October 2002

East Timbalier Island Sediment Restoration, Phase 2 (TE-30)

Project Status

Approved Date: 1994
Project Area: 9,330 acres
Net Benefit After 20 Years: 215 acres
Project Type: Barrier Island Restoration
Cost: $13.8 million
Status: Completed Jan. 2000

Location

The project is located in Lafourche Parish, Louisiana on East Timbalier Island. The island is part of a barrier island chain that separates Terrebonne and Timbalier bays from the Gulf of Mexico. Approximately 400 acres of the island are vegetated while the remainder is composed of tidal flats and shallow, submerged aquatic habitat.

Problems

When this project was first proposed in 1994, the remnants of East Timbalier Island were expected to disintegrate within 11 years. Losing an average of 70 feet per year, the island experienced one of the highest gulf coast erosion rates in Louisiana in the last century. As a barrier island, East Timbalier not only protects Louisiana's coast from hurricanes and storm surges but also lessens the erosive forces of high waves from the Gulf of Mexico as well.

If the island were to be lost, the marshes between Bayou Lafourche and Timbalier Bay would be susceptible to natural forces, and the infrastructure surrounding Port Fourchon would be undermined. In addition, East Timbalier Island supports an abundantly diverse and rich fishery and serves as a prime nesting habitat for many migratory waterfowl.

After dredged sediments were used to create dune and marsh habitats along East Timbalier Island, sand fences and vegetation were placed to stabilize the island's gulf shorelines.

Restoration Strategy

The Louisiana Coastal Wetlands Conservation and Restoration Task Force funded the overall project on two funding cycles (Priority Project List 3 and 4). Construction funds from these two projects were combined into one effort in 1999-2000. The project called for dredging 2.8 million cubic yards of sediment to establish a 200-foot wide dune and a 600-foot wide marsh along the length of the island.

While Phase 2 of the project along the western half of the island did not reconnect the western and eastern portions of the island, it did create 99% of the targeted acreage. It has helped to protect thousands of acres of existing fringing marsh to the north.

Construction funds from this phase of the project were also used for 7,000 feet of rubble mound revetment created to protect the newly created habitats.

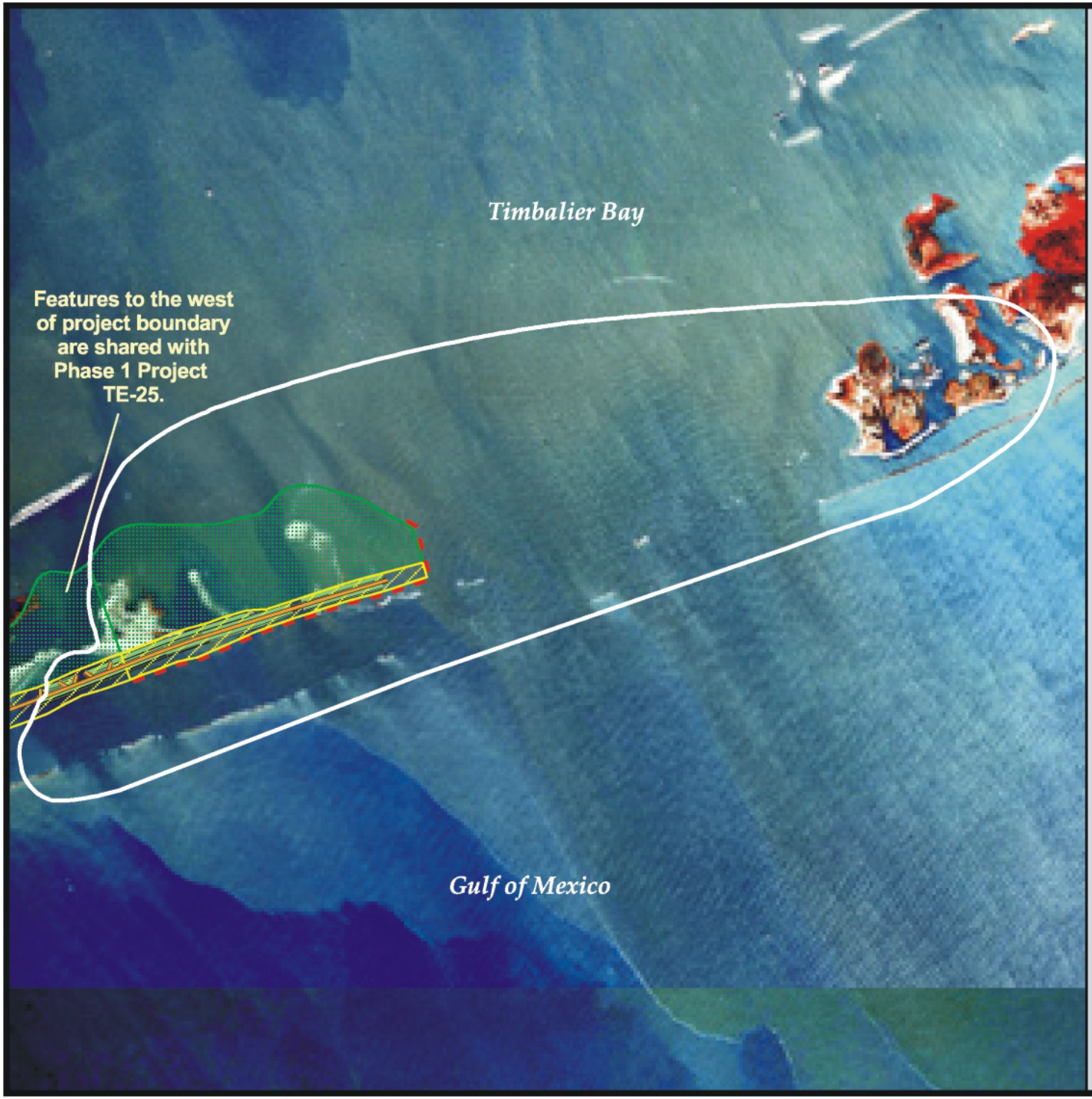
Progress to Date

Since construction, the created habitats are now supporting a range of new, emergent vegetation. Studies and surveys are underway to determine if additional sediments can be placed on the island to create even more habitat. This project is on Priority Project List 4.

For more project information, please contact:

Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 389-0508

Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308



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- Vegetative Plantings
- Sediment Fence
- Shoreline Protection
- Marsh Creation Area
- Seeding Area
- Project Boundary

USGS science for a changing world

N

1000 0 1000 Feet

300 0 300 Meters

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

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