

Innovation Briefing 18 – AquaDam temporary cofferdams.

The AquaDam is a water filled temporary cofferdam.

What is it?

- The AquaDam is a stable, temporary water filled cofferdam, which can be used to divert, contain or control the flow of water.
- The dam consists of two polyethylene liner tubes, contained within a single woven, tough, neoprene geotextile outer tube.
- When the two inner tubes are filled with water, the resulting pressure and mass create a stable, non-rolling wall of water.
- Budget range AquaDams are available for water depths of up to 75cm in lengths of between 5 and 30 metres.
- Standard range AquaDams are available for water depths of 1.8 metres and available in bespoke lengths up to 300 metres.
- A complete installation with hire service is also available.



Picture 1: AquaDam installed around the working area to prevent materials entering a live watercourse (Courtesy of Albion Water Structures Limited)

What can we use it for?

- Most applications where a temporary cofferdam would be considered to exclude water from construction activities, maintenance or inspection.
- Can also be used as a temporary flood barrier.

What are the advantages?

- Quicker to install than conventional cofferdam methods, saving time and money.
- No ground penetration required, reducing health and safety risks and minimising the impact on the surrounding environment.
- The dam can be filled with water available on site.
- The dam deforms to match the contours of the river bed, forming a good seal. This flexibility allows bypass pipes to be inserted under the dam which can remove the need for over pumping.
- Twin inner tubes form a very stable section. This is a considerable advantage over single tube solutions.
- Very flexible deployment, with numerous configurations available to cover most dewatering scenarios and it can easily be reused.

What other considerations are there?

- Only suitable for water depths of up to 1.8 metres.

This note is for general awareness of product availability and does not constitute an official endorsement by the Environment Agency.

Where has it been used before?

- AquaDam has been used successfully throughout the UK, Europe and America and more recently used by EA Operations Delivery teams in Thames NE Area on the River Colne in West London. The dam was in place for 10 days to allow the replacement of two collapsed sluice structures.

Where can I get further information?

- For practical information on its use by Operations Delivery on the River Colne please contact Angus Richardson, in the Operations Delivery Technical Support Team on 01707632624.
- The sole supplier in the UK is Albion Water Structures Limited they offer AquaDam for sale or a complete installation with hire service. Further information can be found by visiting www.cofferdam.co.uk by emailing sales@albionwater.eu or by telephoning 0292 131 0705.



Picture 2: Downstream of the AquaDam in the working area on the River Colne, West London, showing one of the bypass pipes running under the dam (NE Thames Operations Delivery)



Picture 3: Upstream of the AquaDam in the River Colne, showing the level of water retained (around 1.2 metres deep). (NE Thames Operations Delivery)



Picture 4: Two 40m AquaDams installed in a lake at an English stately home (Courtesy of Albion Water Structures Limited)

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