



Catchment Restoration Fund (CRF) Project Briefing Note

Peatland restoration project: Rivers Alport & Ashop

The funding obtained from CRF will be used to implement a programme of moorland restoration aimed at improving the water quality in two river catchments within the Dark Peak SSSI. Many river catchments of the Dark Peak SSSI contain significant areas of bare and eroding peat, which is the dominant reason for failure of various waterbodies. There are significant correlations between levels of dissolved organic carbon (DOC), colour and organic phosphorus, and particulate organic carbon (POC) and metals in the water.

The physical erosion and chemical breakdown of peat is a reason for failure because of:

- release of organic phosphorus from peat degradation into downstream waterbodies, leading to increased levels of certain algae
- lowering of water pH due to the presence of peat and the increase in levels of DOC
- release of metal pollutants from bare peat into rivers
- high levels of DOC, leading to high colour levels
- all the above factors can have an impact on stream macro-invertebrates and fish numbers.

Also, eroding peat causes a significant volume of deposited sediments. Approximately 2.5cm depth of peat is lost annually from an area of bare peat, so for the project area that's 289,000 square metres of bare peat leading leads to an approximate volume of sediment annually deposited within the waterbodies of 7225m³.

The project consists of 3 work packages which will address the issues outlined above by allowing the development of more sustainable moorland vegetation on the bare peat areas, through the spreading of brash, planting of cotton grass and application of sphagnum. Other work involves blocking the gullies to prevent further erosion and reduce the amount of POC in the water.

Key facts	
River Basin District	Humber
Catchments	Ashop and Alport rivers in the Bamford catchment of the River Derwent
Outcomes	<p>Improved river water quality – reduce peat in the Rivers Ashop and Alport by 50% from current levels, by the following methods:</p> <p>Gully blocking - block all identified gullies with appropriate dams. Raise sediment and/or water levels within gully systems by 40cm</p> <p>Brash spreading - restrict bare peat to less than 10% of surface area in target areas</p> <p>Revegetation - establish cottongrass on all areas of bare peat associated with gully blocks.</p>
Start Date	December 2012
End Date	March 2015
Budget	£2,080,600
Project Partners	Moors For the Future, National Trust

Description of Works

The works will be delivered in three packages as follows:

Package 1 – The Edge, on the northern slopes of Kinder Scout has had bare peat stabilisation works already completed through the Making Space for Water project. Further work is required to prolong the stabilisation of the bare peat in order that the native moorland vegetation can colonise the site, and ensure that it does not deteriorate back to bare peat.

Heather brash will be spread in this area, and a further application of lime and fertiliser will be made. Several gully systems will be blocked with timber and stone dams in order to trap eroding peat sediments and raise the water levels in adjacent peat. Sphagnum mosses will then be re-established by the application of Sphagnum propagules into the developing sward.

Package 2 – various locations within the Ashop and Alport moors require gully blocking to protect the intact peat domes and

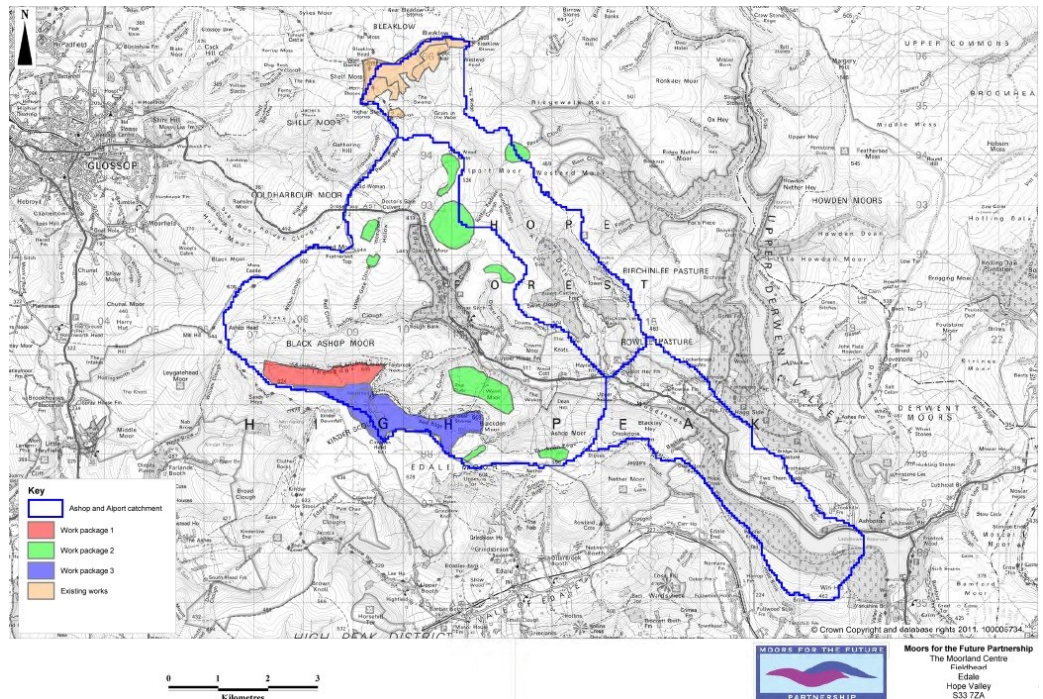
preventing them from eroding further. The work will involve construction of peat, timber planking, plastic or stone dams, depending on slope, base substrate and peat depth. Cottongrass plugs and sphagnum will then be planted behind the dams in order to stabilise any peat that accumulates behind the dams, preventing it from being washed out. The work will also involve stabilising the peat around a trig point on Kinder Scout by laying flagstones prevent further erosion.

Package 3 – Seal Edge on Kinder Scout requires major work over 171 hectares, to stabilise bare and eroding peat by forming a skin of vegetation to prevent further erosion. It requires an initial stabilisation of the substrate, using heather brash and geo-textiles, followed by an application of lime, mixed grass seed and fertiliser. This technique will then be followed up by the planting of cotton grass plugs to further stabilise the bare peat.

What will success look like?

This CRF project will enable the National Trust to carry out major moorland restoration works within the Bamford catchment, in conjunction with the Moors for the Future Partnership and Natural England. This will deliver major benefits to water quality, helping the Rivers Ashop and Alport to meet the requirements of the Water Framework Directive. The planned improvements to the quality and condition of the moorland habitats will also help in moving the SSSI units towards 'favourable condition' and more generally improve their wildlife and landscape value. At the same time, by protecting extensive areas of peat from further erosion, the project will improve the capacity of the moorlands to act as carbon stores.

The Peatland Restoration Project: Rivers Alport and Ashop in the High Peak is a joint initiative between the National Trust, Moors for the Future Partnership and the Environment Agency. All of the land within the project is owned and managed by the National Trust.



About the team

Project Manager: Nick Sellwood, Matt Buckler

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Other contacts

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