

Pennine PeatLIFE

NORTH PENNINES
Area of Outstanding Natural Beauty

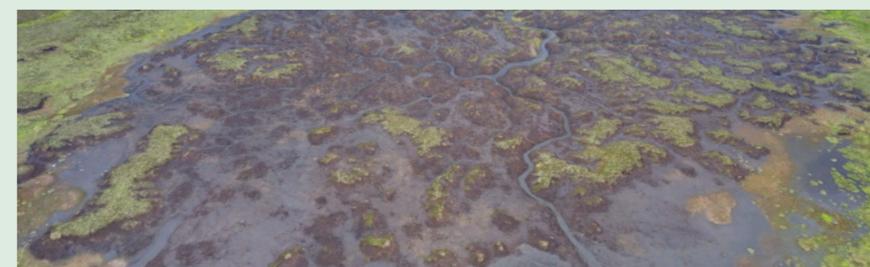
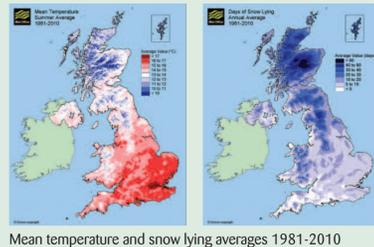


Pennine PeatLIFE is a four-year peatland restoration project run in partnership by the North Pennines Area of Outstanding Natural Beauty (AONB) Partnership, Yorkshire Wildlife Trust and the Forest of Bowland AONB Partnership. It aims to restore damaged peatlands across three protected landscapes in the North of England.

Pennine PeatLIFE covers the North Pennines AONB, the Yorkshire Dales National Park and the Forest of Bowland AONB. Funded by the EU LIFE programme with match funding from the Environment Agency, Yorkshire Water, Northumbrian Water Limited and United Utilities, this partnership is working at a landscape scale to restore 1,353ha of bare and degraded peat over the next four years (2017-2021).



The peat bogs along this northern chain are quite different from other upland bogs in the north of England as they still have a good level of *Sphagnum* moss. They are higher in altitude, have a higher rainfall, lower temperatures and have shortened growing seasons due to extended periods of snow in the winter and reduced sunshine hours during the summer. With a harsher climate comes different challenges and different restoration methods are needed.



A typical North Pennines bare peat site © Mark Brown @ Yorkshire Peat Partnership

Project aims

Pennine PeatLIFE will determine the most cost-effective payment for ecosystem services restoration approach by:

1. Demonstrating financially viable region-specific and sustainable *Sphagnum*-based restoration techniques for re-activating peat-forming blanket bog in the wetter, colder and higher altitude eroding bog systems of northern England.
2. Demonstrating, through 'Concept to Contract' trials, the UK Peatland Code as a viable payment for ecosystem services in upland peatlands.
3. Demonstrating new approaches using unmanned aerial vehicles (UAV) to assess vegetation change as a proxy for monitoring the change in ecosystem services benefits of restored blanket bog. Data will also be used as a validation tool for the UK Peatland Code.
4. Disseminating the demonstration activities to policy makers, landowners and managers, government agencies, non-governmental organisations and other key stakeholders in the UK and across the EU.



UAVs are used to assess vegetation change



Before and after restoration

Restoration methods

1 Hydrology – Stabilise the water table and prevent further erosion caused by water. Stone dams will be used along with coir rolls/heather bales for smaller channels.



Stone dams



Coir rolls

2 Slopes – Steep slopes will be re-profiled to speed up colonisation from the base.

3 Heather brash – Blanket bog vegetation is cut locally and spread over the bare peat. Good levels of *Sphagnum* moss and other pleurocarpous mosses are present, along with

heather *Calluna vulgaris*, cottongrasses *Eriophorum angustifolium/vaginatum* and other dwarf shrubs.

4 Kickstarting growth – Lime (1tn per ha) is added along with phosphate based fertiliser (19.5kg per ha) and moorland seed which includes *Descampsia flexuosa*, *Festuca ovina* and *Eriophorum angustifolium/vaginatum*.

5 Sphagnum moss – *Sphagnum* is key to restoration and revegetation. This includes fragments from the brash, whole *Sphagnum* clumps or harvested *Sphagnum capitula*.



Sphagnum moss growth on bare peat



Airlifting stone into place

Pennine PeatLIFE delivery partners are



PeatLIFE is funded by



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One of the
AONB family