September 2006
Cost figures as of: February 2017

# South Pecan Island Freshwater Introduction (ME-23)

De-authorized

## Project Status

**Approved Date:** 2006 **Project Area:** 7,005 acres
**Approved Funds:** $0.77 M **Total Est. Cost:** $0.77 M
**Net Benefit After 20 Years:** 98 acres
**Status:** De-authorized
**Project Type:** Hydrologic Restoration
**PPL #:** 15

## Location

The project is located in the Mermentau Basin in southeastern Vermilion Parish near Pecan Island, Louisiana.

## Problems

Within the Mermentau Basin are the Lakes and Chenier subbasins, which are located to the north and south of Louisiana Highway 82, respectively. Because water is retained north of Hwy 82, the Chenier subbasin is experiencing saltwater intrusion caused by reduced inflows of fresh water from the Lakes subbasin and a consequent reduction in sedimentation. Although culverts were installed in some locations during the construction of Hwy 82, many of those have filled in over the years, and recent attempts to restore hydrology have been isolated.

## Restoration Strategy

The goals for this project are to provide a freshwater flow of more than 200 cubic feet per second for at least three months per year and to create 98 acres of marsh. It will work synergistically with CWPPRA's Pecan Island Terracing project (ME-14).

The project will allow fresh water to drain into the Chenier subbasin, while reducing the affects of excess water in the Lakes subbasin. As currently designed, the project features include the installation of up to four 48" culverts with south facing flap gates under Hwy 82 to allow freshwater and sediment introduction from White Lake into the marsh south of Hwy 82. To prevent erosion, 200 feet on each side of the new structure will be rock armored. An existing 7,000-linear-foot channel north of Hwy 82 will be excavated to serve as a conveyance channel. The excavated material will be used to build a 1,300-foot section of containment dike needed along the northeast portion of the channel and to refurbish existing banks. An existing plug will be removed at White Lake, and rock armoring will be installed at the entrance. A pump will be relocated and an additional pump installed to maintain the landowners' existing drainage needs that would be affected by the conveyance channel.

This is an example of a typical concrete culvert like the one proposed for this project.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at their February 2006 meeting.

This project is on Priority Project List 15.

*For more project information, please contact:*

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

**Local Sponsor:**
Coastal Protection and Restoration Authority
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(225) 342-4736

# South Pecan Island Freshwater Introduction (ME-23)

- Existing Pump
- Pumps *
- Culvert Enlargement*
- State ME-01 Water Control Structure
- Armored Opening*
- Conveyance Channel *
- Containment Dike *
- CWPPRA ME-14 Terrace
- Project Boundary

*denotes proposed features

USGS science for a changing world

0.4 0 0.4 0.8 Kilometers

0.4 0 0.4 0.8 Miles

Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La.

Background Imagery:
2005 Digital Orthophoto Quarter Quadrangle

Map Date: September 12, 2006
Map ID: USGS-NWRC 2006-11-0261
Data accurate as of: September 05, 2006