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Wales

NRW priority (sensitive) habitats and new planting

March 2016

1. Introduction

This guidance is for applicants and planners who want to plant up ground with priority (sensitive) habitats which are marked on geopdfs of [Lle GWC woodland opportunities map](#). This guidance explains:-

- what are priority (sensitive) habitats (Section 2 and Annexe 1)
- why priority (sensitive) habitats should not be planted up (Section 3)
- what photographic evidence is needed if an area of new planting has priority (sensitive) habitats (Section 4)
- when an ecological survey is needed (Section 5)

All Glastir Woodland Creation schemes require an [Environment Impact Assessment](#) opinion which determines whether a new planting scheme has a significant impact on the environment. All priority habitats need to be removed in line with the GWC verification process even if an applicant has a separate EIA opinion for a proposed new planting area which include small areas of priority habitats.

It is important to know that applicants and planners are **not** also expected to be trained habitat surveyors. This guidance explains how good quality photographs of priority habitats (Section 4) should be taken and how NRW habitat specialists will assess these photographs to determine whether a priority habitat is present. What are priority (sensitive) habitats

Priority habitats cover a wide range of semi-natural habitat types (see Annexe 1) and have been identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UKBAP) (Joint Nature Conservation Committee definition). Priority habitats in Wales are set out in [Section 7 of the Environment Act Wales 2016](#) and described in Annexe 1. In 2014, Welsh Government asked NRW to provide metadata on priority (sensitive) habitats for the Lle GWC w map. NRW ecologists used the habitat data sets - legacy CCW Habitat Survey of Wales Phase 1 digital data, Lowland Grassland Survey of Wales Phase 2 digital data, Lowland Peatland Survey of Wales Phase 2, calaminarian grassland survey, Glastir grassland fungi data, chough woodland areas surveys, etc. NRW ecologists continue to refine and add to these habitat datasets as a result of regular habitat surveys and high resolution aerial photographs. .

2. Rationale for not planting priority habitats

UK Forest Standard states "Appropriate protection and conservation **must be afforded** where sites, habitats and species are subject to the legal provisions of EU directives and UK and country legislation" (UKFS Forests & Biodiversity Legal 1, UKFS Forests & Water, Legal 12). In the Wales Environment Act 2016, there is a duty on public authorities to 'seek to maintain and enhance biodiversity' and 'promote the resilience of ecosystems'. It is also the responsibility of Welsh Ministers to maintain and enhance priority habitats in Annexe 7.

4. Photographic evidence

Photographic evidence is needed where priority (sensitive) habitats have been recorded on the Lle map. There are three types of habitats which need photographic evidence:-

1. Biodiversity Habitats

Geo-referenced photographs are needed to demonstrate that the site is not a priority habitat. Outside the main growing season from mid-May to September, photos are likely to be misleading and can fail to show important species so extra care must be taken. Certain management regimes such as intensive grazing may affect habitat identification so extra care is needed to take photographs which illustrate the habitat sufficiently well.

2. Grassland fungi:

Geo-referenced photographs to demonstrate a site is improved grassland (grassland fungi grow in unimproved or semi-improved grassland). Autumn (September to November) would be the best time of year to take photos.

3. Arable Plants:

Geo-referenced photographs to demonstrate a site does not have arable plants. These must be taken between May and September within the 5m boundary around the edge of the field and in each corner of the field.

How to take photographs of priority habitats

- Photographs must be numbered, in colour and in focus. Sufficient photographs are needed to demonstrate the site is not a priority habitat or deep peat.
- The recommendation for habitat photographs is to take at least one general photo of the whole area and detailed photos showing approximately two square meters of vegetation. Take one oblique and one 'straight down' photograph for each different vegetation type.

Example of a photo taken looking vertically down



Example of a photo taken at an oblique angle

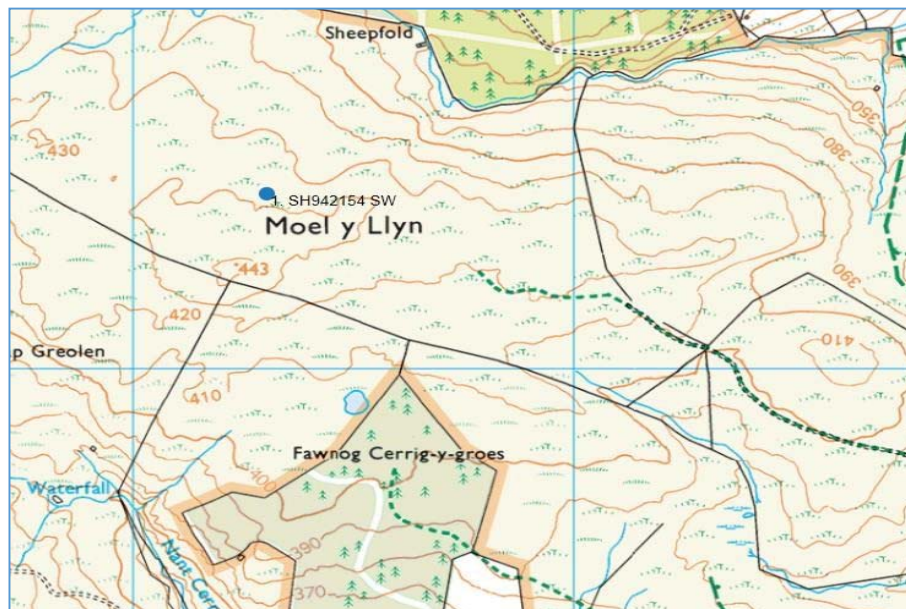


In this example woodland planners could use photographs below as evidence that this area is **not a priority habitat**.



How to present the photographic evidence for GWC verification

- The photographs should be supplied as JPEG files. They need to be clearly labelled and dated. Digital images should be saved with an appropriate file name 'Customer Reference Number' photo number date taken' eg A0001111 '_NO1_Aug 2015'.
- Identify the location from which the photographs were taken. Geo-reference the photographs, which assigns latitudinal and longitudinal references to the image. This is most commonly carried out using a camera with a built-in GPS receiver. This function is available on many smartphones using a downloadable app.
- Mark the number of the photographs on an accompanying Ordnance Survey map, note the direction in which it was taken and provide an 8 figure grid reference (example provided below).
- Submit the photographs, location map for the georeferenced photographs along with the GWC plan, GWC maps and consultation responses to RPW online.



Map showing the photo location

As part of the GWC plan verification process, NRW technical conservation specialists, who are experienced habitat surveyors, look at these photographs to determine whether priority habitats are still present. If there is significant uncertainty, they may visit the site to undertake a habitat assessment. The evidence they provide on whether a new planting area is a priority habitat is used by the Glastir Woodlands team as part of the verification process (Diagram 1).

5. NRW Ecological Survey Guidance

An ecological survey can only be undertaken if:-

- the applicant and planner have strong evidence to dispute the confirmation of a priority habitat by a NRW technical specialist.
- A prospective applicant considers planting up a large area on priority (sensitive) habitats marked on the Lle GWC map.

These these scenarios, an applicant or planner will commission an independent ecological survey. It needs to be carried out by a suitably qualified ecologist who is a member of the [Chartered Institute of Ecologists and Environmental Management \(CIEEM\)](#). Ecologists should follow the ecological appraisal guidelines as set out by CIEEM (see Annexe 2 for an example of an ecological survey).

An ecological survey should include the following:-

- Name of site
- Name of survey
- Site location and grid reference
- Description of site
- Brief description of each parcel with priority habitat (s) including:-
 - Area (Hectares)
 - Habitats/species present
 - Condition of the habitats
 - Current land-use
 - Recommendations whether area can be planted up

On all habitats, a peat probe survey should be undertaken at roughly 1/Ha unless deep peat (>50cm) is found and then a more detailed peat probing survey is needed. This is because acid grassland/improved grassland/marshy grassland/wet heath on deep peat are all forms of modified bog. It is recommended that 1 peat core/10 peat probes is done to check that the substrate is indeed deep peat and not soft in-wash clays that can feel very similar.

Other items to be included are:-

- Lle GWC map of site
- Phase 1 habitat map
- Aerial image with cross reference to photographs taken of each parcel/habitat (Grid Reference to be included with photograph)
- Clearly labelled photographs (see Section 4)
- Map to show individual parcel numbers and hatching of areas to be planted.

All maps/aerials should be to appropriate scale and provide clear information.

Annexe 1 – Priority habitats (Section 7 Environment Act (Wales) 2016)

Lowland dry acid grassland



These are grasslands on well-drained acid soils with low fertility in the lowlands (below the upper limit of enclosure). This type of grassland is generally dominated by sheep's fescue, bent grasses and sometimes wavy hair-grass. Low-growing flowering plants such as heath bedstraw and tormentil are usually present with sheep's sorrel in drier places. There may be scattered plants of heather or bilberry but at less than 25% cover. There may be clumps of rushes in damper areas but not at the continuous cover often found in marshy grassland.

Lowland meadows (unimproved neutral grassland)



This category includes flower-rich hay-meadows and pastures below the upper limit of agricultural enclosure on soils that are neither strongly acidic nor alkaline. Characteristic species include crested dogs-tail, red fescue, common birds-foot trefoil, common knapweed and common cat's-ear. There may be scattered clumps of rushes in damper areas but not the continuous cover sometimes found in marshy grassland. This type of traditionally managed grassland is now extremely scarce in Wales and usually occurs as isolated fields or small clusters of fields.

Lowland calcareous grassland (limestone grassland)



This type of flower-rich grassland occurs on soils that have a relatively high lime content. Typical flowering plants include sheep's fescue, wild thyme, salad burnet and common rock-rose. The habitat is particularly associated with limestone rocks in north and south Wales.

Upland calcareous grassland

Wild thyme and common dog-violet are among the more characteristic species, along with sheep's fescue and common bent.

Calaminarian grasslands

A rare form of grassland on soils and rocks rich in heavy metals such as lead and zinc. Often very open with plentiful bare ground. Characteristic species include spring sandwort, alpine penny-cress and unusual mosses and lichens. Found mainly on abandoned mine sites.



Purple moorgrass and rush pastures

Purple moorgrass - these wet grasslands are typically dominated by purple moor-grass and/or rushes, with herbs such as meadowsweet, iris (yellow flag), marsh bedstraw and greater bird's-foot trefoil. They may have a tussocky or smooth texture and often have a taller sward structure than the drier grassland habitats. They are generally most extensive in the upland fringes, but are locally prevalent in the lowlands on soils with impeded drainage, notably in west and south Wales.



Purple moor-grass pasture

Rush pasture - These wet grasslands are typically dominated by purple moor-grass, rushes, meadowsweet or iris (yellow flag). They may have a tussocky or smooth texture and often have a taller sward structure than the drier grassland habitats. They are most extensive in the uplands and upland fringes and are locally prevalent in the lowlands on soils with impeded drainage.



Rush pasture

Both habitats can occur on deep peat, when this occurs they should be treated as modified/degraded bog and a systematic peat probing survey should be undertaken (see Section 5).

Lowland heathland



Lowland heathland includes both dry and wet heathland types that occur below the upper limit of agricultural enclosure. Lowland heathland usually consists of at least 25% cover of dwarf shrubs such as heather, bilberry and western gorse. Variable amounts of grasses, such as sheep's fescue (dry heath) or purple moor-grass (wet heath) are also typically present.

Upland heathland



Upland heathland is found above the limit of agricultural enclosure, upland heath consists of vegetation with more than 25% cover of heather, bilberry and western gorse. Variable amounts of grasses such as sheep's fescue, mat grass and purple moor-grass, are also typically present. This habitat is found throughout the uplands, and is often associated with other moorland habitats, such as blanket bog, acid grassland and bracken.

Both habitats can occur on deep peat, when this occurs they should be treated as modified/degraded bog and a systematic peat probing survey should be undertaken (see Section 5).

Fens, swamps, bogs and reedbeds



Reedbeds



Lowland fens



Soligenous fen



Blanket bog

This category covers a range of wetland Priority Habitats both above and below the upper limit of enclosure. They occur on poorly drained hill and valley slopes, valley bottoms, wet hollows and along the margins of rivers, streams and ponds.

Swamps and reed beds (swamps where common reed is the dominant plant) usually occur at locations where water lies above the surface of the ground for much of year, even during the summer. Fens are generally drier and without summer flooding, although the peaty soil usually remains waterlogged throughout the year. Tall grasses (especially reeds), sedges and rushes are usually dominant in swamps, but fens may bear a lower-growing and more diverse vegetation with many different flowering plants.

Small areas of fen vegetation on hillsides and valley slopes associated with springs and flushes are mostly recognisable by their high cover of bog mosses under a covering of rushes or sedges, and should be included in this category. Some types of fen can appear similar to marshy grassland, but fens only occur on peat more than half a metre deep.

Wood pasture and parkland



Wood pasture and parklands are habitat complexes having a tree cover of less than 30%, and occurring as scattered individuals over grassland, heath or bracken and can also include invertebrate species such as grassland ants and Wood ants etc. In both habitats the trees are of open grown character with wide deep crowns and short trunks. The woodland understorey is sparse or absent as a result of grazing. Wood pasture often occurs in the upland fringes with mature hawthorn and rowan as the dominant tree species. Parkland is essentially wood pasture that has been established as part of a designed landscape.

Traditional orchards



Traditional orchards are plantations of tall, widely spaced fruit trees, typically apple, pear, cherry, plum or damson. Tree density when fully stocked may be 120-150 trees per hectare, down to a minimum of seven trees per hectare. Traditional orchards contain standard or half-standard fruit trees and do not include modern dwarfing varieties.

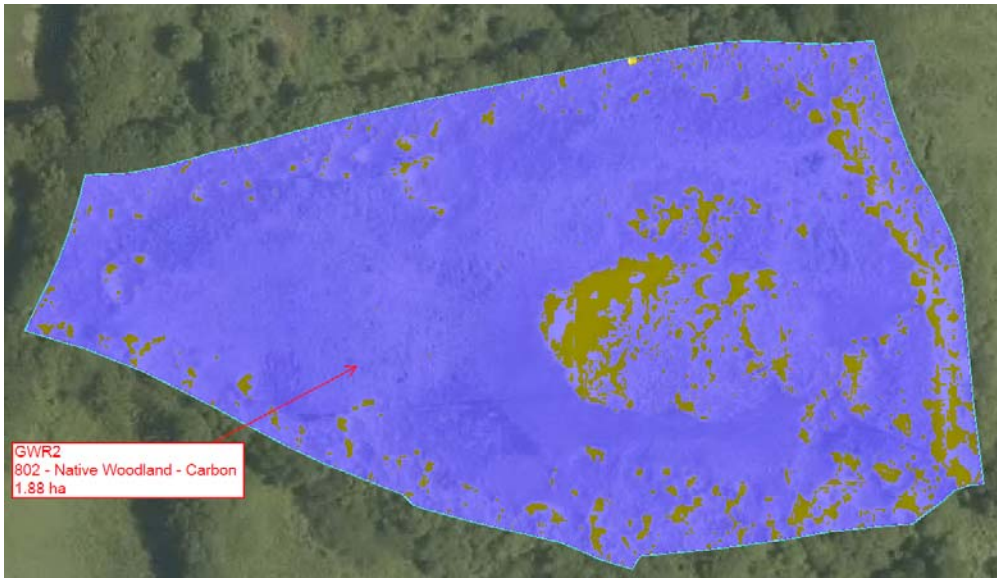
Annexe 2 - Example of ecological survey for a GWC plan

Name of site: Penybryn near Lampeter

Name of surveyor: Menna Jones M.CIEEM

Introduction to site survey: Field parcel 1 (SN*****) was visited on 20th August 2016. It is marked as scattered priority habitats on the Lle GWC geopdf. The parcels were walked, photographs taken and a list of species present and NVC categories was provided.

Map 1 – Lle GWC geopdf (Scattered priority habitats are marked in green)



Map 2: Aerial image shows the location of different priority habitats (see below)



Site Description (0.8Ha)

This field parcel is a marshy field grazed by ponies and sheep, with encroaching scrub from the boundaries and the drier knoll with tall trees in the east of the parcel. Entering the parcel off the footpath from the west, an area of rush pasture with both *Juncus*-dominated M23 and *Molinia*-dominated M25 can be seen.

- The M23 has frequent *Holcus lanatus*, *Lotus pedunculatus*, *Ranunculus repens*, *Cirsium palustre*, *Juncus acutiflorus*, *Ranunculus acris* and occasional to frequent *Galium palustre*.
- A band of M23b crosses the site from the east towards the northwest corner and holds abundant *Juncus effusus* with frequent *Holcus lanatus*, *Stellaria alsine*, *Rumex acetosa*, *Cirsium palustre*, *Cardamine flexuosa* and *Lotus pedunculatus*. *Myosotis* sp is locally frequent along with *Epilobium obscurum*.
- The M25 has tussocky *Molinia* with frequent *Juncus effusus*, *Angelica sylvestris* and *Rumex acetosa*.
- There is an area of MG5 on the southern and eastern edges of the knoll with the tall trees is an area on neutral grassland with abundant *Holcus lanatus*, *Agrostis capillaris*, *Plantago lanceolata* and *Trifolium repens*. Additionally, *Centaurea nigra*, *Festuca rubra*, *Anthoxanthum odoratum*, *Ranunculus acris*, *Lotus corniculatus* and *Cynosurus cristatus* are all frequent with *Trifolium pratense* locally frequent.

Map 3 – Locations of photos



Photo 1 - Mosaic of M23 and M25 on entry to parcel form the north



Photo 2 - Mosaic of M23 and M25 on entry to parcel form the north

Recommendation:

Field parcel SN ***** is mapped as a rush pasture & purple moorgrass priority habitat and an ecological survey has confirmed that it is still a priority habitat. As a result, it is recommended that field parcel SN***** is not planted under the Glastir Woodland Creation scheme.