

Caminada Headland Back Barrier Marsh Creation (BA-171)

Project Status

Approved Date: 2014
Approved Funds: \$48.2 M
Net Benefit After 20 Years: 379 acres
Status: Construction Completed
Project Type: Marsh Creation
PPL #: 23

Project Area: 928 acres
Total Est. Cost: \$50.9 M

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; however between 2006 and 2011, shoreline migration increased dramatically to more than 80 feet per year near Bay Champagne and 110 feet per year in the Bayou Moreau area. These increased loss rates occurred after Hurricanes Katrina and Rita in 2005 when breaches in the headland remained open for an extended length of time. The shoreline losses were then exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008, and were devastated by Hurricanes Zeta and Ida in 2020 and 2021 when this project was in construction. Hurricanes have greatly increased the net export of sediment from the headland into the back barrier marshes and open water, and continue to restructure the remaining beach and dune habitats with each passing.

In addition to the shoreline migration, the area behind the headland is experiencing high loss rates of interior marshes. The continued deterioration of Caminada Headland and open water areas north of the headland threatens the longevity of thousands of acres of wetland habitat, as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche Parish 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. 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, as well as to nourish emergent marsh and mangrove habitats behind approximately 8 linear miles of the Caminada headland using material dredged from the Gulf of Mexico. The project is expected to result in approximately 379 net acres over the 20-year project life.



Dredged material from the Gulf of Mexico was pumped into the project area to create and nourish approximately 900 acres of back barrier marsh. This project works synergistically with the state-led Caminada Headland Beach and Dune projects (BA-45 and BA-143), constructed in 2015 and 2016. Photo credit: EPA, May 2023.

Assuming some natural vegetative recruitment would occur, vegetative plantings were only planted along the perimeter of the project along the containment dikes. Containment dikes were gapped post construction in Fall 2022 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 which the CWPPRA Task Force approved for construction funds in 2018. In April 2019, the project footprint was expanded to include the 543-acre adjacent project, the Caminada Headland Back Barrier Marsh Creation, Increment II (BA-193) from Priority Project List 25. Construction bids were opened in January 2020 and due to higher than expected bids, 70 acres were removed from the project in order to award the project. However, with the contribution of \$3M from the Louisiana Department of Natural Resources Beneficial Use Program, an additional 169 acres was added back into the project footprint. Construction began in June 2020, but was delayed due to damage caused by both Hurricanes Zeta and Ida in 2020 and 2021. Construction was completed in October 2022 with vegetative plantings being completed in April 2023.

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

For more information, please contact:



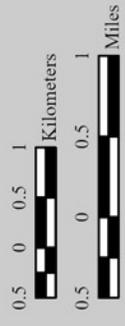
Federal Sponsor:
 U.S. Environmental Protection Agency
 Dallas, TX
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Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
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Caminada Headlands Back Barrier Marsh Creation (BA-171)

- Vegetative Plantings
- Sediment Fence
- Marsh Creation
- Project Boundary



Map Produced by:
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Wetland and Aquatic Research Center
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