Ocean Springs Beachfront

Geo Products, LLC | EnviroGrid® GeoCell

Background
The city of Ocean Springs, located on the Gulf Coast of Mississippi, was a popular place for residents to walk due to its newly constructed beach-side sidewalk. Although, during rainstorms and high tides, the water washed away the sand next to the sidewalk, leaving a large drop-off to the beach.

Technical Information

MATERIALS USED:
EnviroGrid® EGA20 8" 7,500 SF

APPLICATION:
Beach Erosion Control

PROJECT LENGTH:
3 Days

Geo Products, LLC
12626 N. Houston Rosslyn Rd.
Houston, Tx 77086
Phone: 281.820.5493 | Fax: 281.820.5499
www.geoproducts.org

Oxygen Springs Beach Sidewalk
Pre-EnviroGrid® GeoCell

Ocean Springs Beach Sidewalk
With EnviroGrid®
Problem & Objective

The erosion from rain and tides created a 12”-18” drop-off from the sidewalk to the beach. This was determined hazardous to residents walking, biking, or driving off road vehicles onto the beach from the sidewalk.

Design Solution

Engineers determined that a drainage layer, consisting of 8” deep EnviroGrid® would be the best solution to confine the sand and keep it from washing away amidst the rain and tides.

Construction Overview

Installation began with the excavation of a large drainage ditch, adjacent to the concrete sidewalk. A non-woven geotextile fabric was placed at the bottom of the ditch, connected to the sidewalk, and a drain pipe installed on top of the fabric. The ditch was filled with angular rock, and the EnviroGrid® was installed on top of the ditch. This extended out onto the beach and was infilled with a combination of angular rock over the drainage area and sand over the beach.

Results

Two days post-construction, the Ocean Springs beachfront experienced a torrential rain. In a span of 7 hours, the storm had dropped 4 inches and the beachfront was like a river. The cellular confinement system held the sand in place and greatly improved the drainage at the edge of the sidewalk, accomplishing the objective and solving the erosion problem.