

# Erosion Control

Silt and debris retention, Erosamat, Saddleworth, UK



CASE STUDY



## Project Description

The huge wildfire that raged over Saddleworth Moor for three weeks in 2018, began on the evening of June 24<sup>th</sup> near the village of Carrbrook.

The moorland surface was left severely damaged with wildlife habitats destroyed and years' worth of carbon released into the atmosphere from the burnt peat.

This particular area of moorland forms part of the catchment area for United Utilities' raw water supply and there was a serious and imminent risk that forecasted heavy rainfall would wash much of the contaminated silt and debris down the hillside into Upper Swineshaw Reservoir.

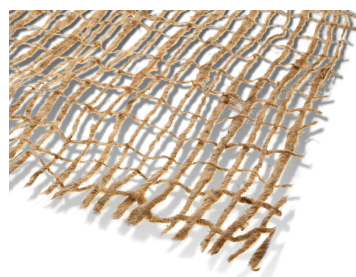
## The Challenge

It was essential to rapidly implement some form of scour protection to prevent particle detachment from a heavy downpour and to capture the inevitable run-off which would transport debris from the burnt surface down the moorside and into the reservoir where the contamination would put additional pressure on water processing facilities and pose a reduction in the quality of drinking water.

Rainwater impact on the silty fine grain surface could mobilise and erode very quickly forming rivulets of silt laden slurry which would flow directly into the reservoir. The solution had to be readily available, easy and quick to install, be eco-friendly and require little or no attention once vegetation has re-established. A silt trap at the base of the slope was required as a final safety measure.

## Project Information

|                   |  |
|-------------------|--|
| <b>Client</b>     | United Utilities   |
| <b>Contractor</b> | Landscape Engineering Ltd  |
| <b>Product</b>    | Erosamat Type 1 (Jute)<br>Erosamat Type 2 (Coir)   |
| <b>Quantity</b>   | 21,000m <sup>2</sup><br>1,000m <sup>2</sup>  |
| <b>Benefits</b>   | <ul style="list-style-type: none"><li>• Easily transported &amp; conveyed to site</li><li>• Rapidly and easily installed</li><li>• Immediately effective</li></ul> |



ABG Erosamat Type 1



ABG Erosamat Type 2

ABG LTD

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## The Solution

Drawing on experience working with Cranfield University to control “run-off” in the SSSI Wye Valley and the previous supply of some 74,000sqm of ABG’s Erosamat Type 1 for the Moors for the Future project, ABG proposed this same **Erosamat Type 1** as a bio-degradable Erosion Control Mat comprising wholly of jute fibres to cover and protect the burnt surface from rain bombardment and degrading for 1 to 2 years to allow the natural re growth to take over. A surface layer of the slower degrading (4-5 years) coir **Erosamat Type 2** was proposed in combination with a vertical non-woven geotextile silt fence as a final silt trap and barrier at the foot of the hill, just above the reservoir.

## The ABG Service

Within 24 hours ABG had visited UU offices, visited site, developed and proposed a solution, gained approval and delivered material to along with site supervision to brief the installation team. The whole installation was completed by the contractor in less than 7 days despite the remote location and access restrictions.



The lower slopes of the burnt hillside were covered with the **Erosamat Type 1** to prevent downslope contaminated silt erosion. The still vegetated lower slope (not burnt) uses the natural vegetation to stabilise the soil. A longer lasting combination of a surface strip of **Erosamat Type 2** with a silt fence provided the final safety barrier above the reservoir.



Quick deployment over burnt areas of hillside



Matting pinned closely to the surface to prevent erosion

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