



**Gulf Intracoastal Waterway
Lake Salvador Rim
Shoreline Stabilization & Restoration
Demonstration Projects**



Demonstration Projects Overview

GIWW project design with private funding to restore 1 mile of the embankment along Gulf side of GIWW in Lafourche Parish near the city of Larose, LA.

Lake Salvador Rlm project under development as partnership with USACE for innovative wetland restoration demonstration project to restore eroding rim of Lake Salvador contiguous to GIWW.





Outcomes

GIWW - 24 Acres of Marsh Created

One Mile - \$1,000,000.00

Waterfowl Habitat Enhanced

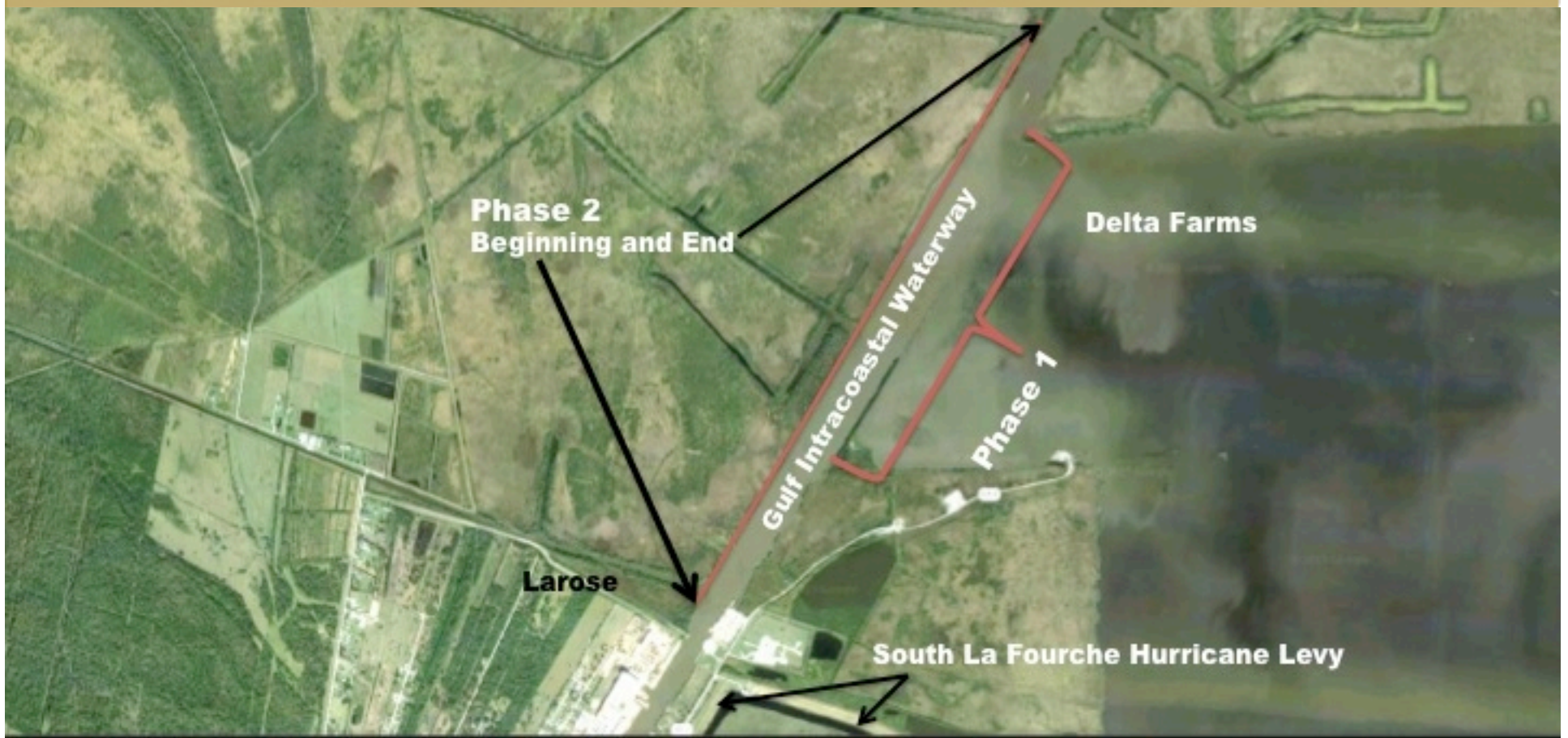
Shoreline Stabilized

- Featuring:***
- ✓ **Use of Dredged Materials**
 - ✓ **Transferability**
 - ✓ **Reduced Costs**
 - ✓ **Expedited Permits**
 - ✓ **Use of Recycled Materials**
 - ✓ **Incentives for Private Landowners**
 - ✓ **Public Outreach**



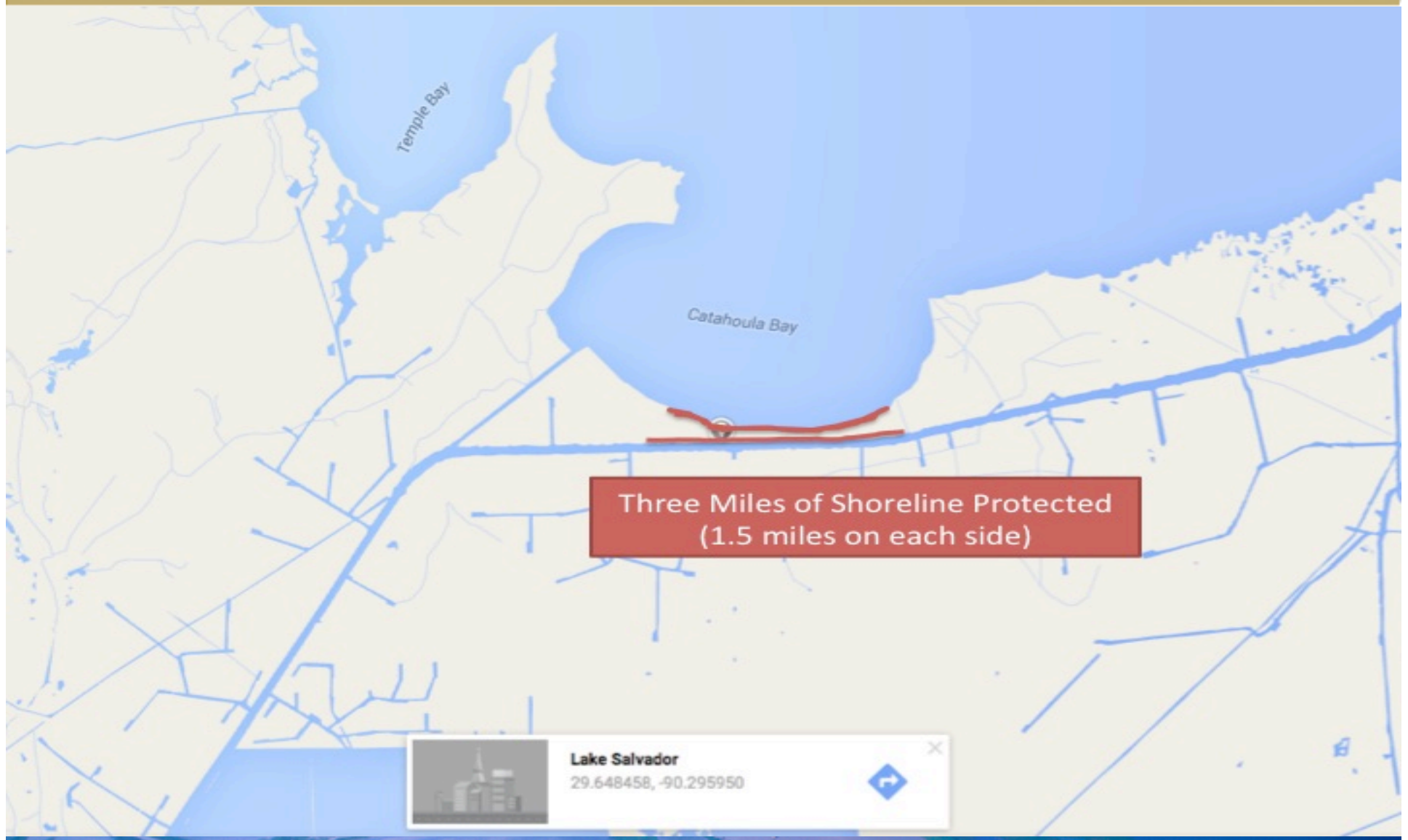
Transition Projects

GIWW SHORELINE PROJECT



Close to: 29.601500, -90.364182

LAKE SALVADOR RIM PROJECT



Vegetated EcoShield™

Armoring Shorelines Against Erosion

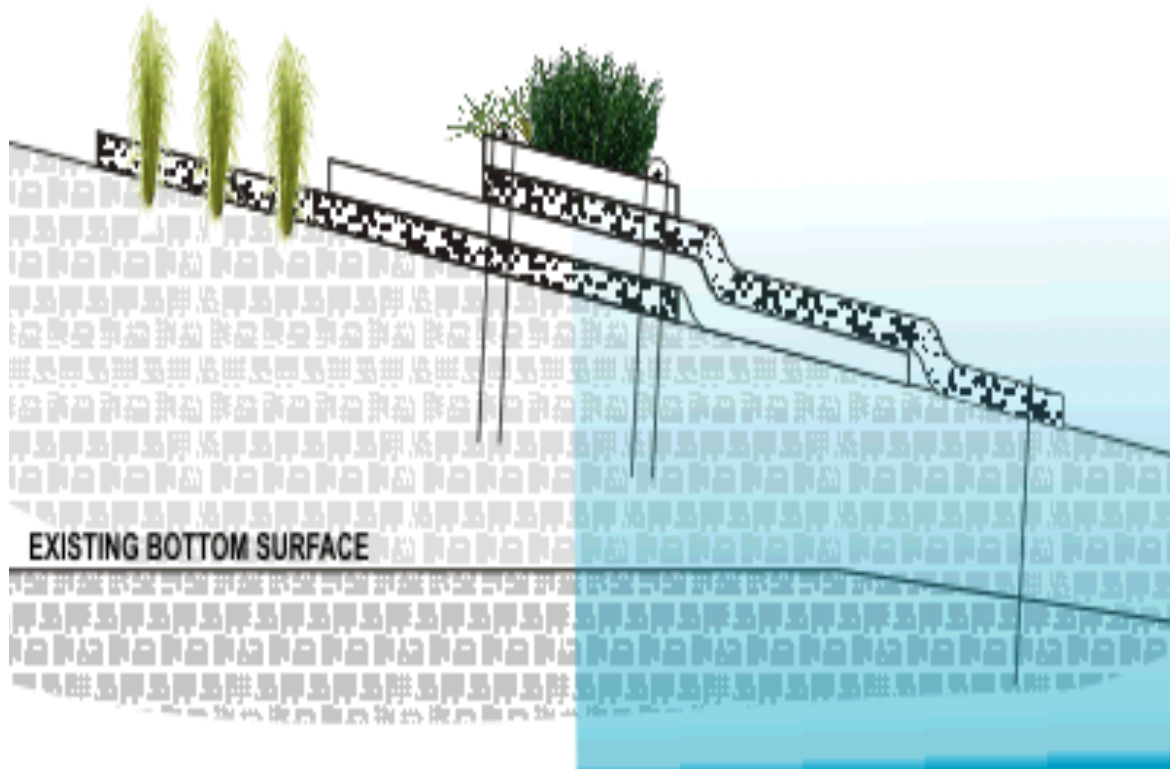


GREEN INFRASTRUCTURE TECHNOLOGY

Vegetated EcoShield™ represents the cutting-edge of the emerging Green Infrastructure revolution. By creating a “living shoreline” it protects and stabilizes, levees, berms and terraces.

3 Components of EcoShield™

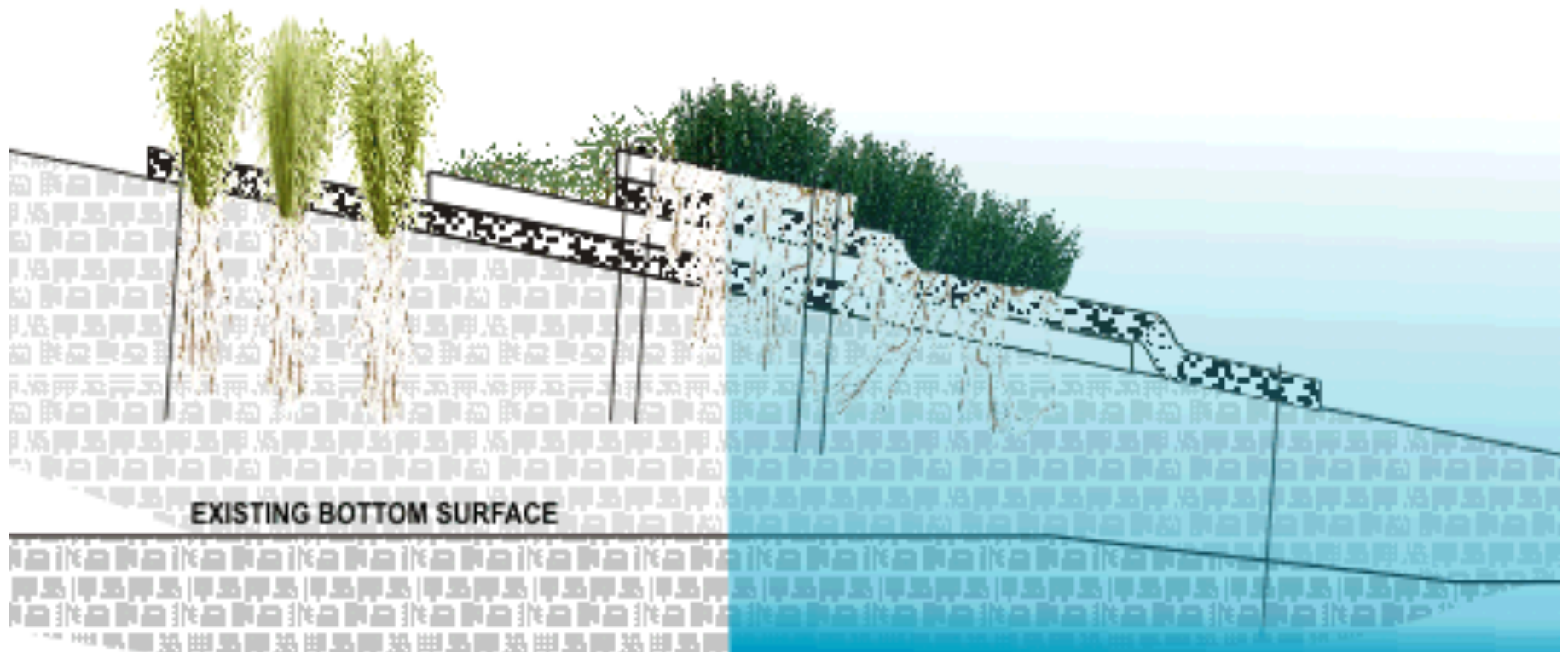
Newly Installed



1. **Base Matrix Layers**
Non-woven recycled PET plastic matrix is secured to the shoreline at the water's edge. This provides immediate protection from scouring and erosion.
2. **Pre-Vegetated Matrix Strip**
Matrix strips are sent to a local nursery and pre-grown with native grass and ground cover. Strips are installed at mean tide.
3. **Bunch Grass**
Bunch grass is planted in 3 rows. It's substantial root mass makes it ideal for stabilizing steep unstable slopes.

One Year Later

Growth after one year



Vegetated EcoShield™ Year Post Install

Project Site



Delta Farms Berm on GIWW



Project Prep



Ecoshield™ Delivered



Being Planted



New Sprouts



Project Prep



Levee prepared to accept EcoShield through existing permit



Project Installation





PUBLIC/PRIVATE PARTNERSHIP

Partners

Ducks Unlimited
The State of Louisiana
Martin Ecosystems
U. S. Army Corps of Engineers
Restore or Retreat
Resource Environmental Partners
Delta Farms (Landowner)
T-Bois Aquaculture (Landowner)
Gulf Intracoastal Waterway Association



UNCALCULATED EVENTS



“Weed Killer”

UNCALCULATED EVENTS



Recovery

UNCALCULATED EVENTS





“The Barge Incident”



Strong Rebound



**Roseau Cane and Pasplum planted on 4/22/16
Established & Growing**



**Cut Grass Planted 4/22/16
Established & Growing**



Illustration of Seashore Paspalum Established to Provide Matrix Cover

EVALUATION

Percentage of Project Area Shoreline Stabilized: 200%

Original plans to restore 1/2 mile of shoreline were adjusted to one mile

Positive Vegetative Colonization*: 75% survival of Seashore Paspalum planted 12/15. 90% survival of replanted cut grass (4/16) 25% survival of replanted the Rosea (4/14) Additional plantings of Roseau have been completed. *6/16 Site Visit

Strong Stem Density, Plant Vigor and Lateral Spread:

Strong density, vigor and lateral spread of the Seashore Paspalum. Later plantings still under observation.

Unanticipated Outcome:

Extent to which the shoreline was protected. Three months post project completion, unprotected shoreline showed erosion losses of 10 feet beyond restored shoreline (see photo below)



EVALUATION





Lake Salvador Rim Project GIWW Shoreline Restoration Phase 2

America's WETLAND Foundation

vam@mcopr.com

(202) 352-1669

