

West Belle Pass Headland Restoration (TE-23)

Coastal Wetlands Planning, Protection and Restoration Act

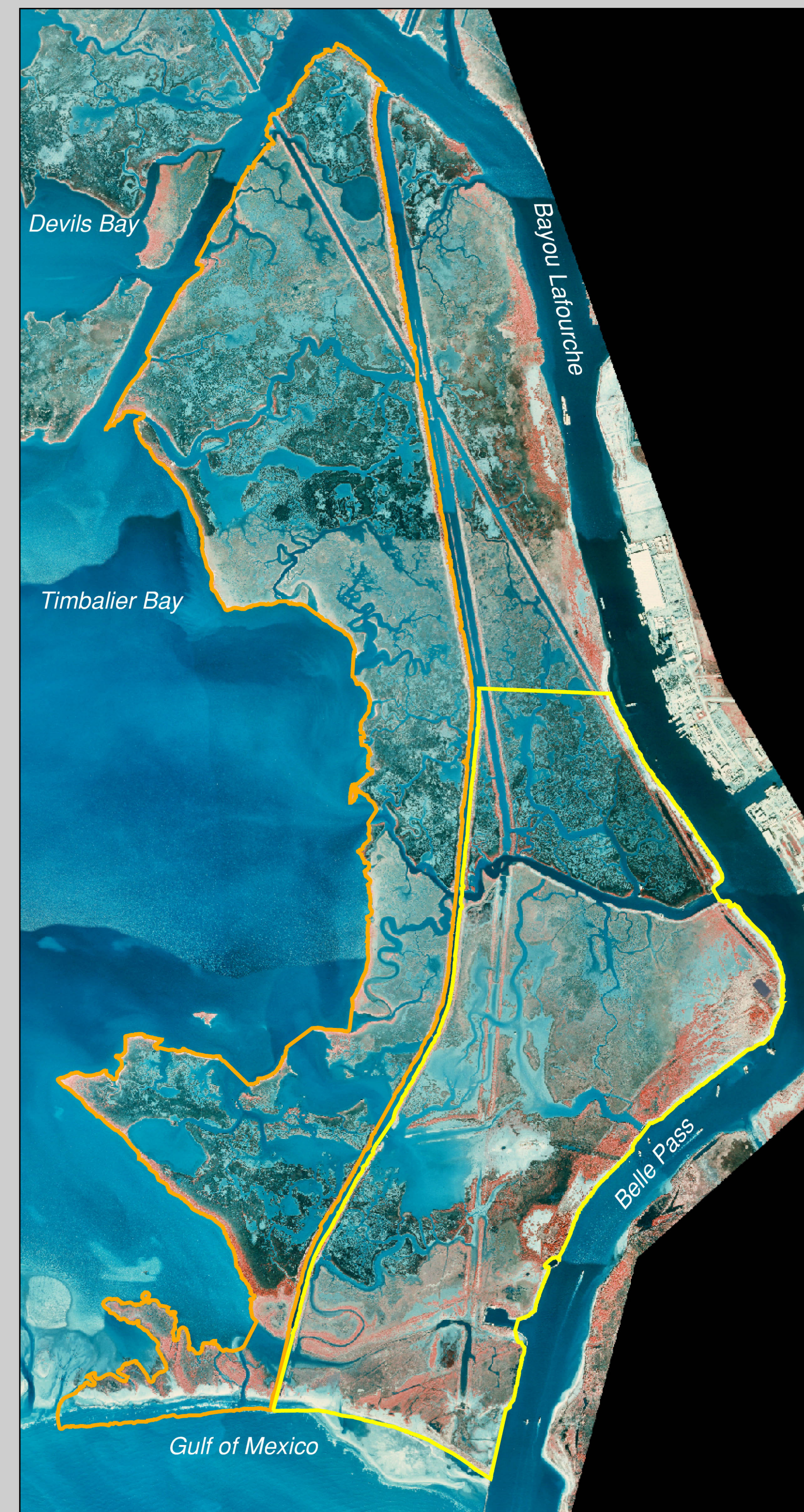
1997 and 2001 Habitat Analyses



1997 Photomosaic



2001 Photomosaic



Project Description:

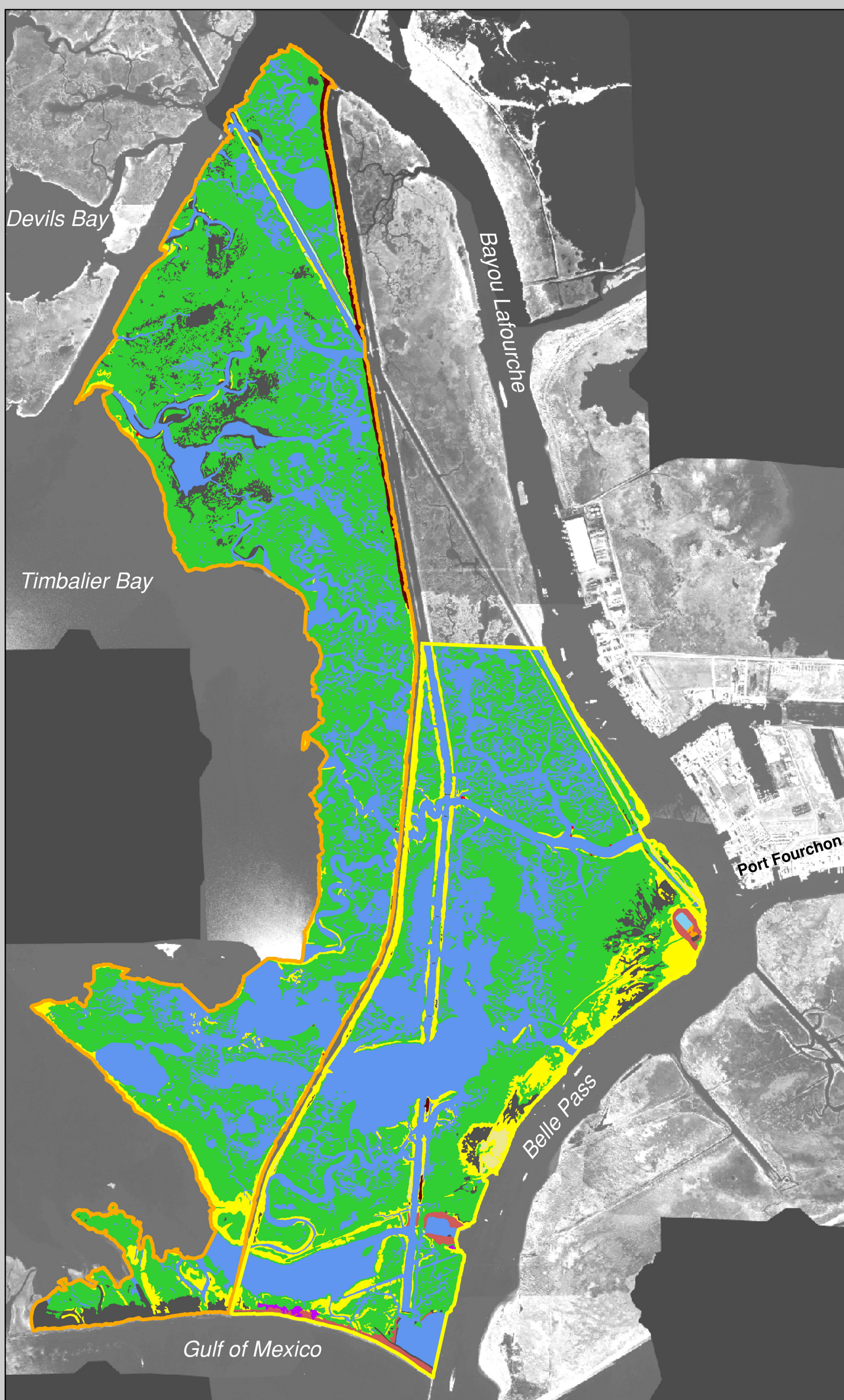
Located in Lafourche Parish, Louisiana, and adjacent to Port Fourchon, the West Belle Pass Headland Restoration Project covers an area of 2,459 acres of coastal wetlands. Timbalier Bay borders the project to the west, Bayou Lafourche and Belle Pass to the east, and the Gulf of Mexico to the south. The habitat of the project consists of a combination of salt marsh and black mangrove wetlands.

Historically, Bayou Lafourche was a major distributary of the Mississippi River carrying approximately 12% of the river's discharge until the bayou was closed at Donaldsonville as a flood protection measure in 1904. In 1955, input into Bayou Lafourche was restarted with the installation of pumps at Donaldsonville. Upon reaching the gulf, Bayou Lafourche splits into two primary passes, Pass Fourchon to the east and Belle Pass to the west. Accelerated beach erosion has been caused by the extension and restoration of jetties constructed at the mouth of Belle Pass in 1939.

Marshes in the project area have experienced an average sea-level rise of 0.41 inches per year along and a wetland loss rate of 0.31 square miles per year. Local subsidence has caused a rim effect along pipeline canals, impounding the interior marshes and causing a deterioration as well as loss of the vegetated wetlands. Shoreline erosion occurred along the western side of Bayou Lafourche at a rate of approximately 20 feet per year during 1983-1985 because of boat traffic and tidal action. Timbalier Bay has been encroaching into Bayou Lafourche through the marshes to the west. These openings in the marsh are expected to accelerate the rates of erosion within the project area.

This project is designed to reduce the encroachment of Timbalier Bay into the marshes on the west side of Bayou Lafourche and Belle Pass. Dredge materials will be used to create 184 acres of subaerial land by filling in pipeline canals and open-water areas. Old dams will be refurbished along with the construction of new ones along the dredged canals to allow stabilization of created and existing marsh. This project will also increase the marsh-to-open water ratio and reduce shoreline retreat along the west banks of Bayou Lafourche and Belle Pass.

1997 Habitat Analysis



Project Area
Reference Area

Data Source:

The habitat data were derived from 1:12,000 scale color-infrared photography shown here at 1:20,000 scale. Preconstruction photography was obtained on November 8, 1997. Postconstruction photography was obtained on December 18, 2001. Habitat classes are based on "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin and others, 1979, FWS/OBS-79/31) as modified for the National Wetlands Inventory mapping conventions.

1997 Habitat Analysis

Habitat Class	Project Acres	Reference Acres
Beach/Bar/Flat	34.5	101.5
Marsh - Salt	572.6	929.5
Open Water - Fresh	1.4	0.0
Open Water - Salt	552.2	485.8
Upland Barren	2.4	0.0
Upland Forested	0.9	19.0
Upland Range	0.5	0.0
Upland Scrub/Shrub	16.4	0.2
Urban	0.2	0.2
Wetland Forested	0.0	3.1
Wetland Scrub/Shrub - Fresh	11.2	1.1
Wetland Scrub/Shrub - Salt	148.4	70.9
Total	1340.7	1611.3

2001 Habitat Analysis

Habitat Class	Project Acres	Reference Acres
Beach/Bar/Flat	101.4	38.6
Marsh - Salt	603.8	843.1
Open Water - Fresh	1.3	0.0
Open Water - Salt	371.8	572.8
Upland Barren	14.6	0.0
Upland Forested	0.6	15.3
Upland Range	1.8	0.0
Upland Scrub/Shrub	11.9	0.1
Urban	0.3	0.1
Wetland Forested	0.1	1.9
Wetland Scrub/Shrub - Fresh	5.3	2.3
Wetland Scrub/Shrub - Salt	227.7	117.0
Total	1340.6	1611.2

2001 Habitat Analysis

