

TMS Maritime is a leading UK specialist in marine civil engineering, ancillary floating plant and diving services

Client: **Warrington Flood Defences**

August 2013

Project: **Environment Agency**

Requirement:

The banks of the tidal River Mersey in Warrington, showed severe signs of flood damage, causing subsidence at a number of locations along it's banks.



Solution: ▼

Installation of approx 1km of AZ12 x 6 metre piles along the bank using the latest TMS Movax piling hammer and 20.3 metre AZ50 crimped pairs, with flap valves for land drainage by conventional means.

Working with **Birse Civils**, the principle contractor, TMS Maritime has undertaken the piling contract in a challenging location. Due to the weakness of the river bank from flood erosion, cranes and piling hammers could not be shore based – the only option was floating plant. Normally an existing spud leg crane barge would be used, but this location had a number of access restrictions, which prevented this. TMS's solution was to build a modular 15 x 30 mtr. barge, comprising thirty Unifloat units plus spud legs. However, the pile driving plant required a 70 ton crane to be used on the barge, which was too heavy to lift on weak ground with a 250 ton mobile crane from the shore. TMS overcame this problem, by dismantling the crane into units of less than 40 tons (the maximum that could be lift from the shore at this radius), before re-assembling the crane on the barge.

Piling work was completed on this stretch of the river, with a vibro hammer and 14 ton impact hammer, prior to the crane and barge being disassembled and lifted to shore at the end of the contract.

