COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CWPPRA

The Coastal Wetlands Planning, Protection and Restoration Act *(Public Law 101-646, Title III-CWPPRA)* was approved by Congress and signed into law by President George Bush in 1990 and is authorized until 2019.

CWPPRA PROJECT FACT SHEETS DIVIDED BY PARISH

For more information on CWPPRA, visit us at:
www.LaCoast.gov or call: 337-266-8623

The Problem

An ecosystem of enormous national significance is vanishing into the Gulf of Mexico at an alarming rate. In the past century, Louisiana has lost more than one million acres from its coast. Every hour, one acre, an area roughly the size of a football field, vanishes. With every acre lost, an essential habitat moves closer to extinction. Billions of dollars in seafood production, oil and gas revenue, and commercial shipping will be lost without Louisiana's coastal wetlands, which provide the basis and support for these critically important national industries. In terms of human life and culture, the value of these wetlands is beyond estimation.

As this land disappears, tropical storms and hurricanes like Katrina and Rita strike populated areas with greater force and bring devastation to the many people and businesses that live and depend on this valuable region. Healthy marsh provides a buffer to these storms, and the wetlands' ability to absorb high water and to slow strong winds is key to the survival of coastal communities. Every year, as wetlands lose ground, these forces hit harder and closer to home.

The Solution

To address the need for immediate action, Congress passed the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in 1990. Sponsored by former U.S. Senators John Breaux and J. Bennett Johnston of Louisiana, this legislation funds a multi-faceted coastal rehabilitation program that is managed by a Task Force of five federal agencies and the state of Louisiana. The goal of CWPPRA is to fund coastal restoration projects that create, restore and protect degraded wetlands, and restore natural processes where possible.

Since 1990, more than 149 CWPPRA projects have been constructed or approved for construction. During the 21-year life span of each project, over 112,000 acres of land are expected to be created or protected, and an additional 426,000 acres enhanced.

Although current funding levels do not support all of the necessary restoration required for a sustainable ecosystem, CWPPRA continues to address immediate restoration needs while establishing a foundation of strong science, public participation, and agency cooperation that will continue to serve as the cornerstone of future programs.

The Process

Each January CWPPRA has four regional planning teams that meet and accept projects nominated by the public, or various civic and nonprofit organizations. A coast-wide planning team then selects up to 20 projects and six demonstration projects from the nominated list. In the next step, 10 candidate projects and three demonstration projects are selected for more detailed assessments. Work groups evaluate aspects such as costs, need, feasibility and overall benefit for each project. The CWPPRA Technical Committee then conducts public hearings to release findings and receive comments about these candidate projects. The Technical Committee recommends up to four of the 10 candidate projects (and may also recommend demonstration projects). Lastly, the CWPPRA Task Force selects projects to receive funding.

Based on careful assessment and consideration, the CWPPRA Task Force selects projects that apply different methods to combat the wetland loss crisis. Some projects redirect fresh water into marshes suffering from saltwater intrusion. Others protect the coast with rock dikes or with improvements to barrier islands, thereby slowing wave action against the shore. Additional projects involve depositing dredged soil into marshes. Several projects include planting new vegetation using species that are proven to thrive in harsh marsh conditions.

The practical hands-on work of rebuilding a rapidly changing landscape is in itself a changing process. To effectively manage coastal restoration, intervention strategies must adapt to a growing body of scientific knowledge and evolving restoration techniques. As a result, consensus building and a comprehensive restoration plan, both goals of the CWPPRA program, are needed to achieve success.

CWPPRA projects have benefited the coast while creating a real-world framework for restoration research and technology. Although successful, CWPPRA is only part of the solution. To meet the challenge of reversing land loss, established techniques and project scale must go to the next level. The catastrophic level of wetland loss in Louisiana requires both landscape-scale restoration and greater stakeholder involvement in reaching a common goal: a sustainable coastal Louisiana. CWPPRA has taken the first steps in achieving this goal, and is continuing to provide the necessary framework and immediate response to address Louisiana's coastal crisis.

The Methods

The CWPPRA Task Force has implemented various restoration techniques to protect and restore coastal wetlands in Louisiana. The types of techniques used in various CWPPRA projects depend on the problems being addressed and other site-specific factors, including project area landscape, substrate, wave climate, habitat type, and proximity to sediment and freshwater resources, major waterways, and open waters. Most CWPPRA projects employ one or more of the following restoration techniques:

- **Diversion** – introduces freshwater, nutrients, and sediment from major rivers, such as the Mississippi and Atchafalaya, to wetland and/or open water areas that are sediment and freshwater deprived and/or impacted by saltwater intrusion.

- **Outfall Management** – regulates water levels and flows to increase freshwater, nutrient and sediment dispersion, and retention time. Outfall management projects are often used in conjunction with diversion projects.

- **Hydrologic Restoration** – modifies human-altered drainage patterns that are adverse to coastal wetland habitats to restore or mimic natural drainage patterns.

- **Shoreline Protection** – reduces or stops shoreline erosion.

- **Barrier Island Restoration** – protects and/or restores barrier islands by using a variety of techniques, such as depositing dredged material to restore island size and configuration, placing breakwaters to reduce wave erosion, and placing sand-trapping fences and vegetative plantings to build and stabilize beaches and dunes.

- **Marsh Creation** – directly creates and nourishes marsh by placing dredged material in deteriorated wetlands and/or open water.

- **Sediment and Nutrient Trapping** – installs structures to slow water flow and promote sediment accretion and nutrient uptake.

- **Vegetative Planting** – directly creates emergent marsh vegetation to stabilize shoreline and interior marsh soils by planting individual stems or clumps of native marsh plants. This technique is used both separately and in conjunction with other project types.

- **Ridge Restoration** – reestablishes natural ridges to protect and maintain/restore hydrologic and salinity regimes and interrupt wave energy between separate coastal wetland complexes.

CWPPRA Fact Sheets

Each approved CWPPRA project is assigned a "Fact Sheet" that includes a description of the project, a map which clearly depicts the current project boundary and project features, detailed description of project features/elements, and updated assessments of the benefits, costs and any other modifications/scope changes to the original conceptual design. The Fact Sheets are approved and updated by both the Federal and State agencies that represent that project.

Fact Sheets can be obtained at: http://www.lacoast.gov/new/projects/

Louisiana Coastal Wetlands Conservation and Restoration Task Force

January 2011
Cost figures as of: January 2012

Bayou Bonfouca Marsh Creation (PO-104)

Project Status

Approved Date: 2011 **Project Area:** 591 acres
Approved Funds: $2.56 M **Total Est. Cost:** $23.8 M
Net Benefit After 20 Years: 424 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 20

Location

This project is located in Region 1, Pontchartrain Basin, St. Tammany Parish. Parts of the project are located within Big Branch Marsh National Wildlife Refuge adjacent to Bayou Bonfouca.

Problems

The marsh in this area was fairly stable prior to Hurricane Katrina in August 2005. There was extensive damage to the marsh along the north shore of Lake Pontchartrain and especially localized in the marshes near Bayou Bonfouca when the storm surge removed many acres of marsh. Marsh loss rates should increase in the marsh surrounding these newly created open water areas due to an increase in wind driven fetch. Within the project area, the Lake Pontchartrain shoreline erosion rates seem to be very low. Currently, there is one large breach and several smaller ones in the Lake Pontchartrain shoreline, with many more breaches seemingly imminent. These breaches provide direct connection between the fresher interior marshes and higher saline waters of Lake Pontchartrain. The breaches in the bankline should be filled before they grow to become a major exchange point causing an increase in interior loss rates.

Picture depicts the broken marsh due to Hurricane Katrina.

Restoration Strategy

The primary goal of the project is to create 533 acres and nourish 42 acres of low salinity brackish marsh in open water areas adjacent to Bayou Bonfouca with sediment pumped from Lake Pontchartrain.

This project would consist of placing sediment, hydraulically dredged from Lake Pontchartrain, in open water sites to a height of +1.2 NAVD 88 to create 458 acres and nourish approximately 133 acres of marsh. Several historic marsh ponds have been identified and would be restored. Tidal creeks are also proposed to connect these ponds to facilitate water exchange and fisheries access. Containment dikes would be sufficiently gapped or degraded to allow for fisheries access no later than three years post construction.

The project would result in approximately 424 net acres of intermediate marsh over the 20-year project life.

Progress to Date

This project is on Priority Project List 20. Phase 1 funding approval for engineering and design was given by the Task Force in January 2011.

For more project information, please contact:

Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100

Local Sponsor:
Coastal Protection and Restoration Authority
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