

CASE STUDY

Double Twist Mesh

Project: GBR Foreshore Protection Works
Date: August – December 2012
Client: Client Name
Location: Guadal Canal Beach Resort, Honiara, Soloman Islands



Gabion

Coastal erosion of the foreshore area in front of the GBR facility was a major problem over the past few years with beach front encroaching on the door step of the GBR facility home to the Australian and New Zealand defence force peacekeeping troops. Therefore design of a foreshore protection system that is feasible in terms of cost and durability was required.

Galmac/PVC Gabions and **Reno Mattresses** were specified because of the advantage of longevity that gala coating provides versus standard heavily galvanised mesh products providing 2 - 3 times the lifespan in a highly corrosive environment which can be found in coastal beach front.

The base of the **Gabion** and **Reno** structure was founded on solid underlying sea bed rock located approximately 1.5m below ground level in front of the GBR property. The monolithic **Gabion** and **Reno** structure provided the flexibility to stop undermining scour of the front boundary of the property hence protecting valuable infrastructure.

The use of Geofabrics supplied preformed bracing wires helped speed up installation time while providing a good finish to the **Gabion** structure by eliminating any excessive front face bulging.

A boat ramp was also constructed using **Gabion** and **Reno Mattresses** providing a robust protective structure for future access to launch and retrieve defence force boats.

At the suggestion of Geofabrics New Zealand Ltd the use of rock fall netting was also included as an extra layer fixed to the outside of all the mesh structures. This helped combat any loss of under sizes rock that may have been used in the filling of **Gabions** and **Reno Mattresses** during construction by closing the mesh opening aperture size and also acts as a sacrificial layer in the event of a severe storm. Any future damage can be easily and quickly repaired with spare **rockfall netting** rolls that can be cut to size and laced into place.



Prior to construction



Prior to construction



Construction of boat ramp

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Construction and completion of Gabion and Reno mattress wall

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