rev. September 2015
Cost figures as of: February 2023

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: $70.4 M **Total Est. Cost:** $71.1 M
Net Benefit After 20 Years: 334 acres
Status: Completed
Project Type: Barrier Island Restoration
PPL #: 11

Location

The project is located along two sections of the Barataria Bay Shoreline in Plaquemines Parish. 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; this segment was restored to maintain the integrity of 2.4 miles of shoreline.

Problems

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

Pelican Island after completion of major construction activities. Large equipment in the lower left of the photo provide a sense of the scale of the project.

Restoration Strategy

The project's primary goals were: 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.

The Chaland Headland project restored and created about 230 acres of dune, beach, and berm; and 254 acres of intertidal saline marsh. Nearly 3.4 million cubic yards of sand and silt mined from an offshore borrow area in the Gulf of Mexico were placed to construct the dune and marsh features.

The Pelican Island project restored about 190 acres of dune, beach, and berm; and 396 acres of intertidal saline marsh. Over 2.6 million cubic yards of sand and silt were mined from two offshore borrow areas.

Additional features on both islands included 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.

Progress to Date

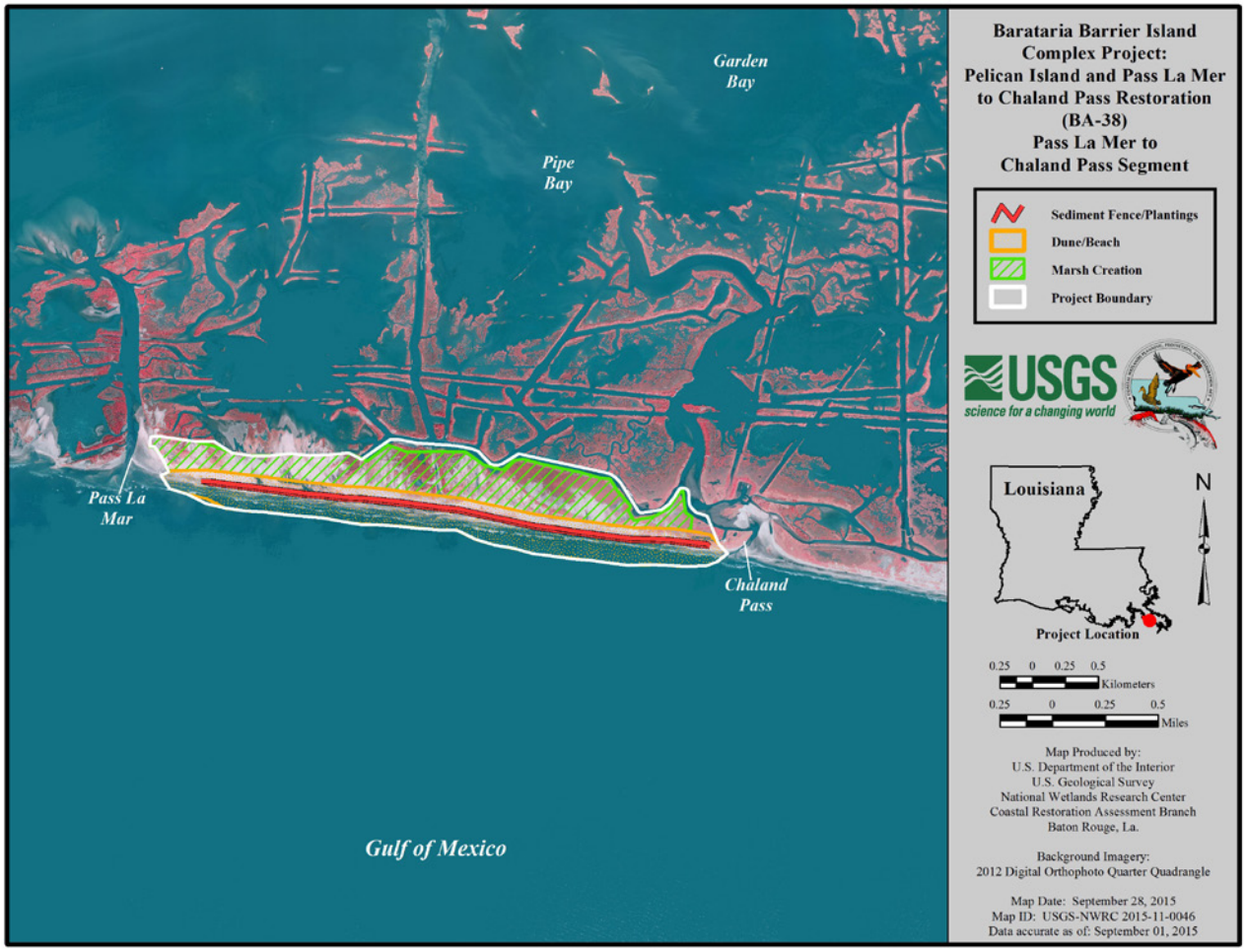
This project was selected for Phase I (engineering and design) funding at the January 2002 CWPPRA Task Force meeting and for Phase II (construction) funding in January 2004. The Chaland Headland portion of the project was completed in 2007. The Pelican Island portion of the project was completed in December 2012.

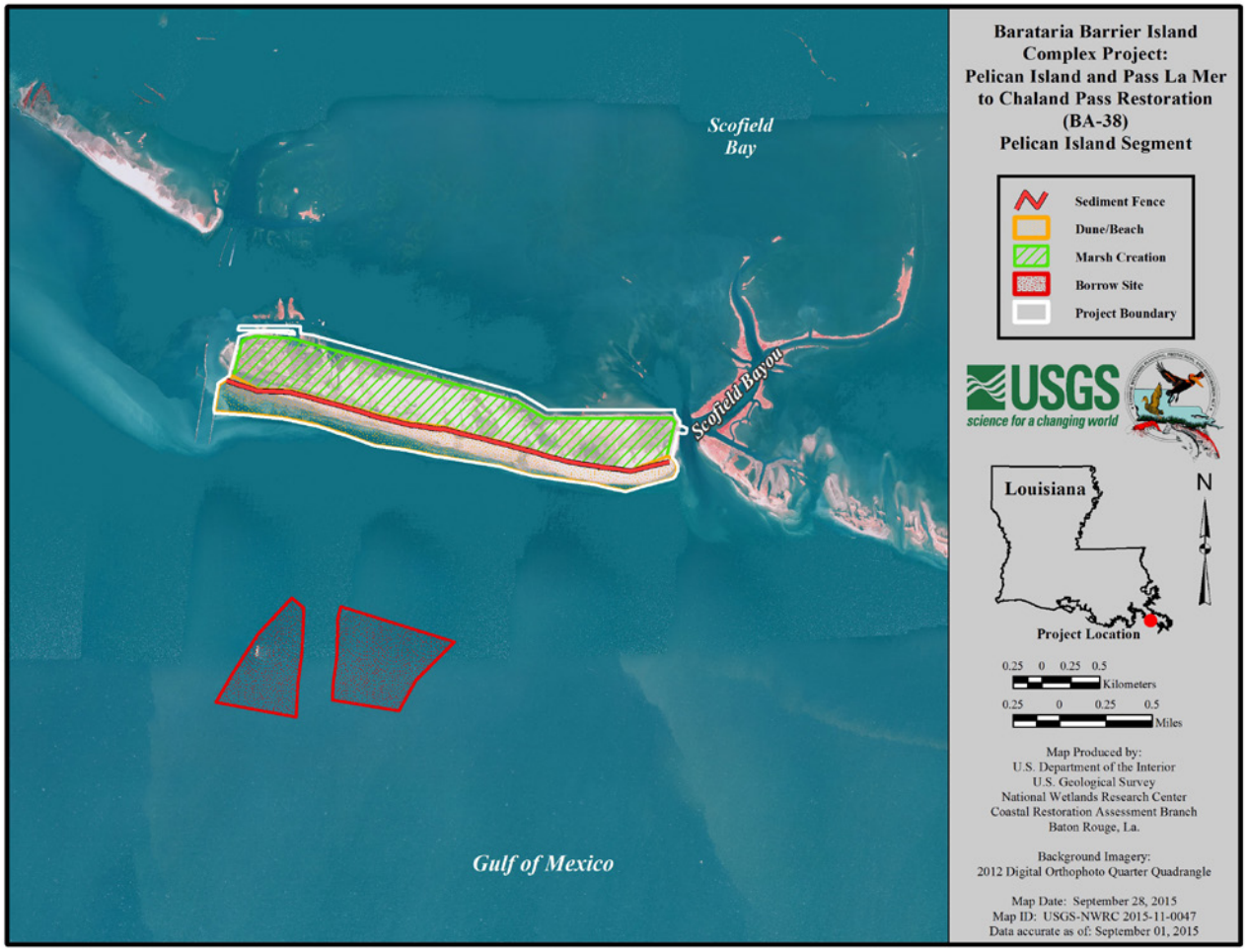
This project is on Priority Project List 11.

For more information, please contact:

Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 778-7380

Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736


Garden Bay
Pipe Bay
Pass La Mar
Chaland Pass
Gulf of Mexico
Barataria Barrier Island Complex Project:
Pelican Island and Pass La Mer to Chaland Pass Restoration
(BA-38)
Pass La Mer to Chaland Pass Segment
Sediment Fence/Plantings
Dune/Beach
Marsh Creation
Project Boundary
USGS
science for a changing world
Louisiana
N
Project Location
0.25 0 0.25 0.5
Kilometers
0.25 0 0.25 0.5
Miles
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.
Background Imagery:
2012 Digital Orthophoto Quarter Quadrangle
Map Date: September 28, 2015
Map ID: USGS-NWRC 2015-11-0046
Data accurate as of: September 01, 2015


Scofield Bay
Scofield Bayou
Gulf of Mexico
Barataria Barrier Island Complex Project:
Pelican Island and Pass La Mer to Chaland Pass Restoration
(BA-38)
Pelican Island Segment
Sediment Fence
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Project Boundary
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Project Location
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Baton Rouge, La.
Background Imagery:
2012 Digital Orthophoto Quarter Quadrangle
Map Date: September 28, 2015
Map ID: USGS-NWRC 2015-11-0047
Data accurate as of: September 01, 2015