



Making Marsh in Nueces Bay

Coastal Bend Bays & Estuaries Program has completed the first phase of a major marsh restoration effort at a 160-acre site near the Nueces Bay Causeway that stretches between Corpus Christi and Portland. Intertidal marsh is a critical part of the bay ecosystem as essential habitat for juvenile fish, shrimp and crabs and feeding grounds for bigger fish and birds.

Construction began in mid-July 2010 for a 76-acre marsh complex, the first of several phases planned.

Crews used heavy equipment to scoop out small sections of bay bottom, placing and forming the removed dirt into higher areas suitable for marsh growth. The result is a complex of deep channels, and slightly-above water cells of marsh grass that will be planted on the elevated sections.

The first phase of terraces has been completed. Volunteers helped plant marsh grass in December 2010 and

through the spring.

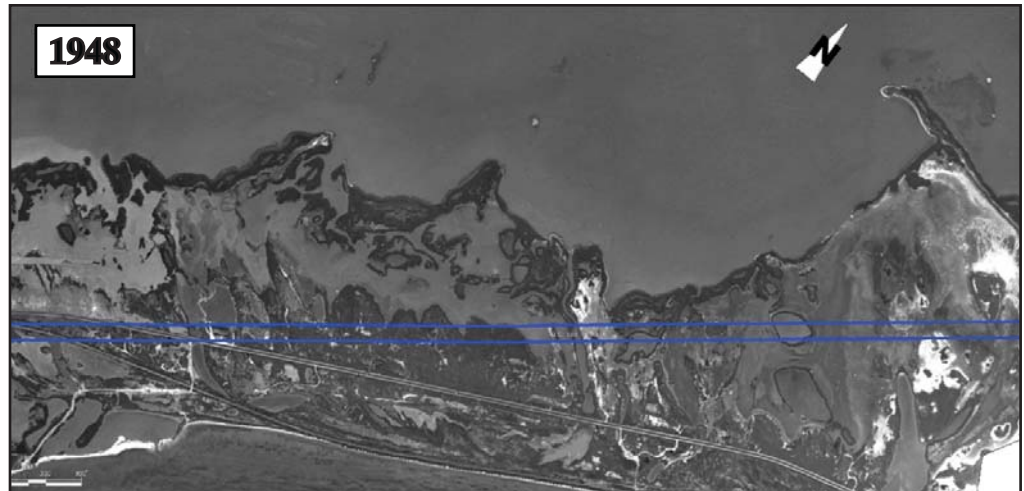
A second phase of the project is currently in the design phase, and should begin construction in early 2012. This will add another 84 acres of marsh complex between the first terraces and the outermost berm.

While construction crews are working, the area will be restricted. But when finished, the site will include improved public access spots for fishermen and kayak launches.

CBBEP identified the area for marsh restoration after studies revealed the area lost as much as 340 acres over the last 60 years due to highway construction and subsequent erosion.

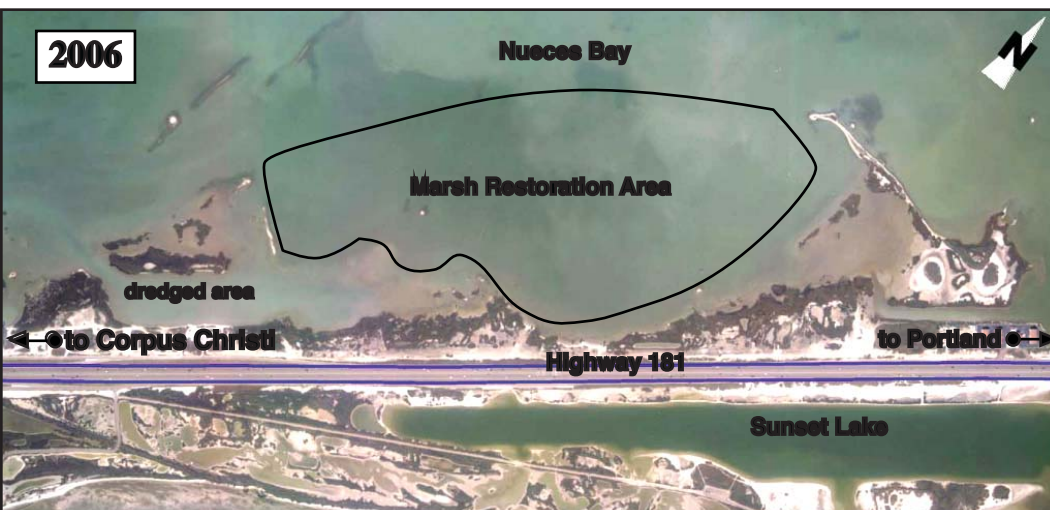
“Significantly more marsh habitat existed before the current causeway was constructed,” said Dustin Cravey, a project manager with the program.

In the late 1940s, causeway



This 1948 aerial photo captures the area before construction of the current causeway wiped out about 180 acres of marsh.

Photos: HDR, Lannon Aerial Photography



Marsh restoration is underway for this area along Nueces Bay Causeway, seen here in a 2006 aerial photo. The 160-acre restoration area will be converted from open water to a complex that mimics natural marshes.

construction and related dredging in the area that is now Sunset Lake resulted in the loss of about 180 acres of marsh. Since then, studies show an additional 160 marsh acres have been lost due to erosion and subsidence.

“The only remaining marsh exists as a few isolated pockets along the shoreline,” he said.

The Coastal Bend Bays & Estuaries Program began its marsh restoration planning in 2005, Cravey said.

Project engineers with HDR, a Corpus Christi engineering firm, reviewed aerial photos from 1930 to 2000 to document intertidal marsh loss over that period.

Project planning also included extensive field work by HDR scientists. They assessed the types of existing marsh and checked bay bottom sediment quality to determine which areas were best for restoration. Through that process, they identified a site where about 160 acres will be converted from open water to a complex designed to mimic the

natural marshes in the surrounding areas.

In 2008, CBBEP purchased 33 acres adjacent to the project site to provide better access to the area during marsh construction. Securing the necessary government permits for the project was a lengthy and costly part of the planning process. With those permits in place, the final design work and construction planning was completed.

Funding for this first phase was around \$1.2 million. CBBEP has secured some additional funding for future phases and is aggressively seeking funds to complete the entire complex as quickly as possible.

CBBEP is partially funded by the Texas Commission on Environmental Quality and the U.S. Environmental Protection Agency. Current funding for this project includes grants from the Texas General Land Office, and, through the U.S. Fish and Wildlife Service, federal Recovery Act funds designed to stimulate the economy by putting people to work.



This aerial photo from March 2011 shows the terraces and berms created during the first phase of marsh restoration. A second phase will create additional marsh complex between the terraces and the top berm.



Check out additional information on this marsh restoration effort at www.cbbep.org.

The Coastal Bend Bays & Estuaries Program is a non-profit organization dedicated to protecting and restoring bays and estuaries in the 12-county region of the Texas Coastal Bend. CBBEP is partially funded by the Texas Commission on Environmental Quality and the U.S. Environmental Protection Agency.

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