SECOND PLACE (TIE)

Test-Case Breakwater Installations Southern Chesapeake Bay, tributaries, Maryland

Erosion along U.S. beaches is a serious engineering problem, and structures such as seawalls and jetties have become controversial. Seawalls buttress the shoreline behind a hard, unnatural barricade that can wreak havoc on coastal ecosystems. Jetties



TEST-CASE BREAKWATER INSTALLATIONS



Rod Chomper, Inc. 4249 Blue Star Hwy. Holland MI, 49423 USA www.rodchomper.com Toll Free: 866-392-9677 PH: 616-392-9677 Fax: 616-392-6155 sales@rodcomper.com have been known to break tidal patterns, diverting sands along the updrift face while starving the down-drift beach.

A precast solution to this ecological nightmare began a half century ago in England after World War II. A bulwark of scrap metal and concrete used to impede a German landing had become an unintended conservation device. Directly behind it, sands gathered and the beach grew wider. With a bit of knowledge, Smith-Midland began to manufacture a more refined version of the prototype and test it in a coastal environment.

The proving ground was to be a beachfront property near Queenstown, Md., where the Chesapeake had stolen the shore. Crews bolted a row of about 50 prisms 30 feet off the low-tide shoreline. As the weeks passed, the beach recovered lost ground.

Since that installation nearly 20 years ago, Smith-Midland has refined the precast prisms which are now available in 10-foot modules, 4 feet tall and 4 feet wide weighing 4-5 tons, with geometric slots cast to dissipate wave energy. Installers place the sections using an excavator or barge, depending on site conditions. Installers can place about 500 feet of these permeable, precast breakwaters in a day.

After the ravages of Hurricane Isabel

in 2003 along the East Coast, the prisms had survived virtually intact and 7,465 tons of new sand was replenished along the shore.

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