



20 Hall Road, Fulwood, Preston, PR2 9QD
07887 532666 mail@ribbleecology.co.uk

Land at 'The Hills', Old Clitheroe Road, Longridge, PR3 2YX

Ecological Appraisal

May 2012

RB-12-49

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SUMMARY

Ribble Ecology has undertaken an ecological survey and assessment, including desk study, data search and site survey, at land to the south-west of '**The Hills**', which is a farm situated on the south side of **Old Clitheroe Road, Longridge, PR3 2YX**.

This has been undertaken in connection with a proposal for the installation of a wind turbine with 25 metres (m) high hub height, at grid ref **SD 62254 38557**.

Results show that the habitat at the proposed turbine location comprises agriculturally improved grassland, bound by dry stone wall field boundaries. There are no BAP Priority Habitats, fragile plant communities, rare or protected plants, trees, hedgerows or water courses at the proposed turbine location or within a 100m radius in the surveyed surrounding land. Further, there is negligible habitat value for roosting, foraging or commuting bats, for nesting and wintering birds, or for other protected or priority species.

In summary, there are no significant risks and no constraints on the proposed location of the turbine in relation to wildlife policy and legislation. In relation to ecological matters it is respectfully recommended that the local planning authority regards the application as permissible.

1.0 INTRODUCTION

1.1 Overview

In May 2012, Ribble Ecology was commissioned to undertake an ecological survey and assessment at land to the south-west of **'The Hills'**, which is a farm situated on the south side of **Old Clitheroe Road, Longridge, PR3 2YX**.

This was in connection with a proposal for the installation of one wind turbine with 25 metres (m) high hub height.

The proposed installation location is centred at grid reference **SD 62254 38557** and hereafter within this report the location is termed the 'Site'. The potential zone of influence around the Site is simply described as the 'surrounding land' and/or 'survey area'.

1.2 Objectives

Ribble Ecology identified the objectives of the survey and assessment to be as follows:-

- Collate desk study and data search records to obtain background information about ecological value and protected species occurrences in the locality of the Site.
- Conduct an Extended Phase 1 Habitat Survey at the Site and surrounding land in accord with the JNCC guidelines¹, investigating all vegetation and habitat types and compiling one or more plant species lists where appropriate.
- Identify any occurrences of rare and/or protected plant species and also any plant species listed as non-native invasive species.
- Identify NVC communities and UK BAP Priority Habitats at the Site.
- Undertake habitat appraisal for protected species such as: roosting, commuting & foraging bats; Badger; Water Vole; Great Crested Newt and Schedule 1 birds.
- Similarly, undertake habitat appraisal and search for field signs demonstrative of the presence of UK BAP Priority Species and other wildlife such as breeding birds.
- From the survey results, identify any ecological concerns or constraints and whether the proposed turbine could be installed without contravening wildlife legislation and planning policy, or whether any mitigation measures could be required, as would be recommended within the report.

2.0 METHODOLOGIES

2.1 Data search & desk study

As standard, Ribble Ecology used a range of desk and internet based resources to obtain background information prior to attending the Site. The internet resources listed below were used as a means of obtaining information for up to a **2.5km radius** around the Site:

- Bing Maps (<http://www.bing.com/maps>) and Google Earth for aerial photographs.
- Bing Maps for a 1:25,000 Ordnance Survey map snapshot/extract.
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative

¹ Ref: *Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit* published by the Joint Nature Conservation Committee (JNCC 2003).

database website (www.magic.defra.co.uk), for information on key environmental schemes and statutory designations.

In addition, a request for existing ecological records was submitted to the *Lancashire Environmental Records Network (LERN)*, requesting all details of local, non-statutory sites (Biological Heritage Sites – BHSs in Lancashire), plus all records of protected species and priority species occurrences within a **1km radius** around the Site's central grid reference.

2.2 Personnel, date, weather conditions & any limitations

The survey work was undertaken on **2nd May 2012**, by the suitably experienced ecologist and bat worker Ms Lorna Bousfield B.Sc.(Hons).MIEEM (Natural England licence 20114211- Roost Visitor & Science & Education).

The weather conditions were good, being dry, sunny, mild (an air temperature of 13° Celsius) and fairly calm (Beaufort 3 - 4).

The seasonal timing of the survey was suitable for the compilation of plant species lists and for the detection breeding birds.

There were no limitations in relation to the accessibility and visibility of the land and features associated with the Site and survey area.

2.3 Vegetation & habitats

An Extended Phase 1 Habitat Survey was carried out at the Site and surrounding land. The Phase 1 Habitat Survey is a standardised method used to record habitat types and characteristic vegetation, as set out in the "*Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit*" published by the Joint Nature Conservation Committee (JNCC 2003). It is 'Extended' through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance.

Plant species lists were compiled where appropriate and the Site and survey area was searched for uncommon plant species, *UK Biodiversity Action Plan (BAP)* Priority Species and plant species listed as protected in the *Wildlife and Countryside Act 1981*.

All higher plant nomenclature within this report is written in accord with *Stace's New Flora of the British Isles* (Stace, C. A. 1997).

Searches were carried out for the presence of invasive species listed in the *Wildlife and Countryside Act 1981 (as amended)*, on Schedule 9 (as updated April 2010).

Any occurrences of UK BAP Priority Habitat were noted and where possible the plant species lists were also used to identify *National Vegetation Classification (NVC) communities* (Rodwell, J. S. Volumes 1 – 5, 1991 – 2000), as the NVC provides a systematic and comprehensive analysis of British vegetation.

2.4 Fauna

Bat species

UK bat species are provided full legal protection under Schedule 5 (section 9) of the *Wildlife and Countryside Act 1981 (as amended)* and under *The Conservation of Habitats and Species Regulations 2010*, making them European Protected Species. In

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combination this legislation make it illegal to intentionally kill, injure, harm or disturb bats and illegal to damage, disturb or obstruct access to bat roosts.

During the Extended Phase 1 Survey, Ms Bousfield assessed all features at the Site and surrounding land for their *habitat suitability* and *potential* to support roosting, foraging and commuting bats.

An assessment of the *potential* for the proposed turbine to have an impact on bats has primarily referred to guidance presented in: *Natural England Technical Information Note TIN051: Bats and onshore wind turbines* (2009); and chapter 10 of *Bat Surveys – Good Practice Guidelines (2nd Edition)* (2012), which is titled 'Surveying proposed on-shore wind turbine developments'.

Badger

Badgers *Meles meles* and their setts are protected under the *Protection of Badgers Act 1992*. This legislation makes it illegal to kill, injure or take Badgers or to interfere with a Badger sett, with the Act defining 'a sett' as being "any structure or place which displays signs indicating current use by a badger".

The Site was searched for evidence of badger, with the aim of identifying any combination of the following field signs:

- a) Sett holes, wider than high, often with spoil heaps in front, sometimes also with discarded bedding;
- b) Disturbed ground and small holes from foraging activity;
- c) Trampled dispersal pathways and breach points under boundary fences;
- d) Distinctive hairs, snagged on fences etc. or found at sett entrances;
- e) Dung pits/ latrines;
- f) Characteristically shaped footprints;
- g) Scratching at the base of trees and other features.

Birds

Wild birds, their nests and their eggs are protected under Part 1 of the *Wildlife and Countryside Act 1981*, which makes it illegal to kill or injure a bird and to destroy its eggs or its nest whilst it is in use or being built. Game birds are an exception and are protected under the separate *Game Acts*, which fully protect them during the close season. In addition, certain bird species (e.g. species such as Barn Owl and Kingfisher) are specially protected under Schedule 1 of the *Wildlife and Countryside Act 1981 (as amended)*, making it illegal to disturb these birds and their young at the nest.

All visible and audible birds were recorded during the survey, following the standard recording methodology and codes of the *British Trust for Ornithology (BTO) Common Birds Census* (Marchant 1983).

Habitats at the Site and throughout the surrounding area were assessed for their potential value for nesting, roosting, feeding, and wintering birds, as indicated by the amount of shelter and species diversity amongst the habitata in the Site.

An assessment of the potential for the proposed turbine to have a negative impact on birds has been based on the habitat appraisal and desk search results, with reference to

Natural England Technical Information Note TIN069: Assessing the effects of onshore wind farms on birds (2010).

Other wildlife

Consideration of the potential for occurrence of Great Crested Newt *Triturus cristatus*, Water Vole *Arvicola amphibious* and Otter *Lutra lutra* was applied before attending the Site to conduct the Extended Phase 1 Habitat Survey. Based on a review of the habitat types at the Site and surrounding area it was concluded that there was no potential for these species to be present due to a lack of water features.

Consideration of reptiles was also applied. The only reptile species known to occur in the wider surrounding area is the Common Lizard and habitat assessment was applied during the walkover survey to identify any likelihood of occurrence.

Any evidence of other BAP priority species, such as Brown Hare, Common Toad and European Hedgehog, was also to be noted during the survey.

3.0 RESULTS

3.1 Data search & desk study

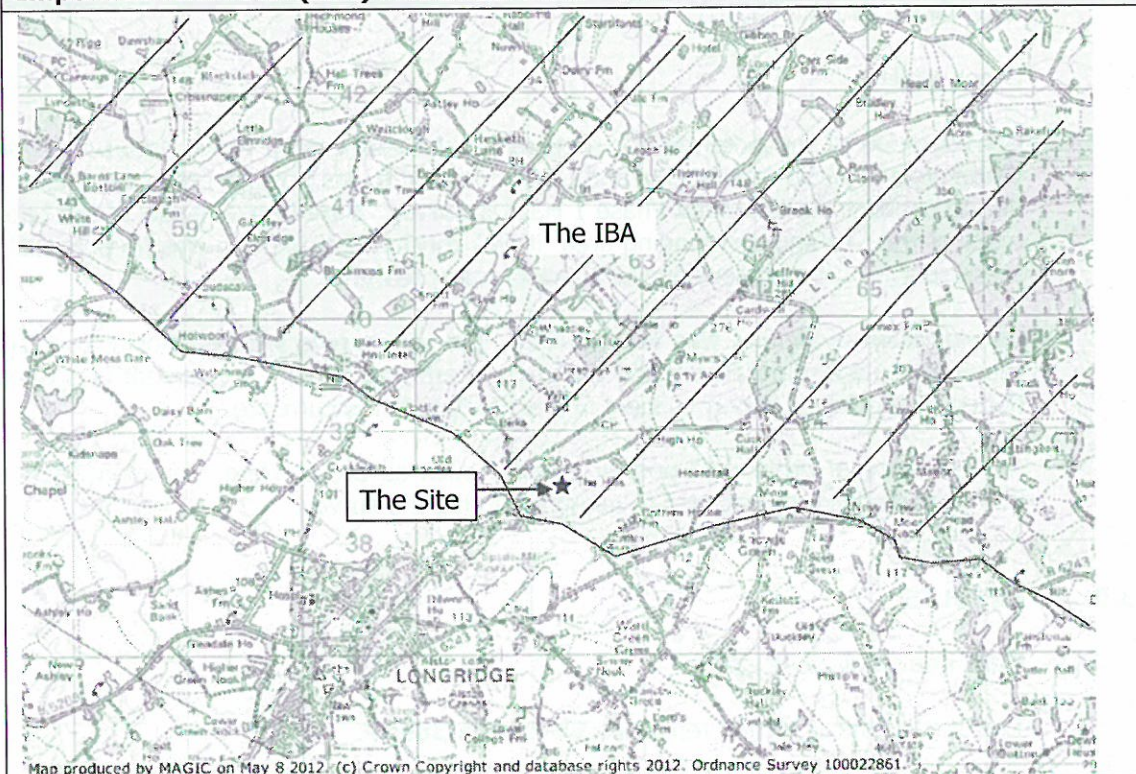
The Site is centred at grid reference **SD 62254 38557**.

There is no statutorily designated Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar, Site of Special Scientific Interest (SSSI) or National Nature Reserve (NNR) within the 2.5km search radius around the Site.

The Site does fall within the very edge of an extensive area that is designated as an Important Bird Area (IBA). Birdlife International manages the global IBA designations and, to date, over 10,000 sites have been identified world-wide, using standard, internationally recognized criteria for selection. Details for this IBA are as follows:

Important Bird Area (IBA) : Bowland Fells – site ref UK025				
Site coverage:	79,978 hectares (ha)			
Summary:	The IBA supports a typical range of breeding upland birds, and is a breeding stronghold of Hen Harrier. The site regularly holds 12,000 pairs of breeding waterbirds and is nationally important for breeding Lapwing (3,570 pairs, 1993, 2%) and Curlew (895 pairs, 1993, 2%).			
Populations of IBA trigger species:	Species	Season	Pop. estimate	IBA Criteria
	Merlin <i>Falco columbarius</i>	resident	17 breeding pairs	C6
	Peregrine Falcon <i>Falco peregrinus</i>	resident	10 breeding pairs	C6
	Northern Harrier <i>Circus cyaneus</i>	resident	14 breeding pairs	C6
	Common Redshank <i>Tringa totanus</i>	resident	520 breeding pairs	B1i, B2, C3
	Lesser Black-backed Gull <i>Larus fuscus</i>	breeding	11,500 breeding pairs	A4i, B1i, B3, C3
	Short-eared Owl <i>Asio flammeus</i>	resident	9 breeding pairs	C6

Important Bird Area (IBA) : Bowland Fells – site ref UK025

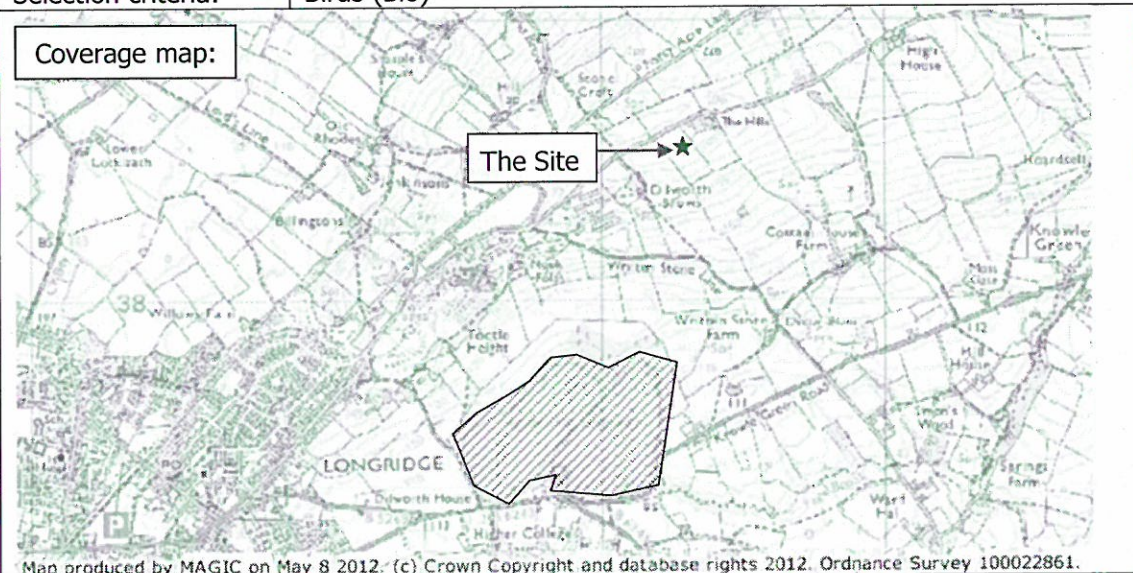


The nearest known occurrence of a non-statutory Biological Heritage Site (BHS) is at a distance of 0.76km south-west of the Site. This is as follows:

Spade Mill Reservoirs Biological Heritage Site (BHS)

Site coverage:	28.18 (ha)
Summary:	The site comprises two adjacent reservoirs of ornithological interest. In winter birds occurring at the reservoirs include goldeneye, tufted duck, lapwing, snipe, black-headed, common and lesser black-backed gulls. In summer the reservoirs are valuable for breeding birds when water levels are low. On such occasions, species such as little ringed plover and oystercatcher breed.
Selection criteria:	Birds (Bi8)

Coverage map:



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The existing records that are held by LERN, for occurrences of protected and priority species within a 1km search radius of the Site are summarised in **Table 1** below.

Table 1: Records of protected and priority species occurrences		
Species	Protection / priority	Approx. location, distance &/or direction from the Site
Bluebell <i>Hyacinthoides non-scripta</i>	Protection under Schedule 8 of the WCA 1981	4 general records of occurrence within the search area.
Linnet, Reed Bunting, Skylark, Curlew, Lapwing, House Sparrow, Starling, Song Thrush	UK BAP priority Species	Low numbers of general records of occurrence within the search area

Notably, in the case of the LERN records, an absence of records is not demonstrative of an absence of species, more just a lack of information about the area in question.

In summary, the data search has indicated that the main consideration in relation to the wider surrounding area is that of wintering and breeding birds.

In the first instance it is necessary to consider all such species during the walkover survey, i.e. determining likelihood of occurrence in the immediate survey area associated with the Site. Secondly, where likelihood of occurrence cannot be discounted, it is necessary to assess whether the wind turbine proposal could affect such species.

3.2 Vegetation and habitats

Fig. 1 (appended) presents a labelled aerial photograph of the Site and its surrounds (© Google Earth). The proposed location for the wind turbine is on a hill to the south-west of the farmyard buildings of The Hills. This is within a pasture field

Photo 1 (below) shows a view of the Site, standing slightly at the gateway situated south-east of it and facing north-west, with the field boundary wall to the right of shot.



Photo 1: The Site

As shown, the field comprises agriculturally improved pasture that is grazed by cattle. It is an example of an *MG7: Lolium perenne* ley, with a species-poor botanical composition. It is not an example of a BAP Priority Habitat.

The immediately adjoining fields to the east, south and west also have the same composition, as do fields to the north, on the opposite side of Old Clitheroe Road, and also fields further to the south and east.

Consistently the fields are all bound by dry stone walls rather than hedgerows, fences or ditches. The walls are sturdy and in good condition, and are predominantly to substantial heights of approximately 1.5m. The field margins alongside the walls have the same species-poor botanical compositions as throughout the fields and they are grazed right to the wall bases.

The walls themselves are not examples of BAP Priority Habitat.

The only buildings within 100m radius of the Site are those of The Hills. The buildings closest to the Site comprise corrugated sheet barns, as shown in **Photo 2** and **Fig. 2** below. The westernmost of these buildings (left of shot in the photo) is approximately 88m away from the Site (at the closest).



Photo 2: The farm buildings



Fig. 2: labelled aerial view of the buildings

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The farmhouse is situated at the north-easternmost edge of the farmyard and is of traditional stone build and pitched slate roof (see **Photo 3**). There is also an associated old farm barn of the same construction and immediately to the west of the house (also shown in **Photo 3**).



Photo 3: farm house to the left of shot and old barn to the right of shot

Both of these building face Clitheroe Old Road and are separated from the Site by the presence of the modern buildings. The barn is located approximately 145m from the Site at its closest side. The house is situated approximately 160m away from the Site at the closest point.

There is no woodland and there are no hedgerows in the survey area. Alongside the road and in front of the farm house there are a couple of large broadleaf trees and to the rear (south-east) of the house there are approximately six tall cypress conifers in a row, but there are no examples of woodland NVC communities or BAP Priority Habitats.

There are also no water courses, field drains, ponds or other bodies of standing water within the survey area. The nearest water body is situated approximately 355m south west of the Site, as shown in the bottom left corner of the aerial photo that is presented as **Fig.1** (appended).

Finally, there is no evidence of any invasive plant species, as listed on Schedule 9 of the Wildlife and Countryside Act 1981.

In summary, with no evidence of protected plant species, no occurrences of BAP Priority Habitat or fragile or important plant communities, no occurrence of of trees, hedgerows or water features within the survey area, it is concluded that there is no requirement for further consideration of vegetation compositions in relation to the proposal.

3.3 Fauna

3.3.1 Bats

Eight bat species are regularly recorded in Lancashire, these being: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), daubenton's (*Myotis daubentonii*), natterer's (*Myotis natterii*), whiskered, brandt's (*Myotis brandtii*) and noctule (*Nyctalis noctula*).

These species are all insectivorous and typically favour habitats where there are patches of sheltered air-space for foraging and sheltered flight lines for commuting (such as

hedgerows, woodland edges and river/stream valleys). The types of roost habitat typically used by bats are a combination of buildings/structures with suitable crevices and/or loft voids and also rot holes and crevices in large trees.

Notably, although there are corrugated farm buildings extending to approximately 60m from the Site, these are assessed to have negligible habitat value for roosting bat. The stone farmhouse and barn are of greater potential value for roosting bats but at the closest these are 145m and 160 from the Site respectively. Furthermore, there are no hedgerows or woodland edge habitats to attract foraging or commuting bats and there are no large trees for the support of foraging or roosting bats.

It is assessed that there is negligible potential for bats to use a flight line that crosses the field in which the Site is situated, thus there is no requirement for further consideration of bats in relation to the proposal.

3.3.2 Badger

There is no survey evidence of the presence of badger at Site or on the adjoining land. In addition, the data search has provided no existing records of the presence of badger.

There is no requirement for further consideration of badger in relation to the proposal.

3.3.3 Birds

Schedule 1 birds: No occurrences of Schedule 1 species have been recorded during the walkover survey. With reference to the Schedule 1 species that IBA identifies as being 'trigger species' for designation (namely Merlin, Hen Harrier and Peregrine Falcon), the Site and survey area is unsuitable for breeding or hunting and it is assessed that there is negligible likelihood of the species commuting along a flight line that would pass near the Site. Notwithstanding that the Site falls within the IBA it is assessed that there is negligible likelihood of occurrence of these species and no further requirement for their consideration in relation to the proposal.

Ground nesting species: The grassland at the Site and throughout the surrounding area comprises lush, evenly grazed swards of MG7 grassland. The grassland is traversed by grazing cattle. It is assessed to be of low value for ground-nesting birds, both in respect of those species that favour dense grassland cover, such as Skylark and those which favour low swards with just patchy rush or tussock cover, such as Lapwing and Curlew.

Throughout the survey there was no evidence of any ground nesting birds displaying territory defence singing or being displaced by the surveyor. Curlew could be heard in the distance, but far beyond the survey area and estimated to be to the north.

Again, cross referencing the list of species for which the IBA is designated, there is no habitat value for these species at the Site and they do not require further consideration in relation to the proposal.

Shrub-nesting passerine species: With an absence of hedgerows or trees there is no habitat value for shrub nesting species at the site or immediate surrounding land. There is a flock of House Sparrow associated with the farmhouse and old barn, but during the survey there was no evidence of flights in the direction of the Site, and with no shrubs there is negligible potential for occurrence within range of the Site and there is no further requirement for consideration of shrub nesting birds.

Wintering birds: The habitat is also of negligible value for wintering birds. Again, the

sward composition is inappropriate for use by waders and it is very unlikely to serve as a foraging site for wildfowl, which tend to favour arable crops. It is judged that there is no requirement to give further consideration to wintering birds.

3.3.4 Other wildlife

It is assessed that habitat is unsuitable for the support of Common Lizard; the lush and even swards of grass are unsuitable for use and the walls alone are insufficient to provide habitat for basking, hibernating and breeding.

No evidence of Brown Hare was detected during the survey, but the habitat is suitable for use by this species.

It is judged that no other protected or priority species require consideration in relation to the proposal.

4.0 ASSESSMENT & RECOMMENDATIONS

4.1 Assessment

It is understood that the proposed location of the wind turbine will be approximately as shown on **Fig. 1** (appended).

The desk study and walkover survey has shown that there are no examples of BAP Priority Habitat, fragile plant communities, rare or protected plants that require consideration within range of the proposed turbine.

There are also no known occurrences of protected species and at there is negligible habitat value for foraging bats and nesting birds.

Whilst it is a notable consideration that the Site is situated in an area that is designated as an IBA, results from the habitat appraisal and from the data search indicate that the Site and survey area are not contributing to the role of the IBA in that the habitats are not suitable to support the 'trigger species' for which the IBA is designated. From this it is assessed that there is in fact no further requirement for consideration of such species and that the proposed wind turbine does not pose a threat to the value of the IBA.

4.2 Recommendations

At present there are no significant risks and no constraints on the proposed location of the turbine in relation to wildlife policy and legislation.

In relation to ecological matters it is respectfully recommended that the local planning authority regards the application as permissible.

5.0 REFERENCES

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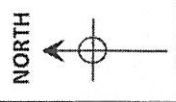
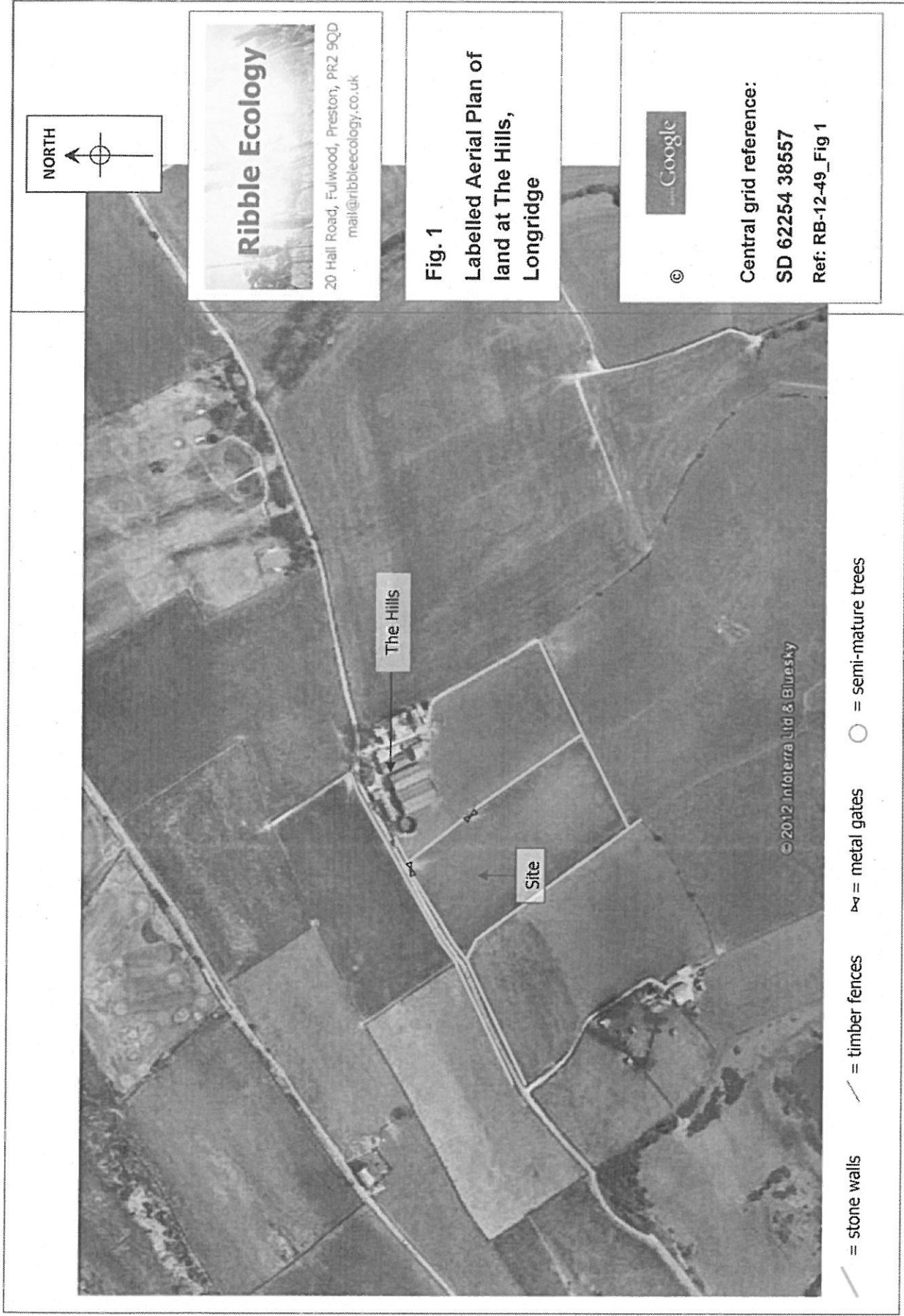
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Ribble Ecology
 20 Hall Road, Fulwood, Preston, PR2 9QD
 mail@ribbleecology.co.uk

Fig. 1
 Labelled Aerial Plan of
 land at The Hills,
 Longridge

© Google

Central grid reference:
SD 62254 38557
 Ref: RB-12-49_Fig 1

- = stone walls
- - - = timber fences
- ⌵ = metal gates
- = semi-mature trees

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