June 2004

New Cut Dune and Marsh Restoration (TE-37)

Project Status

Approved Date: 2000
Cost: $10.3 million
Project Area: 386 acres
Status Engineering and Design
Net Benefit After 20 Years: 102 acres
Project Type: Barrier Island Restoration

Location

New Cut is the breach between East and Trinity Islands in the Isles Dernieres barrier island chain. The cut is bordered on the north by Lake Pelto, on the west by Trinity Island, on the east by East Island and on the south by the Gulf of Mexico, in Terrebonne Parish, Louisiana.

Problems

New Cut was first formed in 1974 when the eastern end of Trinity Island was breached during Hurricane Carmen. This breach was further widened by Hurricane Juan in 1985 and Hurricane Andrew in 1992.

The Isles Dernieres shoreline is one of the most rapidly deteriorating barrier shorelines in the United States. This barrier system is exhibiting a pattern of fragmentation and disintegration. With regard to longshore sediment transport systems or the movement of beach material by waves and currents, the islands have ultimately become sources of sediment themselves leading to an ever-decreasing volume of sediment.

New Cut project area (May 2002).

Restoration Strategy

The purpose of this project is to close the breach between Trinity and East Islands through the direct creation of beach, dune, and marsh habitat (Area A). This project will also lengthen the structural integrity of eastern Isles Dernieres by restoring the littoral drift (i.e., material transported by the longshore current) and adding sediment into the nearshore system (Area B).

The project plans include restoring approximately 9,000 linear feet of barrier island, thereby strengthening the connection between East and Trinity Islands. The typical cross section will include 340 feet of gulf-side berm, 300 feet of dune, 340 feet of barrier flat, and 400 feet of marsh platform. The dune will connect the dune features of East and Trinity Islands.

The project will be planted with species similar to plantings on East and Trinity Islands such as bitter panicgrass (*Panicum amarum)* and marshhay cordgrass (*Spartina patens)* and will use sand fencing to help capture and retain wind-blown sand.

Progress to Date

Phase 2 (construction) funding was approved at the January 2001 Louisiana Coastal Wetlands Conservation and Restoration Task Force meeting. Because of local concerns regarding the originally planned borrow sites, the sponsors are investigating the use of material from alternative borrow sites including Ship Shoal for construction of the project. The portion of Ship Shoal being considered is approximately ten to twelve miles south of the project area. Design of the project is being reevaluated. This project is on Priority Project List 9.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-6722

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

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Project Boundary

USGS
science for a changing world

N

0.5 0 0.5 1 1.5 Miles

0.5 0 0.5 1 1.5 Kilometers

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

Background Imagery:
2002 Thematic Mapper Imagery

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