Four Mile Canal Terracing and Sediment Trapping (TV-18)

Project Status

- Approved Date: 2000
- Project Area: 1,214 acres
- Approved Funds: $2.24 M
- Total Est. Cost: $3.79 M
- Net Benefit After 20 Years: aaaNB
- Status: Completed
- Project Type: Sediment and Nutrient Trapping
- PPL #: 9

Location

The project is located approximately 4 miles south of intracoastal City in Vermilion Parish, Louisiana. The project area includes all of Little White Lake and part of the northeastern embayment of Little Vermilion Bay.

Problems

The main cause of current marsh loss is a shoreline erosion rate of approximately 8 feet/year. A combination of wind and wave energy prevents sediments introduced by the Gulf Intracoastal Waterway (GIWW) via the Vermilion River and Four Mile Canal from allowing subaerial marsh development in the area.

Restoration Strategy

Reduction of shoreline erosion will be achieved by the buffering capacity of the constructed terraces. The proposed terrace layout is very different for each area of the project. The “fish net” design for Little Vermilion Bay is designed to allow sediment deposition and the terraces in Little White Lake are aligned to reduce the wind generated waves, thus reducing shoreline erosion. Thus, marsh habitat will be created in two ways within the Four Mile Canal Terracing Project area. First, marsh will immediately be built by creating approximately 90 terraces from dredged material and planting them with smooth cordgrass. This action alone will create 70 acres of subaerial land. Second, by reducing fetch and wave energy, terraces will promote the deposition of suspended sediments in the shallow water adjacent to the terrace edges in Little Vermilion Bay and Little White Lake. This will slowly build marsh over the life of the project as subaerial land is built and plants naturally become established.

For more information, please contact:

- **Federal Sponsor:**
  - National Marine Fisheries Service
  - Baton Rouge, LA
  - (225) 389-0508

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