

January 2024

South West Peatland Partnership
Public Summary Document:



Great Gnats Head



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 collective of organisations working in partnership across Exmoor, Dartmoor and Cornwall to restore areas of degrading peatland like at Great Gnats Head 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, 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.

Map

Great Gnats' Head Peatland Restoration Works

Recreational Access - The Abbot's Way

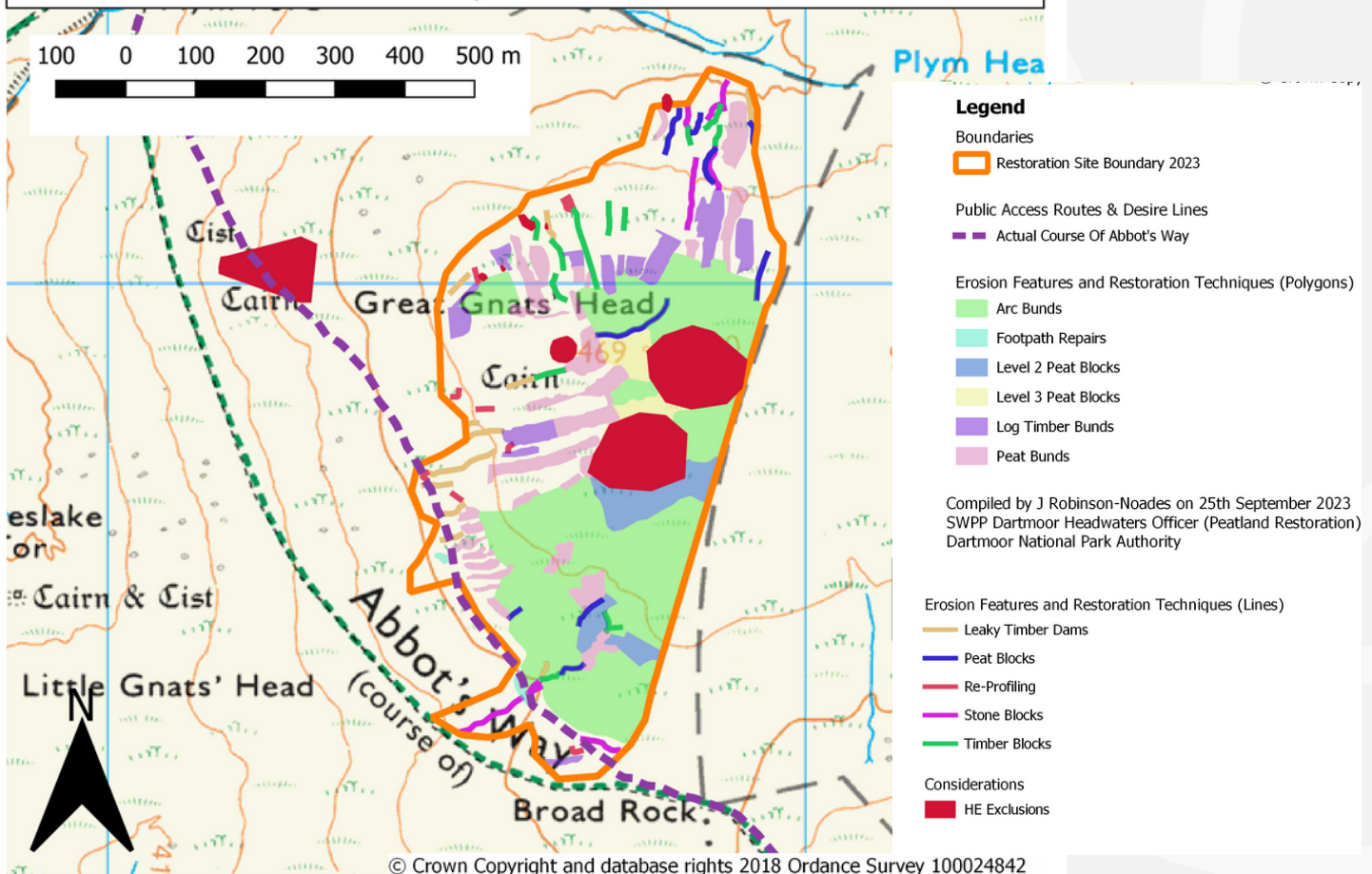


Figure 1: Map of planned restoration works and different methods to be used.

SWPP approach at Great Gnats Head

Great Gnats Head (GGH) is found on South West Dartmoor on National Trust land within the English Heritage "Upper Plym" estate. The Upper Plym Valley has been under the Guardianship of the Secretary of State since 1979, and the National Trust is a key SWPP partner and funder.

While parts of the site retain relatively intact bog, much of the area's peat is damaged due to the cumulative impacts of past human activity. Evidence of historic peat extraction can be observed across most of the site, with peat cutting as large as 50m wide and 200m long in places. Evidence can also be seen of the extraction of peat for charcoal production, perhaps as part of tin streaming works along the Plym.

Restoration works taking place aim to prevent further erosion and set in motion the restoration of hydrological functioning of the blanket bog at Great Gnats Head, whilst increasing our understanding of the historic environment and peatland functioning. Contractors working with SWPP will use re-profiling methods (see Fig.4) to stabilize erosion of exposed peat. The water table will be raised by installing blocks using wood from local conservation projects and peat to slow the flow of water running through erosion gullies, manmade peat cuttings and peat pipes. Pools of water with shallow gradient edges will form, over time encouraging a more diverse range of bog plant species such as Sphagnum mosses to colonise.

Practical works are scheduled to begin in January 2024. Local contractors, using several wide tracked low-ground pressure machinery will carry out the works. This machinery enables our work to take place across this large area (33 hectares) throughout the winter before bird nesting season.



Figure 2 : Plym ford, downslope from GGH



Figure 3 : An example of bare peat at Great Gnats Head, and low-ground pressure machinery carrying out restoration works

SWPP and NT staff will be present on site at GGH 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 4 : Illustrations showing the process of reprofiling peat hags and erosion gullies into a shallower gradient, and adding peat bunds, will overtime slow the flow of water and reduce erosion of the exposed peat.

FAQs

What do you aim to achieve?

SWPP will be working to restore the hydrology and ecological function of the vital habitats, halt peat erosion and conserve the historic environment of the peatland at Great Gnats Head.

Why was this site chosen?

Remote and approximately 33 hectares in size, this site sits at the head of the Plym. This makes it a key area chosen for works to help improve water quality downstream and slow the flow of water off the area. Without action, this incredibly huge store of carbon, palaeoecology and peat will continue to erode and wash away. Towards its southern boundary, the Abbots Way long distance footpath crosses the restoration area, and the site is also part of the Upper Plym Valley English Heritage guardianship site, making it an important area for history, heritage features and people exploring Dartmoor. Palaeoenvironmental records should also be enhanced overall by restoration works; raising and stabilizing the water table will improve preservation of organic material and palaeoenvironmental evidence.

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, ditch 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. Amongst others, key stakeholders involved include Natural England, National Trust, English Heritage Trust, Shaugh Prior Commoners' Association, Dartmoor National Park Authority, Historic England, & Environment Agency.

How are you protecting archaeology and other historical features?

This site has had extensive planning and consultation regarding the heritage assets and archaeological features in and around the area. The historic features of the GGH site were examined by the SWPP Historic Environment Officer (HEO) through methods such as examining historic maps, photography, aerial and LiDAR survey, and carrying out multiple walkover surveys of the site. The Historic England survey on Dartmoor and Upper Plym Valley was also reviewed and informed planning.

The walkover and desk-based survey identified an extensive area of turf cuttings and peat-charcoal burning platforms (known as meilers), that had not previously been fully recorded on the Historic Environment Record and will now be added. Mitigation methods have been included in planned works, including the use of wide-tracked vehicles, briefings for contractors by the HEO and work and access exclusion zones established to protect features such as cairns and boundary stones. A local archaeological contractor will also make a record and take samples from one of the meilers that is currently eroding and will be stabilised by the restoration works. On site staff will stop groundworks and contact the HEO should any material be revealed that they suspect to be historical in nature and then appropriate steps taken.

Can I still walk here?

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 the restoration work takes place.

What can we expect to see as a result of restoration?

Peatland restoration will create pools of water across the area. Over time, sphagnum mosses will colonise the pools and help create conditions where peat can form again. Gullies where peat is visible and eroding will be reprofiled. Restoration aims to bring about a more diverse range of bog plants and wildlife too.

What monitoring of your work are you doing?

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 accompany contractors supervising practical works and monitoring progress. Regular reporting and monitoring is fed back to our partners and funders.