

AquaticEngineering

Working Above Water, On Water & Under Water

Case Study : Aberdeen Torry Quay Phase 3 Silt Curtain



Client: Aberdeen Harbour Board
Contractor: McLaughlin & Harvey
Duration: 54 weeks
Value: £13,000,000
Engineer: Arch Henderson

Aberdeen Port is the centre of the offshore oil and gas industry's marine support operations in North West Europe as well as a base for companies servicing the offshore renewable industry.

Annually handling around 5 million tonnes of cargo (£1.5 billion) for a wide range of industries, this truly is a world class port. Disruption to the day to day working of the Port could not be considered.



The project involved demolition of the existing wharves at Torry Quay and replacing them with 300 metres of realigned deep drafted quays more suitable for modern ships and heavy cargoes. Although a heavily industrialised area, the River Dee is still a SSSI at this point, with salmon, otters and seals regularly seen throughout the duration of the contract.

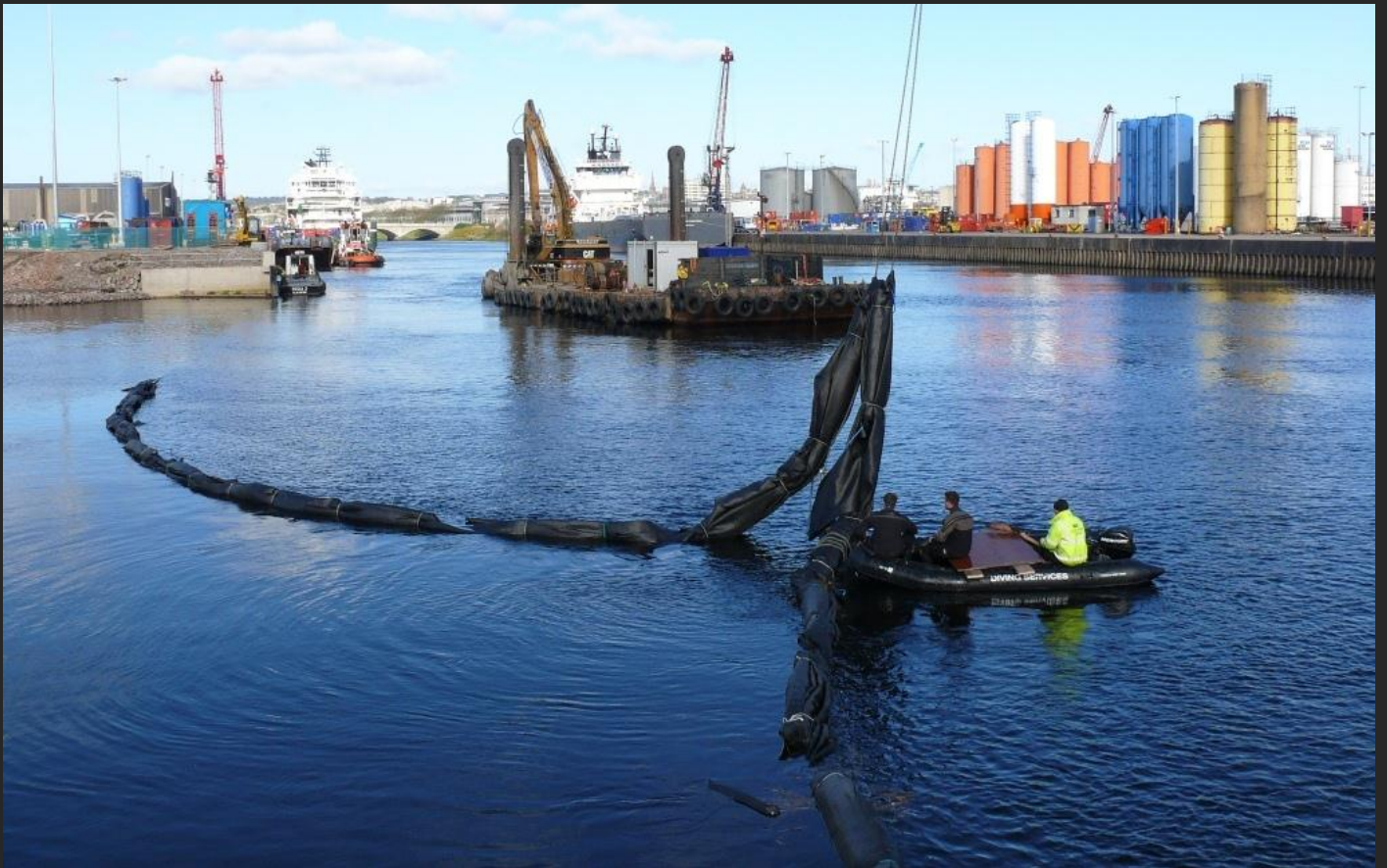
AquaticEngineering were commissioned to design, fabricate and install a 138m x 12m curtain which could cope with a 7m tidal variation twice a day and yet did not entrap salmonidae within the old dock of 16,000m².





AquaticEngineering's commercial dive team undertook all surface/subsurface cutting and welding along with the installation of tonnes of anchors in preparation of the curtains deployment.





Divers attached the integral ballast chain to the preinstalled dead weigh anchors in depths of up to 12m with strong currents on the flood and ebb tides.





Silt curtains are fabricated to our clients need; tough marine application sites, long-term & standard civil engineering sites or temporary disposable options are all available... we do not supply 'one size fits all' products.

As can be seen the many hundreds of thousands of tonnes of quarry waste required to fill the old wharf created a serious silt pollution threat.





Once installed the curtain was free to do as intended – AquaticEngineering's unique design allowed the flood and ebb tides to pass unhindered whilst still retaining the majority of the suspended solids in the water column on the work zone side of the curtain.







The effectiveness of the installation is clearly visible from these aerial shots.



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