



Barataria Basin Barrier Shoreline Restoration

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U.S. ARMY CORPS OF ENGINEERS

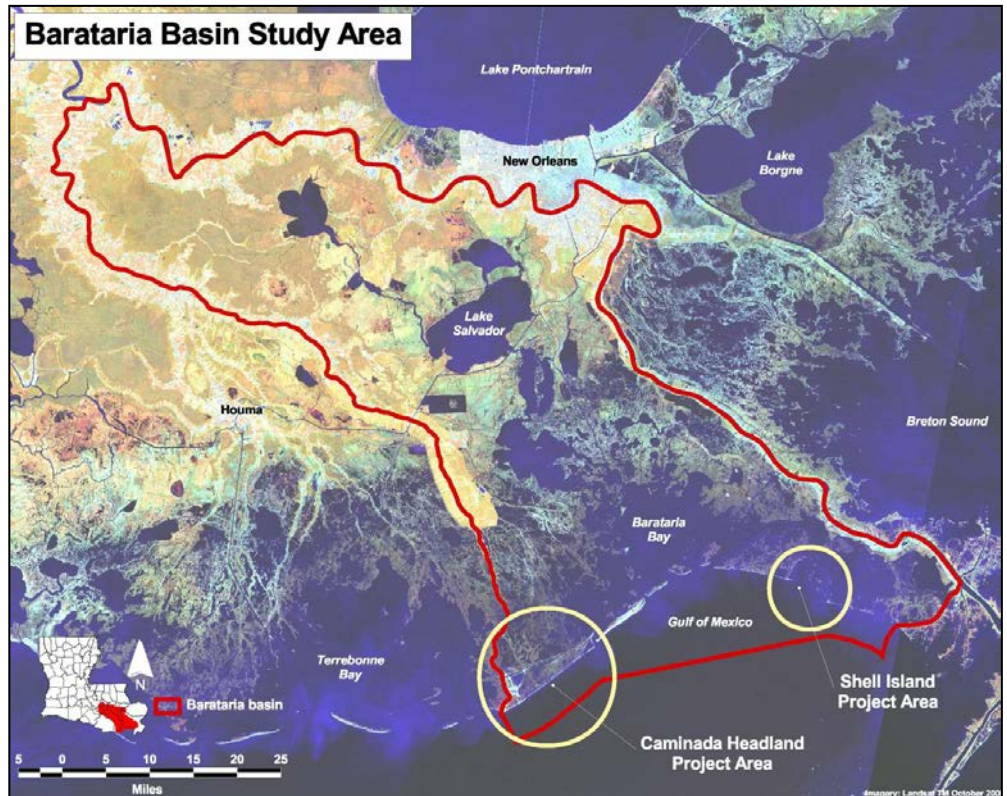
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The Louisiana Coastal Area (LCA) program focuses on critical, near-term ecosystem restoration projects and studies, as approved in the Water Resources Development Act of 2007. The program goal is to slow the current trend of coast-wide wetland loss and resource degradation.

Several restoration techniques are employed in this program, including freshwater diversions, marsh creation and barrier island restoration. Overall, the program is focused on a systematic approach to coastal restoration using larger projects to restore natural features and ecosystem processes.

The Barataria Basin Barrier Shoreline Restoration Study (BBBS) is a barrier island restoration project identified in the LCA program. It was authorized under the Water Resources

Development Act (WRDA) of 2007 - Section 7006(c)(1)(C) and the Coastal Protection and Restoration Authority Board of Louisiana (CPRAB) is the cost-share partner in the development and implementation of this project.



Project Location

The Barataria Basin Barrier Shoreline is the regional segment of the Gulf Coast of Louisiana that is situated between the west bank of the Mississippi River at the active delta and the eastern shore of Terrebonne Bay. The project consists of two reaches – the Caminada Headland and Shell Island. The Caminada Headland is located at the southern end of Lafourche and Jefferson Parishes and Shell Island is part of the Plaquemines Parish barrier island chain.

Project Goals

The purpose of the proposed action is to restore the geomorphic (physical) function of the barrier island and headland. Restoration of the shoreline and coastal marshes of Caminada Headland and Shell Island would restore critical habitat, form and function, and long-term sustainability of the barrier shoreline.

Objectives

Specific objectives developed for the study are:

- Restore the barrier structures to ensure their ability to provide geomorphic and hydrologic form and function.
- Increase the acreage of shoreline, dune and interior marsh habitat for essential fish and wildlife species, mimicking, as closely as possible, conditions which would occur in the area in the absence of human changes.
- Protect interior marsh and Chenier ridge habitats for essential fish and wildlife species.



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- Increase sediment input to supplement long-shore sediment transport processes along the gulf shoreline, increasing the ability of the restored area to continue to function and provide habitat with minimum continuing intervention.
- Reduce land loss, preventing the dissolution of the Caminada Headland into separate barrier islands, and the disappearance of Shell Island.

Project Features

The Recommended Plan for this project restores and protects the shorelines, dunes, and marshes of the Caminada Headland and Shell Island. The initial construction of the barrier shorelines will restore or create 2,849 acres of beach, dune and marsh habitats. On the Caminada Headland, approximately 880 acres of beach and dunes, and 1,186 acres of marsh will be restored or created. Shell Island will be restored to its pre-Hurricane Bob (1979) configuration, which would create or restore 317 acres of beach and dune, and 466 acres of marsh.

The Recommended Plan will include renourishment of the Caminada Headland and Shell Island, sustaining the benefits created by the project construction. On the Caminada Headland, over each 10 year period, a minimum of 3.9 million cubic yards of material will be returned. Material from the Bayou Lafourche, Louisiana navigation project will be placed in the littoral drift south of Bayou Moreau where the long shore transport of material splits going east and west, allowing the longshore transport and wave action to move and place the sediment along the Headland. The renourishment will benefit the Headland as longshore transport nourishes the beach and adds width to the shoreline. Shell Island will include two renourishment cycles, in years 20 and 40, returning the island to its post-construction template.

Project Status

The Final Integrated Construction Report and Environmental Impact Statement for the Barataria Basin Barrier Shoreline Restoration project completed public, state and agency review in April 2012. The Chief of Engineers' Report was signed in June 2012 and a Record of Decision was signed in March 2013. The Project Development Team is currently negotiating a Design Agreement and Project Management Plan for the Preconstruction Engineering and Design (PED) efforts for the Caminada Headland feature, which will include beach, dune and marsh creation. As the total cost for both the Caminada Headland and Shell Island features exceeded the WRDA 2007 allowable cost cap, additional authorization will be required before proceeding with implementation of the Shell Island feature.

Anyone seeking additional information on the Barataria Basin Barrier Shoreline Restoration project can visit the Louisiana Coastal Area program website at www.lca.gov or the New Orleans District LCA website at www.mvn.usace.army.mil/Missions/Environmental/LouisianaCoastalArea/CriticalNearTermProjects/BBBS.aspx.