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Causeway Rookery Island Restoration Project Complete!

by Kathryn Tunnell

CBBEP's Causeway Rookery Island Restoration Project is complete just in time for the 2022 colonial waterbird nesting season! The island, located just to the west of the Highway 181 Nueces Bay Causeway in Nueces Bay, has suffered from erosion for many years due to its exposure to wind and waves. This project will protect and enhance this critical rookery and is expected to support over a thousand pairs of wading birds and ground nesting birds each year!



Causeway Rookery Island looking north towards the City of Portland (Nueces Bay Causeway on the right).

CBBEP and their Coastal Bird Program have been working for almost 20 years to address declining colonial waterbird populations and disappearing rookery islands in Nueces Bay and throughout the Coastal Bend. Causeway Island is particularly vulnerable to wind driven waves from both Nueces and Corpus Christi Bays, as well as ship wakes from the Corpus Christi Ship Channel. To mitigate the waves, in 2003 the CBBEP placed geotextile tubes around Causeway Island, followed by three separate placements of dredge material. While this bought some time, the life expectancy of geotextile tubes is 15 years, and after many years of persistent erosion and several recent storm events it became clear that a more permanent solution was needed.

This project included installation of a segmented rock breakwater around the entire island that will provide containment and protection for expansion of the island from 7 acres to approximately 17 acres over time, both naturally and through beneficial use of dredge material. This will more than double the available nesting area and give the birds a safe place to raise their young.



While planning for the restoration of the island began in 2016, this final phase of the project began in 2020 and was made possible through funding from the Texas General Land Office (\$2,712,000) and the U.S. Fish & Wildlife Service, Wildlife and Sport Fish Restoration Program (\$28,000). Project partners also include HDR, Inc. (engineering, design, and permitting) and Texas Department of Transportation. The rock breakwater was designed taking into consideration relative sea level rise and current trends in high tides and storms. "This island was designed for resiliency," said Leigh Perry, Project Manager for the CBBEP. "With this type of construction, we are creating more nesting habitat for the colonial waterbird population while protecting the island from future erosion issues. We are looking forward to witnessing the restoration of this important rookery island and to many productive nesting seasons."



Causeway Rookery Island before restoration.



Construction of breakwater from barge and marsh buggy.

Rookery islands are critically important because they provide a safe nesting area for colonial waterbirds, free of predators and human disturbance. The completion of Causeway Island is one of several projects undertaken in recent years by the CBBEP in an effort to reverse declining colonial waterbird populations in Nueces Bay. "We have created marsh where birds can feed, there is improved estuarine functionality by the management of freshwater flows from the Nueces River, and now with the completion of these bird island restoration projects, waterbirds in Nueces Bay are showing promising signs of recovery" said David Newstead, Director of the CBBEP's Coastal Bird Program. Colonial waterbirds such as terns, Black Skimmers, gulls, herons, egrets, ibises, Roseate Spoonbills, American Avocets, American Oystercatchers and Black-necked Stilts will all benefit from the combined impact of these efforts. Stay tuned for updates and pictures, great things are on the horizon for Nueces Bay!



Erosion encroaching on birds nesting on Causeway Rookery Island during 2021 nesting season.