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**Ecological Scoping Assessment
Huntroyde Home Farm
Lancashire**

Report reference: R-1363-05
February 2013

Report Title:	Ecological Scoping Assessment Huntroyde Home Farm, Higham Lancashire
Report Reference:	R-1363-05
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Summary Statement

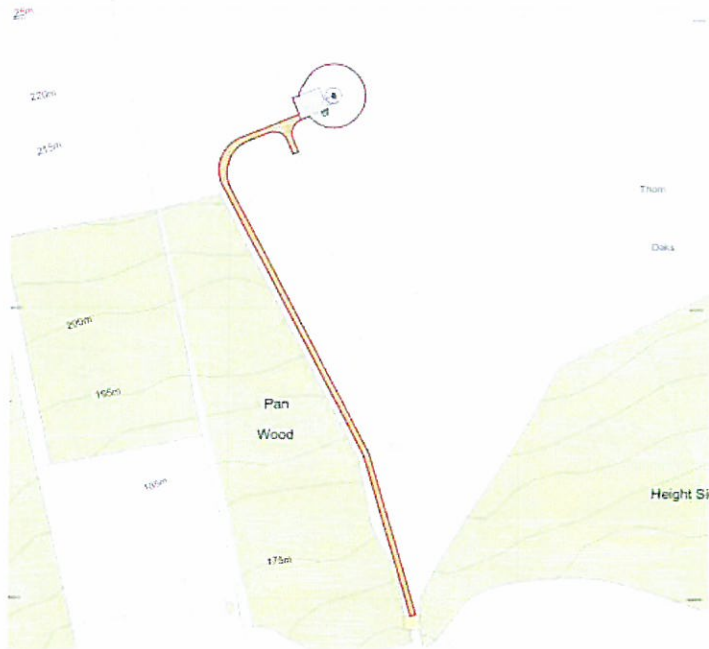
The proposed turbine is unlikely to have any impacts on protected or otherwise important species, habitats or local sites.

Introduction

1. Brooks Ecological Ltd was commissioned to carry out an Ecological Scoping Assessment of the location of a single wind turbine on land at Huntroyde Home Farm, Sabden, Lancashire (SD 782 361).
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 and operation of the turbine?
 - b) Are there direct impacts on important **habitats** through the siting of the turbine 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 the initial proposed turbine 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 an Enercon E33 single wind turbine which is 44m to hub and 60.7m to tip. The proposed location of the turbine is shown in figure 1 above.
8. The application boundary for this activity would typically be no more than 0.5 Ha, this would allow for:
 - The footprint of the turbine and its blade sweep
 - Creation of a crane stand, substation and cable grid connection
 - Provision of an access route (although this will usually be achieved with temporary track laying).

Section 1 Field Survey

Method

- 1.1. The survey was carried out on the 14th February 2013 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.

- 1.3. **Figure 1.1** Panoramic views of proposal field and approximate turbine location (shown by the red bar). This view is taken looking south with Padiham and Burnley in the background.



- 1.4. 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.



Figure 1.2

Looking south from the site towards Pan Wood and the northern wooded boundary of The Huntroyde Demense BHS

- 1.5. 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.
- 1.6. 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.
- 1.7. The site occupies the watershed between the Sabden and Padiham valleys and as such there are no watercourses in the vicinity of the application site with the nearest being a small stream issuing in Pan Wood 100m to the south west.
- 1.8. There are no ponds within the vicinity of the site, a feature marked as a reservoir in the application field being little more than a walled trough.



Figure 1.3

Looking north from the site towards Black Hill Woods.

Habitats which could be directly affected

- 1.9. 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.



Figure 1.4

Typical short grazed sward at the site.

- 1.10. 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 varying amounts of spear thistle (*Cirsium vulgare*) and also creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*) common mouse-ear (*Cerastium fontanum*), blinks (*Montia fontana*) and creeping thistle (*Cirsium arvense*). Parts of the field contains a high proportion of bryophyte flora dominated by the common mosses *Brachythecium rutabulum* and *Rhitiidodelphus squarrosus*.
- 1.11. Damper areas to the north and south of the site support small patches of soft rush (*Juncus effusus*) and less disturbed banks are colonised by gorse (*Ulex europaeus*).

Other habitats in close proximity to the site

- 1.12. The only other habitat in proximity to the proposals is the woodland associated with Pan Wood to the south west. This is a mixed mature plantation woodland composed of beech (*Fagus sylvatica*), oak (*Quercus* sp), ash (*Fraxinus excelsior*) and Scots pine (*Pinus sylvestris*). This woodland forms the northern extent of the Huntroyde Demense Biological Heritage Site which links other areas of parkland and woodland in the area. The designation is discussed in the relevant later section.

Faunal assessment

- 1.13. Particular attention is paid to the higher risk faunal groups of birds and bats in the specific section of ornithological scoping later in the report and the bat assessment report (R-1363-03).
- 1.14. Other lower risk 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.
- 1.15. Table 1.1 below summarises the key finding of this process at the application site.

Table 1.1 Faunal assessment summary

Features	Findings
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

- 1.16. The site offers no significant potential for any faunal communities to regularly occur due to its habitat type and current use (intensive grazing).

Invasive Plants

- 1.17. 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 with 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:

- Huntroyde Demense being the closest to the site - a large BHS located c.100m southwest 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. The citation describes Huntroyde Demense as providing habitat for breeding and wintering birds, woodland plant communities and invertebrates - none of which would face impacts from the proposed turbine (the risk to birds is discussed in more detail in the later relevant section of the report). Impacts on the Huntroyde Demense designation BHS would not be expected.
- Black Hill BHS, a mosaic of dry dwarf shrub heath and marshy grassland, situated c.385m north west of the proposed turbine location. Due to the limited influence of the turbine and the difference in habitats between the two sites, no potential impacts on this BHS or its interests could 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 turbine would not affect this BHS.
- Lower Barn Wood, an area of woodland and scrub approximately 1.25km northwest of the proposed turbine location, which 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 proposed turbine would have no impact on this BHS.

Aerial Photography and Detailed Map Study

- 2.7. 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.
- 2.8. The site is bounded to the south by woodland described below but all other sides by similar improved and grazed pasture, from which it is separated by dry stone wall and wire fence boundaries.
- 2.9. The nearest woodlands are the plantations of sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), oak (*Quercus* sp) and conifers at Pan Wood c.100m to the south and Black Hill Wood some 385m to the north west.
- 1.18. There are no ponds within the vicinity of the site, the nearest standing water being a small stone sided reservoir / trough 200m to the north 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 - see later bird scoping
Hen Harrier	None	-
Lapwing	Limited	Negligible - see later bird scoping
Reed Bunting	None	-
Skylark	Limited	Negligible - see later bird scoping
Song Thrush	None	-
Twite	Limited	None
Bats	Limited	Negligible - see later bat scoping
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 1km of the site. These included many vegetation and invertebrate records not of relevance to this report.
- 2.13. Detailed bird records have also been received from the Lancashire county recorder and are discussed alongside other bird records in the Ornithological Scoping Section later in the report.
- 2.14. Very few records of protected mammals were returned. The data included two records of otters noted in Sabden Brook, 1.8km north east and 2km west of the proposed turbine location. Two records of common pipistrelle were returned, neither of which have any additional detail.

Section 3 Bat Scoping

- 3.1. Bats can be adversely affected by wind turbines and reports of bat casualties at turbine sites are known. Current research suggests that this may have more to do with the distortion of air pressure around turbine blades than actual impact with bats – obviously the risk to bats is therefore much higher from larger turbines, and in particular the complex effects around multiple turbines.
- 3.2. However given that there is a theoretical possibility that bats could be displaced by or harmed by wind turbines, it is always important that even single turbines, or small plots of them, are sited away from transit routes, roost entrances or primary foraging areas for bats.
- 3.3. According to both EU guidance (*Eurobats*) and Natural England (*Technical Information Note TIN051 Bats and Onshore Wind Turbines - Interim Guidance*); and the recently published Bat Conservation Trust (BCT) guidance in *Surveying for Onshore Wind Farms* (2012). Certain bat species are more at risk from wind turbines than others. This can be due to varying migration, flight pattern and foraging habits.
- 3.4. The bat species potentially affected at this location, and the scale of risk posed to them as individuals (and by inference, their populations) by wind turbines is represented in Table 3.1.

Table 3.1 Risk to bat species/populations recorded within 10km of the application site (adapted from Natural England 2009).

Species	Risk status	Population Risk Status
Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	High	High
Noctule (<i>Nyctalus noctula</i>)	High	High
Liesler's (<i>Nyctalus leisleri</i>)	High	High
Pipistrelles (<i>Pipistrellus pipistrellus</i> and <i>P. pygmaeus</i>)	Medium	Low
Brown long-eared (<i>Plecotus auritus</i>)	Low	Low
Natterer's (<i>Myotis nattereri</i>)	Low	Low
Daubenton's (<i>Myotis daubentonii</i>)	Low	Low
Whiskered/Brandt's (<i>Myotis mystacinus</i> and <i>M. brandtii</i>)	Low	Low

Method

Landscape Assessment

- 3.5. The recently published Bat Conservation Trust (BCT) guidance in *Surveying for Onshore Wind Farms* (2011) was referred to, to help scope the need for further bat survey.
- 3.6. The primary objective of the survey is to determine whether the proposal site is used by, or is likely to be used by bats for roosting, foraging or transit, so allowing

an assessment of the risk posed to bats. This can often be effectively determined through daylight assessment of landscape features and surroundings, likely roosting and foraging sites, and if necessary followed up by bat activity surveys during the summer; unless features suggest bats could use the area in significant numbers at other times of year.

- 3.7. If carried out at an early stage of the project, scoping surveys such as this can be used to steer development away from areas where impacts might result. In this instance Natural England's guidance on suitable stand-offs from features used by bats provide a useful benchmark.
- 3.8. Key potential bat foraging grounds and commuting corridors and possible roost locations were looked for based on a site visit and study of aerial photographs of the landscape within 1km of the site. This includes features such as belts of woody vegetation or similar linear corridors between areas of invertebrate rich habitat such as cattle grazed pasture, water bodies, wetlands or woodlands. This assessment is shown in figure D-1363-02.
- 3.9. The site is located within an intensively managed grass pasture bounded by dry stone walls.
- 3.10. The wider landscape contains a number of features which are likely to be more attractive to bats, these include;
 - Features which they will use as foraging resources such as the woodlands at Pan Wood, Well Wood and Black Hill Wood as well as the parkland associated with Huntroyde Demense to the south.
 - Potential roost sites such as local housing at Priddy Bank Farm, White Hill and Trapp Hill Farm and cottages as well as local trees and woodland.
 - Linear features such as woodland edges, the hedgerow network bounding fields to the east of the site and within Huntroyde Demense to the south and tree lined roads such as Back Lane to the north. Whilst not prime foraging habitat, such areas could provide commuting routes for bats between some of the higher value areas discussed above.
- 3.11. Acknowledging the presence of bat populations in the wider landscape, the habitat features relevant to bats all lie away from the application site and suggest that potential impacts to bats can be avoided through the application of appropriate stand-offs.

Local Records

- 3.12. The Local Records Holder LERN provided only two bat records within a 2km radius - both for common pipistrelle and without any further detail.

Evaluation

- 3.13. The proposed turbine occupies an elevated position in a landscape with some well defined habitat features which are likely to support bats in some numbers. These features are linked by a strong network of commuting features which will allow bats to move through the landscape. The proposed turbine does not interfere with this network and would therefore not restrict the movement of bats or result in a significant risk of collision.
- 3.14. The landscape analysis makes it clear that the turbine is unlikely to lead to direct impacts on lower risk species of bats, assuming the required standoff is achieved and implemented. Natural England issued advice in 2009 (updated in 2012) which aimed to adapt EU (Eurobats) guidance for use in the UK. This is provided in the form of interim guidance in their Technical Information Note TIN 051. In addition to information which has been used in planning our surveys TIN 051 also presents guidance on what is considered a safe stand-off distance from features used by bats (such as the nearby hedgerow at this site) if impacts from turbine blades are to be avoided.

$$b = \sqrt{(50 + bl)^2 - (hh - fh)^2}$$

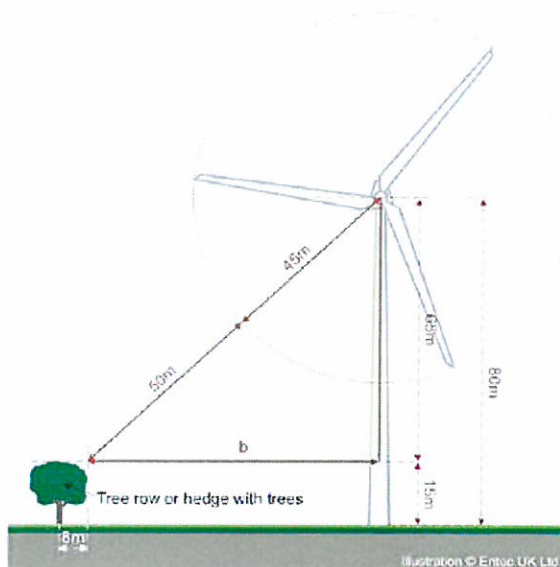


Figure 3.1

Guidance from Natural England' TN051 on stand-off a feature used by bats.

fh = feature height

hh = hub height

bl = blade length

b= standoff

At this site this is calculated as
 $\sqrt{(50+16.7)^2 - (44-8)^2} = \mathbf{56m}$ from trees.

- 3.15. Our scoping of bats concludes that if the stand-offs identified above from well structured linear habitat features can be achieved, significant impacts to lower risk bats are very likely to be avoided at this site. The current location achieves these stand-offs. The immediate surrounding landscape on all sides represents poor foraging habitat and the better connected hedgerows, woodlands and other linear natural and semi-natural features are located sufficiently far away so as to make the risk of bats being directed to the turbine site very low.
- 3.16. A potential issue, on which such decisive guidance is not available, is the presence of high risk species such as noctules, nathusius pipistrelle and leisler's bats in the wider landscape. These bats are at more risk due to their high flight which is much less associated with habitat features obvious on the ground. Noctules in particular are associated with roosts in trees and will commute between woodland blocks / copses - behaviour which can bring them into conflict with wind turbines in some locations. Discussion with Natural England on this point suggests that it is very much down to the consultants experience and judgment as to whether there is a risk to such species.
- 3.17. Survey information is presented in the form of report BE-R-1363-03. This presents data collected at a previously proposed location some 280m north of the current application during September 2013. The results of this survey confirm that there are very low levels of higher risk bat activity associated with this landscape. Given its proximity and that the proposed turbine is well away from any potential roosting or foraging features, it is felt to be safe to confer this same result to the current proposals.

Section 4 Ornithological Scoping

Introduction

- 4.1. Potential impacts on birds are assessed based upon the field survey results, landscape assessment and a digest of currently available records for the area. Such scoping allows an informed appraisal of the possible risk of impacts on important groups or species of bird or determines if further survey work is required in order to make a valid assessment of these risks.
- 4.2. Potential impacts on birds from wind turbines generally fall into two broad categories:
- Displacement through visual, noise or other disturbance associated with the construction or operation of turbines. This becomes a significant impact when bird populations, at local or wider value, are displaced from favoured areas of habitat during breeding, wintering or passage periods to the detriment of their conservation status: and

- Collision with the operational turbine. Due to their feeding, breeding or seasonal migration patterns some species are at risk from collision with turbines. Whilst occasional bird strike of any built structure, or transport infrastructure is inevitable and could not be seen as deliberately caused, collision impacts can be significant where they involve; (i) rarer species whose population levels could be seriously affected by any collisions, or (ii) species which, due to their behaviour, are at a particular risk from turbines and may therefore suffer impacts on their conservation status in the local or wider area.

Landscape Assessment

Breeding birds

- 4.3. The proposed turbine location comprises heavily sheep grazed pasture field with poor diversity and field margins with patches of soft rush (*Juncus effusus*) scattered throughout. Nesting birds at the turbine location and immediate area are likely to be limited to, at the most, single pairs of skylark and meadow pipit. The wider area may support low numbers of breeding curlew and/or lapwing which may face displacement by the construction and operation of the turbine, but the high grazing levels will preclude any populations of significance to the conservation status of either species. More so given the considerable extent of identical and similar habitats within the surrounding landscape.
- 4.4. Some farmland/woodland BAP birds are likely to be nesting in some of the hedgerows and woodland habitats in the wider area. The species associated with these habitats would not face significant impacts from the turbine and are not species at risk of collision.
- 4.5. The site supports no potential nesting sites for barn owl, with the nearest potential nest sites being at Priddy Bank Farm over 550m to the east. The turbine field has low value for hunting owls due to the lack of suitable habitat for small mammals such as undisturbed grassland with a thatch of dead grass. Despite its full legal protection barn owl is not considered to be at high risk from collision due to its slow flight, manoeuvrability and typical flight height.
- 4.6. The site is unsuitable for the majority of upland species either for breeding or hunting in the case of peregrine and merlin; due to the lack of semi-natural habitat and the distance from higher value habitat.
- 4.7. The only species listed within the citation of the Huntroyd Demesne Biological Heritage Site which is considered to be an "at risk" species with reference to wind turbines, is curlew. As described previously the turbine is exposed to at best,

sub-optimal habitat for this species and the turbine would be buffered from potential breeding habitat to the south by mature woodland habitat of Pan Wood and Height Side Wood, greatly reducing the possibility for displacement through visual disturbance.

Passage/Wintering Birds

- 4.8. The site does not include any areas of habitat likely to be of significant value to any passage or wintering populations. There are no significant water-bodies in close proximity and the short grazed habitat with occasional rush pasture is abundant (as equivalent and higher value examples) throughout the wider landscape.
- 4.9. The lack of important features for passage or wintering wildfowl and waders along with the low value to mammal populations, accordingly reduces the risk of regular use by birds of prey and owls and no significant impacts upon any local populations of any such species would be expected.

Records

- 4.10. Whilst not constituting an assessment in themselves, set alongside the landscape assessment above, local records can be useful in confirming or challenging any assumptions relied upon.
- 4.11. Though an absence of significant records does not always mean that impacts can be ruled out, it can help to build a picture of limited risks. Where significant records are returned there may well be a case for commissioning further survey work to make a robust evaluation of the risk.
- 4.12. RSPB/Natural England "Map of sensitive bird areas in relation to onshore wind farms in England", as published within the RSPB Research Report No 35, was consulted and the proposal site was shown not to be located within any area with a High or Medium sensitivity rating.
- 4.13. Bird records for the surrounding 2km tetrads were provided by the local Biological Record Centre and The Lancashire County Recorder - Steve White.
- 4.14. Records contain a large amount of woodland species composed of low risk passerine species, hirundines, corvids and doves. There are less records of common wetland species but these include moorhen, coot, grey heron and mallard as well as dipper. Many of the species are listed on UK and Local BAPs and the RSPB/BTO Red and amber lists but are not considered to be relevant to this assessment as the species involved would not occur in the habitat at and surrounding the turbine location and/or the species are not considered to be

significantly sensitive to wind turbines in respect of either collisions or displacement.

Raptors

- 4.15. Records of single peregrine, merlin, buzzard, sparrowhawk and kestrel were received from the wider area. The low numbers of records coupled with the habitats at and surrounding the site means the risk of significant impacts upon any of these species is extremely low.

Wildfowl and Waders

- 4.16. With the exception of records of 80 and 10 mallard from adjacent transects (over 2km from the turbine site), no double figure records were received of any wildfowl or waders. Those that were received were of scattered breeding records of lapwing, curlew, oystercatcher, redshank, snipe, common sandpiper, goosander and canada goose. Other than occasional curlew and lapwing (which have been discussed previously), the turbine location presents negligible potential for these species to occur and no impacts upon local populations would be expected.

Evaluation

- 4.17. Due to its habitats and location, breeding bird populations at the site (and immediately surrounding area) would consist of a small number of a limited range of generally common species at low risk from turbine collision. The impact of their potential displacement into large areas of similar habitat locally would be negligible with regard to their conservation status in the area.
- 4.18. Significant collision or displacement impacts on passage and wintering birds can be reasonably ruled out at this stage.
- 4.19. Given the low inherent value of the site, the surrounding available habitat, the distance from any sites designated for important bird populations at risk from turbine development and the fact that this development refers to just a single turbine, further survey and assessment work is not considered necessary for this site as the risk of significantly affecting important bird populations is assessed as very low.
- 4.20. The assessment that the site is of low value with regard to breeding, wintering and passage bird populations is reinforced by desk study information.

Section 5 Summary Evaluation and Recommendations

Overall Evaluation

- 5.1 The proposed turbine location has been found to present very limited potential to have significant impacts on local wildlife. Further precautions or surveys are not recommended in this respect.

Site enhancement

- 5.2 The recent National Planning Policy Framework (NPPF) continues the theme of seeking to enhance nature conservation through development.
- 5.3 Modification of the grazing regime in the application field provides probably the best chance of enhancement in this area. Allowing the seasonal development of a longer more flower rich sward in this field would be of benefit to local invertebrate and passerine bird species.

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Good potential bat foraging



Moderate potential bat foraging



Potential bat roosting features



Proposed turbine location

Site: Huntroyde Hall Farm

Title: Bat Features Plan

Drawing Number: BE-D-1363-02

Scale: Do not scale Date: February 2013

Revision:

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