Caminada Headland Back Barrier Marsh Creation (BA-171)

Project Status
Approved Date: 2014  Project Area: 928 acres
Approved Funds: $48.2 M  Total Est. Cost: $50.9 M
Net Benefit After 20 Years: 379 acres
Status: Construction
Project Type: Marsh Creation
PPL #: 23

Location
The project area is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass, and stretches from the area in and around Bay Champagne to the west of Elmer’s Island along the headland. The Caminada Headland Back Barrier Marsh Creation Project is located along the Louisiana coastline in Lafourche and Jefferson Parishes in CWPPRA Planning Region 2.

Problems
The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana. Historically the shoreline has migrated landward at about 40 feet per year. Between 2006 and 2011, shoreline migration increased dramatically, exceeding 80 feet per year in near Bay Champagne and 110 feet per year in the Bayou Moreau area. The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time. The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008. Significant prolonged breaches greatly increase the net export of sediment from the headland.

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will be exacerbated. The continued deterioration of Caminada Headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.

Restoration Strategy
The goals of the project are to: 1) create and/or nourish approximately 900 acres back barrier marsh using sediments pumped from an offshore borrow site in the Gulf of Mexico; 2) create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west. The project is expected to slow the current trend of degradation on the Caminada Headland.

This project was designed to create back barrier intertidal marsh and nourish emergent marsh behind approximately 8 miles of the Caminada beach using material dredged from the Gulf of Mexico. The project is expected to result in approximately 329 net acres over the 20-year project life. The marsh creation and nourishment cells are designed to minimize impacts on existing marsh and mangroves.

Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density, with half planned at project Year 1 and half planned at project Year 3. Containment dikes will be degraded or gapped as needed by Year 3 to facilitate tidal flow.

Progress to Date
The initial Caminada Headland Back Barrier Marsh Creation (BA-171) project was designed to create and nourish 385 acres of back barrier marsh south of Louisiana Highway 1 between Bay Champagne and areas east of Bayou Moreau. The CWPPRA Task Force approved construction funds in 2018. In April 2019, the project footprint was expanded to include Caminada Headland Back Barrier Marsh Creation, Increment II (BA-193) project from Priority Project List 25. Construction bids were opened January 2020. The Louisiana Department of Natural Resources beneficial use program contributed $3M in funding adding 169 acres onto the eastern end of the project footprint. Construction began June 2020 and the project is scheduled for completion mid-2021.

The BA-171 project is on Priority Project List 23.

For more information, please contact:

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Local Sponsor:
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