October 2002
Cost figures as of: March 2013

Vegetative Plantings, Timbalier Island Demonstration (TE-18)

Project Status

Approved Date: 1991 **Project Area:** N/A
Approved Funds: $0.30 M **Total Est. Cost:** $0.30 M
Net Benefit After 20 Years: N/A
Status: Completed July 1996
Project Type: Demonstration: Barrier Island Restoration and Vegetative Planting
PPL #: 1

Location

The project features are built in sections in various locations along Timbalier Island, which is located about 36 miles southeast from Cocodrie in Terrebonne Parish, Louisiana. Timbalier Island is bordered by Little Pass Timbalier to the east, Caillou Pass to the north, Cat Island Pass to the west, and the Gulf of Mexico to the south.

Problems

Timbalier Island has decreased in size by roughly 60% over the last century, and between 1978 and 1988, the island's width also decreased by 50%. In addition, its highest dunes are less than seven feet above sea level, making the island susceptible to wave erosion, storm overwash and breaching.

Restoration Strategy

Sand dune fencing segments totaling approximately 7,390 linear feet was constructed to trap sand and increase elevation on several bare-beach or overwash sites. A total of 18,900 marshhay cordgrass (*Spartina patens*) and Atlantic panicgrass (*Panicum amarum* var. *amarulum*) plants were planted the following year on the created dunes in selected segments.

The project's goals are to help maintain the integrity of the barrier island through use of the sand fencing and vegetation to help prevent loss of elevation, breaching of the island and erosion from wave action, especially during tropical storms and hurricanes.

After one year of monitoring vegetation is becoming established on dunes.

Progress to Date

Dune height increased at an average rate of 0.9 feet/year during the first 2 years after construction. However, since 1995, the project has been impacted by numerous storm events. By 1999, the westernmost site was the only segment to remain undamaged.

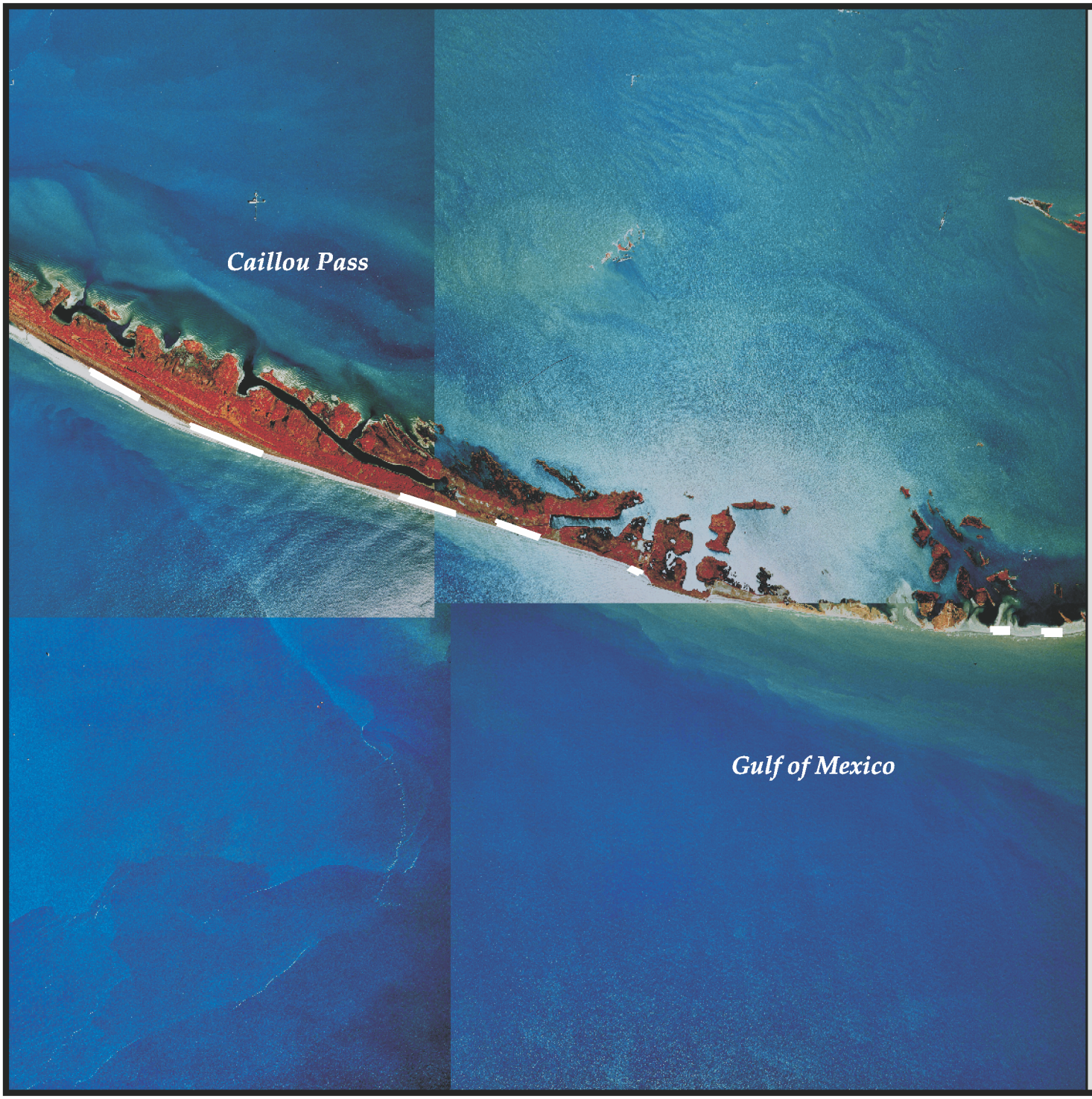
Preliminary monitoring indicated good initial survival of both Atlantic panicgrass and marshhay cordgrass plantings. Although information from the three-year monitoring period showed reduced survival on the gulfside plots of the remaining dune segment, coverage increased as other species naturally colonized the site.

The final monitoring period ended in the fall of 2001. This project is on Priority Project List 1.

For more project information, please contact:

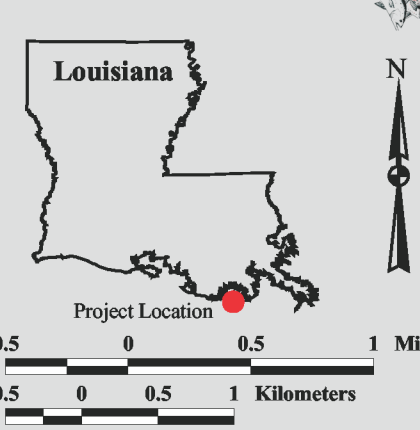
Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

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



Timbalier Island Planting Demonstration (TE-18)

Project boundary includes one or more of the following treatments: sediment fences, vegetative plantings, or sediment fences with vegetative plantings



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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