

# Holly Beach

## Cameron Parish, Louisiana

Protecting our NATURAL resources.

### Shoreline Protection

#### Project Team Members:

##### Owner:

Louisiana Department of Transportation and Development

##### Engineer:

Louisiana Department of Transportation and Development

##### Technical Description:

Product: 9" Open Cell ACB  
Area: 465,000 sf  
Installation Date: 1984 and 1988



Holly Beach project site is located in Cameron Parish, in extreme southwestern Louisiana. The chenier ridge that supports LA Hwy 82 is the last line of defense protecting thousands of acres of intermediate marsh habitat in the Sabine National Wildlife Refuge from the Gulf of Mexico. LA Hwy 82, the only east-west road in the area, also serves as the only Hurricane evacuation route for local communities providing residents of Johnson's Bayou, Ocean View Beach, Constance Beach, and Holly Beach egress west to east, and then northward on LA 27.

Shoreline erosion in this area is caused by Mississippi River channelization and Calcasieu Ship Channel jetties, limiting sediment transport availability, and is accelerated by frequent storm events. Prior to the 1984 and 1988 ACB armoring projects, shoreline erosion in the project area was occurring at rate of 24 ft. per year.

Following several unsuccessful shoreline armoring projects in 1970 and 1977, the Louisiana Department of Transportation utilized 9" thick ACB mattresses on two subsequent projects completed in 1984 and 1988.

Since completion, these two Gulf-Side Armoring projects, the site has experienced numerous Tropical Storms and Hurricanes during the last 20 year period, including a direct hit from Rita in 2005 and significant effects from Ike in 2008. Although the highway has sustained repeated damage on the **un-armored** landside during overtopping events, the armored Gulf side has performed exceptionally, while preventing any significant damage to the armored (Gulf) side of Hwy 82<sup>1</sup>.



Land Side after Hurricane Ike (2008)



Gulf Side after Hurricane Ike (2008)

<sup>1</sup> Naghavi, B ; Allain, P A. *Shoreline Stabilization to Protect Louisiana Highway 82*. Transportation Research Record 1279. p. 11-23. 1990.