

Dredging Solutions for Port of Grangemouth



UK marine environmental consultancy ABPmer has identified cost-effective dredging solutions for the Port of Grangemouth, which has experienced increased siltation around the entrance to the impounded port in recent years.

The maintenance of navigable depths in ports, harbours, marinas and shipping channels is a statutory requirement for most harbour authorities. Where sedimentation occurs, maintenance dredging is undertaken to preserve water depths.

ABPmer was contracted by Forth Ports Limited to determine a preferred practical, environmental and cost effective way to manage the present siltation and, therefore, future maintenance dredging requirements.

Peter Whitehead, associate marine scientist at ABPmer, explained that using existing data supported by in-house numerical modelling, the organisation developed a conceptual understanding of the physical processes in the area. By combining this with an understanding of the port's historical dredging campaigns, ABPmer developed options to reduce the siltation rates and the Port's maintenance dredging commitment. This is a win-win scenario as it reduces the costs of future maintenance dredging while also reducing environmental impact.

Dr Derek McGlashan, Environment and Energy manager for Forth Ports said to have observed a significant year on year increase in the volume of silt being deposited at Grangemouth since 2009. This led the port authorities to select ABPmer to assist in considering various options to minimise dredging, whilst maintaining the safety of navigation. ABPmer has been flexible in approach and identified practical and efficient options, allowing us to make changes to our approach and monitor the impact on dredge volumes.

ABPmer routinely advises port and harbour authorities on strategies to minimise dredging commitments, based on our detailed knowledge of the interactions between port infrastructure, navigation channels and prevailing estuary processes.