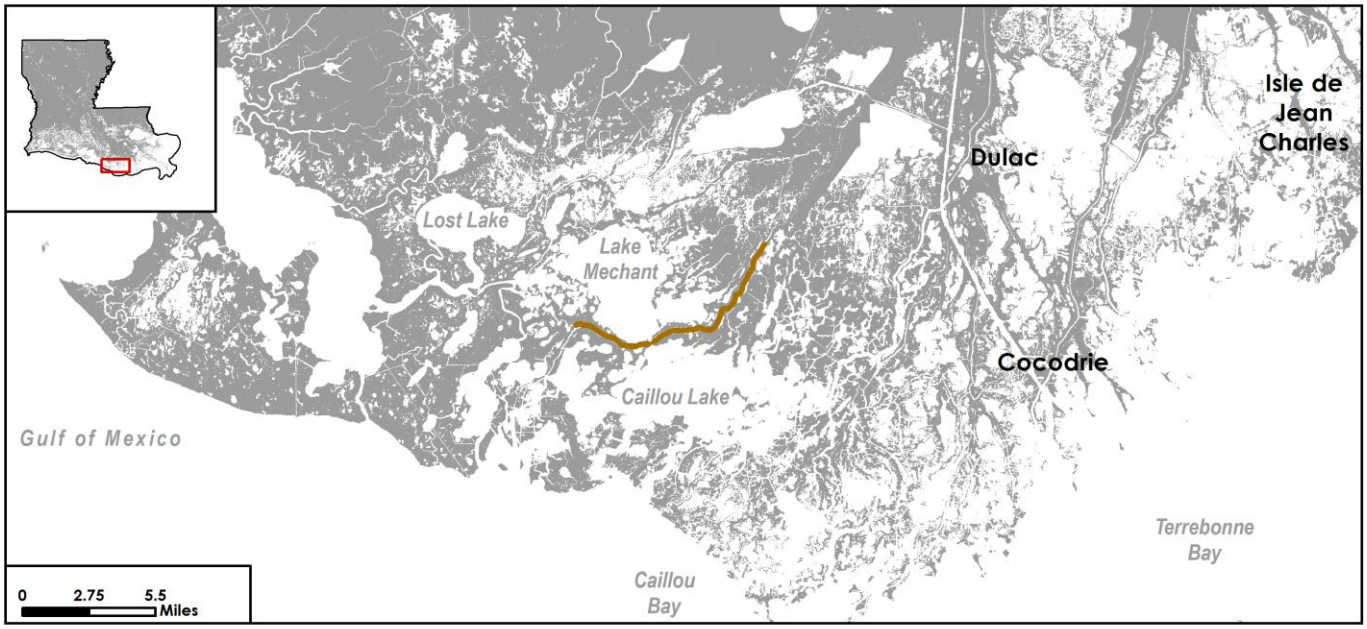
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$10,105 M	-	$14,540 M	-	$18,006 M	-
10	$17,117 M	$14,751 M	$23,183 M	$18,036 M	$31,221 M	$26,107 M
25	$31,498 M	$26,245 M	$41,493 M	$35,922 M	$52,950 M	$48,107 M
50	$86,877 M	$82,310 M	$89,838 M	$86,320 M	$91,218 M	$88,738 M

Bayou Dularge Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.02



Description

Restoration of approximately 53,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Dularge.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

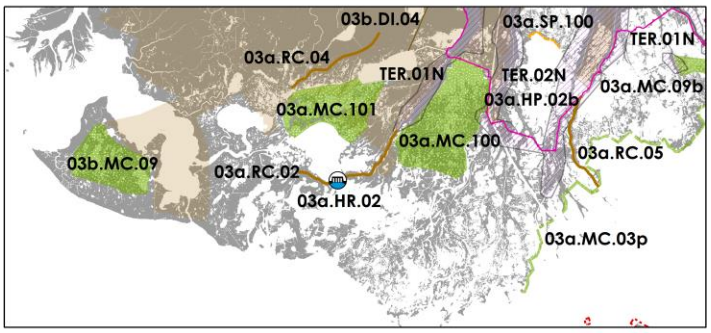
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,200,000
Operations & Maintenance	$1,700,000
Total	**$9,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	-65 acres
Long Term (Year 50)	2,468 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

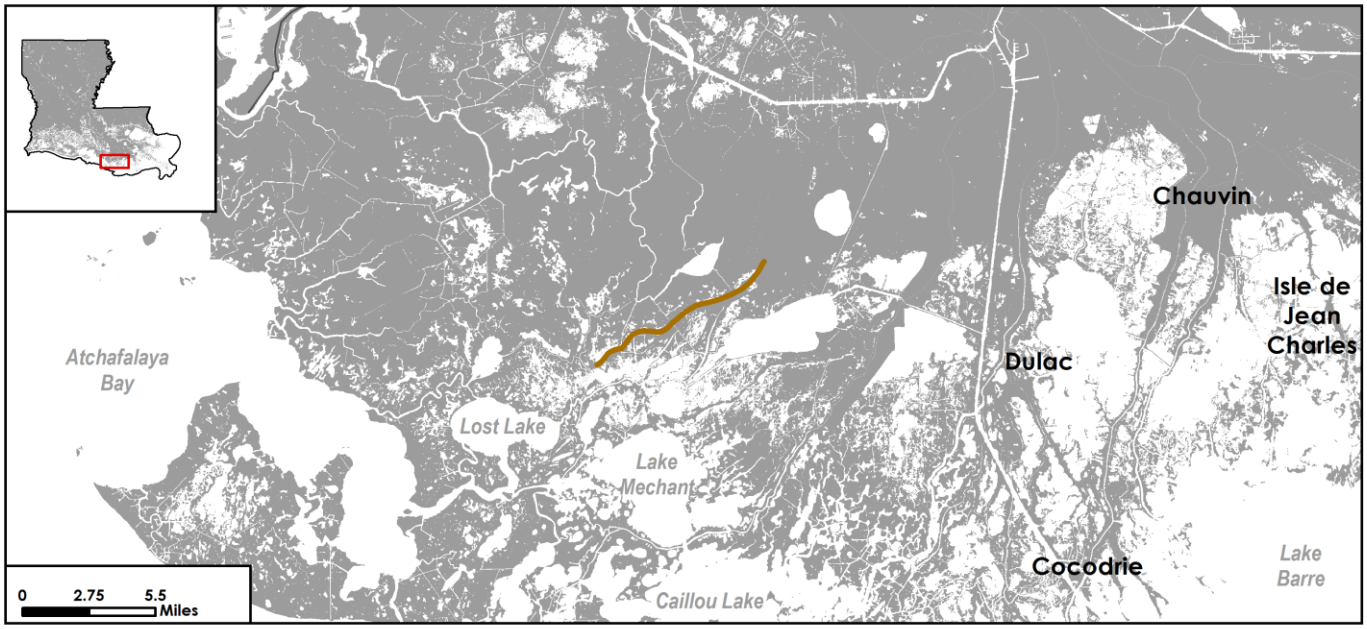


2017 Coastal Master Plan
Implementation Period II

Mauvais Bois Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.04



Description

Restoration of approximately 43,400 feet of historic ridge to an elevation of 5 feet NAVD88 at Mauvais Bois to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

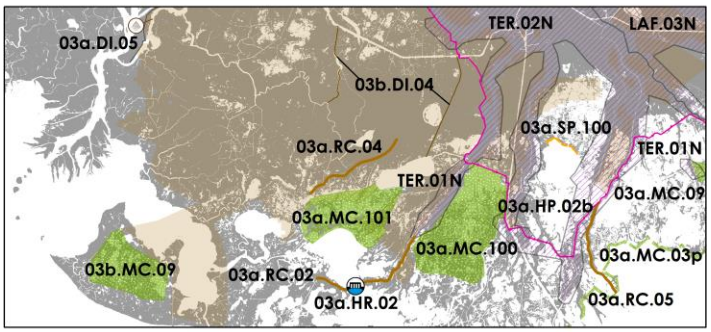
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,000,000
Operations & Maintenance	$2,200,000
Total	**$9,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	570 acres
Long Term (Year 50)	2,084 acres

**Based on the high environmental scenario.*

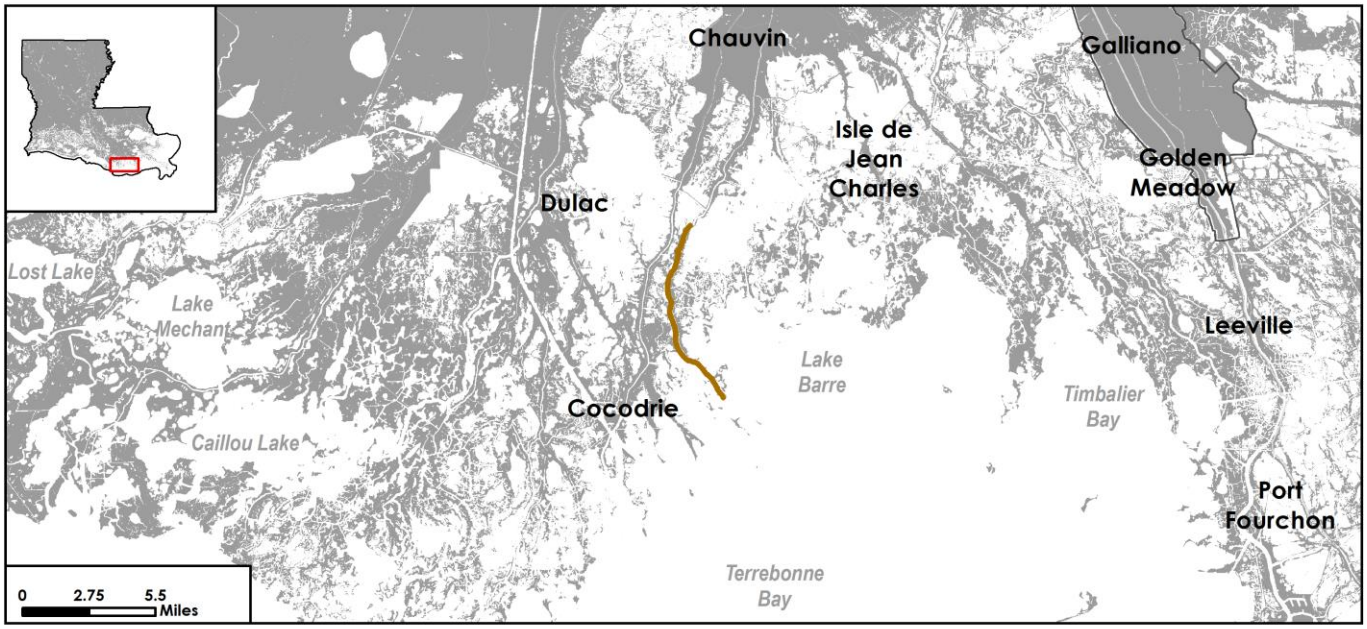
Other Nearby Projects in the Master Plan



Bayou Terrebonne Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.05



Description

Restoration of approximately 40,700 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along the southern portions of Bayou Terrebonne.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

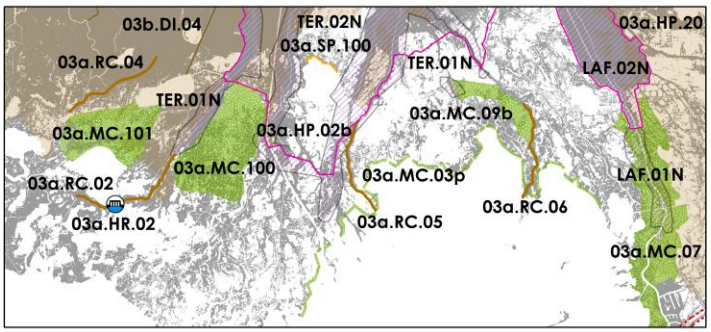
	Estimated Cost
Planning/Engineering & Design	$600,000
Construction	$6,600,000
Operations & Maintenance	$1,600,000
Total	**$8,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	-19 acres
Long Term (Year 50)	2,185 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

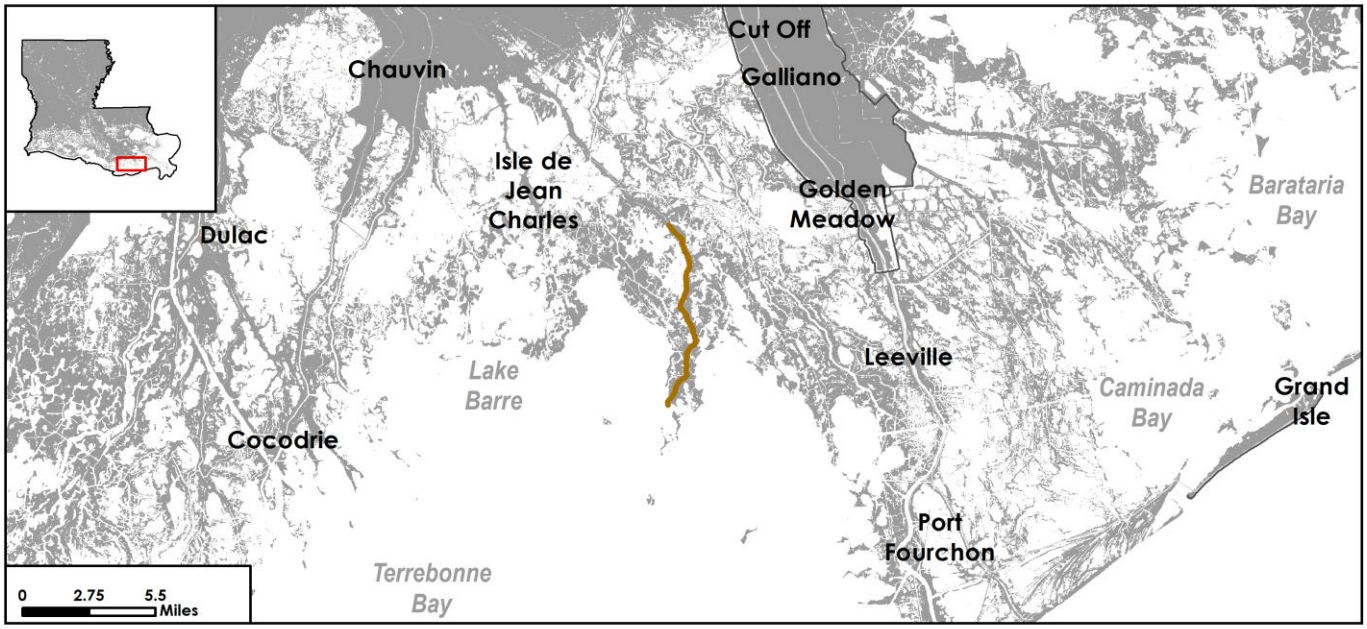


2017 Coastal Master Plan
Implementation Period II

Bayou Pointe Aux Chenes Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.06



Description

Restoration of approximately 43,600 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along the southern portions of Bayou Pointe Aux Chenes.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

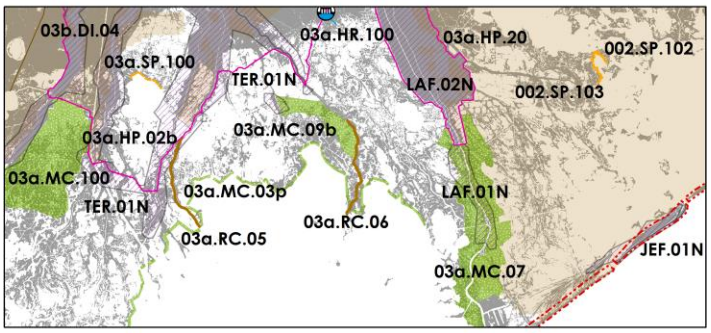
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,600,000
Operations & Maintenance	$2,300,000
Total	**$10,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	13 acres
Long Term (Year 50)	717 acres

**Based on the high environmental scenario.*

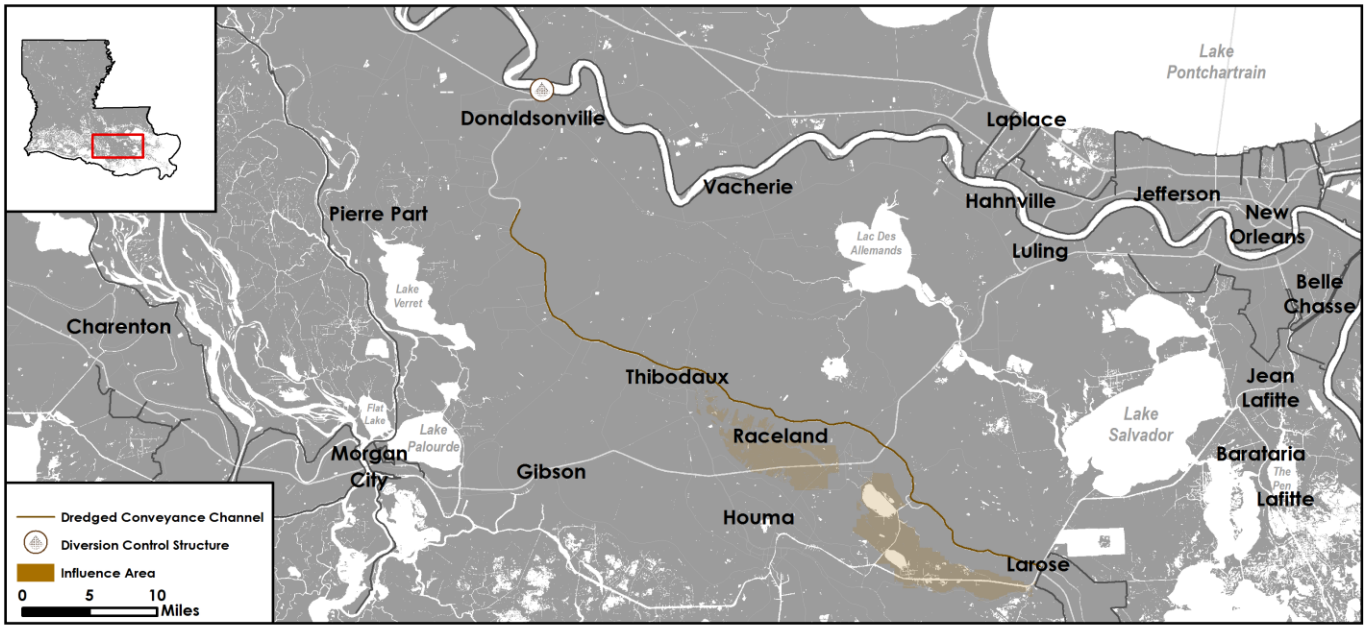
Other Nearby Projects in the Master Plan



Bayou Lafourche Diversion

Sediment Diversion

Project ID: 03a.DI.01



Description

Diversion of the Mississippi River into Bayou Lafourche to increase freshwater flow down Bayou Lafourche with 1,000 cfs capacity (modeled with continuous operation at 1,000 cfs, independent of Mississippi River flow).

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Ascension Parish; Assumption Parish; Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

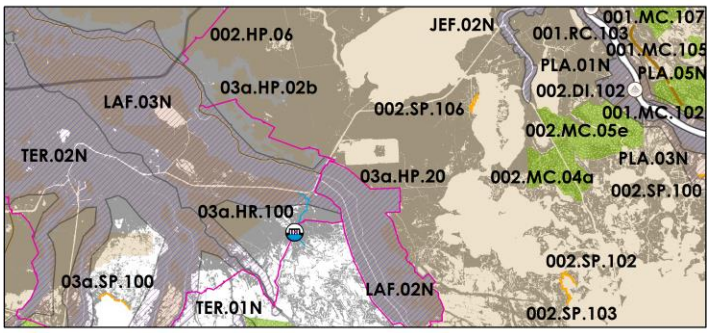
	Estimated Cost
Planning/Engineering & Design	$12,500,000
Construction	$156,200,000
Operations & Maintenance	$27,500,000
Total	**$196,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,224 acres
Long Term (Year 50)	6,486 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

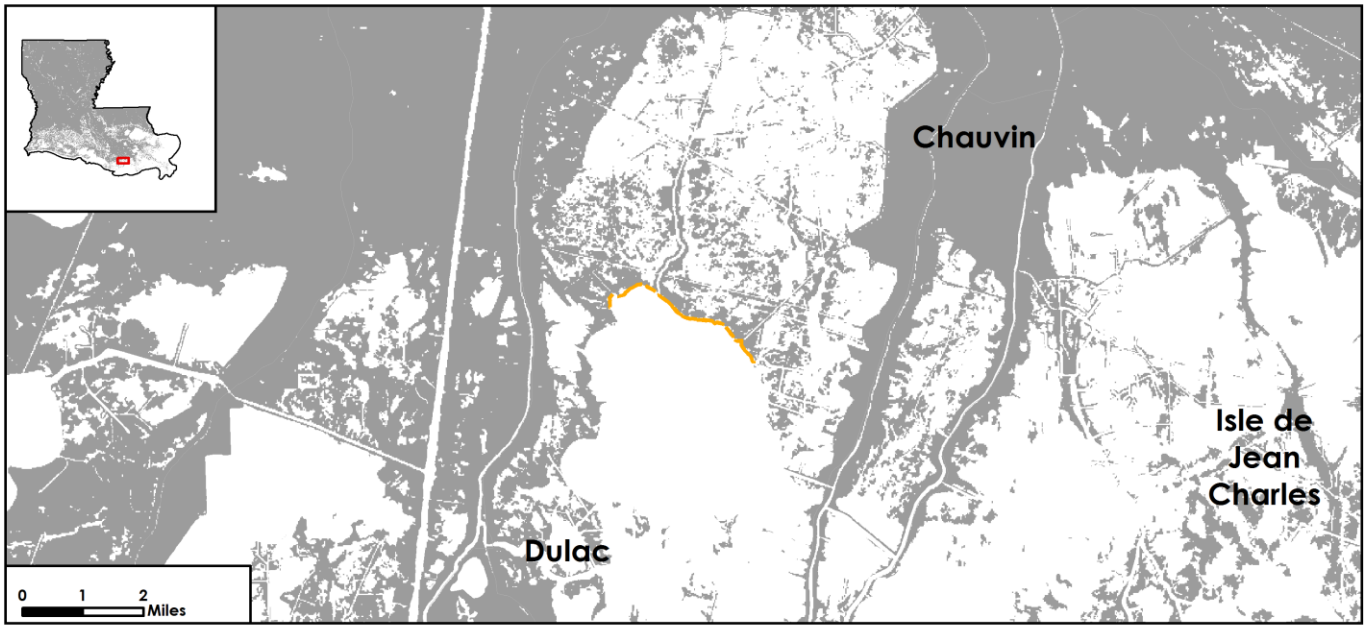


2017 Coastal Master Plan
Implementation Period 1

North Lake Boudreaux Shoreline Protection

Shoreline Protection

Project ID: 03a.SP.100



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 15,400 feet of the northern shore of Lake Boudreaux east of Hog Point to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

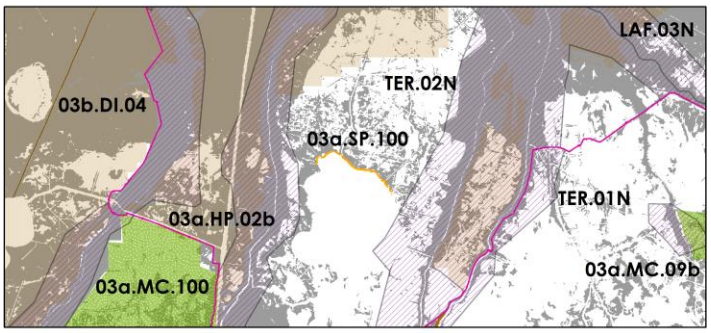
	Estimated Cost
Planning/Engineering & Design	$1,100,000
Construction	$13,600,000
Operations & Maintenance	$14,500,000
Total	**$29,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	-70 acres
Long Term (Year 50)	2,190 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

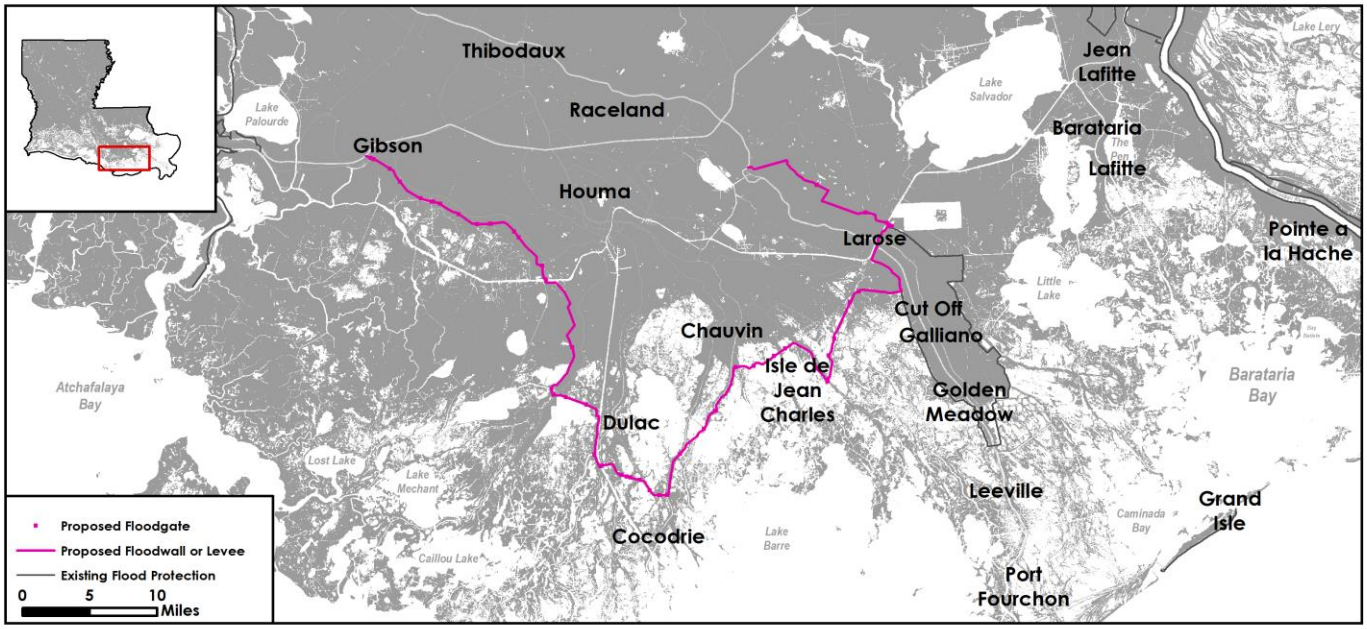


2017 Coastal Master Plan
Implementation Period II

Morganza to the Gulf

Structural Protection

Project ID: 03a.HP.02b



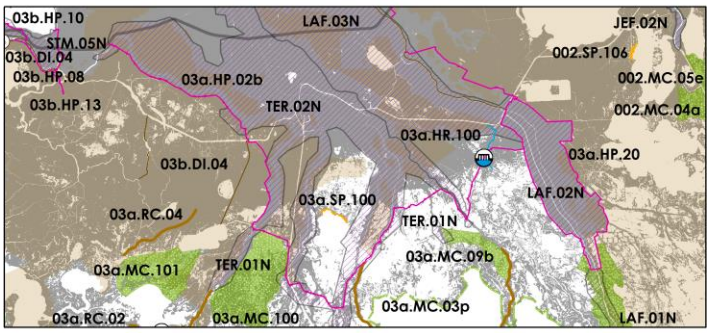
Description

Construction of a levee to an elevation between 15 and 26.5 feet NAVD88 around Houma and Terrebonne Ridge communities from Larose to Humphreys Canal. Project features 471,500 feet of earthen levee, 39,600 feet of T-wall, (22) 6-foot sluice gates, (1) 30-foot stop log, (2) 20-foot stop logs, (13) 56-foot sector gates, (1) 250-foot sector gate, (1) 175-foot sector gate, (1) 125-foot sector gate, (1) 110-foot sector gate, (1) 30-foot sector gate, (1) 110-foot lock gate, (1) 30-foot roller gate, (4) 40-foot roller gates, (1) 56-foot barge gate, (1) 30-foot barge gate, and (4) pump stations.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$996,800,000
Construction	$6,888,900,000
Operations & Maintenance	$396,200,000
Total	**$8,281,900,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Lafourche Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	181,400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	40%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1,712

2017 Coastal Master Plan
Implementation Period 1

Morganza to the Gulf

Structural Protection

Project ID: 03a.HP.02b

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1,077 M	-	-
25	$3,479 M	$2,079 M	**$1,400 M**
50	$10,411 M	$7,059 M	**$3,351 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	2	27
Government/Military	-	2
Electric Power Substation	-	36
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	1	14
Electric Power Plant	2	21
Port	-	1
Petroleum Pump Station	-	17
Refinery	-	4
Water and Sewer	-	7
Strategic Petroleum Reserve	-	-
Total	**4**	**130**

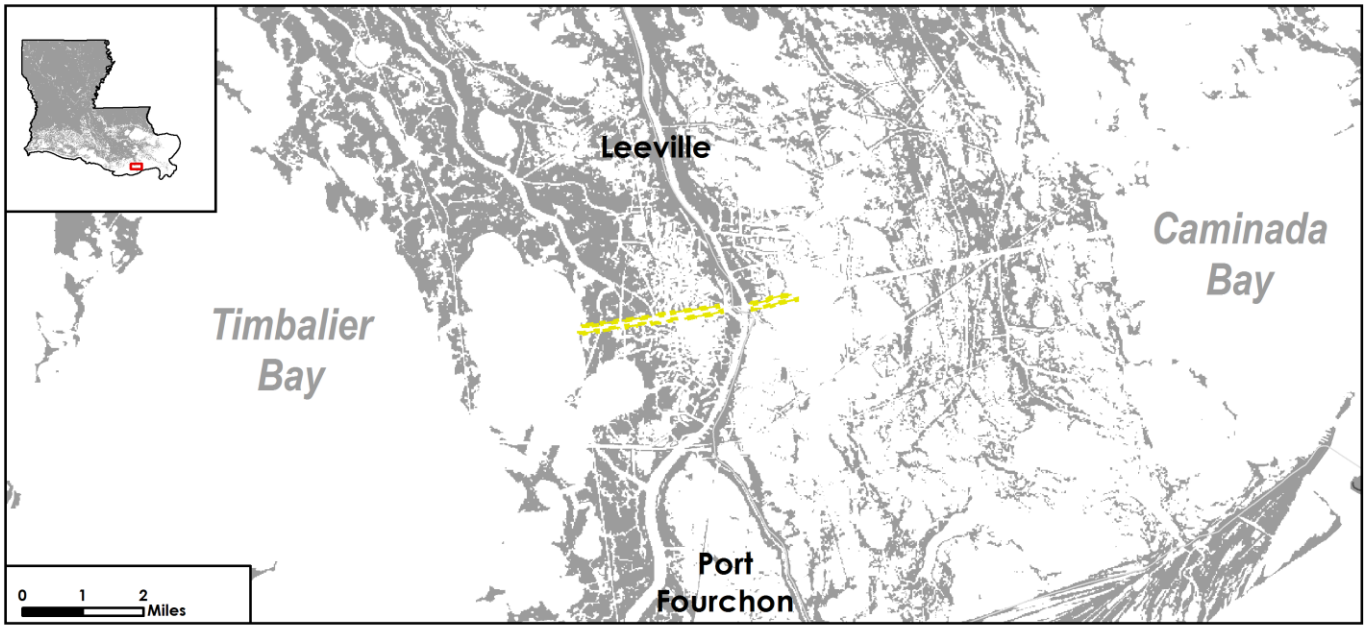
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$5,186 M	$4,366 M	$5,333 M	$4,538 M	$5,405 M	$4,692 M
Assumption - Amelia	$49 M	$49 M	$50 M	$50 M	$50 M	$50 M
Jefferson - Grand Isle	$1,275 M	$1,275 M	$1,281 M	$1,281 M	$1,322 M	$1,355 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,601 M	$1,633 M	$1,628 M	$1,655 M	$1,651 M
Lafourche - Larose/Golden Meadow	$9,480 M	$10,430 M	$9,657 M	$10,960 M	$9,711 M	$11,011 M
Lafourche - Lower	$455 M	$500 M	$459 M	$501 M	$460 M	$501 M
Lafourche - Raceland	$23,892 M	$13,032 M	$25,279 M	$14,118 M	$28,269 M	$15,936 M
Plaquemines - Grand Bayou	$99 M	$97 M	$100 M	$98 M	$100 M	$98 M
Plaquemines - West Bank	$1,167 M	$1,132 M	$1,246 M	$1,220 M	$1,263 M	$1,236 M
St. Charles - Hahnville/Luling	$14,838 M	$14,288 M	$15,129 M	$14,595 M	$15,330 M	$14,791 M
St. Charles - Salvador	$138 M	$136 M	$140 M	$140 M	$143 M	$140 M
St. James - Vacherie	$1,832 M	$1,796 M	$1,924 M	$1,894 M	$2,007 M	$1,967 M
St. John the Baptist - Edgard	$533 M	$526 M	$541 M	$530 M	$558 M	$541 M
St. Martin	$614 M	$591 M	$621 M	$594 M	$624 M	$604 M
St. Mary - Franklin/Charenton	$740 M	$710 M	$913 M	$899 M	$982 M	$966 M
St. Mary - Lower	$4,572 M	$4,364 M	$4,791 M	$4,493 M	$4,856 M	$4,764 M
St. Mary - Morgan City	$10,556 M	$9,229 M	$10,878 M	$10,284 M	$11,666 M	$11,213 M
St. Mary - Patterson	$111 M	$111 M	$113 M	$112 M	$114 M	$115 M
Terrebonne - Houma	$87,756 M	$31,596 M	$90,908 M	$40,647 M	$92,087 M	$53,403 M
Terrebonne - Lower	$1,820 M	$2,032 M	$1,857 M	$2,058 M	$1,872 M	$2,074 M
Total	**$166,724 M**	**$97,862 M**	**$172,852 M**	**$110,637 M**	**$178,474 M**	**$127,109 M**

Leeville Bank Stabilization

Bank Stabilization

Project ID: 03a.BS.100



Description

Bank stabilization through earthen fill placement and articulated concrete block mats to a design elevation of 4 feet NAVD88 along approximately 28,400 feet along the northern and southern banks the Southeast and Southwest Canals south of Leeville.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

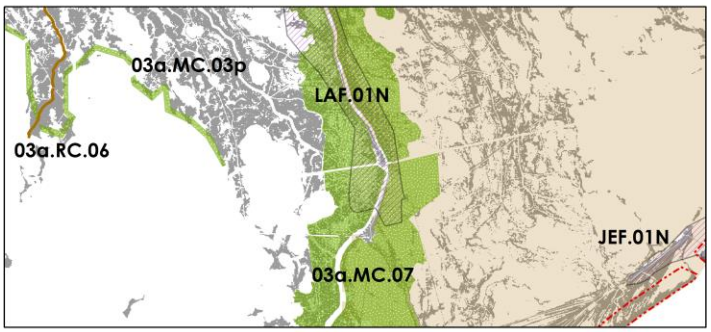
	Estimated Cost
Planning/Engineering & Design	$6,200,000
Construction	$77,000,000
Operations & Maintenance	$51,500,000
Total	**$134,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	-160 acres
Long Term (Year 50)	126 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

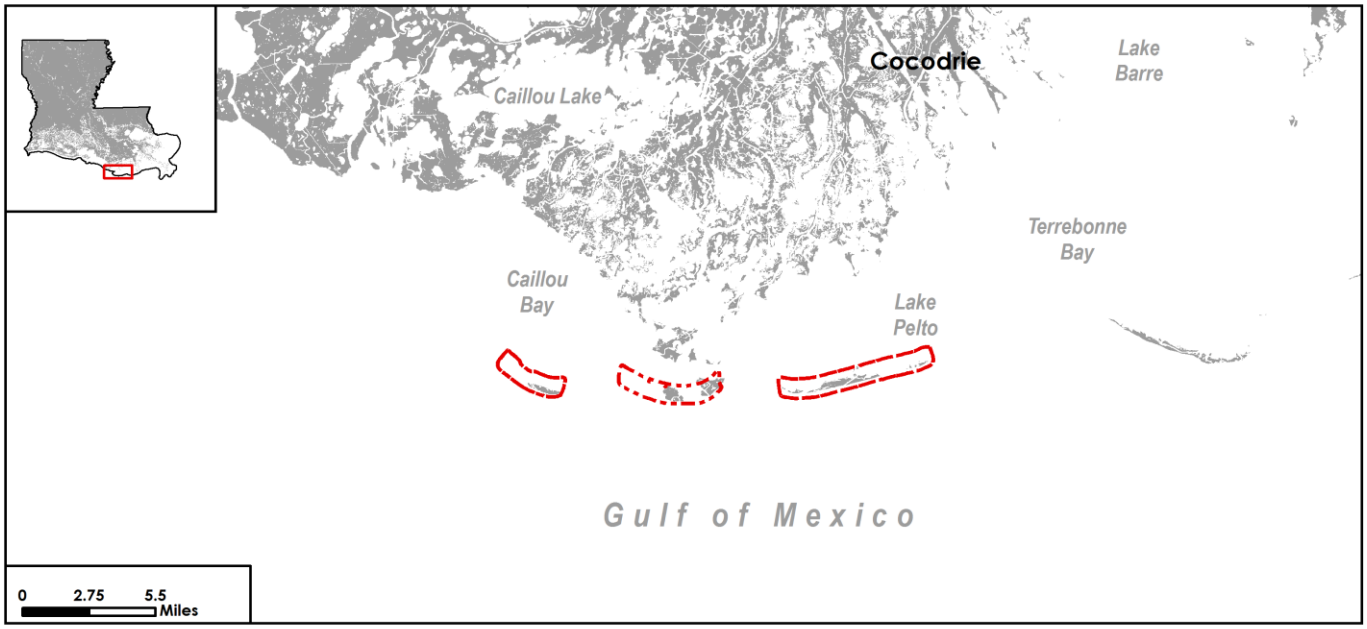


2017 Coastal Master Plan
Not Selected

Isles Dernieres Barrier Island Restoration

Barrier Island Restoration

Project ID: 03a.BH.03



Description

Restoration of 7,400 acres of the Isles Dernieres barrier islands to provide dune, beach, and back barrier marsh habitat. The project provides storm surge and wave attenuation for 86,000 linear feet of shoreline in the Terrebonne Basin.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

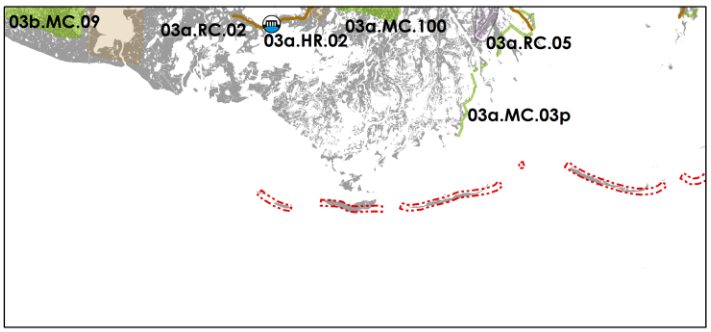
	Estimated Cost
Planning/Engineering & Design	$76,100,000
Construction	$950,800,000
Operations & Maintenance	$33,500,000
Total	**$1,060,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,017 acres
Long Term (Year 50)	1,326 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



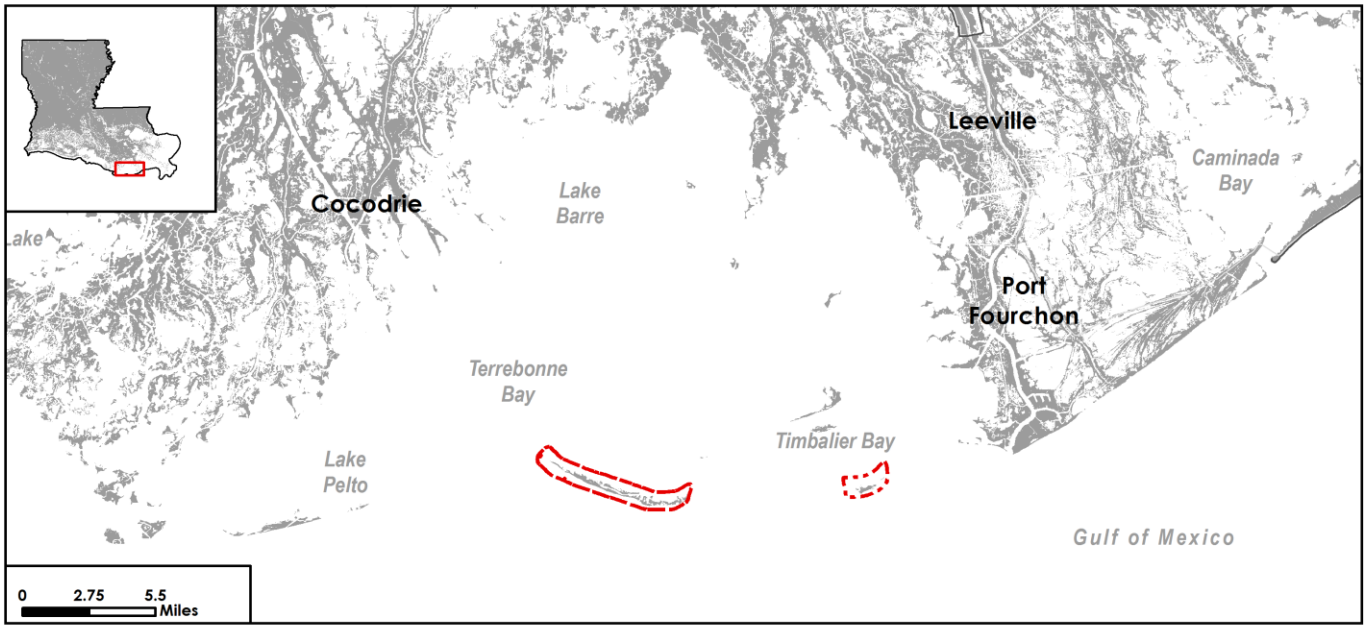
Note

Project to be addressed programmatically by CPRA's Barrier Island Program.

Timbalier Islands Barrier Island Restoration

Barrier Island Restoration

Project ID: 03a.BH.04



Description

Restoration of 4,500 acres of the Timbalier barrier islands to provide dune, beach, and back barrier marsh habitat. The project provides storm surge and wave attenuation for 57,000 linear feet of shoreline in the Terrebonne Basin.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Lafourche Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

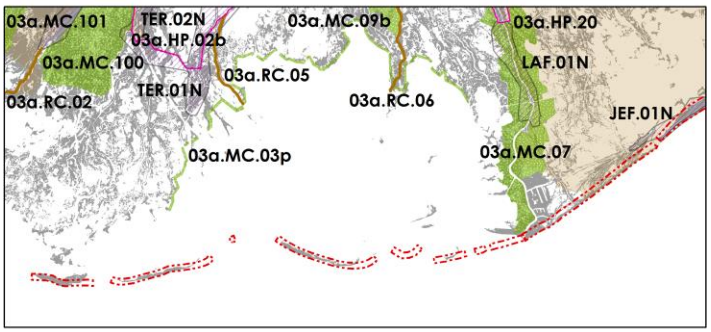
	Estimated Cost
Planning/Engineering & Design	$46,900,000
Construction	$585,700,000
Operations & Maintenance	$20,600,000
Total	**$653,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	949 acres
Long Term (Year 50)	-43 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

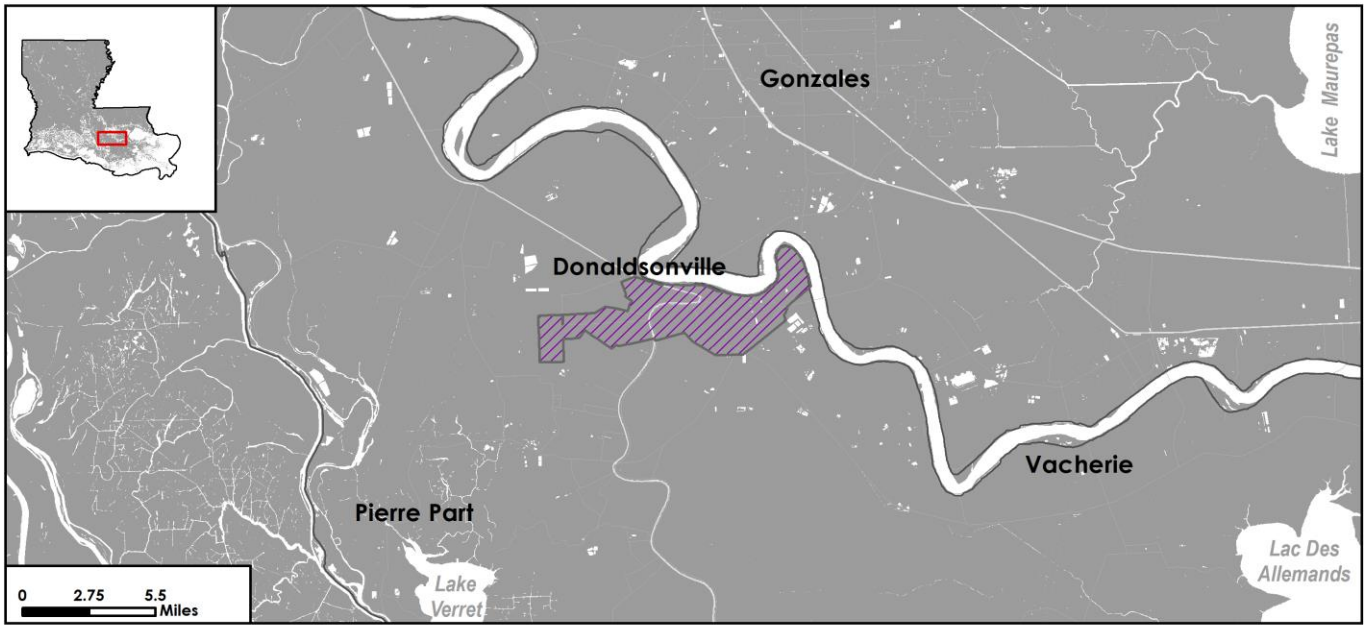
Project to be addressed programmatically by CPRA's Barrier Island Program.

2017 Coastal Master Plan
See Note

Ascension - Donaldsonville

Nonstructural Risk Reduction

Project ID: ASC.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Ascension Parish

Project Duration

No action required.

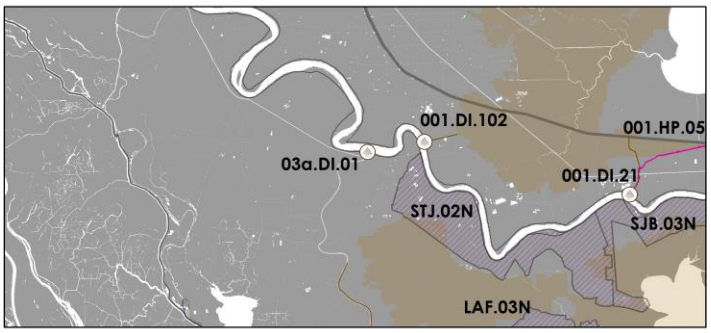
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	10,848
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Ascension - Donaldsonville

Nonstructural Risk Reduction

Project ID: ASC.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$0 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	$0 M	$0 M	**$0 M**
50	< $1 M	< $1 M	**$0 M**

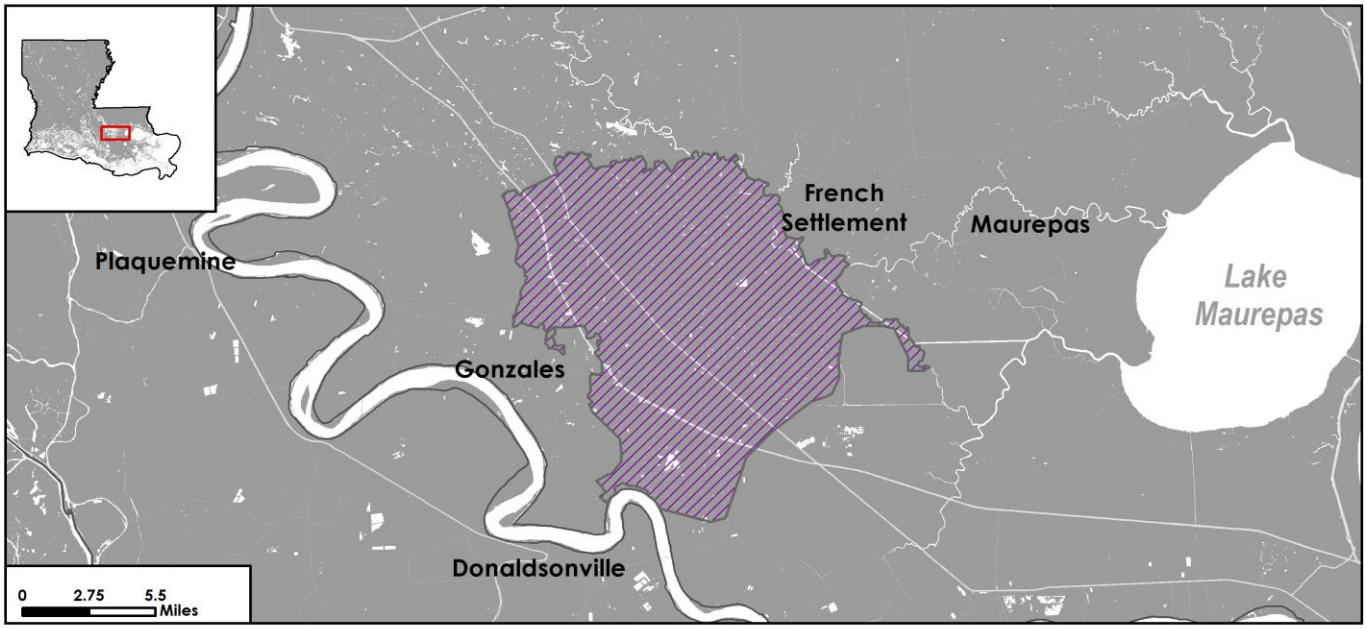
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$0 M	-	$0 M	-
10	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
25	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
50	$0 M	$0 M	$0 M	$0 M	< $1 M	< $1 M

Ascension - Prairieville/Sorrento

Nonstructural Risk Reduction

Project ID: ASC.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Ascension Parish

Project Duration

Construction is estimated to take 1 year.

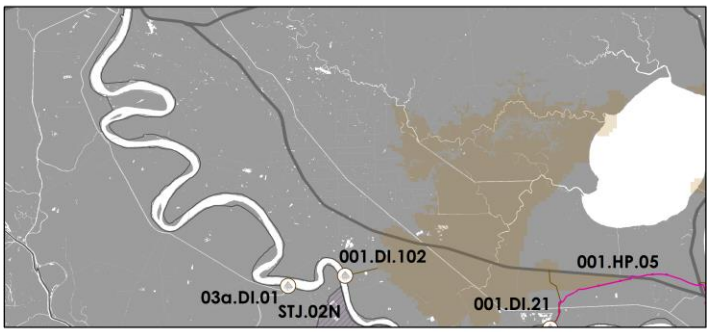
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	2	$600,000
Residential Acquisition	0	$0
Total	**2**	**$600,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	96,296
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	22%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Ascension - Prairieville/Sorrento

Nonstructural Risk Reduction

Project ID: ASC.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

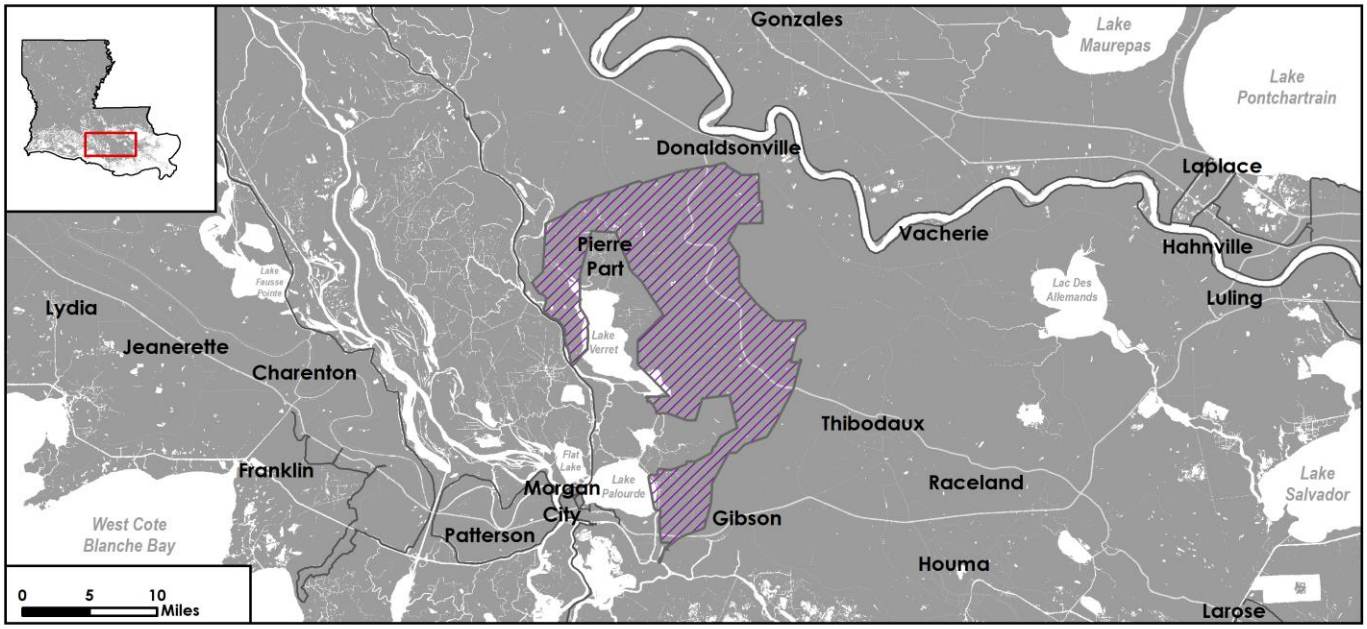
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	$1 M	< $1 M	**< $1 M**
25	$83 M	$82 M	**< $1 M**
50	$809 M	$809 M	**< $1 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$16 M	-	$16 M	-	$19 M	-
10	$24 M	$21 M	$26 M	$22 M	$34 M	$30 M
25	$1,834 M	$1,831 M	$2,218 M	$2,215 M	$2,437 M	$2,435 M
50	$15,882 M	$15,879 M	$17,491 M	$17,489 M	$18,545 M	$18,542 M

Assumption
Nonstructural Risk Reduction
Project ID: ASU.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Assumption Parish

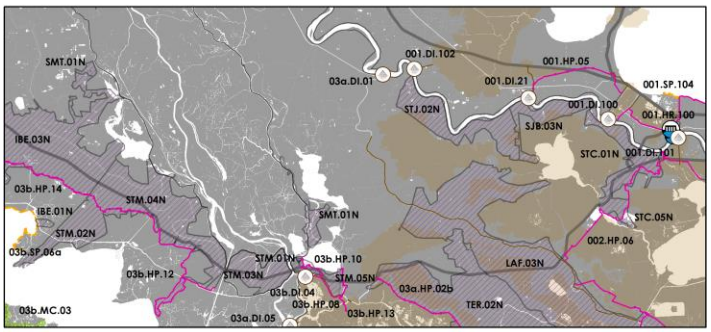
Project Duration
Construction is estimated to take 3 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	21	$11,600,000
Residential Elevation	246	$38,600,000
Residential Acquisition	0	$0
Total	**267**	**$50,200,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	23,518
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	17%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Not Selected

Assumption
Nonstructural Risk Reduction
Project ID: ASU.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$7 M	-	-
10	$20 M	$12 M	**$7 M**
25	$66 M	$46 M	**$21 M**
50	$265 M	$245 M	**$21 M**

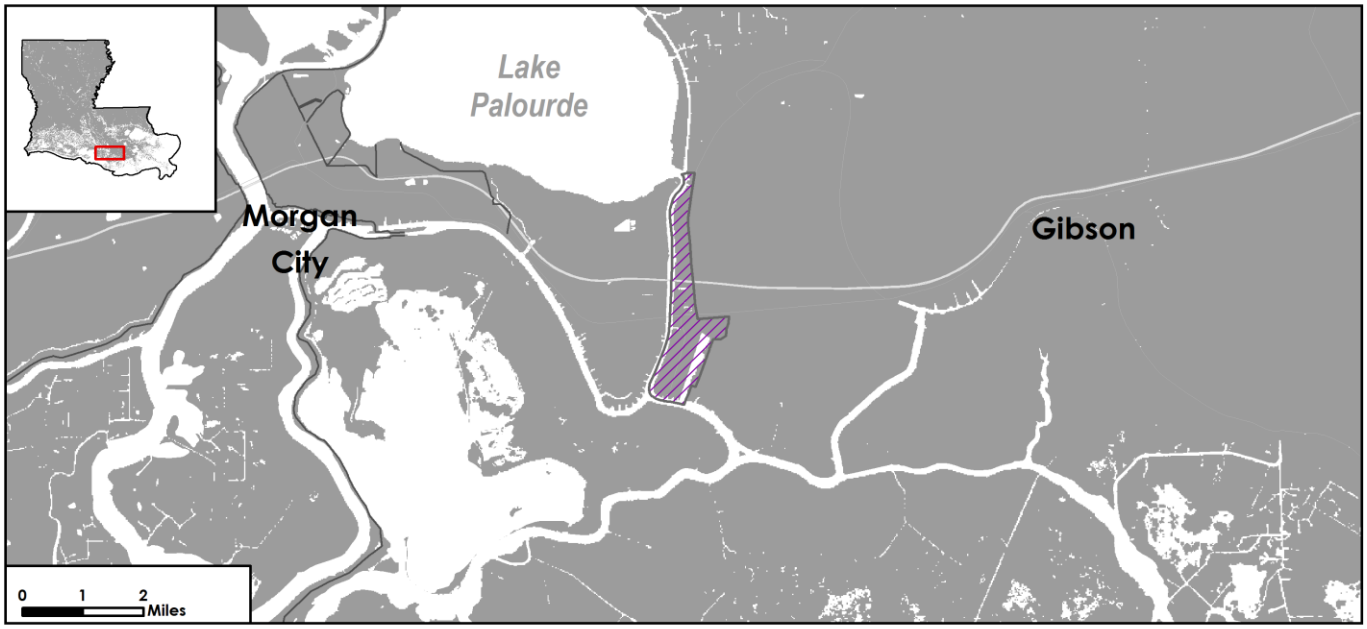
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$168 M	-	$322 M	-	$656 M	-
10	$580 M	$370 M	$770 M	$497 M	$946 M	$664 M
25	$1,048 M	$764 M	$1,258 M	$970 M	$1,372 M	$1,084 M
50	$4,101 M	$3,898 M	$4,203 M	$4,001 M	$4,262 M	$4,060 M

Assumption - Amelia

Nonstructural Risk Reduction

Project ID: ASU.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Assumption Parish

Project Duration

Construction is estimated to take 1 year.

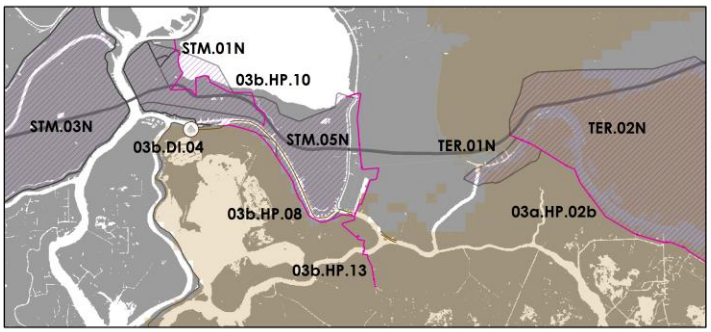
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	3	$1,500,000
Total	**3**	**$1,500,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	51
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	43%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Assumption - Amelia
Nonstructural Risk Reduction
Project ID: ASU.02N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1 M	-	-
10	$1 M	$1 M	**< $1 M**
25	$2 M	$1 M	**< $1 M**
50	$4 M	$3 M	**< $1 M**

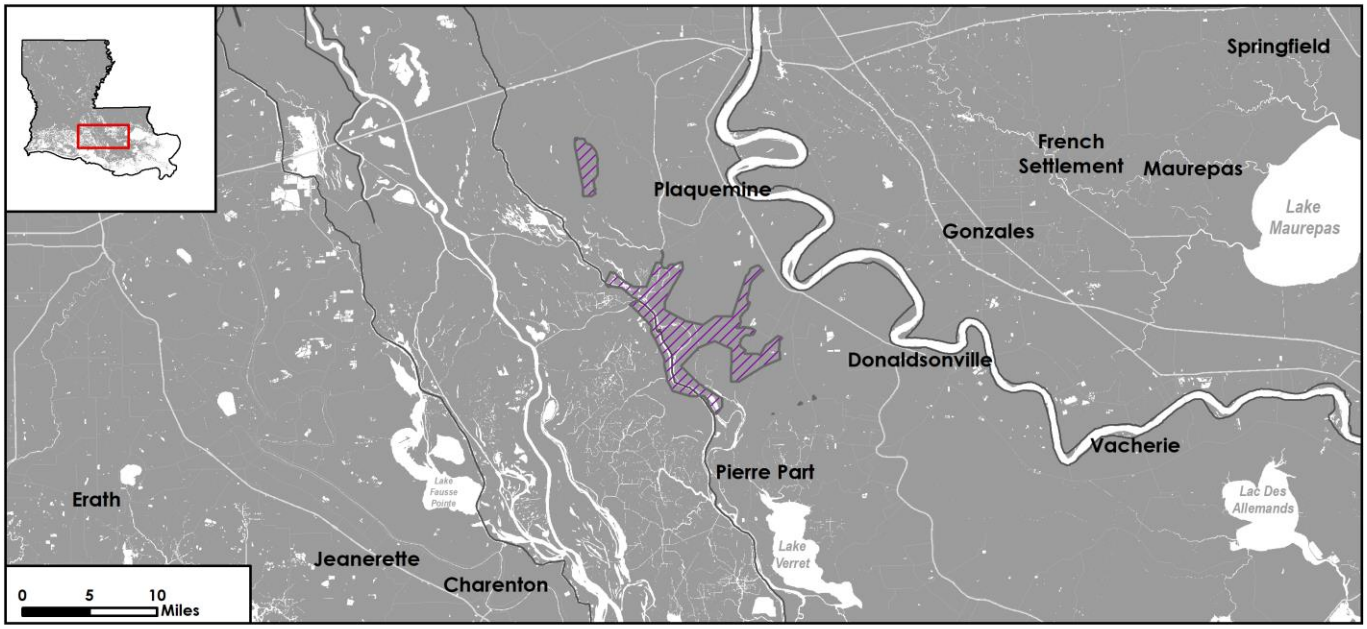
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$14 M	-	$14 M	-	$14 M	-
10	$16 M	$13 M	$21 M	$15 M	$23 M	$16 M
25	$28 M	$21 M	$32 M	$25 M	$34 M	$27 M
50	$48 M	$42 M	$49 M	$43 M	$50 M	$44 M

Iberville

Nonstructural Risk Reduction

Project ID: IBV.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Iberville Parish

Project Duration

No action required.

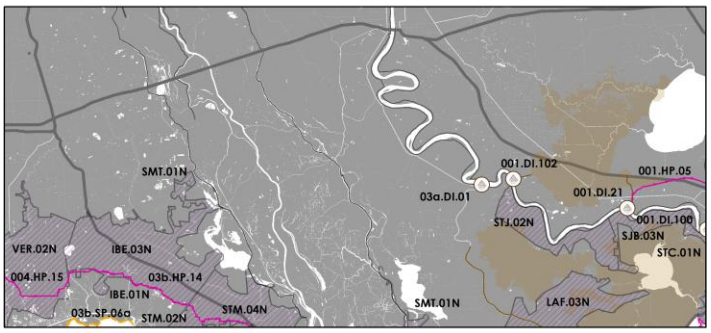
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	2,950
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Iberville
Nonstructural Risk Reduction
Project ID: IBV.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$0 M	-	-
10	$0 M	$0 M	**$0 M**
25	$0 M	$0 M	**$0 M**
50	$1 M	$1 M	**$0 M**

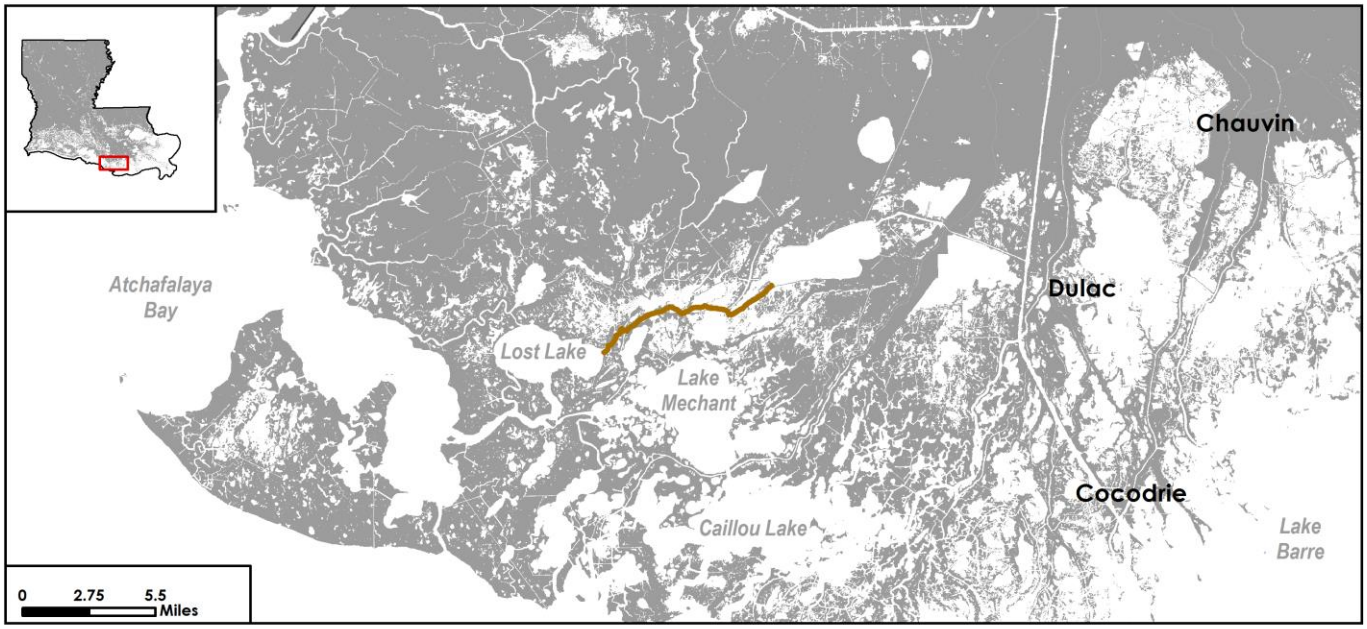
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$0 M	-	$0 M	-
10	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
25	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
50	$22 M	$22 M	$23 M	$23 M	$23 M	$23 M

Bayou Decade Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.01



Description

Restoration of approximately 42,600 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Decade.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

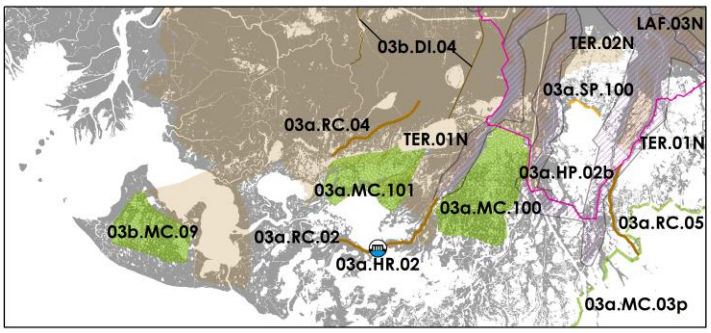
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,000,000
Operations & Maintenance	$2,100,000
Total	**$9,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	-206 acres
Long Term (Year 50)	-505 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



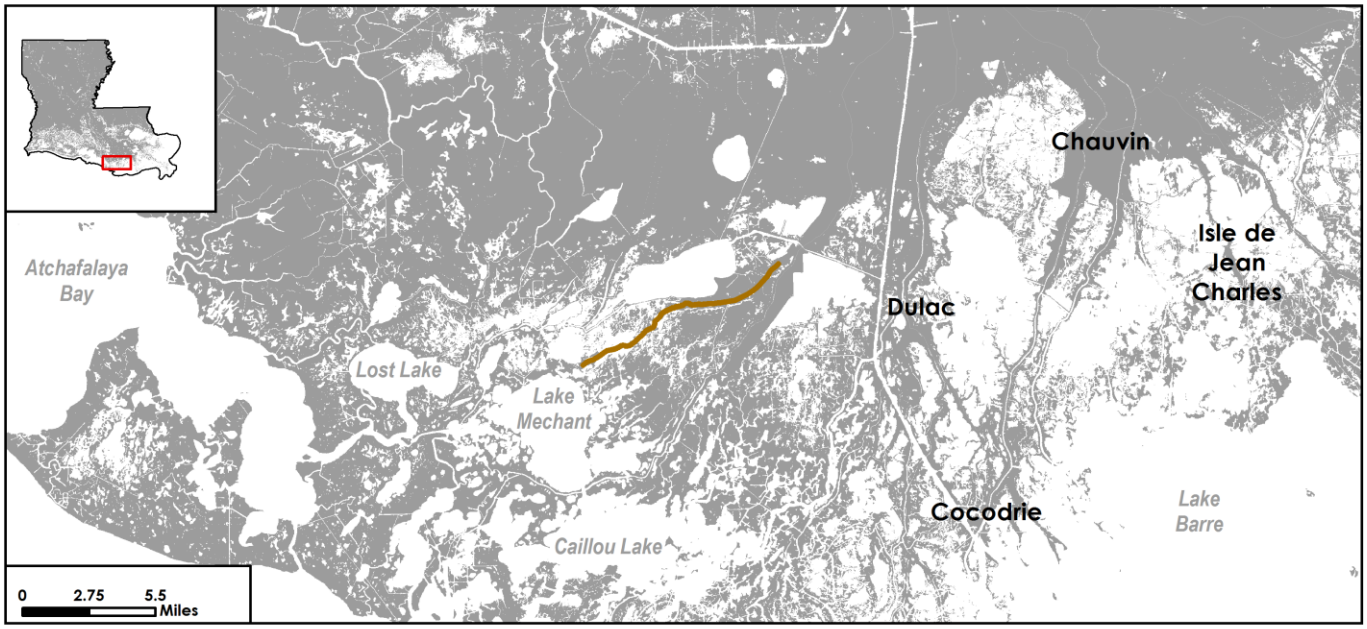
2017 Coastal Master Plan

Not Selected

Small Bayou LaPointe Ridge Restoration

Ridge Restoration

Project ID: 03a.RC.03



Description

Restoration of approximately 49,000 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Small Bayou LaPointe.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

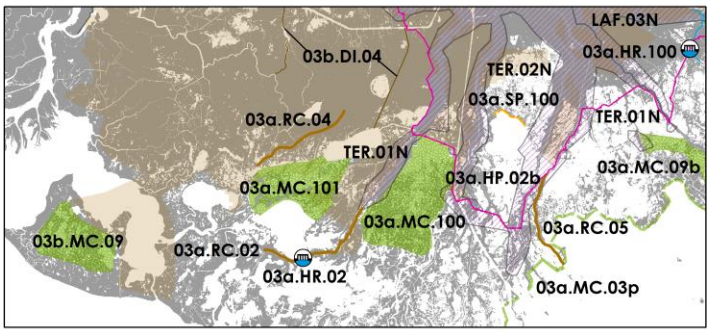
	Estimated Cost
Planning/Engineering & Design	$800,000
Construction	$8,300,000
Operations & Maintenance	$2,600,000
Total	**$11,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	35 acres
Long Term (Year 50)	-520 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

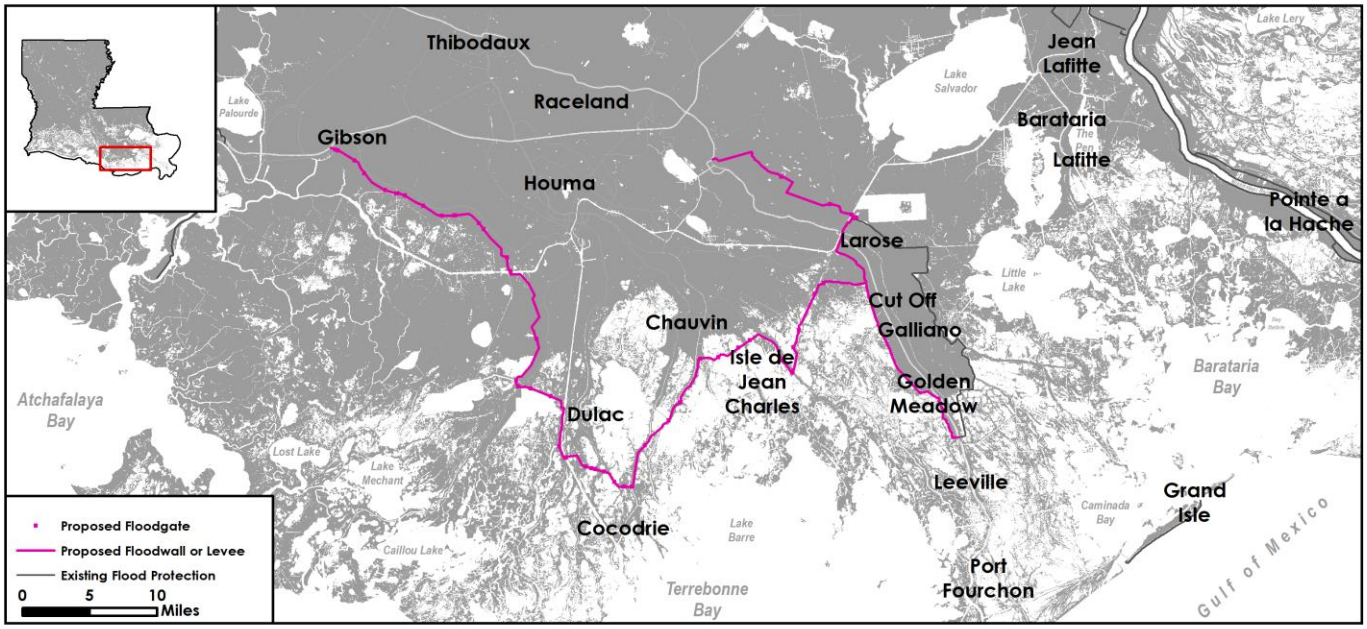


2017 Coastal Master Plan
Not Selected

Morganza to the Gulf - LGM enhanced inducements

Structural Protection

Project ID: 03a.HP.102



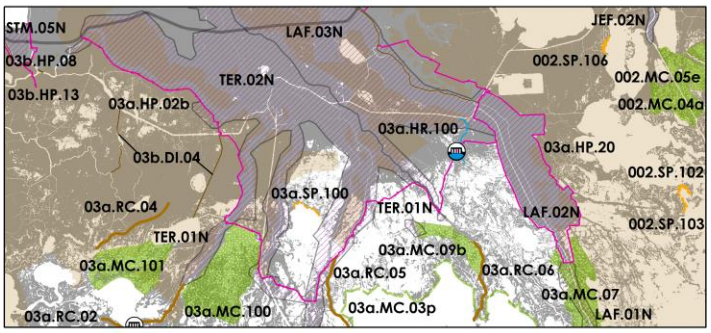
Description

Construction of the Morganza to the Gulf levee system with enhancements to the western reaches of the Larose to Golden Meadow levee system to elevations between 15 and 26.5 feet NAVD88. Project features approximately 552,100 feet of earthen levee, approximately 40,700 feet of T-wall, (22) 6-foot sluice gates, (1) 30-foot stop log, (2) 20-foot stop logs, (13) 56-foot sector gates, (1) 250-foot sector gate, (1) 175-foot sector gate, (1) 125-foot sector gate, (1) 30-foot sector gate, (1) 110-foot lock gate, (1) 30-foot roller gate, (4) 40-foot roller gates, (1) 56-foot barge gate, (1) 30-foot barge gate, and (4) pump stations.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$1,107,600,000
Construction	$7,654,400,000
Operations & Maintenance	$449,600,000
Total	**$9,211,600,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Lafourche Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	202,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	40%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1,744

2017 Coastal Master Plan
Not Selected

Morganza to the Gulf - LGM enhanced inducements

Structural Protection

Project ID: 03a.HP.102

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1,077 M	-	-
25	$3,479 M	$2,007 M	**$1,473 M**
50	$10,411 M	$7,023 M	**$3,387 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	2	27
Government/Military	-	2
Electric Power Substation	-	36
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	1	14
Electric Power Plant	2	21
Port	-	1
Petroleum Pump Station	-	17
Refinery	-	4
Water and Sewer	-	7
Strategic Petroleum Reserve	-	-
Total	**4**	**130**

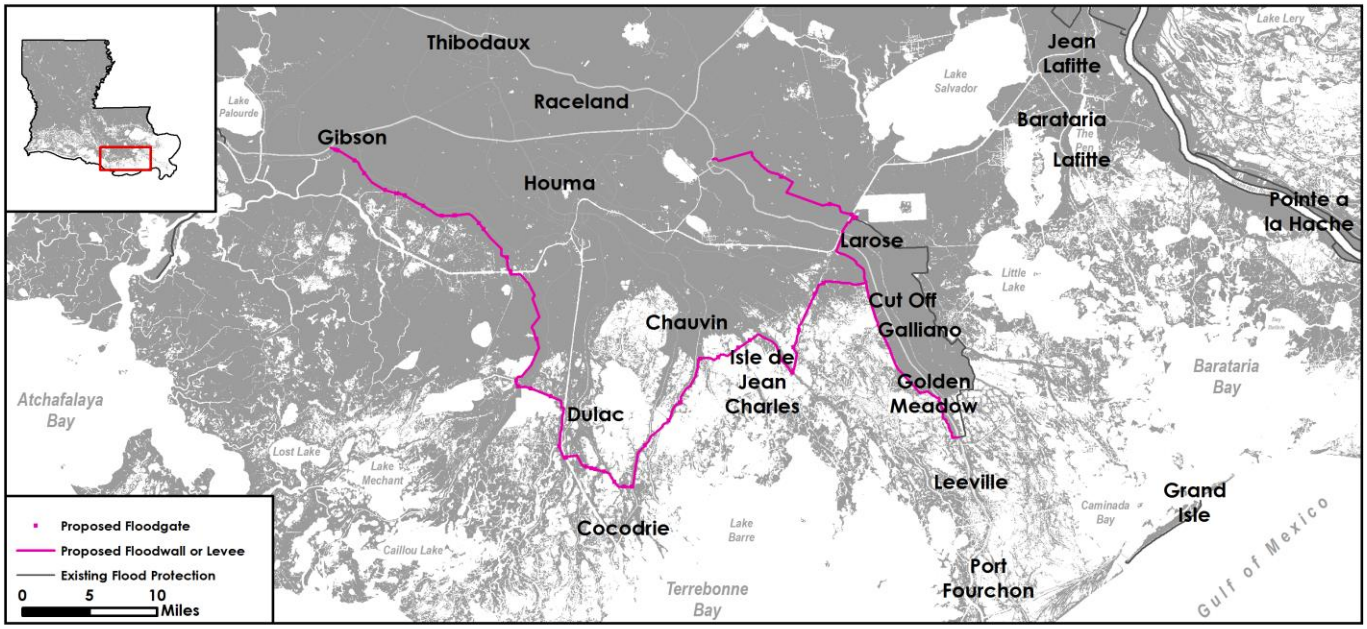
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$5,186 M	$4,366 M	$5,333 M	$4,538 M	$5,405 M	$4,692 M
Assumption - Amelia	$49 M	$49 M	$50 M	$50 M	$50 M	$50 M
Jefferson - Grand Isle	$1,275 M	$1,275 M	$1,281 M	$1,281 M	$1,322 M	$1,355 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,601 M	$1,633 M	$1,628 M	$1,655 M	$1,651 M
Lafourche - Larose/Golden Meadow	$9,480 M	$10,657 M	$9,657 M	$10,975 M	$9,711 M	$11,058 M
Lafourche - Lower	$455 M	$500 M	$459 M	$501 M	$460 M	$501 M
Lafourche - Raceland	$23,892 M	$13,032 M	$25,279 M	$14,118 M	$28,269 M	$15,936 M
Plaquemines - Grand Bayou	$99 M	$97 M	$100 M	$98 M	$100 M	$98 M
Plaquemines - West Bank	$1,167 M	$1,132 M	$1,246 M	$1,220 M	$1,263 M	$1,236 M
St. Charles - Hahnville/Luling	$14,838 M	$14,288 M	$15,129 M	$14,595 M	$15,330 M	$14,791 M
St. Charles - Salvador	$138 M	$136 M	$140 M	$140 M	$143 M	$140 M
St. James - Vacherie	$1,832 M	$1,796 M	$1,924 M	$1,894 M	$2,007 M	$1,967 M
St. John the Baptist - Edgard	$533 M	$526 M	$541 M	$530 M	$558 M	$541 M
St. Martin	$614 M	$591 M	$621 M	$594 M	$624 M	$604 M
St. Mary - Franklin/Charenton	$740 M	$710 M	$913 M	$899 M	$982 M	$966 M
St. Mary - Lower	$4,572 M	$4,364 M	$4,791 M	$4,493 M	$4,856 M	$4,764 M
St. Mary - Morgan City	$10,556 M	$9,229 M	$10,878 M	$10,284 M	$11,666 M	$11,213 M
St. Mary - Patterson	$111 M	$111 M	$113 M	$112 M	$114 M	$115 M
Terrebonne - Houma	$87,756 M	$31,596 M	$90,908 M	$40,647 M	$92,087 M	$53,403 M
Terrebonne - Lower	$1,820 M	$2,032 M	$1,857 M	$2,058 M	$1,872 M	$2,074 M
Total	**$166,724 M**	**$98,089 M**	**$172,852 M**	**$110,652 M**	**$178,474 M**	**$127,156 M**

Morganza to the Gulf - LGM basic inducements

Structural Protection

Project ID: 03a.HP.103



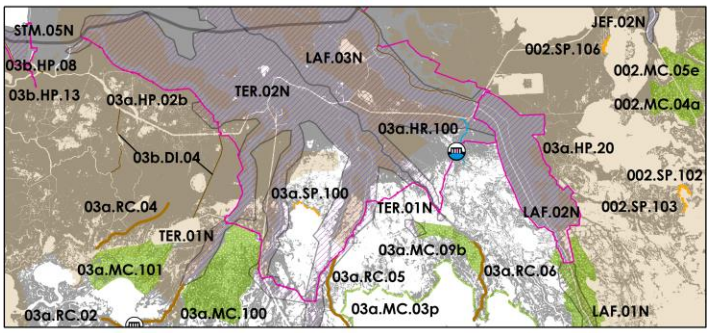
Description

Construction of the Morganza to the Gulf levee system with enhancements to the western reaches of the Larose to Golden Meadow levee system to elevations between 15 and 26.5 feet NAVD88. Project features approximately 552,100 feet of earthen levee, approximately 40,700 feet of T-wall, (22) 6-foot sluice gates, (1) 30-foot stop log, (2) 20-foot stop logs, (13) 56-foot sector gates, (1) 250-foot sector gate, (1) 175-foot sector gate, (1) 125-foot sector gate, (1) 30-foot sector gate, (1) 110-foot lock gate, (1) 30-foot roller gate, (4) 40-foot roller gates, (1) 56-foot barge gate, (1) 30-foot barge gate, and (4) pump stations.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$1,360,300,000
Construction	$7,050,900,000
Operations & Maintenance	$420,600,000
Total	**$8,831,800,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Lafourche Parish; Terrebonne Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	202,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	40%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1,744

2017 Coastal Master Plan
Not Selected

Morganza to the Gulf - LGM basic inducements

Structural Protection

Project ID: 03a.HP.103

Economic Damage

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Year	*FWOA*	*FWP*	*Difference*
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25	$3,479 M	$2,007 M	**$1,472 M**
50	$10,411 M	$7,011 M	**$3,399 M**

Critical Infrastructure

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Asset Type	*Protected*	*Total*
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Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	1	14
Electric Power Plant	2	21
Port	-	1
Petroleum Pump Station	-	17
Refinery	-	4
Water and Sewer	-	7
Strategic Petroleum Reserve	-	-
Total	**4**	**130**

Table 3: Economic Damage by Return Period at Year 50

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	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
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Assumption - Amelia	$49 M	$49 M	$50 M	$50 M	$50 M	$50 M
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Lafourche - Lower	$455 M	$500 M	$459 M	$501 M	$460 M	$501 M
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St. Charles - Hahnville/Luling	$14,838 M	$14,288 M	$15,129 M	$14,595 M	$15,330 M	$14,791 M
St. Charles - Salvador	$138 M	$136 M	$140 M	$140 M	$143 M	$140 M
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St. John the Baptist - Edgard	$533 M	$526 M	$541 M	$530 M	$558 M	$541 M
St. Martin	$614 M	$591 M	$621 M	$594 M	$624 M	$604 M
St. Mary - Franklin/Charenton	$740 M	$710 M	$913 M	$899 M	$982 M	$966 M
St. Mary - Lower	$4,572 M	$4,364 M	$4,791 M	$4,493 M	$4,856 M	$4,764 M
St. Mary - Morgan City	$10,556 M	$9,229 M	$10,878 M	$10,284 M	$11,666 M	$11,213 M
St. Mary - Patterson	$111 M	$111 M	$113 M	$112 M	$114 M	$115 M
Terrebonne - Houma	$87,756 M	$31,596 M	$90,908 M	$40,647 M	$92,087 M	$53,403 M
Terrebonne - Lower	$1,820 M	$2,032 M	$1,857 M	$2,058 M	$1,872 M	$2,074 M
Total	**$166,724 M**	**$97,854 M**	**$172,852 M**	**$110,601 M**	**$178,474 M**	**$127,083 M**

LaBranche Hydrologic Restoration

Hydrologic Restoration

Project ID: 001.HR.100

Description

Construction of a 750 cfs hybrid pump-siphon structure, intake structure, and an approximately 1 mile long conveyance system to LaBranche wetlands via the Mississippi River to restore the historically fresh to intermediate marshes. Features also include a conveyance channel, roadway, and railroad crossings.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

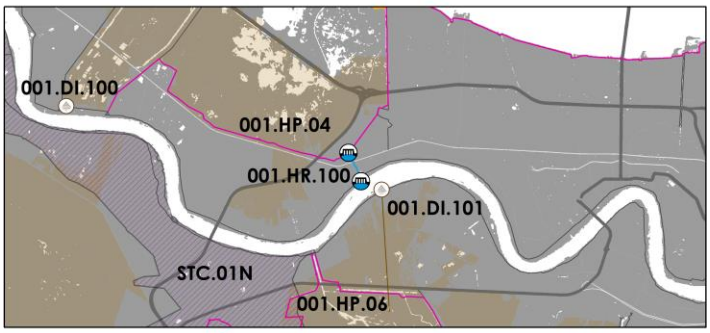
	Estimated Cost
Planning/Engineering & Design	$5,800,000
Construction	$72,600,000
Operations & Maintenance	$2,500,000
Total	**$80,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,222 acres
Long Term (Year 50)	3,613 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

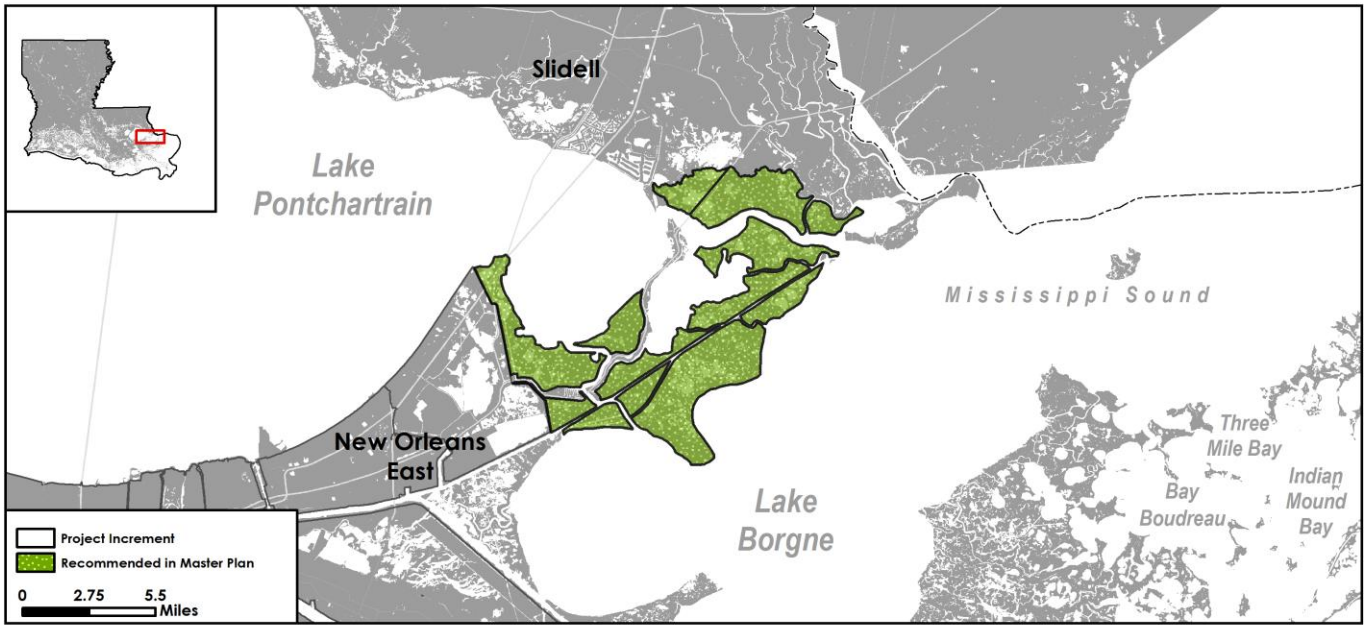


2017 Coastal Master Plan
Implementation Period 1

New Orleans East Landbridge Restoration

Marsh Creation

Project ID: 001.MC.05



Description

Creation of approximately 33,400 acres of marsh in the New Orleans East Landbridge to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Orleans Parish; St. Tammany Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 18 years.

Project Cost Estimate

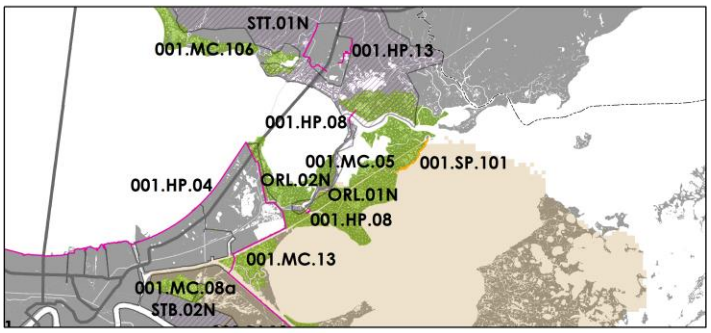
	Estimated Cost
Planning/Engineering & Design	$108,600,000
Construction	$1,356,900,000
Operations & Maintenance	$37,700,000
Total	**$1,503,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	25,858 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

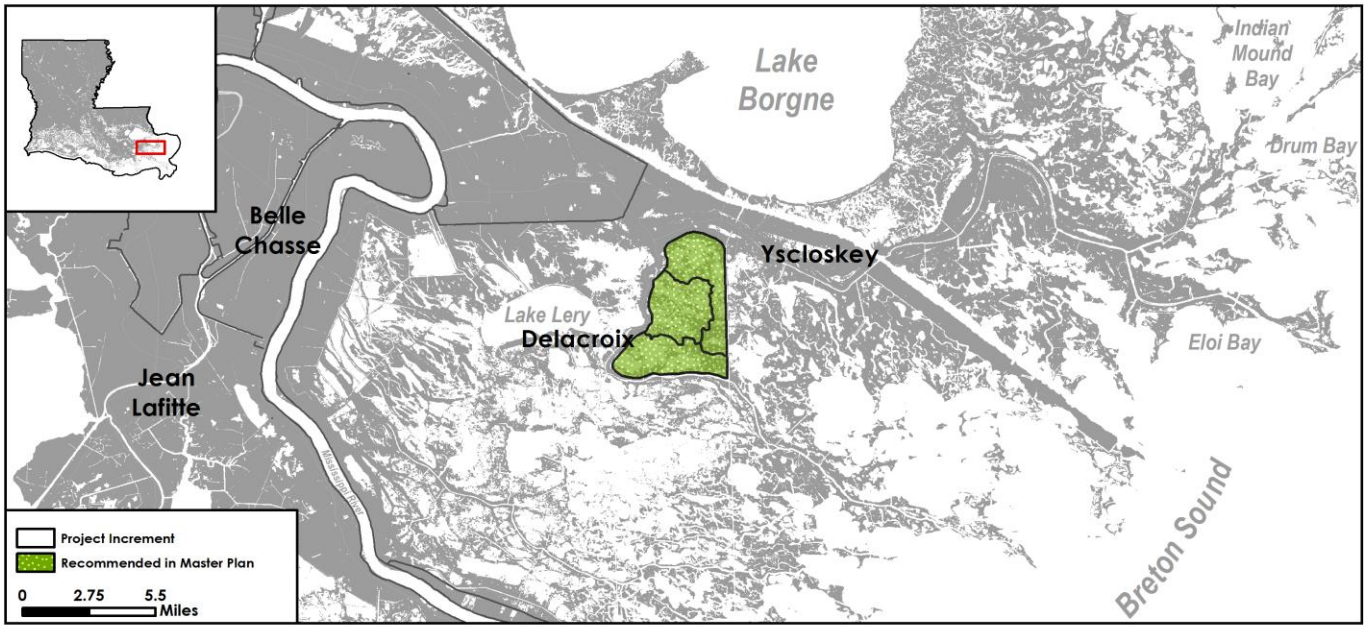
The first increment of the project, consisting of 11,600 acres with a cost of $396 M, will be constructed in Implementation Period I. The remaining 3 increments, consisting of 21,800 acres with a cost of $1,107 M, will be constructed in Implementation Period II.

2017 Coastal Master Plan
Implementation Period I / II

Breton Marsh Creation - Component A

Marsh Creation

Project ID: 001.MC.06a



Description

Creation of approximately 12,000 acres of marsh in the Breton Marsh east of Delacroix Island to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Project Cost Estimate

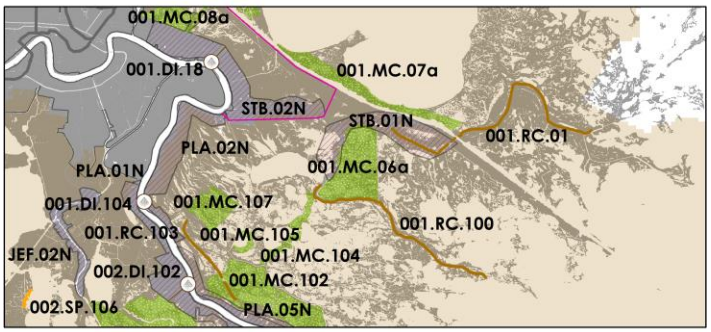
	Estimated Cost
Planning/Engineering & Design	$70,900,000
Construction	$886,000,000
Operations & Maintenance	$25,500,000
Total	**$982,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	6,819 acres
Long Term (Year 50)	5,637 acres

**Based on the high environmental scenario.*

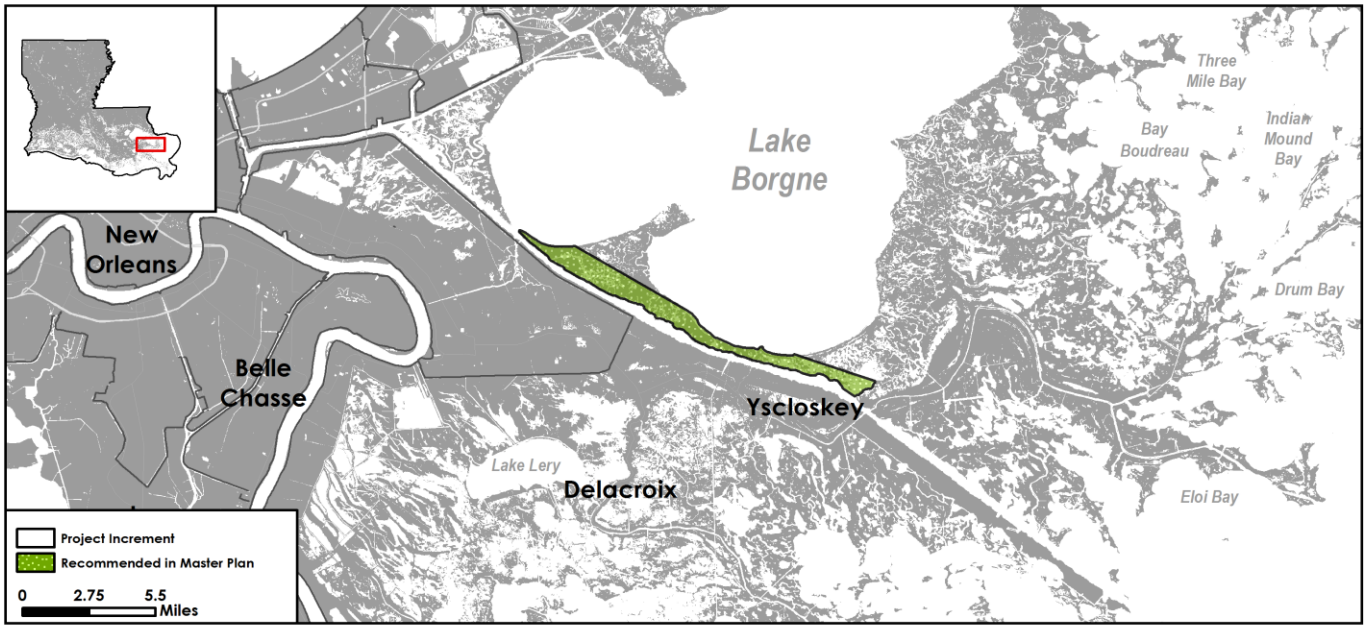
Other Nearby Projects in the Master Plan



Lake Borgne Marsh Creation - Component A

Marsh Creation

Project ID: 001.MC.07a



Description

Creation of approximately 5,900 acres of marsh along the south shoreline of Lake Borgne near Proctors Point to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

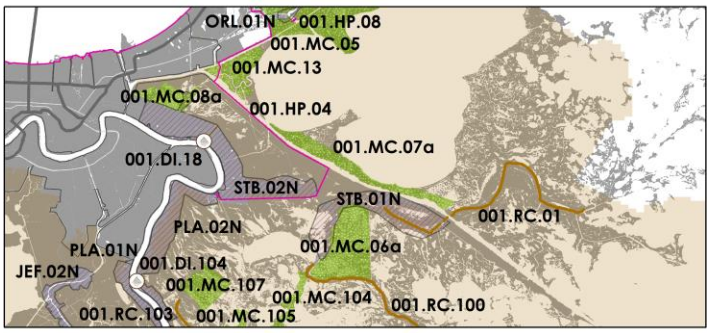
	Estimated Cost
Planning/Engineering & Design	$19,600,000
Construction	$245,400,000
Operations & Maintenance	$6,700,000
Total	**$271,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,886 acres
Long Term (Year 50)	4,502 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

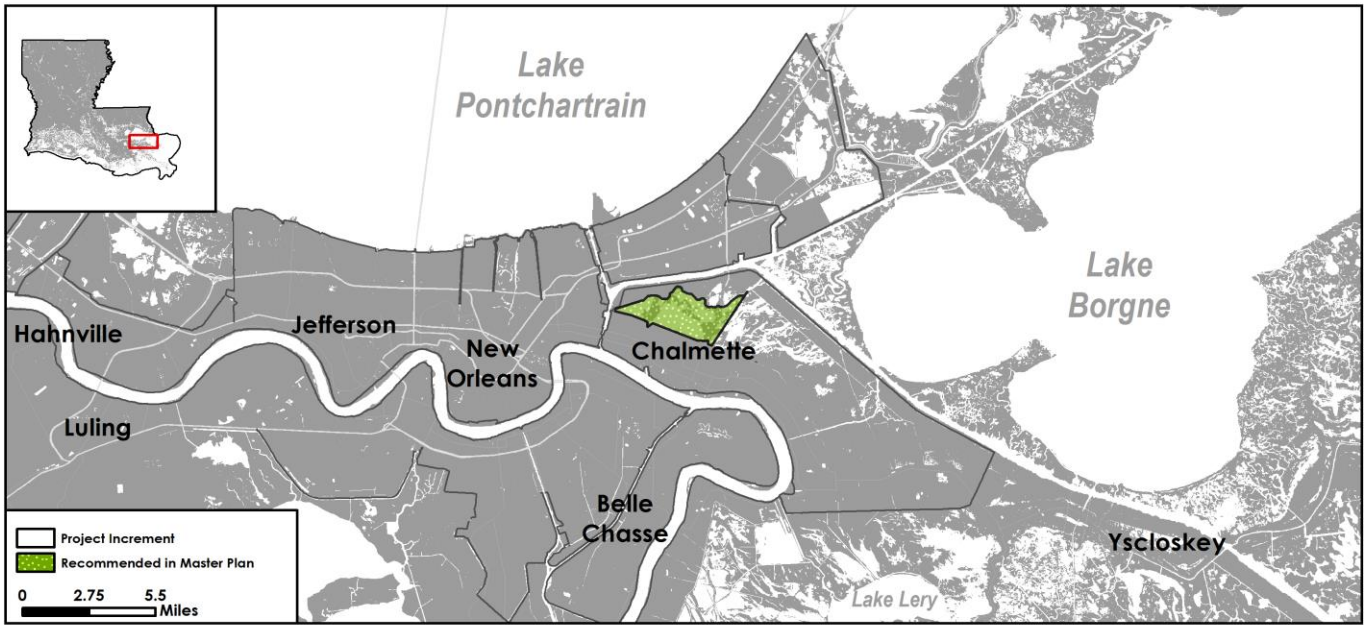


2017 Coastal Master Plan
Implementation Period II

Central Wetlands Marsh Creation - Component A

Marsh Creation

Project ID: 001.MC.08a



Description

Creation of approximately 2,800 acres of marsh in Central Wetlands near Bayou Bienvenue to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish; St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

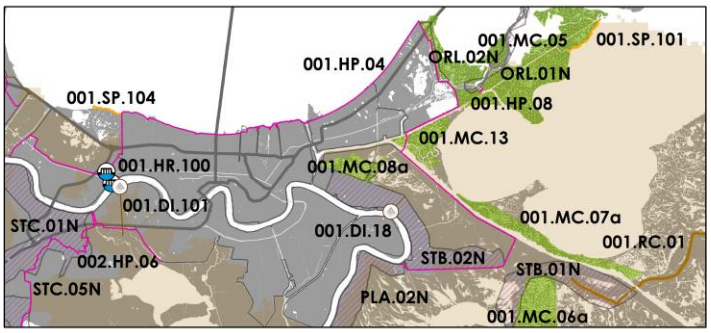
	Estimated Cost
Planning/Engineering & Design	$8,800,000
Construction	$110,300,000
Operations & Maintenance	$3,200,000
Total	**$122,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,554 acres
Long Term (Year 50)	-44 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

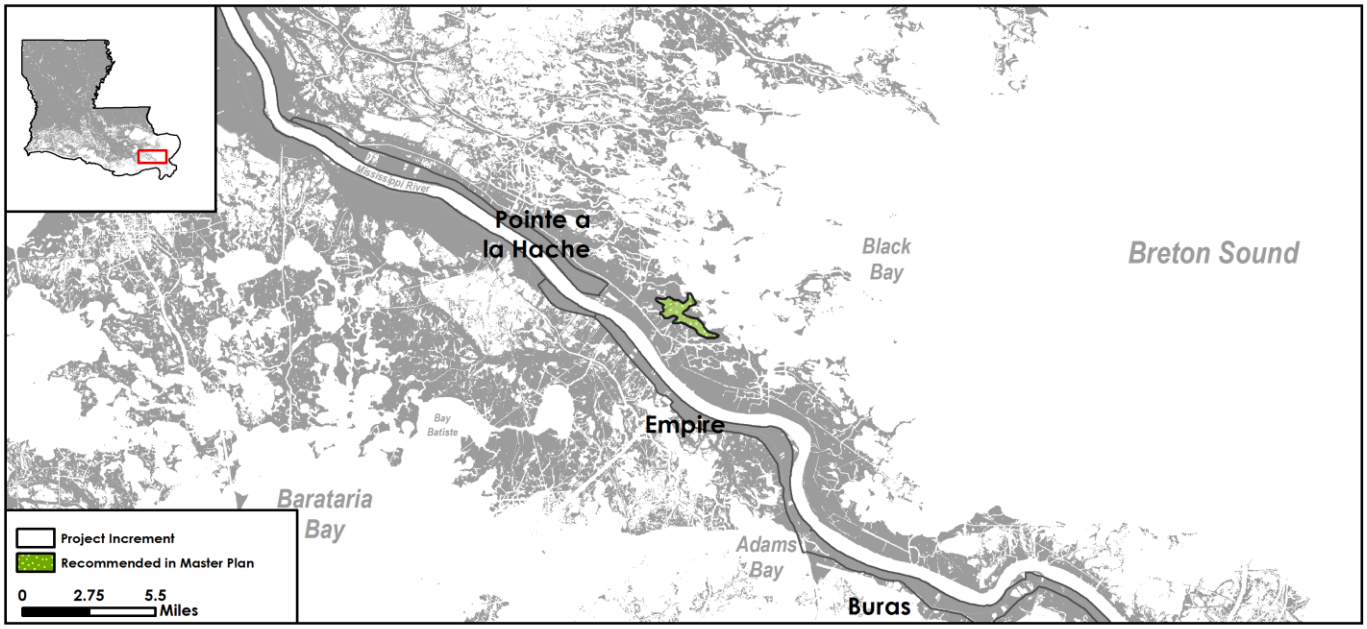


2017 Coastal Master Plan
Implementation Period II

Uhlan Bay Marsh Creation

Marsh Creation

Project ID: 001.MC.101



Description

Creation of approximately 700 acres of marsh on the east bank of Plaquemines Parish around Uhlan Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

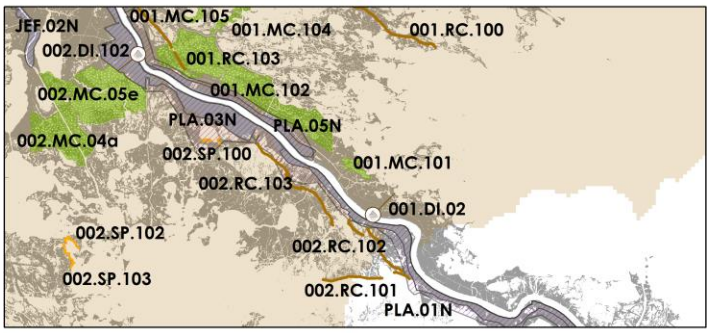
	Estimated Cost
Planning/Engineering & Design	$2,100,000
Construction	$26,500,000
Operations & Maintenance	$400,000
Total	**$29,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	374 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

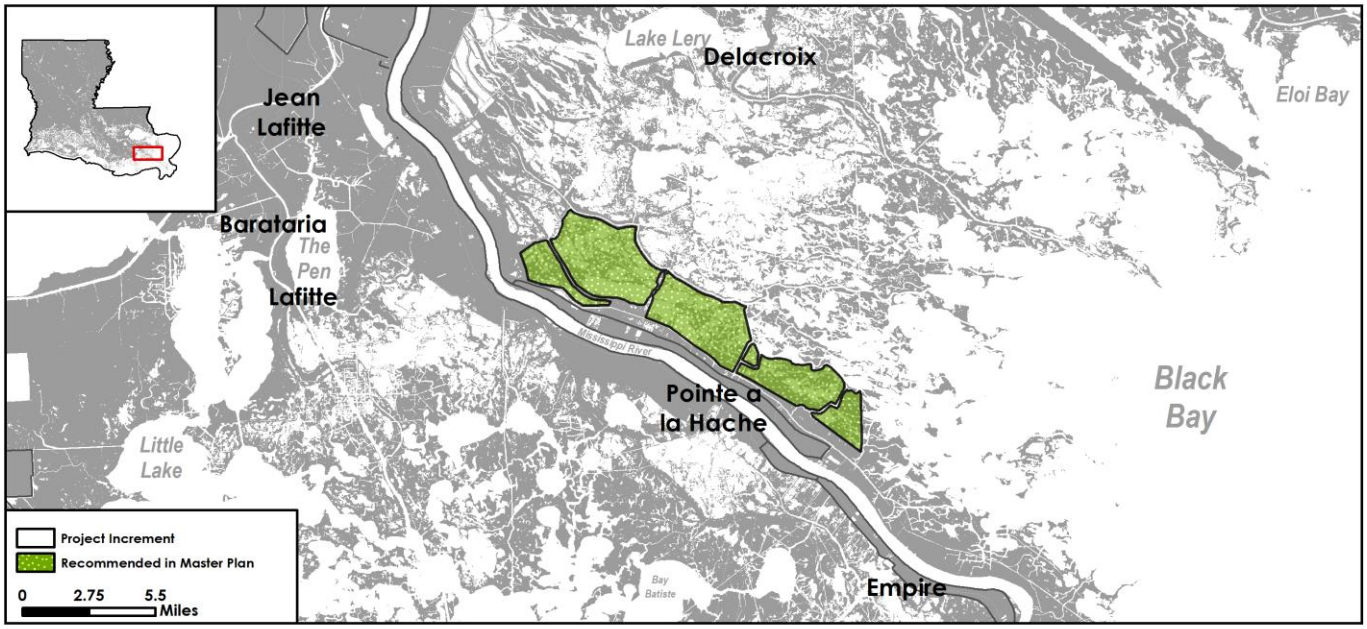


2017 Coastal Master Plan
Implementation Period III

Pointe a la Hache Marsh Creation

Marsh Creation

Project ID: 001.MC.102



Description

Creation of approximately 19,100 acres of marsh on the east bank of Plaquemines Parish near Pointe a la Hache to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Project Cost Estimate

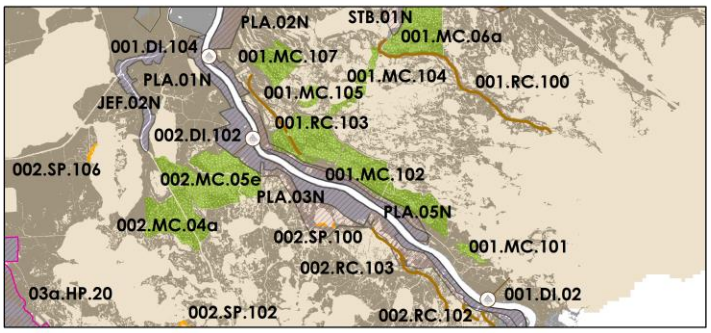
	Estimated Cost
Planning/Engineering & Design	$72,800,000
Construction	$909,800,000
Operations & Maintenance	$19,000,000
Total	**$1,001,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	11,962 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



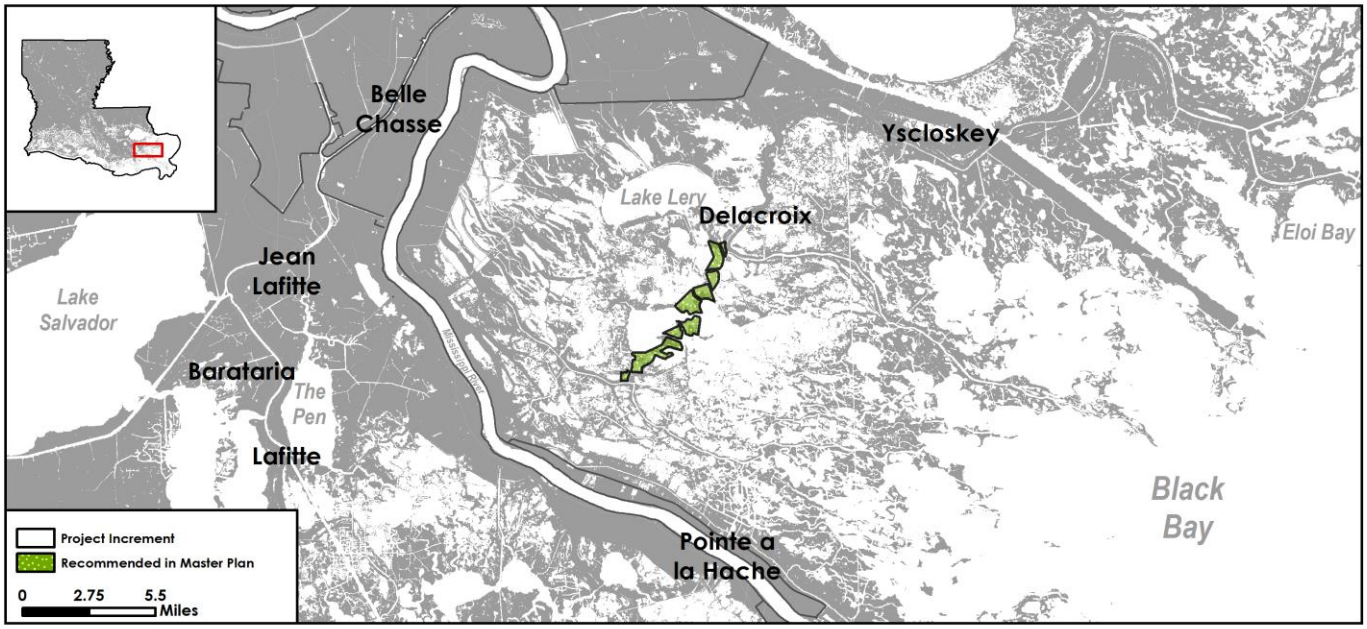
Note

The first 2 increments of the project, consisting of 13,700 acres with a cost of $648 M, will be constructed in Implementation Period II. The remaining increment, consisting of 5,400 acres with a cost of $354 M, will be constructed in Implementation Period III.

East Bank Land Bridge Marsh Creation

Marsh Creation

Project ID: 001.MC.104



Description

Creation of approximately 2,300 acres of marsh in Plaquemines Parish between Grand Lake and Lake Lery to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

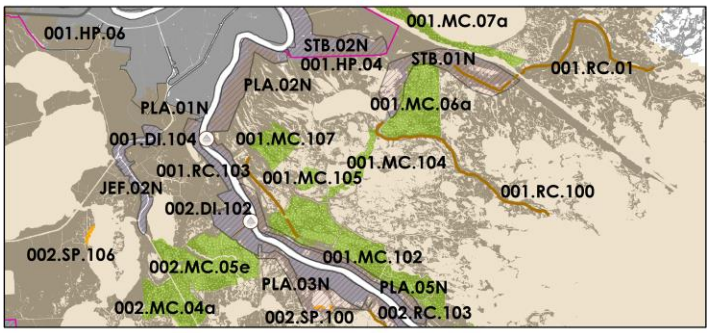
	Estimated Cost
Planning/Engineering & Design	$11,100,000
Construction	$139,000,000
Operations & Maintenance	$4,100,000
Total	**$154,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,595 acres
Long Term (Year 50)	1,775 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

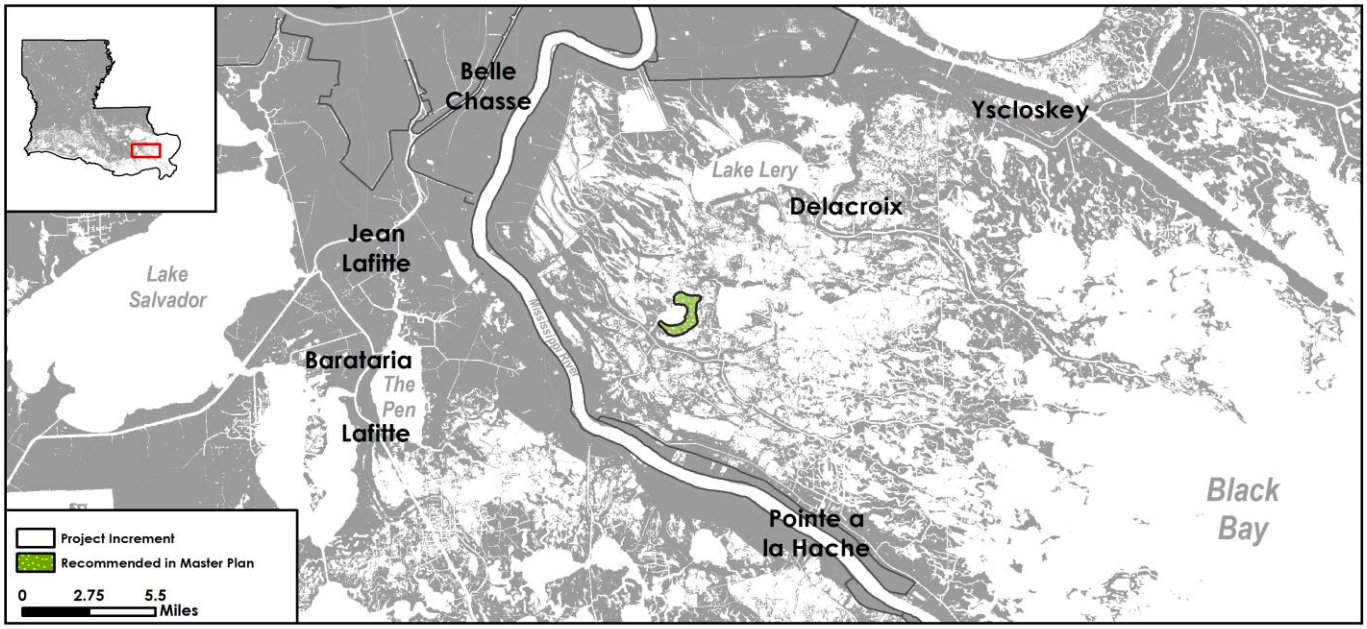


2017 Coastal Master Plan
Implementation Period II

Spanish Lake Marsh Creation

Marsh Creation

Project ID: 001.MC.105



Description

Creation of approximately 800 acres of marsh in Plaquemines Parish along the eastern shore of Spanish Lake to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

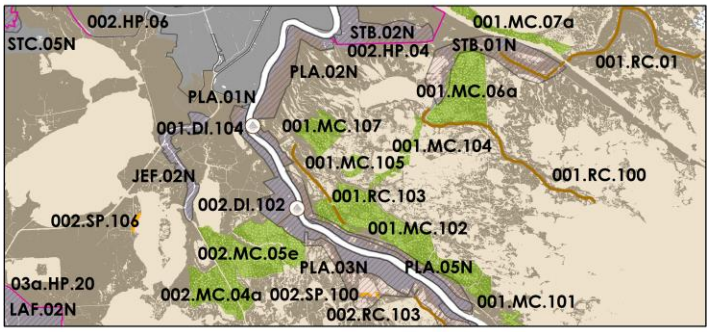
	Estimated Cost
Planning/Engineering & Design	$4,300,000
Construction	$54,000,000
Operations & Maintenance	$1,600,000
Total	**$59,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	728 acres
Long Term (Year 50)	1,360 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

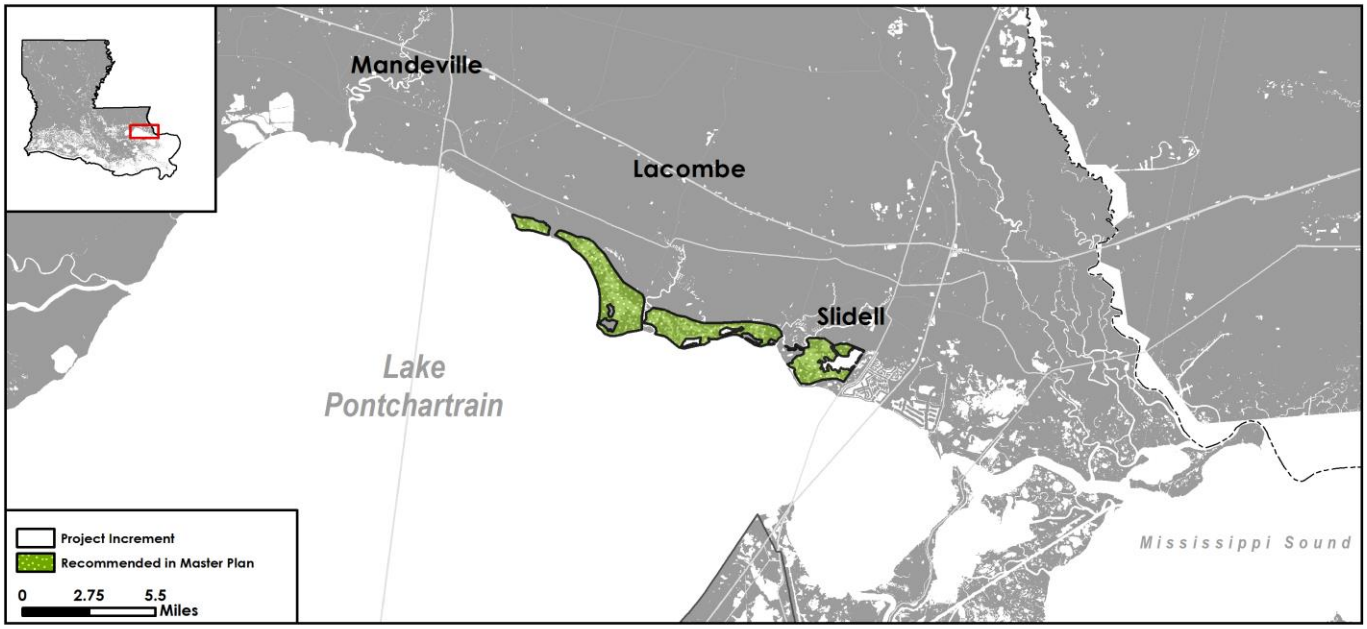


2017 Coastal Master Plan
Implementation Period II

St. Tammany Marsh Creation

Marsh Creation

Project ID: 001.MC.106



Description

Creation of approximately 6,700 acres of marsh in St. Tammany Parish along the northern shore of Lake Pontchartrain to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

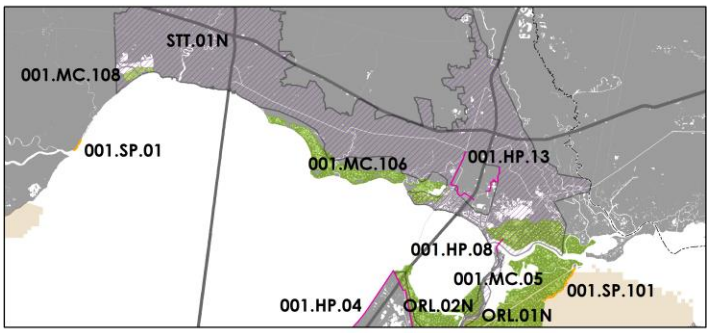
	Estimated Cost
Planning/Engineering & Design	$14,400,000
Construction	$180,200,000
Operations & Maintenance	$4,800,000
Total	**$199,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,138 acres
Long Term (Year 50)	4,013 acres

**Based on the high environmental scenario.*

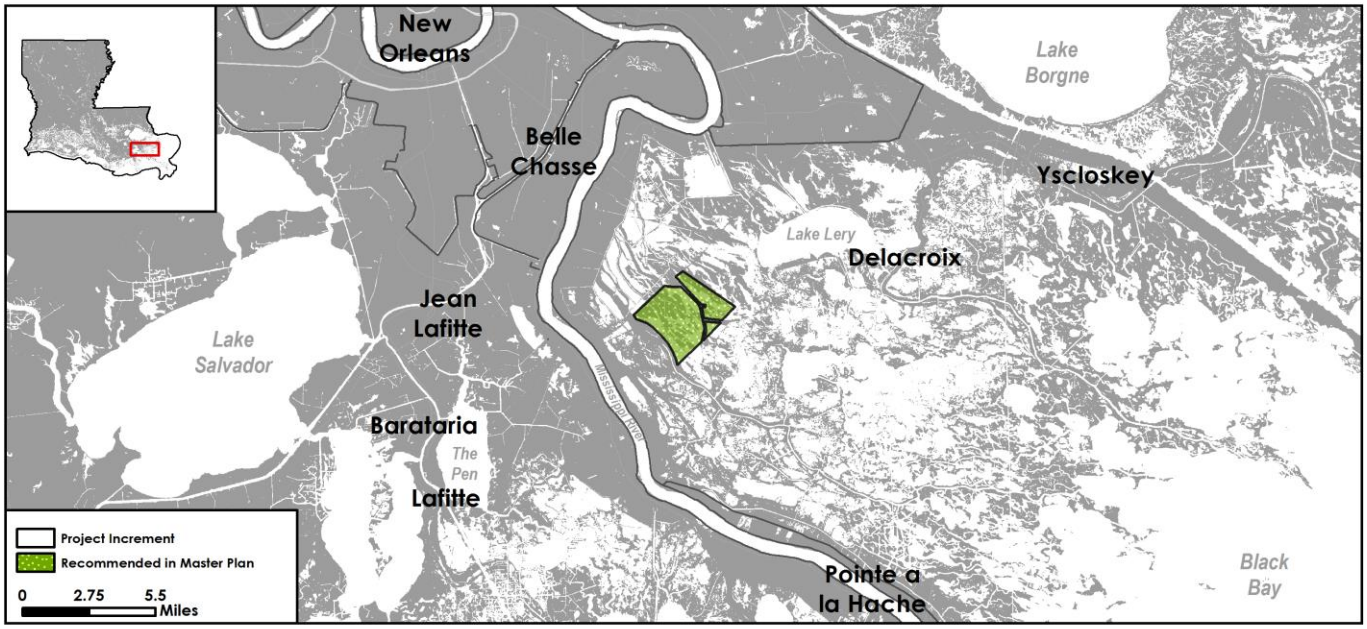
Other Nearby Projects in the Master Plan



Tiger Ridge/Maple Knoll Marsh Creation

Marsh Creation

Project ID: 001.MC.107



Description

Creation of approximately 4,700 acres of marsh in Plaquemines Parish near Tiger Ridge to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

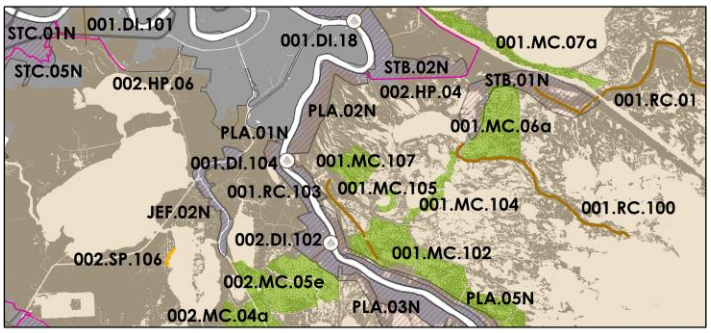
	Estimated Cost
Planning/Engineering & Design	$15,500,000
Construction	$193,500,000
Operations & Maintenance	$5,600,000
Total	**$214,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,136 acres
Long Term (Year 50)	2,430 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

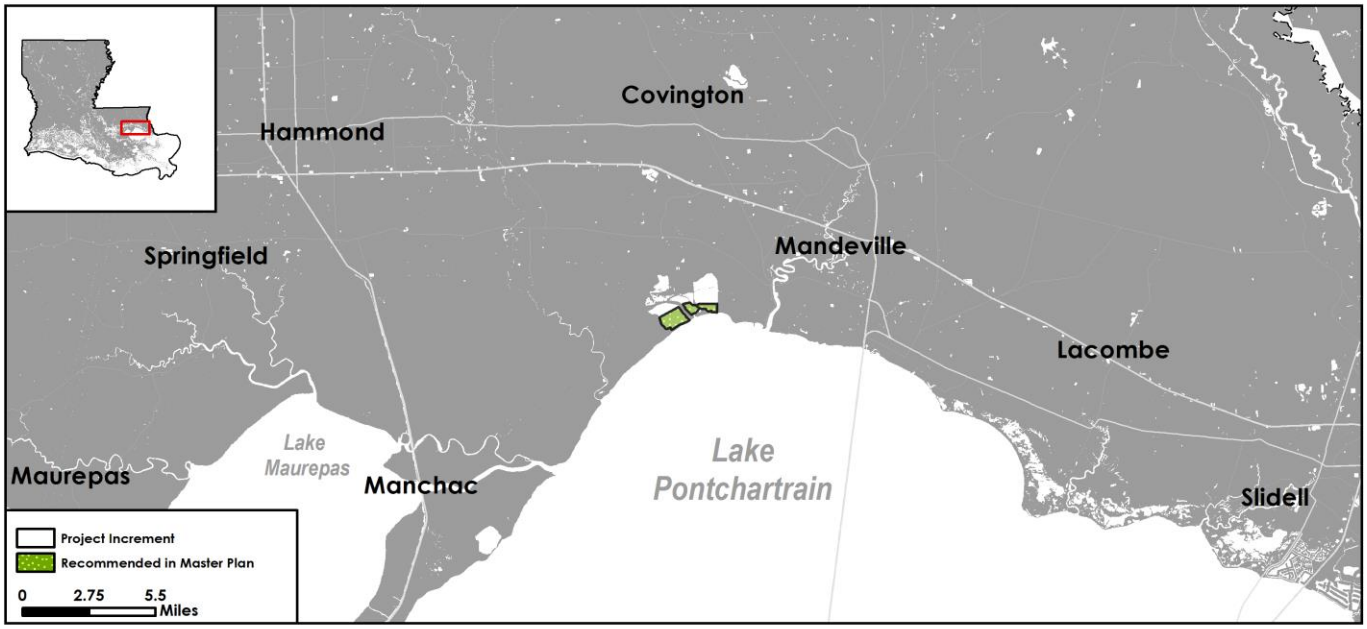


2017 Coastal Master Plan
Implementation Period II

Guste Island Marsh Creation

Marsh Creation

Project ID: 001.MC.108



Description

Creation of approximately 700 acres of marsh in St. Tammany Parish along the northwest Lake Pontchartrain shoreline to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

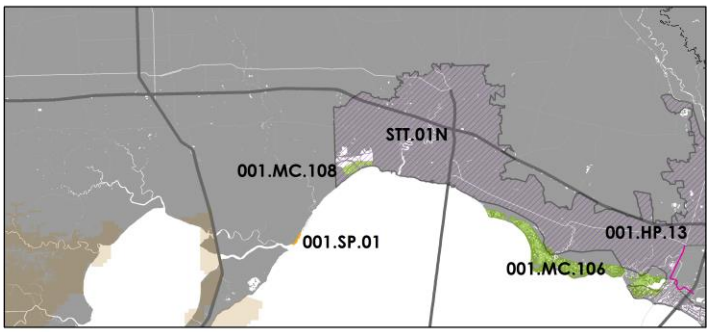
	Estimated Cost
Planning/Engineering & Design	$4,600,000
Construction	$57,600,000
Operations & Maintenance	$2,200,000
Total	**$64,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	533 acres
Long Term (Year 50)	1,912 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

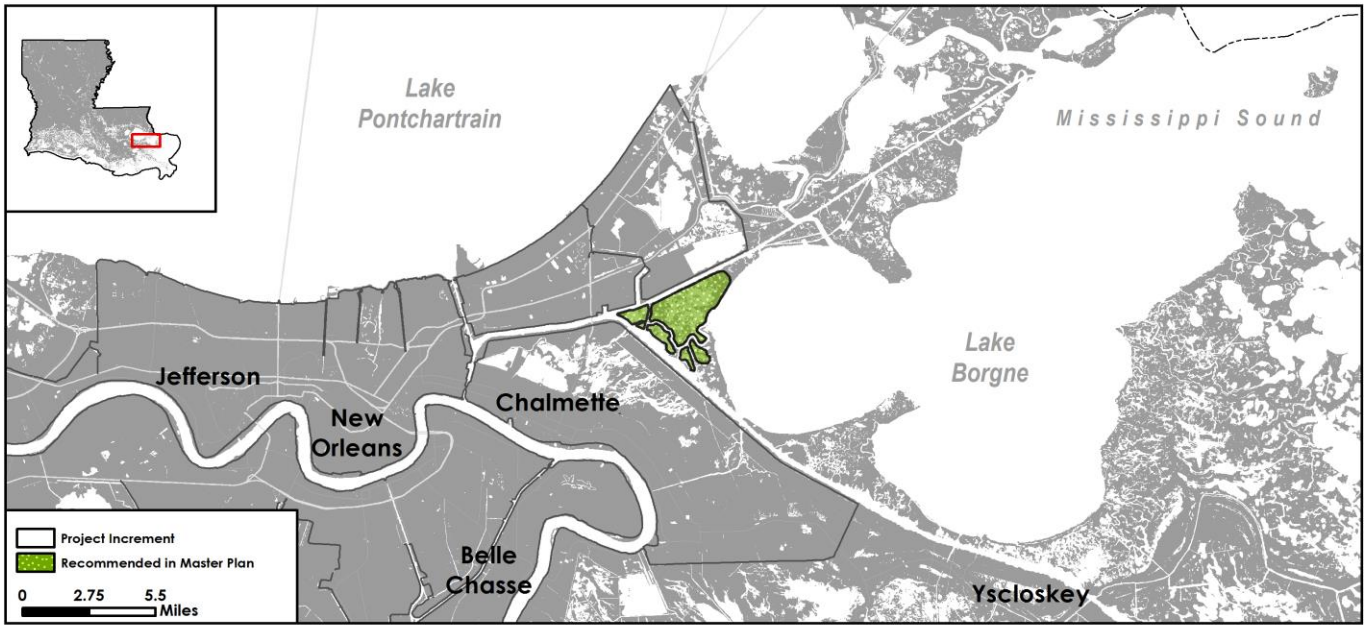


2017 Coastal Master Plan
Implementation Period 1

Golden Triangle Marsh Creation

Marsh Creation

Project ID: 001.MC.13



Description

Creation of approximately 3,900 acres of marsh in Golden Triangle Marsh between the MRGO and GIWW to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish; St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

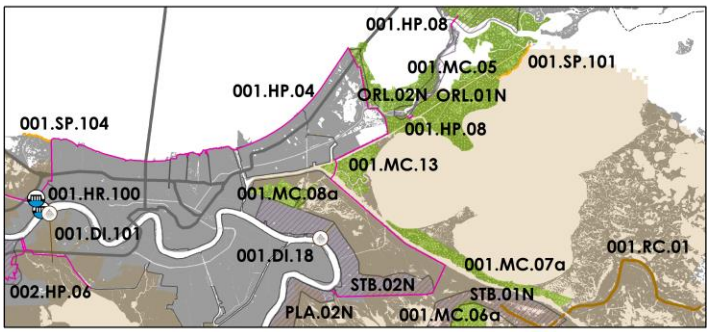
	Estimated Cost
Planning/Engineering & Design	$19,600,000
Construction	$245,100,000
Operations & Maintenance	$9,000,000
Total	**$273,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,245 acres
Long Term (Year 50)	-691 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

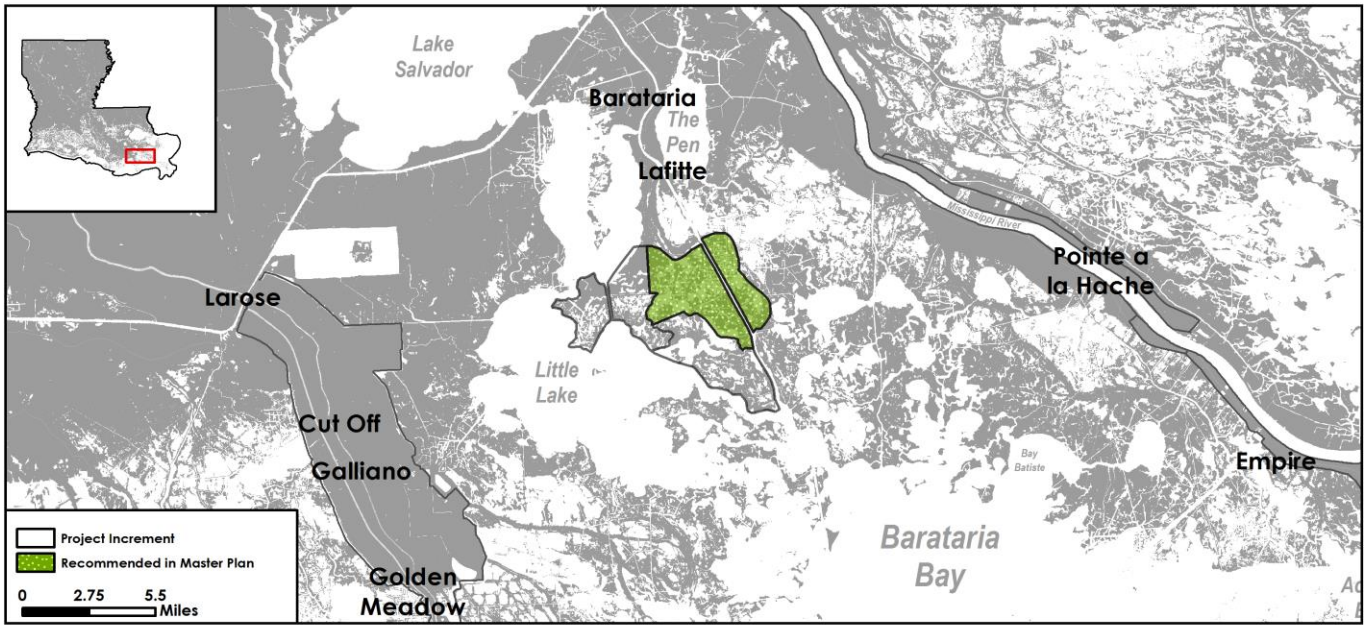


2017 Coastal Master Plan
Implementation Period 1

Lower Barataria Marsh Creation - Component A

Marsh Creation

Project ID: 002.MC.04a



Description

Creation of approximately 7,400 acres of marsh in Jefferson Parish on the east shore of Little Lake and Turtle Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

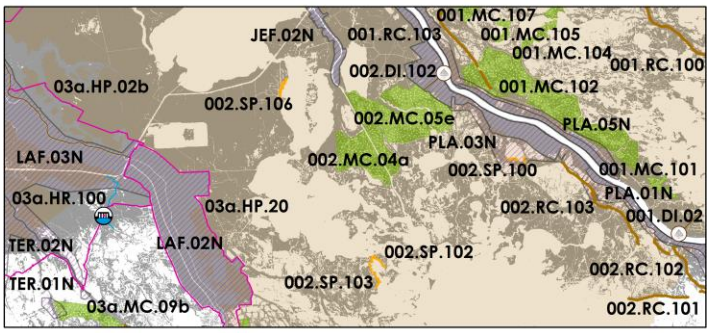
	Estimated Cost
Planning/Engineering & Design	$52,100,000
Construction	$651,200,000
Operations & Maintenance	$6,300,000
Total	**$709,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	5,244 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

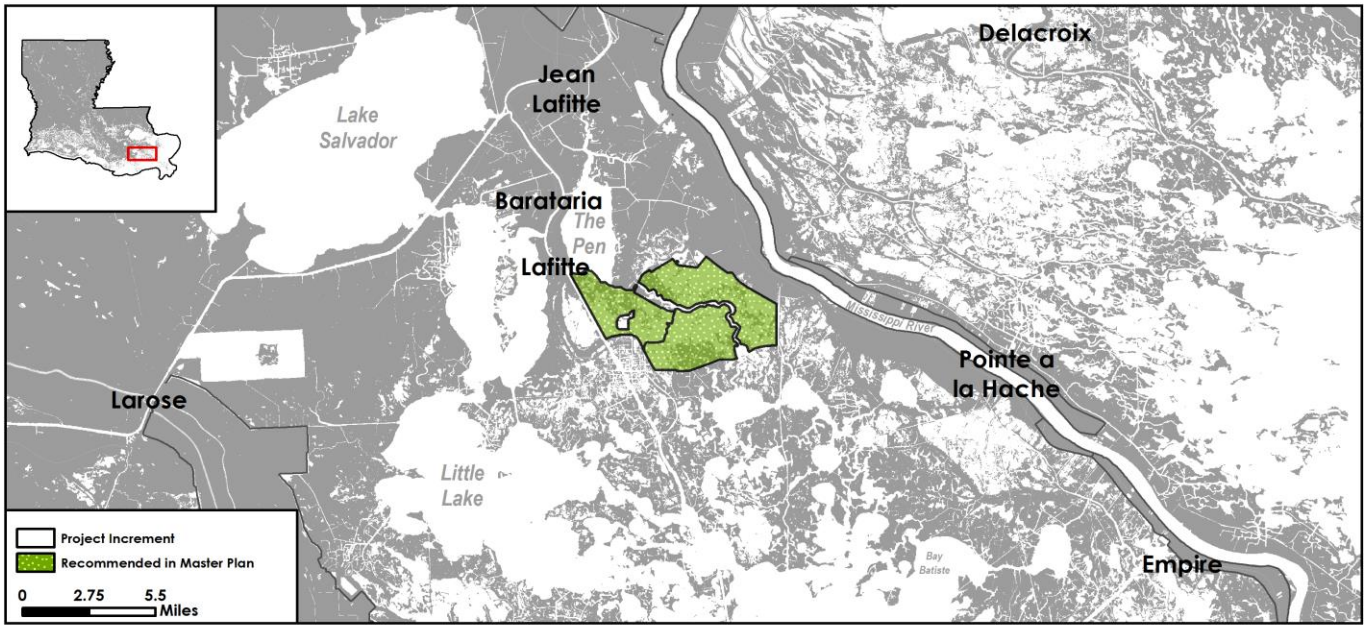
Only the highlighted project increment was recommended in the Master Plan.

2017 Coastal Master Plan
Implementation Period III

Large-Scale Barataria Marsh Creation - Component E

Marsh Creation

Project ID: 002.MC.05e



Description

Creation of approximately 12,900 acres of marsh in the Barataria Basin south of the Pen to the Barataria Landbridge to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish; Jefferson Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

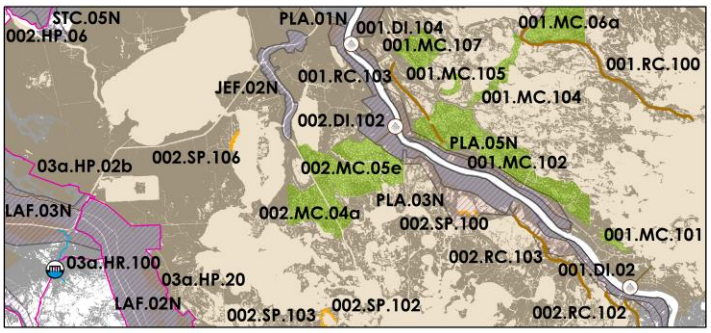
	Estimated Cost
Planning/Engineering & Design	$48,700,000
Construction	$608,600,000
Operations & Maintenance	$17,200,000
Total	**$674,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	8,557 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

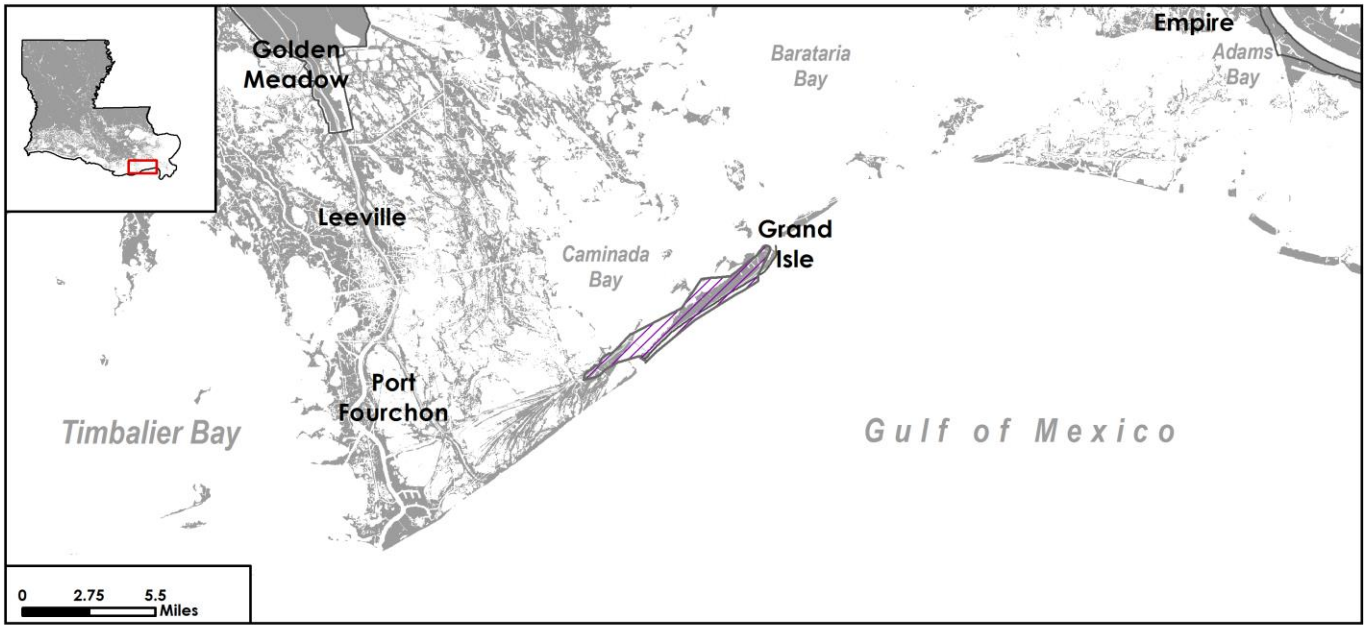


2017 Coastal Master Plan
Implementation Period II

Jefferson - Grand Isle

Nonstructural Risk Reduction

Project ID: JEF.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

Construction is estimated to take 4 years.

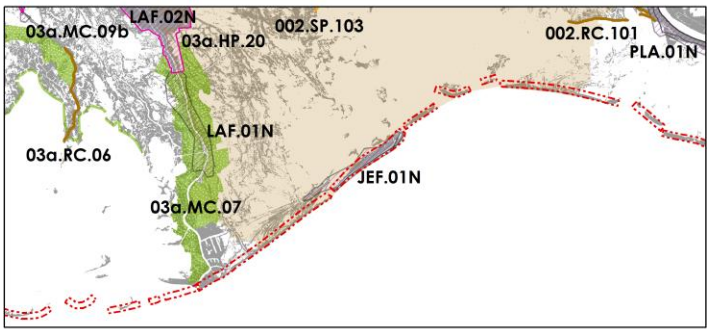
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	1	$2,500,000
Residential Elevation	519	$83,600,000
Residential Acquisition	23	$12,200,000
Total	**543**	**$98,300,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,296
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	39%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	93

2017 Coastal Master Plan
Implementation Period 1

Jefferson - Grand Isle
Nonstructural Risk Reduction
Project ID: JEF.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$91 M	-	-
10	$111 M	$100 M	**$11 M**
25	$98 M	$91 M	**$7 M**
50	$38 M	$38 M	**< $1 M**

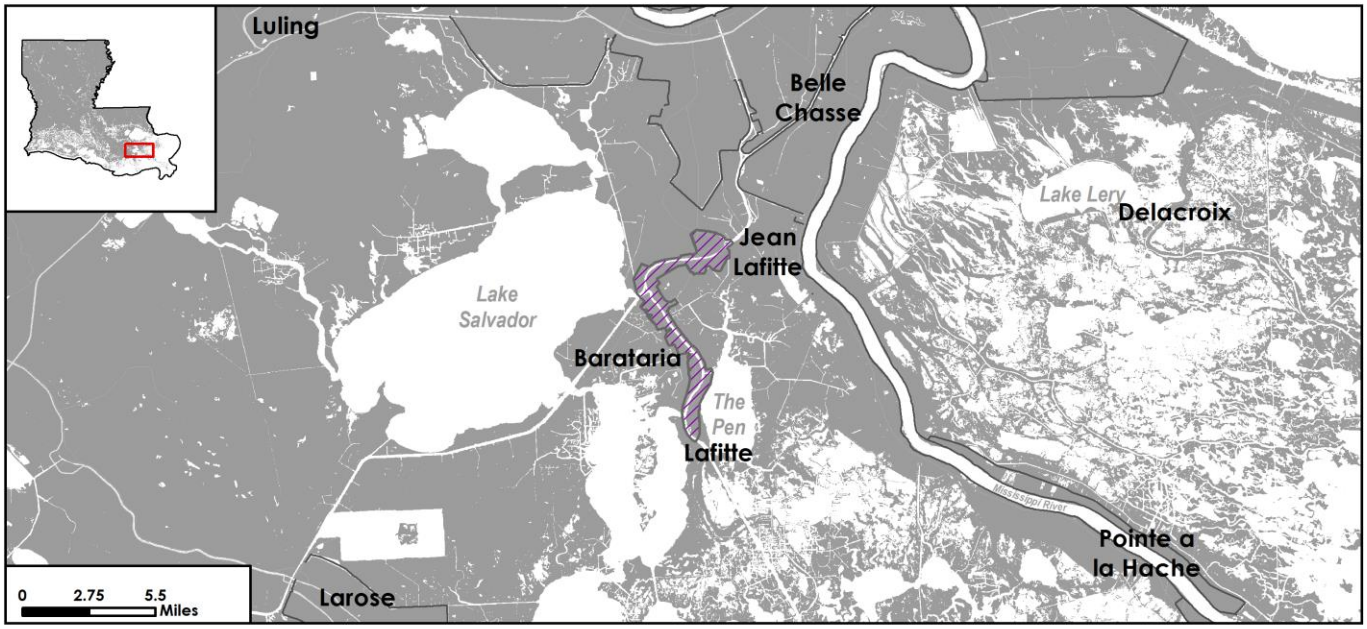
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1,621 M	-	$1,824 M	-	$1,931 M	-
10	$1,819 M	$1,639 M	$1,999 M	$1,769 M	$2,023 M	$1,792 M
25	$1,341 M	$1,224 M	$1,365 M	$1,300 M	$1,421 M	$1,386 M
50	$465 M	$463 M	$467 M	$465 M	$537 M	$536 M

Jefferson - Lafitte/Barataria

Nonstructural Risk Reduction

Project ID: JEF.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

Construction is estimated to take 5 years.

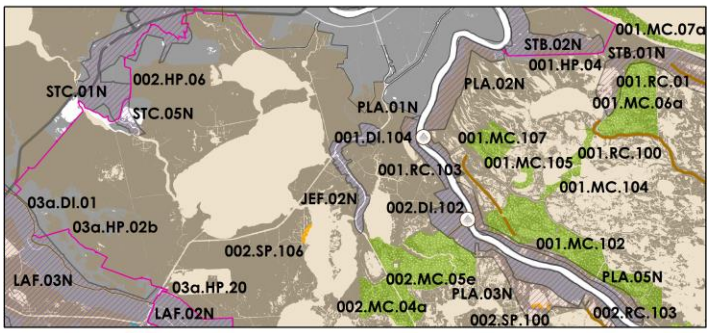
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	9	$7,800,000
Residential Elevation	1,237	$192,100,000
Residential Acquisition	2	$1,000,000
Total	**1,248**	**$200,900,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	4,955
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	42%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	153

2017 Coastal Master Plan
Implementation Period 1

Jefferson - Lafitte/Barataria

Nonstructural Risk Reduction

Project ID: JEF.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

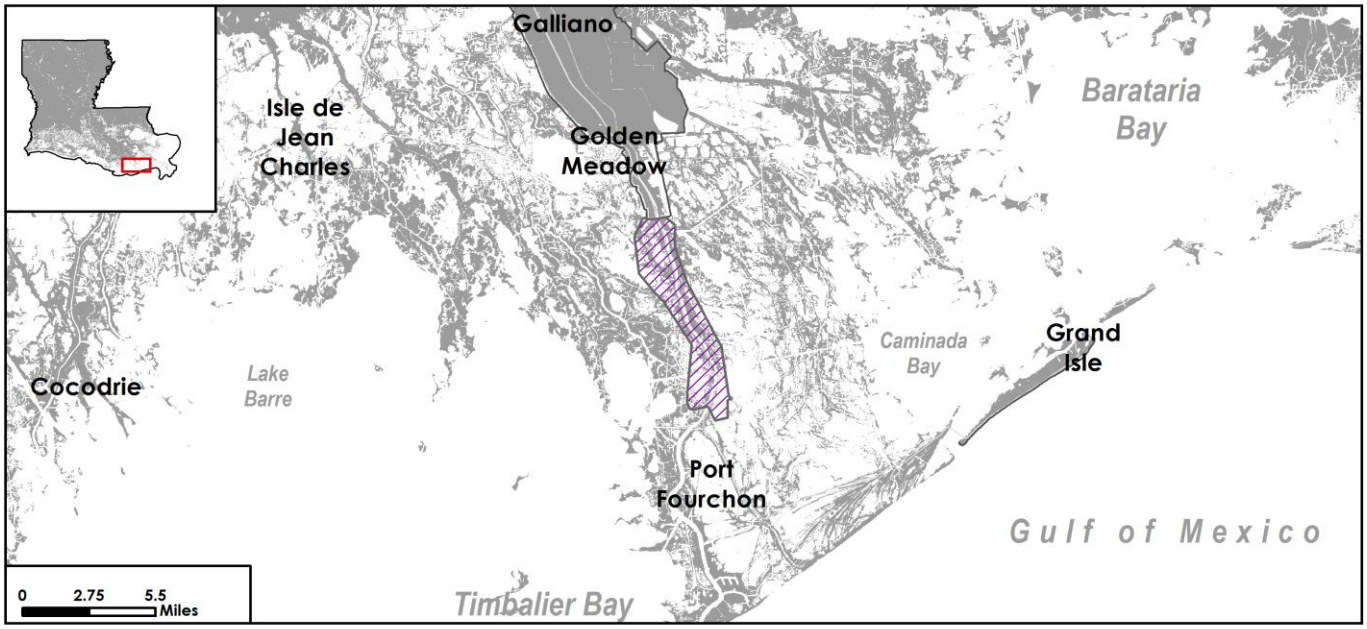
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$102 M	-	-
10	$93 M	$69 M	**$24 M**
25	$117 M	$91 M	**$27 M**
50	$105 M	$89 M	**$16 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1,717 M	-	$1,773 M	-	$1,837 M	-
10	$1,674 M	$1,264 M	$1,785 M	$1,331 M	$1,815 M	$1,360 M
25	$1,735 M	$1,314 M	$1,762 M	$1,501 M	$1,785 M	$1,681 M
50	$1,299 M	$1,222 M	$1,321 M	$1,269 M	$1,342 M	$1,313 M

Lafourche - Lower
Nonstructural Risk Reduction
Project ID: LAF.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Lafourche Parish

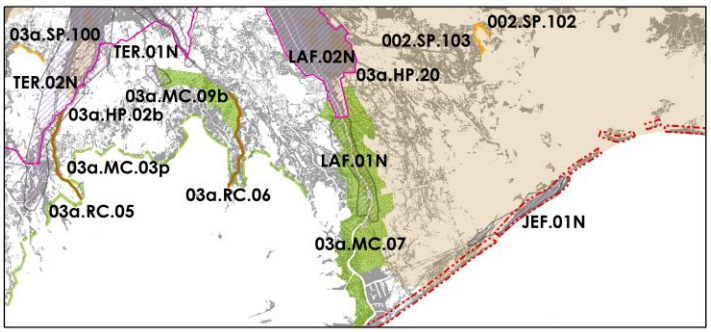
Project Duration
Construction is estimated to take 1 year.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	9	$1,700,000
Residential Acquisition	0	$0
Total	**9**	**$1,700,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	115
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	59%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	10

2017 Coastal Master Plan
Implementation Period 1

Lafourche - Lower
Nonstructural Risk Reduction
Project ID: LAF.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$41 M	-	-
10	$44 M	$43 M	**< $1 M**
25	$47 M	$47 M	**< $1 M**
50	$47 M	$47 M	**< $1 M**

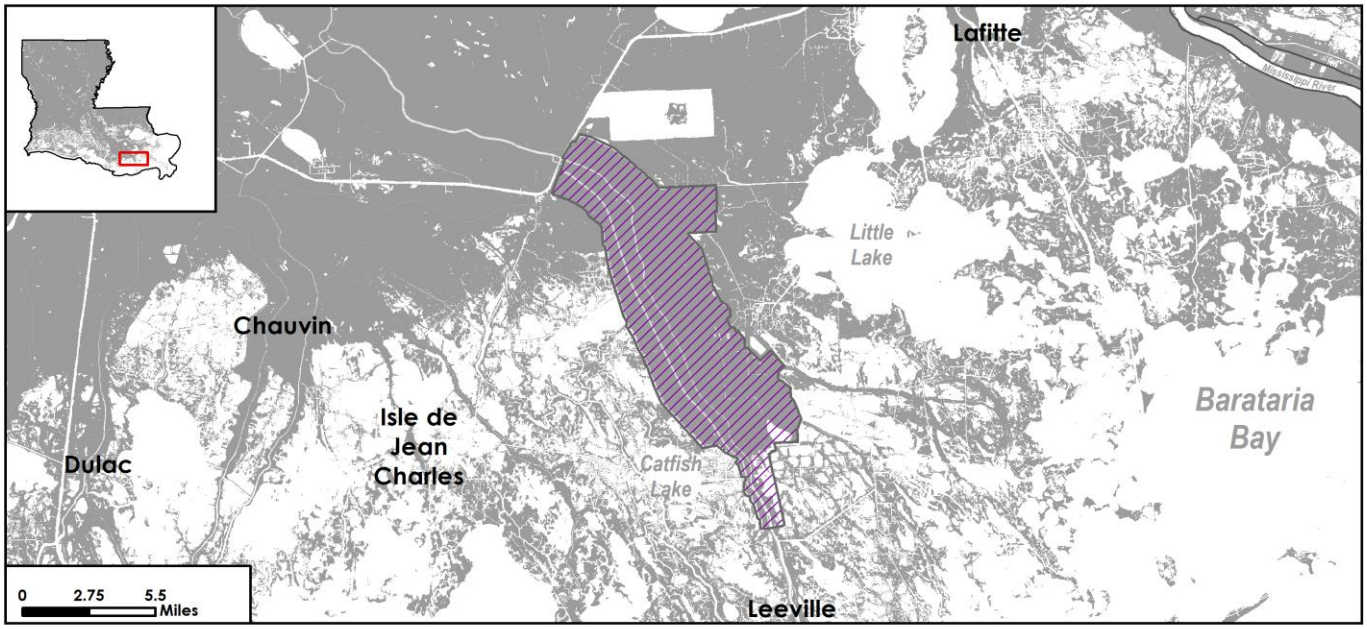
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$571 M	-	$581 M	-	$600 M	-
10	$606 M	$601 M	$616 M	$611 M	$625 M	$620 M
25	$601 M	$596 M	$606 M	$602 M	$613 M	$612 M
50	$554 M	$554 M	$554 M	$554 M	$555 M	$555 M

Lafourche - Larose/Golden Meadow

Nonstructural Risk Reduction

Project ID: LAF.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Construction is estimated to take 2 years.

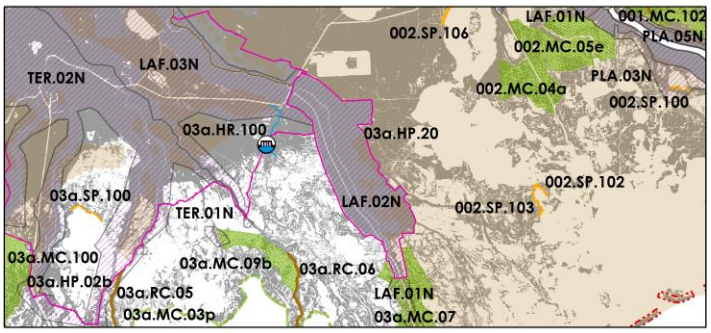
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	39	$27,800,000
Residential Elevation	30	$4,800,000
Residential Acquisition	0	$0
Total	**69**	**$32,600,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	21,879
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	50%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period 1

Lafourche - Larose/Golden Meadow
Nonstructural Risk Reduction
Project ID: LAF.02N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	$17 M	$12 M	**$5 M**
25	$145 M	$132 M	**$13 M**
50	$808 M	$796 M	**$12 M**

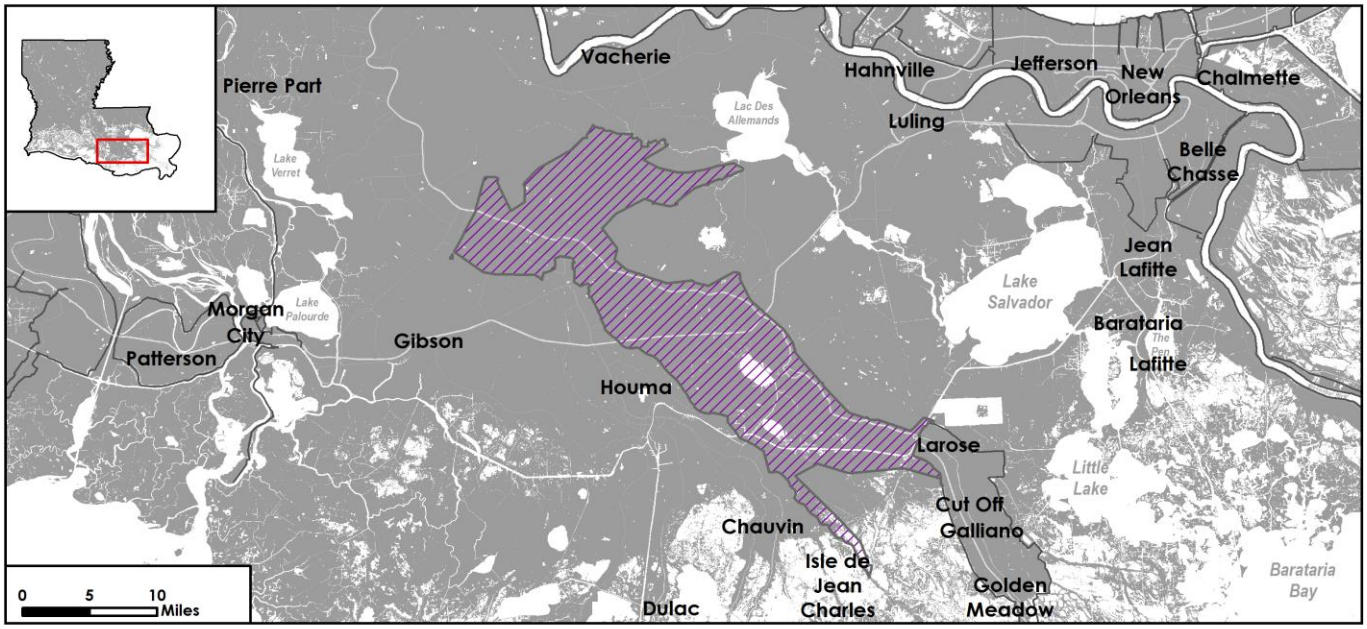
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$2 M	-	$9 M	-
10	$47 M	$25 M	$455 M	$178 M	$1,989 M	$1,581 M
25	$2,429 M	$2,017 M	$6,474 M	$6,051 M	$8,945 M	$8,919 M
50	$9,232 M	$9,220 M	$9,508 M	$9,500 M	$9,645 M	$9,639 M

Lafourche - Raceland

Nonstructural Risk Reduction

Project ID: LAF.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Construction is estimated to take 5 years.

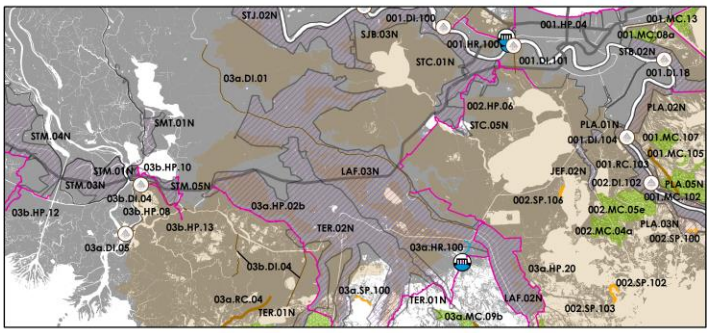
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	140	$125,000,000
Residential Elevation	1,517	$237,600,000
Residential Acquisition	2	$800,000
Total	**1,659**	**$363,400,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	78,353
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	38%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	31

2017 Coastal Master Plan
Implementation Period 1

Lafourche - Raceland
Nonstructural Risk Reduction
Project ID: LAF.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

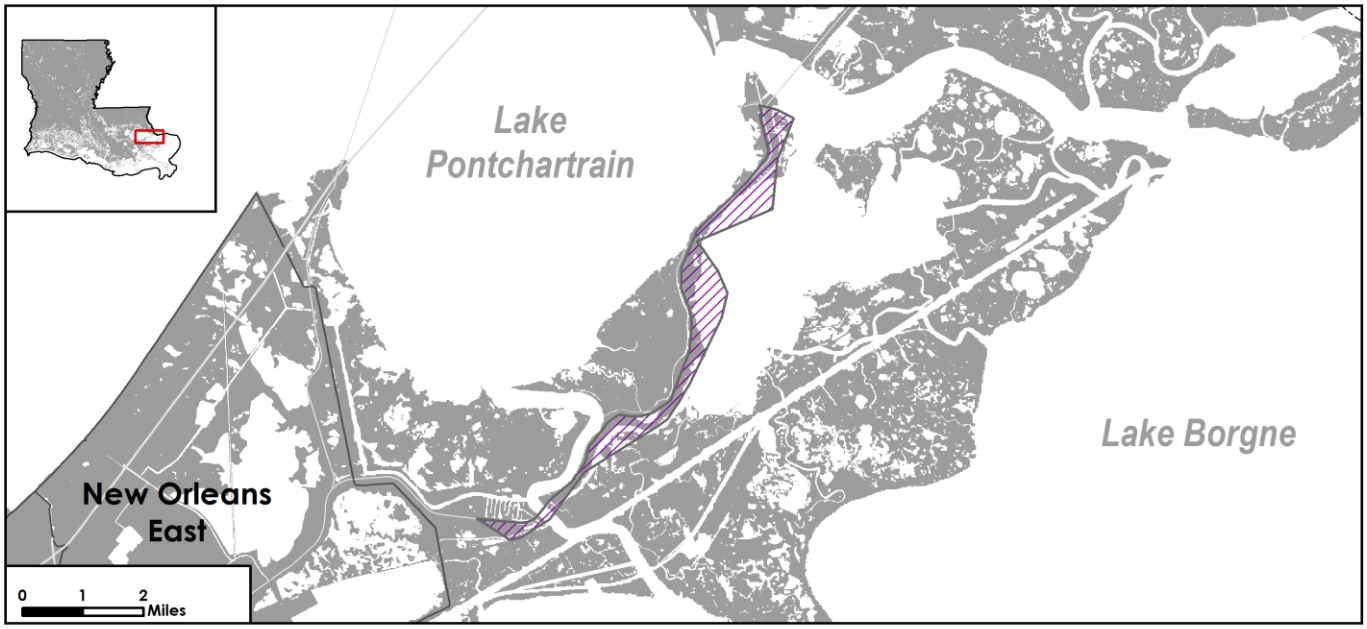
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$120 M	-	-
10	$211 M	$162 M	**$49 M**
25	$416 M	$322 M	**$94 M**
50	$1,408 M	$1,275 M	**$134 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1,819 M	-	$2,450 M	-	$3,276 M	-
10	$3,823 M	$2,841 M	$5,514 M	$3,626 M	$6,737 M	$4,693 M
25	$7,798 M	$5,748 M	$9,126 M	$7,073 M	$9,990 M	$8,077 M
50	$24,229 M	$22,558 M	$25,238 M	$23,807 M	$27,433 M	$26,603 M

Orleans - Rigolets
Nonstructural Risk Reduction
Project ID: ORL.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Orleans Parish

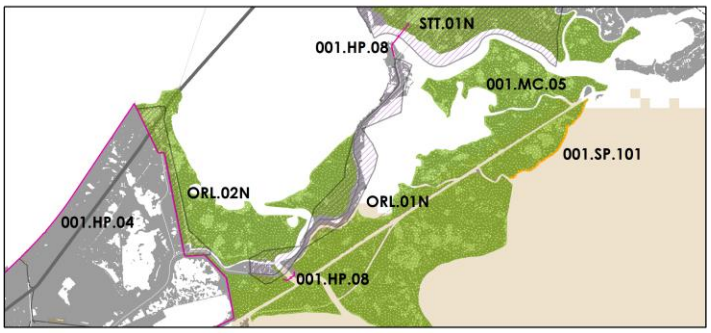
Project Duration
Construction is estimated to take 1 year.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	7	$1,500,000
Residential Acquisition	14	$16,500,000
Total	**21**	**$18,000,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	704
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	42%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	11

2017 Coastal Master Plan
Implementation Period 1

Orleans - Rigolets
Nonstructural Risk Reduction
Project ID: ORL.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$10 M	-	-
10	$10 M	$9 M	**$1 M**
25	$10 M	$9 M	**$1 M**
50	$10 M	$9 M	**< $1 M**

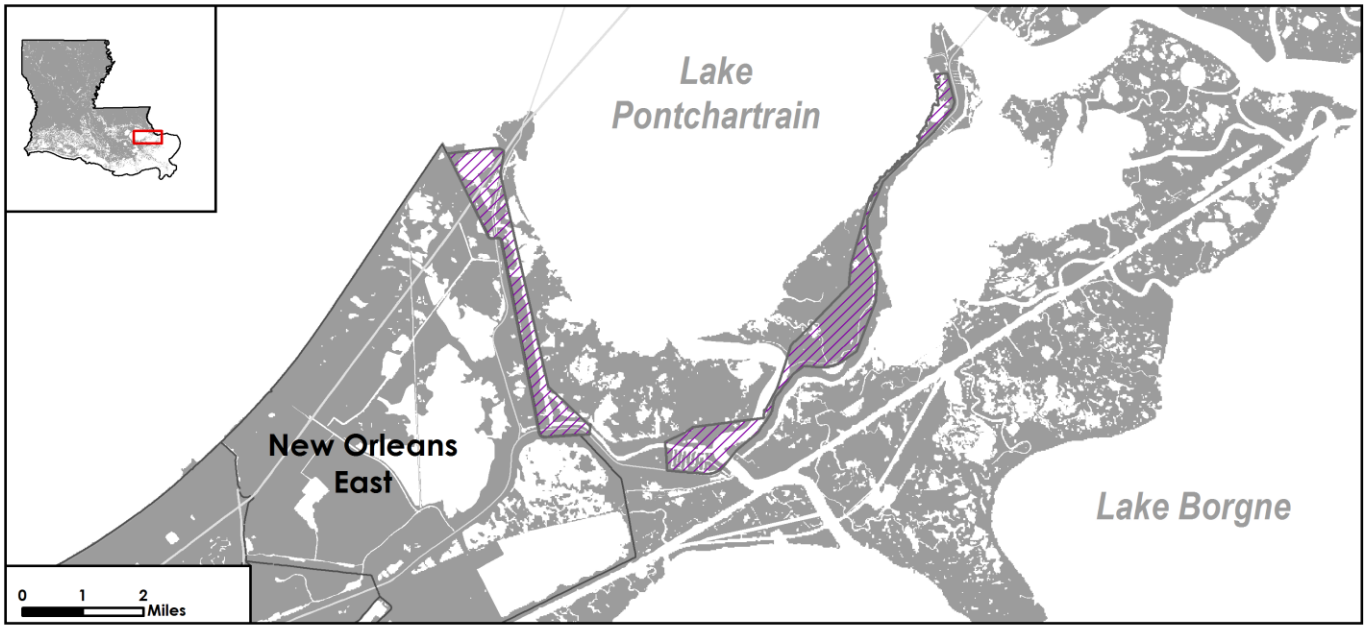
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$109 M	-	$114 M	-	$116 M	-
10	$135 M	$118 M	$138 M	$121 M	$141 M	$124 M
25	$132 M	$115 M	$136 M	$119 M	$137 M	$123 M
50	$123 M	$114 M	$123 M	$114 M	$123 M	$114 M

Orleans - Lake Catherine

Nonstructural Risk Reduction

Project ID: ORL.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish

Project Duration

Construction is estimated to take 3 years.

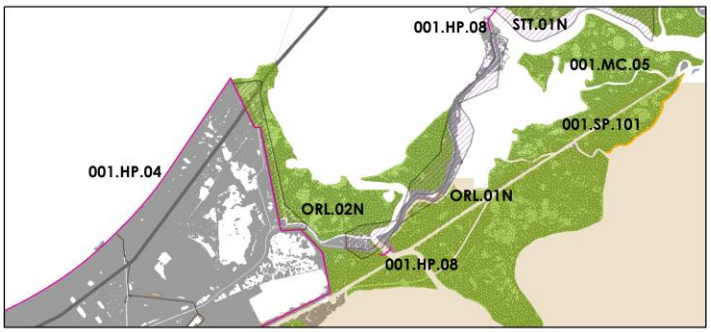
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	33	$5,600,000
Residential Acquisition	211	$130,100,000
Total	**244**	**$135,700,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	851
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	42%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	123

2017 Coastal Master Plan
Implementation Period 1

Orleans - Lake Catherine
Nonstructural Risk Reduction
Project ID: ORL.02N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$21 M	-	-
10	$21 M	$17 M	**$4 M**
25	$22 M	$17 M	**$4 M**
50	$23 M	$18 M	**$5 M**

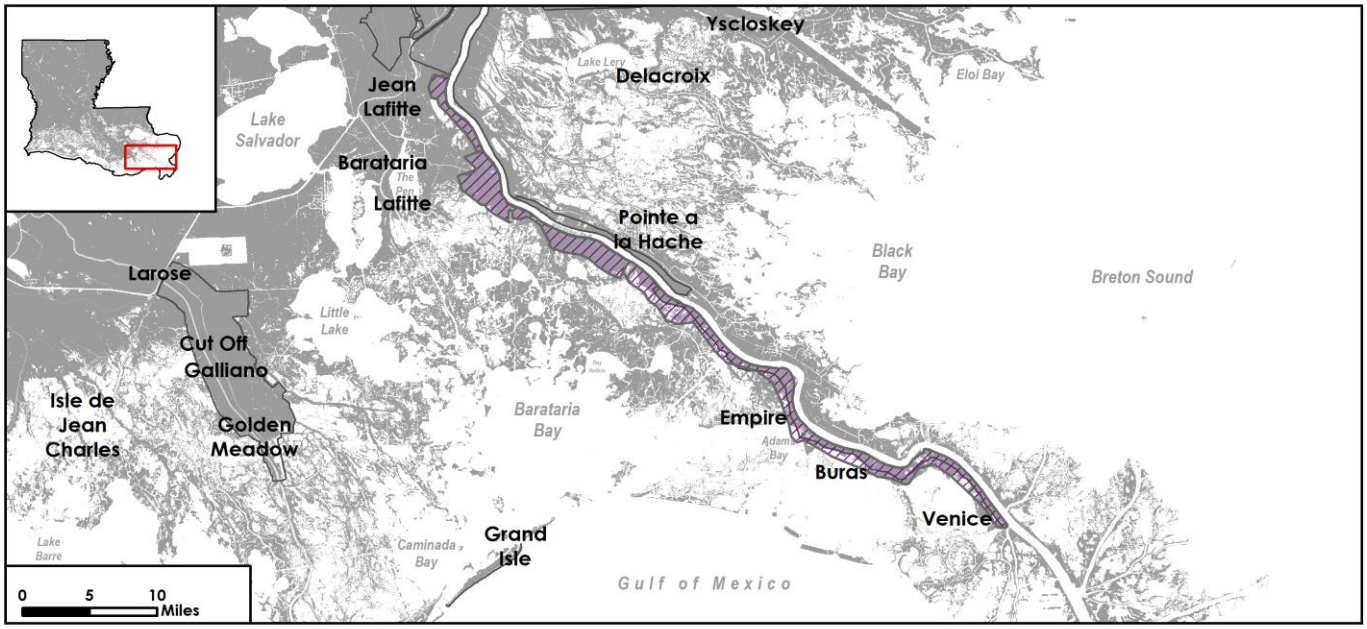
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$279 M	-	$399 M	-	$434 M	-
10	$412 M	$293 M	$425 M	$303 M	$434 M	$312 M
25	$380 M	$269 M	$393 M	$280 M	$399 M	$296 M
50	$333 M	$245 M	$335 M	$248 M	$344 M	$252 M

Plaquemines - West Bank

Nonstructural Risk Reduction

Project ID: PLA.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Construction is estimated to take 5 years.

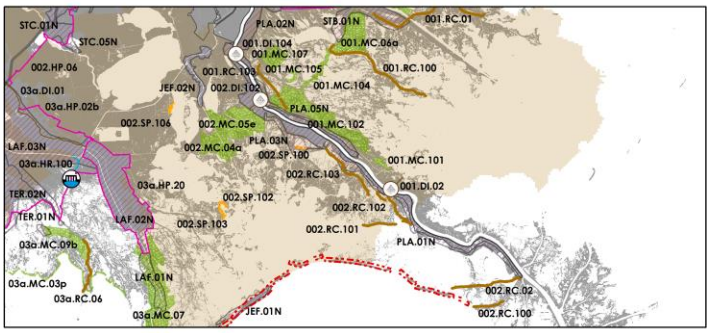
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	46	$39,100,000
Residential Elevation	1,331	$198,200,000
Residential Acquisition	54	$27,400,000
Total	**1,431**	**$264,700,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	8,314
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	47%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	19

2017 Coastal Master Plan
Implementation Period 1

Plaquemines - West Bank
Nonstructural Risk Reduction
Project ID: PLA.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$31 M	-	-
10	$108 M	$77 M	**$31 M**
25	$153 M	$111 M	**$41 M**
50	$291 M	$226 M	**$65 M**

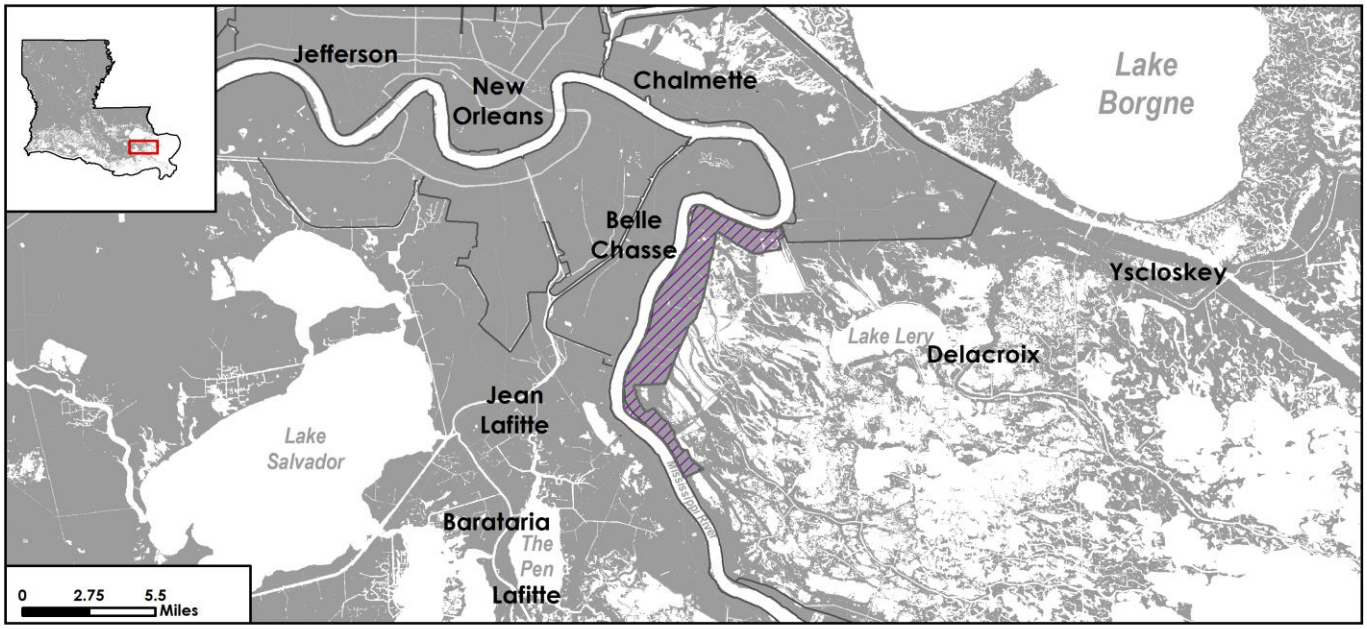
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$42 M	-	$56 M	-	$137 M	-
10	$2,149 M	$1,628 M	$3,510 M	$2,546 M	$4,206 M	$3,332 M
25	$3,254 M	$2,375 M	$3,959 M	$3,122 M	$4,119 M	$3,373 M
50	$3,821 M	$3,143 M	$3,935 M	$3,295 M	$3,965 M	$3,416 M

Plaquemines - Braithwaite

Nonstructural Risk Reduction

Project ID: PLA.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Construction is estimated to take 3 years.

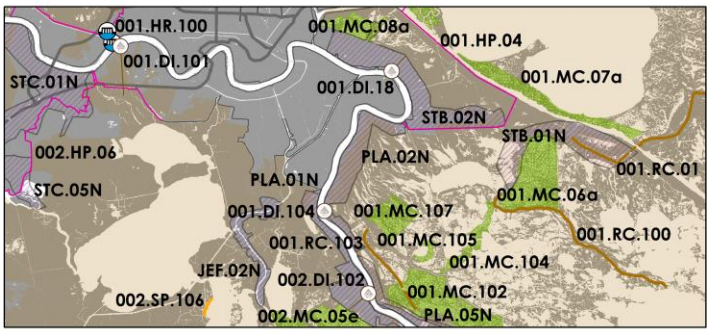
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	184	$28,700,000
Residential Acquisition	79	$27,500,000
Total	**263**	**$56,200,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,016
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	42%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	59

2017 Coastal Master Plan
Implementation Period 1

Plaquemines - Braithwaite

Nonstructural Risk Reduction

Project ID: PLA.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$23 M	-	-
10	$33 M	$25 M	**$8 M**
25	$38 M	$29 M	**$9 M**
50	$35 M	$27 M	**$7 M**

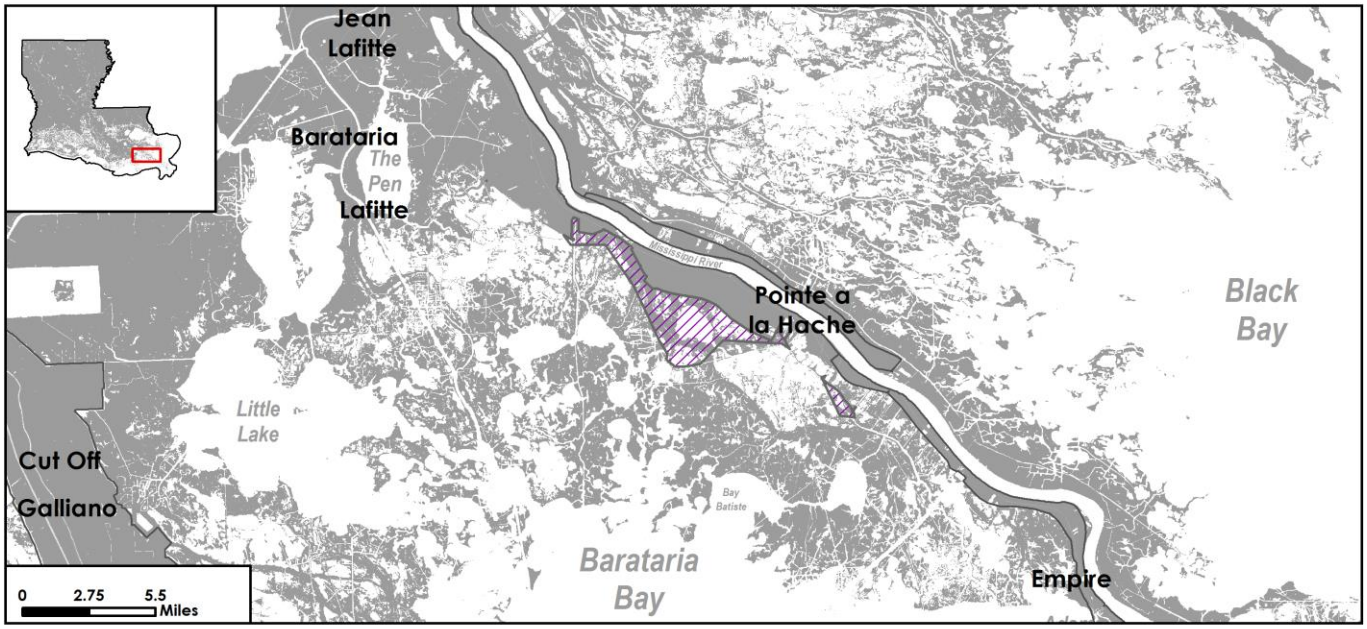
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$21 M	-	$22 M	-	$24 M	-
10	$396 M	$308 M	$404 M	$313 M	$406 M	$314 M
25	$375 M	$291 M	$379 M	$295 M	$380 M	$298 M
50	$330 M	$257 M	$332 M	$275 M	$335 M	$302 M

Plaquemines - Grand Bayou

Nonstructural Risk Reduction

Project ID: PLA.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Construction is estimated to take 1 year.

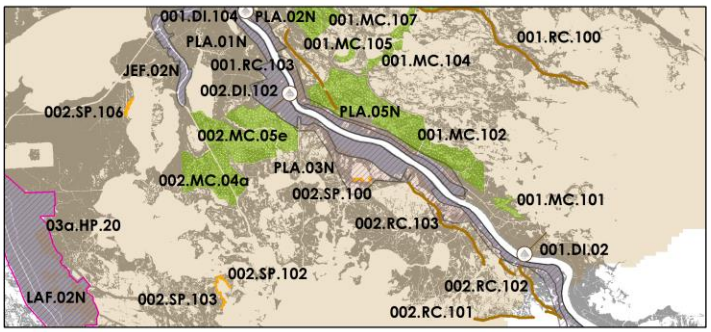
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	11	$2,000,000
Residential Acquisition	1	$1,000,000
Total	**12**	**$3,000,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	227
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	66%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	7

2017 Coastal Master Plan
Implementation Period 1

Plaquemines - Grand Bayou
Nonstructural Risk Reduction
Project ID: PLA.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$22 M	-	-
10	$22 M	$22 M	**< $1 M**
25	$22 M	$22 M	**< $1 M**
50	$23 M	$23 M	**< $1 M**

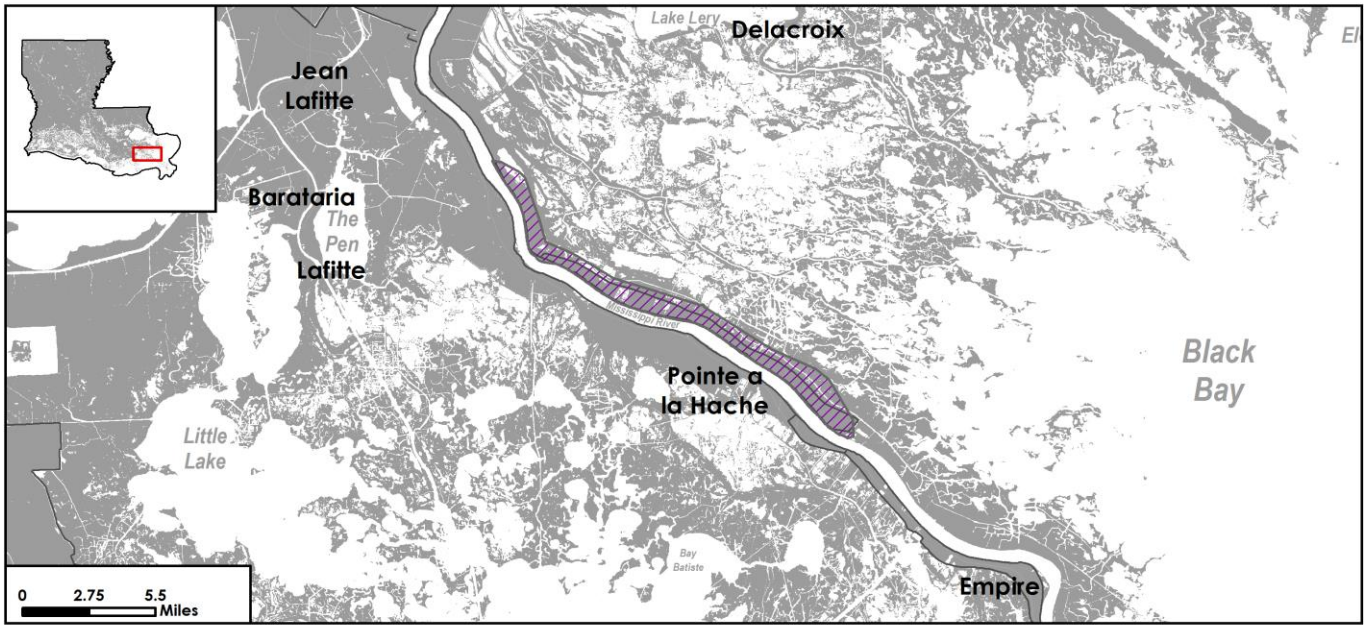
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$317 M	-	$320 M	-	$327 M	-
10	$324 M	$318 M	$327 M	$322 M	$332 M	$330 M
25	$308 M	$303 M	$309 M	$305 M	$311 M	$310 M
50	$275 M	$274 M	$276 M	$275 M	$276 M	$275 M

Plaquemines - Phoenix/Pointe A La Hache

Nonstructural Risk Reduction

Project ID: PLA.05N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Construction is estimated to take 2 years.

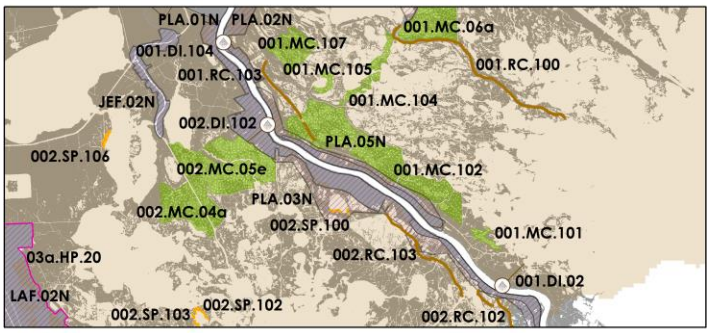
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	163	$24,400,000
Residential Acquisition	24	$13,900,000
Total	**187**	**$38,300,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	929
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	82%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	7

2017 Coastal Master Plan
Implementation Period 1

Plaquemines - Phoenix/Pointe A La Hache

Nonstructural Risk Reduction

Project ID: PLA.05N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$2 M	-	-
10	$6 M	$5 M	**$1 M**
25	$10 M	$8 M	**$2 M**
50	$15 M	$13 M	**$2 M**

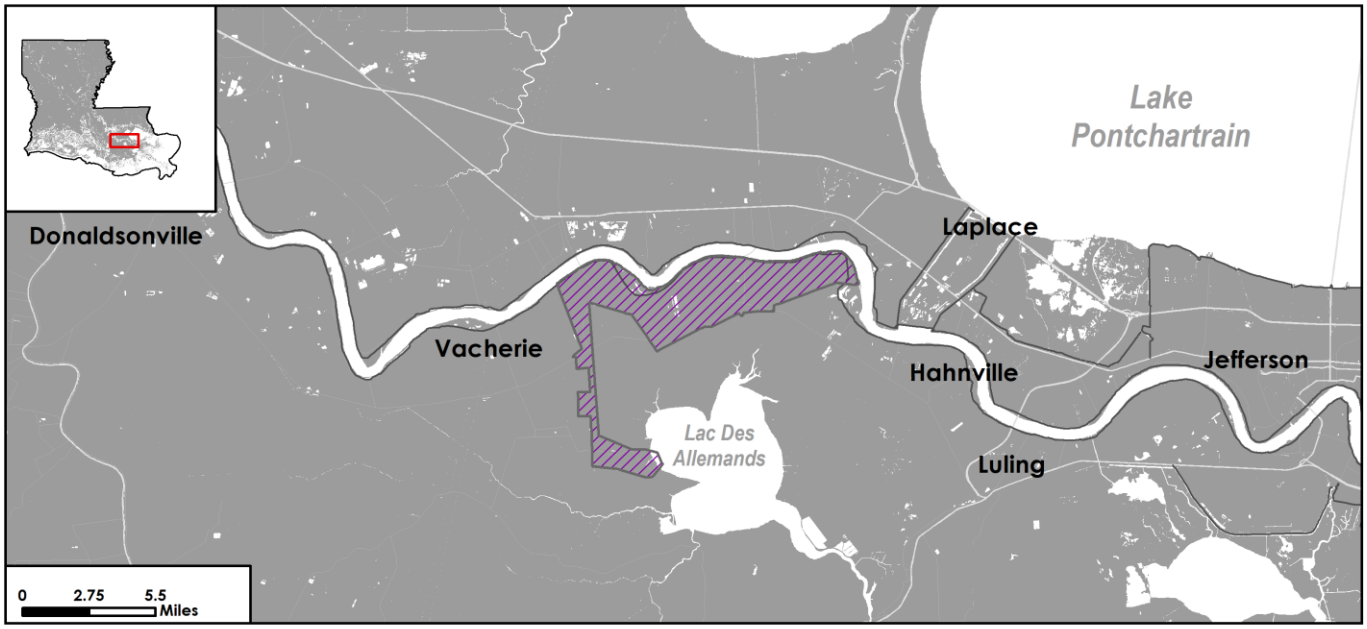
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$9 M	-	$16 M	-	$28 M	-
10	$218 M	$165 M	$242 M	$183 M	$246 M	$226 M
25	$228 M	$202 M	$229 M	$211 M	$229 M	$213 M
50	$200 M	$186 M	$200 M	$187 M	$200 M	$187 M

St. John the Baptist - Edgard

Nonstructural Risk Reduction

Project ID: SJB.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. John the Baptist Parish

Project Duration

Construction is estimated to take 2 years.

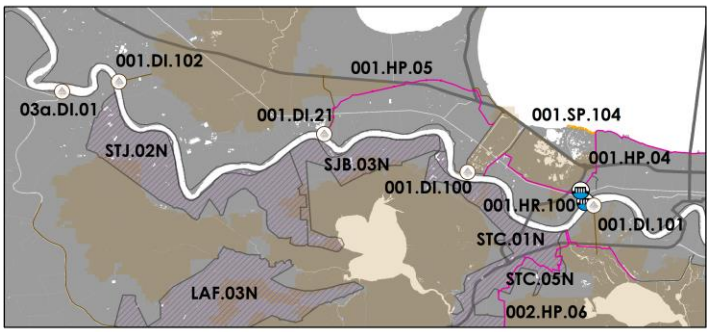
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	4	$3,500,000
Residential Elevation	26	$4,200,000
Residential Acquisition	0	$0
Total	**30**	**$7,700,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	3,775
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	43%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	6

2017 Coastal Master Plan
Implementation Period 1

St. John the Baptist - Edgard

Nonstructural Risk Reduction

Project ID: SJB.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$3 M	-	-
10	$4 M	$2 M	**$2 M**
25	$7 M	$3 M	**$3 M**
50	$35 M	$31 M	**$4 M**

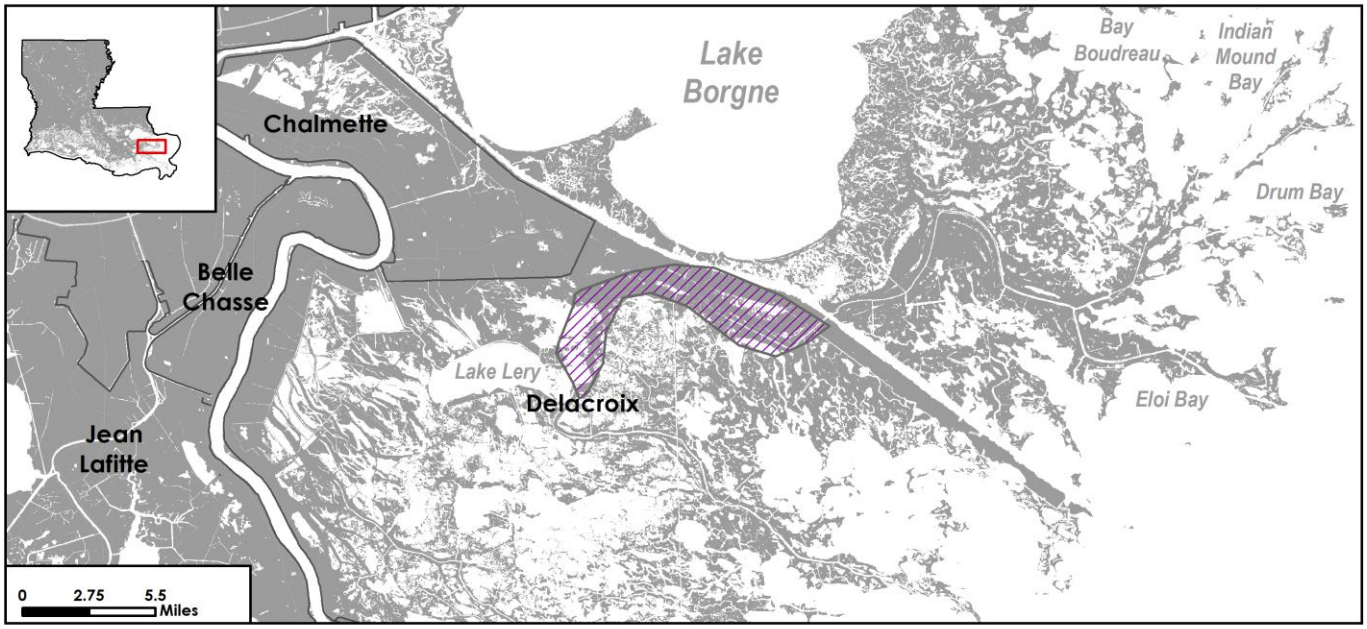
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$54 M	-	$57 M	-	$60 M	-
10	$67 M	$30 M	$99 M	$46 M	$100 M	$47 M
25	$108 M	$55 M	$113 M	$59 M	$116 M	$60 M
50	$553 M	$507 M	$557 M	$519 M	$616 M	$591 M

St. Bernard - Yscloskey/Delacroix

Nonstructural Risk Reduction

Project ID: STB.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Construction is estimated to take 2 years.

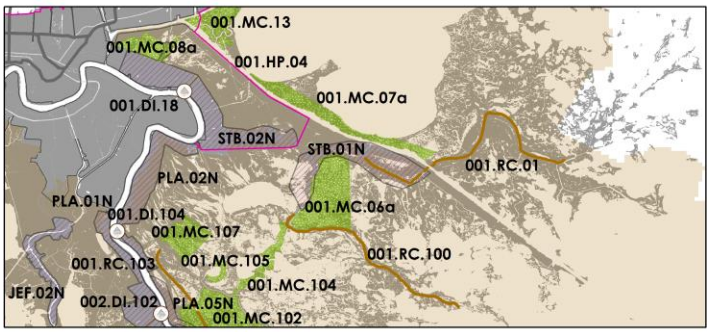
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	124	$70,400,000
Total	**124**	**$70,400,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	292
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	85%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	34

2017 Coastal Master Plan
Implementation Period 1

St. Bernard - Yscloskey/Delacroix

Nonstructural Risk Reduction

Project ID: STB.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$24 M	-	-
10	$23 M	$18 M	**$5 M**
25	$23 M	$18 M	**$5 M**
50	$20 M	$15 M	**$5 M**

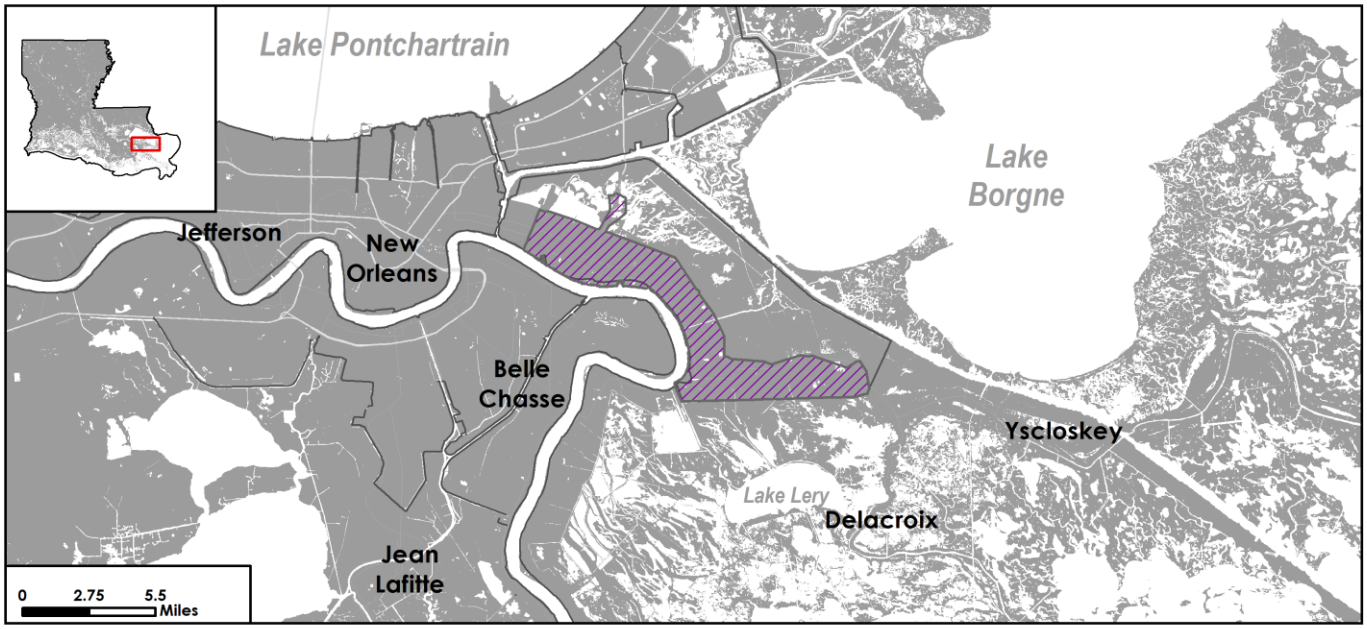
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$309 M	-	$318 M	-	$322 M	-
10	$317 M	$243 M	$322 M	$247 M	$323 M	$248 M
25	$295 M	$227 M	$298 M	$230 M	$299 M	$230 M
50	$241 M	$183 M	$241 M	$183 M	$241 M	$184 M

St. Bernard

Nonstructural Risk Reduction

Project ID: STB.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Construction is estimated to take 1 year.

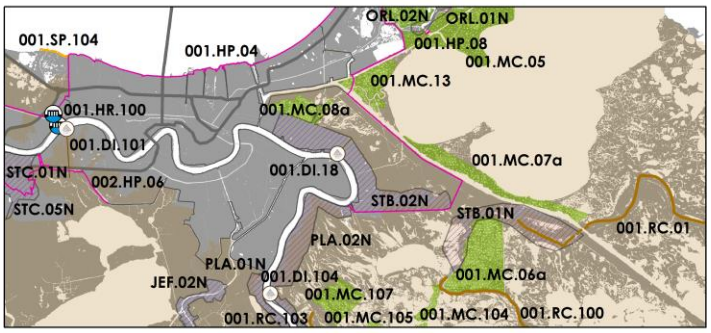
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	1	$2,200,000
Residential Elevation	1	$300,000
Residential Acquisition	0	$0
Total	**2**	**$2,500,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	35,603
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	17%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan
Implementation Period 1

St. Bernard
Nonstructural Risk Reduction
Project ID: STB.02N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$5 M	-	-
10	$14 M	$13 M	**$1 M**
25	$30 M	$28 M	**$1 M**
50	$75 M	$73 M	**$2 M**

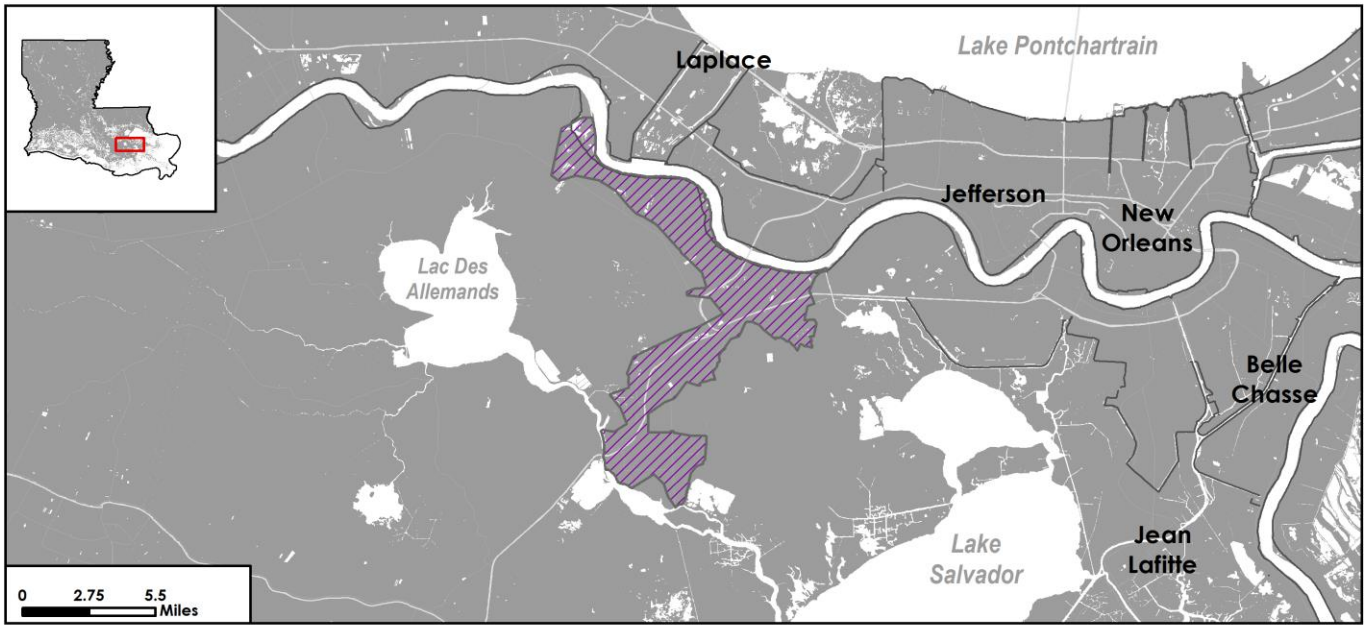
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	< $1 M	-	< $1 M	-	$11 M	-
10	$97 M	$62 M	$100 M	$64 M	$1,255 M	$1,216 M
25	$101 M	$66 M	$279 M	$242 M	$4,122 M	$4,083 M
50	$274 M	$238 M	$756 M	$717 M	$13,394 M	$13,354 M

St. Charles - Hahnville/Luling

Nonstructural Risk Reduction

Project ID: STC.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

Construction is estimated to take 7 years.

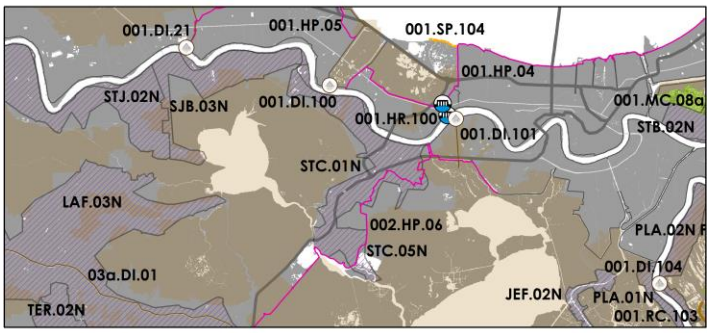
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	110	$65,200,000
Residential Elevation	3,672	$706,300,000
Residential Acquisition	144	$58,000,000
Total	**3,926**	**$829,500,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	25,250
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	27%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	49

2017 Coastal Master Plan
Implementation Period II

St. Charles - Hahnville/Luling
Nonstructural Risk Reduction
Project ID: STC.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$74 M	-	-
10	$269 M	$179 M	**$90 M**
25	$487 M	$332 M	**$155 M**
50	$1,025 M	$861 M	**$164 M**

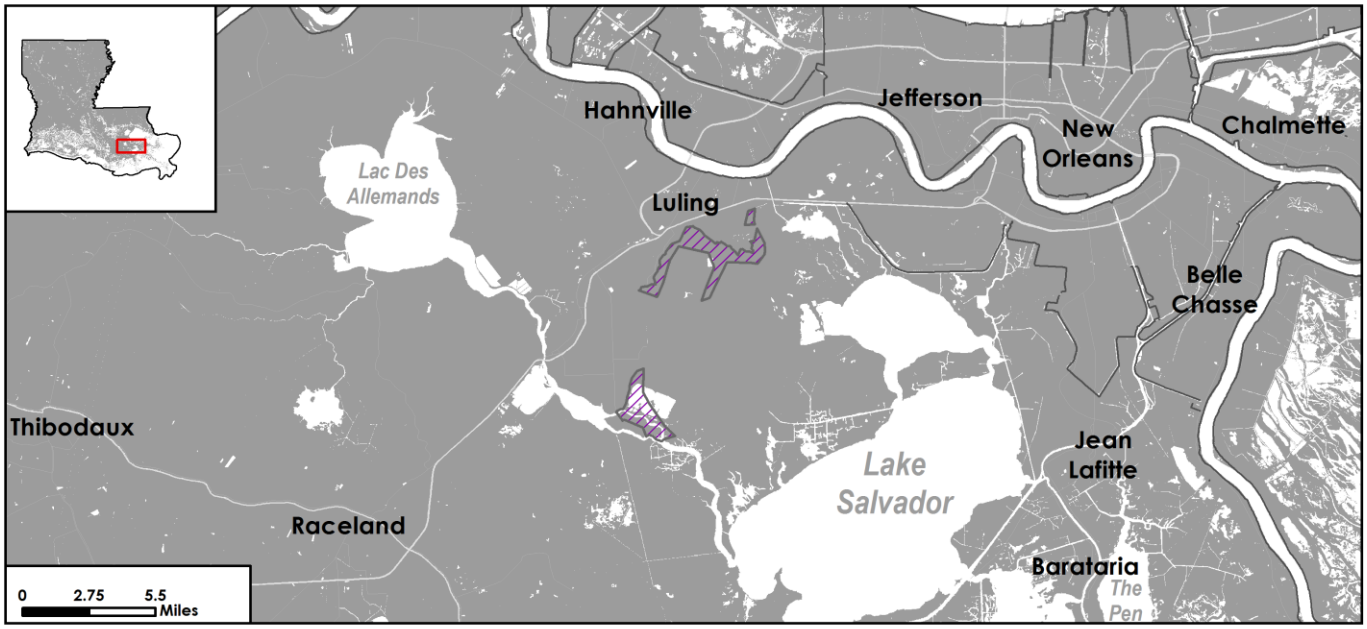
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1,819 M	-	$2,783 M	-	$3,109 M	-
10	$7,232 M	$4,760 M	$7,435 M	$4,881 M	$7,567 M	$4,967 M
25	$8,899 M	$5,945 M	$8,932 M	$5,970 M	$9,402 M	$6,409 M
50	$14,708 M	$13,430 M	$15,082 M	$13,772 M	$15,289 M	$13,952 M

St. Charles - Salvador

Nonstructural Risk Reduction

Project ID: STC.05N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

Construction is estimated to take 1 year.

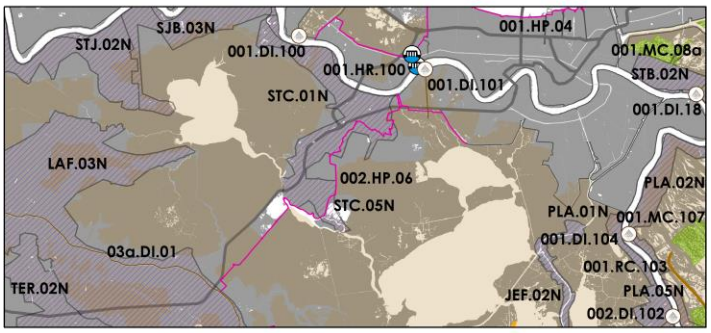
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	12	$2,300,000
Residential Acquisition	0	$0
Total	**12**	**$2,300,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,762
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	22%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1

2017 Coastal Master Plan
Implementation Period 1

St. Charles - Salvador
Nonstructural Risk Reduction
Project ID: STC.05N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$4 M	-	-
10	$6 M	$5 M	**$1 M**
25	$7 M	$6 M	**$1 M**
50	$10 M	$9 M	**$1 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$83 M	-	$86 M	-	$88 M	-
10	$100 M	$80 M	$103 M	$82 M	$104 M	$84 M
25	$108 M	$89 M	$108 M	$89 M	$110 M	$91 M
50	$129 M	$116 M	$132 M	$119 M	$133 M	$133 M

St. James - Vacherie
Nonstructural Risk Reduction
Project ID: STJ.02N

Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
St. James Parish

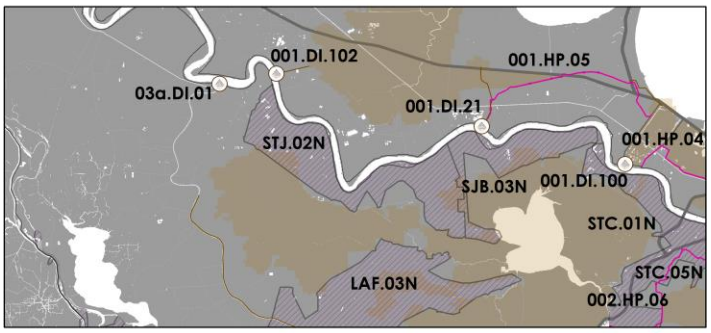
Project Duration
Construction is estimated to take 1 year.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	2	$1,700,000
Residential Elevation	10	$2,200,000
Residential Acquisition	0	$0
Total	**12**	**$3,900,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	8,731
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	30%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1

2017 Coastal Master Plan
Implementation Period II

St. James - Vacherie
Nonstructural Risk Reduction
Project ID: STJ.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

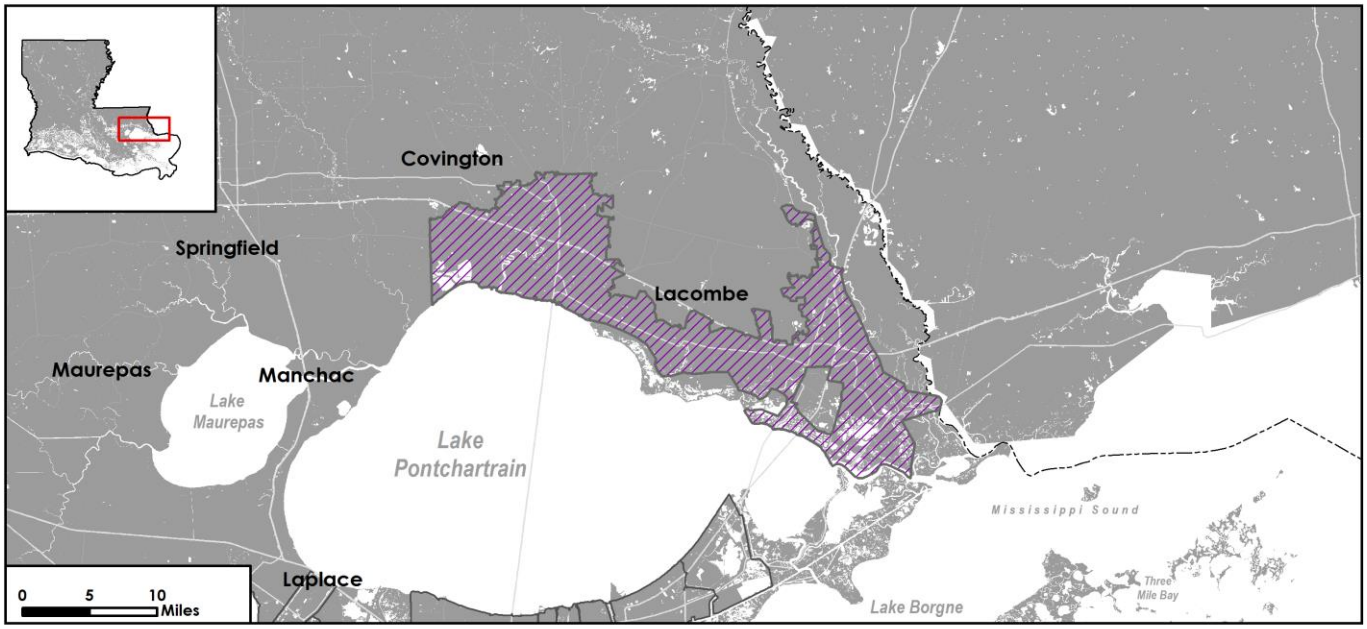
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**< $1 M**
25	$4 M	$3 M	**< $1 M**
50	$106 M	$105 M	**$2 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	< $1 M	-	< $1 M	-	$1 M	-
10	$2 M	$1 M	$12 M	$7 M	$14 M	$9 M
25	$74 M	$59 M	$148 M	$129 M	$162 M	$141 M
50	$1,817 M	$1,795 M	$1,905 M	$1,884 M	$1,951 M	$1,929 M

St. Tammany
Nonstructural Risk Reduction
Project ID: STT.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
St. Tammany Parish

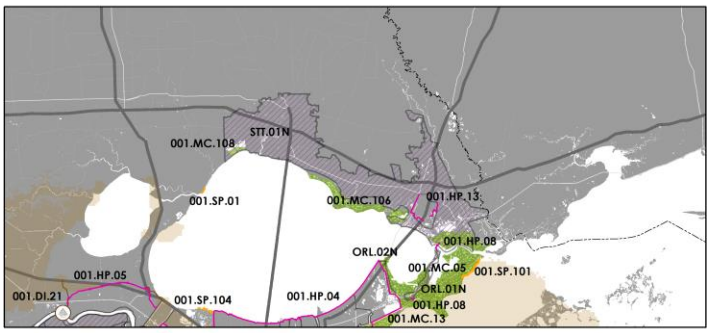
Project Duration
Construction is estimated to take 7 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	375	$258,600,000
Residential Elevation	4,605	$806,300,000
Residential Acquisition	889	$546,400,000
Total	**5,869**	**$1,611,300,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	185,122
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	25%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	880

2017 Coastal Master Plan
Implementation Period 1

St. Tammany
Nonstructural Risk Reduction
Project ID: STT.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$595 M	-	-
10	$751 M	$599 M	**$152 M**
25	$1,004 M	$818 M	**$186 M**
50	$1,811 M	$1,523 M	**$288 M**

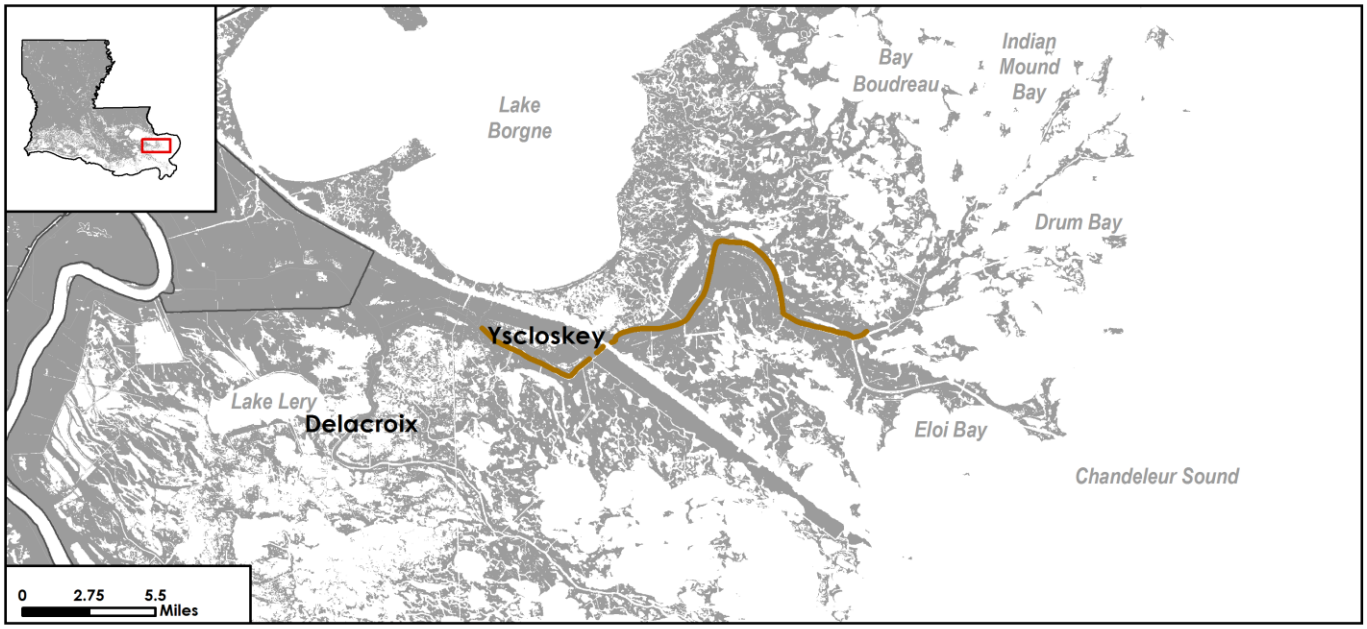
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$9,953 M	-	$13,662 M	-	$19,154 M	-
10	$12,865 M	$10,396 M	$19,479 M	$13,742 M	$24,631 M	$18,314 M
25	$16,718 M	$12,808 M	$23,820 M	$17,776 M	$29,915 M	$24,722 M
50	$27,608 M	$22,203 M	$41,348 M	$36,865 M	$54,834 M	$50,688 M

Bayou LaLoutre Ridge Restoration

Ridge Restoration

Project ID: 001.RC.01



Description

Restoration of approximately 108,900 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou LaLoutre.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

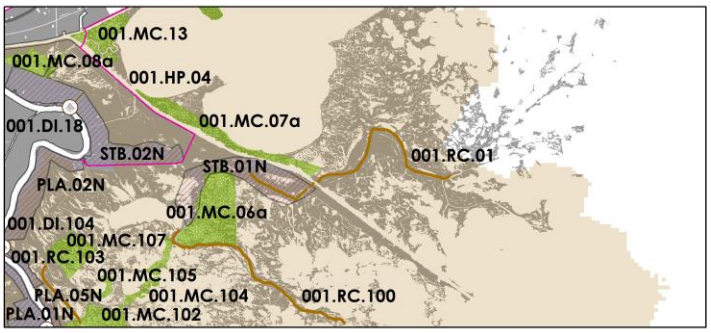
	Estimated Cost
Planning/Engineering & Design	$1,400,000
Construction	$15,100,000
Operations & Maintenance	$3,600,000
Total	**$20,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	12 acres
Long Term (Year 50)	632 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

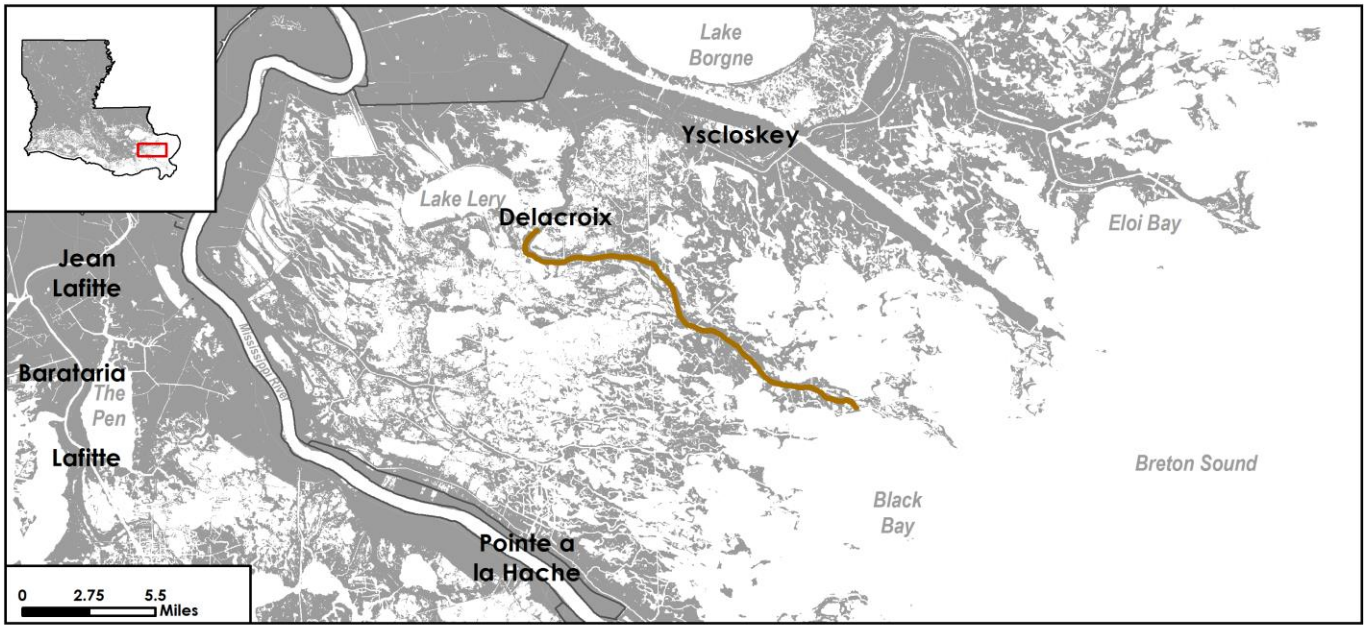


2017 Coastal Master Plan
Implementation Period II

Bayou Terre aux Boeufs Ridge Restoration

Ridge Restoration

Project ID: 001.RC.100



Description

Restoration of approximately 91,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Terre aux Boeufs.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Plaquemines Parish; St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

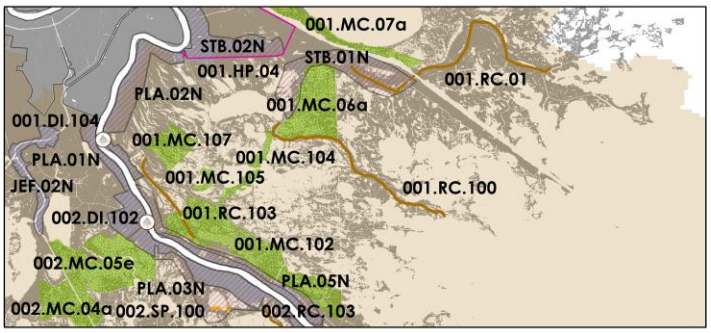
	Estimated Cost
Planning/Engineering & Design	$1,000,000
Construction	$10,800,000
Operations & Maintenance	$3,300,000
Total	**$15,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	640 acres
Long Term (Year 50)	624 acres

**Based on the high environmental scenario.*

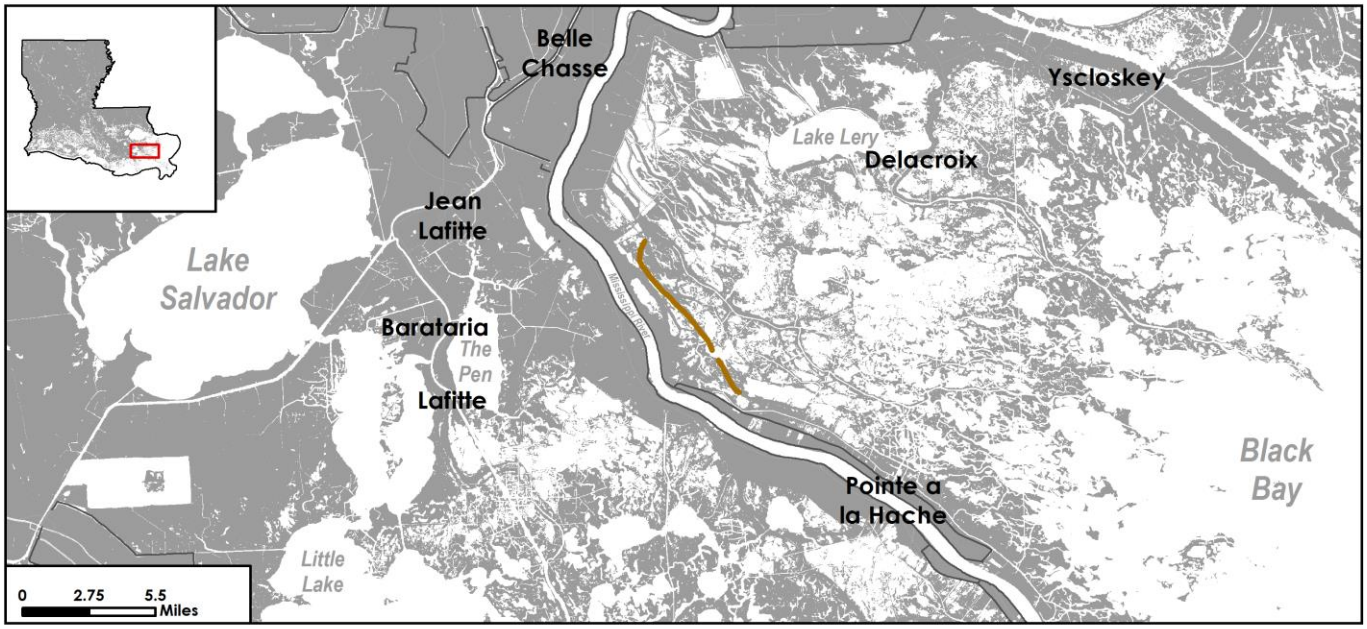
Other Nearby Projects in the Master Plan



Carlisle Ridge Restoration

Ridge Restoration

Project ID: 001.RC.103



Description

Restoration of approximately 38,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation near Carlisle.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

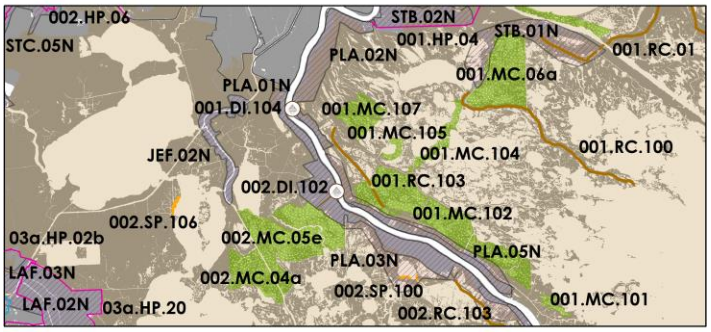
	Estimated Cost
Planning/Engineering & Design	$600,000
Construction	$6,600,000
Operations & Maintenance	$2,000,000
Total	**$9,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,337 acres
Long Term (Year 50)	423 acres

**Based on the high environmental scenario.*

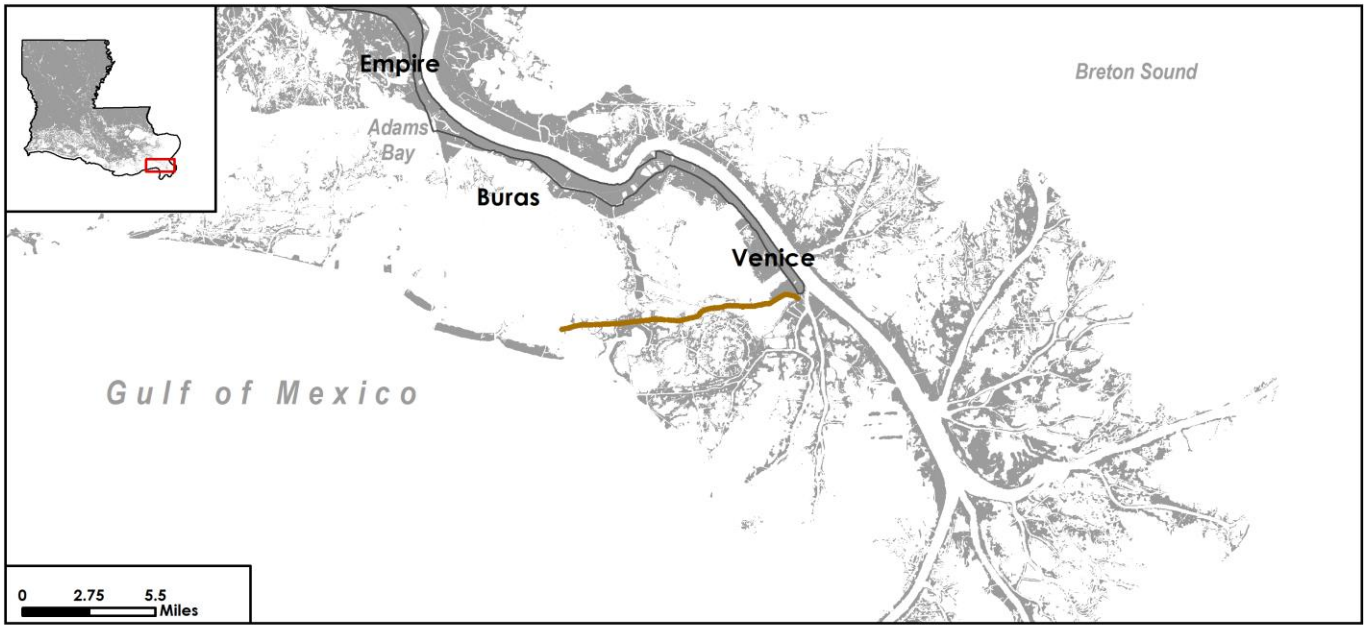
Other Nearby Projects in the Master Plan



Spanish Pass Ridge Restoration

Ridge Restoration

Project ID: 002.RC.02



Description

Restoration of approximately 46,300 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation west of Venice along the banks of Spanish Pass.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

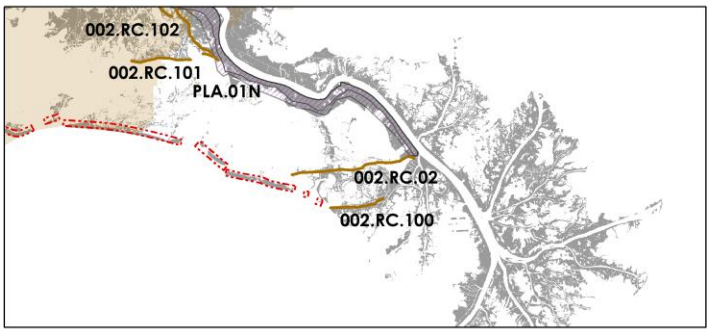
	Estimated Cost
Planning/Engineering & Design	$800,000
Construction	$8,700,000
Operations & Maintenance	$2,100,000
Total	**$11,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,150 acres
Long Term (Year 50)	933 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

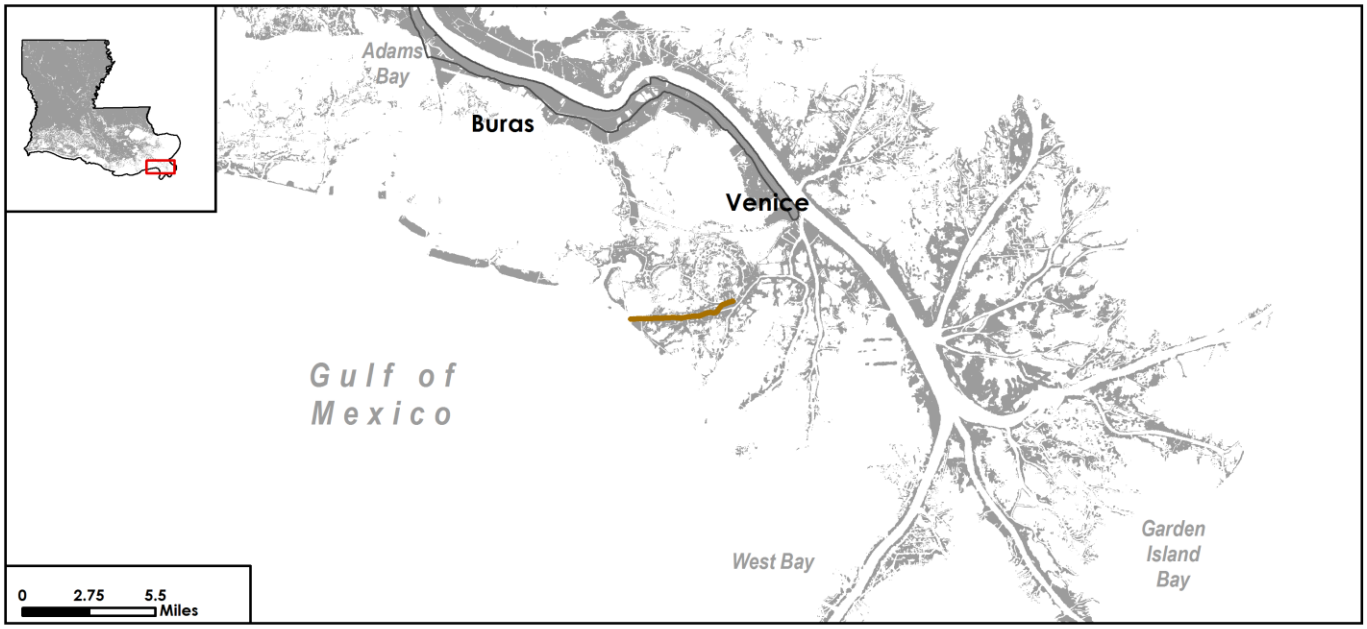


2017 Coastal Master Plan
Implementation Period II

Red Pass Ridge Restoration

Ridge Restoration

Project ID: 002.RC.100



Description

Restoration of approximately 23,000 feet of historic ridge southwest of Venice to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along the banks of Red Pass.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

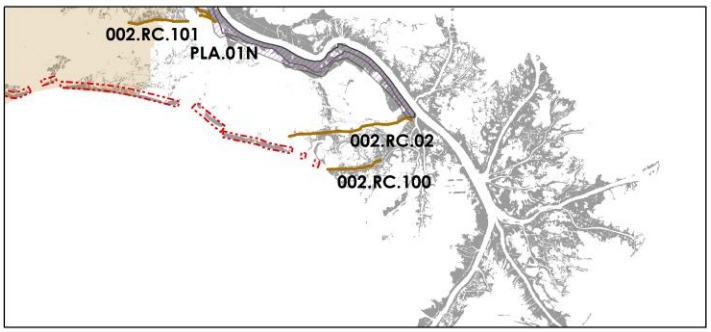
	Estimated Cost
Planning/Engineering & Design	$200,000
Construction	$2,600,000
Operations & Maintenance	$600,000
Total	**$3,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	-300 acres
Long Term (Year 50)	403 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

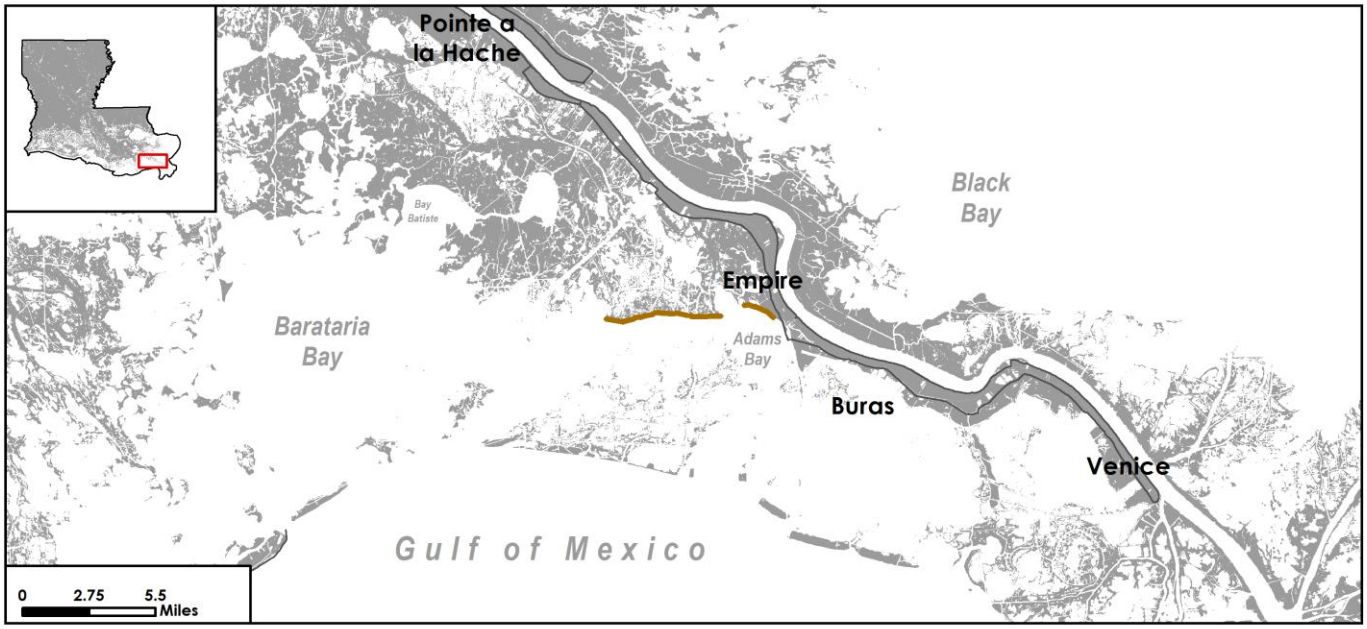


2017 Coastal Master Plan
Implementation Period II

Adams Bay Ridge Restoration

Ridge Restoration

Project ID: 002.RC.101



Description

Restoration of approximately 31,600 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Adams Bay.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

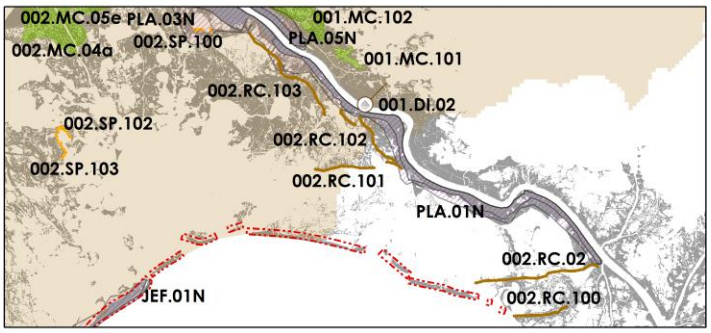
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$5,100,000
Operations & Maintenance	$1,600,000
Total	**$7,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	339 acres
Long Term (Year 50)	347 acres

**Based on the high environmental scenario.*

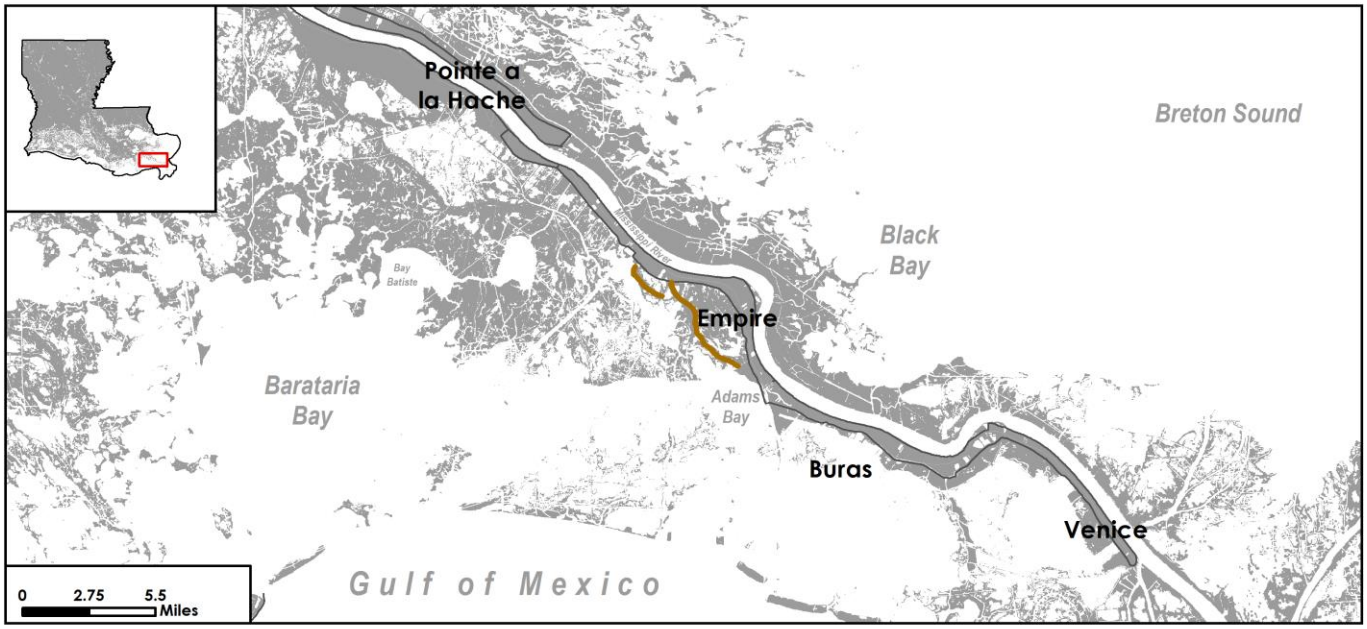
Other Nearby Projects in the Master Plan



Bayou Eau Noire Ridge Restoration

Ridge Restoration

Project ID: 002.RC.102



Description

Restoration of approximately 34,800 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Eau Noire.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

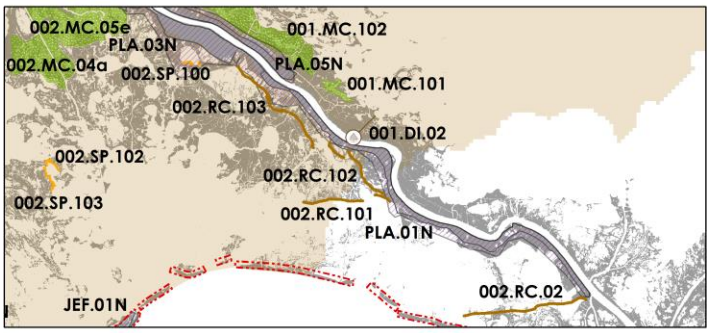
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,000,000
Operations & Maintenance	$2,100,000
Total	**$9,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	13 acres
Long Term (Year 50)	448 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

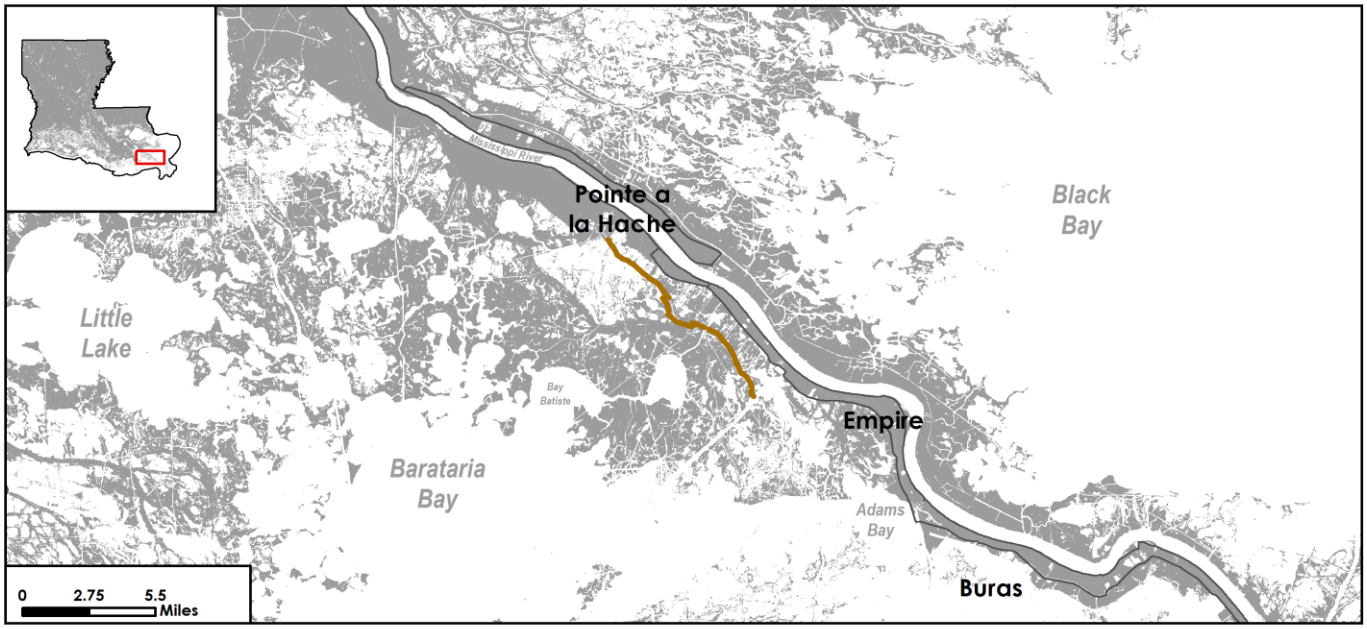


2017 Coastal Master Plan
Implementation Period 1

Grand Bayou Ridge Restoration

Ridge Restoration

Project ID: 002.RC.103



Description

Restoration of approximately 48,100 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Grand Bayou.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

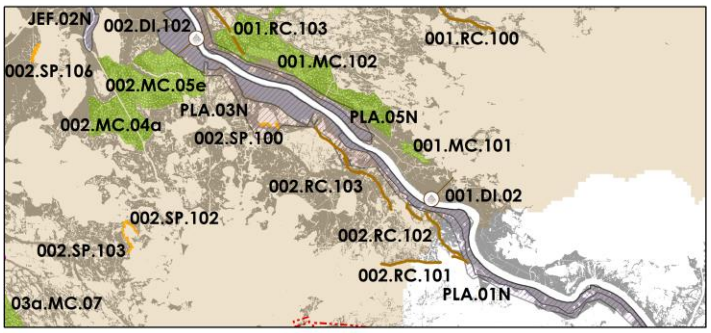
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$7,300,000
Operations & Maintenance	$2,300,000
Total	**$10,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	325 acres
Long Term (Year 50)	245 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

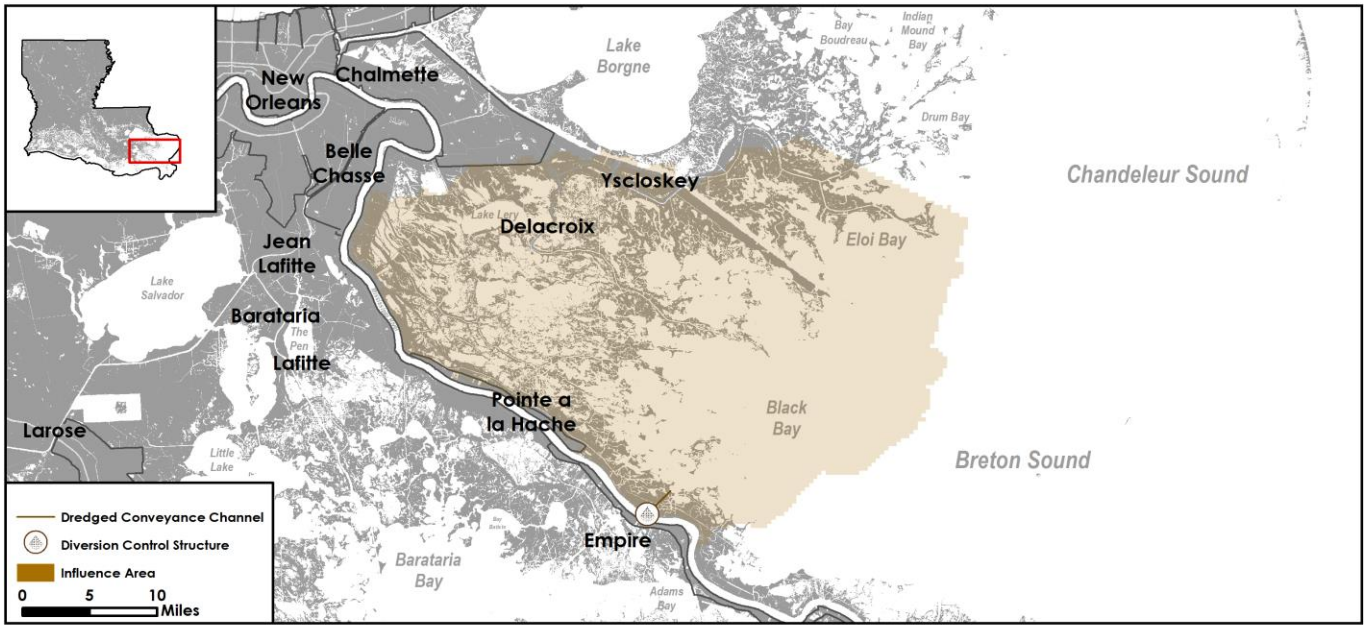


2017 Coastal Master Plan
Implementation Period 1

Lower Breton Diversion

Sediment Diversion

Project ID: 001.DI.02



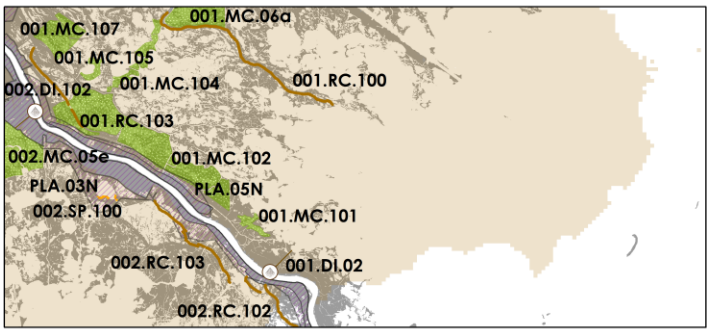
Description

Sediment diversion of 50,000 cfs into Lower Breton Sound to build and maintain land (modeled at 50,000 cfs for river flows at 1,000,000 cfs; variable flows above 200,000 cfs calculated using a linear function up to 1,000,000 cfs; and open with variable flow rate [larger than 50,000 cfs, estimated using linear extrapolation] for river flow above 1,000,000 cfs. No operation below 200,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$24,600,000
Construction	$307,000,000
Operations & Maintenance	$51,600,000
Total	**$383,200,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

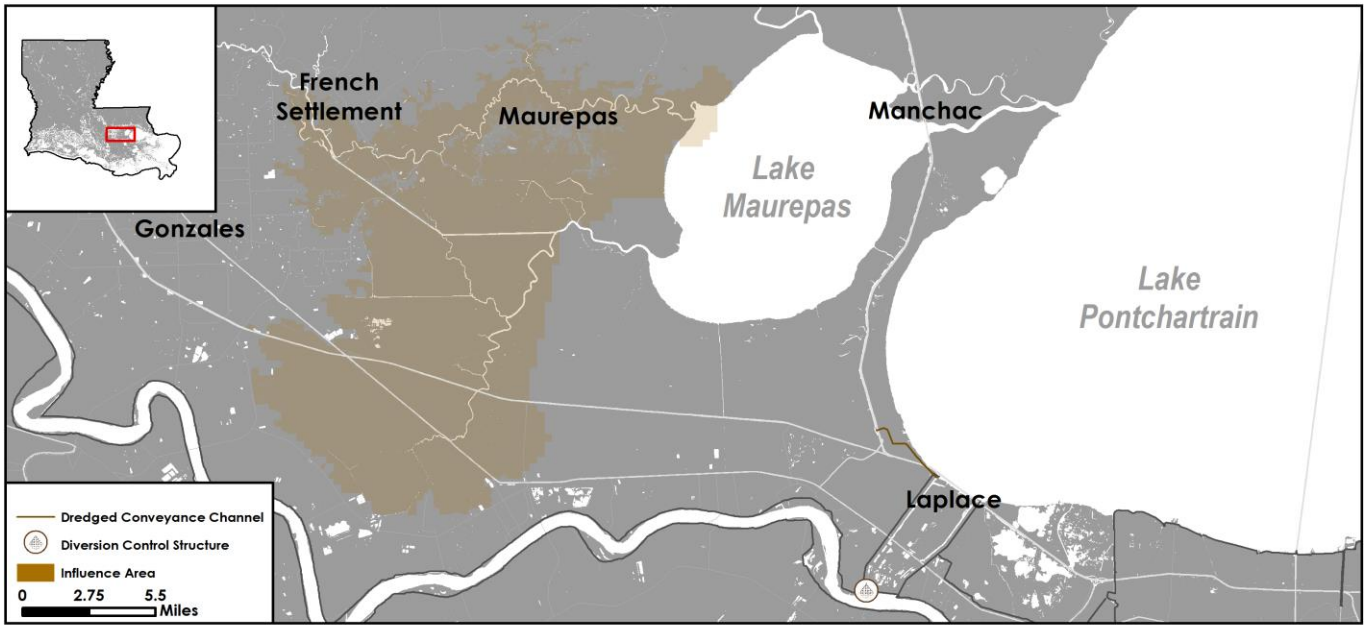
Near Term (Year 20)	3,633 acres
Long Term (Year 50)	9,084 acres

**Based on the high environmental scenario.*

Manchac Landbridge Diversion

Sediment Diversion

Project ID: 001.DI.100



Description

A structure in the existing western spillway guide levee to divert 2,000 cfs thereby increasing freshwater exchange with adjacent wetlands.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. Charles Parish; St. John Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

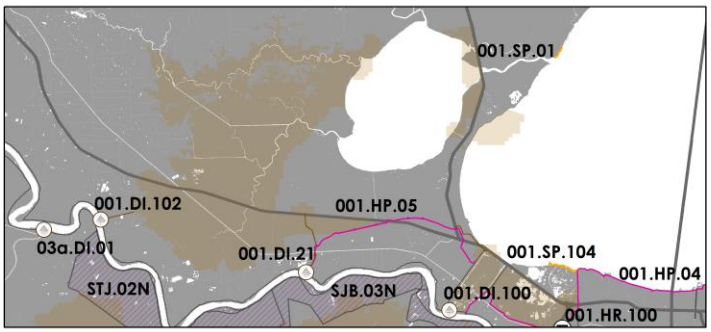
	Estimated Cost
Planning/Engineering & Design	$9,400,000
Construction	$118,000,000
Operations & Maintenance	$20,800,000
Total	**$148,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	-149 acres
Long Term (Year 50)	9,992 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

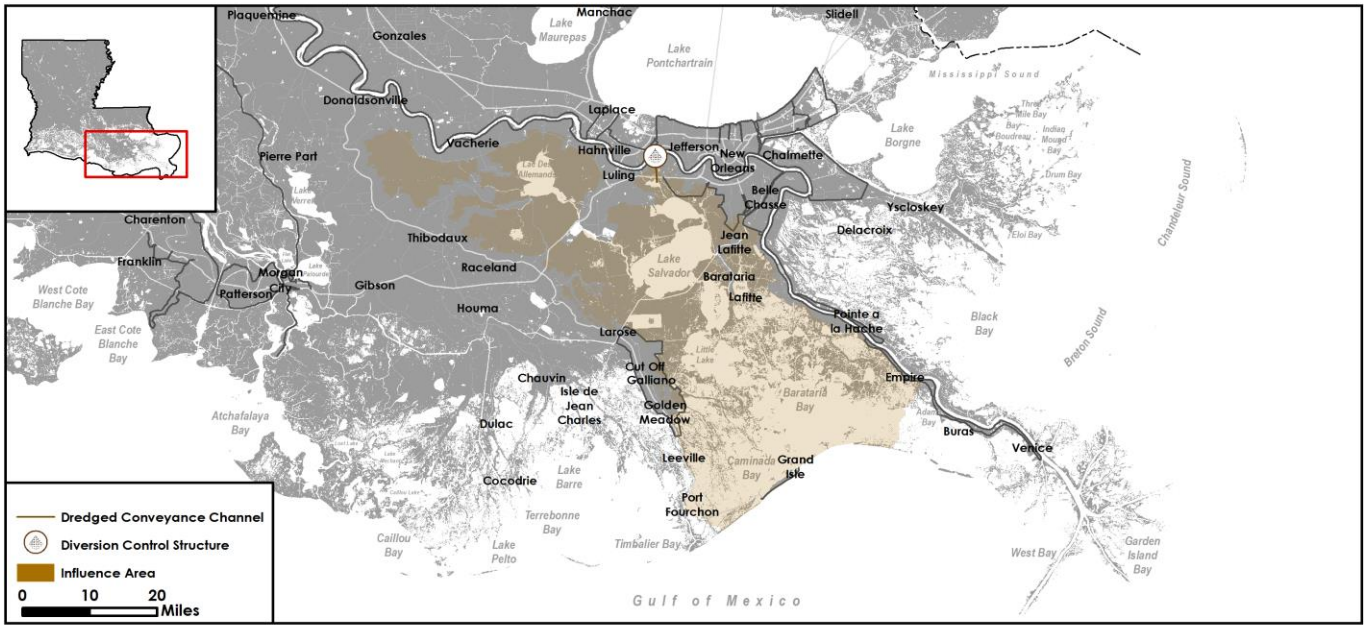


2017 Coastal Master Plan
Implementation Period 1

Ama Sediment Diversion

Sediment Diversion

Project ID: 001.DI.101



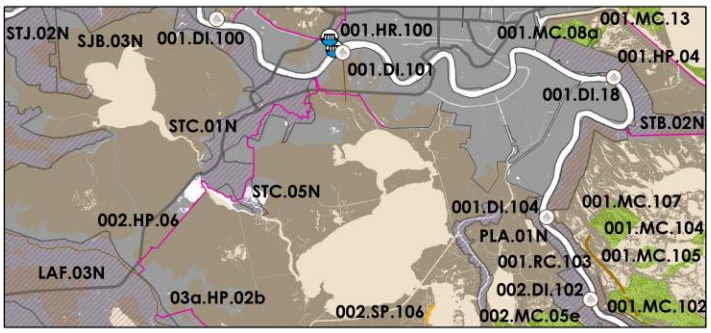
Description

Sediment diversion into Upper Barataria near Ama to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 50,000 cfs capacity (modeled at 50,0000 cfs when the Mississippi River flow equals 1,000,000 cfs; open with a variable flow rate calculated using a linear function from 0 to 50,000 cfs for river flow between 200,000 cfs and 1,000,000 cfs, diverts exactly 50,000 cfs when the Mississippi River flow is 1,000,000 cfs; and open with a variable flow rate [larger than 50,000 cfs, estimated using linear extrapolation] for river flow above 1,000,000 cfs. No operation below 200,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$58,400,000
Construction	$730,400,000
Operations & Maintenance	$93,500,000
Total	**$882,300,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

St. Charles Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

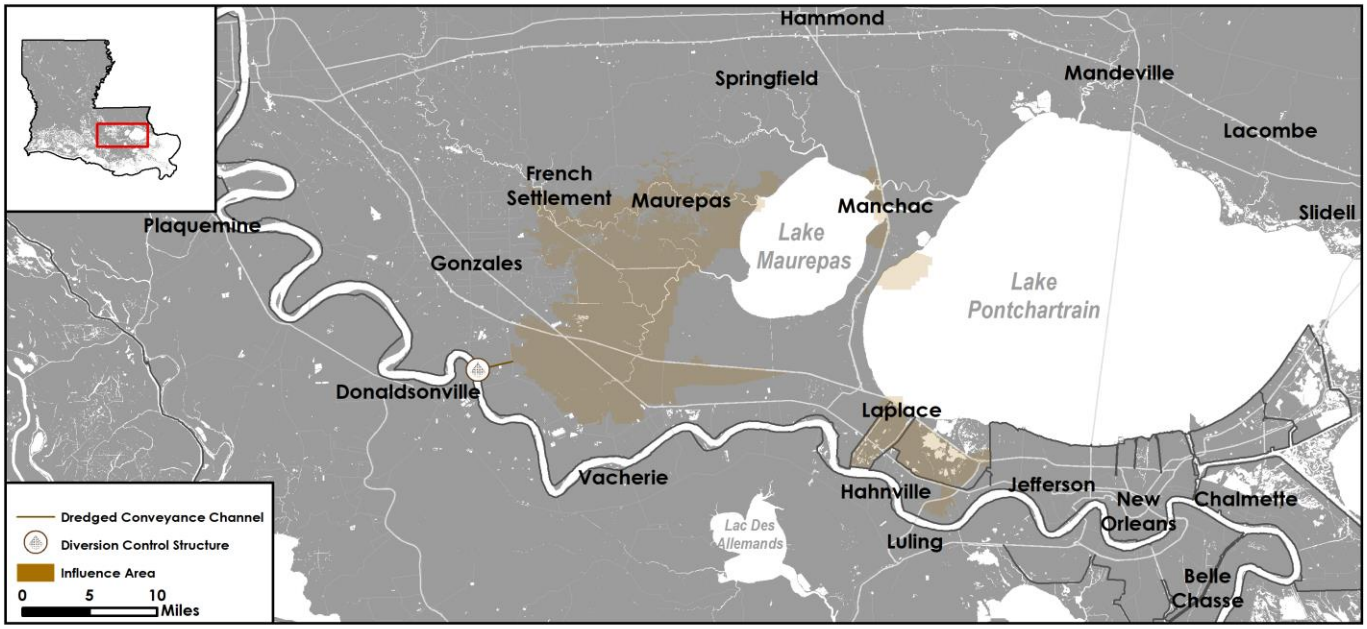
Near Term (Year 20)	-3,673 acres
Long Term (Year 50)	76,591 acres

**Based on the high environmental scenario.*

Union Freshwater Diversion

Sediment Diversion

Project ID: 001.DI.102



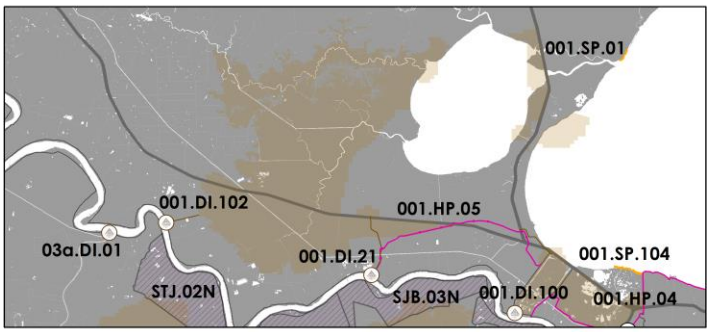
Description

Diversion into West Maurepas swamp near Burnside to provide sediment for emergent marsh creation and freshwater and fine sediment to sustain existing wetlands, 25,000 cfs capacity (modeled at 25,000 cfs when Mississippi River flow equals 400,000 cfs; closed when river flow is below 200,000 cfs or above 600,000 cfs; a variable flow rate calculated using a linear function from 0 to 25,000 cfs for river flow between 200,000 cfs and 400,000 cfs and held constant at 25,000 cfs for river flow between 400,000 cfs and 600,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$56,200,000
Construction	$702,500,000
Operations & Maintenance	$118,000,000
Total	**$876,700,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Ascension Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

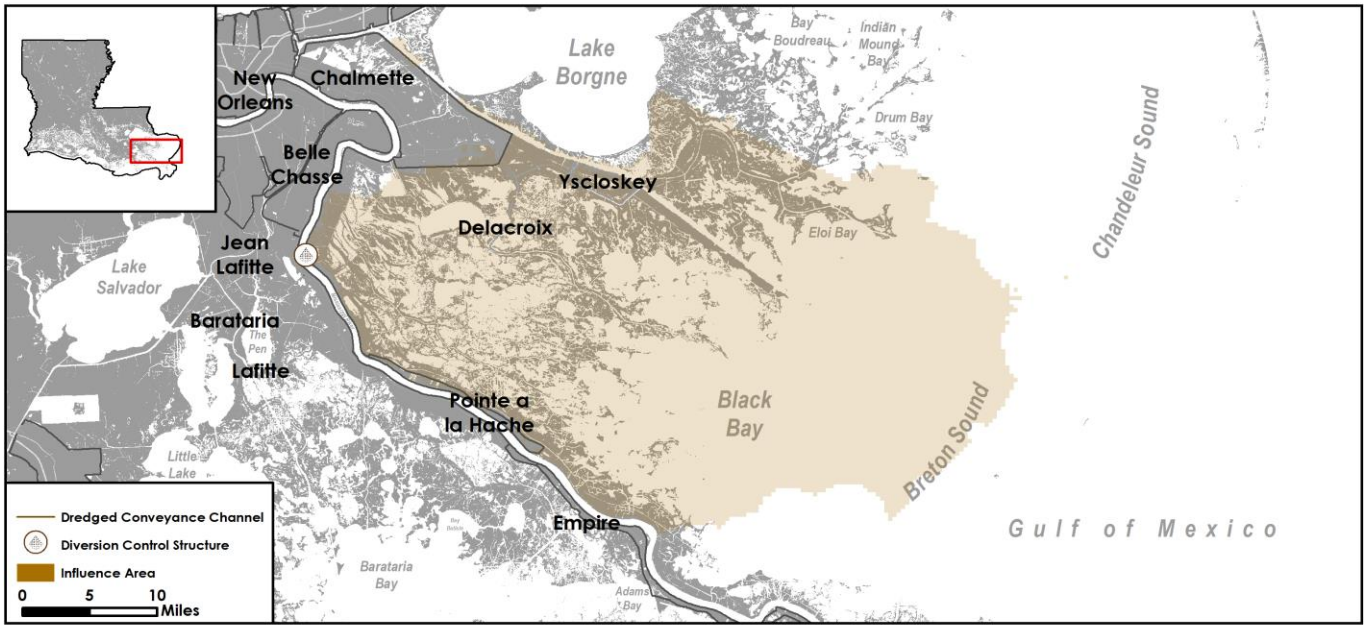
Near Term (Year 20)	6,007 acres
Long Term (Year 50)	141,824 acres

**Based on the high environmental scenario.*

Mid-Breton Sound Diversion

Sediment Diversion

Project ID: 001.DI.104



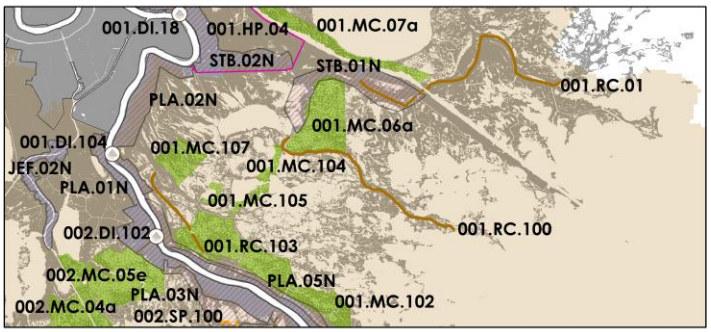
Description

Sediment diversion into Mid-Breton Sound in the vicinity of White's Ditch to build and maintain land, 35,000 cfs capacity (modeled at 35,000 cfs when the Mississippi River flow equals 1,000,000 cfs; flow rate calculated using a linear function for river flow from 200,000 cfs to 1,000,000 cfs; flows variable above 1,000,000 cfs; 5,000 cfs minimum flow maintained when Mississippi River flow is below 200,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$30,500,000
Construction	$381,400,000
Operations & Maintenance	$67,100,000
Total	**$479,000,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Land Area Built or Maintained*

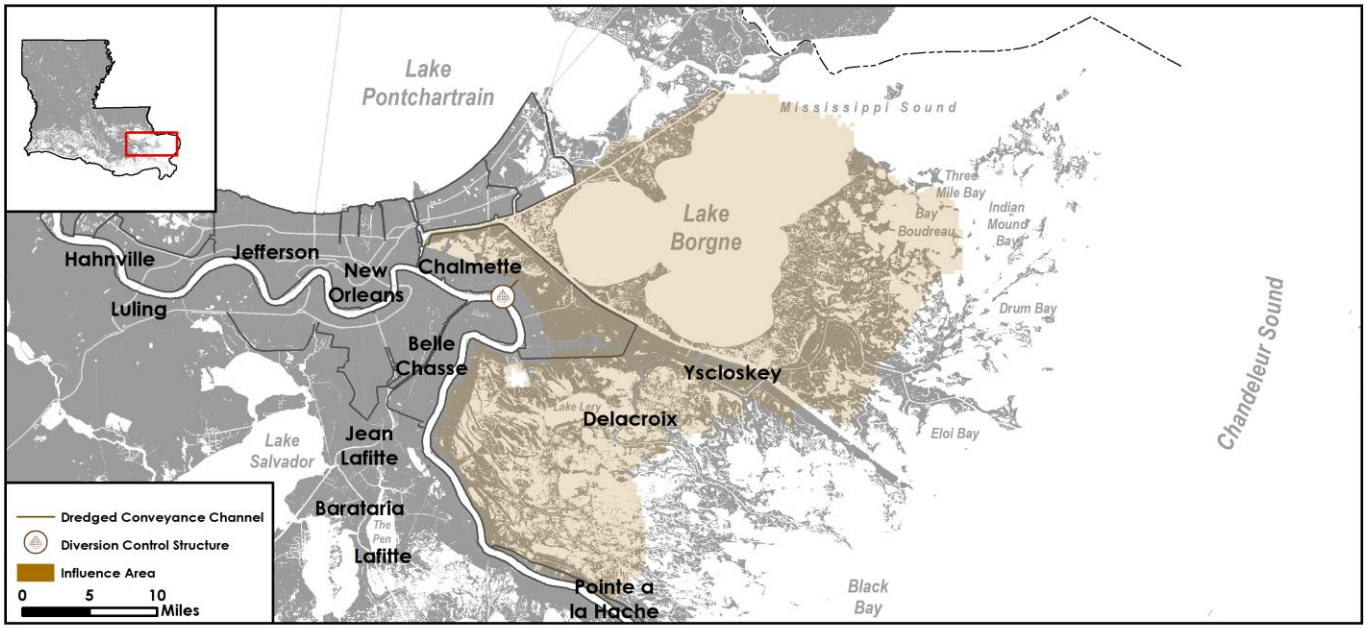
Near Term (Year 20)	5,066 acres
Long Term (Year 50)	15,831 acres

**Based on the most recent project-specific Delft-3D modeling analysis.*

Central Wetlands Diversion

Sediment Diversion

Project ID: 001.DI.18



Description

Diversion into Central Wetlands near Violet to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 5,000 cfs capacity (modeled at a constant flow of 5,000 cfs, independent of the Mississippi River flow).

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

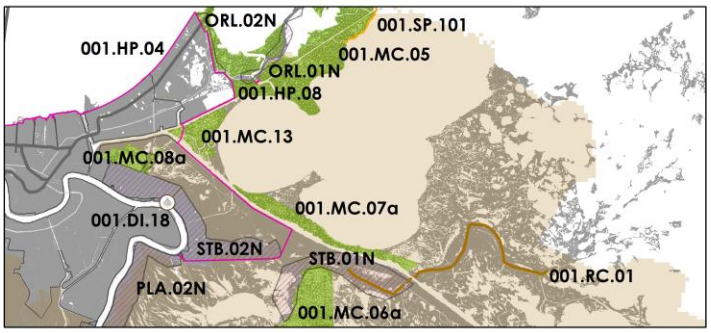
	Estimated Cost
Planning/Engineering & Design	$14,700,000
Construction	$183,900,000
Operations & Maintenance	$32,400,000
Total	**$231,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,200 acres
Long Term (Year 50)	17,510 acres

**Based on the high environmental scenario.*

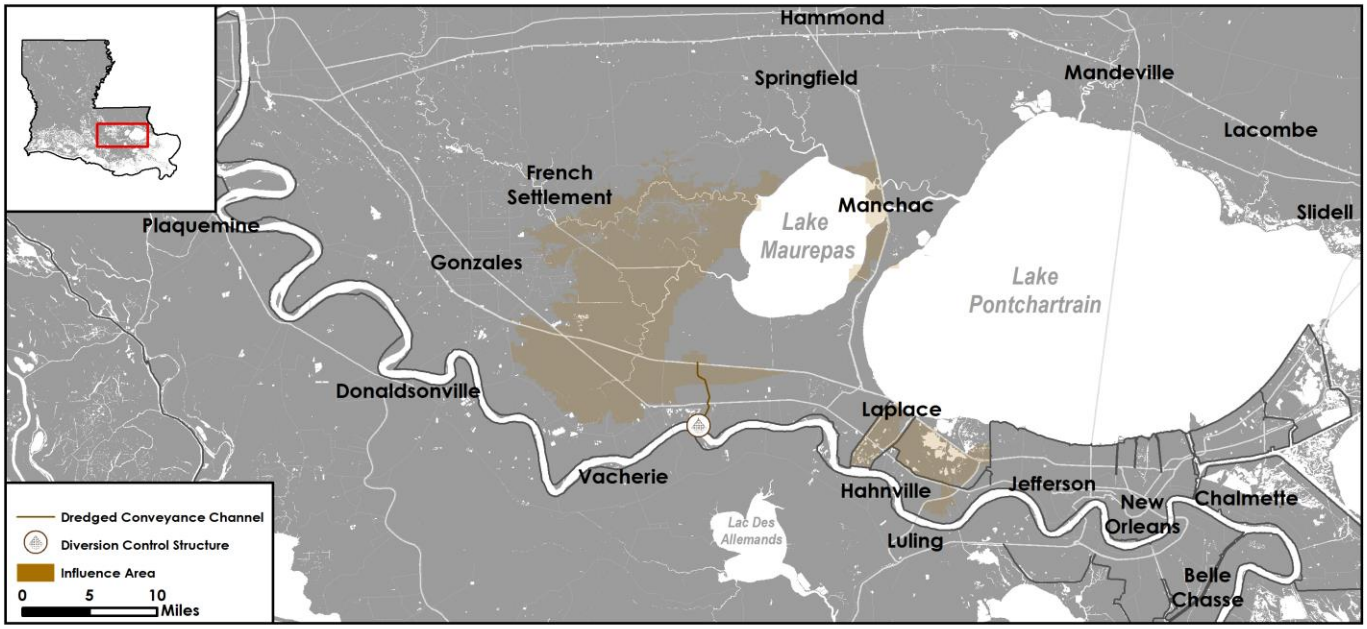
Other Nearby Projects in the Master Plan



East Maurepas Diversion

Sediment Diversion

Project ID: 001.DI.21



Description

Diversion into East Maurepas near Angelina to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 2,000 cfs capacity (modeled at a constant flow of 2,000 cfs, independent of the Mississippi River flow).

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

St. John Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

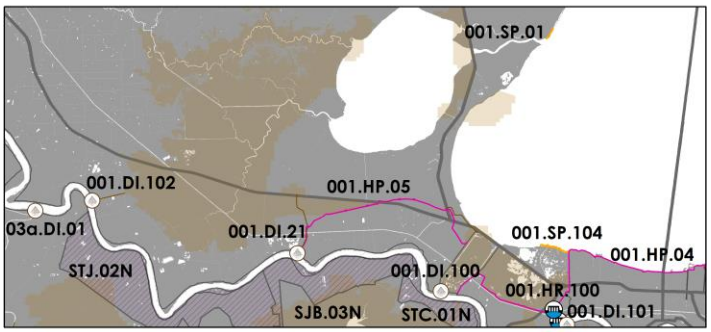
	Estimated Cost
Planning/Engineering & Design	$11,800,000
Construction	$147,200,000
Operations & Maintenance	$25,900,000
Total	**$184,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	4,351 acres
Long Term (Year 50)	100,874 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

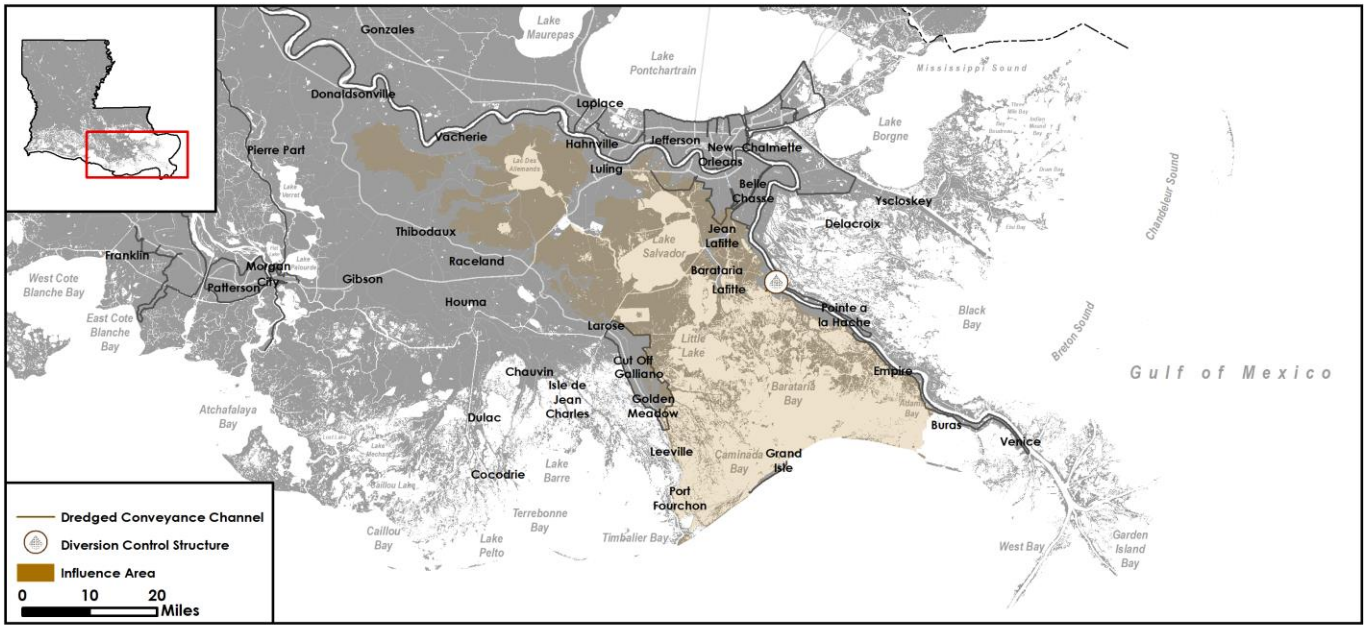


2017 Coastal Master Plan
Implementation Period 1

Mid-Barataria Diversion

Sediment Diversion

Project ID: 002.DI.102



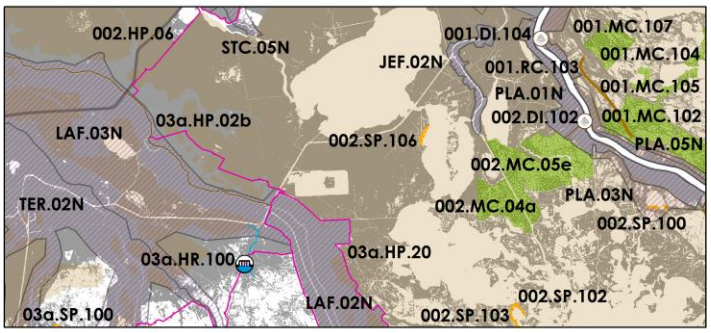
Description

Sediment diversion into Mid-Barataria near Myrtle Grove to build and maintain land, 75,000 cfs capacity (modeled at 5,000 cfs for Mississippi River flows below 200,000 cfs; variable flows to capacity between 200,000 and 1,250,000 cfs calculated using a linear function; diverts exactly 75,000 cfs when flows are at 1,250,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$39,400,000
Construction	$821,400,000
Operations & Maintenance	$138,000,000
Total	**$998,800,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

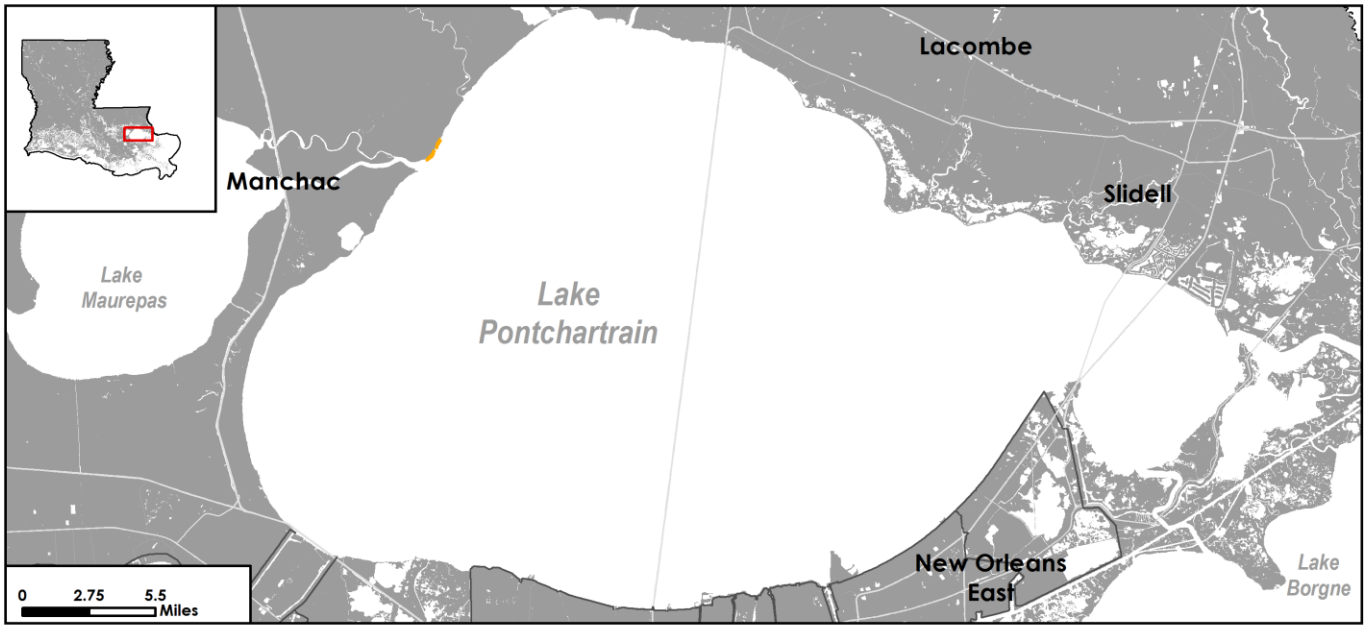
Near Term (Year 20)	8,041 acres
Long Term (Year 50)	29,686 acres

**Based on the most recent project-specific Delft-3D modeling analysis.*

Manchac Landbridge Shoreline Protection

Shoreline Protection

Project ID: 001.SP.01



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 5,500 feet of the west side of Lake Pontchartrain north of Pass Manchac near Stinking Bayou to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Tangipahoa Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

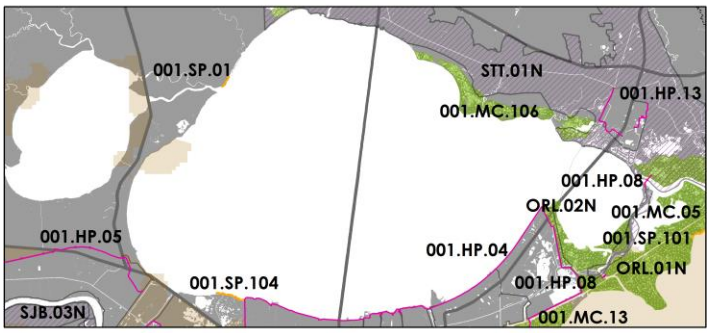
	Estimated Cost
Planning/Engineering & Design	$400,000
Construction	$4,800,000
Operations & Maintenance	$6,500,000
Total	**$11,700,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	351 acres

**Based on the high environmental scenario.*

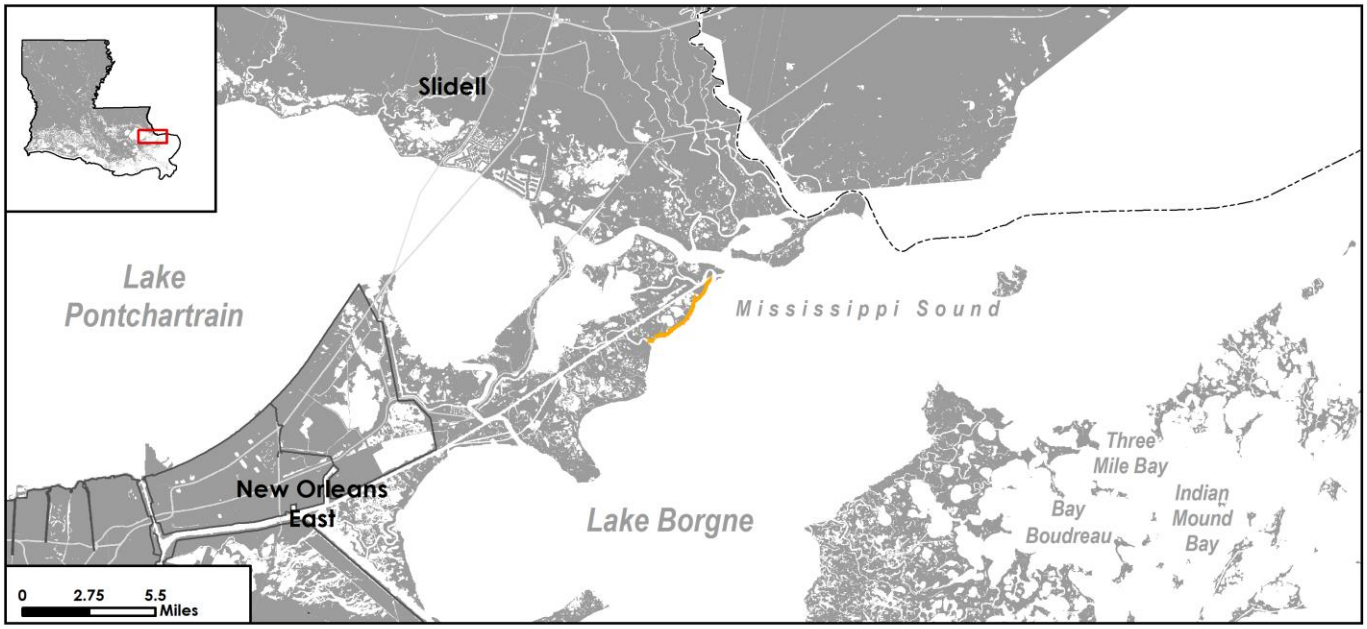
Other Nearby Projects in the Master Plan



Unknown Pass to Rigolets Shoreline Protection

Shoreline Protection

Project ID: 001.SP.101



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 2,000 feet of the east side of the New Orleans Landbridge from Unknown Pass to the Rigolets to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

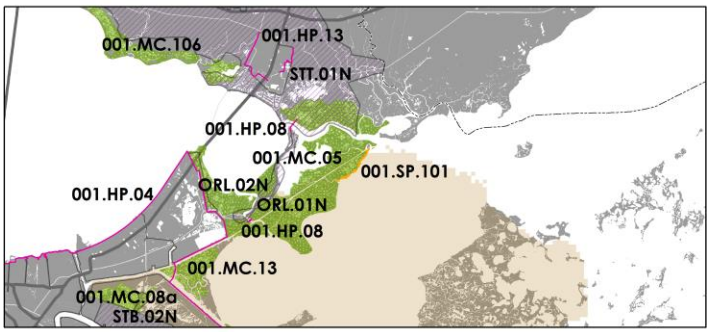
	Estimated Cost
Planning/Engineering & Design	$200,000
Construction	$2,100,000
Operations & Maintenance	$2,900,000
Total	**$5,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	79 acres
Long Term (Year 50)	0 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

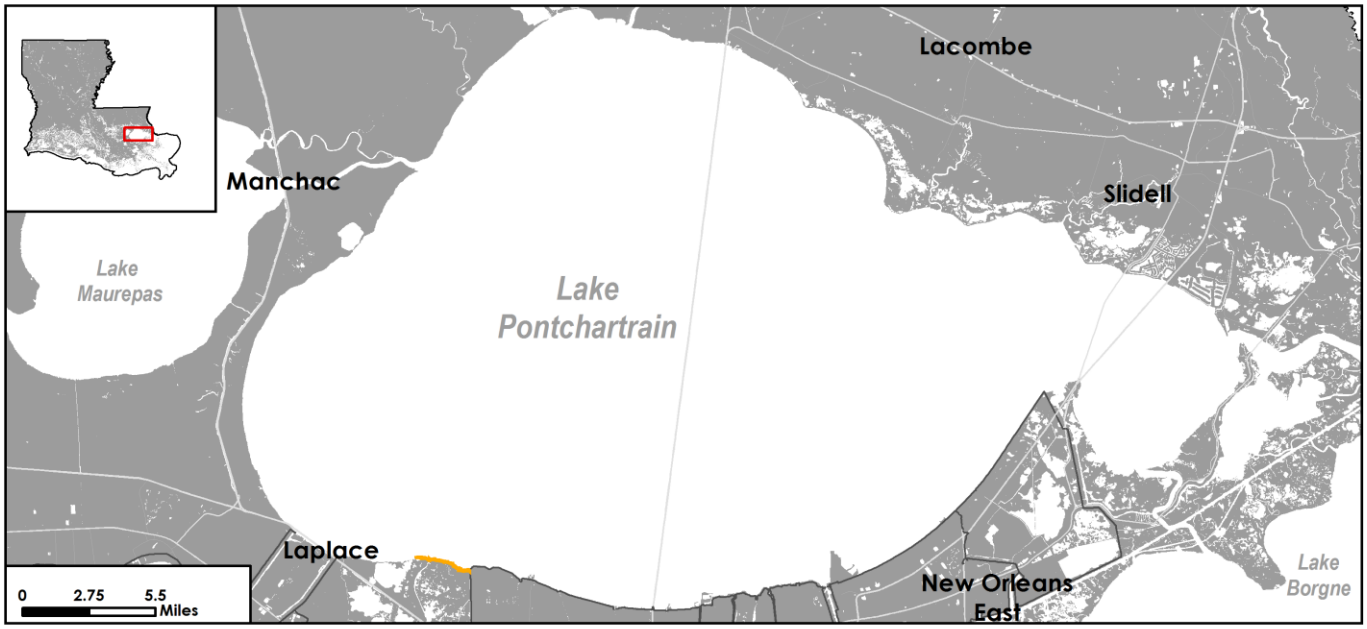


2017 Coastal Master Plan
Implementation Period 1

LaBranche Wetlands Shoreline Protection

Shoreline Protection

Project ID: 001.SP.104



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 11,100 feet of the southern shore of Lake Pontchartrain near the LaBranche wetlands to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local | Sub-basin | Basin | Regional

Project Location

St. Charles Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

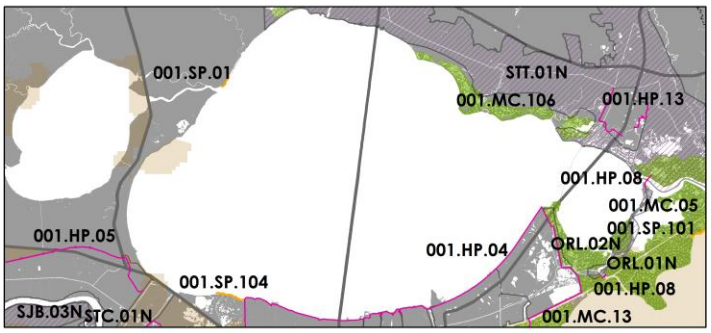
	Estimated Cost
Planning/Engineering & Design	$800,000
Construction	$9,500,000
Operations & Maintenance	$12,800,000
Total	**$23,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	6 acres
Long Term (Year 50)	1,921 acres

**Based on the high environmental scenario.*

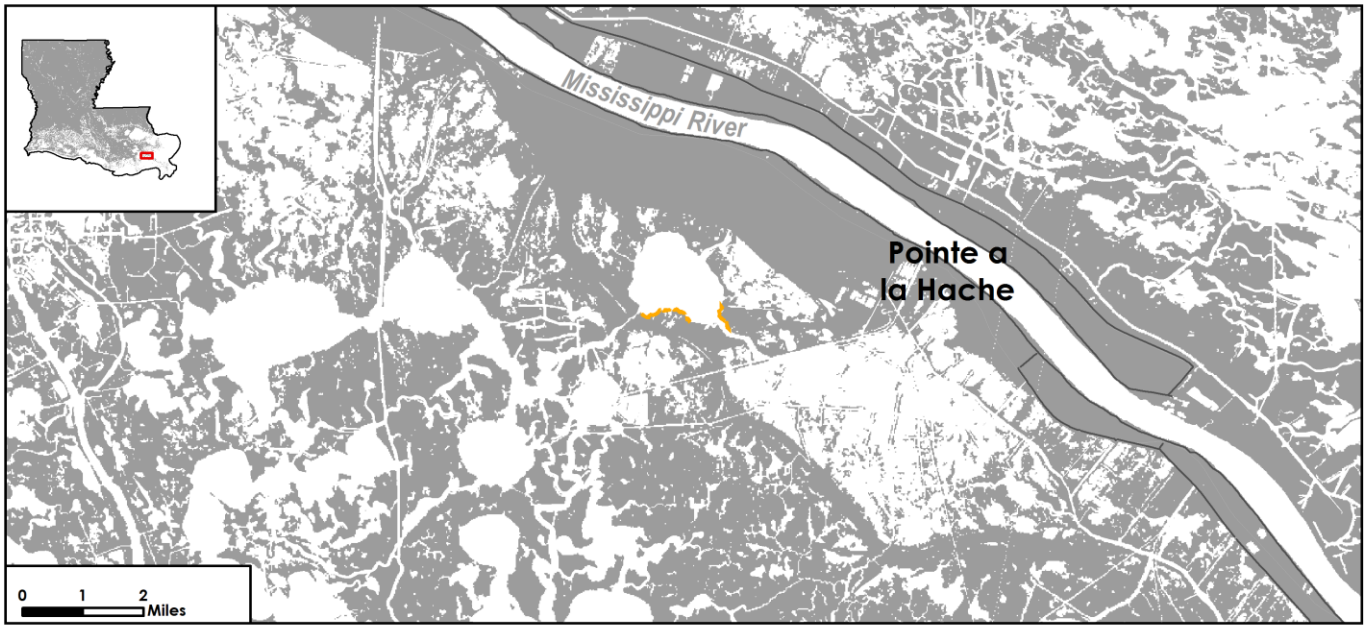
Other Nearby Projects in the Master Plan



Lake Hermitage Shoreline Protection

Shoreline Protection

Project ID: 002.SP.100



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 6,500 feet around the southern shore of Lake Hermitage to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

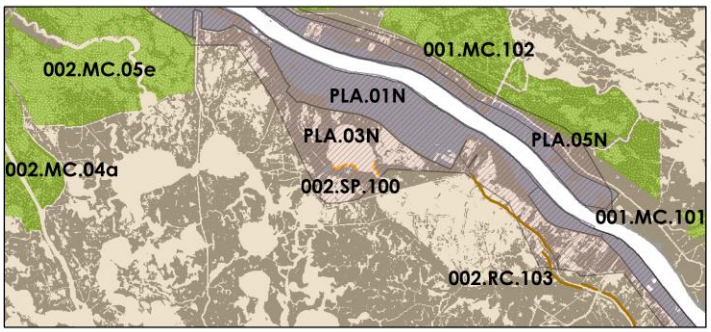
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$5,900,000
Operations & Maintenance	$8,100,000
Total	**$14,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	242 acres
Long Term (Year 50)	92 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



East Snail Bay Shoreline Protection

Shoreline Protection

Project ID: 002.SP.102

Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 7,300 feet of the northeastern shore of Snail Bay south of Little Lake to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

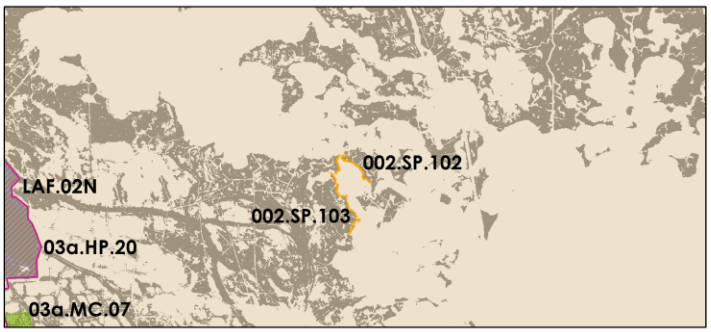
	Estimated Cost
Planning/Engineering & Design	$500,000
Construction	$6,400,000
Operations & Maintenance	$8,500,000
Total	**$15,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	242 acres
Long Term (Year 50)	99 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

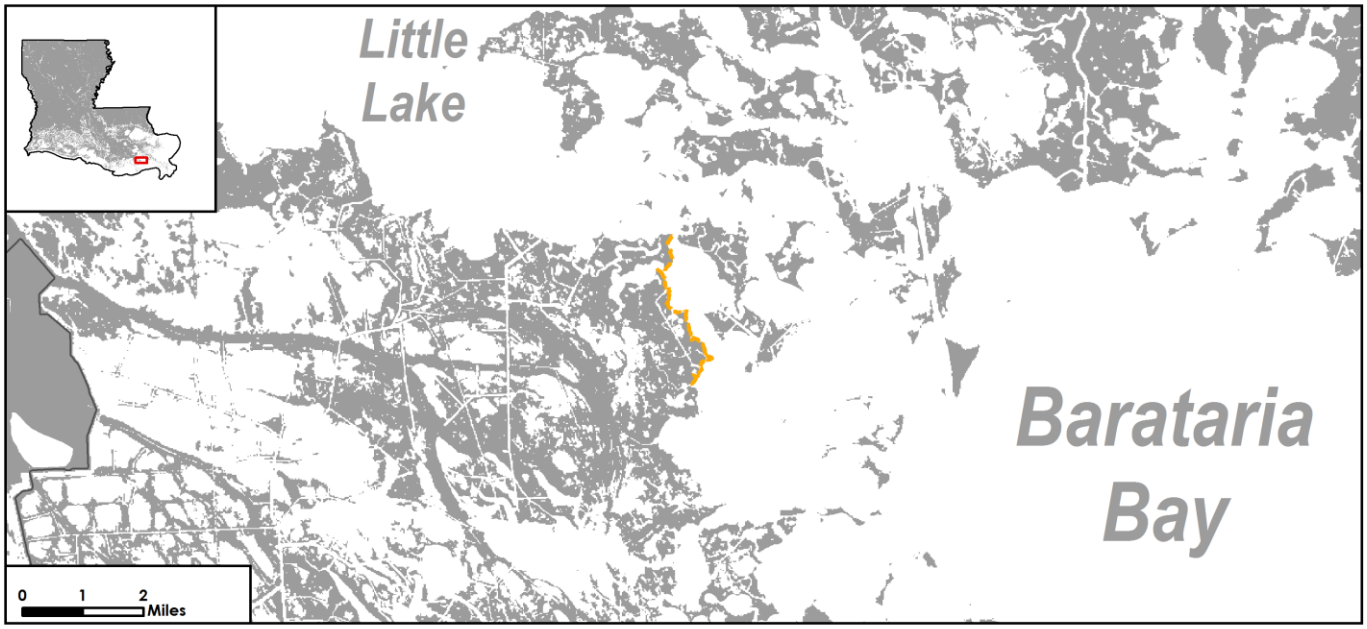


2017 Coastal Master Plan
Implementation Period 1

West Snail Bay Shoreline Protection

Shoreline Protection

Project ID: 002.SP.103



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 16,600 feet of the western shoreline of Snail Bay south of Little Lake to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

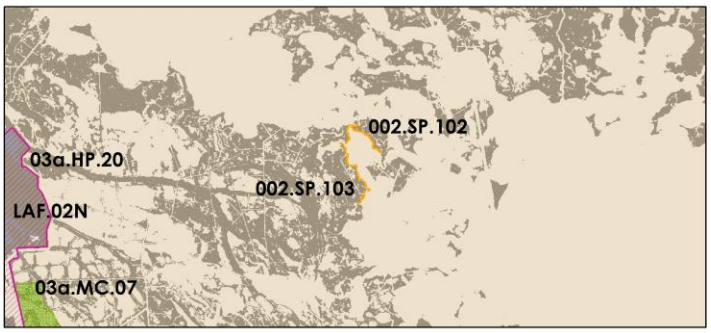
	Estimated Cost
Planning/Engineering & Design	$1,100,000
Construction	$14,100,000
Operations & Maintenance	$14,700,000
Total	**$29,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	643 acres
Long Term (Year 50)	181 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

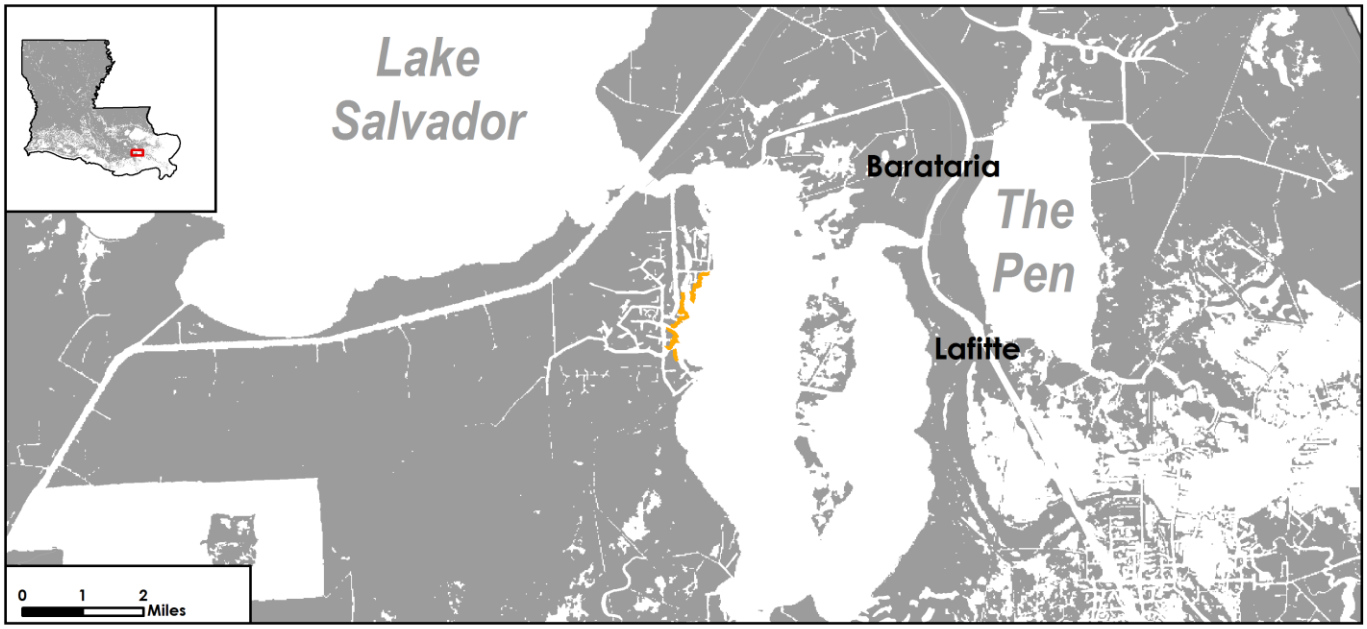


2017 Coastal Master Plan
Implementation Period II

Bayou Perot Shoreline Protection

Shoreline Protection

Project ID: 002.SP.106



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 5,900 feet of the western shore of Bayou Perot to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

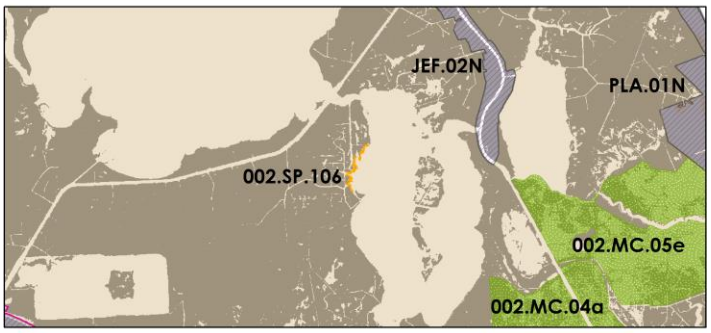
	Estimated Cost
Planning/Engineering & Design	$400,000
Construction	$5,500,000
Operations & Maintenance	$7,500,000
Total	**$13,400,000**

Land Area Built or Maintained*

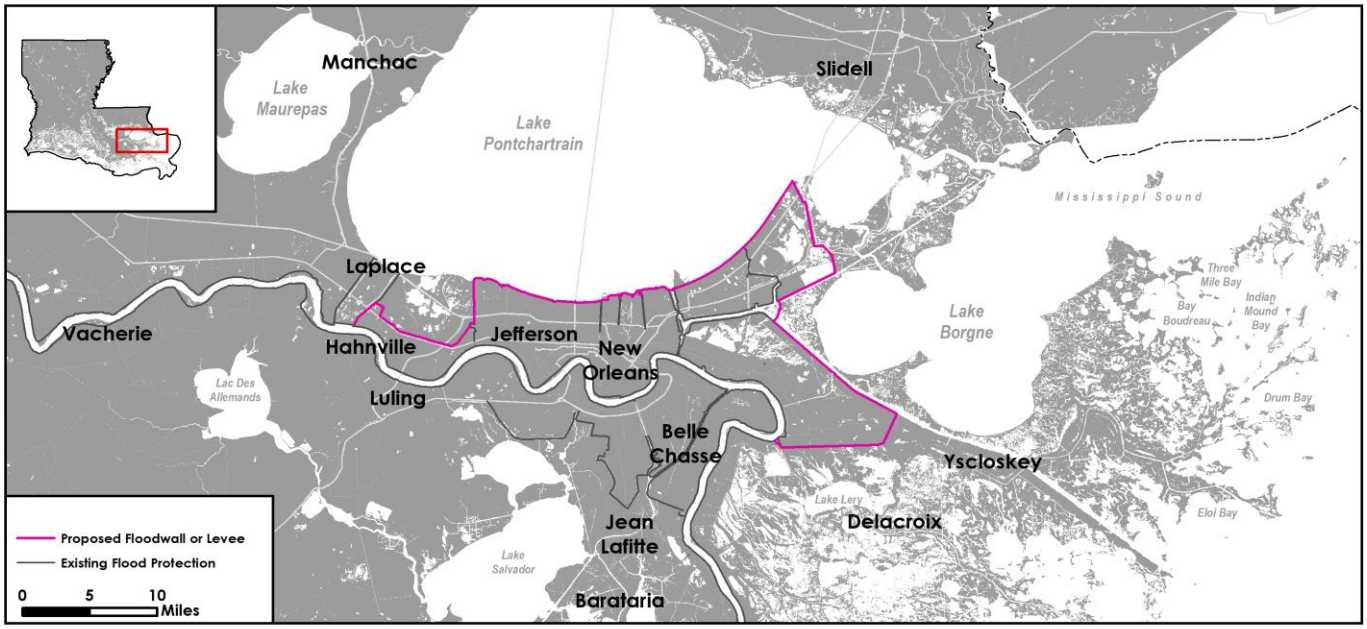
Near Term (Year 20)	242 acres
Long Term (Year 50)	93 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Greater New Orleans High Level
Structural Protection
Project ID: 001.HP.04



Description
Improvements of existing Hurricane and Storm Damage Risk Reduction System levees surrounding the East Bank of Greater New Orleans to elevations between 19 and 35 feet NAVD88. Project features approximately 202,000 feet of earthen levee and approximately 242,100 feet of T-wall.

Scale of Influence
Local | Sub-basin | Basin | **Regional**

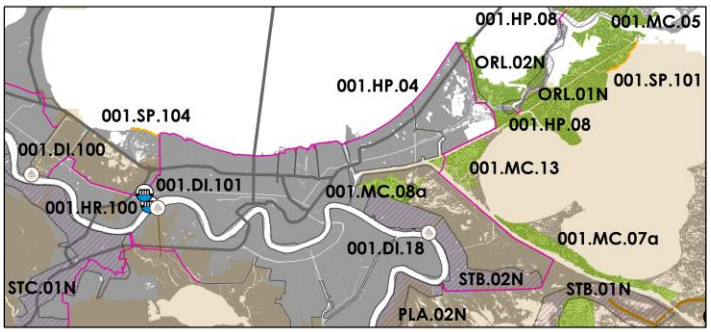
Project Location
Orleans Parish; St. Bernard Parish; Jefferson Parish; St. Charles Parish; Plaquemines Parish

Project Duration
Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 6 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$278,100,000
Construction	$1,924,900,000
Operations & Maintenance	$19,700,000
Total	**$2,222,700,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	593,700
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	43%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	9,600

2017 Coastal Master Plan
Implementation Period II

Greater New Orleans High Level
Structural Protection
Project ID: 001.HP.04

Economic Damage
Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$917 M	-	-
25	$2,299 M	$2,055 M	**$243 M**
50	$5,829 M	$5,052 M	**$777 M**

Critical Infrastructure
The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	3
Electric Power Substation	2	57
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	14
Electric Power Plant	1	27
Port	-	3
Petroleum Pump Station	-	-
Refinery	-	8
Water and Sewer	-	16
Strategic Petroleum Reserve	-	-
Total	**3**	**131**

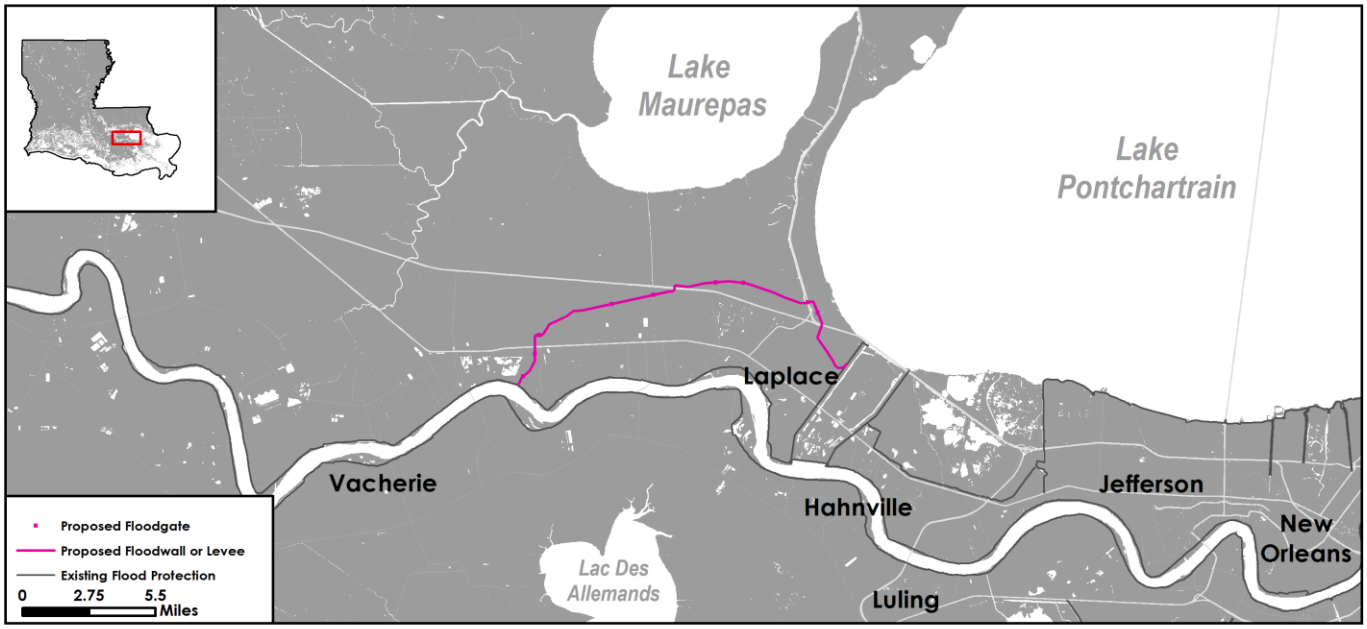
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Jefferson - Kenner/Metairie	$1,885 M	$1,508 M	$10,376 M	$2,051 M	$145,548 M	$105,674 M
Livingston	$340 M	$340 M	$451 M	$454 M	$507 M	$507 M
Orleans - Lake Catherine	$340 M	$340 M	$342 M	$342 M	$351 M	$351 M
Orleans - New Orleans	$9,913 M	$1,765 M	$23,194 M	$10,739 M	$78,145 M	$64,680 M
Orleans - Rigolets	$129 M	$130 M	$130 M	$130 M	$130 M	$130 M
St. Bernard	$283 M	$279 M	$748 M	$737 M	$13,580 M	$12,237 M
St. Charles - Destrehan	$21 M	$21 M	$21 M	$21 M	$45 M	$31 M
St. Charles - Montz	$48 M	$48 M	$101 M	$101 M	$196 M	$201 M
St. James - Convent	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M
St. John the Baptist - Garyville	$133 M	$134 M	$158 M	$158 M	$209 M	$209 M
St. John the Baptist - Laplace/Reserve	$16,468 M	$16,506 M	$19,303 M	$19,240 M	$24,670 M	$24,591 M
St. Tammany	$26,828 M	$26,740 M	$40,135 M	$40,068 M	$53,582 M	$53,570 M
St. Tammany - Slidell	$18,532 M	$18,486 M	$21,568 M	$21,488 M	$25,013 M	$24,955 M
Total	**$74,921 M**	**$66,297 M**	**$116,527 M**	**$95,529 M**	**$341,976 M**	**$287,135 M**

West Shore Lake Pontchartrain

Structural Protection

Project ID: 001.HP.05



Description

Construction of a levee to an elevation between 16 and 19 feet NAVD88 in the Laplace area. Project features approximately 91,000 feet of earthen levee, approximately 5,000 feet of T-wall, (1) 18-foot sluice gate, (1) 25-foot sluice gate, (2) 25-foot swing gates, (1) 150-foot roller gate, and (4) pump stations with a total capacity of 2,150 cfs.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. Charles Parish; St. John Parish; St. James Parish

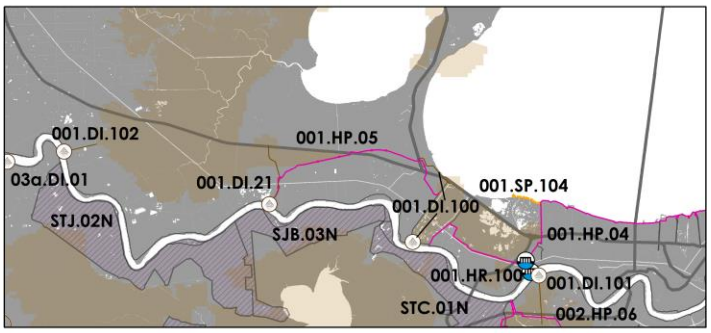
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$78,700,000
Construction	$543,800,000
Operations & Maintenance	$107,900,000
Total	**$730,400,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	44,400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	38%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	206

2017 Coastal Master Plan
Implementation Period 1

West Shore Lake Pontchartrain
Structural Protection
Project ID: 001.HP.05

Economic Damage
Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$809 M	-	-
25	$2,222 M	$1,956 M	**$266 M**
50	$6,499 M	$5,634 M	**$865 M**

Critical Infrastructure
The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	1
Government/Military	-	3
Electric Power Substation	5	58
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	13
Electric Power Plant	1	16
Port	-	3
Petroleum Pump Station	-	1
Refinery	-	6
Water and Sewer	-	12
Strategic Petroleum Reserve	-	-
Total	**6**	**113**

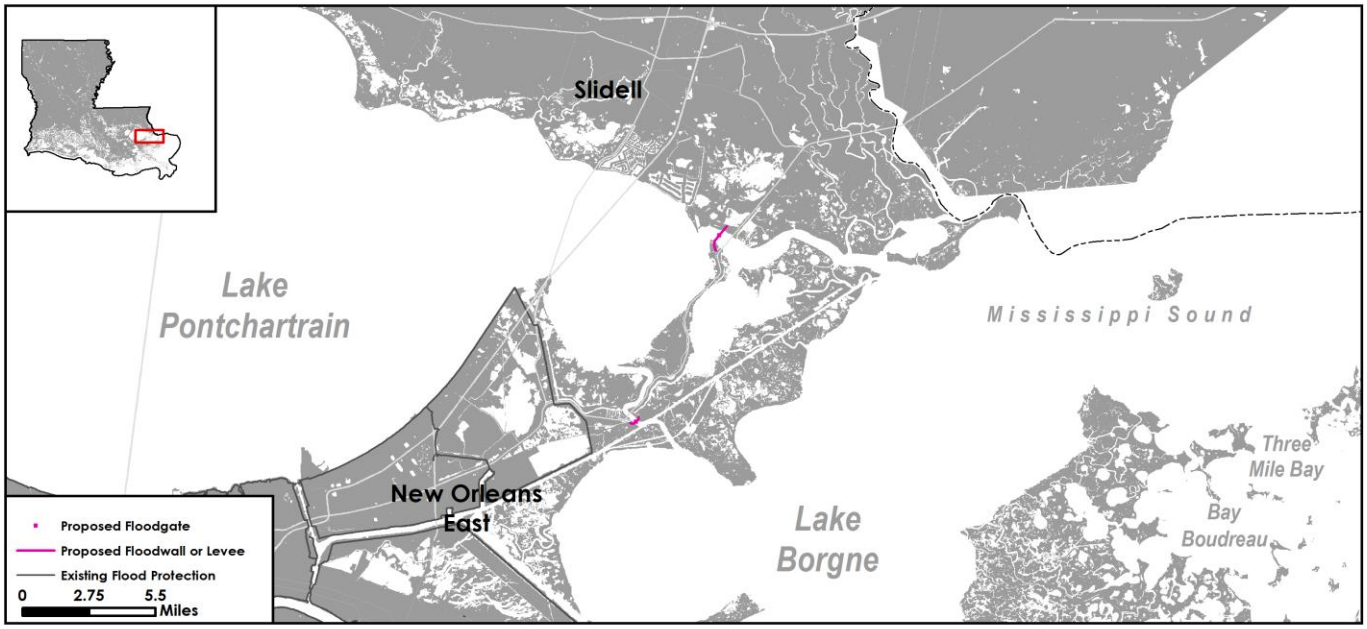
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Ascension - Prairieville/Sorrento	$17,222 M	$17,362 M	$19,043 M	$19,167 M	$19,809 M	$19,844 M
Jefferson - Kenner/Metairie	$1,885 M	$1,918 M	$10,376 M	$12,738 M	$145,548 M	$185,646 M
Livingston	$1,315 M	$1,316 M	$1,536 M	$1,536 M	$1,604 M	$1,610 M
St. Charles - Destrehan	$21 M	$21 M	$21 M	$21 M	$45 M	$46 M
St. Charles - Montz	$48 M	$2 M	$101 M	$2 M	$196 M	$2 M
St. James - Convent	$2,431 M	$2,430 M	$2,703 M	$2,713 M	$2,955 M	$2,959 M
St. John the Baptist - Garyville	$141 M	$135 M	$166 M	$137 M	$217 M	$210 M
St. John the Baptist - Laplace/Reserve	$17,216 M	< $1 M	$20,053 M	< $1 M	$25,432 M	< $1 M
Tangipahoa	$596 M	$620 M	$986 M	$1,024 M	$1,641 M	$1,649 M
Total	**$40,874 M**	**$23,804 M**	**$54,986 M**	**$37,339 M**	**$197,447 M**	**$211,965 M**

Lake Pontchartrain Barrier

Structural Protection

Project ID: 001.HP.08



Description

Construction of closure gates and weirs to an elevation of 2 feet NAVD88 across the passes at Chef Menteur and the Rigolets for storm surge risk reduction within the Lake Pontchartrain Basin. Project features approximately 5,200 feet of earthen levee, 630 feet of a combi-wall weir constructed to 2 feet, a 150-foot closure gate at each pass for navigation, and multiple vertical lift gates to maintain tidal exchange through the passes.

Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Orleans Parish; St. Tammany Parish

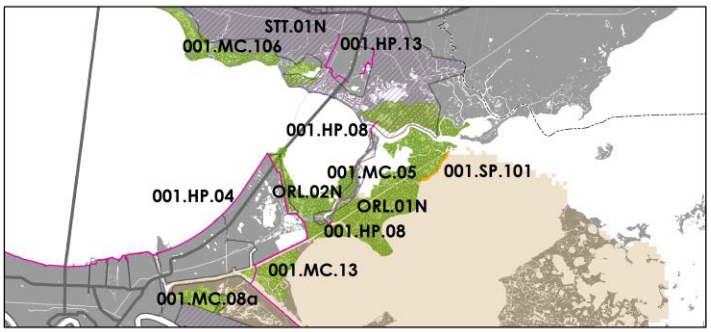
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$374,000,000
Construction	$1,941,100,000
Operations & Maintenance	$94,500,000
Total	**$2,409,600,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	737,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	41%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	11,458

2017 Coastal Master Plan
Implementation Period 1

Lake Pontchartrain Barrier

Structural Protection

Project ID: 001.HP.08

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1,489 M	-	-
25	$3,241 M	$2,284 M	**$958 M**
50	$8,088 M	$6,845 M	**$1,243 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	3
Electric Power Substation	4	104
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	15
Electric Power Plant	1	37
Port	-	3
Petroleum Pump Station	-	1
Refinery	-	9
Water and Sewer	-	16
Strategic Petroleum Reserve	-	-
Total	**5**	**191**

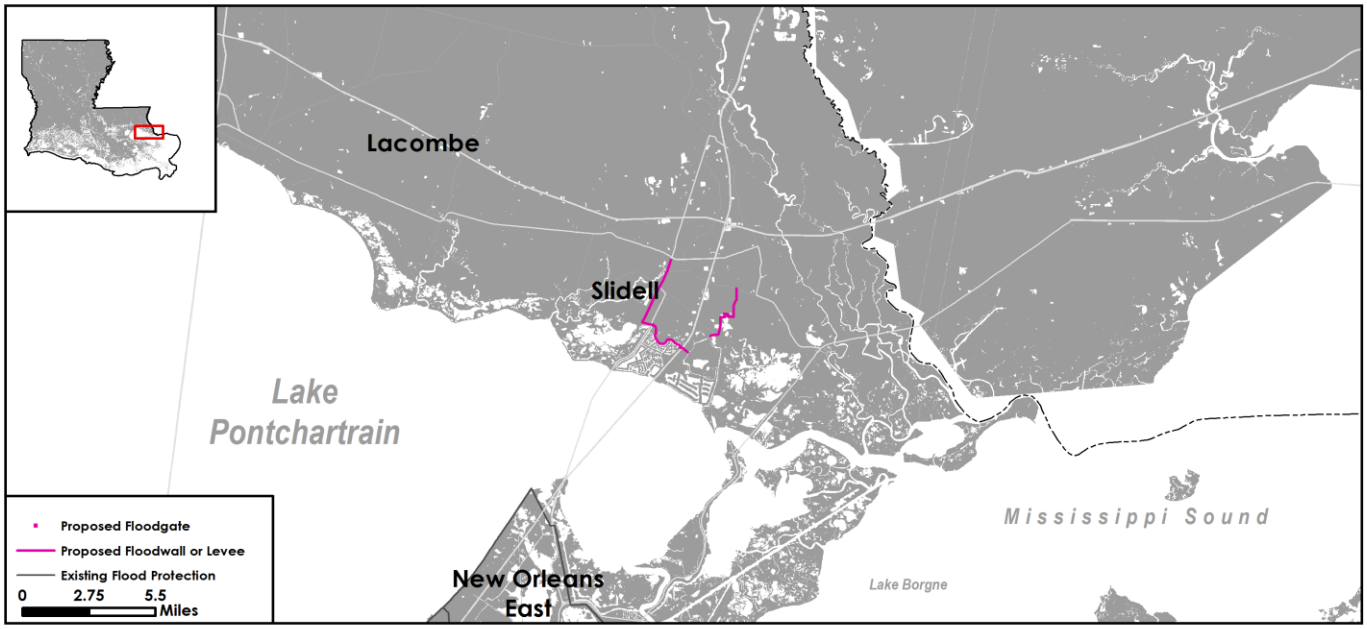
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Ascension - Prairieville/Sorrento	$17,222 M	$12,911 M	$19,043 M	$14,059 M	$19,809 M	$15,039 M
Jefferson - Kenner/Metairie	$1,885 M	$1,526 M	$10,376 M	$2,484 M	$145,548 M	$131,211 M
Livingston	$1,315 M	$1,166 M	$1,536 M	$1,308 M	$1,577 M	$1,410 M
Orleans - Lake Catherine	$340 M	$340 M	$342 M	$340 M	$351 M	$350 M
Orleans - New Orleans	$9,913 M	$8,794 M	$23,194 M	$20,497 M	$78,145 M	$72,346 M
Orleans - Rigolets	$131 M	$132 M	$132 M	$132 M	$132 M	$132 M
Plaquemines - Braithwaite	$331 M	$329 M	$333 M	$330 M	$336 M	$334 M
Plaquemines - Phoenix/Pointe A La Hache	$200 M	$198 M	$201 M	$198 M	$201 M	$199 M
St. Bernard	$283 M	$276 M	$748 M	$840 M	$13,580 M	$14,157 M
St. Bernard - Yscloskey/Delacroix	$265 M	$265 M	$265 M	$265 M	$265 M	$265 M
St. Charles - Destrehan	$21 M	$21 M	$21 M	$21 M	$45 M	$32 M
St. Charles - Montz	$48 M	$25 M	$101 M	$52 M	$196 M	$96 M
St. James - Convent	$2,431 M	$1,939 M	$2,703 M	$2,071 M	$2,955 M	$2,150 M
St. John the Baptist - Garyville	$141 M	$133 M	$166 M	$137 M	$217 M	$146 M
St. John the Baptist - Laplace/Reserve	$17,216 M	$14,007 M	$20,053 M	$17,716 M	$25,432 M	$21,853 M
St. Tammany	$27,738 M	$24,758 M	$41,354 M	$38,120 M	$54,813 M	$50,991 M
St. Tammany - Slidell	$18,532 M	$18,022 M	$21,568 M	$21,325 M	$25,013 M	$25,037 M
Tangipahoa	$583 M	$391 M	$961 M	$526 M	$1,572 M	$990 M
Total	**$98,596 M**	**$85,231 M**	**$143,098 M**	**$120,424 M**	**$370,186 M**	**$336,736 M**

Slidell Ring Levees

Structural Protection

Project ID: 001.HP.13



Description

Construction of a levee to an elevation of 16 feet NAVD88 for storm surge risk reduction around Slidell. Project features approximately 31,000 feet of earthen levee and 14,500 feet of T-wall.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

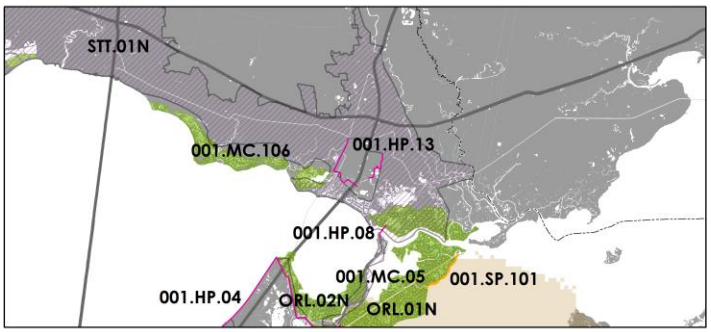
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$20,400,000
Construction	$141,000,000
Operations & Maintenance	$19,900,000
Total	**$181,300,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	20,000
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	41%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	440

2017 Coastal Master Plan
Implementation Period 1

Slidell Ring Levees
Structural Protection
Project ID: 001.HP.13

Economic Damage
Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$517 M	-	-
25	$1,255 M	$823 M	**$432 M**
50	$2,688 M	$1,904 M	**$784 M**

Critical Infrastructure
The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	-
Government/Military	-	1
Electric Power Substation	-	11
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	3
Electric Power Plant	-	4
Port	-	-
Petroleum Pump Station	-	-
Refinery	-	-
Water and Sewer	1	3
Strategic Petroleum Reserve	-	-
Total	**1**	**22**

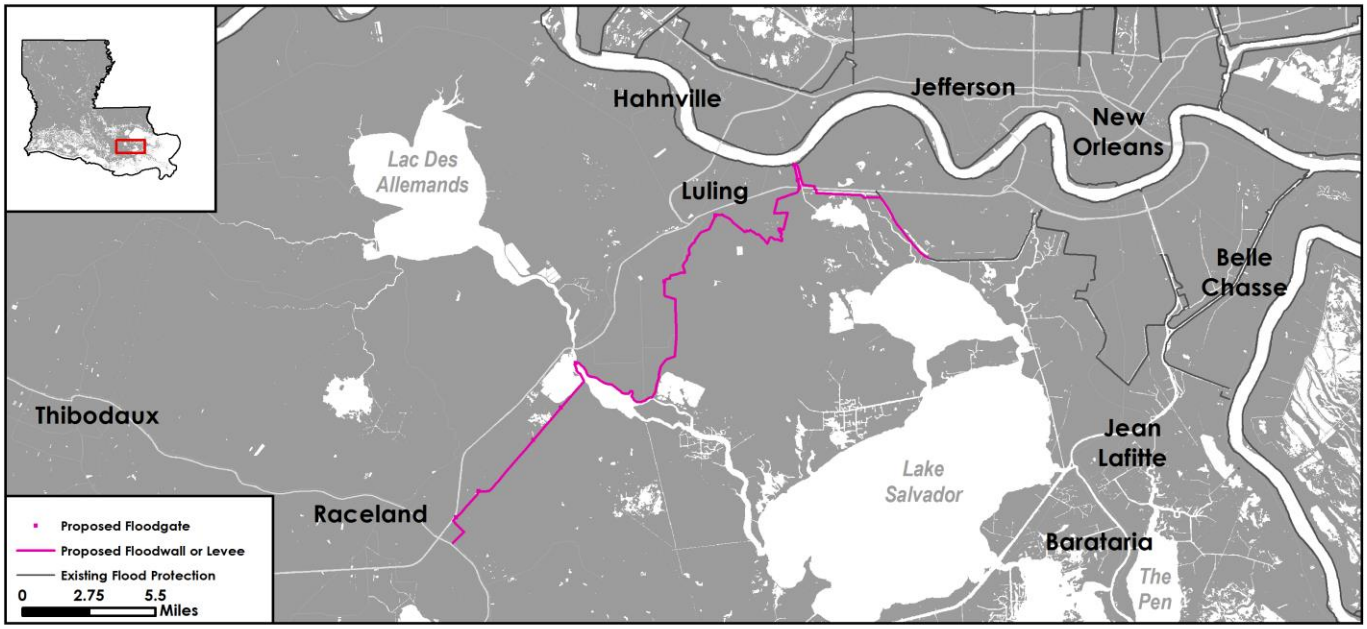
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Orleans - Lake Catherine	$340 M	$340 M	$342 M	$342 M	$351 M	$351 M
Orleans - New Orleans	$9,351 M	$9,753 M	$22,629 M	$22,675 M	$47,244 M	$46,173 M
Orleans - Rigolets	$129 M	$130 M	$130 M	$130 M	$130 M	$130 M
St. Tammany	$14,001 M	$14,059 M	$24,531 M	$23,533 M	$34,024 M	$33,931 M
St. Tammany - Slidell	$18,532 M	$4,762 M	$21,568 M	$6,888 M	$25,013 M	$28,982 M
Total	**$42,353 M**	**$29,043 M**	**$69,199 M**	**$53,567 M**	**$106,762 M**	**$109,566 M**

Upper Barataria Risk Reduction

Structural Protection

Project ID: 002.HP.06



Description

Construction of a levee to an elevation between 12.5 and 15 feet NAVD88 along Highway 90 between the West Bank and Larose. Project includes 204,300 feet of earthen levee, 8,200 feet of T-wall, (4) 10-foot sluice gates, (1) 250-foot barge gate, (2) 40-foot swing gates, and (8) pump stations with a total capacity of 6,837 cfs.

Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

St. Charles Parish; Lafourche Parish; Jefferson Parish

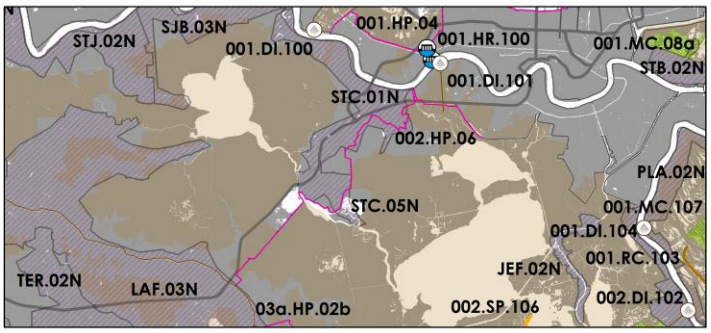
Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 6 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$96,900,000
Construction	$671,800,000
Operations & Maintenance	$172,100,000
Total	**$940,800,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	60,400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	38%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	100

2017 Coastal Master Plan
Implementation Period 1

Upper Barataria Risk Reduction

Structural Protection

Project ID: 002.HP.06

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$936 M	-	-
25	$3,273 M	$2,767 M	**$507 M**
50	$9,089 M	$8,472 M	**$618 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	16
Government/Military	-	2
Electric Power Substation	6	38
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	3	11
Electric Power Plant	1	25
Port	-	-
Petroleum Pump Station	2	15
Refinery	-	4
Water and Sewer	-	5
Strategic Petroleum Reserve	-	-
Total	**12**	**117**

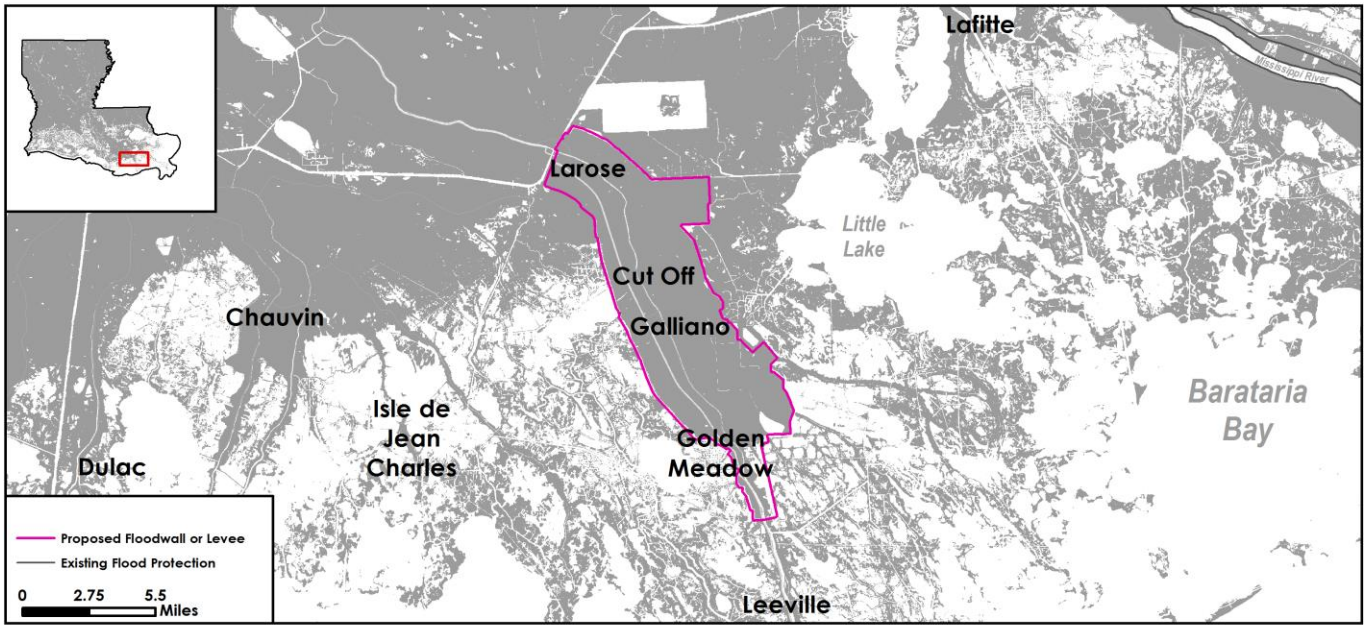
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Assumption	$4,525 M	$3,735 M	$4,661 M	$3,770 M	$4,731 M	$3,803 M
Jefferson - Grand Isle	$381 M	$381 M	$383 M	$383 M	$416 M	$458 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,641 M	$1,633 M	$1,647 M	$1,655 M	$1,655 M
Jefferson - Marrero/Gretna	$104 M	$107 M	$302 M	$2,541 M	$15,401 M	$48,436 M
Lafourche - Larose/Golden Meadow	$9,480 M	$9,318 M	$9,657 M	$9,584 M	$9,711 M	$9,699 M
Lafourche - Lower	$223 M	$221 M	$227 M	$225 M	$228 M	$226 M
Lafourche - Raceland	$23,892 M	$21,331 M	$25,279 M	$23,055 M	$28,269 M	$26,502 M
Plaquemines - Belle Chasse	< $1 M	< $1 M	< $1 M	< $1 M	$2 M	$1,918 M
Plaquemines - Grand Bayou	$106 M	$104 M	$106 M	$104 M	$106 M	$104 M
Plaquemines - West Bank	$2,944 M	$2,919 M	$3,056 M	$3,035 M	$3,087 M	$3,056 M
St. Charles - Ama	$0 M	$0 M	$0 M	$0 M	< $1 M	$223 M
St. Charles - Hahnville/Luling	$14,838 M	$6,292 M	$15,129 M	$6,897 M	$15,330 M	$9,698 M
St. Charles - Salvador	$138 M	$150 M	$140 M	$151 M	$143 M	$153 M
St. James - Vacherie	$1,833 M	$323 M	$1,929 M	$502 M	$2,019 M	$847 M
Total	**$60,073 M**	**$46,521 M**	**$62,503 M**	**$51,895 M**	**$81,097 M**	**$106,780 M**

Larose to Golden Meadow

Structural Protection

Project ID: 03a.HP.20



Description

Improvements to the existing Larose to Golden Meadow levee system, including raising to an elevation between 12 and 21 feet NAVD88. Project features approximately 249,900 feet of earthen levee and approximately 6,700 feet of T-wall.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Lafourche Parish

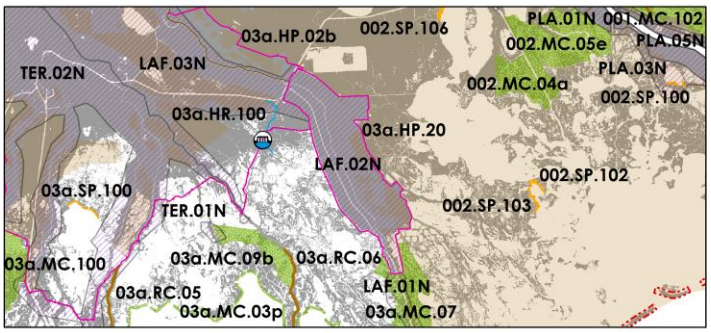
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 5 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$43,800,000
Construction	$303,100,000
Operations & Maintenance	$8,600,000
Total	**$355,500,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	21,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	43%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	32

2017 Coastal Master Plan
Implementation Period 1

Larose to Golden Meadow

Structural Protection

Project ID: 03a.HP.20

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1,184 M	-	-
25	$4,016 M	$3,855 M	**$161 M**
50	$11,472 M	$10,676 M	**$796 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	18
Government/Military	-	4
Electric Power Substation	2	80
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	-	22
Electric Power Plant	-	54
Port	-	5
Petroleum Pump Station	-	17
Refinery	-	13
Water and Sewer	1	15
Strategic Petroleum Reserve	-	-
Total	**3**	**229**

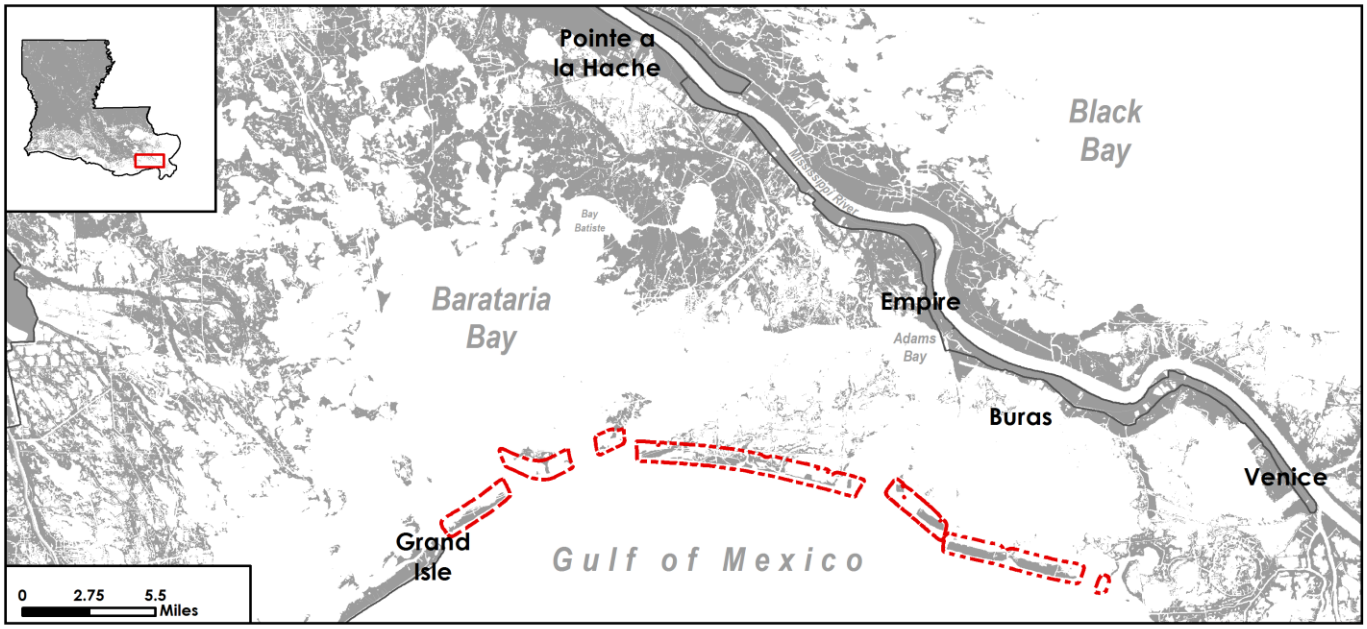
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Jefferson - Grand Isle	$1,681 M	$1,681 M	$1,689 M	$1,689 M	$1,731 M	$1,764 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,612 M	$1,633 M	$1,635 M	$1,655 M	$1,655 M
Lafourche - Larose/Golden Meadow	$9,480 M	$44 M	$9,657 M	$354 M	$9,711 M	$1,477 M
Lafourche - Lower	$559 M	$641 M	$563 M	$642 M	$564 M	$642 M
Lafourche - Raceland	$23,892 M	$23,937 M	$25,279 M	$25,410 M	$28,269 M	$28,516 M
Plaquemines - Grand Bayou	$263 M	$261 M	$264 M	$262 M	$264 M	$262 M
St. Charles - Salvador	$138 M	$138 M	$140 M	$140 M	$143 M	$141 M
Terrebonne - Houma	$87,756 M	$87,254 M	$90,908 M	$90,392 M	$92,087 M	$91,545 M
Terrebonne - Lower	$1,166 M	$1,159 M	$1,180 M	$1,172 M	$1,192 M	$1,185 M
Total	**$126,543 M**	**$116,727 M**	**$131,312 M**	**$121,695 M**	**$135,616 M**	**$127,188 M**

Barataria Pass to Sandy Point Barrier Island Restoration

Barrier Island Restoration

Project ID: 002.BH.04



Description

Restoration of 13,800 acres of Barataria Bay barrier islands between Barataria Pass and Sandy Point to provide dune, beach, and back barrier marsh habitat. The project provides storm surge and wave attenuation for 134,100 linear feet of shoreline in the Barataria Basin.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Plaquemines Parish; Jefferson Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

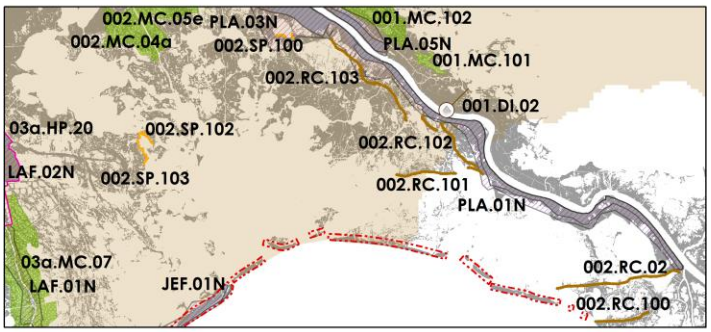
	Estimated Cost
Planning/Engineering & Design	$363,500,000
Construction	$4,543,900,000
Operations & Maintenance	$159,900,000
Total	**$5,067,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	4,938 acres
Long Term (Year 50)	2,092 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

Project to be addressed programmatically by CPRA's Barrier Island Program.

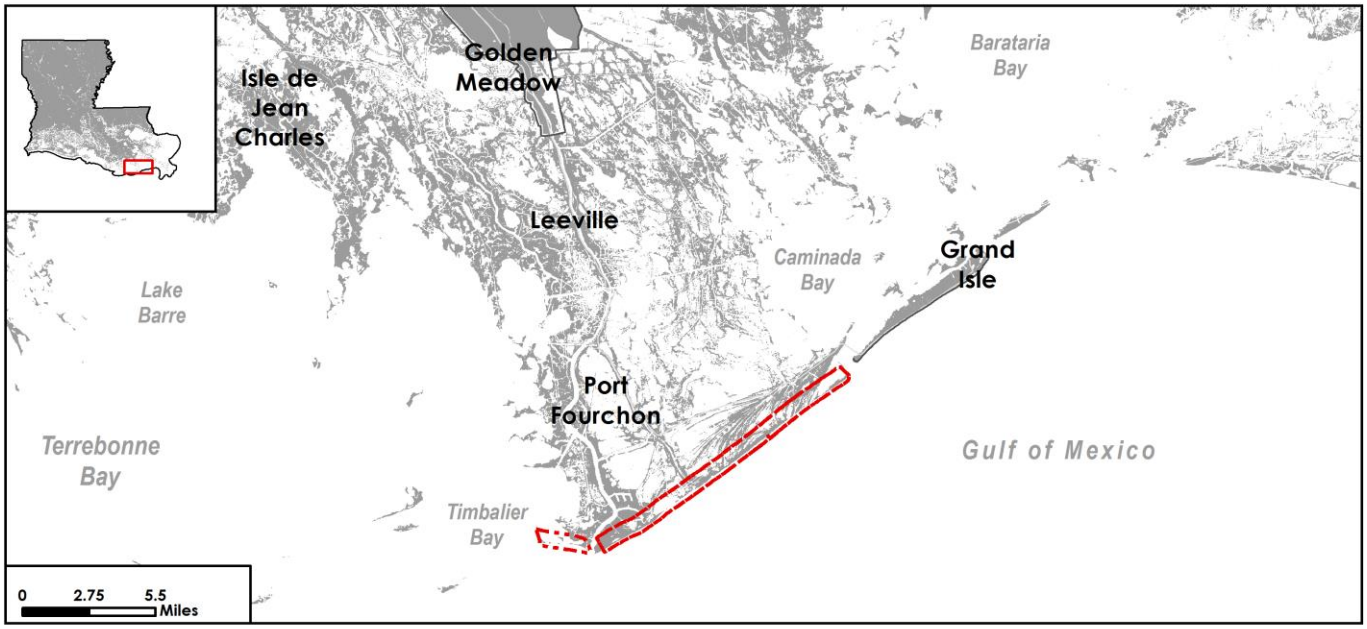
2017 Coastal Master Plan

See Note

Belle Pass to Caminada Pass Barrier Island Restoration

Barrier Island Restoration

Project ID: 002.BH.05



Description

Restoration of 6,900 acres of Barataria Bay barrier islands between Belle Pass and Caminada Pass to provide dune, beach, and back barrier marsh habitat. The project provides storm surge and wave attenuation for 82,900 linear feet of shoreline in the Barataria Basin.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Lafourche Parish; Jefferson Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

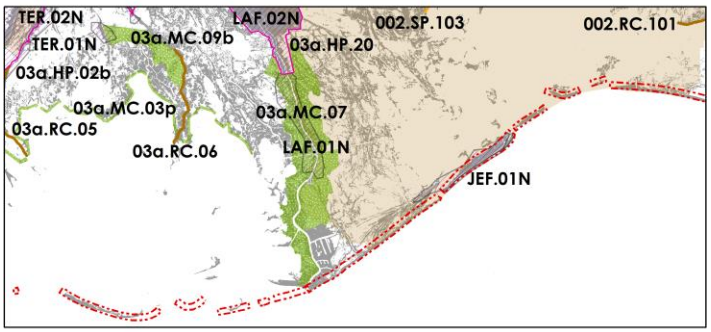
	Estimated Cost
Planning/Engineering & Design	$72,300,000
Construction	$903,400,000
Operations & Maintenance	$31,800,000
Total	**$1,007,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,473 acres
Long Term (Year 50)	931 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



Note

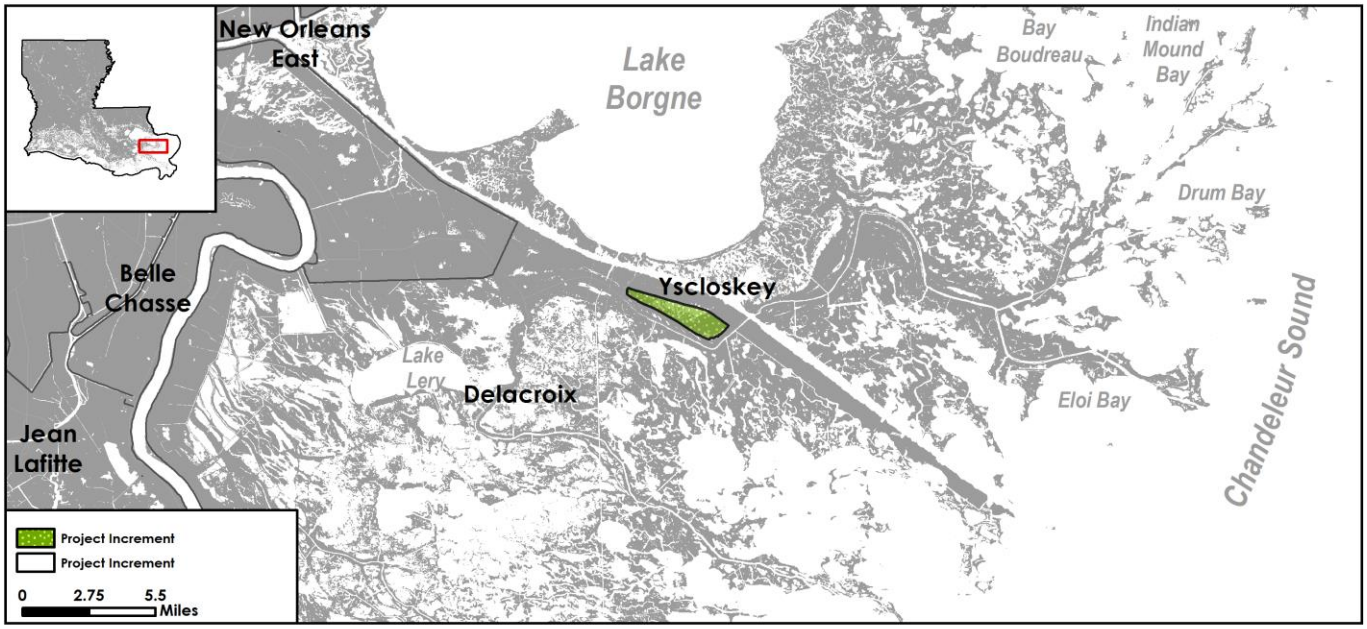
Project to be addressed programmatically by CPRA's Barrier Island Program.

See Note

Hopedale Marsh Creation

Marsh Creation

Project ID: 001.MC.02



Description

Creation of approximately 1,800 acres of marsh in northern Breton Sound in the vicinity of Hopedale to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

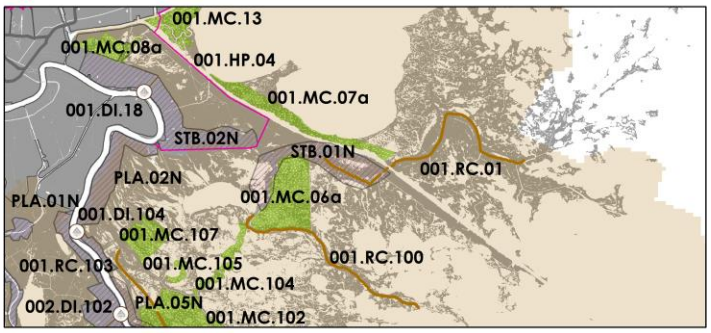
	Estimated Cost
Planning/Engineering & Design	$8,300,000
Construction	$105,000,000
Operations & Maintenance	$3,900,000
Total	**$117,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	769 acres
Long Term (Year 50)	-58 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan

Not Selected

Biloxi Marsh Creation

Marsh Creation

Project ID: 001.MC.09

Description

Creation of approximately 30,300 acres of marsh in the eastern portion of Biloxi Marsh from Oyster Bay to Drum Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 20 years.

Project Cost Estimate

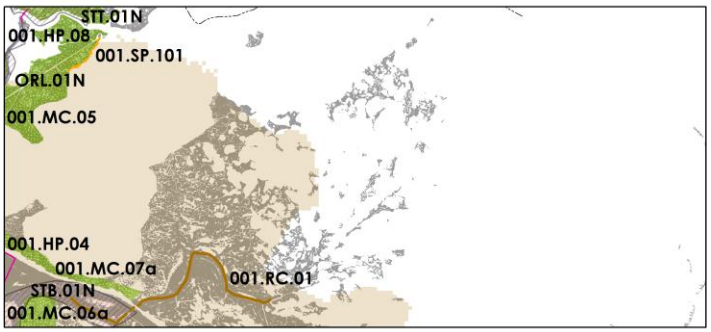
	Estimated Cost
Planning/Engineering & Design	$75,900,000
Construction	$949,100,000
Operations & Maintenance	$30,900,000
Total	**$1,055,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	N/A
Long Term (Year 50)	-13 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



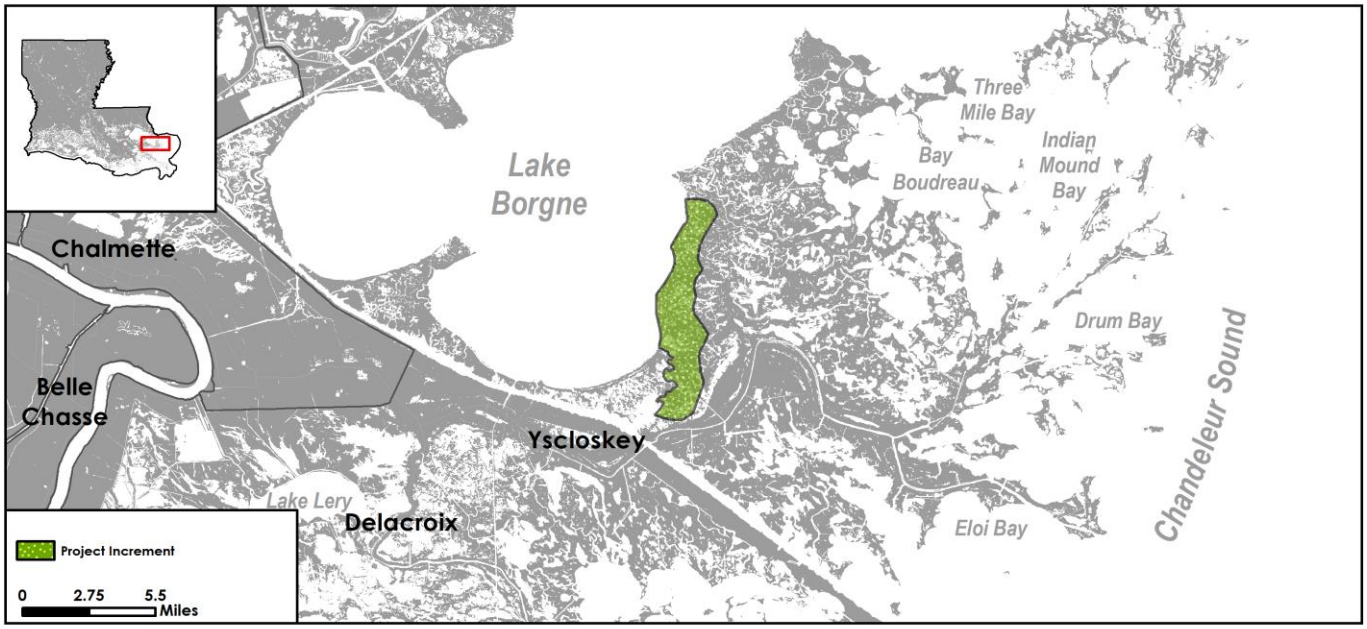
2017 Coastal Master Plan

Not Selected

Eastern Lake Borgne Marsh Creation

Marsh Creation

Project ID: 001.MC.17



Description

Creation of approximately 7,500 acres of marsh in Biloxi Marsh on the eastern shore of Lake Borgne near Bayou LaLoutre to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

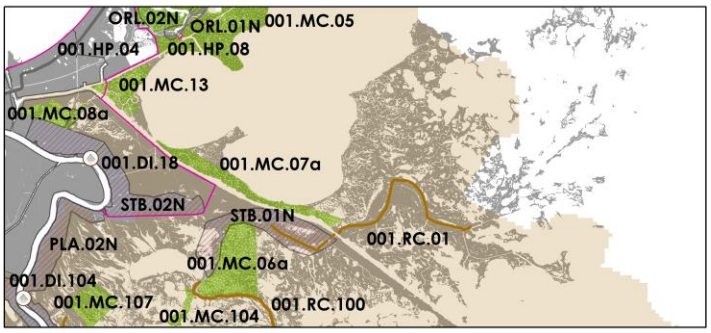
	Estimated Cost
Planning/Engineering & Design	$37,100,000
Construction	$463,800,000
Operations & Maintenance	$16,000,000
Total	**$516,900,000**

Land Area Built or Maintained*

Near Term (Year 20)	3,390 acres
Long Term (Year 50)	-5 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



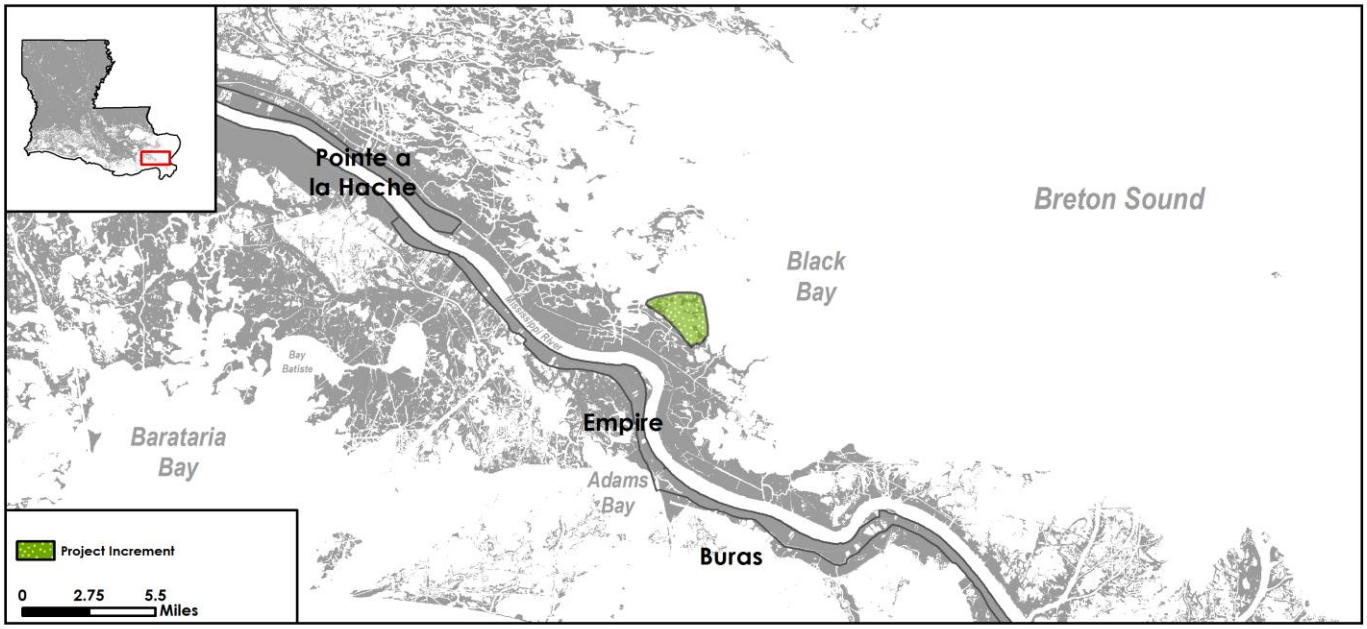
2017 Coastal Master Plan

Not Selected

Sunrise Point Marsh Creation

Marsh Creation

Project ID: 001.MC.100



Description

Creation of approximately 1,200 acres of marsh on the east bank of Plaquemines Parish around Auguste Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

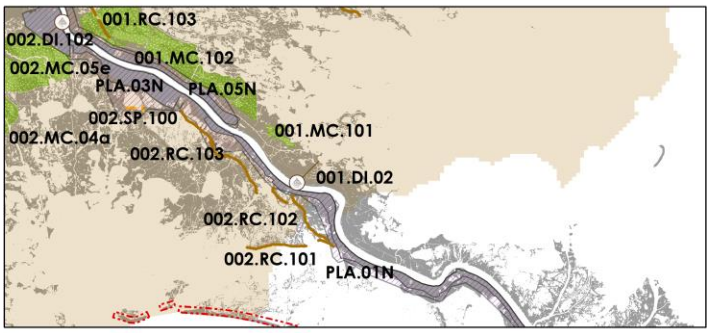
	Estimated Cost
Planning/Engineering & Design	$3,100,000
Construction	$38,700,000
Operations & Maintenance	$1,500,000
Total	**$43,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	519 acres
Long Term (Year 50)	69 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



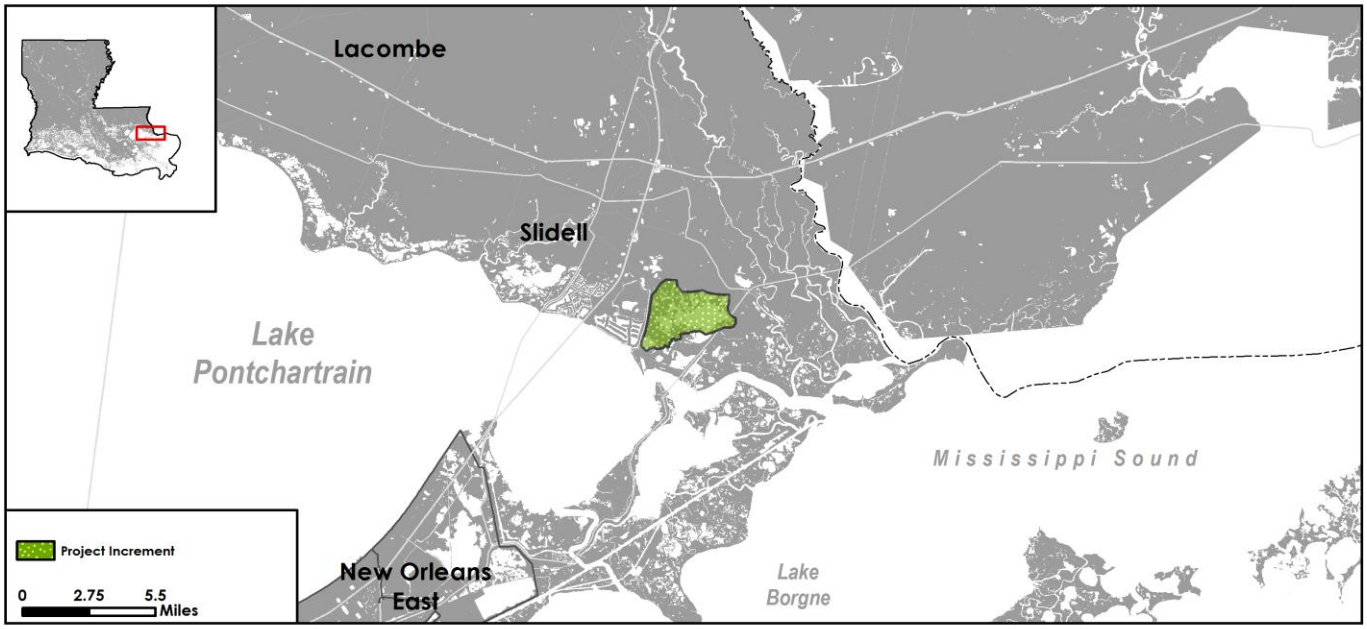
2017 Coastal Master Plan

Not Selected

Fritchie North Marsh Creation

Marsh Creation

Project ID: 001.MC.103



Description

Creation of approximately 4,000 acres of marsh in St. Tammany Parish along the eastern Lake Pontchartrain shoreline to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

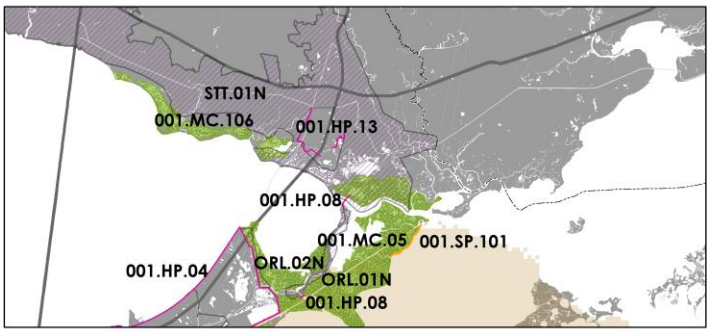
	Estimated Cost
Planning/Engineering & Design	$14,100,000
Construction	$175,800,000
Operations & Maintenance	$6,500,000
Total	**$196,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,392 acres
Long Term (Year 50)	-233 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

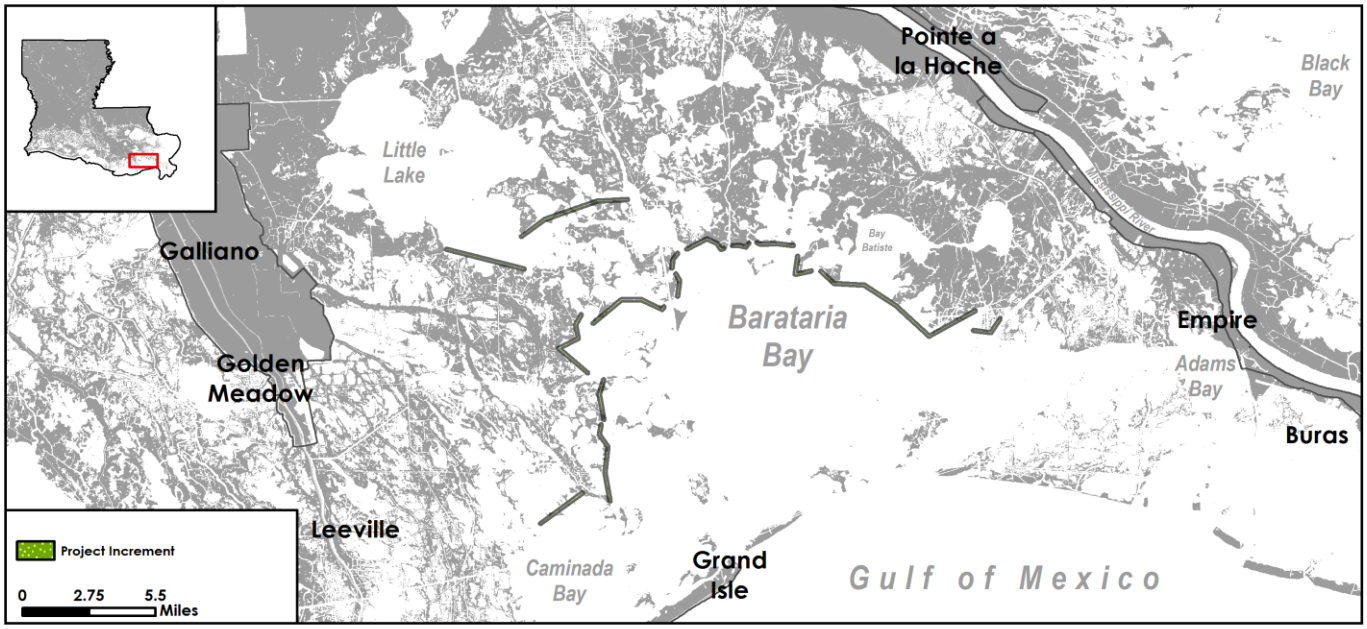


2017 Coastal Master Plan
Not Selected

Barataria Bay Rim Marsh Creation

Marsh Creation

Project ID: 002.MC.07



Description

Creation of approximately 2,100 acres of marsh along the northern rim of Barataria Bay to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish; Jefferson Parish; Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

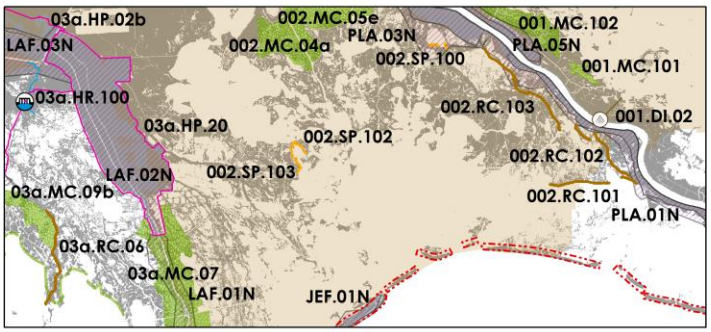
	Estimated Cost
Planning/Engineering & Design	$11,100,000
Construction	$138,100,000
Operations & Maintenance	$5,100,000
Total	**$154,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	1,551 acres
Long Term (Year 50)	-1,513 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



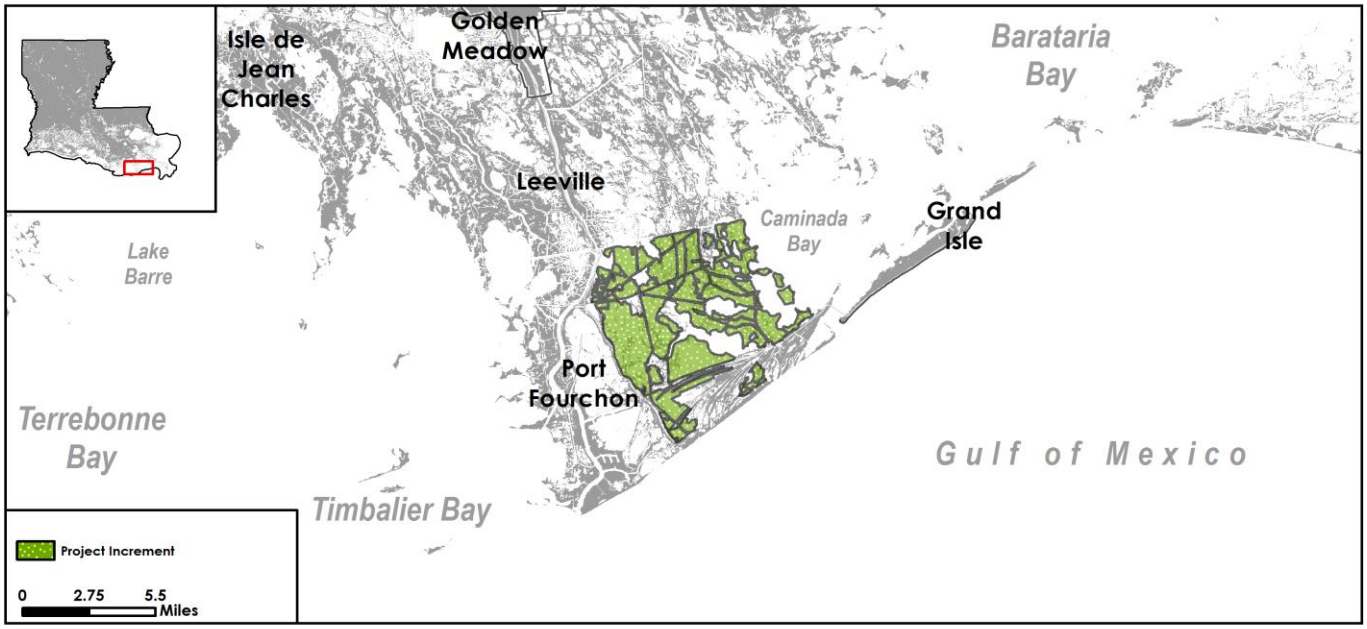
2017 Coastal Master Plan

Not Selected

North Caminada Marsh Creation

Marsh Creation

Project ID: 002.MC.08



Description

Creation of approximately 16,200 acres of marsh north of Elmers Island between Caminada Bay and Bayou Lafourche to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local **Sub-basin** Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Project Cost Estimate

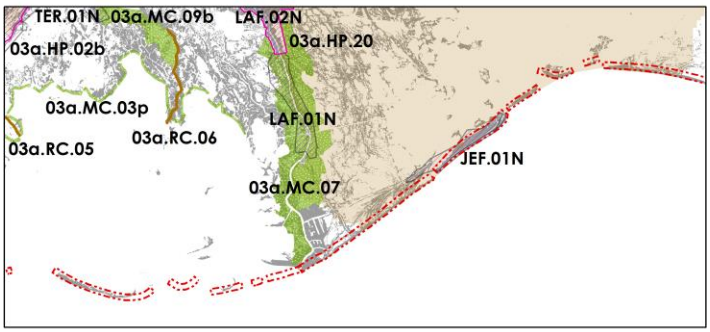
	Estimated Cost
Planning/Engineering & Design	$82,200,000
Construction	$1,027,000,000
Operations & Maintenance	$35,900,000
Total	**$1,145,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	13,011 acres
Long Term (Year 50)	152 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



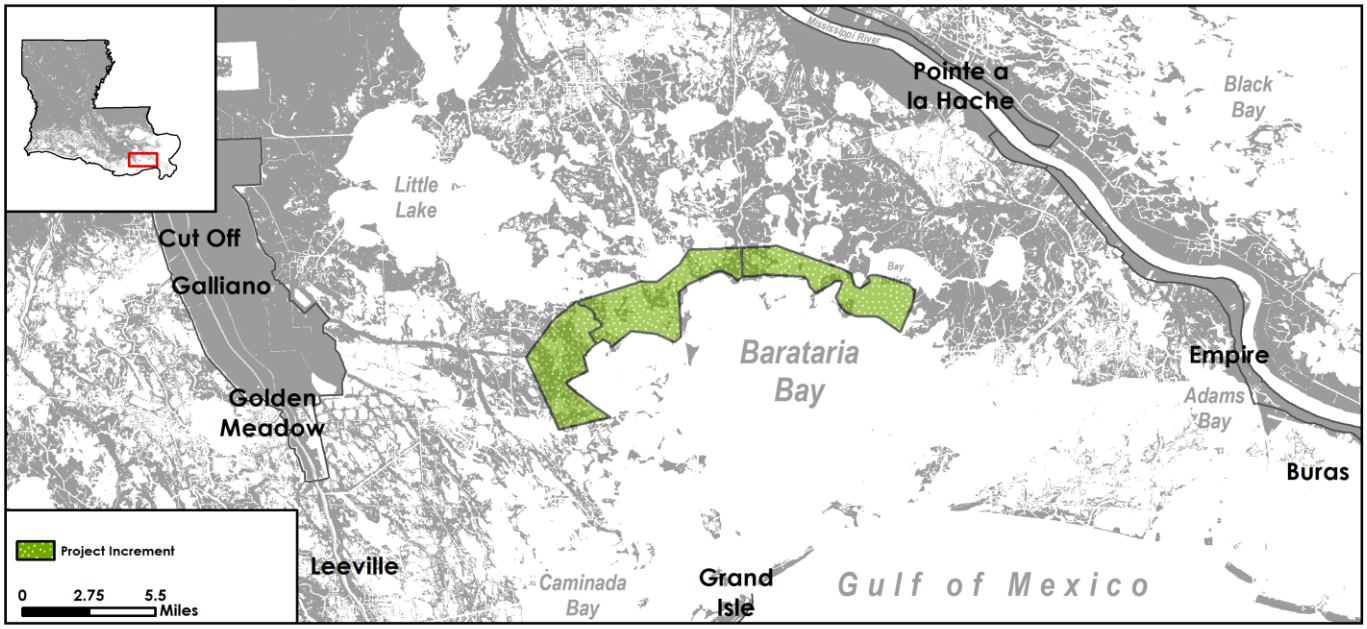
2017 Coastal Master Plan

Not Selected

North Barataria Bay Marsh Creation

Marsh Creation

Project ID: 002.MC.100



Description

Creation of approximately 13,000 acres of marsh surrounding the Barataria Bay shoreline to create new wetland habitat and restore degraded marsh.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Plaquemines Parish; Jefferson Parish; Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 10 years.

Project Cost Estimate

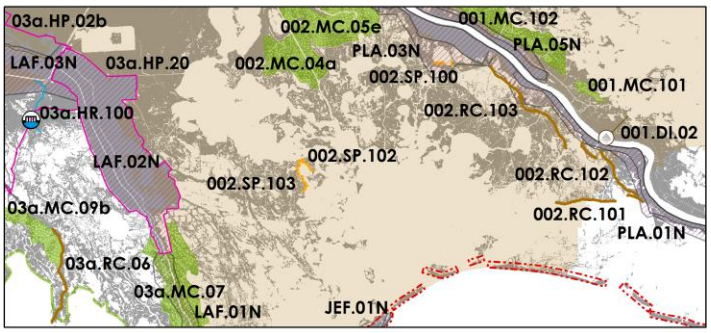
	Estimated Cost
Planning/Engineering & Design	$88,300,000
Construction	$1,104,200,000
Operations & Maintenance	$38,500,000
Total	**$1,231,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	6,702 acres
Long Term (Year 50)	5,308 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



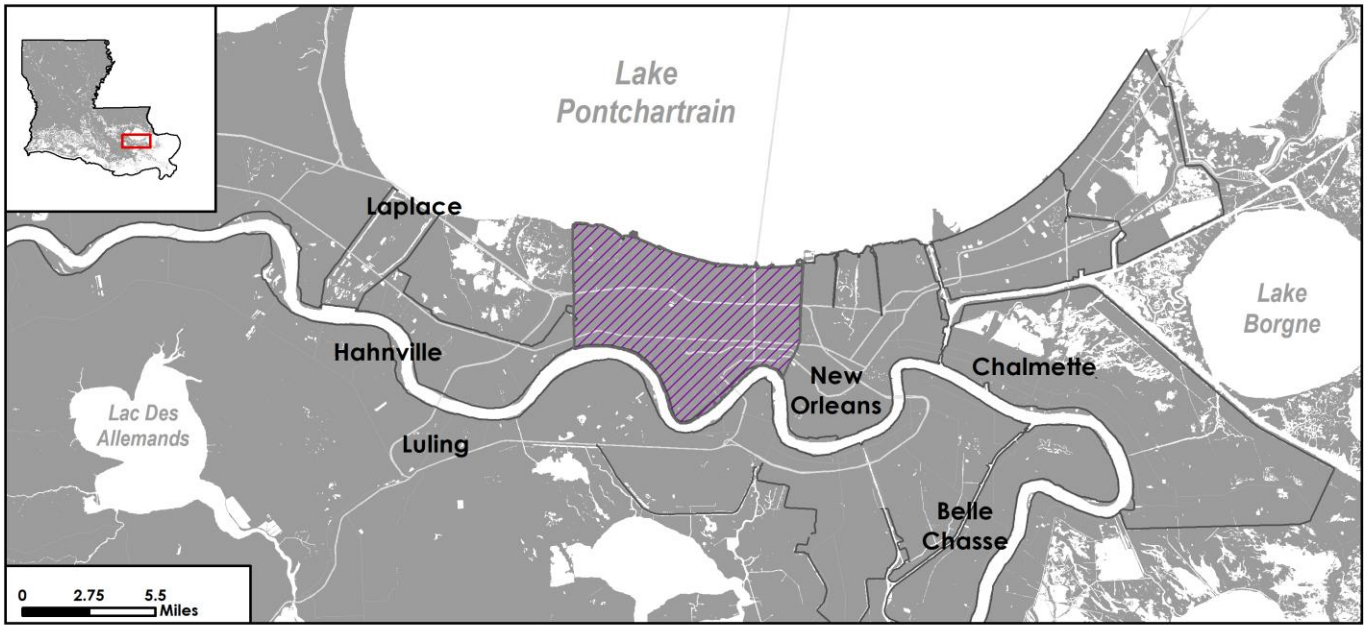
2017 Coastal Master Plan

Not Selected

Jefferson - Kenner/Metairie

Nonstructural Risk Reduction

Project ID: JEF.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

Construction is estimated to take 2 years.

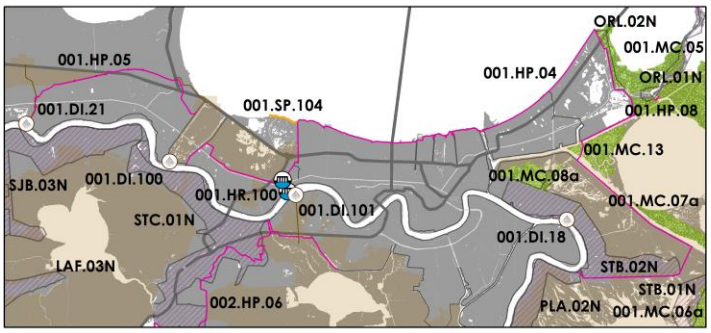
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	27	$24,100,000
Residential Elevation	18	$3,200,000
Residential Acquisition	0	$0
Total	**45**	**$27,300,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	244,822
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	52%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	5

2017 Coastal Master Plan

Not Selected

Jefferson - Kenner/Metairie

Nonstructural Risk Reduction

Project ID: JEF.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$54 M	-	-
10	$59 M	$46 M	**$13 M**
25	$114 M	$99 M	**$15 M**
50	$685 M	$668 M	**$17 M**

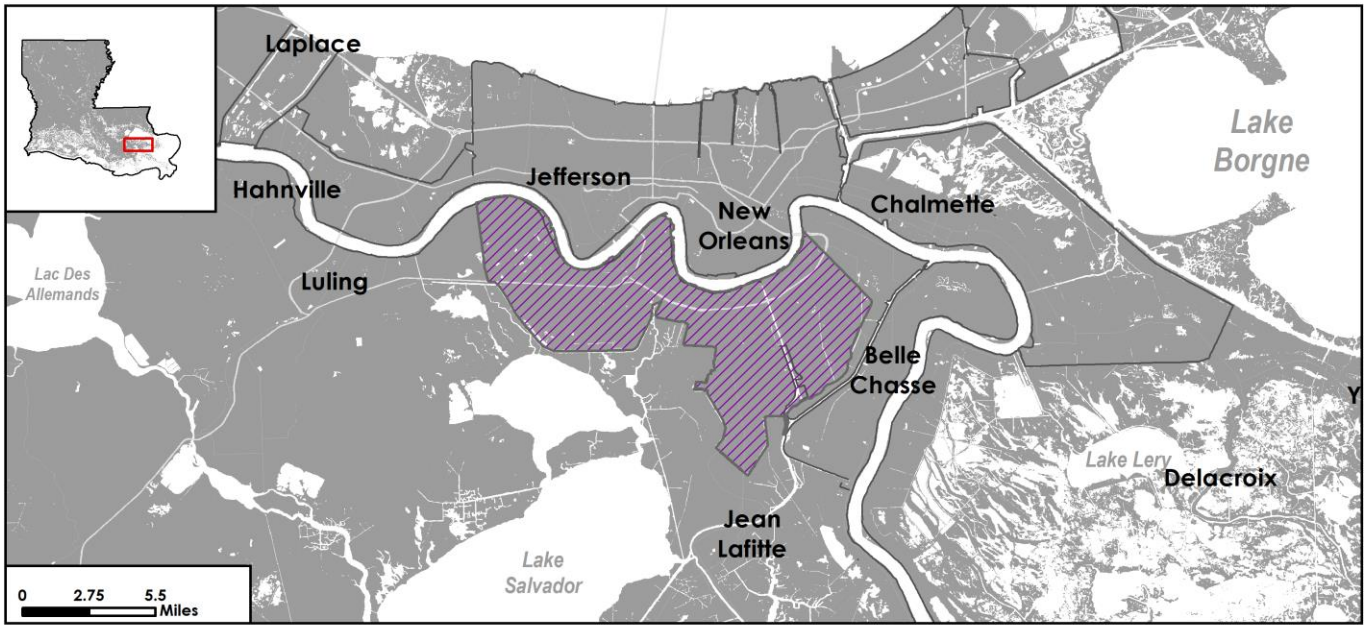
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$13 M	-	$14 M	-	$221 M	-
10	$974 M	$626 M	$1,060 M	$663 M	$1,271 M	$836 M
25	$1,143 M	$773 M	$1,341 M	$918 M	$3,614 M	$3,144 M
50	$1,723 M	$1,298 M	$3,182 M	$2,712 M	$121,678 M	$121,252 M

Jefferson - Marrero/Gretna

Nonstructural Risk Reduction

Project ID: JEF.04N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

No action required.

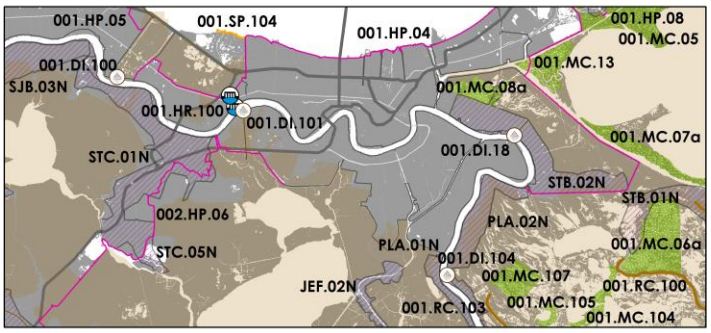
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	182,957
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Jefferson - Marrero/Gretna

Nonstructural Risk Reduction

Project ID: JEF.04N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

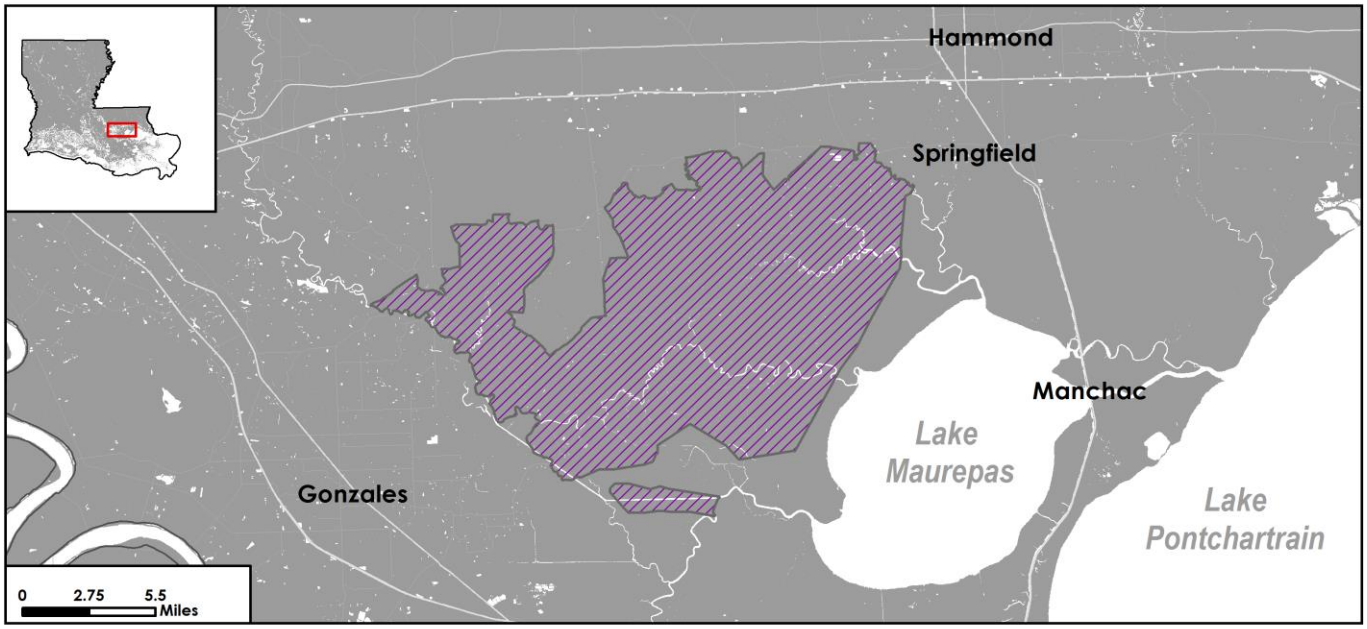
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1 M	-	-
10	$2 M	$2 M	**< $1 M**
25	$2 M	$2 M	**< $1 M**
50	$86 M	$86 M	**< $1 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	< $1 M	-	< $1 M	-	$8 M	-
10	$57 M	$57 M	$66 M	$62 M	$68 M	$62 M
25	$67 M	$67 M	$77 M	$72 M	$79 M	$73 M
50	$102 M	$96 M	$315 M	$308 M	$15,734 M	$15,733 M

Livingston
Nonstructural Risk Reduction
Project ID: LIV.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Livingston Parish

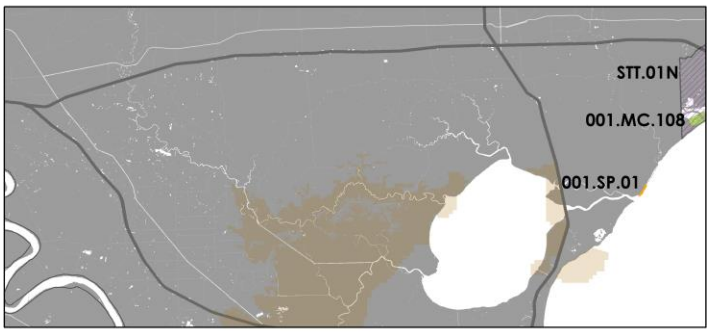
Project Duration
Construction is estimated to take 4 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	14	$10,600,000
Residential Elevation	503	$76,000,000
Residential Acquisition	0	$0
Total	**517**	**$86,600,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	18,038
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	39%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	73

2017 Coastal Master Plan
Not Selected

Livingston
Nonstructural Risk Reduction
Project ID: LIV.01N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$19 M	-	-
10	$29 M	$18 M	**$11 M**
25	$57 M	$41 M	**$17 M**
50	$91 M	$77 M	**$13 M**

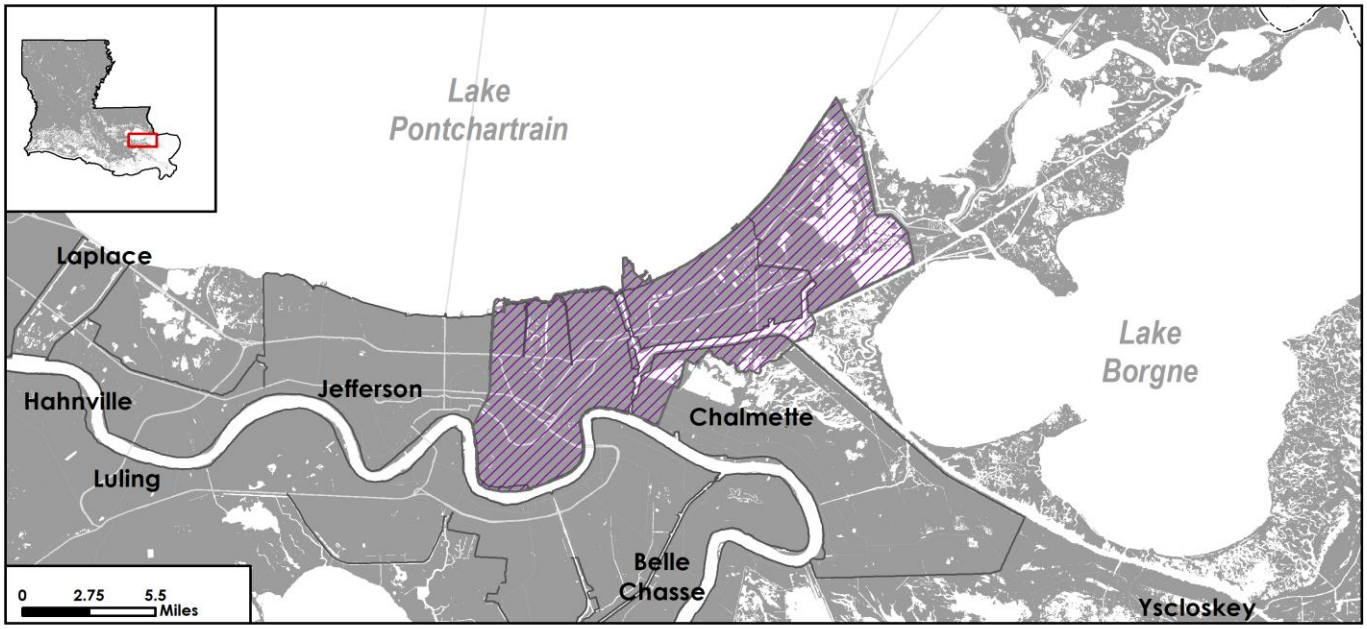
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$390 M	-	$440 M	-	$478 M	-
10	$568 M	$319 M	$633 M	$360 M	$682 M	$400 M
25	$893 M	$678 M	$1,002 M	$798 M	$1,011 M	$807 M
50	$1,287 M	$1,162 M	$1,489 M	$1,390 M	$1,559 M	$1,467 M

Orleans - New Orleans

Nonstructural Risk Reduction

Project ID: ORL.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish

Project Duration

Construction is estimated to take 2 years.

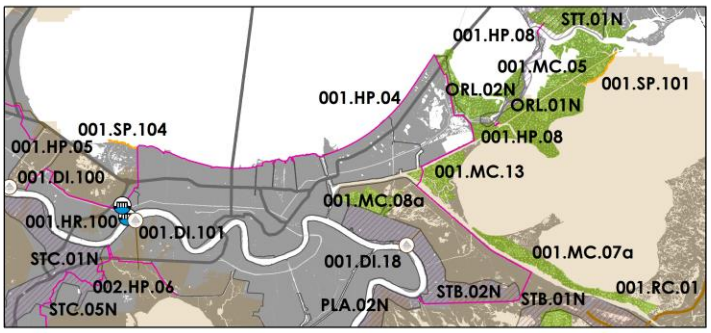
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	4	$2,600,000
Residential Elevation	43	$7,600,000
Residential Acquisition	22	$20,600,000
Total	**69**	**$30,800,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	290,308
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	47%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	10

Not Selected

2017 Coastal Master Plan

Orleans - New Orleans
Nonstructural Risk Reduction
Project ID: ORL.03N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$55 M	-	-
10	$96 M	$93 M	**$4 M**
25	$172 M	$169 M	**$4 M**
50	$638 M	$636 M	**$2 M**

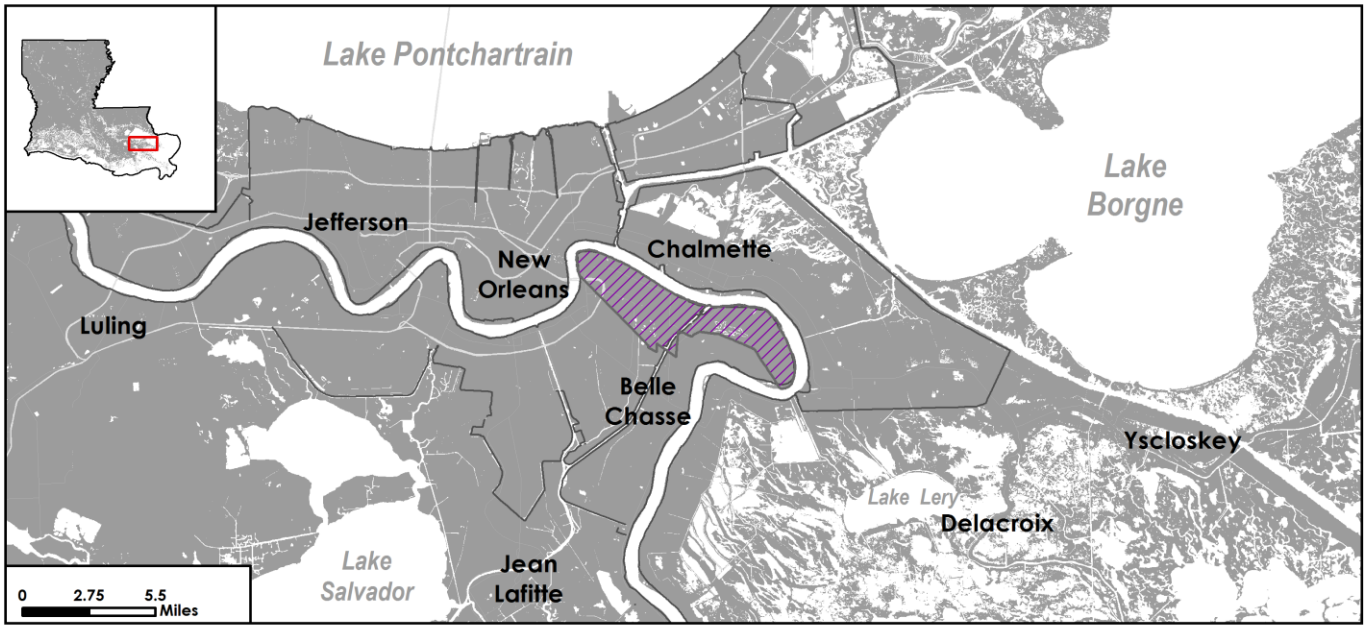
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$588 M	-	$605 M	-	$640 M	-
10	$903 M	$841 M	$926 M	$856 M	$6,060 M	$5,992 M
25	$1,029 M	$964 M	$2,053 M	$1,989 M	$17,394 M	$17,336 M
50	$6,130 M	$6,091 M	$17,281 M	$17,243 M	$68,714 M	$68,702 M

Orleans - Algiers

Nonstructural Risk Reduction

Project ID: ORL.04N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish

Project Duration

No action required.

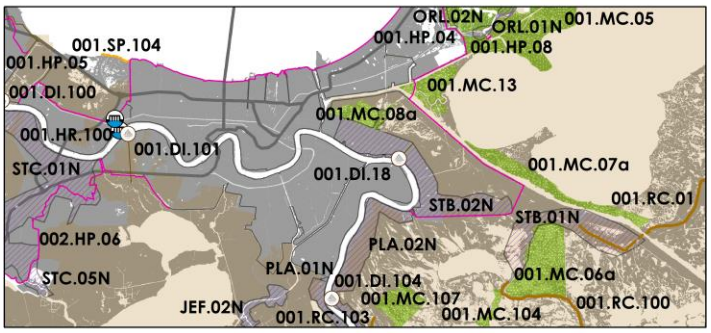
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	53,448
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Orleans - Algiers
Nonstructural Risk Reduction
Project ID: ORL.04N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$0 M	-	-
10	$0 M	$0 M	**$0 M**
25	$0 M	$0 M	**$0 M**
50	$6 M	$6 M	**$0 M**

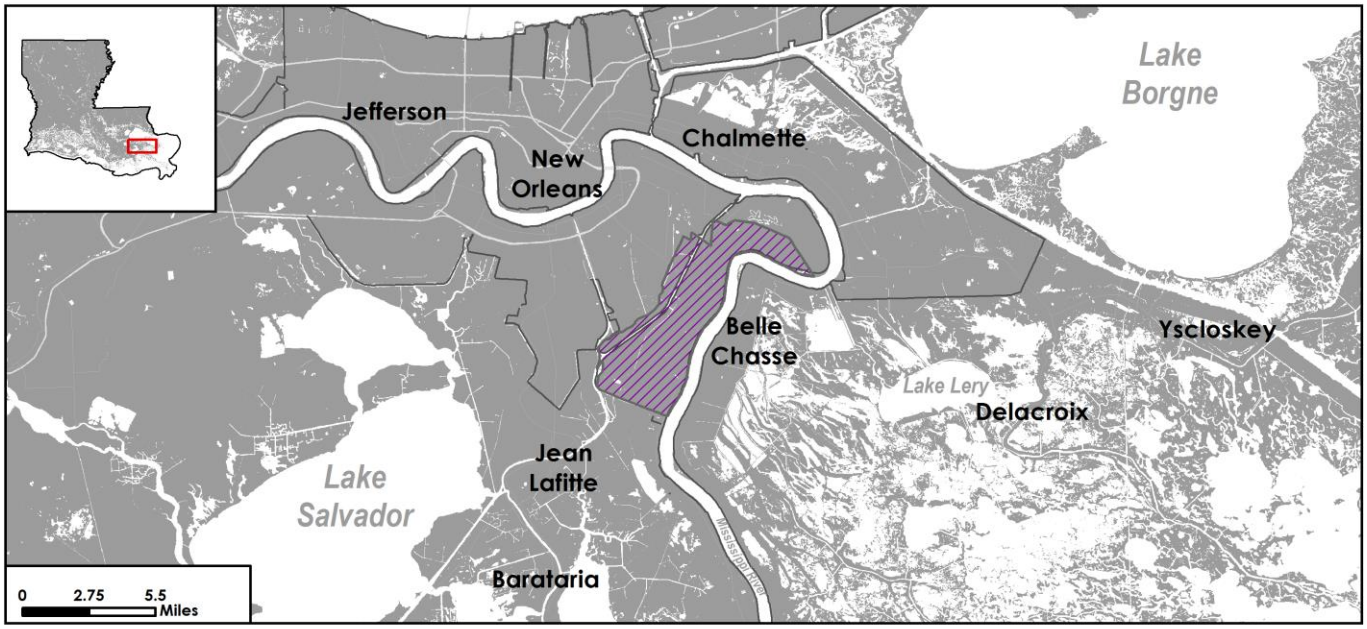
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$0 M	-	$0 M	-
10	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
25	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
50	$0 M	$0 M	$0 M	$0 M	$15 M	$15 M

Plaquemines - Belle Chasse

Nonstructural Risk Reduction

Project ID: PLA.04N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

No action required.

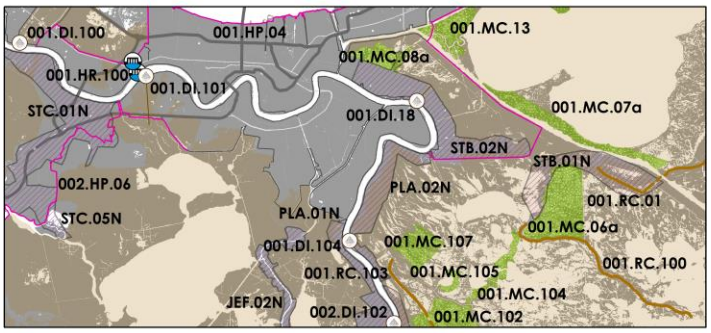
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	14,070
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

Plaquemines - Belle Chasse

Nonstructural Risk Reduction

Project ID: PLA.04N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	< $1 M	< $1 M	**$0 M**
50	< $1 M	< $1 M	**$0 M**

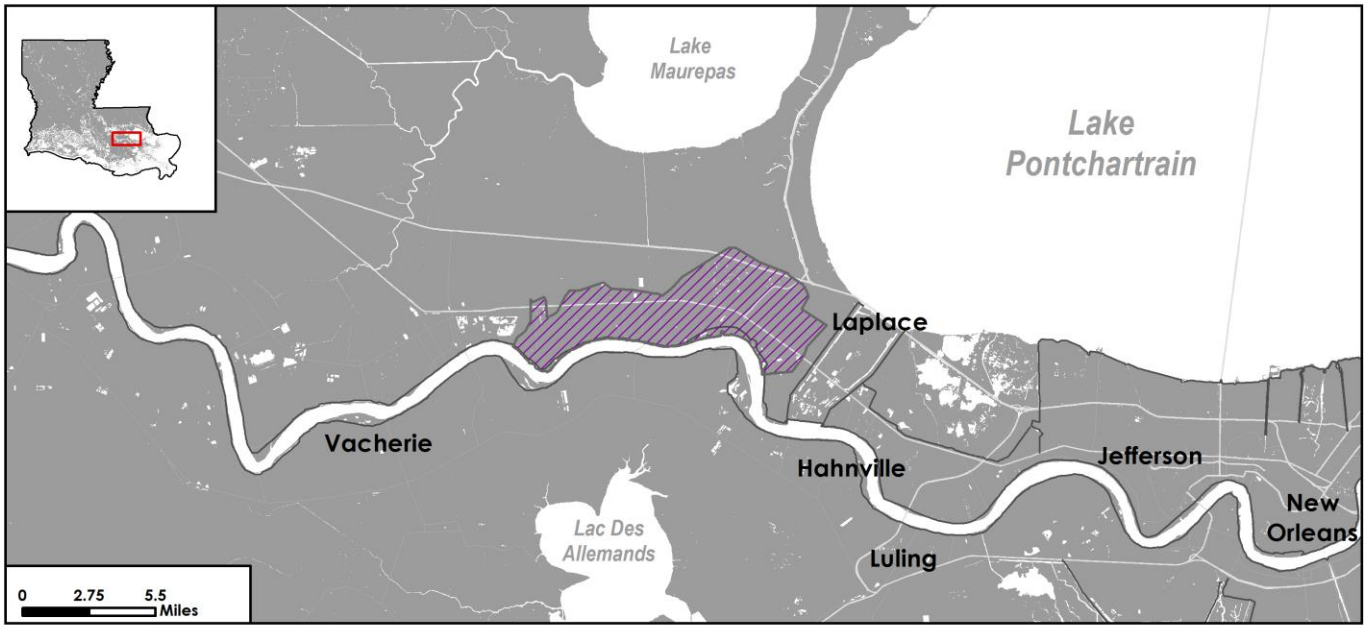
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$0 M	-	$0 M	-
10	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M
25	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M	< $1 M
50	< $1 M	< $1 M	< $1 M	< $1 M	$47 M	$47 M

St. John the Baptist - Laplace/Reserve

Nonstructural Risk Reduction

Project ID: SJB.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. John the Baptist Parish

Project Duration

Construction is estimated to take 5 years.

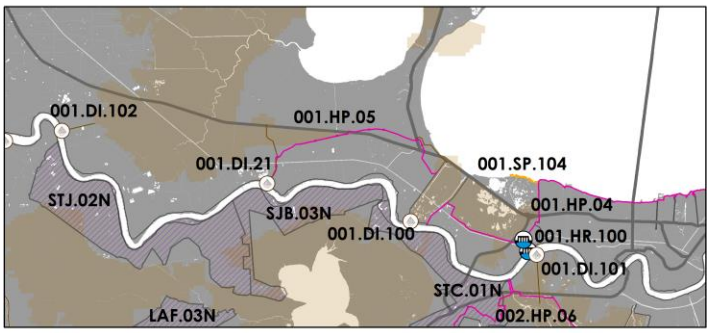
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	73	$57,700,000
Residential Elevation	1,221	$204,000,000
Residential Acquisition	0	$0
Total	**1,294**	**$261,700,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	43,357
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	34%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	70

2017 Coastal Master Plan

Not Selected

St. John the Baptist - Laplace/Reserve

Nonstructural Risk Reduction

Project ID: SJB.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$34 M	-	-
10	$97 M	$66 M	**$31 M**
25	$284 M	$226 M	**$58 M**
50	$1,018 M	$947 M	**$71 M**

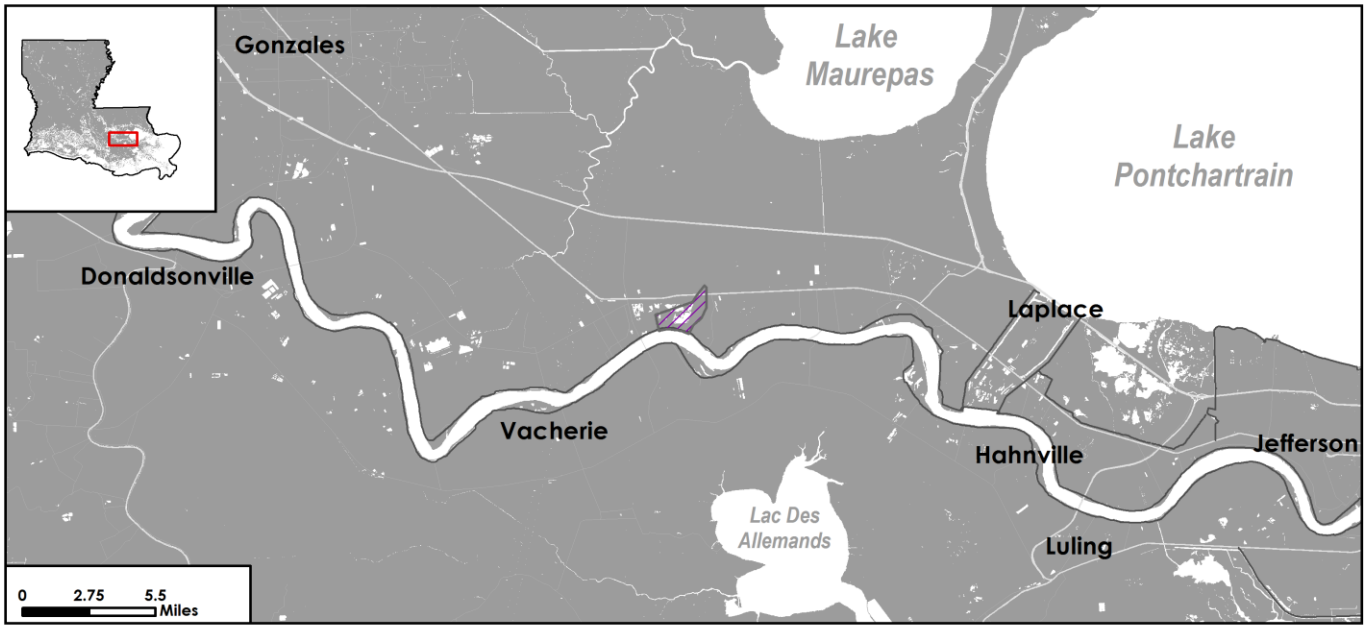
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$313 M	-	$1,211 M	-	$2,779 M	-
10	$2,063 M	$1,241 M	$3,014 M	$1,804 M	$6,160 M	$4,798 M
25	$6,292 M	$4,864 M	$8,150 M	$6,727 M	$13,032 M	$12,009 M
50	$16,910 M	$16,233 M	$19,999 M	$19,406 M	$26,044 M	$25,764 M

St. John the Baptist - Garyville

Nonstructural Risk Reduction

Project ID: SJB.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. John the Baptist Parish

Project Duration

No action required.

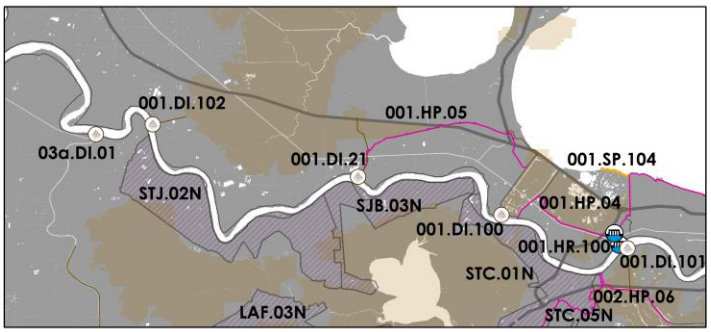
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	197
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

St. John the Baptist - Garyville

Nonstructural Risk Reduction

Project ID: SJB.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	$3 M	$3 M	**$0 M**
50	$10 M	$10 M	**$0 M**

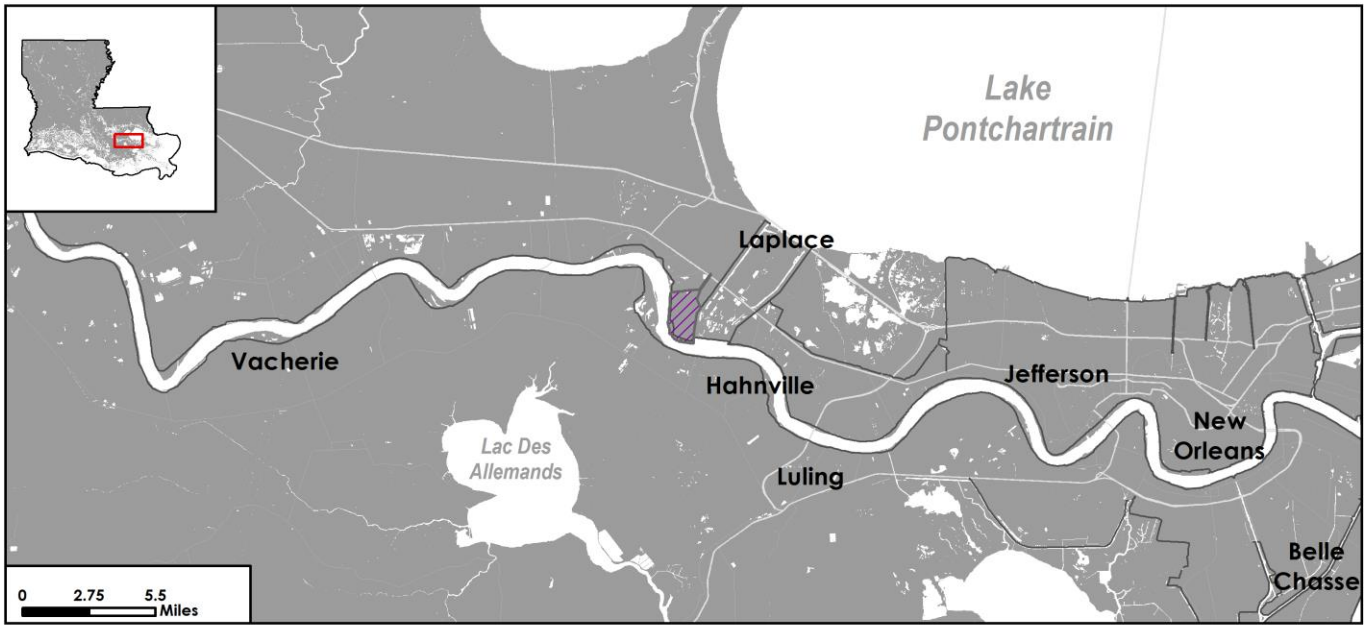
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$9 M	-	$9 M	-	$10 M	-
10	$10 M	$10 M	$10 M	$10 M	$10 M	$10 M
25	$76 M	$76 M	$83 M	$83 M	$85 M	$85 M
50	$141 M	$141 M	$144 M	$144 M	$214 M	$214 M

St. Charles - Montz

Nonstructural Risk Reduction

Project ID: STC.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

No action required.

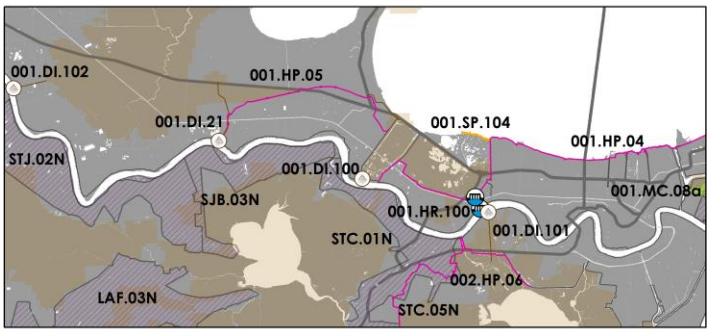
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,935
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

St. Charles - Montz

Nonstructural Risk Reduction

Project ID: STC.02N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	< $1 M	< $1 M	**$0 M**
50	$3 M	$3 M	**$0 M**

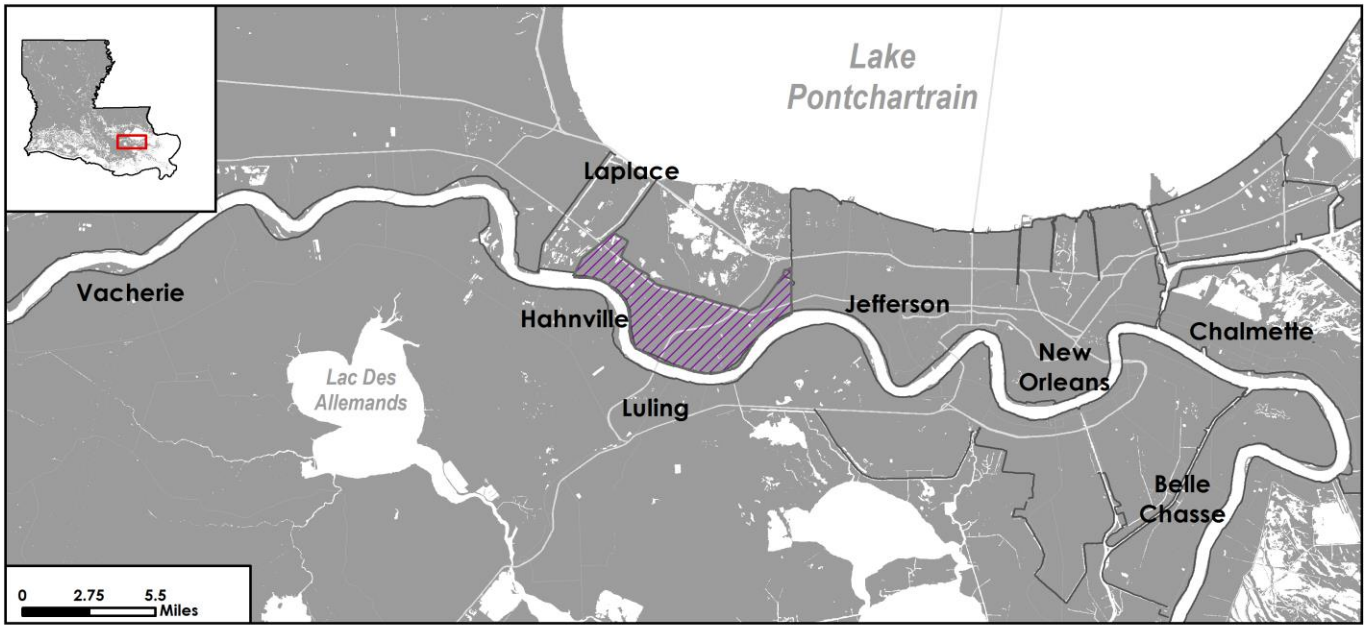
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$1 M	-	$1 M	-	$3 M	-
10	$2 M	$2 M	$3 M	$3 M	$16 M	$16 M
25	$7 M	$7 M	$8 M	$8 M	$40 M	$40 M
50	$47 M	$47 M	$103 M	$103 M	$200 M	$200 M

St. Charles - Destrehan

Nonstructural Risk Reduction

Project ID: STC.03N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

No action required.

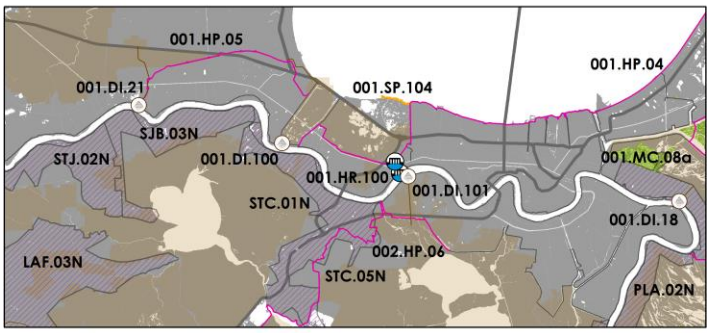
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	24,212
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

St. Charles - Destrehan
Nonstructural Risk Reduction
Project ID: STC.03N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1 M	-	-
10	$2 M	$2 M	**$0 M**
25	$2 M	$2 M	**$0 M**
50	$3 M	$3 M	**$0 M**

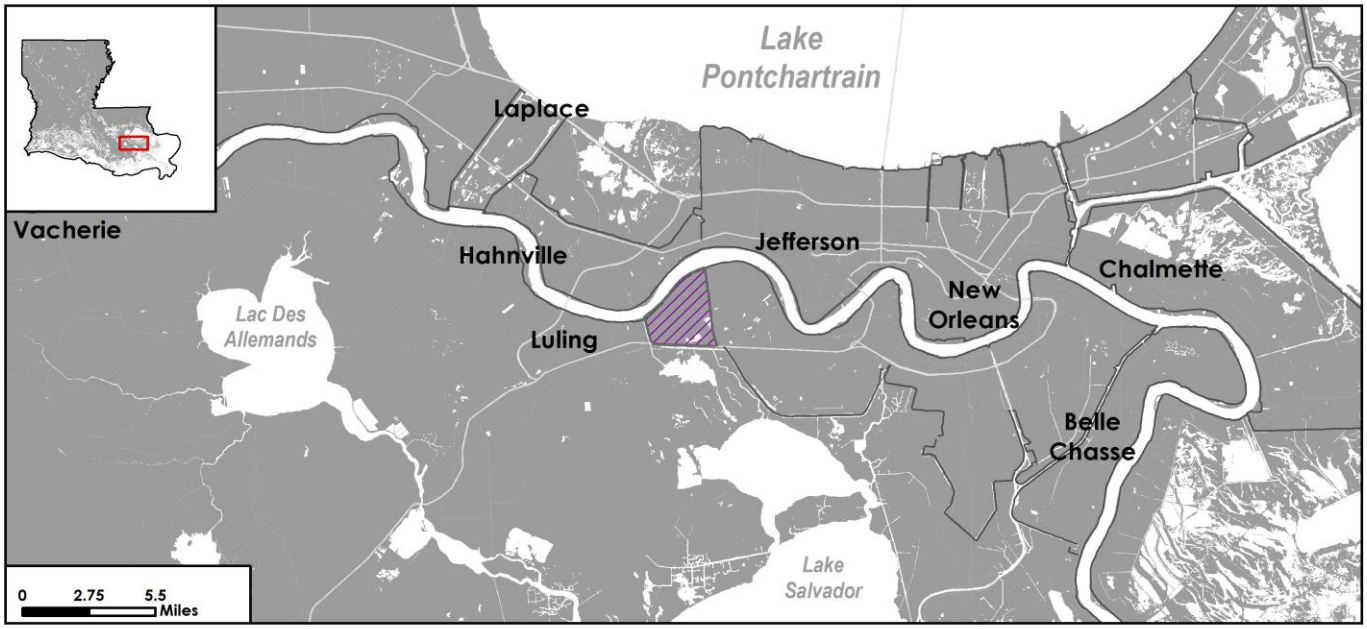
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$19 M	-	$19 M	-	$23 M	-
10	$21 M	$21 M	$21 M	$21 M	$21 M	$21 M
25	$22 M	$22 M	$22 M	$22 M	$22 M	$22 M
50	$21 M	$21 M	$21 M	$21 M	$45 M	$45 M

St. Charles - Ama

Nonstructural Risk Reduction

Project ID: STC.04N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

No action required.

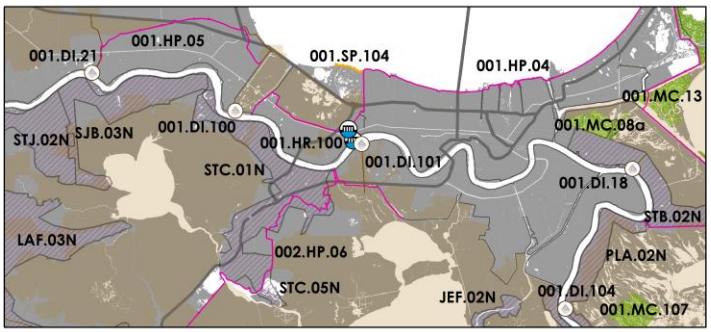
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,446
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

St. Charles - Ama
Nonstructural Risk Reduction
Project ID: STC.04N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$0 M	-	-
10	$0 M	$0 M	**$0 M**
25	$0 M	$0 M	**$0 M**
50	< $1 M	< $1 M	**$0 M**

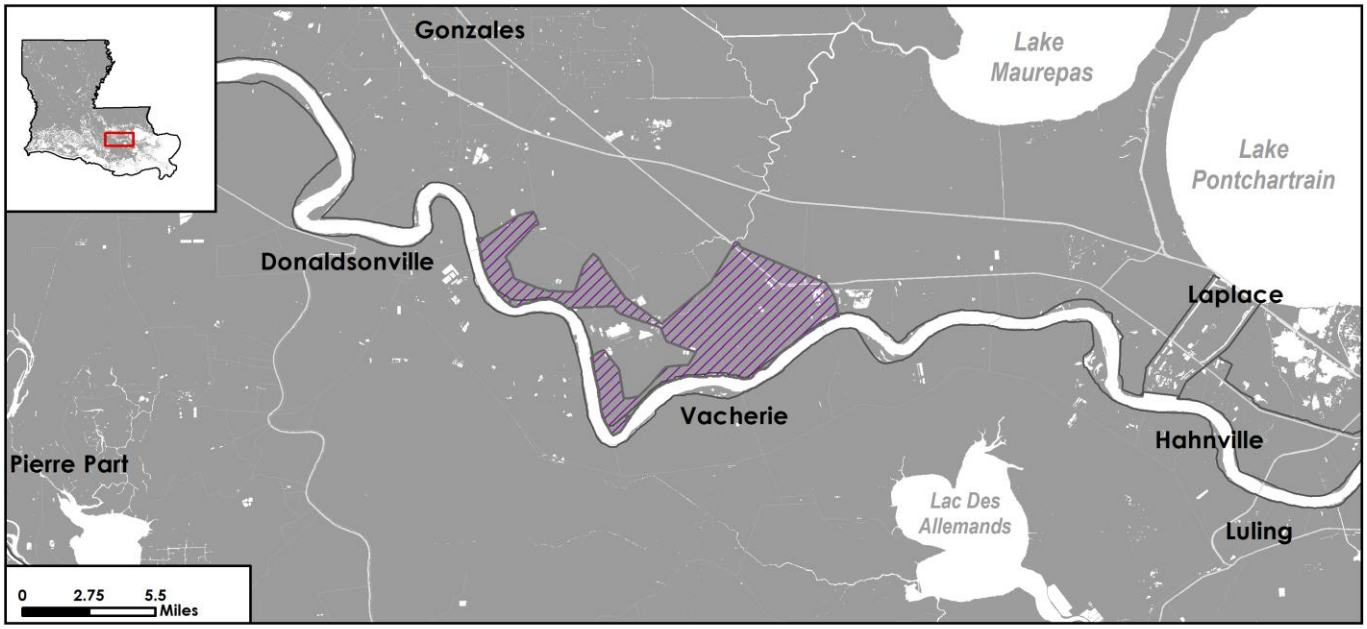
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$0 M	-	$0 M	-	$0 M	-
10	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
25	$0 M	$0 M	$0 M	$0 M	$0 M	$0 M
50	$0 M	$0 M	$0 M	$0 M	< $1 M	< $1 M

St. James - Convent

Nonstructural Risk Reduction

Project ID: STJ.01N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. James Parish

Project Duration

No action required.

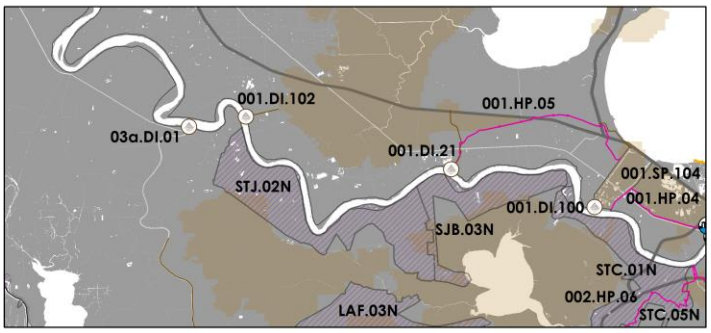
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	0	$0
Residential Elevation	0	$0
Residential Acquisition	0	$0
Total	**0**	**$0**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	13,371
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	0%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	0

2017 Coastal Master Plan

Not Selected

St. James - Convent
Nonstructural Risk Reduction
Project ID: STJ.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	< $1 M	-	-
10	< $1 M	< $1 M	**$0 M**
25	$6 M	$6 M	**$0 M**
50	$122 M	$122 M	**$0 M**

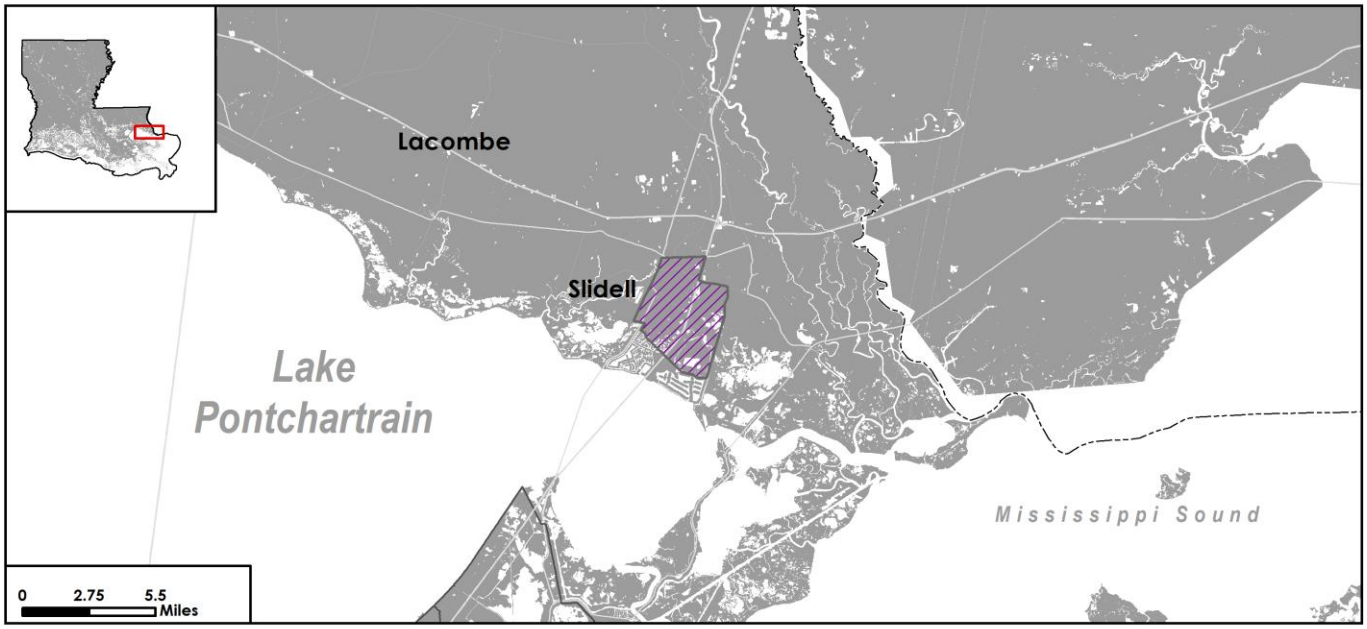
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$5 M	-	$5 M	-	$6 M	-
10	$8 M	$8 M	$10 M	$10 M	$10 M	$10 M
25	$134 M	$134 M	$161 M	$161 M	$169 M	$169 M
50	$2,340 M	$2,340 M	$2,550 M	$2,550 M	$2,663 M	$2,663 M

St. Tammany - Slidell

Nonstructural Risk Reduction

Project ID: STT.02N



Description

Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

Project Duration

Construction is estimated to take 7 years.

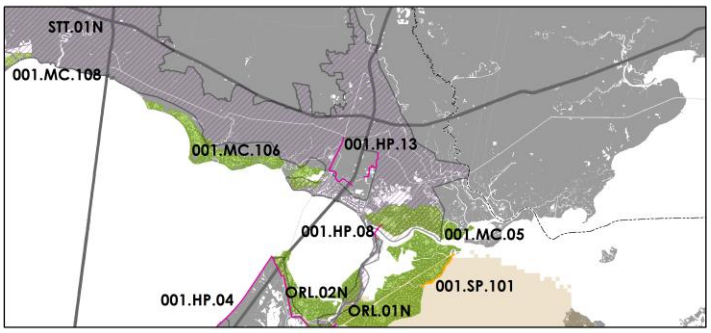
Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	413	$333,000,000
Residential Elevation	2,405	$385,300,000
Residential Acquisition	63	$52,300,000
Total	**2,881**	**$770,600,000**

Note:

Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	23,374
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	49%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	335

2017 Coastal Master Plan

Not Selected

St. Tammany - Slidell
Nonstructural Risk Reduction
Project ID: STT.02N

Economic Damage
Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

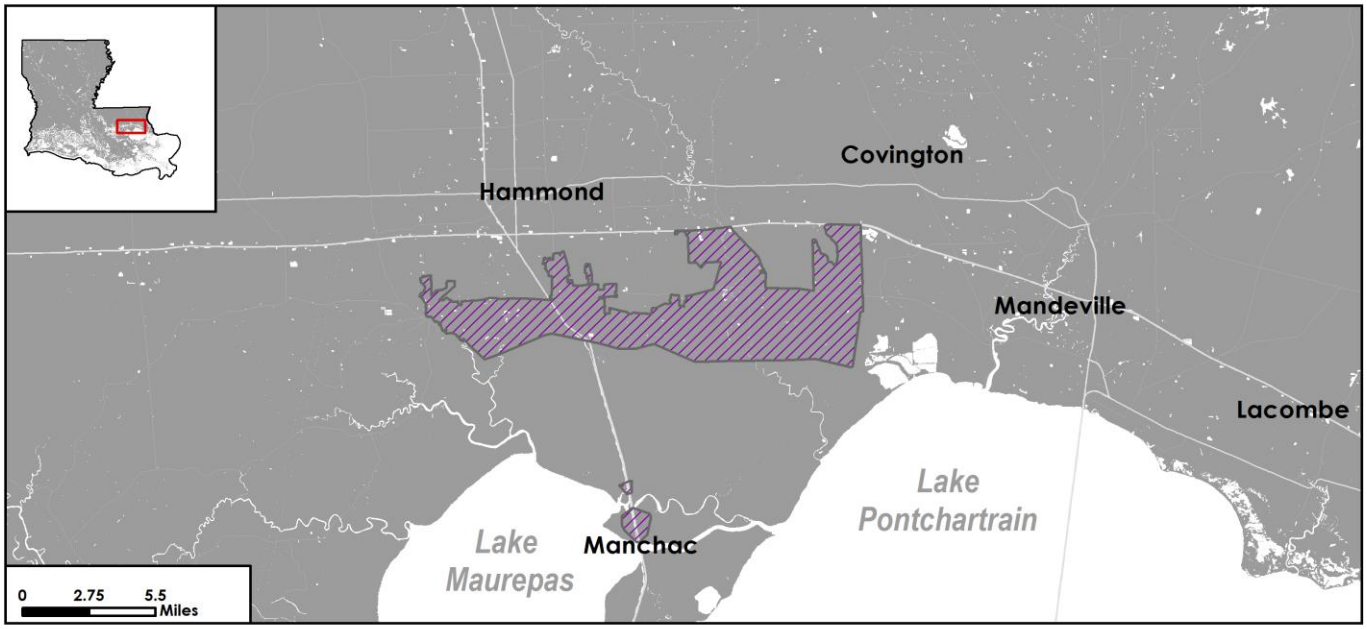
Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$151 M	-	-
10	$288 M	$209 M	**$78 M**
25	$489 M	$372 M	**$117 M**
50	$1,053 M	$798 M	**$255 M**

Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$483 M	-	$4,952 M	-	$13,874 M	-
10	$4,768 M	$4,251 M	$12,936 M	$8,089 M	$18,503 M	$13,623 M
25	$9,274 M	$6,558 M	$17,158 M	$12,115 M	$20,303 M	$15,595 M
50	$18,912 M	$14,278 M	$22,016 M	$17,394 M	$25,386 M	$21,554 M

Tangipahoa
Nonstructural Risk Reduction
Project ID: TAN.01N



Description
Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.

Scale of Influence
Local Sub-basin Basin Regional

Project Location
Tangipahoa Parish

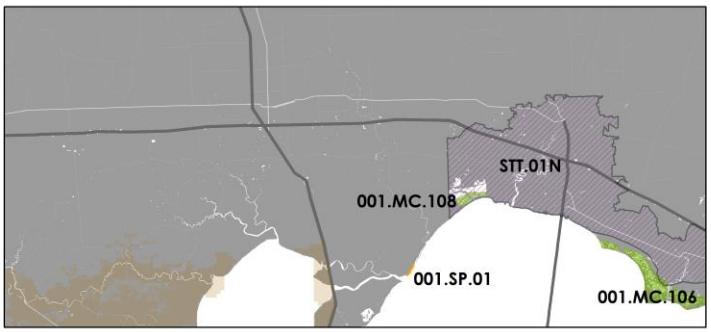
Project Duration
Construction is estimated to take 3 years.

Project Cost Estimate

Voluntary Measure	*Structures Mitigated*	*Estimated Cost*
Non-residential Floodproofing	1	$3,500,000
Residential Elevation	356	$54,700,000
Residential Acquisition	0	$0
Total	**357**	**$58,200,000**

Note:
Cost Estimate does not represent specific residential or commercial structures to be mitigated.

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	23,496
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006-2010)*	29%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	4

2017 Coastal Master Plan
Not Selected

Tangipahoa
Nonstructural Risk Reduction
Project ID: TAN.01N

Economic Damage

Nonstructural risk reduction projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions for EAD (Table 1) and by return period (Table 2). EAD and DRP values are reported in millions of dollars.

Table 1: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$14 M	-	-
10	$17 M	$8 M	**$8 M**
25	$21 M	$11 M	**$10 M**
50	$40 M	$31 M	**$9 M**

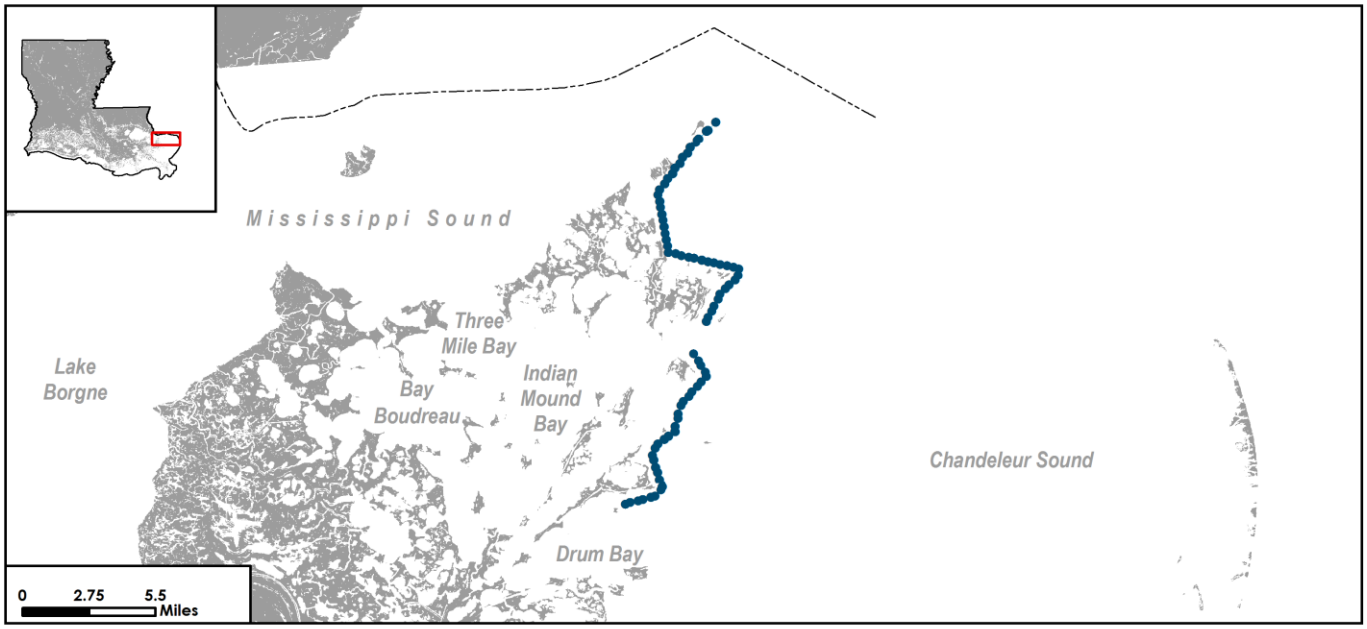
Table 2: Economic Damage by Return Period

Year	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
0	$249 M	-	$271 M	-	$315 M	-
10	$312 M	$148 M	$334 M	$160 M	$343 M	$168 M
25	$334 M	$169 M	$362 M	$196 M	$386 M	$233 M
50	$601 M	$530 M	$986 M	$922 M	$1,583 M	$1,520 M

Biloxi Marsh Oyster Reef

Oyster Barrier Reef

Project ID: 001.OR.01a



Description

Creation of approximately 104,400 feet of oyster barrier reef to a design elevation of 2 feet NAVD88 along the eastern shore of Biloxi Marsh to provide oyster habitat, reduce wave erosion, and prevent further marsh degradation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

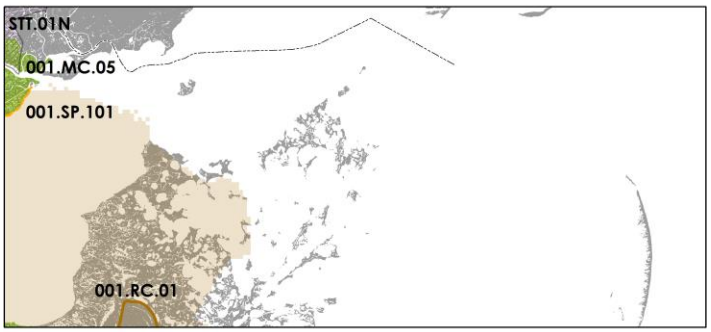
	Estimated Cost
Planning/Engineering & Design	$14,900,000
Construction	$186,100,000
Operations & Maintenance	$3,300,000
Total	**$204,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	0 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

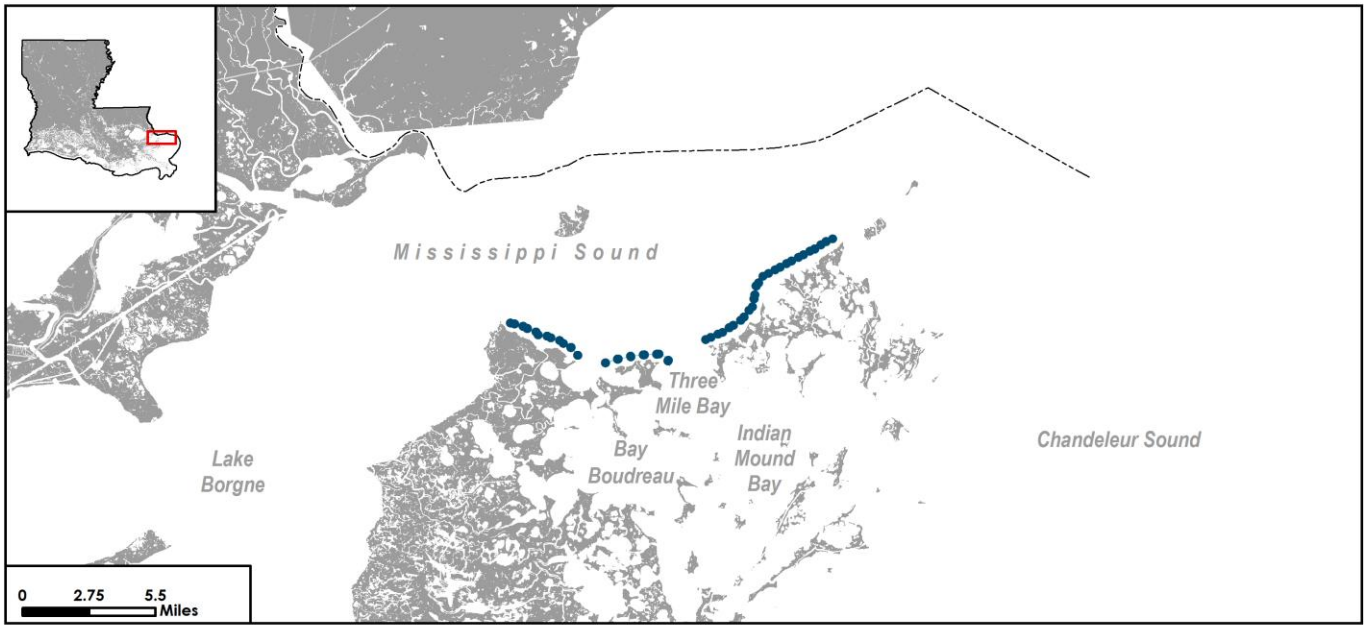


2017 Coastal Master Plan
Not Selected

North Biloxi Marsh Oyster Reef

Oyster Barrier Reef

Project ID: 001.OR.100



Description

Creation of approximately 66,200 feet of oyster barrier reef to a design elevation of 2 feet NAVD88 along the northern shore of Biloxi Marsh to provide oyster habitat, reduce wave erosion, and prevent further marsh degradation.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

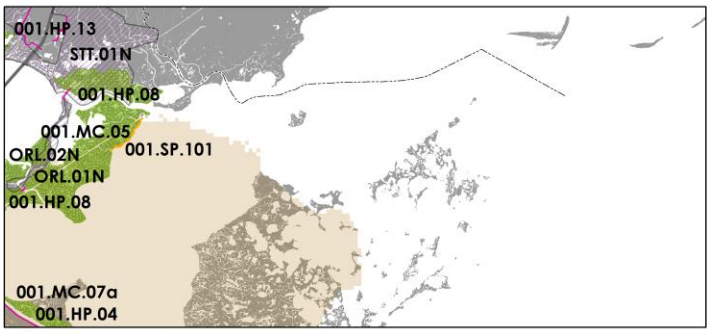
	Estimated Cost
Planning/Engineering & Design	$9,400,000
Construction	$118,000,000
Operations & Maintenance	$2,100,000
Total	**$129,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	-50 acres
Long Term (Year 50)	-9 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

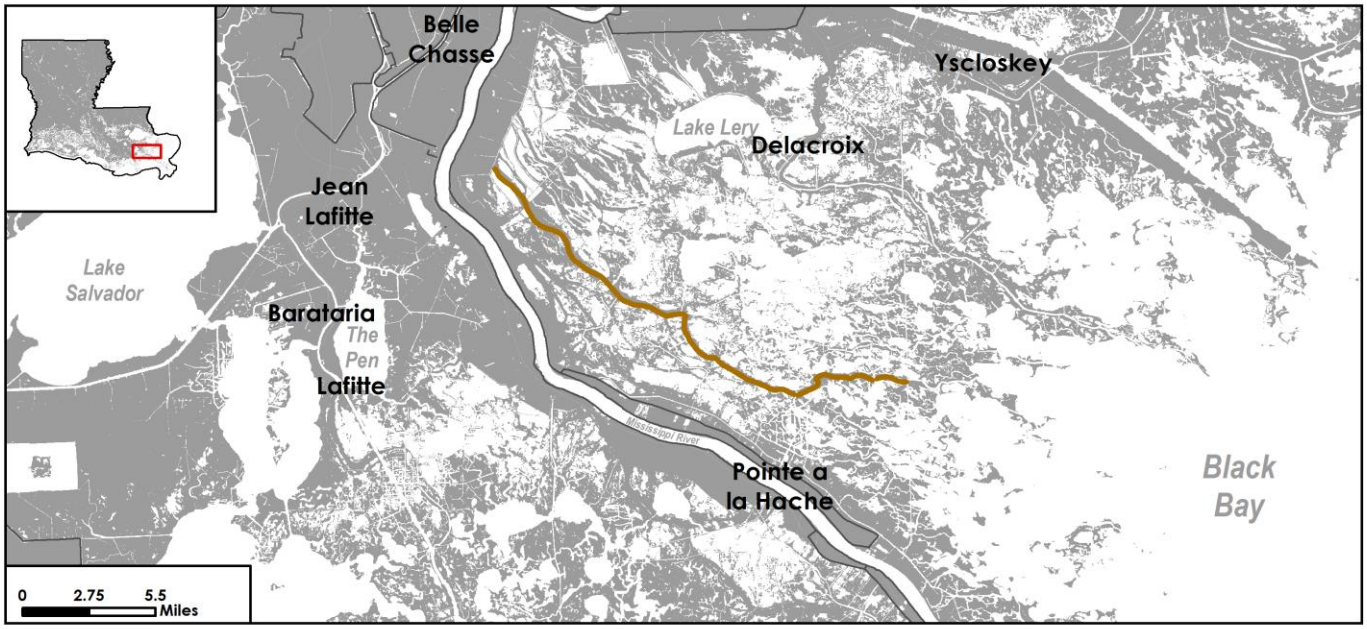


2017 Coastal Master Plan
Not Selected

Bayou Aux Chenes Ridge Restoration

Ridge Restoration

Project ID: 001.RC.102



Description

Restoration of approximately 113,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Aux Chenes.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

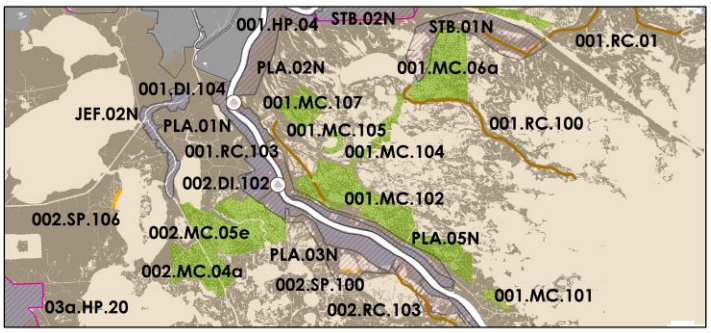
	Estimated Cost
Planning/Engineering & Design	$1,600,000
Construction	$16,400,000
Operations & Maintenance	$5,000,000
Total	**$23,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	2,283 acres
Long Term (Year 50)	-1,683 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



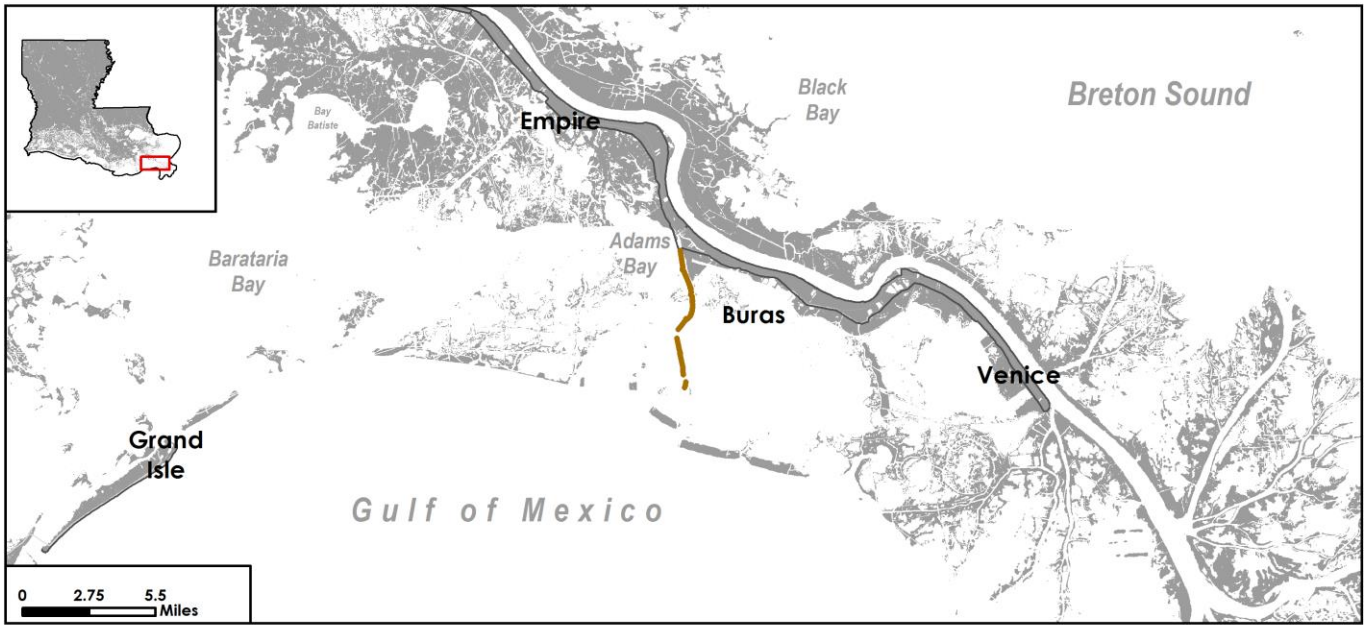
2017 Coastal Master Plan

Not Selected

Bayou Long Ridge Restoration

Ridge Restoration

Project ID: 002.RC.01



Description

Restoration of approximately 27,000 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Long / Bayou Fontanelle.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

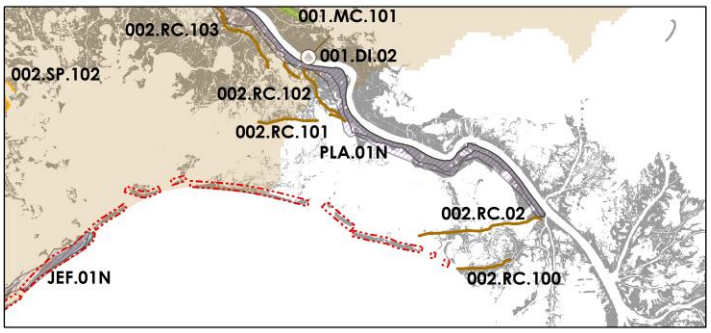
	Estimated Cost
Planning/Engineering & Design	$800,000
Construction	$8,000,000
Operations & Maintenance	$2,400,000
Total	**$11,200,000**

Land Area Built or Maintained*

Near Term (Year 20)	-393 acres
Long Term (Year 50)	-1,906 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

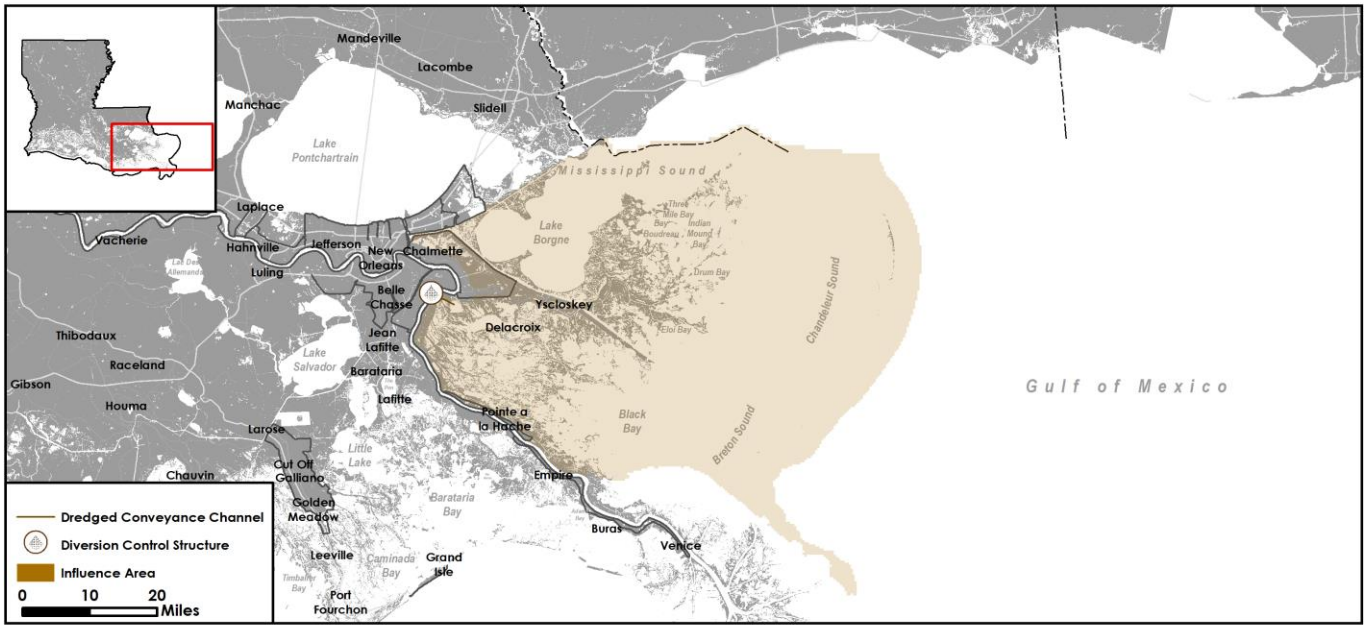


2017 Coastal Master Plan
Not Selected

Upper Breton Diversion

Sediment Diversion

Project ID: 001.DI.17



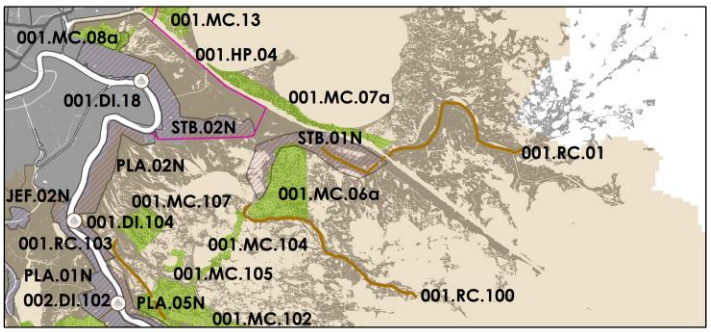
Description

Sediment diversion into Upper Breton Sound near Caernarvon to build and maintain land, 250,000 cfs capacity (modeled with a variable flow rate calculated using a linear function from zero to 250,000 cfs for river flow between 200,000 cfs and 1,000,000 cfs; diverts exactly 250,000 cfs when Mississippi River flow is 1,000,000 cfs; and open with variable flow rate [larger than 250,000 cfs, estimated using linear extrapolation] for river flow above 1,000,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$61,500,000
Construction	$1,281,500,000
Operations & Maintenance	$205,000,000
Total	**$1,548,000,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 6 years.
Construction is estimated to take 4 years.

Land Area Built or Maintained*

Near Term (Year 20)	-22,559 acres
Long Term (Year 50)	49,665 acres

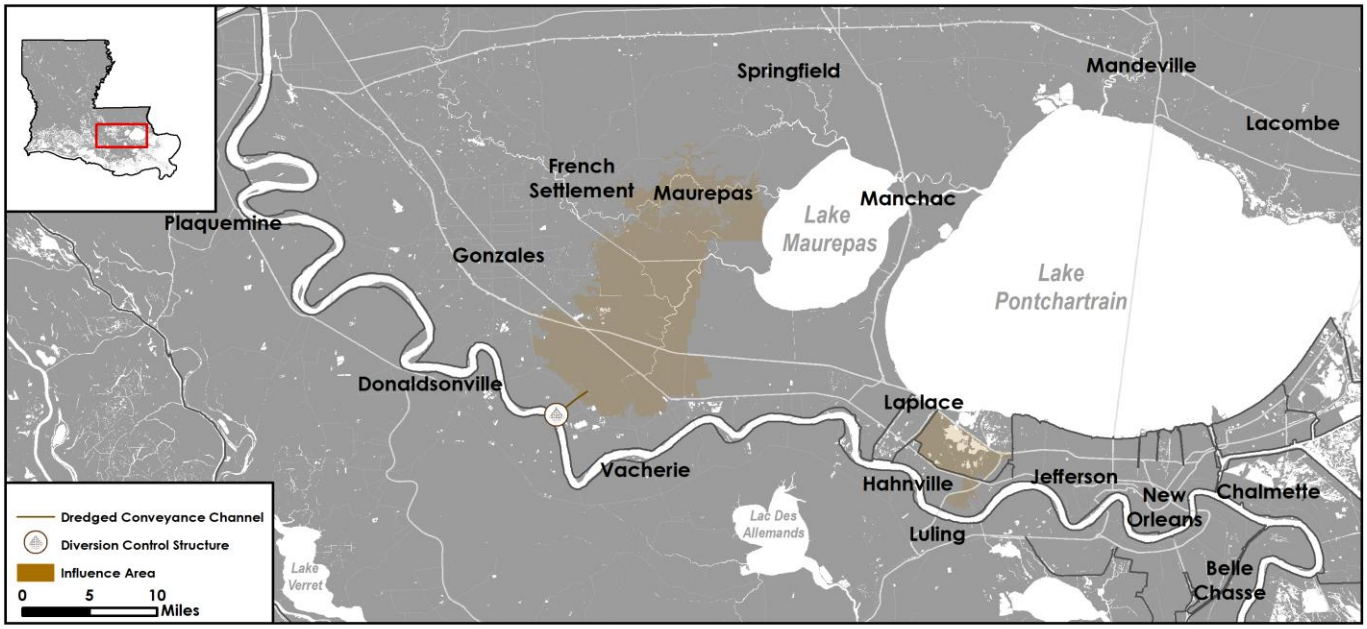
**Based on the high environmental scenario.*

2017 Coastal Master Plan
Not Selected

West Maurepas Diversion

Sediment Diversion

Project ID: 001.DI.29



Description

Diversion into West Maurepas in the vicinity of Romeville to provide sediment for emergent marsh creation and freshwater and fine sediment to sustain existing wetlands, 3,000 cfs capacity (modeled at 3,000 cfs, independent of the Mississippi River flow).

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

St. James Parish

Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 2 years.

Project Cost Estimate

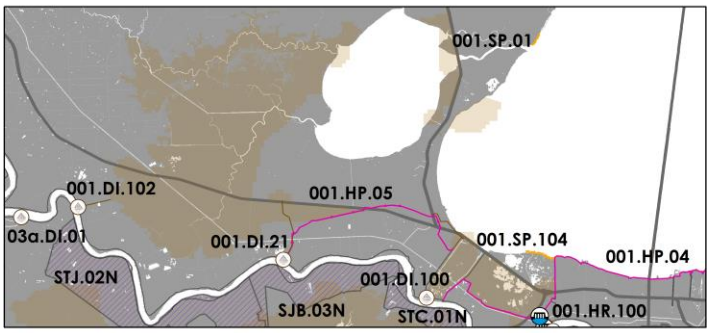
	Estimated Cost
Planning/Engineering & Design	$11,400,000
Construction	$143,000,000
Operations & Maintenance	$25,200,000
Total	**$179,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	6,349 acres
Long Term (Year 50)	-10,898 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

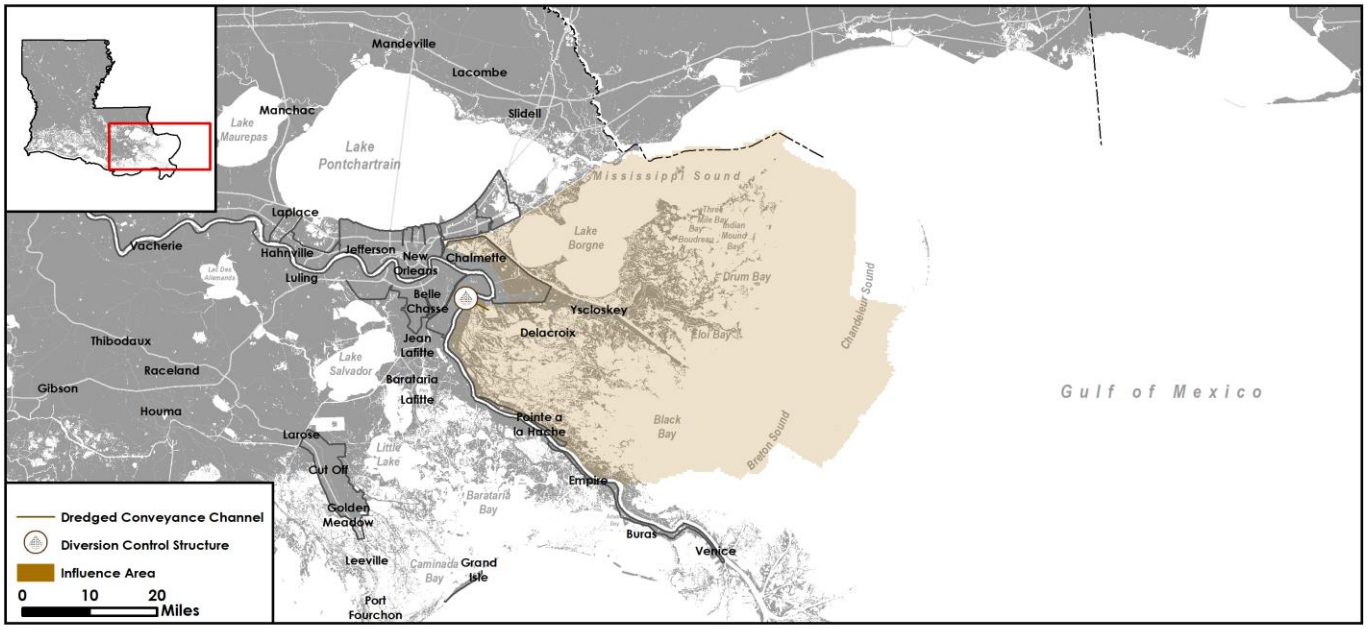


2017 Coastal Master Plan
Not Selected

Upper Breton Diversion

Sediment Diversion

Project ID: 001.DI.103



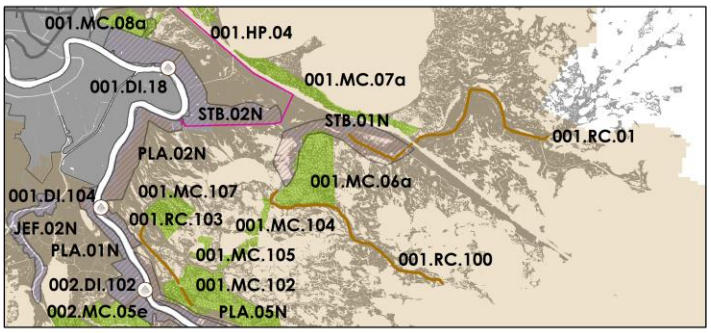
Description

Sediment diversion into Upper Breton Sound near Caernarvon to build and maintain land, 75,000 cfs capacity (open with a variable flow rate calculated using a linear function from zero to 75,000 cfs for river flow between 200,000 cfs and 1,000,000 cfs; diverts exactly 75,000 cfs when Mississippi River flow is 1,000,000 cfs; and open with variable flow rate [larger than 75,000 cfs, estimated using linear extrapolation] for river flow above 1,000,000 cfs. No operation below 200,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$36,700,000
Construction	$765,000,000
Operations & Maintenance	$128,500,000
Total	**$930,200,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | Basin | **Regional**

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

Near Term (Year 20)	-5,503 acres
Long Term (Year 50)	13,881 acres

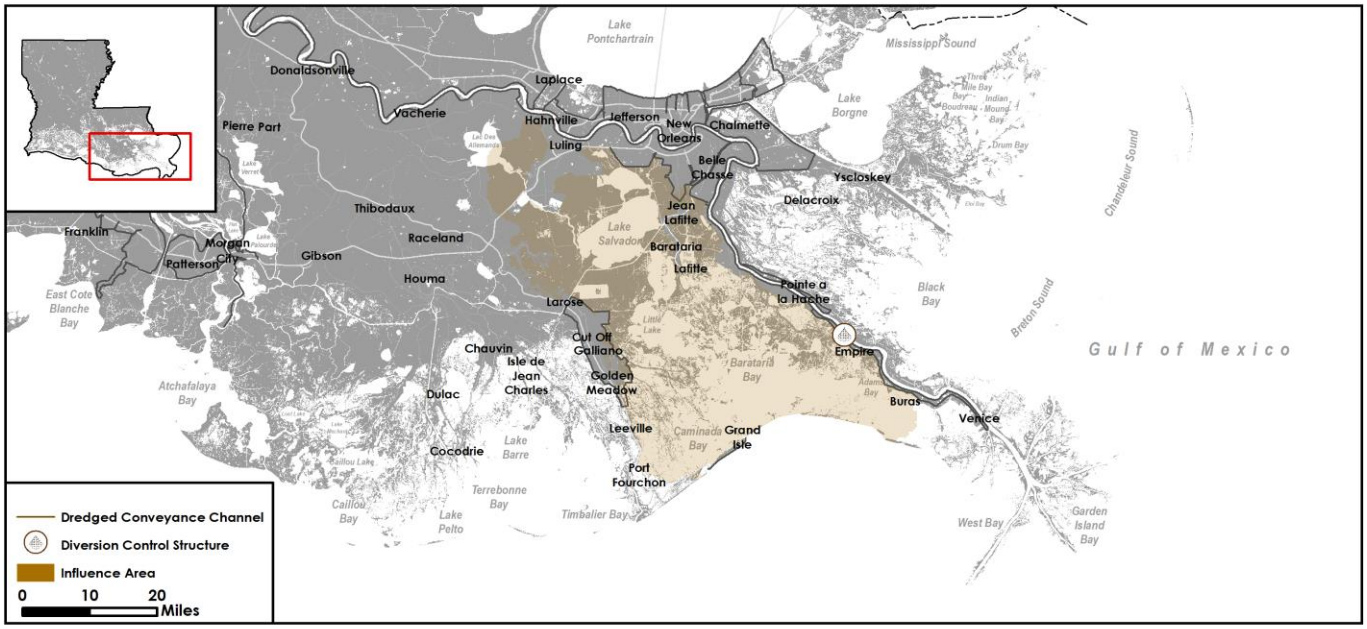
**Based on the high environmental scenario.*

2017 Coastal Master Plan
Not Selected

Lower Barataria Diversion

Sediment Diversion

Project ID: 002.DI.15



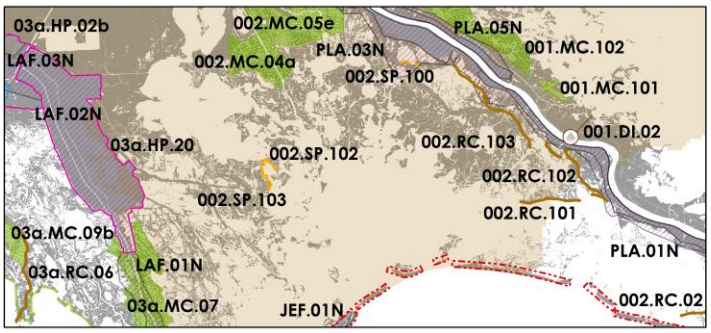
Description

Sediment diversion of 50,000 cfs into Lower Barataria in the vicinity of Port Sulphur to build and maintain land (open with a variable flow rate calculated using a linear function from zero to 50,000 cfs for river flow between 200,000 cfs and 1,000,000 cfs; diverts exactly 50,000 cfs when Mississippi River flow is 1,000,000 cfs; and open with variable flow rate [larger than 50,000 cfs, estimated using linear extrapolation] for river flow above 1,000,000 cfs. No operation below 200,000 cfs).

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$48,800,000
Construction	$682,700,000
Operations & Maintenance	$102,400,000
Total	**$833,900,000**

Other Nearby Projects in the Master Plan



Scale of Influence

Local | Sub-basin | **Basin** | Regional

Project Location

Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 5 years.
Construction is estimated to take 3 years.

Land Area Built or Maintained*

Near Term (Year 20)	1,798 acres
Long Term (Year 50)	-7,867 acres

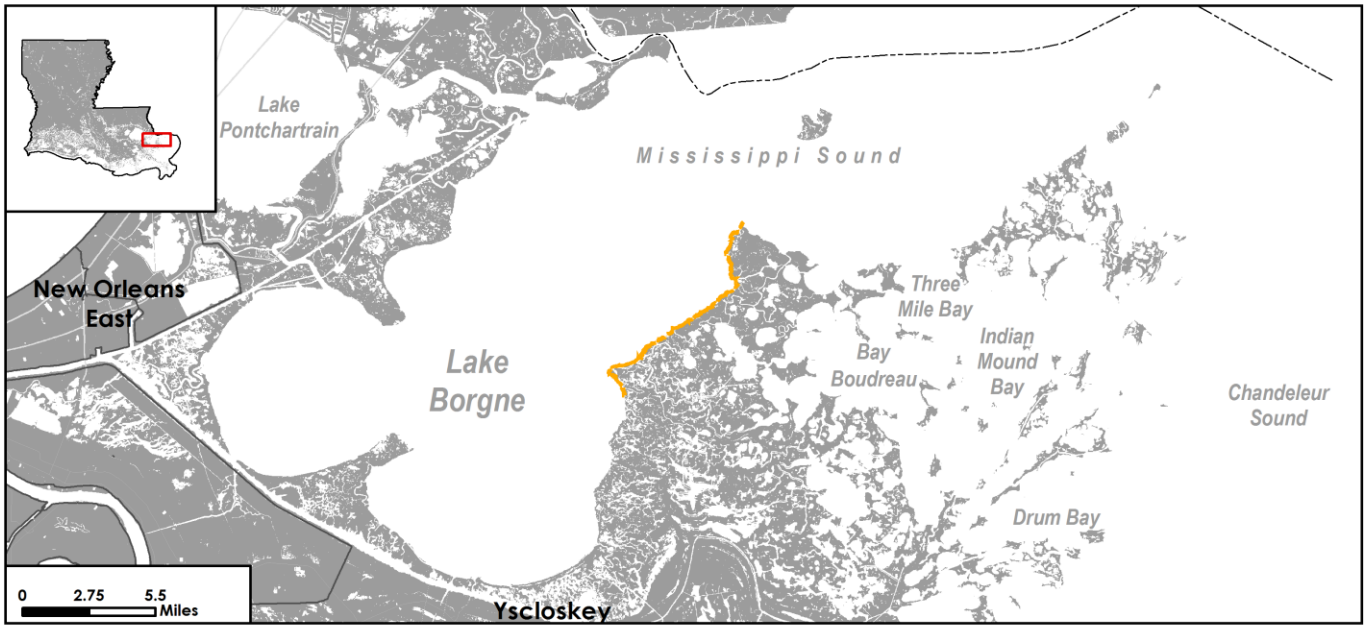
**Based on the high environmental scenario.*

2017 Coastal Master Plan
Not Selected

Eastern Lake Borgne Shoreline Protection

Shoreline Protection

Project ID: 001.SP.03



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 54,400 feet of the eastern shore of Lake Borgne to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

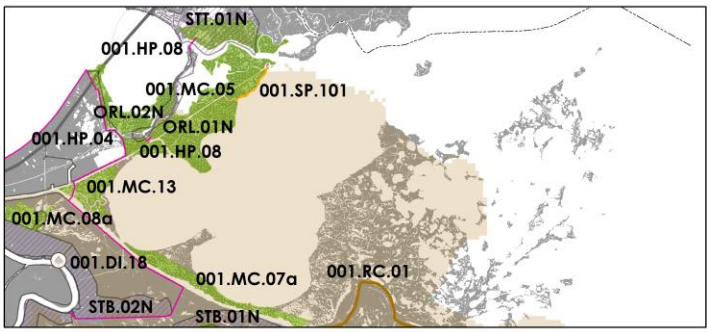
	Estimated Cost
Planning/Engineering & Design	$4,000,000
Construction	$50,100,000
Operations & Maintenance	$62,000,000
Total	**$116,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	80 acres
Long Term (Year 50)	0 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



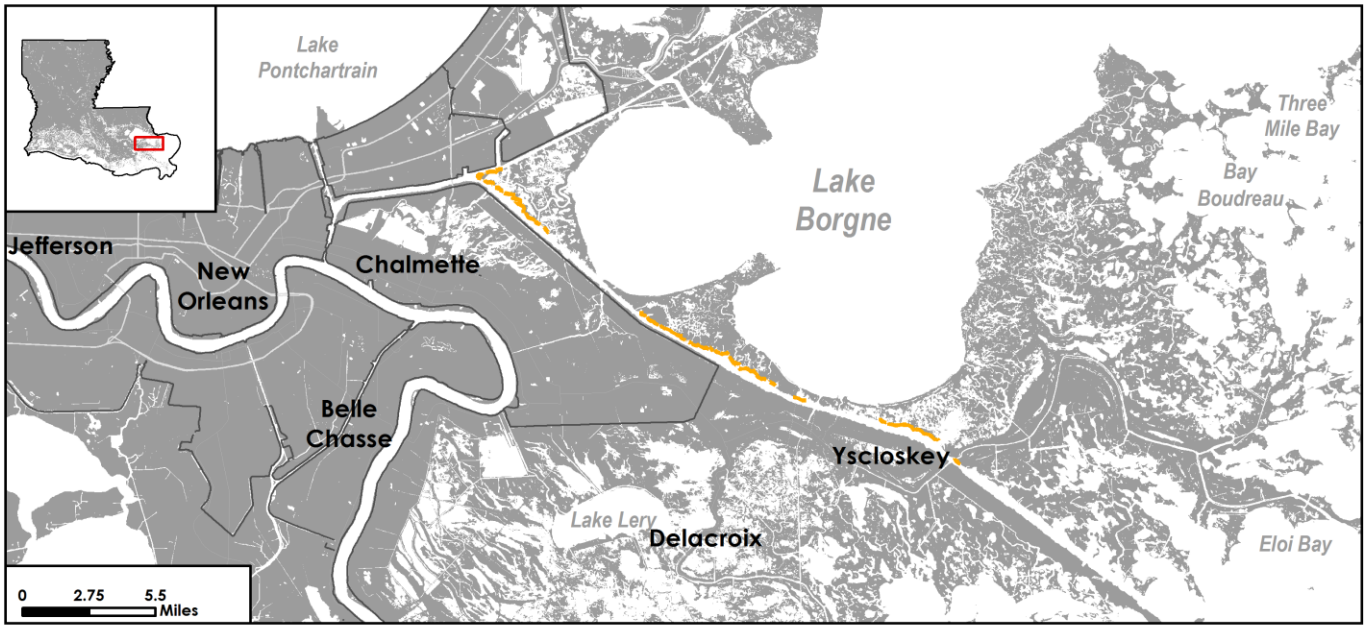
2017 Coastal Master Plan

Not Selected

MRGO Shoreline Protection

Shoreline Protection

Project ID: 001.SP.04



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 71,500 feet of the north bank of the Mississippi River Gulf Outlet to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish; St. Bernard Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

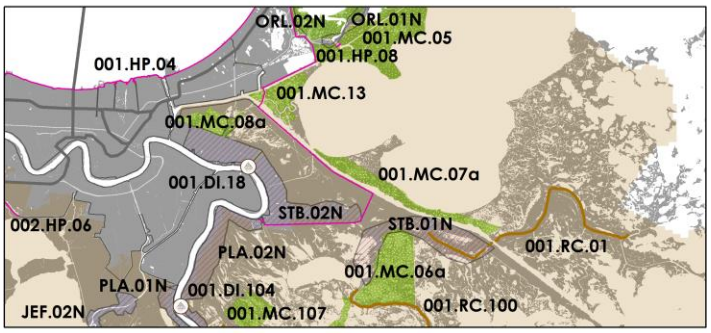
	Estimated Cost
Planning/Engineering & Design	$3,500,000
Construction	$44,400,000
Operations & Maintenance	$42,900,000
Total	**$90,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	149 acres
Long Term (Year 50)	101 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

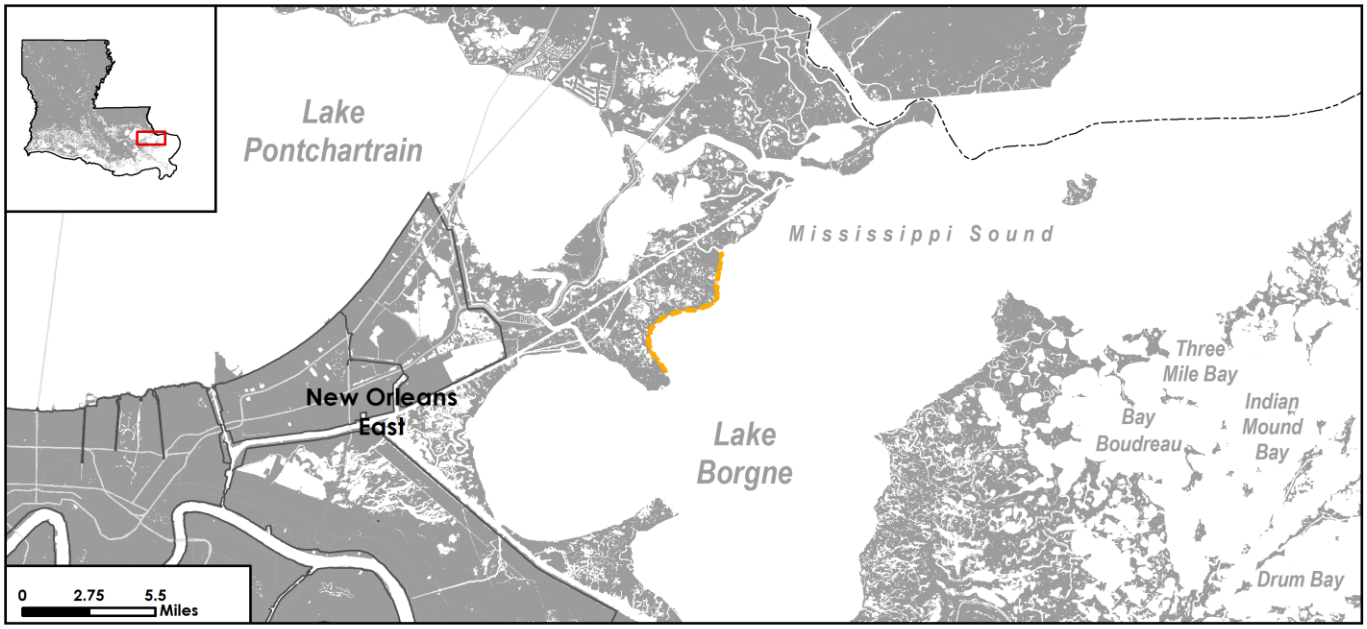


2017 Coastal Master Plan
Not Selected

East New Orleans Landbridge Shoreline Protection

Shoreline Protection

Project ID: 001.SP.05



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 35,900 feet of the east side of the New Orleans Landbridge in the vicinity of Alligator Bend to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Orleans Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

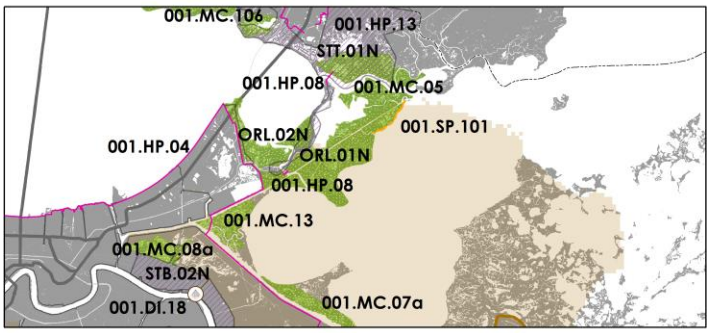
	Estimated Cost
Planning/Engineering & Design	$2,600,000
Construction	$33,100,000
Operations & Maintenance	$42,900,000
Total	**$78,600,000**

Land Area Built or Maintained*

Near Term (Year 20)	79 acres
Long Term (Year 50)	0 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

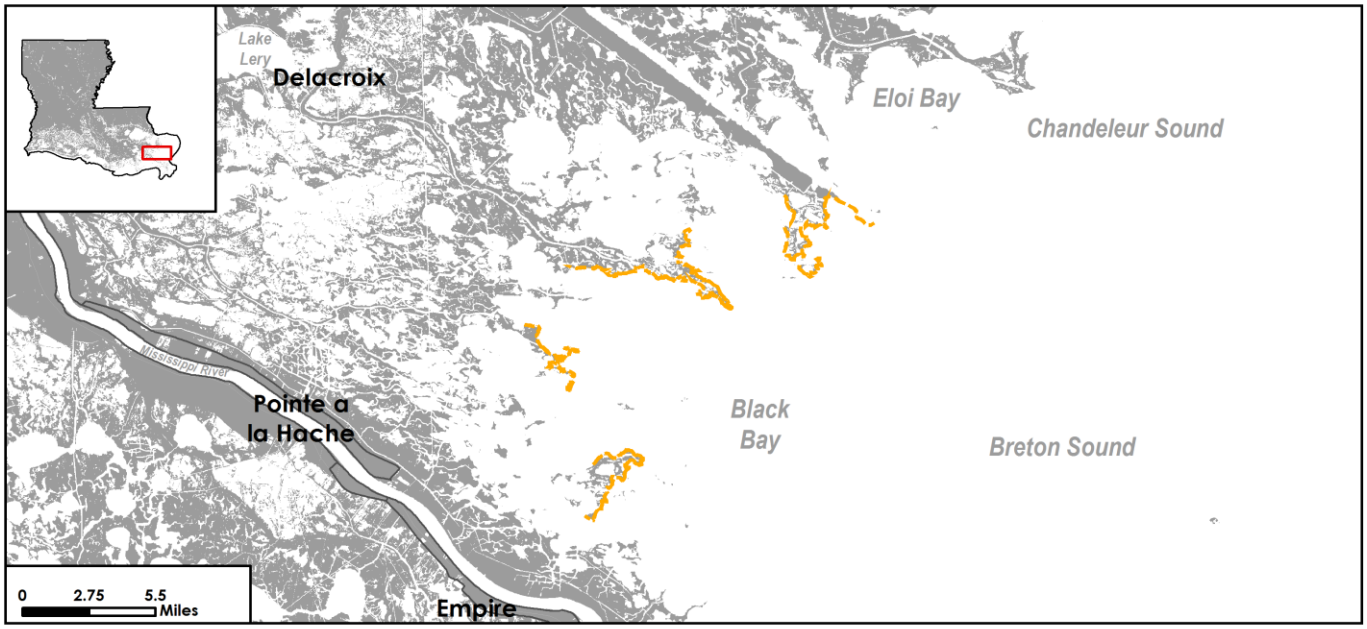


2017 Coastal Master Plan
Not Selected

Breton Sound Shoreline Protection

Shoreline Protection

Project ID: 001.SP.100



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 217,300 feet of the west side of Breton Sound from the Mississippi River Gulf Outlet to California Bay to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Bernard Parish; Plaquemines Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 4 years.

Project Cost Estimate

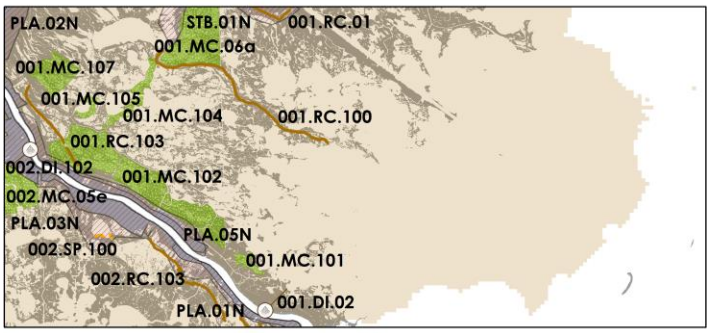
	Estimated Cost
Planning/Engineering & Design	$36,300,000
Construction	$453,600,000
Operations & Maintenance	$406,200,000
Total	**$896,100,000**

Land Area Built or Maintained*

Near Term (Year 20)	68 acres
Long Term (Year 50)	88 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



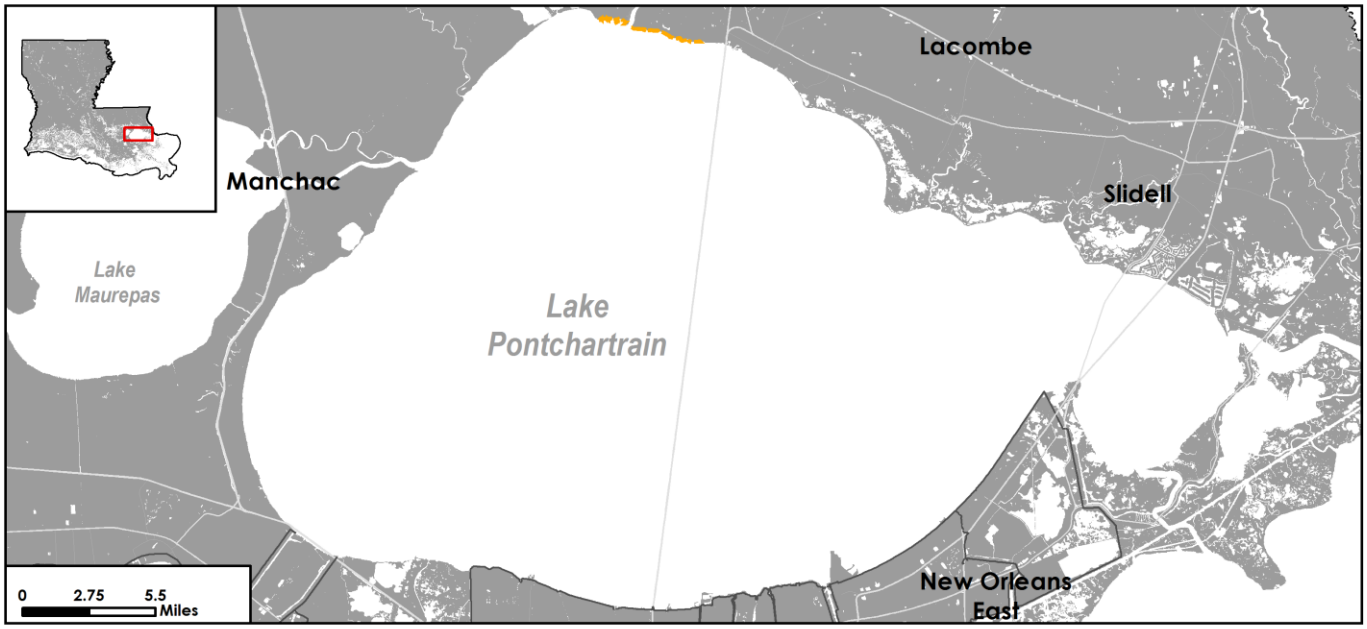
2017 Coastal Master Plan

Not Selected

North Lake Pontchartrain Shoreline Protection

Shoreline Protection

Project ID: 001.SP.102



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 23,300 feet of the north side of the Lake Pontchartrain shoreline to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

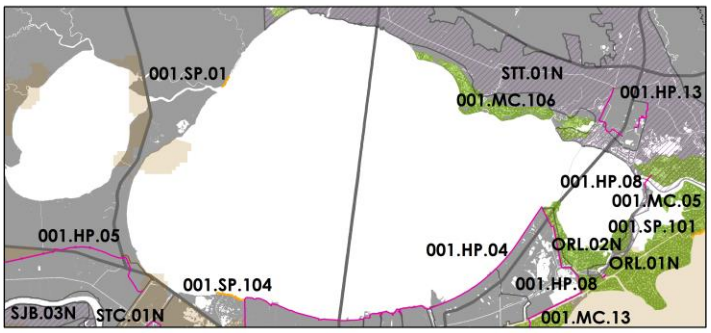
	Estimated Cost
Planning/Engineering & Design	$1,600,000
Construction	$19,500,000
Operations & Maintenance	$25,900,000
Total	**$47,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	113 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



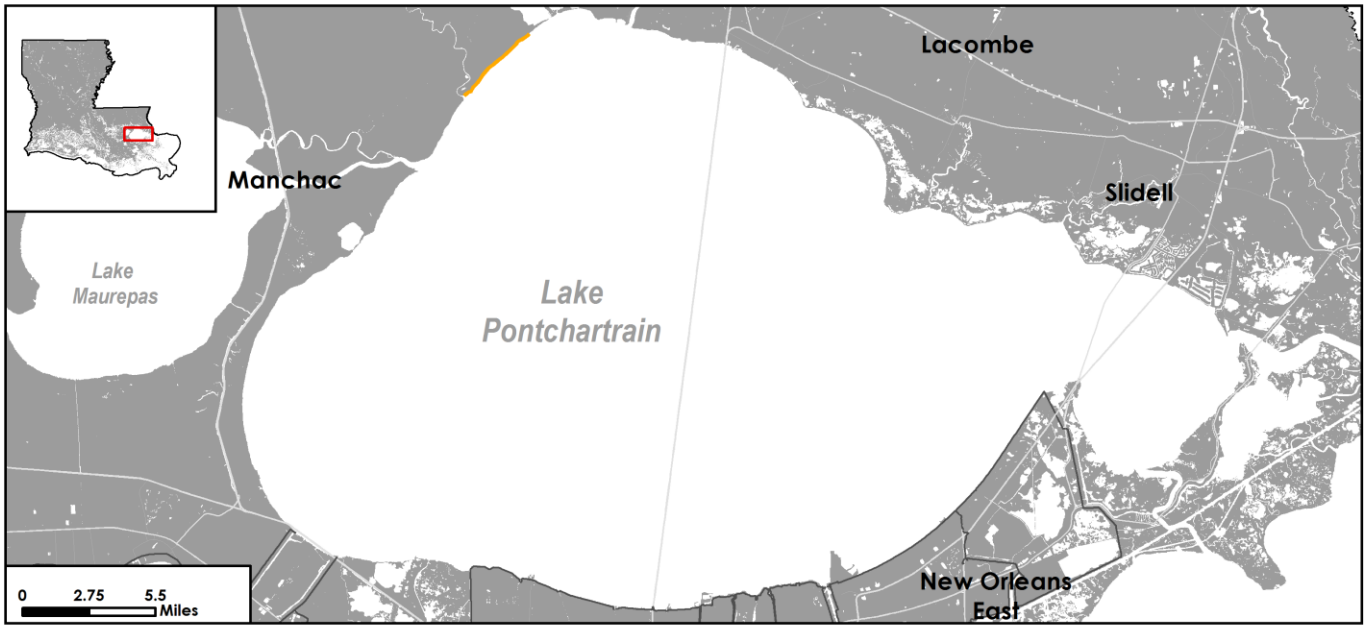
2017 Coastal Master Plan

Not Selected

Northeast Lake Pontchartrain Shoreline Protection

Shoreline Protection

Project ID: 001.SP.103



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 18,200 feet of the western shore of Lake Pontchartrain east of the Tangipahoa River to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Tammany Parish; Tangipahoa Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

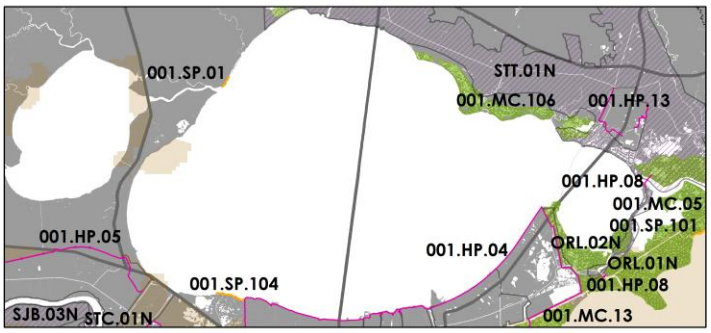
	Estimated Cost
Planning/Engineering & Design	$1,200,000
Construction	$15,300,000
Operations & Maintenance	$20,500,000
Total	**$37,000,000**

Land Area Built or Maintained*

Near Term (Year 20)	6 acres
Long Term (Year 50)	63 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



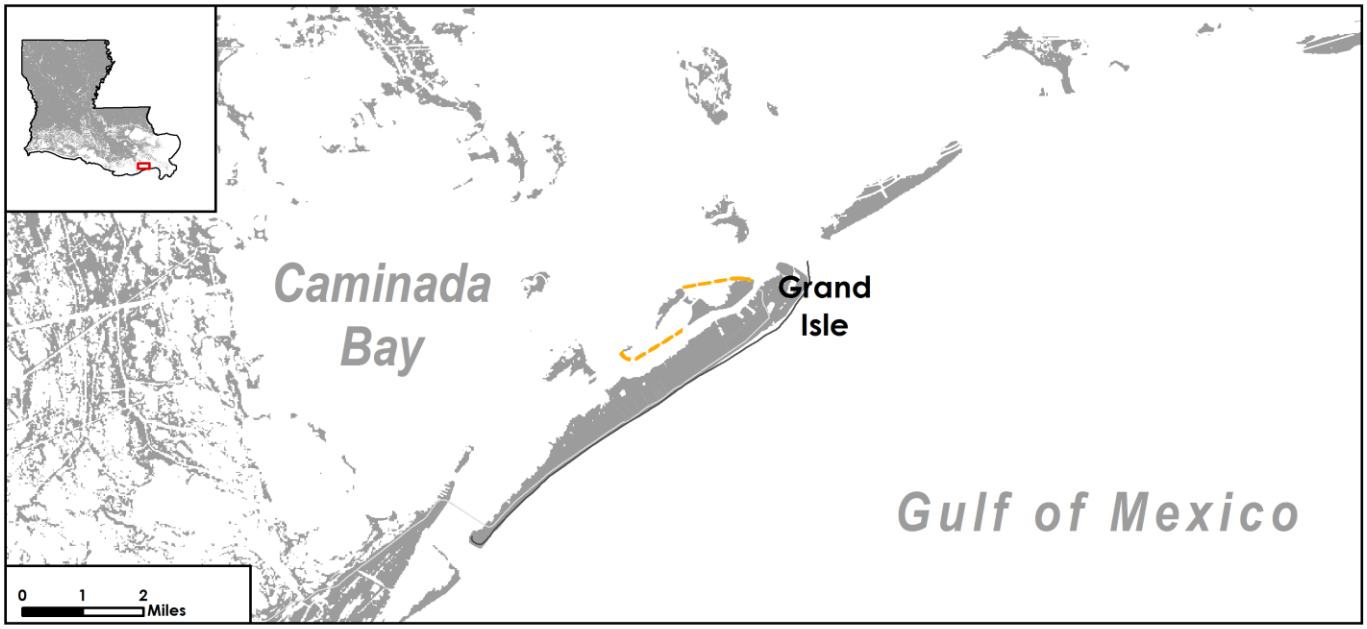
2017 Coastal Master Plan

Not Selected

Fifi Island Shoreline Protection

Shoreline Protection

Project ID: 002.SP.101



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 10,500 feet of the northeastern and southwestern shores of Fifi Island to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

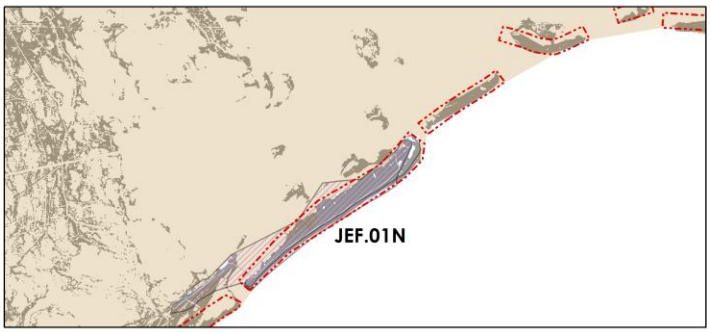
	Estimated Cost
Planning/Engineering & Design	$700,000
Construction	$8,900,000
Operations & Maintenance	$11,900,000
Total	**$21,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	74 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

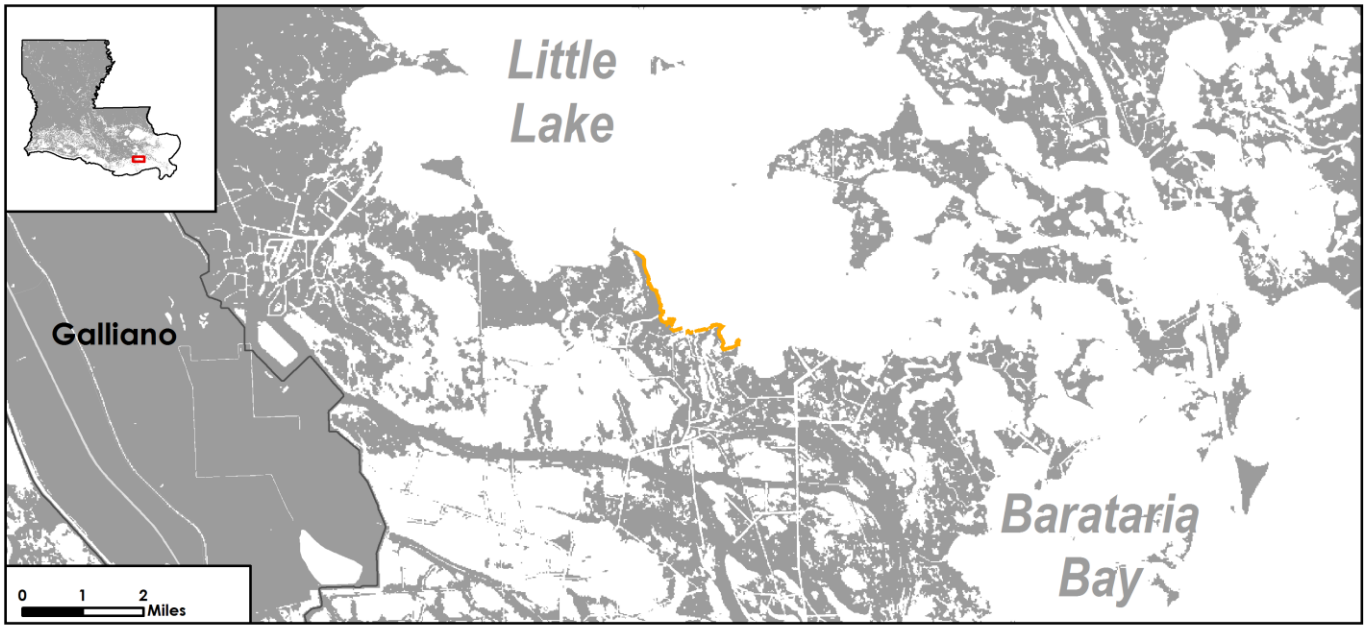


2017 Coastal Master Plan
Not Selected

South Little Lake Shoreline Protection

Shoreline Protection

Project ID: 002.SP.104



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 17,100 feet of the southern shore of Little Lake west of Coffee Bay to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

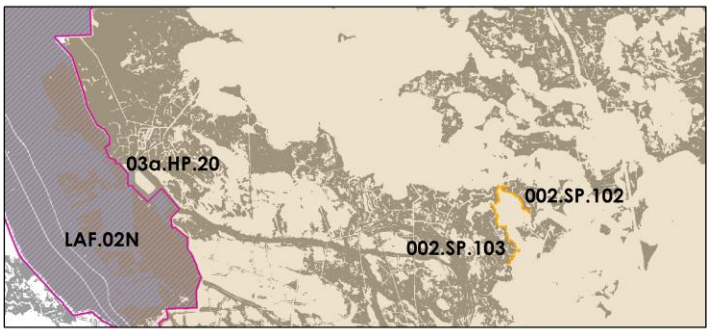
	Estimated Cost
Planning/Engineering & Design	$1,200,000
Construction	$14,900,000
Operations & Maintenance	$20,200,000
Total	**$36,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	1 acres
Long Term (Year 50)	-27 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

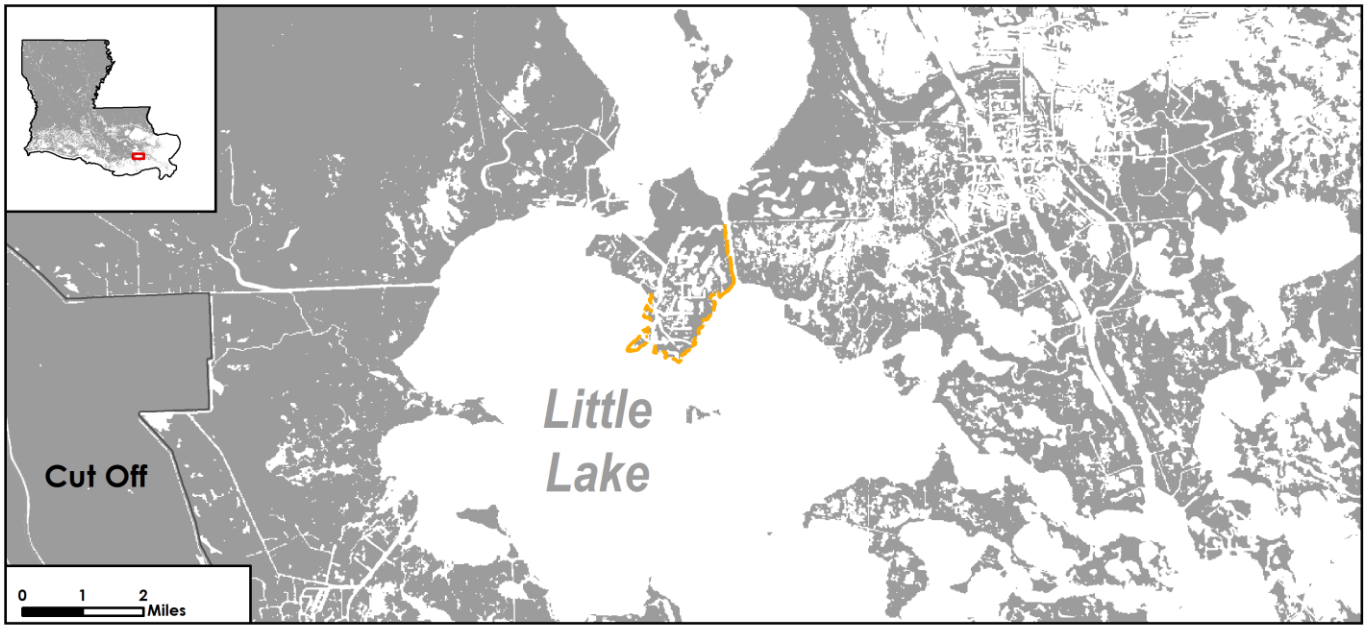


2017 Coastal Master Plan
Not Selected

North Little Lake Shoreline Protection

Shoreline Protection

Project ID: 002.SP.105



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 25,700 feet of the eastern shore of Little Lake and west shore of Turtle Bay into the Harvey Cutoff to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

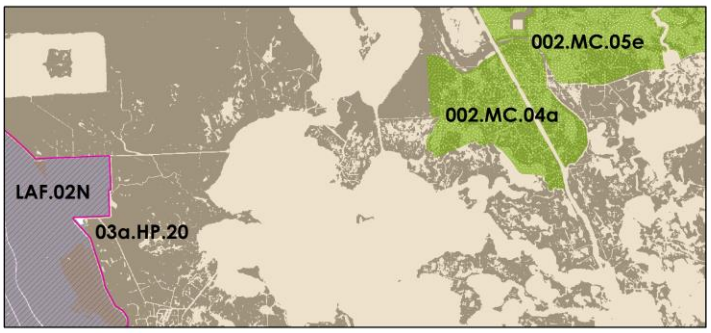
	Estimated Cost
Planning/Engineering & Design	$1,900,000
Construction	$23,200,000
Operations & Maintenance	$32,400,000
Total	**$57,500,000**

Land Area Built or Maintained*

Near Term (Year 20)	-189 acres
Long Term (Year 50)	-187 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

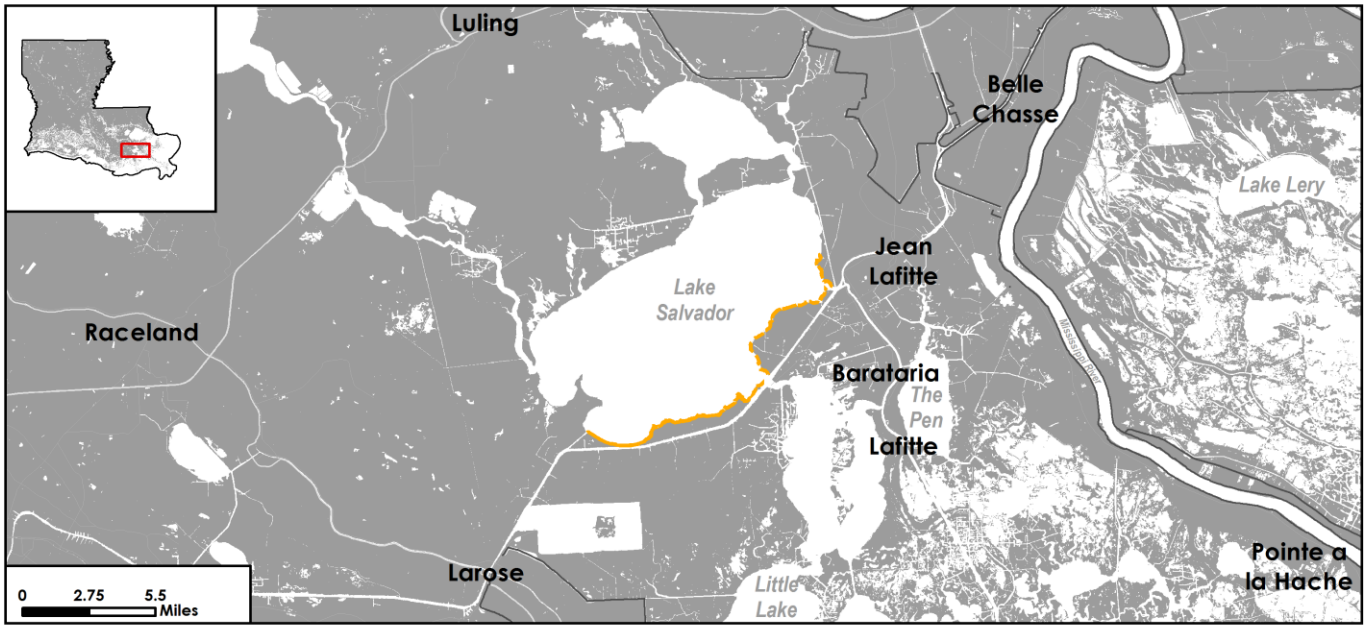


2017 Coastal Master Plan
Not Selected

South Lake Salvador Shoreline Protection

Shoreline Protection

Project ID: 002.SP.107



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 82,300 feet of the southern shore of Lake Salvador from Catahoula Bay to the northeast of Bayou Villars to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish; Lafourche Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

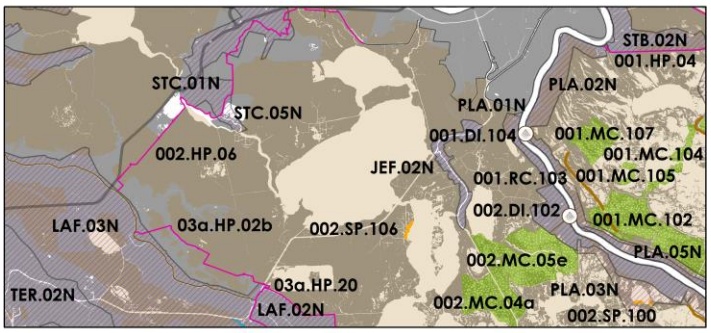
	Estimated Cost
Planning/Engineering & Design	$5,400,000
Construction	$68,000,000
Operations & Maintenance	$85,900,000
Total	**$159,300,000**

Land Area Built or Maintained*

Near Term (Year 20)	253 acres
Long Term (Year 50)	155 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



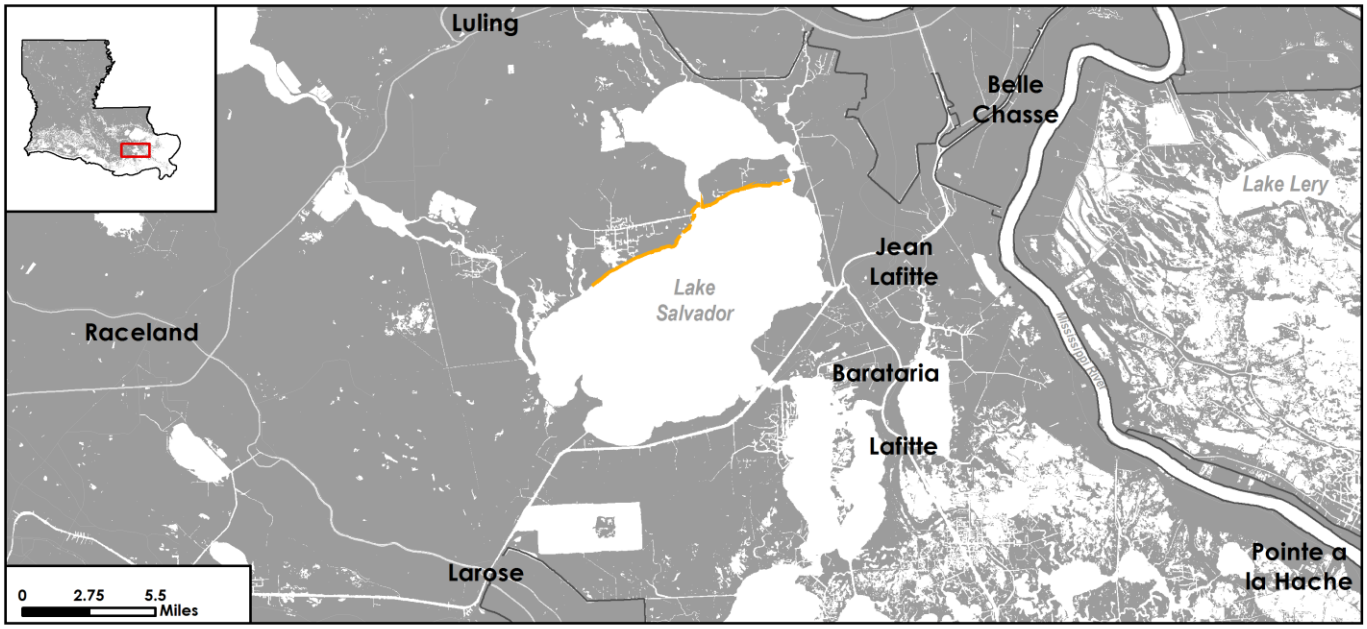
2017 Coastal Master Plan

Not Selected

Lake Salvador Shoreline Protection

Shoreline Protection

Project ID: 002.SP.108



Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 50,200 feet of the northern shore of Lake Salvador from Baie du Cabanage to Bayou Bardeaux to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. Charles Parish

Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 3 years.

Project Cost Estimate

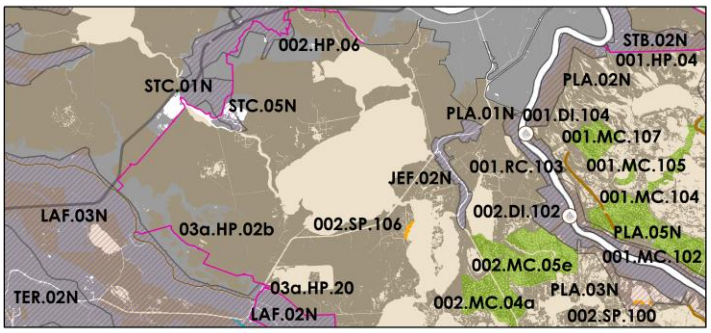
	Estimated Cost
Planning/Engineering & Design	$3,300,000
Construction	$41,700,000
Operations & Maintenance	$52,800,000
Total	**$97,800,000**

Land Area Built or Maintained*

Near Term (Year 20)	9 acres
Long Term (Year 50)	2 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan



2017 Coastal Master Plan

Not Selected

Lac Des Allemands Shoreline Protection

Shoreline Protection

Project ID: 002.SP.109

Description

Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 5,800 feet of the western shore of Lac Des Allemands from Fausse Pointe to Pointe aux Herbes to preserve shoreline integrity and reduce wetland degradation from wave erosion.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

St. John Parish

Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

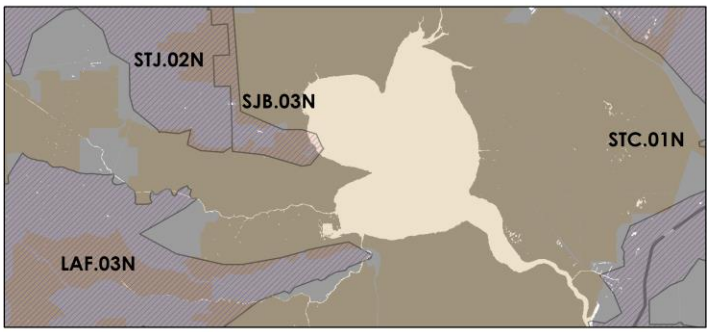
	Estimated Cost
Planning/Engineering & Design	$400,000
Construction	$5,100,000
Operations & Maintenance	$6,900,000
Total	**$12,400,000**

Land Area Built or Maintained*

Near Term (Year 20)	0 acres
Long Term (Year 50)	-273 acres

**Based on the high environmental scenario.*

Other Nearby Projects in the Master Plan

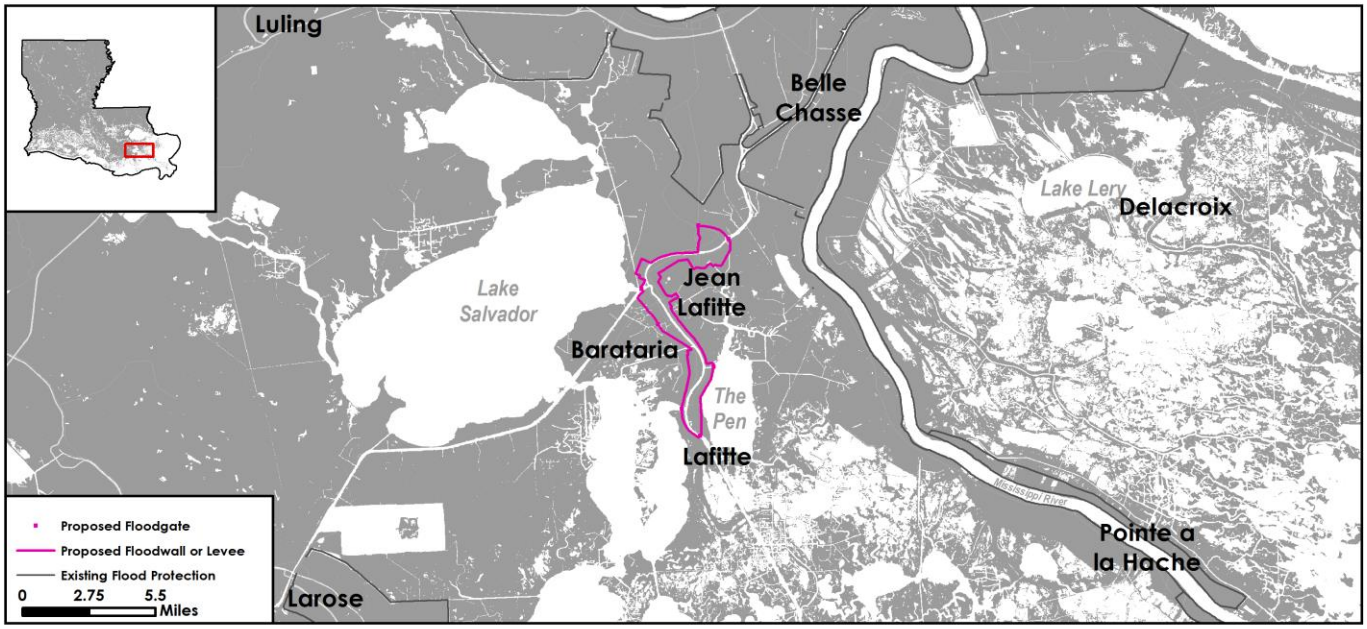


2017 Coastal Master Plan
Not Selected

Lafitte Ring Levee

Structural Protection

Project ID: 002.HP.07



Description

Construction of a levee to an elevation of 16 feet NAVD88 around Lafitte. Project features include 117,500 feet of earthen levee, 30,100 feet of T-wall, (3) 150-foot barge gates, (2) 30-foot barge gates, (1) 56-foot barge gate, and (1) 40-foot swing gate.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Jefferson Parish

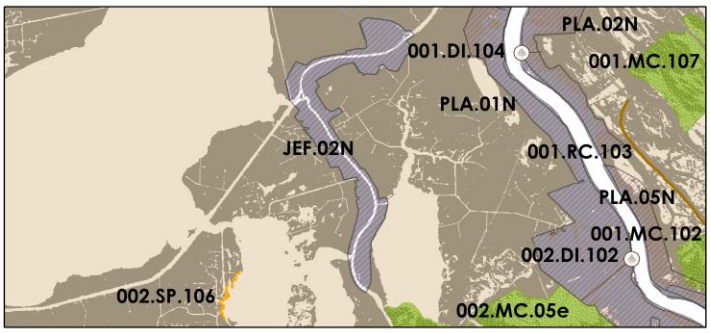
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$151,500,000
Construction	$1,046,800,000
Operations & Maintenance	$24,100,000
Total	**$1,222,400,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	4,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	41%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	258

2017 Coastal Master Plan
Not Selected

Lafitte Ring Levee

Structural Protection

Project ID: 002.HP.07

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$387 M	-	-
25	$1,727 M	$1,600 M	**$126 M**
50	$5,379 M	$5,265 M	**$115 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	6
Government/Military	-	5
Electric Power Substation	1	64
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	-	13
Electric Power Plant	-	42
Port	-	3
Petroleum Pump Station	-	12
Refinery	-	7
Water and Sewer	-	14
Strategic Petroleum Reserve	-	-
Total	**1**	**167**

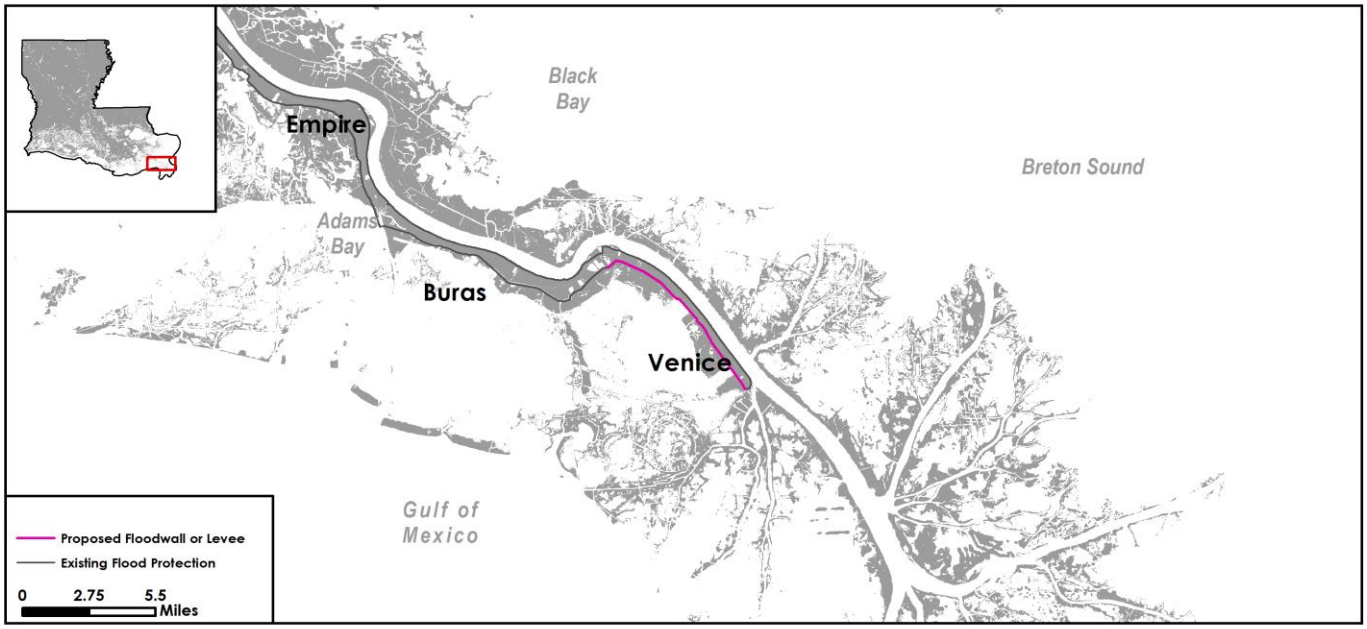
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Jefferson - Grand Isle	$56 M	$57 M	$56 M	$59 M	$89 M	$59 M
Jefferson - Lafitte/Barataria	$1,609 M	$22 M	$1,633 M	$1,098 M	$1,655 M	$1,484 M
Jefferson - Marrero/Gretna	$104 M	$102 M	$302 M	$629 M	$15,401 M	$13,443 M
Lafourche - Lower	$11 M	$11 M	$11 M	$11 M	$11 M	$11 M
Lafourche - Raceland	$17,729 M	$17,651 M	$18,972 M	$18,855 M	$21,868 M	$21,890 M
Plaquemines - Belle Chasse	< $1 M	< $1 M	< $1 M	< $1 M	$2 M	$671 M
Plaquemines - Grand Bayou	$99 M	$97 M	$100 M	$97 M	$100 M	$97 M
Plaquemines - West Bank	$2,169 M	$2,140 M	$2,270 M	$2,249 M	$2,297 M	$2,277 M
St. Charles - Salvador	$138 M	$139 M	$140 M	$140 M	$143 M	$143 M
Total	**$21,917 M**	**$20,219 M**	**$23,486 M**	**$23,138 M**	**$41,566 M**	**$40,076 M**

Fort Jackson to Venice

Structural Protection

Project ID: 002.HP.100



Description

Construction of a 43,900-foot levee to an elevation of 18 feet NAVD88 between Fort Jackson and Venice for storm surge risk reduction.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

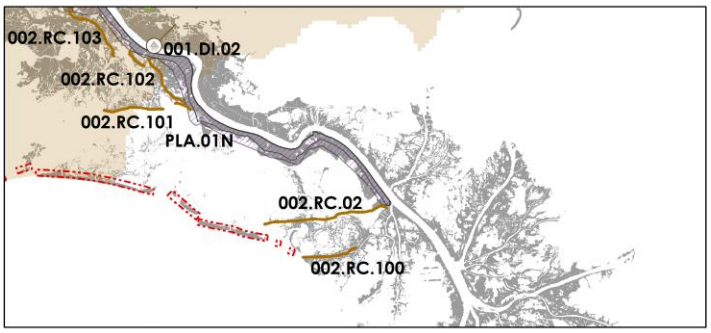
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$8,000,000
Construction	$55,200,000
Operations & Maintenance	$26,000,000
Total	**$89,200,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	1,100
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	50%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	1

2017 Coastal Master Plan

Not Selected

Fort Jackson to Venice

Structural Protection

Project ID: 002.HP.100

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$79 M	-	-
25	$223 M	$222 M	**$1 M**
50	$392 M	$385 M	**$7 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	3
Government/Military	-	2
Electric Power Substation	-	11
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	4
Electric Power Plant	-	9
Port	-	1
Petroleum Pump Station	-	3
Refinery	-	3
Water and Sewer	-	3
Strategic Petroleum Reserve	-	-
Total	**-**	**39**

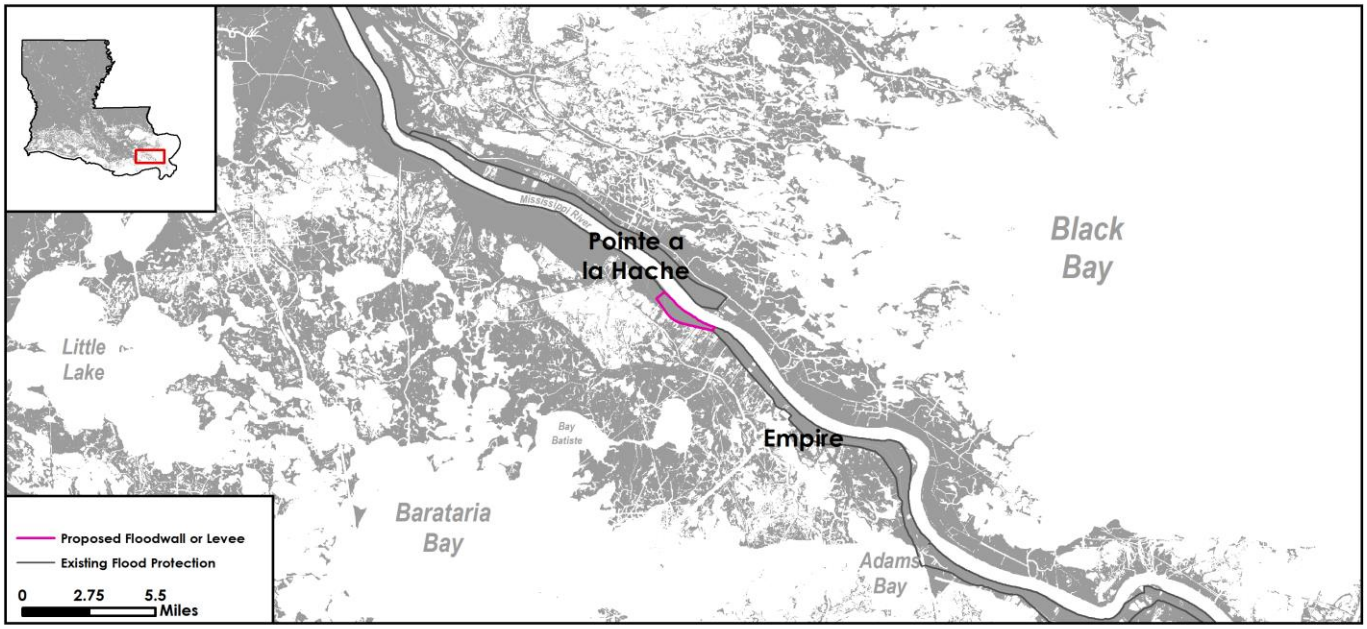
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Plaquemines - Grand Bayou	$272 M	$270 M	$272 M	$271 M	$272 M	$271 M
Plaquemines - Phoenix/Pointe A La Hache	$2 M	$2 M	$2 M	$2 M	$2 M	$2 M
Plaquemines - West Bank	$3,570 M	$3,560 M	$3,684 M	$3,670 M	$3,716 M	$3,697 M
Total	**$3,843 M**	**$3,832 M**	**$3,957 M**	**$3,942 M**	**$3,990 M**	**$3,969 M**

St. Jude to City Price

Structural Protection

Project ID: 002.HP.101



Description

Construction of a 32,000-foot earthen levee to an elevation of 22.5 feet NAVD88 between St. Jude and City Price for storm surge risk reduction.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

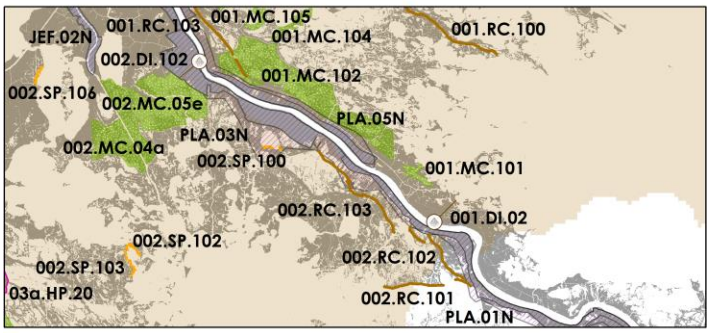
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 1 year.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$9,400,000
Construction	$65,200,000
Operations & Maintenance	$26,700,000
Total	**$101,300,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	400
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	66%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	2

2017 Coastal Master Plan

Not Selected

St. Jude to City Price

Structural Protection

Project ID: 002.HP.101

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$5 M	-	-
25	$27 M	$25 M	**$1 M**
50	$50 M	$48 M	**$1 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	1
Government/Military	-	-
Electric Power Substation	-	2
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	-
Manufacturing/Chemical	-	-
Electric Power Plant	-	-
Port	-	-
Petroleum Pump Station	-	-
Refinery	-	-
Water and Sewer	-	-
Strategic Petroleum Reserve	-	-
Total	**-**	**3**

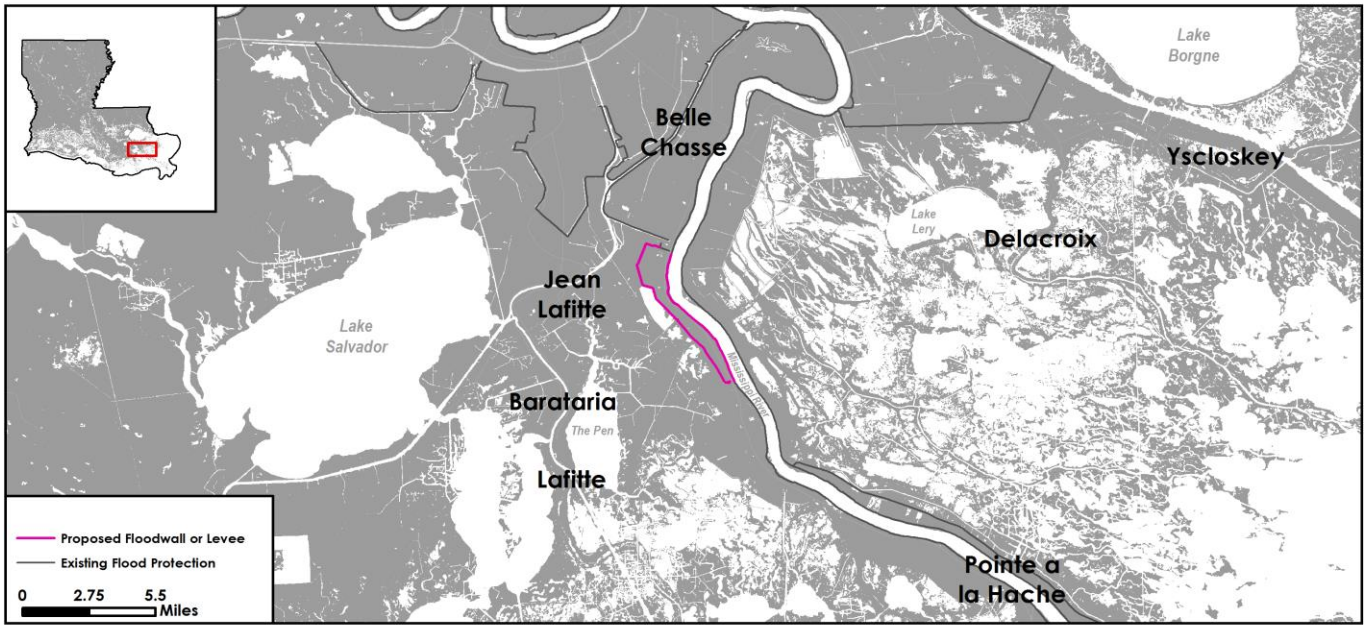
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Plaquemines - Grand Bayou	$6 M	$6 M	$6 M	$6 M	$6 M	$6 M
Plaquemines - Phoenix/Pointe A La Hache	$194 M	$192 M	$195 M	$192 M	$195 M	$192 M
Plaquemines - West Bank	$491 M	$484 M	$503 M	$495 M	$508 M	$497 M
Total	**$692 M**	**$681 M**	**$704 M**	**$693 M**	**$709 M**	**$695 M**

Oakville to La Reussite

Structural Protection

Project ID: 002.HP.102



Description

Construction of a levee to an elevation between 10.5 and 22 feet NAVD88 between Oakville and La Reussite. Project features approximately 56,600 feet of earthen levee and approximately 21,100 feet of T-wall constructed to 23 feet NAVD88.

Scale of Influence

Local Sub-basin Basin Regional

Project Location

Plaquemines Parish

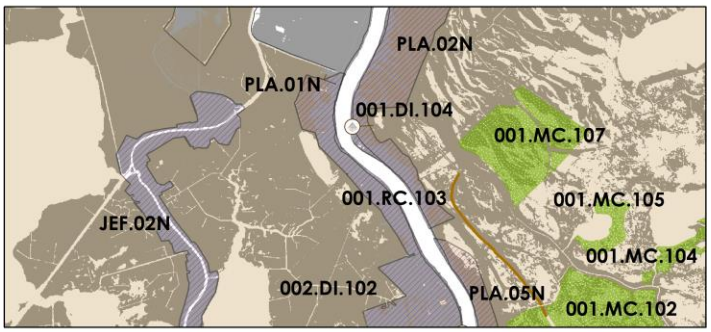
Project Duration

Planning, Engineering, and Design is estimated to take 2 years.
Construction is estimated to take 2 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$37,600,000
Construction	$260,100,000
Operations & Maintenance	$31,200,000
Total	**$328,900,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	2,700
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	22%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	6

2017 Coastal Master Plan

Not Selected

Oakville to La Reussite

Structural Protection

Project ID: 002.HP.102

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$436 M	-	-
25	$1,793 M	$1,791 M	**$2 M**
50	$5,614 M	$5,607 M	**$6 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	7
Government/Military	-	5
Electric Power Substation	-	74
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	-	21
Electric Power Plant	-	52
Port	-	3
Petroleum Pump Station	-	11
Refinery	-	9
Water and Sewer	-	14
Strategic Petroleum Reserve	-	-
Total	**-**	**197**

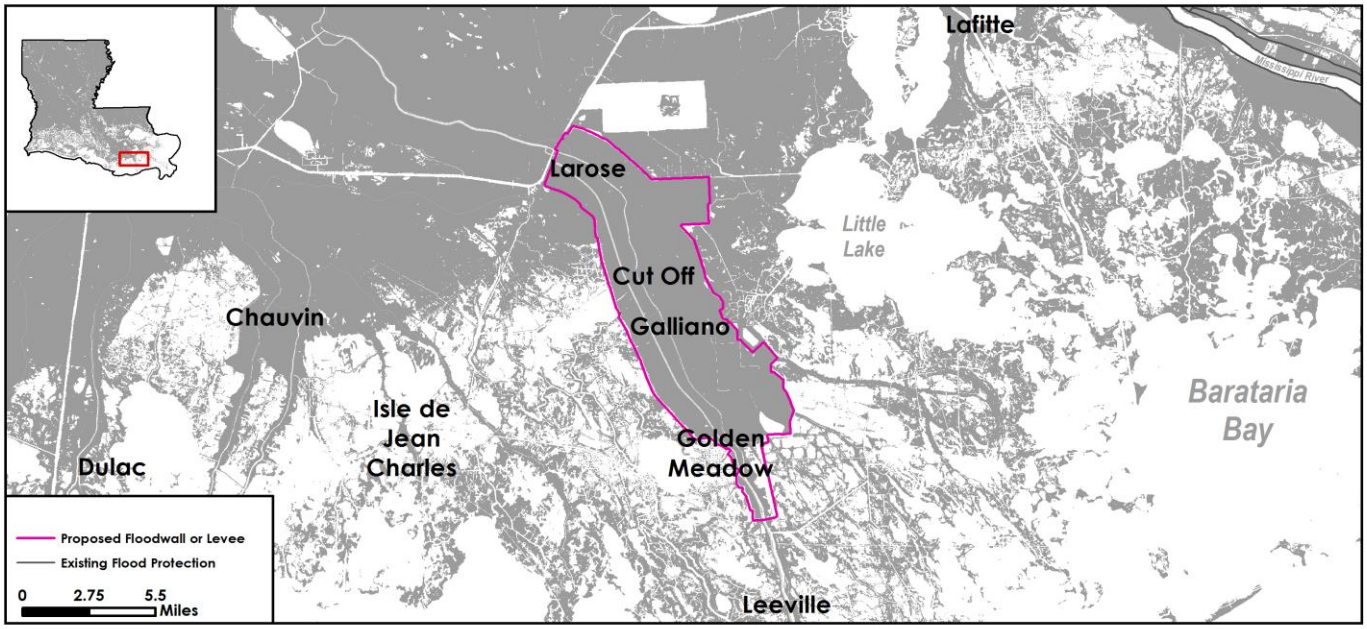
Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Jefferson - Grand Isle	$56 M	$56 M	$56 M	$56 M	$89 M	$56 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,608 M	$1,633 M	$1,632 M	$1,655 M	$1,654 M
Jefferson - Marrero/Gretna	$104 M	$102 M	$302 M	$309 M	$15,401 M	$13,869 M
Lafourche - Raceland	$17,729 M	$17,804 M	$18,972 M	$19,024 M	$21,868 M	$21,958 M
Plaquemines - Belle Chasse	< $1 M	< $1 M	< $1 M	< $1 M	$2 M	$25 M
Plaquemines - Braithwaite	$331 M	$328 M	$333 M	$330 M	$336 M	$333 M
Plaquemines - Grand Bayou	$106 M	$106 M	$106 M	$107 M	$106 M	$107 M
Plaquemines - Phoenix/Pointe A La Hache	$200 M	$198 M	$201 M	$198 M	$201 M	$198 M
Plaquemines - West Bank	$1,547 M	$1,555 M	$1,637 M	$1,637 M	$1,658 M	$1,665 M
St. Charles - Salvador	$138 M	$138 M	$140 M	$142 M	$143 M	$143 M
Total	**$21,821 M**	**$21,895 M**	**$23,380 M**	**$23,435 M**	**$41,458 M**	**$40,008 M**

Larose to Golden Meadow

Structural Protection

Project ID: 03a.HP.101



Description

Improvements to the existing Larose to Golden Meadow levee system, including raising to an elevation between 12 and 21 feet NAVD88 and incorporating wave and stability berms into the alignment. Project features approximately 249,900 feet of earthen levee and approximately 6,700 feet of T-wall.

Scale of Influence

Local | **Sub-basin** | Basin | Regional

Project Location

Lafourche Parish

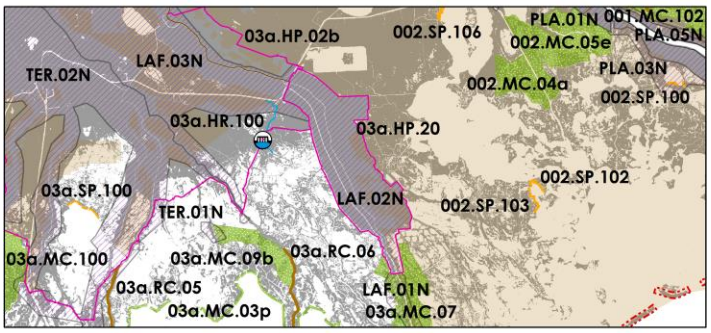
Project Duration

Planning, Engineering, and Design is estimated to take 3 years.
Construction is estimated to take 7 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	$305,200,000
Construction	$1,583,900,000
Operations & Maintenance	$8,900,000
Total	**$1,898,000,000**

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population *U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)*	21,900
Percent of Population who are Low-to-Moderate Income *American Community Survey (2006 - 2010)*	43%
Number of Severe Repetitive Loss Properties *Governor's Office of Homeland Security (2015)*	32

2017 Coastal Master Plan
Not Selected

Larose to Golden Meadow

Structural Protection

Project ID: 03a.HP.101

Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	*FWOA*	*FWP*	*Difference*
0	$1,184 M	-	-
25	$4,016 M	$3,854 M	**$162 M**
50	$11,472 M	$10,671 M	**$801 M**

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	*Protected*	*Total*
Airport Facility	-	-
Gas Processing	-	18
Government/Military	-	4
Electric Power Substation	1	80
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	-	22
Electric Power Plant	-	54
Port	-	5
Petroleum Pump Station	-	17
Refinery	-	13
Water and Sewer	1	15
Strategic Petroleum Reserve	-	-
Total	**2**	**229**

Table 3: Economic Damage by Return Period at Year 50

Risk Region	*50 Year*		*100 Year*		*500 Year*	
	FWOA	*FWP*	*FWOA*	*FWP*	*FWOA*	*FWP*
Jefferson - Grand Isle	$1,681 M	$1,681 M	$1,689 M	$1,689 M	$1,731 M	$1,764 M
Jefferson - Lafitte/Barataria	$1,609 M	$1,612 M	$1,633 M	$1,635 M	$1,655 M	$1,655 M
Lafourche - Larose/Golden Meadow	$9,480 M	$4 M	$9,657 M	$320 M	$9,711 M	$923 M
Lafourche - Lower	$559 M	$641 M	$563 M	$642 M	$564 M	$642 M
Lafourche - Raceland	$23,892 M	$23,937 M	$25,279 M	$25,410 M	$28,269 M	$28,516 M
Plaquemines - Grand Bayou	$263 M	$261 M	$264 M	$262 M	$264 M	$262 M
St. Charles - Salvador	$138 M	$138 M	$140 M	$140 M	$143 M	$141 M
Terrebonne - Houma	$87,756 M	$87,254 M	$90,908 M	$90,392 M	$92,087 M	$91,545 M
Terrebonne - Lower	$1,166 M	$1,159 M	$1,180 M	$1,172 M	$1,192 M	$1,185 M
Total	**$126,543 M**	**$116,687 M**	**$131,312 M**	**$121,661 M**	**$135,616 M**	**$126,633 M**