Project background

The GIWW-Perry Ridge West Bank Stabilization project (CS-30) is located in southwestern Calcasieu Parish, Louisiana. The area is bounded to the south by the Gulf Intracoastal Waterway (GIWW) from Perry Ridge west to Sabine River. The GIWW is the dominant hydrologic influence in the project area, the construction of which has caused the area to become a tidal system. The use of double-wide barges, allowed in the section of the GIWW adjacent to the project area, has accelerated wave-induced erosion of the remaining spoil bank and marsh vegetation. The current estimate of the rate of shoreline erosion along the GIWW is 3.9 ft/yr (1.2 m/yr). Amplification of the effects of meteorological events has occurred as well, since water levels can fluctuate as much as 2 ft (0.6 m) with strong northerly winds and 10 ft (3 m) during a tropical storm or hurricane.

Project goals and strategies

Project goals consistent with the Coast 2050 common strategy of stabilizing major navigation channels include reduction of erosion along the north bank of the GIWW to protect interior marshes, creation of marsh habitat, and maintenance of submerged aquatic vegetation (SAV) habitat in the project area. To aid in stabilization of the GIWW west of Perry Ridge in the Texas state line, this project contains strategies that include: (1) the use of hard structures to break wave energy impacting shoreline along the GIWW and Sabine River and to repair a large breach in the spoil bank to eliminate tidal exchange; (2) construction of earthen terraces in open water areas of interior emergent marshes to reduce fetch and wave energy, retain sediments, and maintain SAV habitat; and (3) use of vegetation planting to stabilize terraces and increase emergent marsh vegetative cover.

Data information:
The land-water data were derived from 1:12,000-scale, color-infrared aerial photography obtained on October 25, 2005. All areas characterized by emergent vegetation, wetland forest, scrub-shrub and upland were classified as land, while open water, mud flats and aquatic beds were classified as water.

Data information:
The land-water data were derived from 1:12,000-scale, color-infrared aerial photography obtained on November 5, 2010. All areas characterized by emergent vegetation, wetland forest, scrub-shrub and upland were classified as land, while open water, mud flats and aquatic beds were classified as water.

GIWW-Perry Ridge West Bank Stabilization (CS-30)
Coastal Wetlands Planning, Protection and Restoration Act
2005 and 2010 Land-Water Classification