

Application Story

PROJECT GRAND ISLE, LOUISIANA
Product Geotube® Marine Structures Technology
Application Sand Dune Cores

Location Grand Isles, Louisiana
Installation 2009

The Challenge:

The U.S. Army Corps of Engineers was working to rebuild and restore the shoreline of hurricane-damaged beaches along the Gulf Coast of Southern Jefferson Parrish. The beaches had been further eroded during Hurricanes Gustav and Ike in 2008.

The Solution:

Geotube® marine containment technology was selected by the Corps for their beach rehabilitation project. Nearly six miles of Geotube® units were installed to form a protective barrier, reduce erosion, and renourish the storm-damaged beaches of Grand Isle.

The installation involved 30,100 linear feet of 30' circumference GT500 Geotube® containers, 35' wide GT500 scour aprons [photo 1], and 7' circumference anchor tubes [photo 2]. Dune sand was slurried in a mixing box and hydraulically pumped to the Geotube® containers [photo 3]. The units were filled to 5.5' high, and then were covered with a 3' sand layer to create the profile of the natural sand dune [photo 6]. Dune grass will be planted later to revegetate the sand dune and provide erosion protection.

This installation took advantage of two unique Geotube® product features:

- *Patent-pending Flat Ends Design*-- created tight joints and maintained a uniform elevation from one Geotube® unit to the next [photo 7].
- *Sand-colored Polyurea Coating*-- offers strength, longevity, and durability, along with an aesthetically pleasing appearance [photos 7 and 8].

The Results:

Only weeks after the Geotube® installation was completed, the Grand Isle region was threatened by Tropical Storm Ida. While an older levee structure was breached during the storm, the Geotube® sand dune core structure suffered no damage at all.



Contact Information:

Toll Free: 888-795-0808 / www.geotube.com

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