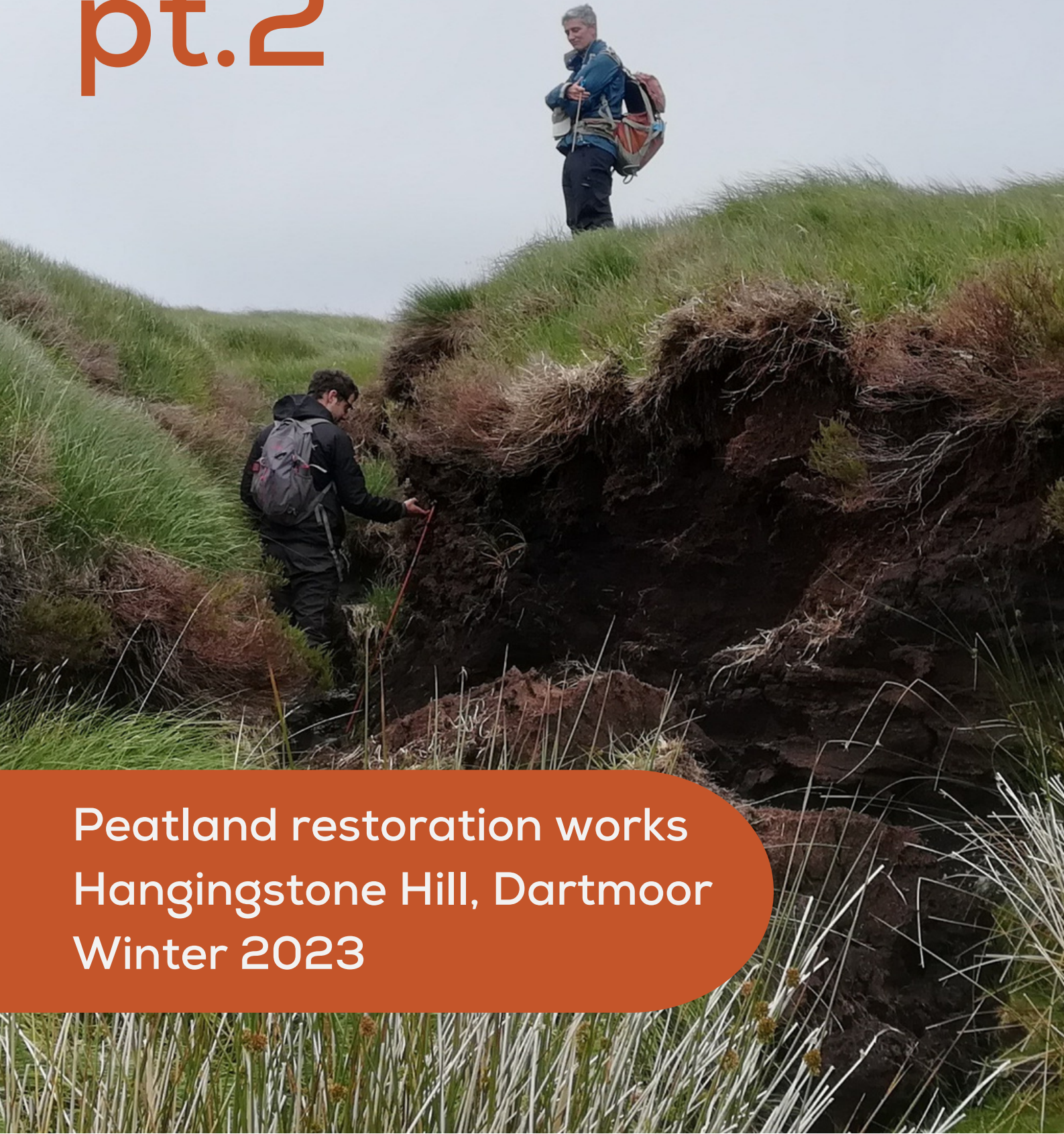


November 2023

South West Peatland Partnership  
Public Summary Document:



# Hangingsstone pt.2



Peatland restoration works  
Hangingsstone Hill, Dartmoor  
Winter 2023

# Why restoration on Dartmoor?

Peatlands are wetland habitats that cover much of our upland landscapes. They are formed by plants dying in waterlogged conditions meaning that they stay in a semi-decomposed state, creating peat.

Healthy peatlands are vital for water quality & quantity regulation, carbon storage and farming. They also provide irreplaceable habitat for animal and plant species and preserve a rich historic environment.

However, research estimates that less than 1% of Dartmoor's blanket bog is still functionally intact\*, meaning that these benefits are not being seen. This is due to a range of historic activities such as peat extraction, tin streaming and military use, which have led to erosion and drying of the peat.

The SWPP is a collective of organisations working in partnership across Exmoor, Dartmoor and Cornwall to restore areas of degrading peatland like at Hangingstone Hill and prevent further erosion.

The SWPP works, using a range of methods, to simply restore water to the landscape, slow the flow off the peat, increasing the water table and crucially raise and stabilise the water table year round to re-wet drying peat. This will have benefits for wildlife diversity, carbon storage, livestock water supply and, in time, help create conditions where sphagnum moss can colonise and peat begin to form again.

There is also great value from peatland restoration in safeguarding our cultural, historical and archaeological environment.

## Map

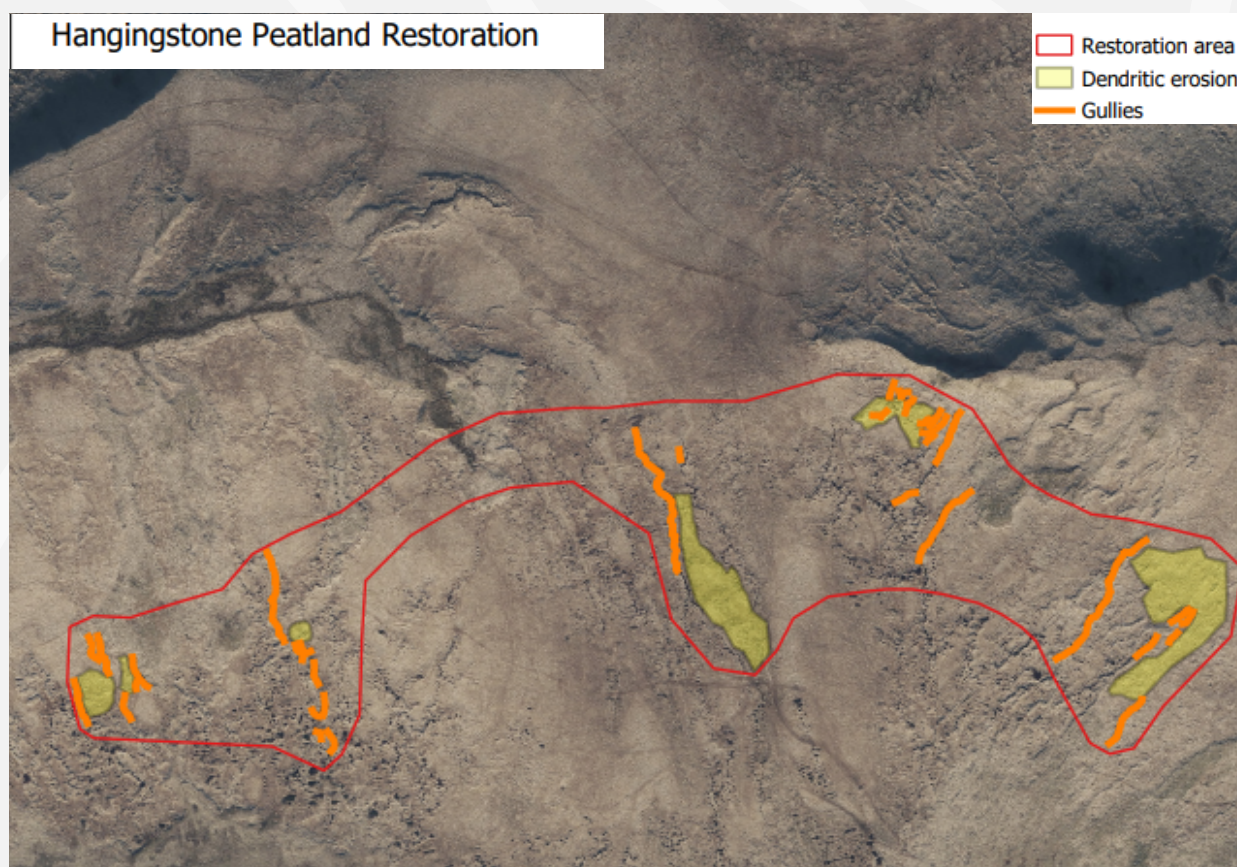


Figure 1: Map of upcoming works area showing erosion features to be restored.

# SWPP approach at Hangingstone

Back between 2019 and 2021, the SWPP undertook over 100ha of peatland restoration at Hangingstone Hill. Large parts of the area had eroding gullies blocked up, creating shallow pools of water. Sphagnum mosses have colonised many of these pools, creating an incredible wet habitat for peatland birdlife and plants. Even during the recent drought and height of summer, water still remains on this previously dry landscape. However there were a few extremely large gullies both within and on the western edge of this site that require further work. Some areas of dendritic erosion, a complex pattern of small scale channels around these gullies, were also left unrestored to enable later access.

This second phase of restoration will address these unrestored areas. Works begin November 2023, following best practice methodologies, and includes the following techniques:

- Areas of dendritic erosion and gullies with a gentle slope and low flow of water will be blocked with peat blocks.
- Medium sized gullies with significant flows of water will have wooden blocks installed and covered with peat.
- Narrow but deep gullies containing a constant flow of water will have wooden blocks installed with spillways on top to raise the water level but allow water to flow in a controlled manner.
- Very large gullies with significant flows of water will be blocked with granite, transported to site by helicopter. Stone blocks will not form a completely watertight block but will slow water and capture silt allowing the base of the gully to build up.
- Where possible, hags of bare peat at the edge of gullies will be reprofiled to a 30° slope to reduce speed of flow. This will be achieved by stripping off vegetation, reprofiling the peat and replacing vegetation on top.



*Figure 2 : An example of an eroding gully on Hangingstone Hill. Gullies draw down the local water table and increases carbon emissions from adjacent peats. Water can be seen running off the peat, which will be taking peat and dissolved organic carbon away with it. Peat will continue to erode and carbon be lost into the atmosphere and waterways unless works such as reprofiling and blocking gulleys take place.*

SWPP staff will be present on site during restoration works throughout the winter. Historic Environment officers ensure both accessing the site and carrying out the works do not damage archaeological or historic features.



*Figure 3 : Illustrations showing the process of blocking erosion gullies with stone to slow the flow of water and reduce erosion of the exposed peat.*

# FAQs

What do you aim to achieve?

To restore the hydrology and ecological function of the vital habitats, halt peat erosion and conserve the historic environment of the peatland at Hangingstone.

Having carried out peatland restoration works on Hangingstone Hill several years ago, we're now able to tackle erosion channels and gullies on the western edge of the site. There's great potential to do good on this site, and we're pleased to be able to return again. Without action, this huge store of carbon, palaeoenvironmental evidence and peat will continue to erode and wash away.

What process have you gone through to begin works?

The SWPP has carried out a large body of work to compile a restoration plan for this site. These extensive documents contain details of site ecology, historic environment, landscape, access, land management, gully blocking areas, timings and costs. All restoration plans are consulted and agreed upon by appropriate government bodies, landowners, farmers and commoners, following sector guidance and best practice for working on peatlands. Key stakeholders involved include Duchy of Cornwall (Landowner and SWPP funder), Natural England (SWPP funder), Environment Agency, DNPA, Forest of Dartmoor Commoners Association and others.

How are you protecting archaeology and other historical features?

To facilitate the 2019-21 restoration, the SWPP Historic Environment Officer (HEO) reviewed the known historic features of the area and walked over the site to enhance this record. The most significant features nearby (peat passes, peat cutters huts, cairns, cist) are not part of the phase 2 restoration area and will be excluded from access routes to site. One peat pass is within the area that could be used for access but will be avoided. All plans for this site have been discussed with DNPA Archaeologist and Historic England; project staff will also ensure that any archaeological prescriptions in relevant agri-environmental schemes are adhered to. The HEO will regularly visit the site during the works.

How are you transporting materials around?

For this site, we will be transporting large amounts of locally-sourced stone and timber by helicopter. This is essential in order to reduce the impact of transporting materials on wet ground, as is requested of us, and get the huge volume of stone and wood needed to site to carry out ambitious plans to tackle large gullies with significant flows of water. To reduce machinery travelling across the moor, the use of helicopters is a way of carrying out this large geoengineering project and reducing peatland degradation.

Helicopters are often used by peatland partnerships across the UK. As part of their MoorLIFE 2020 project, Moors for the Future carried out a carbon audit, which ascertained the project was saving more carbon than used by helicopters, staff travel etc, and that this saving will grow as the restoration beds in. [Read more at this link here](#)

Can I still walk here?

Where sites are on open-access land, the area remains open to all. However, please do not approach machinery, and follow signage or contractor advice to safely enjoy the landscape whilst the restoration work takes place or helicopters are flying. Please choose a route that avoids crossing newly constructed dams or that you can see are being regularly walked by livestock. This will help ensure the works can stabilise and don't get eroded before they can have a positive impact on the landscape.

What monitoring of your work are you doing at Hangingstone pt 2?

Monitoring of the site pre, during and post restoration includes monitoring of vegetation, hydrology, peat depth, fixed-point photography and wildlife surveys. Restoration officers will also regularly check contractors' practical works and monitor progress. Regular reporting and monitoring is fed back to our partnership organizations and funders.