

GRAND ISLE

Updated August 2012

U.S. ARMY CORPS OF ENGINEERS

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Public safety is the Corps of Engineers' top priority. Congress has fully authorized and funded the Hurricane and Storm Damage Risk Reduction System (HSDRRS) for southeast Louisiana. The \$14.45 billion HSDRRS includes five parishes and consists of 350 miles of levees and floodwalls; 73 non-Federal pumping stations; 3 canal closure structures with pumps; and 4 gated outlets.

Project Summary

Grand Isle is an inhabited barrier island located in Jefferson Parish at the mouth of Barataria Bay where it meets the Gulf of Mexico. The Grand Isle risk reduction system consists of a 7.5-mile-long vegetated sand dune along the southern (Gulf) shore, a jetty to stabilize the western end of the island at Caminada Pass and an offshore breakwater system. These features will reduce the risk



associated with a 50-year storm surge event. The total construction value for the Grand Isle risk reduction system is an estimated \$52 million.

Project Features

Prior to Hurricane Gustav in 2008, the Corps was in the midst of repairing damages caused by Hurricane Katrina to the Grand Isle Federal dune project on the island's south shore. By 2008, 8,000 linear feet of dune, breakwaters, jetties and pedestrian crosswalks had been repaired. However, Hurricane Gustav significantly damaged or destroyed much of the dune and an emergency flood-fighting effort was initiated with the approach of Hurricane Ike just a few weeks after Gustav. The flood-fighting effort consisted of filling the breaches in the sand dune with large sand bags and constructing an 8,000-linear-foot "burrito" core.

The damages to the dune in Grand Isle after Hurricanes Gustav and Ike in 2008 revealed that a stronger, more resilient dune system needed to be constructed. Thus, the Corps reconstructed approximately 5.7 miles of the dune with a geotextile tube core and a sand cap. The system consists of two 2.2-foot-diameter anchor tubes on either end of a 12-foot-diameter center tube. The tubes were placed on a 40-foot-wide scour apron to combat foundation scour caused by storm surge. The tubes were filled with sand from the pre-existing dune before being buried beneath sand dredged from a borrow site east of Grand Isle. The 80-foot-wide dune was constructed to an elevation of 13.5 feet above sea level.

-Over-

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Project Status

All Grand Isle risk reduction features were completed in April 2010.



Scour Apron



Geotextile Center Tube (white tube) and Anchor Tube (black tube)



Geotextile Center Tube with Anchor Tubes



Completed Sand Dune

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