rev. March 2010
Cost figures as of: February 2013

Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass (BA-38)

Project Status

Approved Date: 2002 **Project Area:** 1,117 acres
Approved Funds: $75.8 M **Total Est. Cost:** $77.2 M
Net Benefit After 20 Years: 334 acres
Status: Construction
Project Type: Barrier Island Restoration
PPL #: 11

Location

The project is located along two sections of the Plaquemines/Barataria Shoreline. The Chaland Headland segment is about 3.1 miles long, and is located between Pass La Mer and Chaland Pass. Pelican Island is located immediately east of the Empire Waterway; restoration of this segment will maintain the integrity of about 2.4 miles of shoreline. Both segments are in south Plaquemines Parish, Louisiana.

Problems

Wetlands, dune, and swale habitats within the project area have undergone substantial loss due to subsidence, sea-level rise, oil and gas activities (e.g., pipeline construction), and marine and wind induced shoreline erosion (i.e., gulfside and bayside). Marine processes acting on the abandoned deltaic headlands rework and redistribute previously deposited sediment. The shoreline has breached in several locations, resulting in the formation of new tidal inlets.

This barrier shoreline has suffered significant erosion due to subsidence, oil and gas activities, and shoreline erosion. Construction has begun on this 1,100 acre island restoration project that will reestablish a beach and dune shoreline as well as the marshes that once thrived in this area.

Restoration Strategy

The project's primary goals are 1) to prevent breaching of the barrier shoreline by increasing its width and average height and 2) to protect and create dune, swale, and intertidal marsh habitats.

Restoration of Chaland Headland will result in the restoration and creation of about 180 acres of dune, beach and berm, and the restoration and creation of about 246 acres of intertidal saline marsh. About 2.5 million cubic yards of sand and silt will be mined from an offshore borrow area in the Gulf of Mexico to construct the dune and marsh features. Additional features include installation of sand fencing concurrent with dune construction, dune and marsh vegetative plantings, and post construction gapping of retention dikes and creation of tidal features.

The Pelican Island project will restore about 134 acres of dune, beach and berm as well as approximately 264 acres of intertidal saline marsh. Two offshore borrow areas will be used to mine about 2.4 million cubic yards of sand and silt. Other project features include installation of sand fencing concurrent with dune construction, both dune and marsh vegetative plantings, and post-construction gapping of retention dikes.

Progress to Date

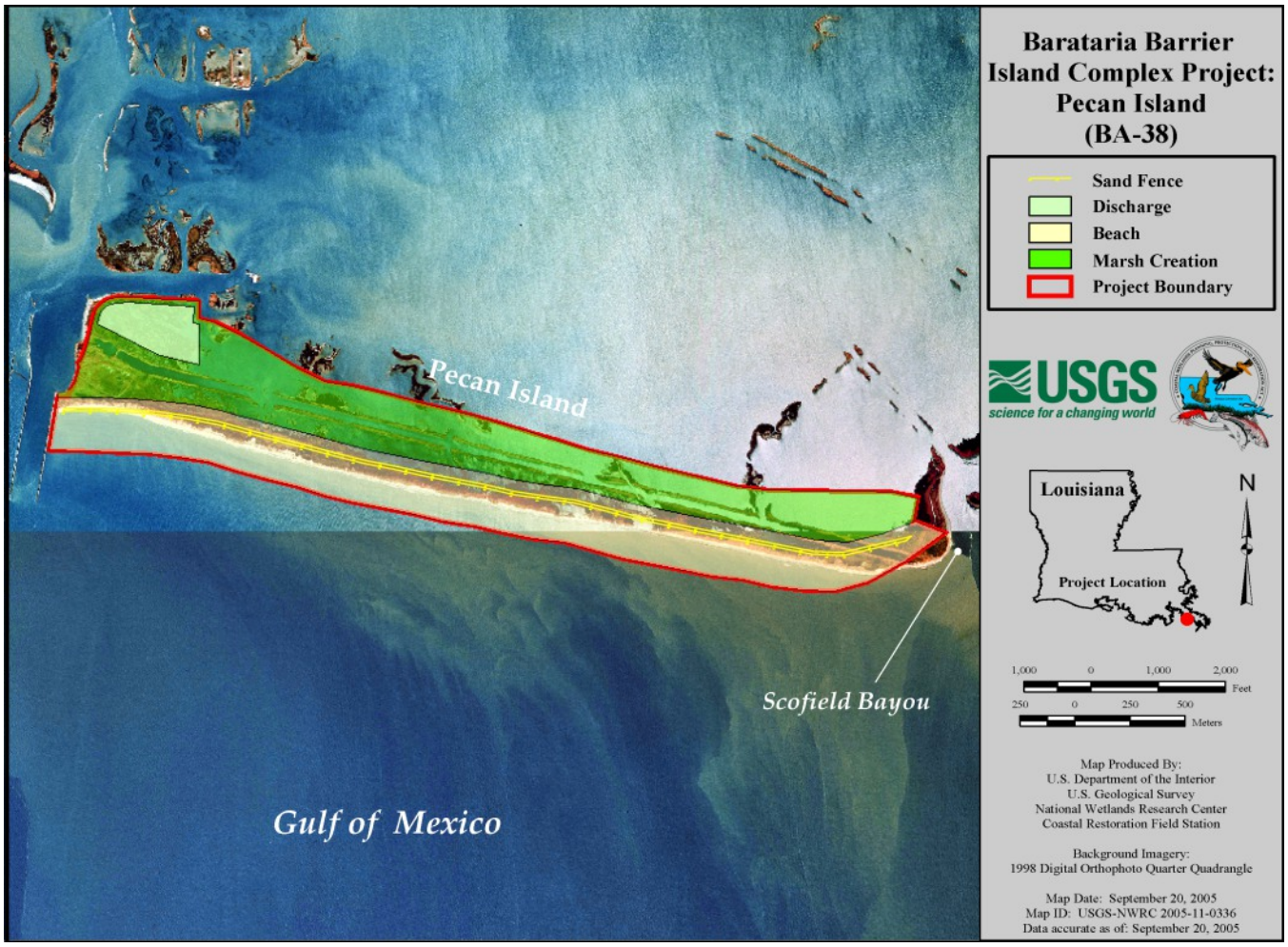
This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting and for Phase II (construction) funding in January 2004. The Chaland Headland portion of the project was completed in 2007. The Pelican Island portion of the project is expected to go into construction in 2010.

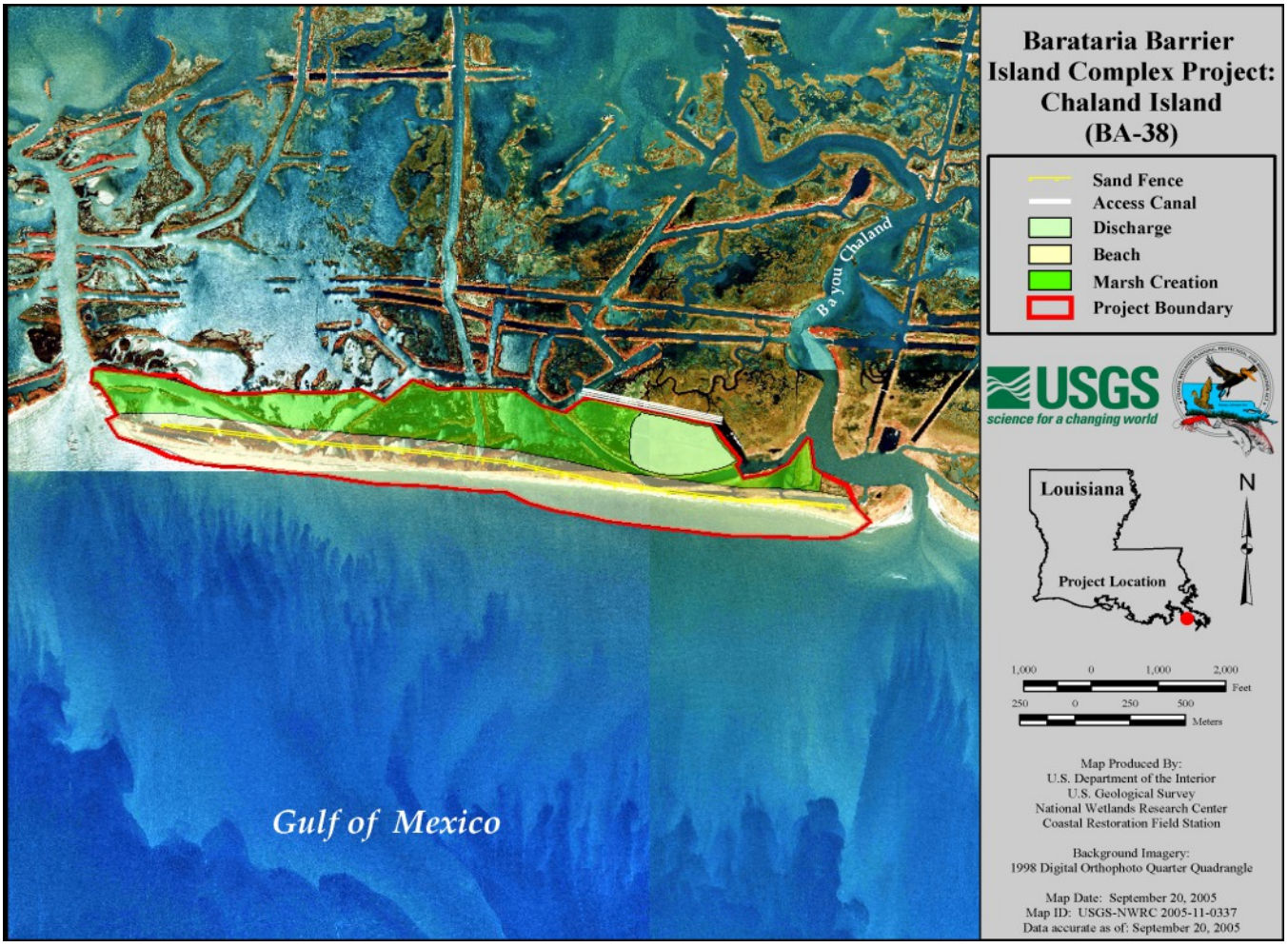
This project is on Priority Project List 11.

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
Baton Rouge, LA
(225) 342-4736


Barataria Barrier Island Complex Project: Pecan Island (BA-38)
Sand Fence
Discharge
Beach
Marsh Creation
Project Boundary
USGS
science for a changing world
Louisiana
Project Location
N
1,000 0 1,000 2,000 Feet
250 0 250 500 Meters
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle
Map Date: September 20, 2005
Map ID: USGS-NWRC 2005-11-0336
Data accurate as of: September 20, 2005
Pecan Island
Scofield Bayou
Gulf of Mexico


Barataria Barrier Island Complex Project: Chaland Island (BA-38)
Sand Fence
Access Canal
Discharge
Beach
Marsh Creation
Project Boundary
USGS
science for a changing world
Louisiana
Project Location
N
1,000 0 1,000 2,000 Feet
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Map Produced By:
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National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle
Map Date: September 20, 2005
Map ID: USGS-NWRC 2005-11-0337
Data accurate as of: September 20, 2005
Bayou Chaland
Gulf of Mexico