November 2020

Cost figures as of: February 2023

East Catfish Lake Marsh Creation and Shoreline Protection (TE-157)

Project Status

Approved Date: 2020 **Project Area:** 306 acres
Approved Funds: $3.37 M **Total Est. Cost**: $42.2 M
Net Benefit After 20 Years: 248 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 29

Location

The project is located in Region 3, Terrebonne Basin, Terrebonne Parish.

Problems

Significant marsh loss has occurred east and south of Catfish Lake. Causes of marsh loss include the construction of numerous oil/gas canals, subsidence, and sediment deprivation. Between Catfish Lake and the South Lafourche Hurricane Protection Levee, very little marsh remains after the construction of an extensive network of oil/gas canals. Much of the remaining land in this area consists of spoil banks and isolated patches of marsh. From examination of aerial photography, the majority of this loss occurred during the 1960s and 1970s. Based on the hypertemporal analysis conducted by USGS for the extended project boundary, the land loss rate in the project area is -0.86% per year for the period 1984 to 2019. Shoreline erosion rates (1998-2017) range from 10 ft/yr along the eastern lake shoreline to 22ft/yr along the southern lake shoreline.

Restoration Strategy

The primary goal of this project are; 1) restore marsh habitat in the open water areas east and south of Catfish Lake, and 2) restore and protect the eastern and southern Catfish Lake shoreline. The specific goals of this project are; 1) create 235 acres of marsh, 2) nourish 71 acres of marsh, 3) protect the marsh creation cells from shoreline erosion.

Service goals include restoration/protection of habitat for threatened and endangered species and other at-risk species. This project would restore habitat potentially utilized by the black rail, which is proposed for listing as a threatened species. The project could also benefit other species of concern including the saltmarsh topminnow and seaside sparrow.

Sediment from Catfish Lake will be hydraulically dredged and pumped via pipeline to create/nourish 306 acres of marsh. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range. Containment dikes will be constructed around each marsh creation cell. Where practicable, material will be borrowed from perimeter oil/gas canals. Containment dikes will be gapped at the end of construction or by TY3. Approximately 2,566 linear feet of sheet pile wall will also be installed as a containment feature. Approximately 12,479 linear feet of shoreline protection (gabion mattresses) will be installed along the lakeside boundary of the marsh creation cells on the constructed containment dikes.

Progress to Date

The project was approved for Phase I Engineering and Design in January 2020.

The project is on Priority Project List (PPL) 29.

Aerial view of marsh creation project in Terrebonne Basin.

For more information, please contact:

Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100

Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

East Catfish Lake Marsh Creation and Shoreline Protection (TE-157)

Shoreline Protection *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.25 0 0.25 0.5 Kilometers

0.25 0 0.25 0.5 Miles

Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Coastal and Oceans Restoration Branch
Baton Rouge, La.

Background Imagery:
2018 NAIP

Map Date:February 13, 2020
Map ID: USGS-NWRC 2020-11-0013
Data accurate as of: January 30, 2020