TV-04

Cote Blanche Hydrologic Restoration
Summary Data and Graphics

Updated 12/02/02
TV-04 Cote Blanche

Project Objectives

1. Reduce water exchange between marshes of Cote Blanche and West and East Cote Blanche Bays to prevent scouring of interior marsh and protect approximately 31,637 ac (12,803 ha) of fresh marsh.

2. Protect shoreline on southern boundary between Humble and British-American canals from wave erosion.

Specific Goals
The following goals will contribute to the evaluation of the above objectives:

1. Decrease variability in water level within the project area.
2. Reduce erosion rate of shoreline along southern project boundary.
3. Decrease rate of marsh loss.
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Monitoring Elements

Habitat Mapping: To document vegetated and non-vegetated areas, color-infrared aerial photography (1:24,000 scale with ground controls) will be obtained and analyzed following procedures outlined in Steyer et al. (1995). The photography will be obtained in 1996 (pre-construction) and in 2002, 2009, and 2015 post-construction.

Shoreline Change: Using GPS, shoreline position will be documented as-built in 1998, and in 2001, 2004, 2007, 2010, 2013 and 2016 post-construction to provide a template for mapping shoreline changes and movement over time. Shoreline positions will be compared to historical data sets available in digitized format for years 1952, 1957, 1971, 1979, 1983, and 1990, and shoreline survey information that are available from Miller Engineers and Associates from 1958–1975. Shoreline erosion rate for the project area will also be compared to the shoreline erosion rate of a reference area located west of the foreshore dike.

Water Level: To monitor water levels within and adjacent to the project area, 4 continuous recorders were placed in project interior open water areas and reference areas to the north and south. Water-level data will be used to document frequency, magnitude, and duration of marsh inundation. Water level data will be collected every year from 1997-2016.
TV-04 Habitat Mapping

Aerial photography collected in Jan 97, and fall 2002. Will also be collected in 2009 and 2015. 2002 photography is currently being processed.

- 1996 Photomosaic (1/11/97)
- 1996 Land:Water (1/11/97)
- 1996 Land:Water and Habitat Analysis (1/11/97)
- Satellite Imagery: November 24, 1990 and October 24, 1999
- Satellite Imagery: February 2, 2002 and October 16, 2002
Cote Blanche (TV-04): 1996 GIS Land-Water Analysis

Project Area*
- land: 25771.8 acres (83.4%)
- water: 5116.9 acres (16.6%)

Reference Area 1
- land: 13.73 acres (47.9%)
- water: 14.94 acres (52.1%)

Reference Area 4
- land: 472.75 acres (88.3%)
- water: 62.77 acres (11.7%)

*All of Reference area 4 and 13.4 acres of land and 2.0 acres of water of Reference Area 1 are included in the Project Area.
TV-04 Shoreline Change Data

• Shoreline Position was collected in 1998 and 2001, however these data are not presented in this report. They are currently being processed and will be presented in the next update.