

# PROJECT SHEET

**NEWBIGGIN BAY COASTAL PROTECTION SCHEME**  
NEWBIGGIN-BY-THE-SEA, UNITED KINGDOM

**BOSKALIS WESTMINSTER: SKILLS, RESOURCES, EXPERIENCE**

Boskalis provides clients with tailored, project-specific solutions for above dredge related offshore services, as illustrated by the following project summary.

**PROJECT DESCRIPTION**

Newbiggin by the Sea was once a seaside resort, with the residential area focused around the bay. Falling beach levels and increased risk of seawall failure led to a strategy and proposal to import beach fill, along with construction of an offshore breakwater to retain material.

Work commenced with the construction of the breakwater, firstly laying a geotextile fabric before placing the rock core. The project included for the sculpture 'Couple' (two 5m high bronze figures) to be mounted on a steel piled structure, incorporated into the body of the breakwater. The foundations and receiving piles were laid during low waters whilst placing the rock core. 3.9m<sup>3</sup> Coreloc (concrete armour) units were then placed as the upper armour layer, with a 5 tonne rock armour toe.

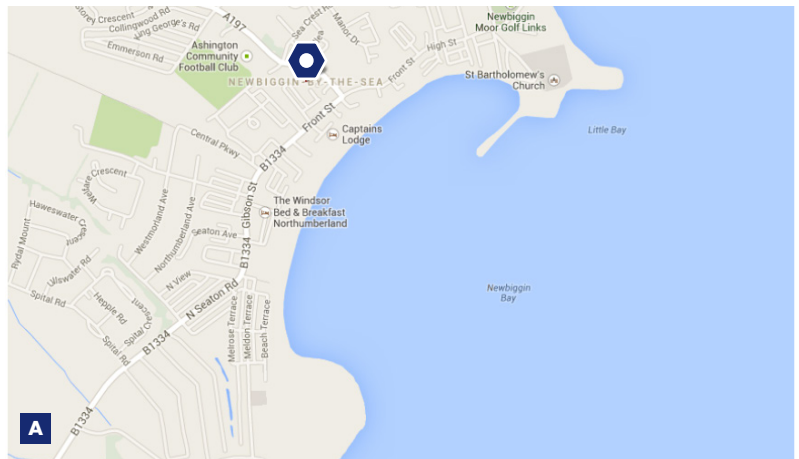
Altogether 60,000 tonnes of rock and concrete armour were used to build the offshore breakwater. 300,000m<sup>3</sup> of beach recharge was then dredged and pumped ashore, in just 3½ weeks, by the 15,000m<sup>3</sup> Trailing Suction Hopper Dredger, 'Oranje'. The vessel won sand from a licensed area near Skegness, before linking up to a 1½km pipeline running into the bay at Newbiggin. gas industries in the North Sea.

There is also a Marina on the south west side of the harbour, used by pleasure craft. There are constant vessel movements within the harbour relating to all these users. All these factors had to be taken into account in developing the method of work.

With the foundations of the piled structure stable within the breakwater core, the upper section of the structure was then placed, with the legs rising at an angle to accommodate a deck on which to mount the sculpture. The figures were carefully lifted into place using the 'Strekker', before being permanently bolted on to their new home looking out to the North Sea.

**FEATURES**

Project Name	Newbiggin Bay Coastal Protection Scheme
Client	Wansbeck District Council
Contractor	Boskalis Westminster (Formerly Westminster Dredging Company Ltd)
Location	United Kingdom
Execution period	Apr 2007 - Nov 2007



- A** Aerial view of the dredge area
- B** The breakwater featured a giant model of a couple
- C** Dredger pumping ashore
- D** Coreloc lined up on the quayside ready for shipping to site
- E** A local sailing school event sponsored by Boskalis Westminster

