The Four Mile Canal Terracing and Sediment Trapping (TV-18) project is located in Vermilion Parish Louisiana. It is directly west of Four Mile Canal, and is 4 miles south of Intracoastal City. The project area is located within the Vermilion River basin, which created improvements for the Vermilion River. This led to siltation and deposited along the shores creating spoil banks down the canal. These spoil banks prevent nourishment flows from replenishing the adjacent marsh. In this area, the major cause of marsh deterioration is shoreline erosion. Both waves and water inundation continually cause erosion in this area. The Four Mile Canal Terracing and Sediment Trapping project will provide a significant rate in the stabilization of this area. The date of construction for this project was May 21, 2004.

The construction of 40,000 linear feet of terraces at an elevation of +5.0 ft. (+1.52m) NAVD88 in Little White Lake and Vermilion Bay, will help protect existing marsh from being eroded at such a high rate. To increase the stability of the terraces, 70 acres of Spartina alterniflora will be planted along the slopes of the terraces. Additionally, as freshwater and suspended sediments enter from Four Mile Canal and the Vermilion River, new marsh will be created and located between the terraces.

The goals of this project are to reduce shoreline erosion rate by 50%, achieve 9% net increase in marsh habitat, increase submerged aquatic vegetation from 0% to 25%, and increase fisheries utilization of the project area, all within 20 years.

**Prepared By:**
U.S. Department of the Interior
U.S. Geological Survey
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Lafayette, Louisiana
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Louisiana Coastal Protection and Restoration Authority
Lafayette Field Office

**Federal Sponsor:**
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

**Data Information:**
The land-water data were derived from 1:6,000 scale, color infrared aerial photography obtained on November 5, 2010. All areas characterized by emergent vegetation, wetland forest, scrub-shrub, and upland were classified as preexisting wetlands, while open water and aquatic beds were classified as water. The 2010 data includes a mud flat classification because of tidal fluctuations resulting in mud flat exposure.

**Legend:**
- **Inland Water**: dark blue
- **Vegetated Terraces**: green
- **Non-Project Terrace**: yellow
- **Water**: light blue
- **Total Acres**: 1,562

**Vegetated Terraces:**
- **Eastern Shoreline**: 1,500 acres
- **Western Shoreline**: 62 acres

**Water:**
- **Vermilion Bay Terrace**: 915 acres
- **White Lake Terrace**: 57 acres
- **Mud Flats**: 518 acres

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**Map ID:** USGS-NWRC 2012-02-0010

**Scale:** 1:6,700