

# AquaRockBags for Emergency and Temporary Work

Following a storm event in February 2022, a 20-metre section of flood wall in the Derbyshire town of Matlock collapsed. Jackson Civil Engineering, a specialist civils contractor on the Environment Agency's framework, was commissioned to resolve the situation and repair the wall. Emergency temporary work was needed prior to commencement of the main work.



Jackson Civil Engineering approached Salix to supply over 500 pre-filled two-tonne AquaRockBags to use as immediate flood protection, and the bags were reused later as part of a temporary work piling platform.

The previous experience of Jackson Civil Engineering's senior site staff in working with Salix on a number of high-profile, large-scale flood defence schemes over the past 15 years has developed an excellent understanding of the solutions that Salix provides. This project marked the first time that our bags have been used for this specific purpose in the UK.

## Case Study

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Owing to the access constraints of the project, the only feasible cost-effective solution was for Jackson Civil Engineering to build a platform within the River Derwent to repair the failed river wall and flood wall. This section of the river is fast flowing and susceptible to high water levels during wet periods. Jackson Civil Engineering's design team utilised the AquaRockBags as a foundation for building the stone platform. The durability, strength and versatility of the AquaRockBags enabled Jackson Civil Engineering to place these in the river using a crane without the need for installing any cofferdams.



The 800-tonne crane, nicknamed 'Lifty McShifty' after a competition for locals to 'name the crane', was initially used for the heavier lifting, with a 500-tonne crane brought in to replace it later in the project.

The AquaRockBags created a good foundation for Jackson Civil Engineering to place a layer of aggregate on top to create a level base to install 65 piles, using specialist piling equipment known as a Giken Supercrush.

A reaction stand was also required to counterbalance over 80 tonnes (A combined weight of 105 tonnes) to enable the Giken to press the 10-metre-long steel piles into place. Incredibly hard Derbyshire limestone made the piling extremely challenging. Jackson Civil Engineering's timelapse video and more information about the project can be found on the Environment Agency's website.



*"We have used Salix AquaRockBags in the past for permanent work, so it was a great opportunity to utilise these bags to establish a work area in a very restrictive and inaccessible space. The strength and versatility of this product enabled us to create a level base that adapted to the contours of the riverbed while supplying a solid foundation."*

*Salix always goes above and beyond to deliver the service required. When these bags were utilised for the initial emergency bank stabilisation, Salix excelled and delivered in short notice."*

Jackson Civil Engineering Site Agent Gareth Baugh

Salix AquaRockBags come in a variety of net sizes for use as one-, two-, four- and eight-tonne bags. They are quick to fill and install using the lifting rings that are supplied with the nets and have multiple uses, ranging from emergency or temporary work for permanent scour and erosion protection on inland watercourses, lakes and shorelines to intertidal and marine applications. Salix has a global agreement with its German partners and is currently supplying to Europe, Australasia and USA markets.

