

WOODLAND ASSESSMENT and MITIGATION

LAND NEAR MULSOP FARM TRELYSTAN LEIGHTON WELSHPOOL POWYS

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1 INTRODUCTION

1.1 BACKGROUND

A planning application has been submitted for the construction of a free-range poultry building and associated infrastructure on land near Trelystan.

The work will involve the construction of one new poultry building, along with an access track and feed bins. The building will supplement two existing buildings which have been on the site for approximately 10 and 8 years respectively.

A ranging area will be provided over adjacent grassland and fencing will be erected to both protect chickens from predators and protect natural features such as hedgerows from excessive grazing. An existing access track from the nearby minor road will be used along with a small extension from the existing yard.

No existing habitat other than improved grassland will be lost as a result of the development. No protected species will be affected.

An Ammonia Modelling Report was produced in August 2017 and identified four receptor points in nearby ancient woodlands at which ammonia levels would exceed the critical level for the site.

Ammonia Modelling Report concluded that:

- At nearby AWs, assuming the Critical Level of $1.0 \mu\text{g-NH}_3/\text{m}^3$, which provides the strictest assessment criteria: there would be exceedances of the Environment Agency's lower threshold percentage of the Critical Level (100%) over approximately 0.6 ha of nearby AWs to the north-east and south-east. There are smaller predicted exceedances of the Critical Load of 10 kg-N/ha/y over a small part of the unnamed AW to the south-east.

Guidance now exists which stipulates that, where planning applications identify that ammonia and nitrogen deposition will exceed 100% of Cle/CLo for local sites including Ancient Woodland, the LPA will need to request further information to determine the significance of the impact.

1.2 DESCRIPTION OF WOODLANDS

The four woodland sites identified above are described more fully below (see Figure 1 for location):



WOODLAND 1

Receptor point 1 in the Ammonia Report.

This is a narrow stream-side area of woodland in a steeply-incised 'dingle' near to the existing farmstead at Mulsop. This is fragmented with a scattered tree cover. Species include occasional ash and sallow. The steep banks of the dingle have been grazed and trampled over many years and the woodland lacks a diverse structure or ancient woodland ground flora.

WOODLAND 2

Receptor point 2.

This is a continuation of the same stream-side woodland with a deeper and wider valley. Species again include ash and sallow with occasional oak. Mature trees are scattered and much of the woodland is scrubby with occasional hazel, holly and hawthorn.

Sheep have had access to the woodland for many years and it is used as winter shelter and for access to the stream for drinking. As a result, the woodland structure is poor and the ground flora dominated by nettle and other ruderal and agricultural grassland species, with extensive areas of bare ground or leaf litter.

WOODLAND 3

Receptor point 3.

This is a streamside belt of trees with ash, alder and crack willow with occasional hazel understorey. This has evidently been grazed in the past but is now fenced. The ground flora has suffered from nutrient enrichment and is dominated by nettles. Other species include ground ivy, red campion, broad buckler fern and ivy.

WOODLAND 4

Receptor point 4

This was formerly an extensive area of ancient woodland on a steep slope near to an existing farmstead. A large section nearest to the farm is now almost devoid of trees with only occasional standing mature trees remaining. Some of the bank supports scattered scrub but much is now bare. The site is open to grazing.

A separate section of this woodland to the north west retains woodland canopy but this is very open with scattered mature ash and sycamore with occasional hazel and hawthorn scrub. The most westerly section is free of trees and dominated by bracken.

Heavy grazing in the past has prevented development of a shrub layer and has resulted in a nettle-dominated ground flora. Other species include cocksfoot, ground ivy, red campion and male fern.



2 IMPACT OF AMMONIA

The four areas of ancient woodland assessed have all been subjected to high grazing pressure over many years and have lost their woodland structure. They all have very open canopies with a poor understorey and shrub layer. Three of the woodlands (1-3) are narrow, streamside woodlands which are susceptible to disturbance and pollution from agricultural activities on adjacent land. Woodland 4 has largely been lost or badly degraded by stock.

Grassland species indicative of ground disturbance and nitrogen enrichment occur in parts and include nettle, clustered dock, cocksfoot and creeping buttercup. There was very limited occurrence of ground flora bryophytes or epiphytic bryophytes and lichens.

An increase in ammonia concentrations is not predicted to have any significant impact on these woodlands over and above that resulting from the eutrophication caused by stock grazing.

In conclusion, there is no evidence that the woodlands are of importance for lichen or bryophyte species and therefore there would be no justification for applying the reduced Critical Load for these areas to $3.0\mu\text{gNH}_3/\text{m}^3$.

3 MITIGATION PROPOSALS

WOODLAND CREATION

Three areas have been identified for the planting of new trees to create a total of 0.6 hectares of new woodland. These are shown on Figure 2. Two areas to the west are designed to augment and link with existing woodland. One area of 0.4 ha within the ranging area will augment a plantation of existing trees planted alongside an existing building.

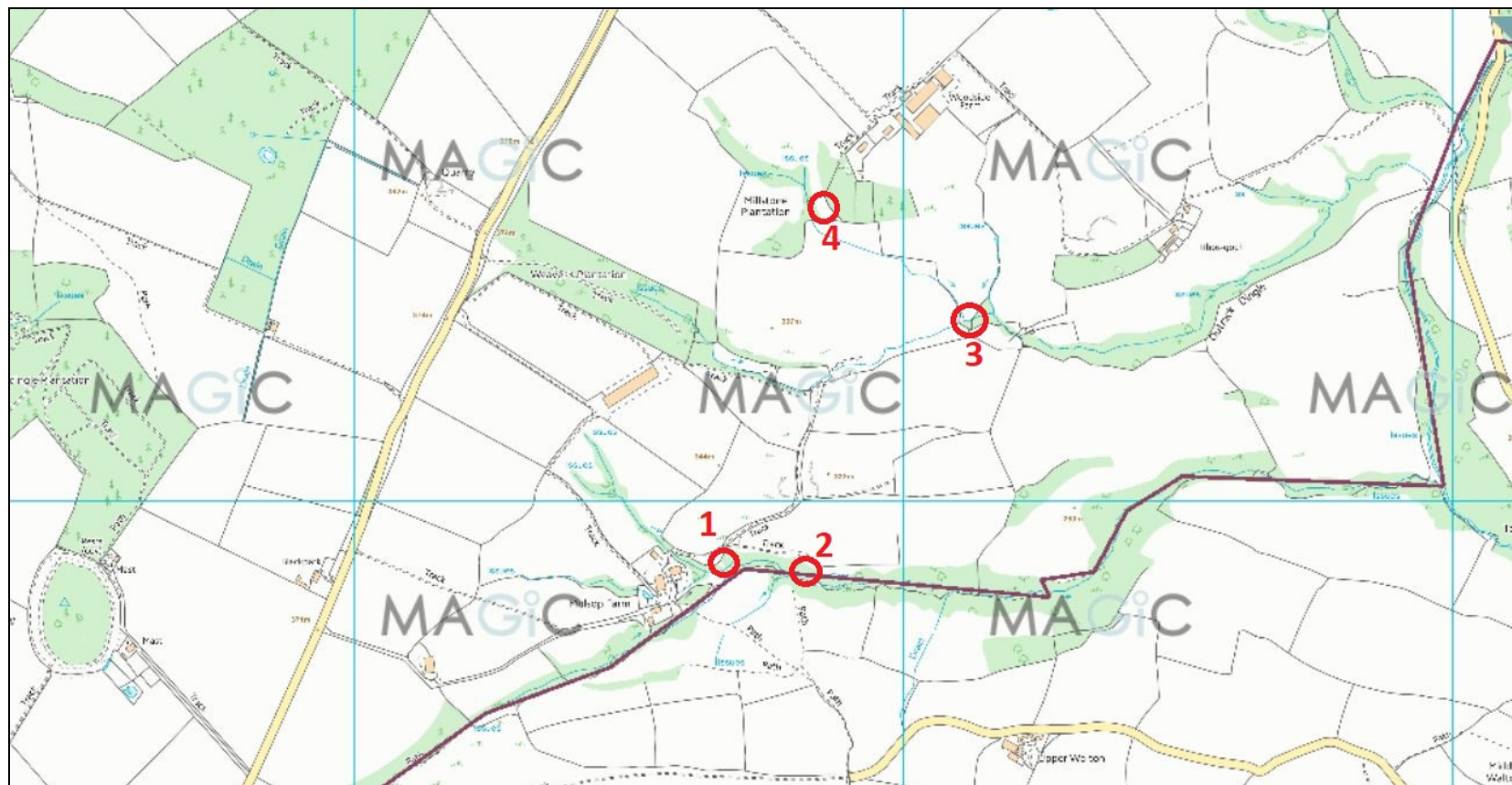
Species will be native and of local provenance, as below:

SPECIES	%	Number
Sessile oak	40	384
Silver birch	20	192
Rowan	10	96
Wild cherry	5	48
Field maple	5	48
Hazel	10	96
Hawthorn	10	96

Trees will be planted at 2 metre centres and protected using tree-shelters.



FIGURE 1: ANCIENT WOODLANDS ASSESSED



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FIGURE 2: PROPOSED TREE PLANTING



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