



FACT SHEET

Geotextile

The FPE Seawall Alliance is using geotextile to strengthen the seabed and the seawall itself during construction.

Geotextile is a specially designed material made from synthetic fibres. It is designed to enhance the stability of the ground in areas where the conditions are poor.

Two different types of geotextile will be used during construction of the seawall: high-strength and filtration. The high-strength geotextile will be placed on the seabed, beneath the rock. The seabed in this area has a thin layer of sand on the surface, but beneath the sand is very soft marine mud. The geotextile will act as a mattress on the sea bed to support the seawall and minimise sinking.

The filtration geotextile will be used as a separation layer between rock and sand within the seawall to provide protection from wave action and erosion. The filtration geotextile will stop the sand within the seawall from being washed away from beneath the rock protection layer.

The high-strength geotextile will arrive by sea in containers and will be transported to Toowoomba to be prepared for use by Darling Downs Tarpaulins. Each roll of geotextile will be sewn into sections approximately 100m long x 40m wide by specially designed sewing machines. Each section of geotextile will weigh approximately 5 tonnes when sewing is complete.

These sections will then be folded up and transported back to the construction site ready for use. Because of the weight of the geotextile, this activity is labour intensive and will require several men to fold each section.

The folded geotextile bundles will be placed on a barge specifically designed and constructed for the project. The barge will anchor as close to the shore as possible to start laying the geotextile, which will be rolled off the edge of the barge. Ballast material will be placed on the geotextile to prevent it from moving with the sea currents.

In total, nearly 220,000m² of high-strength and 155,000m² of filtration geotextile will be used in the construction of the seawall.