rev. April 2008
Cost figures as of: March 2013

Thin Mat Floating Marsh Enhancement Demonstration (TE-36)

Project Status

Approved Date: 1998 **Project Area:** N/A
Approved Funds: $0.53 M **Total Est. Cost:** $0.53 M
Net Benefit After 20 Years: N/A
Status: Completed May 2001
Project Type: Demonstration: Marsh Enhancement
PPL #: 7

Location

The project is located in the upper Bayou Penchant Basin in northwestern Terrebonne Parish, Louisiana.

Problems

The Penchant Basin floating marshes are among the most critically degraded wetlands in Louisiana in recent years. There is no direct evidence explaining why areas with historically thick-mat maidencane (*Panicum hemitomon*) floating marsh have converted to more fragile, spike rush-(*Elocharis parvula*) dominated, thin mat floating marsh. Due to lack of sufficient studies about the effects of water and sediment moving through the floating marshes, there is no definitive understanding of how to go about preserving and restoring them.

Restoration Strategy

This demonstration project (in conjunction with the existing CWPPRA project, Penchant Basin Natural Resources Plan, Increment 1 [TE-34a]) evaluated specific techniques for enhancing existing thin-mat floating marsh, or flotant. Additionally, the effects of sediment availability and water movement on thin-mat were also studied.

The goal of this project was to induce the development of thick-mat, continuously floating marsh from a thin-mat flotant at four sites using various combinations of treatments that include fertilization, herbivory reduction, and the transplanting of healthy, thick-mat marsh plugs into the thin-mat flotant.

Project implementation increased knowledge about floating marshes and helped identify management techniques for potential large-scale applications.

Plugs are harvested from healthy, thick-mat maidencane floating marsh for transplanting into thin-mat floating marsh.

Progress to Date

This project has been completed. Results have shown that stronger thick-mat floating marsh can be successfully generated by transplanting maidencane plugs into existing thin-mat floating marsh, but only when protected from grazing by nutria. Also, while fertilization initially stimulated aboveground coverage of maidencane, by the end of the project, it was found that there was no statistically significant difference between fertilized and non-fertilized treatments. Two specific recommendations made at the project's conclusion are 1) continue and enlarge the current CWPPRA nutria control program, and develop improved population control of nutria; and 2) develop methods for large-scale planting or transplanting of maidencane into degraded areas, such as thin-mat flotant. This could include spreading viable plant material or seeds by aerial application or from vessels along waterways. The final report is available on the CWPRRA website at: http://data.lacoast.gov/reports/co/TE-36%20FINAL%20REPORT.pdf. This project is on Priority Project List 7.

For more project information, please contact:

Federal Sponsor:
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Local Sponsor:
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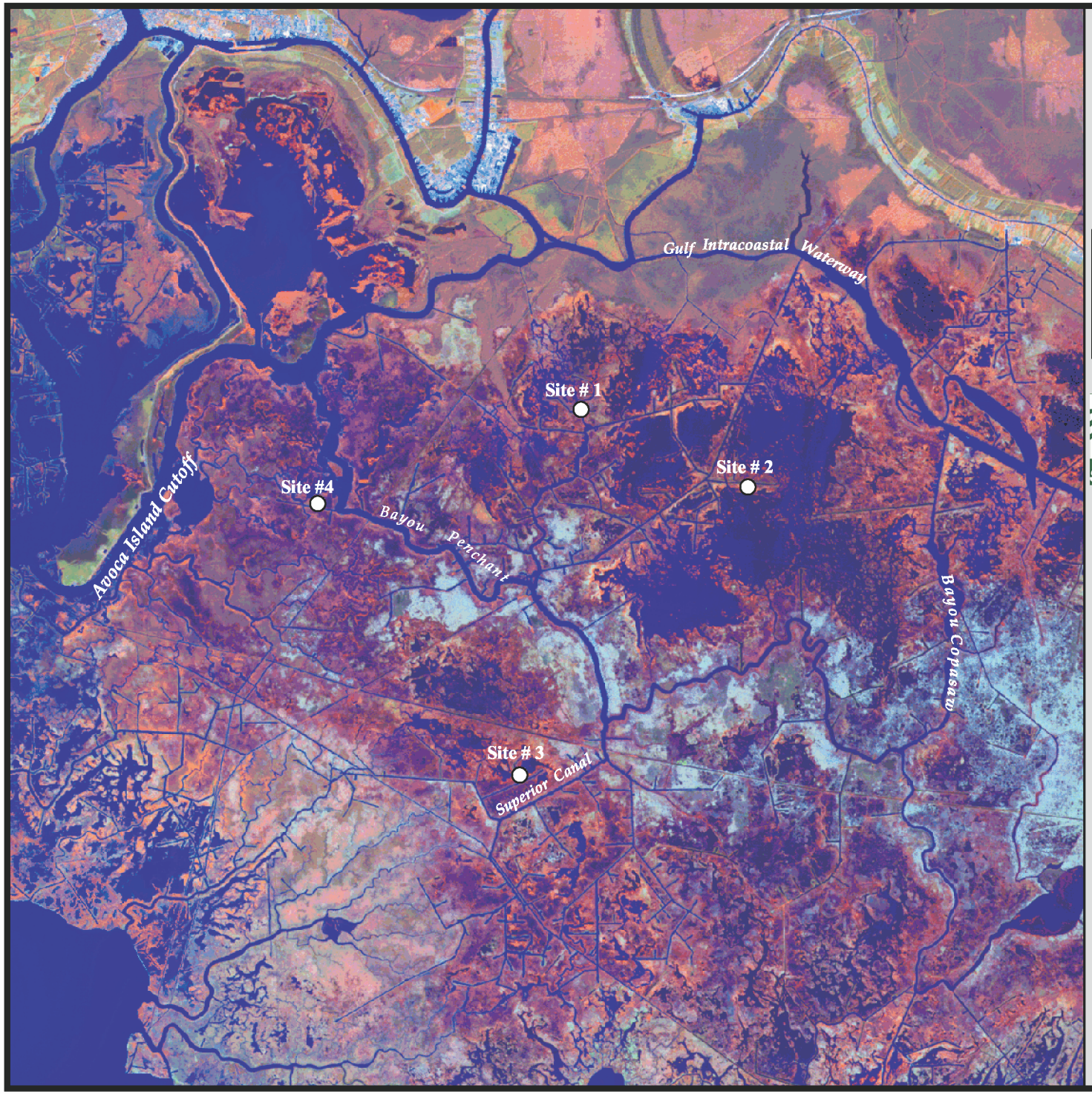

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○ **Project Monitoring Sites**

USGS science for a changing world

N

1 0 1 2 3 Miles

1 0 1 2 3 Kilometers

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

Background Imagery:
Thematic Mapper Satellite Imagery 2000

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