COASTAL PROTECTION

Product: Maccaferri Polymeric Reno Mattress

Problem
In 1971 the sand dune and bar which was partially closing the mouth of the River Exe was being eroded by heavy storms, threatening the golf course immediately behind the dunes.

Solution
The erosion was controlled and prevented from further erosion by providing a Reno mattress protection to the sand dunes.

A filter geotextile was incorporated to prevent the leaching of fines. The toe of the structure was continued approx. 2 m along the beach to protect against undermining. Sand has since accumulated within the voids in the mattresses resulting in a natural re-building of the dunes. Various seed grasses are now taking root giving additional protection.

Up until 2012, the Reno mattress revetment has been covered by sand and vegetation to provide a strong, natural appearance front face.

In April 2012, due to the effects of a storm, a substantial proportion of Reno mattress has become exposed but in general they have not failed and the internal stones are mostly retained without any substantial loss.

Client:
DEVON RIVER AUTHORITY - SOUTH WEST WATER

Consultant:
C.H. DOBBIE & PARTNERS, LONDON

Contractor:
MARPLES RIDGEWAY (now MINISTER OF TRANSPORT)

Products used:
PVC RENO MATTRESSES 300mm thickness

Date of construction:
1971