



2001 Land-Water Analysis



Prepared by: U.S. Department of the Interior U.S. Geological Survey National Wetlands Research Center Lafavette, Louisiana and Louisiana Department of Natural Resources **Coastal Restoration Division** Lafayette Field Office



# **Pecan Island Terracing (ME-14) Coastal Wetlands Planning, Protection and Restoration Act** 2001 and 2004 Photomosaics and Land-Water Analyses

#### Project Description:

This project is located in southeastern Vermilion Parish, Louisiana, approximately 5 miles (8.05 km) north of the Gulf of Mexico, just south of Pecan Island and Louisiana Highway 82. Deterioration and loss of the perimeter levees between 1978 and 1988 caused the entire area to convert to a shallow lake with some sporadic small islands. The Pecan Island Terracing (ME-14) project is expected to create approximately 100 acres (40.5 ha) of marsh initially and to create 300 acres (121.4 ha) over the 20-year life of the project. The project features include constructing 172,000 linear ft (52,426 m) of terraces in a 500-ft (152.4 m) section with a 50 ft (15.2 m) break between each terrace, creating approximately 344 terraces. The terraces were constructed by depositing borrow material with a 40-ft-wide (12.2 m) berm to make a terrace with 4:1 side slopes and a top width of 10 ft (3.1m). The initial constructed terrace elevation is 3.75 ft 1.14 m) above marsh elevation; the f settled vertical height in 5 years should be approximately 1 ft (.30 m) above marsh elevation. Breaks were constructed to permit water to move in and out of the interior, which will facilitate the ettling of suspended soil particles. Smooth cordgrass (Spartina alterniflora) plugs were planted every 5 linear ft (1.5 m) on both sides of each terrace. In the reference area of this project, 15 randomly selected terraces will remain unplanted to serve as control and to assess vascular plant colonization independent of the plantings.

Project Area Reference Area

### Project Area 1 Acreages

2001	2004
46	39
1,892	1,698
0	134
0	67
1,938	1,938
	46 1,892 0 0

## Project Area 2 Acreages

Class	2001	2004
Land	395	337
Water	1,320	1,375
Terrace, Vegetated	0	<1
Terrace, Non-Vegetated	0	3
TOTAL	1,715	1,715

## Reference Area Acreages

	10	
Class	2001	2004
Land	28	24
Water	294	284
Terrace, Vegetated	0	1
Terrace, Non-Vegetated	0	13
TOTAL	322	322







Scale = 1:17,000 0.75 0.75 1.5 Kilometers





2004 Land-Water Analysis

Data Information: All wetlands characterized by emergent vegetation, uplands, wetland forest, or scrub-shrub were classified as land, while open water, non-vegetated mudflats, and aquatic beds were classified as water.

Data Source: The land-water data were obtained from 1:12,000 scale, color infrared aerial photography acquired December 18, 2001, and November 25, 2004.