

Details of the Four Texas Rookery Islands

Phase IV Early Restoration Project

Historically, the Texas coast has supported many colonial waterbird nesting islands. Many of these islands were constructed in association with construction of navigation channels. Some nesting islands are no longer used by birds because they have suffered significant land loss. Changes in the bays such as relative sea level rise, increased erosion rates, and sediment management practices have resulted in fewer nesting areas for colonial waterbirds. The restoration actions will increase the amount and enhance the quality of available nesting habitat for colonial waterbirds. Project designs will use techniques to protect the restored islands from future land loss associated with tides, winds, currents, vessel traffic, storms, and predicted relative sea level rise.

Smith Point Island

Smith Point Island is a natural oyster reef island, appearing on maps since 1921. In 18 years the island decreased in size from greater than 9 acres (1995) to 4 acres (2013). At its peak, several thousand nesting pairs used the island each year. By 2012, the island supported about 30 nesting pairs.



Photograph of Smith Point Island in 2012

Past restoration actions installed breakwaters that have reduced erosion on the island. This existing breakwater will be incorporated into the design of the restored island. The conceptual design will add shell-like material to the existing island, expand and enhance the existing breakwater, increase the size of the island to 6 acres, and enhance nesting habitat.



Conceptual drawing of the Smith Point Island restoration, illustrating the breakwater, fill, and emergent shell substrate area



Woody Woodrow, U.S. Fish and Wildlife Service

Dickinson Bay Island II

The U.S. Army Corps of Engineers constructed three islands in Dickinson Bay with dredged material from the Dickinson Channel Project in 1934. Historically, these three islands supported colonial waterbirds along the Dickinson Bay Channel until the islands disappeared in the 1970s due to weather events and other disturbances.

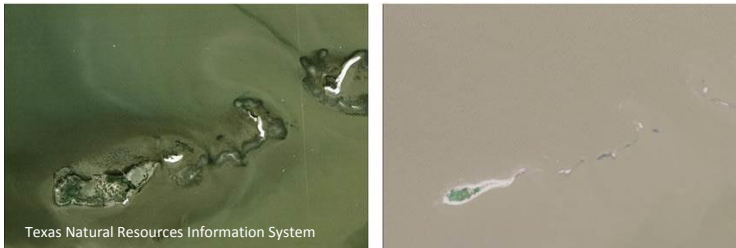
The recent construction of Dickinson Bay Island I will be used as a model for designing the new Dickinson Bay Island II (4 acres), including vegetation and protective features.



Recently constructed Dickinson Bay Island I

Rollover Bay Island

Rollover Bay Island was one of several islands created in association with construction of the Gulf Intracoastal Waterway. For over 30 years the island decreased in size from greater than 5 acres (1982) to less than 2 acres (2013).



Rollover Bay Island in 2000 (left image) and 2014 (right image)

The island currently supports limited colonial waterbird nesting and little diversity due to its diminishing size. Limited to no nesting took place in the last couple of years on what remains of the island.

The conceptual design for Rollover Bay Island will increase the island to 10 acres, plant native vegetation, and construct protective features, such as armored levees.



Conceptual drawing of the Rollover Bay Island restoration, illustrating the armored levee, fill, and potential emergent shell mitigation area

Dressing Point Island

Dressing Point Island is a natural island formed from the erosion of Dressing Point Peninsula that has decreased in size over the past 30 years from about 13 acres (1984) to about 7 acres (2011). Waterbird use declined as the island size decreased, from an average of 10,000 nesting pairs (early 1970s to late 1980s) to an average of 5,000 pairs. Despite these declines, Dressing Point Island, part of Big Boggy National Wildlife Refuge, is an important colonial rookery island on the upper coast of Texas and in East Matagorda Bay. The closest islands that provide similar nesting habitat are 40 miles away.

The conceptual design for Dressing Point Island will increase the island to 12 acres, plant native vegetation, incorporate shell material on the existing shell knoll, and construct protective features, such as armored levees.

Improvements to the shell knoll will provide an ideal nesting location for bare ground nesting colonial waterbirds.



Conceptual drawing of the Dressing Point Island restoration, illustrating the breakwater, fill, shell knoll, and potential marsh restoration

