

Retaining Wall

Webwall, Ramsden Reservoir, West Yorkshire UK



CASE STUDY



Project Description

Ramsden Reservoir was constructed in the 19th century. It is one of four reservoirs in the Holme Valley that supply Holmbridge Water Treatment Works, which, in turn provides mains water to the populations of Dewsbury, Batley and Heckmondwike. To ensure the continued compliance with the Reservoirs Act 1975, Yorkshire Water identified a need to upgrade the existing spillway to account for a 1 in 500 year flood event.

The Challenge

It was necessary to steepen the embankment next to the spillway so that it would cope with a 1 in 500 year flood, requiring the intergration of a retaining wall structure. The Holme Valley is popular with anglers, hikers, cyclists and other leisure users and the work had already attracted a lot of interest from the local community. This had resulted in there being a need to maintain the visual appearance of the embankment in keeping with its surroundings. It was also crucial that no extra pressure was put on the back of the reinforced concrete spillway wall.

Project Information

Client	Yorkshire Water
Contractor	JN Bentley
Product	Webwall
Quantity	700m ²
Benefits	<ul style="list-style-type: none">• Cost savings over traditional methods• Rapid installation minimised disruption• Reuse of site won materials



ABG Webwall

ABG LTD

E7 Meltham Mills Road, Meltham, Holmfirth, HD9 4DS • +44 (0)1484 852096 • www.abgltd.com

a Bontexgeo Group company

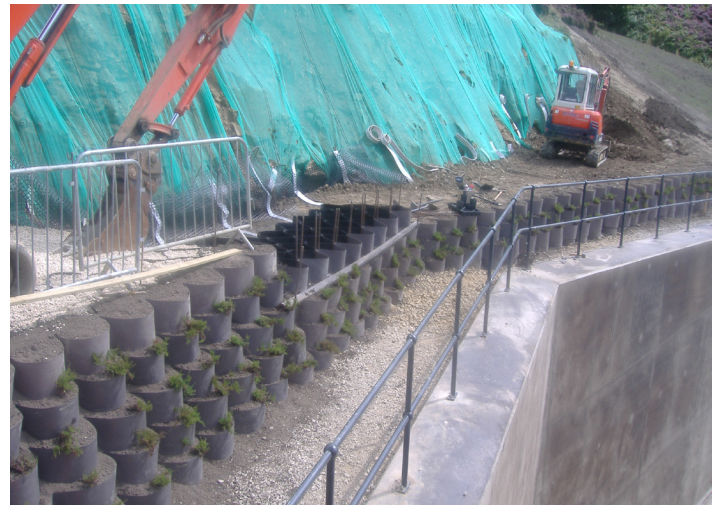
Retaining Wall

Webwall, Ramsden Reservoir, West Yorkshire UK



The Solution

ABG's **Webwall** was chosen as it successfully met the brief and offered further advantages, allowing the use of existing fill from site. This significantly reduced the number of vehicle movements, costly removal of the soil to landfill and the amount of imported fill required. For this project **Webwall** was produced in a bespoke colour to the client's requirements. The colour was selected to blend into the background of the local soil and heathers, minimising the visual impact of the wall whilst the vegetation was establishing. **Trigrid EX** geogrid was incorporated into the design since it gives high strength at low strain and **ABG Fildrain** drainage geocomposite was used to ensure sufficient drainage behind the structure. After six months the **Webwall** facing was almost completely obscured by the established vegetation.



Webwall being constructed and filled

The ABG Service

ABG completed the design and supply of the system as well as providing full technical support and installation supervision.



Completed webwall



Established vegetation

ABG LTD

E7 Meltham Mills Road, Meltham, Holmfirth, HD9 4DS • +44 (0)1484 852096 • www.abgltd.com

a Bontexgeo Group company