



Erosion Control Shoreline Protection Amanzimtoti Beach, KwaZulu-Natal

Case Study

Project: Amanzimtoti Beach Rehabilitation

Client: Ethekewini Municipality

Consultant: CBI Consulting Engineers

Contractor: DC Earthmovers

Date: October 2007

Product: **EnviroRock®**
bidim® A5

Quantity: 2 000



In March 2007 a cut-off low-pressure system induced a storm at sea. The high seas and large waves triggered by the storm caused damage running into hundreds of millions of Rands along the KwaZulu-Natal coastline.

The sand dunes along the Amanzimtoti tidal pool beach were badly damaged as the massive waves eroded away the beach sand. The planned rehabilitation was to incorporate 'soft' engineering solutions in accordance with the project's environmental directives.

Kaytech Engineered Fabrics introduced a soft engineering solution, the **EnviroRock®** Geocontainer Bag. The **EnviroRock®** bag is durable, robust and aesthetically pleasing, and was accepted by the engineer and environmentalist.



The **EnviroRock®** bags were hydraulically filled with beach sand from the site, and weighed approximately 4 tons when full. The bags prevented further sand loss at the toe of the dunes, and the placement was designed to allow wave run-up over the sloping structure, thereby reducing the wave energy.

bidim® A5 was first installed on the slope before the bags were placed in order to prevent any further erosion of the bank should water get behind the **EnviroRock®** bags. The contractor, DC Earthmovers, found the system very easy to install and used local labour to stitch the spouts of the bags closed. Construction was done with ease and speed.