

Forestry and deep peat

Purpose

This policy guidance on forestry and deep peat acts as the country level guidance for FCW. It applies to regulatory functions, and to the management of the Welsh Government Woodland Estate (WGWE). It also informs Welsh Government about issues relevant to new woodland creation and woodland management.

It is intended to support policy goals for:

- conserving and enhancing biodiversity
- climate change mitigation
- maintaining the peat and soil resource
- improved water management and the Water Framework Directive
- the Welsh Government Strategy for trees and woodlands, *Woodlands for Wales*
- the revised UK Forest Standard and Guidelines
- and to be compatible with the UK Woodland Assurance Standard

Background

There is a strong policy presumption against permanent removal of woodland except for the restoration of high priority open habitats. The Welsh Government's Strategy for Woodlands and Trees, "Woodlands for Wales" states that "where there is a clear ecosystem service benefit, existing non native woodlands are restored to priority open habitats". Areas of deep peat (>50cm) which are being considered for restoration, should be assessed for the potential to deliver this ecosystem service benefit, for the viability of successful restoration and have a positive plan for bringing the habitat into favourable condition. Where appropriate, this can be through modifying management systems rather than complete removal of woodland.

Priority sites for restoration

A National Assessment ¹ has been carried out, and the "Top 10" afforested peat sites have been identified on the basis of greatest potential for a range of ecosystem service delivery (Map 1) and these are a high priority for open habitat restoration. These sites have been assessed by an expert to confirm that restoration to bog habitat is viable. Where these sites are on the WGWE, a programme of restoration will be put in place to manage restoration on these sites over the next 15 years.

¹ Forest Research, *A Strategic Assessment of Afforested Peat Resource in Wales*. Elena Vanguelova, Samantha Broadmeadow, Russell Anderson, Sirwan Yamulki, Tim Randle, Tom Nisbet and James Morison

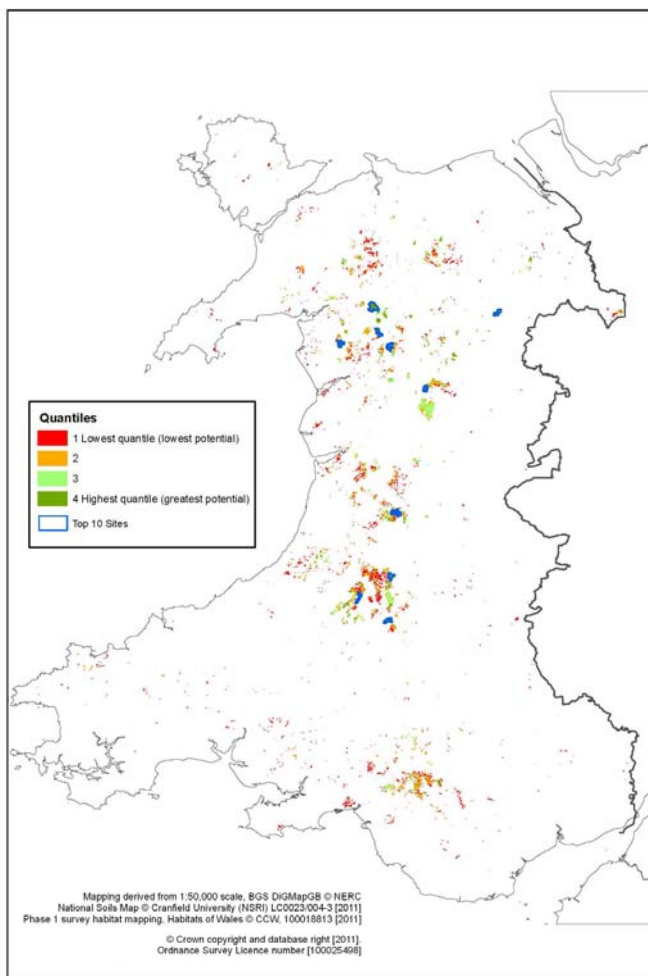
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Other sites

For sites which have not been identified as a top priority from the National Assessment, the policy position is to favour restoration. The test is whether restoration can successfully be achieved in a reasonable timescale and without being prohibitively expensive, and that once restored, the site will be self-maintaining without a need for continual intensive intervention.

Sites on the WGWE not identified as a priority in the National Assessment will be reviewed during the next Forest Design Plan revision. If the assessment results are positive for restoration, an unconditional felling approval should be granted through the Forest Design Plan.

Trained district staff should undertake a survey of all the areas of deep peat on their part of the WGWE over the next 5 years and include new proposals for these areas, where applicable, in forthcoming Forest Design Plans.



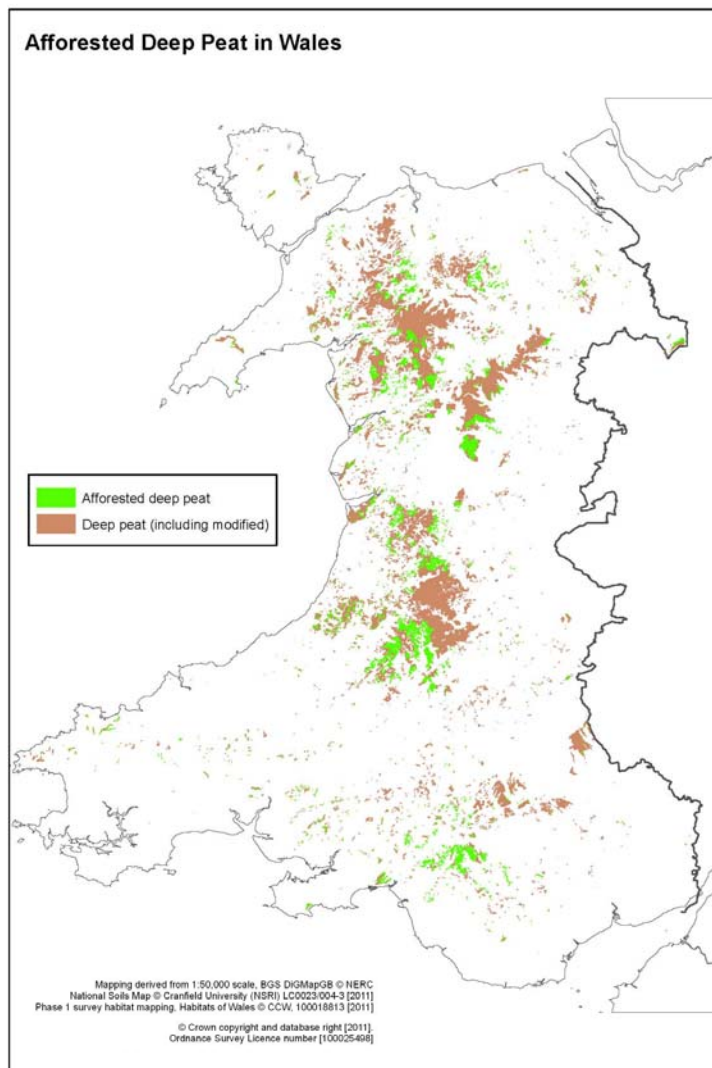
Map 1: Top 10 sites and the quantiles from a national assessment of sites.

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New woodland creation (afforestation)

There should be no new planting on soils with peat exceeding 50cm depth or on sites that would compromise the hydrology of adjacent bog habitats. This is a requirement in both the UK Forestry Standard and UKWAS; this is also our advice to Welsh Government for Glastir.

The Glastir Woodland Creation strategic level mapping denotes no planting on deep peat, and denotes consultation required on certain peaty soils or soils with peaty pockets where the field assessment will offer verification. Map 2 shows areas of blanket peat, deep peat soils and priority open habitat excluded from the area suitable for planting.



Map 2: Distribution of deep peat soils in Wales and those which are afforested.

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Woodland management (replanting)

When planning to restock a site that has >50cm depth of peat, it will be necessary to undertake a field assessment of the site². Where this is part of the WGWE the assessment shall be carried out by a trained member of district staff and where this is in private ownership the field assessment shall be carried out by trained Glastir officers.

If a felling licence application is made, and is accompanied by a satisfactory plan for restoration of viable peatland habitat, then an unconditional licence should be issued by FC Wales. In other circumstances, an appropriate conditional licence should be issued, having regard to the requirements of UKWAS.

Forest Design Planning Process

Where woodland management on deep peat is being considered, restocking should be considered where:

- maintaining woodland habitat is required to support a protected or priority species, and where loss of woodland habitat could be shown to impact on the local population;
- restocking can contribute to the expansion of, or restoration to, a woodland HAP type;
- the integrity of the peat, the hydrology of the site and its biodiversity value has been degraded to the extent that restoration is not viable (economically or technically feasible); e.g. where there is serious cracking of the peat, loss of the peat forming layers and oxidation is highly advanced; where there is substantial evidence of natural tree regeneration, native or coniferous, little evidence of remnant bog features or re-establishing flora.

If the site is a SAC or SSSI or has impact on one of these special sites, the Forest Design Plan, or any grant support should follow the recommendations and actions specified within the SAC or SSSI Management Plan.

If it is decided that restocking can go ahead and where the peat on the site is of 50cm depth or more, the aim is to maintain the existing features of peatland and protect the organic component of the soil. The restocking design should follow best practice for:

- tree species choice and suitability – refer to the most up to date [guidance available](#)
- planting specifications for riparian areas
- semi-natural open habitat - retain any areas of established bog vegetation with an adequate buffer

² UKFS page 60: Consider options to extend and improve priority habitats and to increase and extend populations and ranges of priority species; plan forest operations to minimise any adverse impacts.

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- drainage infrastructure - no clearance of the drainage system should take place and no new drainage will be supported
- ground preparation – no mechanised ground preparation will be supported - direct planting only
- wetland site / semi-natural habitats adjacent to the site. Oxidation and habitat degradation can also result from changes to the local hydrology by planting adjacent to these sites. A judgement must be made on the context of the site.

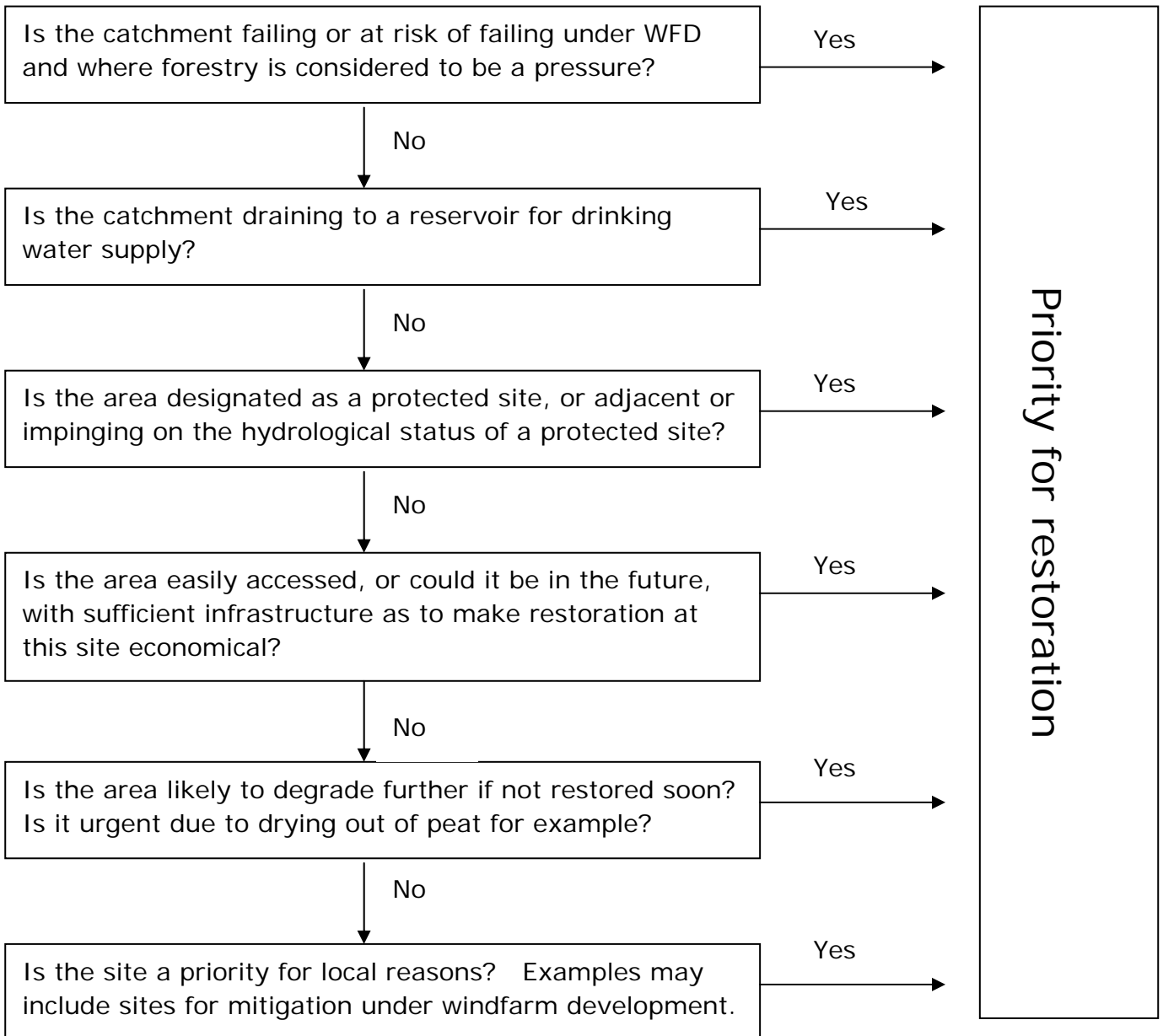
Operations must be carried out in a way that will minimise the soil disturbance necessary to secure management objectives and ensure that the removal of forest products from the site, including non-timber products, does not deplete soil carbon over the long term and maintains the site potential.

If a coniferous species is thought unsuitable, consider a tree species composition favouring native woodland species or a careful mixture of management systems to encourage native woodland & open space.

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Priority sites

On the WGWE, when determining sites for restoration the following elements will be considered alongside the results of the field assessment when deciding on future forest design .



Speed of restoration – it will remain necessary to comply with the UKFS Forests and Water Guidelines regarding felling. The rate of progress of peat restoration must not increase the risk of nutrient enrichment unnecessarily. Nitrate levels are elevated following clearfell operations, which can cause acidification of the receiving waters. Therefore the area to be restored should be kept to 20% of the catchment area in any three year period within catchments at risk of acidification.

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The non-restoration options

Convert to native wet woodland.

If a site has any native wet woodland present, this should be maintained. Where a site may not be deemed restorable due to conifer regeneration but the water table levels are able to be raised, consider native wet woodland habitat.

Convert to native woodland habitat

If a site is not viable for restoration due to it not being possible to re-wet the site, consider encouraging sparse tree cover suitable species would be Scots pine on the poorer, more acid peats and willows (*Salix caprea* and *S. cinerea*) on the richer sites. Birch is not suitable on the poorer peats because of its tendency to 'improve' sites

Convert to other open / wetland habitat.

If a site has potential be an area of heathland or other priority open habitat, but is deemed not to be restorable to mire habitat, then this should be considered.

In all cases, a fully considered management plan which will achieve favourable condition for the desired future habitat is essential. Further advice should be sought from Forest Research to assist in developing plans for future management.

Monitoring

It is important to monitor the progress of restoration on sites to ensure that the raising of the water table has worked and to evaluate the recovery of peatland species.

References

A Strategic Assessment of Afforested Peat Resources in Wales, Report by Forest Research staff for Forestry Commission Wales Project, with Reference No 480.CY.00075 (T), November 2011. Elena Vanguelova, Samantha Broadmeadow, Russell Anderson, Sirwan Yamulki, Tim Randle, Tom Nisbet and James Morison