

# Case Study

**Project:** Maroochy Beach Groyne 1  
**Location:** Sunshine Coast, Queensland, Australia  
**Client:** Maroochy Shire Council  
**Contractor:** Rick Evans Rock Walls  
**Consultant:** WBM Oceanics & International Coastal Management  
**Date:** November 2001



## ELCOROCK®

Due to the ongoing erosion of Maroochy Beach, the Maroochy Shire Council instructed Consultants, WBM Oceanics & International Coastal Management to assess the cause of the problem and recommend an interim solution.

Modelling at the Queensland hydraulics laboratory identified that beach nourishment together with a groyne located at the northern end of the beach would meet the criteria.

Due to the success of the Maroochy ELCOROCK® sea wall constructed as emergency protection to the Cotton Tree Caravan Park, the council called for the design and construction of a groyne constructed from Geosynthetic sand containers.

The tender called for a groyne 2.5m high by 100m long which could withstand 3m high waves. Another important criterion was that the geotextile should provide some form of vandal resistance.

The Council selected ELCO Solutions Pty Ltd's proposal, designed by ICM, consisting of a multiple container structure, which would maximise flexibility, and minimise the potential effects of vandalism.

The design incorporated a number of innovative features, namely:

- Vandal deterrent composite geotextile.
- 5 tonne Sand containers.
- Specialised filling & placing apparatus.



*Filling and placement of the ELCOROCK® containers*

The groyne was constructed well within schedule, even allowing for the steep learning curve, which is always associated with the development of new technology.

A total of 650 5t ELCOROCK® containers were used to construct this visually pleasing and cost effective structure.

This structure, a world first, reinforces ELCO Solutions Pty Ltd's reputation as the world leaders in the field of construction using Geotextile Sand Containers.



*Placing the ELCOROCK® containers*



*Project complete*

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