January 2008
Cost figures as of: March 2013

Enhancement of Barrier Island Vegetation Demonstration (TE-53)

Project Status

Approved Date: 2006 **Project Area:** N/A
Approved Funds: $0.91 M **Total Est. Cost:** $0.91 M
Net Benefit After 20 Years: N/A
Status: Planning
Project Type: Demonstration: Barrier Island Vegetative Enhancement
PPL #: 16

Location

Two possible projects sites in Region 3 are the Timbalier Island Dune and Marsh Restoration project (TE-40) that installed nearly 110,000 plants, eight different species in 2005 and an additional 40,000 plants in 2006, and the New Cut Dune and Marsh Restoration (TE-37) which installed approximately 40,000 plants, 9 different species in the summer of 2007. Additional project locations are available in Regions 2 and 3.

Problems

Barrier Islands provide critical habitat and are the first line of defense to not only day-to-day coastal erosion but also to the destructive forces of major storm events. There remains a critical need to develop cost-effective improvements to existing restoration methodologies that will enhance the successful establishment and spread of vegetation in these important restoration projects. Developing methodologies to enhance vegetation establishment and growth in barrier island restoration projects is important in this very stressful environment because healthy vegetative cover traps, binds, and stabilizes sand and sediment, thereby improving island integrity during storm and overwash events.

Progress to Date

The project plan is under development.

This project is on Priority Project List 16.

Timbalier Island vegetative plantings.

Restoration Strategy

The purpose of this demonstration project is to test several technologies and/or products to enhance the cost-effective establishment and growth of key barrier island and salt marsh vegetation. Humic acid and broadcast fertilization regimes will be applied. The humic acid amendment and broadcast fertilization regime techniques are intended to "jump start" and facilitate the rapid establishment and expansion of vegetation. Humic acid benefits will be demonstrated in both intertidal and supratidal plantings, whereas broadcast fertilization benefits will only be demonstrated in supratidal plantings. Each product (humic acid and fertilizer) will be commercially available and off-the-shelf. Enhancing the establishment of woody vegetation (black mangrove and groundsel bush) will be achieved via high-density dispersal techniques of propagules and seeds, a cost-saving alternative to planting container-grown transplants. All treatment test sections and reference planting areas will be visually inspected and sampled quarterly (plant and soil variables) and compared to the reference area in order to develop recommendations for future planting projects.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-6608

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