

## ENGINEERING THAT WORKS FOR YOU

### PORT, HARBOUR & SEA DEFENCES

Berwick upon Tweed Breakwater

Contract	Value	Location
20 Weeks	£320,000	Berwick

#### Client

**Northumberland County Council**

County Hall

Morpeth

Northumberland

NE61 2EF

#### Engineer:

**Jacobs Engineering**

Phoenix House

3 Surtees Way

Surtees Business Park

Stockton on Tees

TS18 3HR



### Project Description:

Works to the roundhead of the breakwater at the River Tweed estuary, Berwick upon Tweed required complicated repairs in tidal waters using pontoons and divers for access. The breakwater is generally founded on bedrock and consists of dressed masonry walls and a dressed masonry/concrete running surface.

Repairs were carried out to two areas of localised damage to the roundhead and included the recovery of missing stonework known to be lying on the seabed local to the roundhead together with the reinstatement of an underwater hole that has formed underneath and adjacent to, the toe of the buttress wall.

Missing stonework at the toe and at the top of the buttress wall was replaced. This involved sourcing similar masonry stone to make good any shortfall in the amount of block recovered from the sea. Sourcing and installing suitable mechanical fixings to ensure the structural integrity of the masonry repairs was paramount.

