January 2024

South West Peatland Partnership Public Summary Document:



Burrator

Peatland restoration works Burrator, Dartmoor Winter 2023 - Spring 2024

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, wildlife habitat, plant species, recreation, farming and preserving 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 past drying and draining methods to allow for historic activities such as mining and peat extraction. The SWPP is a <u>collective of organisations</u> working in partnership across Exmoor, Dartmoor and Cornwall to restore areas of degrading peatland like at Burrator and prevent further erosion.

The SWPP works to simply restore water to the landscape, increasing the water table and crucially, keeping this at a more stable level year round. 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. This is intrinsic to all our planning, works and research.

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Figure 1: Map of planned restoration works and different methods to be used.

SWPP approach at Burrator

From January to March 2024, peatland restoration works will take place on the Burrator landholding, between the reservoir and Princetown. The land is owned by South West Water, a SWPP funder and partner.

While parts of the site retain relatively intact bog areas, much of the site is severely damaged due to the cumulative impacts of activities such as tin streaming, peat cutting, drainage and over grazing.

The restoration taking place aims to restore hydrological function to the peatland in this area. It's important for the water table within the peat to be raised, and crucially stabilized, to halt further degradation and erosion of the peat, This work aims to diversify plant life, slow the flow of water off the moor, reduce carbon emissions from degrading peat and enhance wildlife habitat. Contractors working with SWPP plan to:

- block erosion gullies and peat pipes that drain the peatland using blocks made of peat, wood and stone.
- use arc-shaped bunds to raise the water table and restore hydrological function. This will allow for colonisation of more varied peatland plants.
- Use willow bundles and catchment woodland creation through one valley mire to slow the flow of water, stabilise edges of eroding peat and diversify habitat.

Due to the size of the site (around 200 hectares) and the necessity to carry out groundworks before bird nesting season begins in April, a wide range of machinery will visible. To minimise ground disturbance, local contractors are required to use wide tracked machinery with low ground pressure (<3psi), preventing damage to the surrounding peatland throughout works. SWPP staff will be present on site during restoration works including Historic Environment Officers who ensure that both access routes and groundworks do not damage archaeological or historic features.



Figure 2: An example of a small leaky wooden dam. This helps to slow the flow of water, diversify wildlife habitat & improve peat health.



Figure 3: A shallow pool of water created by peatland restoration. A key peat-forming plant, sphagnum moss, can subsequently be seen colonising these pools.



Figure 4: Illustrations showing the reprofiling of erosion channels into a shallower gradient, and adding peat & wooden bunds. This will overtime slow the flow of water, create shallow pools & reduce erosion of the exposed peat.



What do you aim to achieve?

Why was this site chosen?

To restore the hydrology and ecological function of the peatland, to halt/slow erosion and to conserve the historic features present at the site.

Approximately 200 hectares in size, this site encompasses the Meavy and the Hart Tor brook which flow into the reservoir. This makes it a key area chosen for works that will aid the improvement of water quality and the slowing of water off the area. Long term, the aim is that restoration will enhance and diversify biodiversity, including plants and wildlife, which can be enjoyed by people visiting this popular area of Dartmoor.

What process have you gone 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 through to begin works? ecology, historic environment, landscape, access, land management, erosion features, 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 partners and stakeholders engaged or consulted include South West Water, Duchy of Cornwall, Natural England, Environment Agency, DNPA, Tenant farmer, Historic England, Dartmoor Commoners and South West Lakes Trust.

We are aiming to install temporary fencing around a 0.47 ha area of catchment woodland. This is to enclose restoration features and sections of heavily poached ground in order to protect saplings and mire habitat from browsing and further trampling by livestock. This, in turn, will allow the ground to recover and trees to establish, enabling the area to bring about all the many benefits associated with healthy peatlands and wet woodland including carbon storage, water quality, flood mitigation, enhanced biodiversity and stability. The temporary fencing will be removed when the area is more resilient to drought, livestock and recreation.

> To facilitate the restoration works, the SWPP Historic Environment Officer carried out a desk-based assessment of known heritage assets, examined historic cartography and existing aerial photography, archaeological surveys and reports, and LiDAR data. The HEO also carried out a walkover survey of the site. Sixteen heritage assets were identified, mostly related to tin extraction or Bronze Age activity. Of these features, seven had not previously been recorded. In general terms, all the heritage assets of the site are in stable condition but some are suffering from ongoing erosion of the peatland. Exclusion zones for works and vehicles are established in order to protect the heritage assets.

> Yes. Where sites are on open-access land, the area remains open to all. However, if you're planning on visiting these areas during works please do not approach machinery, and follow signage or contractor advice to safely enjoy the landscape whilst restoration work takes place. A form of access will be incorporated into the fenced area to ensure it remains accessible to all. Please ensure to follow the countryside code and close gates behind you, helping us to give the space time to recover and thrive.

> Monitoring of the site pre, during and post restoration includes monitoring of vegetation, hydrology, peat depth, fixed-point photography, Eyes on the Bog and bird surveys. Restoration officers will accompany contractors at all times, supervising practical works and monitoring progress. Regular reporting and montoring is fed back to our partnership organizations and funders.

Are you putting up fencing?

How are you protecting archaeology other and historical features?

Can I still walk here?

What monitoring of your work are you doing?