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**Ecological Scoping Assessment
Huntroyde Home Farm
Lancashire**

Report reference: R-1363-04
October 2012

Report Title:	Ecological Scoping Assessment Huntroyde Home Farm, Higham Lancashire
Report Reference:	R-1363-04
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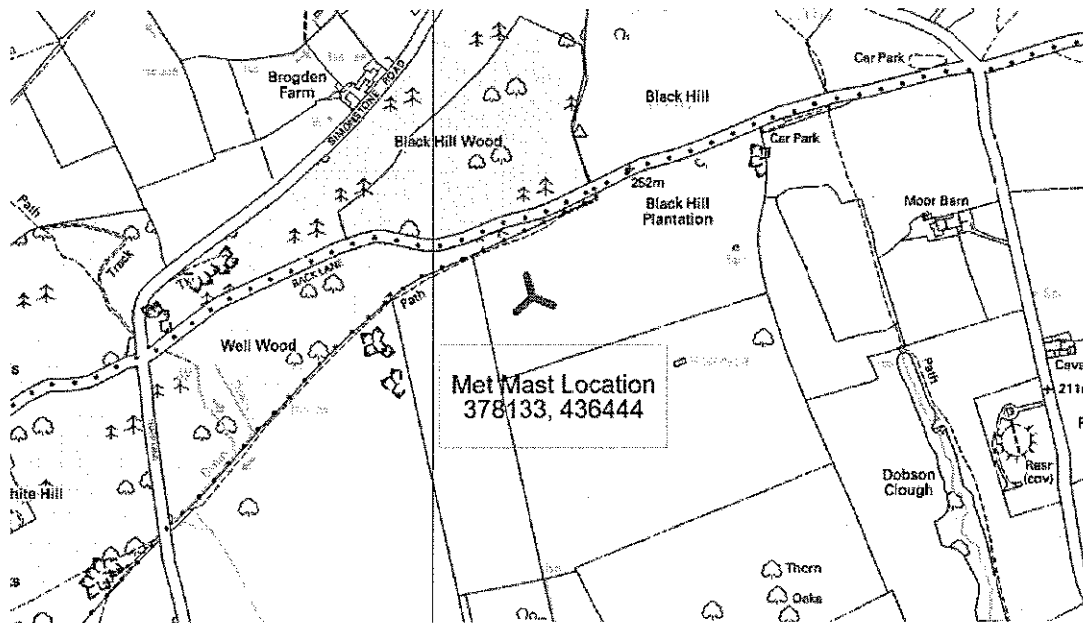
Summary Statement

The met mast proposed is unlikely to have any impacts on protected or otherwise important species, habitats or local sites

Introduction

- 1 Brooks Ecological Ltd was commissioned to carry out an Ecological Scoping Assessment of the location of a Meteorological Test Mast (met. mast) on land of Huntroyde Home Farm, Sabden, Lancashire (SD 781 364).
- 2 This scoping assessment addresses the following questions about the potential impacts:
 - a) Are there any sensitive faunal groups which could be affected by the construction of the mast?
 - b) Are there direct impacts on important **habitats** through the siting of the mast and any associated infrastructure?
- 3 The assessment is conducted in two parts:
- 4 A site visit is made, allowing a thorough **field survey** of the turbine location. This survey appraises the types of habitats which could be directly affected and assesses the wider landscape character and local biological resources.
- 5 Assessment is supported by a **desk based study** which looks at aerial photography and mapping to identify potentially important faunal corridors or navigation features. A digest of local biological records and information on relevant nearby designations provides a further layer of evidence for the assessment.
- 6 In making our assessment we refer to initial proposed mast location supplied by the client as illustrated in figure 1 below.

Figure 1 Site location and access layout



Proposals

- 7 It is proposed to erect a single 50m mast. The proposed location of which is shown in figure 1 above.

Section 1 Field Survey

Method

- 1.1. The survey was carried out on the 6th September 2012 by an experienced field ecologist. The surveyor assessed habitat likely to be directly affected and the wider landscape character in order to consider faunal impacts.

Results

Landscape character

- 1.2. The application site lies within a landscape characterised by grazed pasture and parkland in an upland fringe setting. The site occupies a position close to the summit of a steep ridge rising between the valleys of Padiham to the south and Sabden to north, beyond which the massif of Pendle Hill is found with its mix of typical South Pennine upland habitats. The site is separated from the Sabden valley by a very steep wooded escarpment supporting Black Hill Wood, Well Wood and Wellington Wood. To the south, land slopes less steeply towards Padiham and the urban conurbation of Burnley. Separating the site from Padiham is a large area of well wooded farmland / parkland known as Huntroyde Demense. This area represents the grounds of the Huntroyde Estate and contains significant blocks of cover woodland, isolated parkland trees and lowland hedgerows. As the land rises towards the application site much of this character is lost, giving way to wide open, heavily grazed grasslands with stone wall boundaries.
- 1.3. Beyond the site to the north the transition from lowland to upland type habitats continues with pasture giving way (briefly) to plantation and the dwarf heath and wetland communities of Black Hill.
- 1.4. The site occupies the watershed between the Sabden and Padiham valleys and as such there are no watercourse in the vicinity on the application site with the nearest being that feeding Dobson Clough 500m to the east and another flowing south a similar distance to the west.
- 1.5. There are no ponds within the vicinity of the site.

Habitats which could be directly affected

- 1.6. The only habitat which would be directly affected by the construction and operation of the proposed turbine is a small part of the large improved pasture field in which the mast would be sited. The sward in the field has been improved as evidenced by the presence of perennial rye grass (*Lolium perenne*) and white clover (*Trifolium repens*) and is currently grazed very short. Also present are grasses such as common bent (*Agrostis capillaris*), yorkshire fog (*Holcus lanatus*), fescues (*Festuca rubra* agg.), crested dogstail (*Cynosurus cristatus*) and lesser amounts of sweet vernal grass (*Anthoxanthum odoratum*). There are large amounts of spear thistle (*Cirsium vulgare*) and also creeping buttercup (*Ranunculus repens*), common mouse-ear (*Cerastium fontanum*) and creeping thistle (*Cirsium arvense*).
- 1.7. Hollows to the south of the site support small patches of soft rush (*Juncus effusus*) and less disturbed banks are colonised by gorse (*Ulex europaeus*).

Figure 1.1 Panoramic view of proposal field and approximate met mast location (shown by the red bar). This view is taken looking west with Blackhill Wood to the north.



Other habitats in close proximity to the site

- 1.8 The only other habitat in proximity to the proposals is the woodland associated with the Black Hill Ridge. This varies in character, with that closest to the application site being dominated by sycamore (*Acer pseudoplatanus*) and more occasional elements of beech (*Fagus sylvatica*), oak (*Quercus* sp), horse chestnut (*Aesculus hippocastanum*), larch (*Larix decidua*), pine (*Pinus* sp) and ash (*Fraxinus excelsior*).
- 1.9 Beyond the western boundary is a single track road and then a linear block of plantation woodland dominated by beech but also with pine, ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*). There is rarely a well developed understorey and ground flora is dominated by plants tolerant of the shaded and damp conditions such as broad buckler fern (*Dyopteris dilatata*), tufted hair grass (*Deschampsia cespitosa*), bramble (*Rubus fruticosus* agg.), creeping soft grass (*Holcus mollis*) and common mosses such as *Kindbergia praelonga* and *Brachythecium rutabulum*.

Faunal assessment

- 1.10 Considerations of faunal groups (with particular attention to legally protected species) such as amphibians, reptiles, invertebrates and terrestrial mammals have been considered as part of the landscape / habitat assessment.
- 1.11 Table 1.1 below summarises the key findings of this process at the application site.

Table 1.1 Faunal assessment summary

Features	Findings
Areas of higher value habitat which local bird populations are likely to be dependant on.	No
Important foraging habitat for bats or nearby potential roost sites.	No
Potential amphibian breeding ponds within 500m of the application site.	No
Evidence of terrestrial mammals which could be impacted by works (such as water vole or badger)	No
Higher value habitat for other protected species such as invertebrates or reptiles present within the sphere of influence of the proposals.	No



- 1.12. The site offers no significant potential for any valuable faunal communities to regularly occur due to its habitat type and current use (intensive grazing)
- 1.13. Bats will forage along the woodland fringe to the north and the network of woodland in the area is likely to be important to them, however they are unlikely to value the site itself and the current proposals would not present any impact on this group.
- 1.14. Although the application site will be visited by common bird species, they will not be dependant on this area (it is surrounded by large expanses of identical habitat) and the current proposals would not present any impact on this group

Invasive Plants

- 1.15. No evidence of species listed on Schedule 9 (Part 2) of the Wildlife and Countryside Act 1981 (as amended) could be found within the sphere of influence

Section 2 Desk Study

- 2.1 A desk study has been carried out to identify species or habitats that are considered important in a local context and to identify any species recorded locally that could be affected by construction and operation of the turbine. This information can be used to help target groups that need to be considered in more detail in order to identify the ecological baseline for the application site.

Designated Sites

- 2.2 A search of the MAGIC website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. Sites of Scientific Interest [SSSI's]) as well as many non-statutorily listed habitats (e.g. Ancient woodlands and grassland inventory sites). When assessing the potential impacts of wind turbines of particular importance is the proximity or relationship of the site to international or EU level designations: We search for these international designations up to a radius of 10km from the application site.
- SPAs¹: listed and protected under UK and EU law for important assemblages of birds
 - SACs²: listed and protected under UK and EU law for important habitats or species assemblages other than birds.
- 2.3 There are no SPA's, SAC's or RAMSAR sites within 10km of the proposed turbine location
- 2.4 We search for national and lower level designations up to a radius of 2km from the site.
- NNRs³ SSSI's⁴ and LNRs⁵ listed and protected under UK law for important habitats or species assemblages of any kind
- 2.5 There are no national or lower level designations within 2km of the proposed turbine location
- 2.6 Many local authorities also designate non-statutory 'second tier' wildlife sites of their own - these vary both in name and level of protection, depending on the relevant authority and their policies. Lancashire County Council have

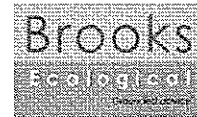
¹ Special Protection Areas

² Special Areas of Conservation

³ National Nature Reserve

⁴ Sites of Special Scientific Interest

⁵ Local Nature Reserve



designated six areas within 2km as 'Biological Heritage Sites'(BHS's), these include:

- Black Hill is the closest BHS to the proposed turbine location. A mosaic of dry dwarf shrub heath and marshy grassland, situated c.185m north east of the proposed turbine location. Due to the limited influence of the met mast and the difference in habitats between the two sites no potential impacts on the BHS or its interests could be expected.
- Huntroyde Demense a large BHS located c 350m south of the proposed turbine location at its closest point. Designated for the presence of broad leaved woodland including several areas of scattered mature parkland trees. This site provides habitat for breeding and wintering birds, none of which would face impacts from the proposed met mast. Due to the difference in habitat, the distance from the site and the nature of the proposed activity, impacts on the Huntroyde Demense BHS would not be expected.
- Pendle Hill encompasses a complex mosaic of habitats including bog, heathland, acid grassland and species rich flushes. At 1.4km north of the turbine location and protecting different habitat types, it is not expected that this BHS would be affected.
- Read Heights Pasture approximately 1.2km west of the turbine location is designated as a BHS due to the presence of species-rich, semi-natural, neutral grassland. Once again the limited sphere of influence of the met mast would not affect this BHS.
- Lower Barn Wood, an area of woodland and scrub approximately 1.25km northwest of the proposed turbine location, the met mast would have no impact on the BHS.
- The Rough, comprising dry dwarf shrub heath, acid grassland and mire communities, is located 2km north west of the site, the met mast would have no impact on the BHS.

Aerial Photography and Detailed Map Study

27. Aerial photographs published on commonly used websites were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This approach can be very useful in determining if a site is potentially a key part of a wider wildlife corridor or an important node of habitat in an otherwise ecologically poor landscape. It can also identify potentially important faunal habitat (in particular ponds) which could have a bearing on the ecology of the application site. Ponds may sometimes not be apparent on aerial photographs so we also refer to close detailed maps that identify all ponds issues and drains. We use Promap Street + scale maps for this purpose.
28. The site is bounded to the north by woodland described below but all other sides by similar improved and grazed pasture, from which it is separated by dripstone wall and wire fence boundaries.
29. The nearest woodlands are the plantations of sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), oak (*Quercus* sp) and conifers at Blackhill Wood 95m to the north and Pan Wood some 350m to the south.
- 1 16. There are no ponds within the vicinity of the site the nearest standing water being a small stone sided reservoir 200m to the east.

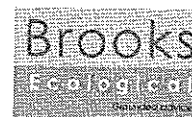
Local Biodiversity Action Plan

- 2.10. The local BAP is 'Lancashire LBAP'. Under this BAP a number of plans have been created and all were considered as part of this assessment. Not all species and habitat plans are listed here, rather those of potential relevance to the proposals (i.e. those species or habitats having some potential of being affected in this context).

Table 2.1: Relevant LBAP Species Action Plans

Species/group	Likelihood of being regularly found on proposal site	Risk of significant impact*
Black-tailed Godwit	None	-
Farmland Birds	Limited	Negligible
Hen Harrier	None	-
Lapwing	None	-
Reed Bunting	None	-
Skylark	None	-
Song Thrush	None	-
Twite	Limited	None
Bats	None	-
Brown Hare	Limited	None
Otters	None	-
Red Squirrel	None	-
Water Vole	None	-
Great Crested Newt	None	-
Natterjack Toad	None	-
Belted Beauty Moth	None	-
Dorus Profuges- a hoverfly	None	-
High Brown Fritillary	None	-
Large Heath Butterfly	None	-
Northern Brown Argus	None	-
Pearl-bordered Fritillary	None	-
Shining Guest Ant	None	-
Southern Wood Ant	None	-
Wall Mason Bee	None	-
Freshwater Pearl Mussel	None	-
Freshwater White-clawed Crayfish	None	-
Jennings Proboscis Worm	None	-
Whorl Snails	None	-
Birds-eye Primrose	None	-
Black Poplar	None	-
Dwarf Cornel	None	-
Flat-Sedge	None	-
Great Butterfly Orchid	None	-
Lady's-slipper Orchid	None	-
Lancaster Whitebeam	None	-
Narrow Small-Reed	None	-
Purple Ramping-fumitory	None	-
Rock Sea Lavender	None	-
Sea Bindweed	None	-

*Combined risk based on susceptibility to the proposed activity and likelihood of contact with it



- 2.11. Similarly action plans produced for habitats of potential relevance to the application are listed in Table 2.2:

Table 2.2: Habitat Action Plans

Habitat	Present on or close to the site	Risk of significant impact *
Arable Farmland	No	-
Broadleaved and Mixed Woodlands	Yes	No
Calcareous Grassland	No	-
Limestone Pavement	No	-
Moorland and Fell	No	-
Mossland	No	-
Reedbed	No	-
Rivers and Streams	No	-
Salt Marsh and Estuarine Rivers	No	-
Sand Dune	No	-
Species-rich Neutral Grassland	No	-

* Combined risk based on susceptibility to the proposed activity, the scale of any impacts on this habitat type and the likelihood of impacts on specific BAP targets or objectives

Local Records

- 2.12 The local records provider Lancashire Ecological Records Network (LERN) was asked to provide all protected and notable species records within 2km of the site. The vast majority of returned records were for flowering plants. Those of relevance to the site include the following:
- 2.13 A number of bird records were returned - mostly of species which would not be impacted by these proposals. Records include ground nesting species such as skylark and curlew which could make use of the application field for breeding, although the levels of grazing disturbance in the field are likely to limit its value in this respect. Proposals could lead to the displacement of very small numbers curlew or skylark during the construction of the mast, but due to the fact that there is ample alternative habitat in the vicinity and the construction will be over a very limited time period, these impacts would not be significant.

Section 3 Evaluation and Recommendations

Overall Evaluation

- 3.1 The proposed met mast location has been found to present a minimal risk of impacting on protected / important species or habitats. It will not impact on any local designated sites.
- 3.2 Further survey is not recommended in support of this assessment and in view of the temporary nature of the proposals, meaningful ecological enhancement would not seem to be appropriate at this stage

References

IEA (1995). *Guidelines for Baseline Ecological Assessment* Chapman and Hall

Nature Conservation Committee (1990). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. NCC