



FACT SHEET

Barge Works – Geotextile Placement



An important part of the construction of the seawall is the placement geotextile on the seabed. A specially designed barge has been fitted out with heavy-duty equipment for the project.

The barge is 53m long and 17m wide, and has six hydraulic/electric winches driven by an onboard generator. The barge also has a control tower from which operations can be overseen and controlled, and a ramp to allow machinery and equipment to be driven on and off.

The barge can carry approximately three days worth of construction supplies before needing to reload. It is transported to and from the load-out facility by tug boats, as it has no motor of its own. The operator sets the barge into the correct alignment using the winches and a Global Positioning System (GPS). A computer is situated in the control tower allowing the operator to view the barge's position relative to the works on the computer screen. This ensures the geotextile can be laid accurately.

Four of the six winches are used to manoeuvre the barge to correctly align the geotextile panels. One winch is used to operate the entry ramp and another acts as back up should any of the winches fail. The generator provides power to the winches and other utilities on board.

There is an excavator on board to place ballast material (small rocks) onto the geotextile once it has been placed on the sea bed, to ensure that it is secure, and protected from the movement of waves and currents.

A gantry crane is also fitted to the barge to enable the six crewmen to move the large rolled panels of geotextile into the deployment system, ready to be fed over the edge of the barge and into the water.