



Terrebonne Parish Coastal Projects

PROJECTS IN CONSTRUCTION

Morganza to the Gulf (TE-0064)

STATE and Surplus - Estimated Cost \$177,003,835

This project is designed to provide 100-year protection levels along the federally authorized Morganza to the Gulf alignment in Terrebonne and parts of Lafourche parishes. The project consists of the construction of earthen levees and t-walls, navigation structures, water control structures, and floodgates.

LaCache Pump Station

Surplus – Estimated Cost \$2,000,000

This project provides upgrades to the existing pump station at Bayou La Cache operated by the Terrebonne Levee & Conservation District in Terrebonne Parish.

Little Bayou L’Bleu Structure (SLLD)

GOMESA – Total Cost \$1,300,000

Construction of a water control structure on Little Bayou L’Bleu along the Reach L alignment of the Morganza to the Gulf hurricane protection system.

PROJECTS IN ENGINEERING AND DESIGN

Increase Atchafalaya Flow to Terrebonne (TE-0110)

NFWF – Estimated Total Cost \$415.2 million

This project seeks to utilize freshwater and sediment from the Atchafalaya River in order to build, sustain, and maintain wetlands within the Terrebonne Basin.

Houma Navigation Canal Lock Complex (TE-0113)

GOMESA - State - Estimated Cost \$357.8 million; GOMESA \$57.4 million/State \$300.4 million

The Houma Navigation Canal Lock Complex (TE-113) is a part of the Morganza to the Gulf of Mexico Hurricane Protection Project. The structure will provide storm surge protection, increase freshwater distribution, and provide navigation along the Houma Navigation Canal.

Island Road Marsh Creation and Nourishment (TE-0117)

CWPPRA - Estimated Cost \$40 million

The proposed project's primary feature is 364 acres of created saline marsh and 19 acres of nourished saline marsh adjacent to Island Road. Sediment will be hydraulically pumped from a borrow source near Lake Felicity. Half of the newly constructed marsh (182 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation. The project would result in an approximate net increase of 312 acres over the 20-year project life.

Bayou DeCade Ridge and Marsh Creation (TE-0138)

CWPPRA - Estimated Cost \$34.4 million

The proposed project's primary feature is to restore 11,726 feet of Bayou DeCade northern ridge, create approximately 398 acres, and nourish approximately 107 acres of intermediate marsh adjacent to Lake DeCade. The ridge will be constructed to a crown elevation of +5.0 feet NAVD88, 15 feet wide, and will be planted on the crown and slopes. The ridge will be constructed by bucket dredging material from inside the marsh creation area and/or within Bayou DeCade. Sediment for marsh creation will be hydraulically pumped from a borrow source in Lake DeCade.

Terrebonne Basin Ridge and Marsh Creation – Bayou Terrebonne Increment (TE-0139)

NRDA - Estimated Cost \$126 million

The Bayou Terrebonne Increment of the Terrebonne Basin Ridge and Marsh Creation Project is a ridge restoration and marsh creation project located in western Terrebonne Parish. The ridge restoration feature of this project will restore 126 acres of earthen ridge, and the marsh creation feature of this project will dredge sediment from offshore to create 1,370 acres of marsh. This increment is part of large-scale restoration strategy for the Terrebonne Basin that will rebuild ridge and intertidal marsh habitat that has degraded due, in part, to the Deepwater Horizon oil spill.

Terrebonne Basin Barrier Island and Beach Nourishment (TE-0143)

NFWF - Estimated Cost \$150 million

This project includes the engineering, design, and construction of beach, dune, and marsh habitat within the Terrebonne Basin barrier shoreline system with restoration work on West Belle Headland, Timbalier Island, and Trinity Island.

NRDA REC USE PROJECTS

Island Road Fishing Piers (TE-0144)

CPRA - Estimated Cost \$3,000,000

This project involves the construction of five small parking lots, or vehicle pull overs, with adjoining fishing piers along Island Road in the Pointe-aux-Chenes Wildlife Management Area.

Pointe-aux-Chenes WMA Enhancements (TE-0146)

CPRA - Estimated Cost \$5,012,000

The project is proposing to develop four recreational enhancements within the Pointe-aux-Chenes Wildlife Management Area. These enhancements include pirogue pullovers, pirogue launch, fishing piers, and Island Road boat launch renovation.

Statewide Artificial Reefs

NRDA – LDWF – Estimated Cost \$6,000,000

This project enhances eleven multipurpose reef sites across coastal Louisiana.

COMPLETED PROJECTS

Projects Completed in 2018

Falgout Canal Road Levee (TE-0063)

CDBG - Total Cost \$24,803,191 / State Dollars \$3,300,000

This project involves constructing the 2.585-mile Segment 1 of Reach E of the Falgout Canal Road Levee (a portion of the federally authorized Morganza to the Gulf alignment) using CDBG funding. The

larger project the Reach E levee supports will provide protection to the Bayou Dularge communities, encompassing over 2,30

Lost Lake Marsh Creation and Hydrologic Restoration (TE-0072)

CWPPRA- Total Cost \$35,876,728 / State Dollars \$5,194,009

This project involves the creation of approximately 465 acres of marsh along the north and west shorelines of Lost Lake in Terrebonne Parish using sediment dredged from Lost Lake. Other project features include 30,000 linear feet (22 acres) of earthen terraces north of Bayou DeCade and the installation of four variable-crest weirs along Carencro Bayou and Rice Bayou to restore the hydrology within the western marsh creation cell.

NRDA Caillou Lake Headlands (TE-0100)

NRDA - Total Cost \$118,340,766 / State Dollars \$110,106,000

This project involves the creation of 170 acres of marsh habitat and 917 acres of dune and beach habitat on Whiskey Island in Terrebonne Parish using material dredged from Ship Shoal to restore the island's geomorphologic form and ecologic function.

HNC Deepening Section 2013 Study (TE-0108)

STATE - Total Cost \$686,725 / State Dollars \$686,725

This USACE-led project was partially funded by DOTD and evaluated the deepening of the Houma Navigation Canal to improve navigation.

Projects Completed in 2016

Breach Management Plan (BA-0170)

STATE - Total Cost \$471,340 / State Dollars \$7,106,511

This project assisted CPRA's Engineering and Project Management divisions in developing a system-wide program for handling breaching that occurs within the barrier island and headland system of the Louisiana coastline. The analysis area extended eastward from Raccoon Island to Scofield Island within the Terrebonne and Barataria Basins. The project included development of identification, classification, and prioritization methodologies with recommendations for breach prevention and response measures.

Projects Completed in 2015

CIAP Performance Evaluation Borrow Area Management and Monitoring (LA-0012-7)

CIAP - Total Cost \$813,512 / State Dollars \$813,512

The Borrow Area Monitoring and Management (BAMM) performance evaluation involved the collection of geophysical, geotechnical, and water quality data from several borrow areas to understand the evolution of borrow pits for restoration projects (inshore, nearshore, and offshore) over time, with a particular focus on the infilling (rates and types of sediment) and gradient of the pit-slopes as well as potential dredge impacts.

Projects Completed in 2014

GIWW Bank Restoration of Critical Areas in Terrebonne (TE-0043)

CWPPRA - Total Cost \$13,022,245 / State Dollars \$1,953,337

This project constructed 10,584 feet of rock dike shoreline protection to protect a segment of deteriorated bank along the Gulf Intracoastal Waterway (GIWW) in Terrebonne Parish. The objective of

this project was to protect critically eroding portions of the southern bank of the GIWW to protect the adjacent fragile interior marshes.

Projects Completed in 2013

Raccoon Island Shoreline Protection/Marsh Creation (TE-0048)

CWPPRA - Total Cost \$21,364,793 / State Dollars \$3,017,219

The purpose of the project was to protect the existing southern shoreline of the Raccoon Island in Terrebonne Parish by constructing eight new rock breakwater and the creation of 60 acres of marsh on the land side of the island using 735,000 cubic yards of sediment dredged from the Gulf of Mexico.

Projects Completed in 2011

Penchant Basin Natural Resources Plan, Increment 1 (TE-0034)

CWPPRA - Total Cost \$18,878,814 / State Dollars \$2,037,511

The objective of the project was to divert freshwater flow within the Penchant Basin in Terrebonne Parish from northwest to southeastern sub-project areas coupled with protection measures to reduce inundation of fragile marsh areas in overall Penchant Basin in Terrebonne Parish.

South Lake Decade Freshwater Introduction (TE-0039)

CWPPRA - Total Cost \$6,473,826 / State Dollars \$2,268,000

This project included the construction of a water control structure in the southern bank of Lake DeCade in Terrebonne Parish. This structure is designed to increase the amount of Atchafalaya River water and sediment introduced into the marshes south of the lake. In addition, shoreline protection was implemented adjacent to the proposed structure, and a weir in Lapeyrouse Bayou was removed.

GIWW Bank Restoration (CIAP) of Critical Areas of Terrebonne (TE-0043-EB)

CIAP - Total Cost \$7,274,676 / State Dollars \$7,274,676

The project objective was to restore critical lengths of deteriorated channel banks along the Gulf Intracoastal Waterway (GIWW) in Terrebonne Parish and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials. A portion of this project was constructed using CIAP 2007 funds and the remainder of the project received Phase 2 funding through CWPPRA.

Enhancement of Barrier Island Vegetation Demonstration (TE-0053)

CWPPRA - Total Cost \$2,169,264 / State Dollars \$137,890

The goal of this project was to test several technologies or products to enhance the establishment and growth of key barrier island and salt marsh vegetation. The project focused specifically on enhancing the establishment and growth of transplants of both dune vegetation [bitter panicum (*Panicum amarum*) and sea oats (*Uniola paniculata*)] and marsh vegetation [smooth cordgrass (*Spartina alterniflora*) and black mangrove (*Avicennia germinans*)].

Lost Lake Vegetation (TE-0082)

FEDERAL - Total Cost \$161,000 / State Dollars \$161,000

This coastal vegetative planting project was for erosion control and habitat restoration in the Lost Lake area of southwestern Terrebonne Parish.

Projects Completed in 2010

Whiskey Island Back Barrier Marsh Creation (TE-0050)

CWPPRA - Total Cost \$26,831,855 / State Dollars \$3,837,278

This project involved construction of 316 acres of back barrier marsh on Whiskey Island in Terrebonne Parish using 2.5 million cubic yards of sediment dredged from the Gulf of Mexico. Other project features include 5,800 linear feet of tidal creeks, three one-acre tidal ponds, and 13,000 linear feet of sand dune on the gulf side beach shore.

Projects Completed in 2009

North Lake Mechant Landbridge Restoration (TE-0044)

CWPPRA - Total Cost \$40,254,428 / State Dollars \$34,147,189

The project helped to maintain and restore the North Lake Mechant landbridge in Terrebonne Parish (Lake Mechant north shoreline and the Small Bayou La Pointe Ridge) by creating and nourishing 604 acres of marsh using 5.1 million cubic yards of sediment dredged from North Lake Mechant. Other project features included planting smooth cordgrass (*Spartina alterniflora*) on the shoreline, the construction of various plugs, and repairing a fixed-crest weir along Bayou Raccourci.

Projects Completed in 2008

New Cut Dune and Marsh Restoration (TE-0037)

CWPPRA - Total Cost \$12,869,325 / State Dollars \$1,742,899

The objective of this project was to close the breach between East and Trinity Islands in Terrebonne Parish that was originally created by Hurricane Carmen (1974) and subsequently enlarged by Hurricane Juan (1985) and Hurricane Andrew (1992). The breach was closed by the restoration of about 8,000 linear feet of barrier island using approximately 850,000 cubic yards of sediment dredged from the Gulf of Mexico. Vegetative planting was also performed along with over 17,000 linear feet of sand fencing.

West Lake Boudreaux Shoreline Protection and Marsh Creation (TE-0046)

CWPPRA - Total Cost \$19,143,813 / State Dollars \$2,684,072

The purpose of this project was to create and nourish about 200 acres of marsh along the western shoreline of Lake Boudreaux in Terrebonne Parish to protect the shoreline from erosion due to direct exposure to lake wave energy and to restore interior marsh lost to subsidence and saltwater intrusion.

Chabert Hospital Levee (TE-0084)

STATE - Total Cost \$500,000 / State Dollars \$500,000

These funds were used to partially fund a levee around the Chabert Hospital in Terrebonne Parish.

Projects Completed in 2007

Dedicated Dredging - Point au Fer (LA-0001-F)

STATE - Total Cost \$2,469,250 / State Dollars \$2,469,250

This project created approximately 67 acres of marsh north of Lake DeCade along the western bank of Minors Canal in Terrebonne Parish. The project was implemented through the coastwide State Dedicated Dredging Program.

Lower Petit Caillou (TE-0007-B)

STATE - Total Cost \$1,536,084

The objective of this project is to decrease saltwater intrusion into the project area by re-routing freshwater discharge from the Lashbrook pumping station through the project area prior to entry into Lake Boudreaux.

Terrebonne Bay Shore Protection Demonstration (TE-0045)

CWPPRA - Total Cost \$3,968,768 / State Dollars \$407,815

This project evaluated the performance of several different shoreline protection methods, including concrete mats, artificial oyster reefs, and A-Jacks.

Bush Canal and Bayou Terrebonne Bank Stabilization (TE-0125)

CIAP - Total Cost \$3,700,000

This project reconstructed the south bank of Bush Canal using material dredged from the canal. The restored bank-line was then covered with geotextile fabric and armored with stone rip-rap. The rebuilt bank-line will help to diminish storm surge as well as reduce saltwater intrusion. This project was funded by the CIAP of 2001.

2017 MASTER PLAN PROJECTS

Restoration Projects: Year 1-10

Central Terrebonne Hydrologic Restoration (03a.HR.02)

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.

Mauvais Bois Ridge Restoration (03a.RC.04)

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.

Bayou Pointe Aux Chenes Ridge Restoration (03a.RC.06)

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.

Atchafalaya River Diversion (03a.DI.05)

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).

Terrebonne Bay Rim Marsh Creation Study (03a.MC.03p)

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

Increase Atchafalaya Flow to Terrebonne (03b.DI.04)

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.

Restoration Projects: Year 11-30

South Terrebonne Marsh Creation (03a.MC.100)

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.

Bayou Dularge Ridge Restoration (03a.RC.02)

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.

North Lake Boudreaux Shoreline Protection (03a.SP.100)

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.

North Terrebonne Bay Marsh Creation - Component B (03a.MC.09b)

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.

North Lake Mechant Marsh Creation (03a.MC.101)

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

Bayou Terrebonne Ridge Restoration (03a.RC.05)

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.

Restoration Projects: Year 31-50

Point Au Fer Island Marsh Creation (03b.MC.09)

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

Risk Reduction Projects: Year 1-30

Bayou Chene (03b.HP.13)

Construction of a structure across Bayou Chene near Amelia.

Terrebonne - Lower Nonstructural Risk Reduction (TER.01N)

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.

Terrebonne - Houma Nonstructural Risk Reduction (TER.02N)

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.

Morganza to the Gulf (03a.HP.02b)

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.