



**PHASE 1 HABITAT SURVEY & PROTECTED
SPECIES RISK ASSESSMENT
HAZELHEAD HALL FARM
PENISTONE**

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**PHASE 1 HABITAT SURVEY & PROTECTED
SPECIES RISK ASSESSMENT
HAZELHEAD HALL FARM
LEE LANE
PENISTONE
SHEFFIELD
S36 9NN**

GRID REF: SE 198 034

FOR EARTH MILL



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EXECUTIVE SUMMARY

Naturally Wild have been instructed to undertake a Phase 1 Habitat Survey and Protected Species Assessment at Hazelhead Hall Farm, Penistone, Sheffield. The site is located to the west of the village of Penistone, and is currently operated and run by William Booth as a working farm, primarily for livestock production and game bird rearing. The development proposal is for the erection of one 34.2 m high wind turbine within an existing agricultural (livestock) grassland field. The application also includes the installation of the associated infrastructure, including ground works and grid connection.

As part of the planning process an ecological survey is required to determine if any European Protected Species and Habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.

The objective of the survey was to ascertain if any protected species were using the site, document the habitats present and determine the ecological risks posed by the development during and post construction. A site visit was completed on 02/11/2011 by NWC staff. The footprint of the proposed turbine and associated habitats were assessed, as were the immediate surrounding habitats. The site proposed for development is located at Grid Reference SE 198 034.

Naturally Wild staff who have been fully trained in ecological surveying and mitigation techniques undertook the site visit on 02/11/2011. All survey and assessment work was completed in line with official assessment guidelines produced by Natural England and the Institute for Ecology and Environmental Management (IEEM).

Located at National Grid Reference point 419876.727, 403456.984, the proposed single wind turbine will be positioned at a central point within a large species-poor improved grassland field, currently used for livestock grazing. Apart from improved grassland the nearest ecological feature to the application site are woodland strips, which are located in excess of 100 m to the southwest, south and east.

A full impact assessment was completed to assess how the proposed development would impact bird and bat species during the construction and operational phase.

Following the completion of the Phase 1 Habitat Survey and Protected Species Risk Assessment in line with the initial objectives Naturally Wild are wholly confident that the proposed construction and operation of a single wind turbine on an improved grassland field will have no significant impact on either protected species or habitats (statutory and non-statutory) on the application site or in the surrounding area.

In conclusion, there are no further habitat or species issues to consider and no requirement for additional ecological survey work in advance of the application being determined.

PHASE 1 HABITAT SURVEY & PROTECTED SPECIES RISK ASSESSMENT PROPOSED WIND TURBINE, HAZELHEAD FARM, PENISTONE

1 INTRODUCTION

1.1 Background

Naturally Wild have been instructed to undertake a Phase 1 Habitat Survey and Protected Species Assessment at Hazelhead Hall Farm, Penistone, Sheffield. The site is located to the west of the village of Penistone, and is currently operated and run by William Booth as a working farm, primarily for livestock production and game bird rearing. The proposed development is subject to a planning application for the erection of a single wind turbine in a livestock field. The location of the proposed wind turbine is shown below in Figure 1.

As part of the planning process an ecological survey is required to determine if any European Protected Species and Habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.

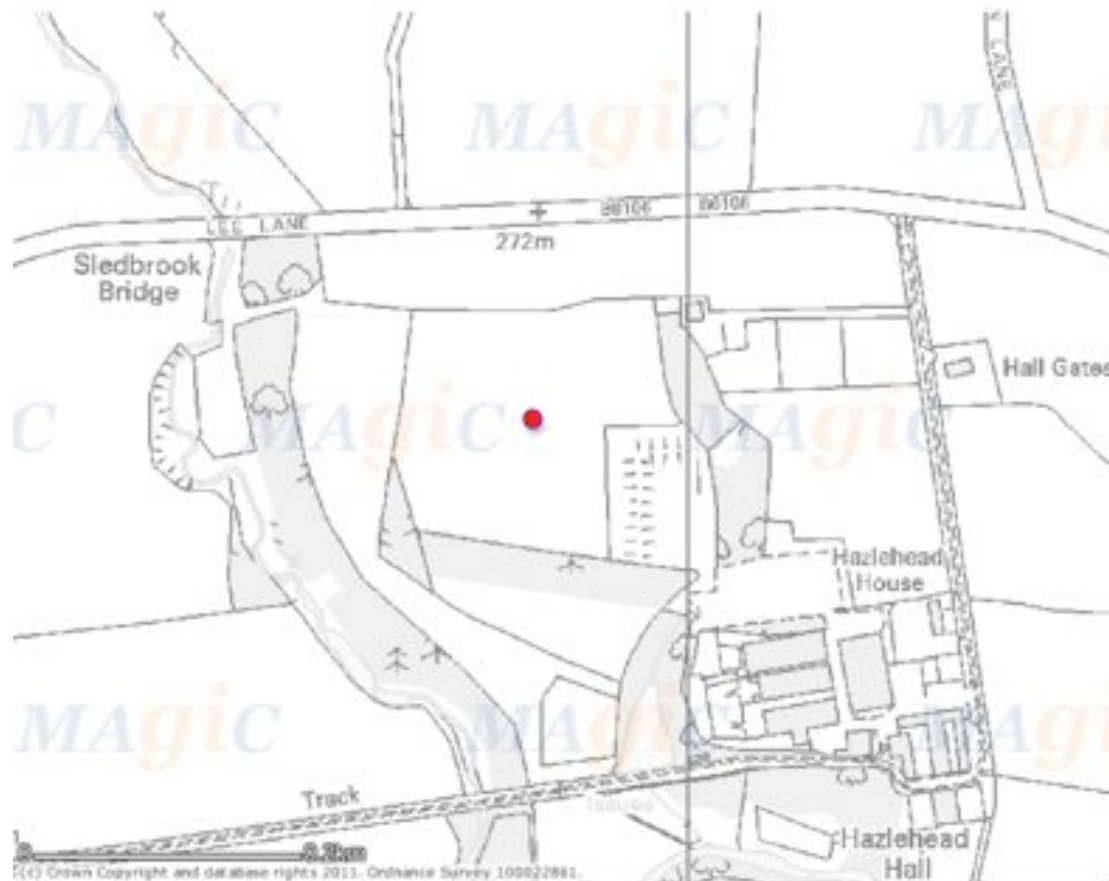


Figure 1. The red point displays the location of the proposed turbine.

1.2 Development Proposal

In overview, the development proposal is for the erection of one 34.2 m high wind turbine within an existing agricultural (livestock) grassland field. Further to this, the application includes the installation of the associated infrastructure, including base work to secure the turbine shaft and grid connection. The dimensions of the proposed wind turbine are shown in Figure 2 below.

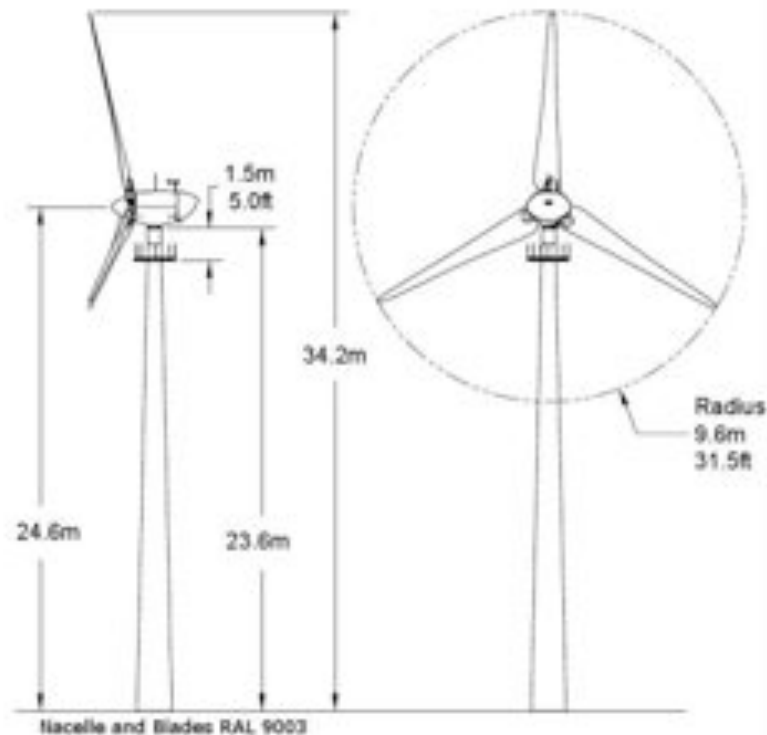


Figure 2: Elevation plan of the turbine.

1.3 Comments from the Planning Authority during the initial planning application.

Trevor Mayne the biodiversity officer for Barnsley Metropolitan Borough Council commented on this development, during an earlier slightly different planning application for the installation of two wind turbines on the Hazelhead Farm site. Due to insufficient evidence the planning application was refused, with full comments presented in Appendix 1.

Naturally Wild have been in contact with Trevor Mayne regarding his initial comments and concerns, the latest development plans and to request full biological data records for the area.

1.4 Previous Relevant Ecological Surveys

The Internet desktop research for this development recovered a report for the introduction of a wind farm (3 turbines) 1.7 km to the north of Hazelhead Farm. The planning application for this development involved a full ecological impact assessment¹. The development site known as Blackstone Edge was composed of species-poor improved grassland used for cattle grazing, and was therefore of similar habitat to the proposed Hazelhead Farm development. Recorded densities of breeding birds within the Blackstone Edge site were very low, whilst the semi-natural grassland around the site was understood to support moderate densities of bird species typical of semi-upland agricultural landscapes. During 108 hrs of Vantage Point surveys the passage rate of birds across the site was generally low, with Lapwing and Golden Plover the most frequent of the significant species recorded at turbine height. Three common bat species were found at the site in small numbers during three evening bat activity surveys (Common and Soprano Pipistrelles and Noctule). Bat activity was concentrated along the few hedgerows and tree lines (i.e. where flying insects congregate). There were no significant negative effects predicted from the proposed development on nature conservation.

Naturally Wild were commissioned by William Booth in mid-2011 to complete a series of ecological surveys and assessments on the larger Hazelhead Farm site (Figure 3). The purpose of this survey effort was not for the proposed wind turbine development, but rather to determine the present ecological value of the site and to investigate options to further this. The findings of these baseline surveys are however relevant to the wind turbine application, as they provide a wider understanding of the presence of protected species and habitats on the site. The completed surveys included full phase 1 categorisation of the site, badger assessment, bat transect surveys and full protected species risk assessment.

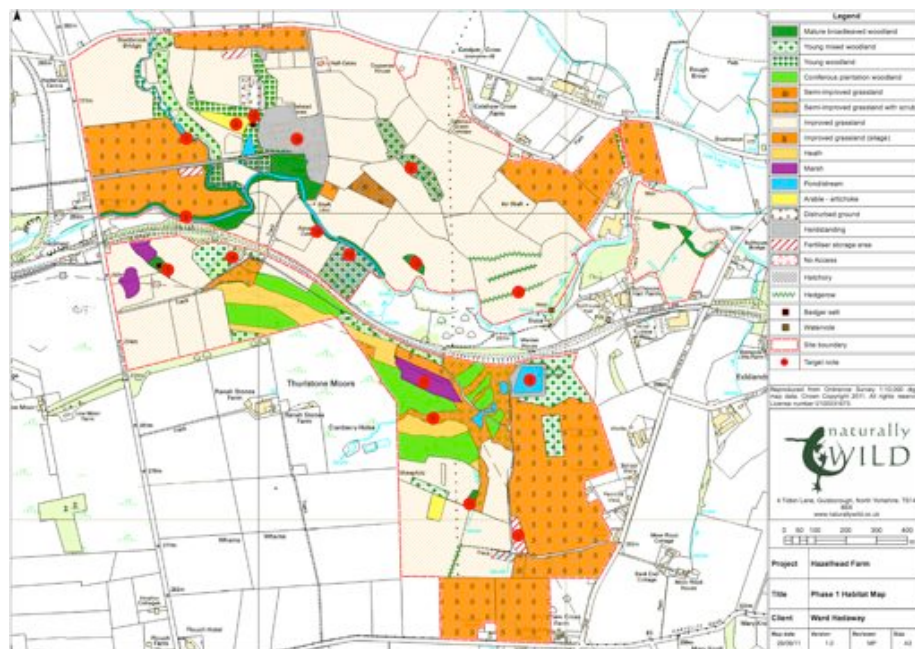


Figure 3: Phase 1 Habitat Classification map of the larger Hazelhead Farm site.

2 ECOLOGICAL FEATURES

¹ Blackstone_Edge_Non_Technical_Summary.pdf

2.1 Relevant legislation

British wildlife is protected by a range of legislation, the most important being the Wildlife and Countryside Act 1981, the Conservation (Natural Habitats &c) Regulations 1994 and the Countryside Rights of Way Act 2000. The Wildlife and Countryside Act as amended mainly by the Countryside Rights of Way Act protects species listed in Schedules 5 and 8 of the Act (animals and plants respectively) from being killed, injured, and used for trade. For some species, such as Great Crested Newts and all bat species, the provisions of this act go further to protect animals from being disturbed or taken from the wild and protects aspects of their habitats. The act also stipulates that offences occur regardless of whether they were committed intentionally or recklessly. The parts of this legislation that apply to most reptile species are in regard to killing, injury and trade only and do not protect their habitat, nor are they protected from disturbance or from being taken from their habitat.

The Conservation (Natural Habitats &c) Regulations is the English enactment of European legislation and provides similar but subtly different protection for species listed on Schedules 2 and 4 of those regulations. A recent change in this legislation means that the provisions of this act now complement those of the Wildlife and Countryside Act more. Species to which these provisions apply are the European Protected Species. Activities that might cause offences to be committed can be legitimised by obtaining a licence from the relevant statutory body.

Birds receive protection under the Wildlife and Countryside Act also. It is an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy a nest of a wild bird whilst it is in use or being built; or to take, damage or destroy an egg of a wild bird. The bird-nesting season is defined as being from 1st February until 31st August with exceptions and alterations for some species.

3 ECOLOGICAL SURVEY

3.1 Objective of Survey

The objective of the survey was to ascertain if any protected species were using the site, document the habitats present and determine the ecological risks posed by the development during and post construction. Further to this, the survey investigated for presence of invasive plant species on site. The survey was completed under suitable weather conditions, and would assess the survey findings in relation to the comments made by Trevor Mayne, the Biodiversity Officer for Barnsley Metropolitan Borough Council. This report will assess all findings in relation to all relevant policies including ES12 – Effect on wildlife and ecology.

3.2 Survey Area

The footprint of the proposed turbine and associated habitats were assessed, as were the immediate surrounding habitats. The site proposed for development is located at Grid Reference SE 198 034 and is shown in Figure 1.

3.3 Habitat Description

The development site is situated within a large (3 ha) improved grassland field used for livestock

grazing. The proposed wind turbine will be located in a central position of the field on the apex of a hill. The larger field is bordered on all sides by well-maintained dry-stone walls, which are typical of this area. Beyond the dry-stone wall, to the south of the field, is a dense strip of coniferous woodland plantation that has a bordering line of hawthorn. There are young mixed woodland strips 108 m and 177 m to east and west respectively of the application site. The position of the proposed turbine shaft is located at an altitude of 266 m above sea level, and there is a southwesterly prevailing wind.

The application site is part of a wider active farm owned and operated from Hazelhead Farm by William Booth. The overall site covers approximately 204 ha and is predominantly improved grassland used for livestock grazing. A tributary of the River Don and disused railway line (Pennine Way) run parallel, east to west, through the larger site. The majority of the site is used for low intensity livestock (cattle and sheep) grazing, and at present there is no arable production on the site. The fields are of a moderate to large size, and are subject to annual fertilizer application. Strips of young mixed species woodland and areas of conifer plantation are located across the site, in addition to several areas of mature deciduous woodland. Several game bird hatcheries are located within the young mixed plantation blocks. The nearest mature woodland habitat is located 350 m to the southeast of the application site. A small tributary to the River Don runs north to south 225 m to the west of the application site. This stream has been widened in several areas to create freshwater lagoons for wildfowl rearing.

Hazelhead Hall Farm is located in the northwest section of the site and includes a series of farm buildings, storage barns and residential units. There are further buildings (Ranah Stones Farm) on the southern part of the site, in addition to original agricultural storage barns. The site is accessible internally by a series of hard and soft single lane tracks. It is understood that the agricultural land on the farm has been managed as it is (live stock production) for at least 50 years. Fertilizer heaps are distributed across the site, several of which have become colonized with scrub and ruderal herb species. The habitat classifications for the Hazelhead Farm site are shown in Figure 3.

The wider area is used largely for agricultural production, and is primarily livestock focused. Upland habitat is present > 1 km to the west and extends to the south and west. To the north of the application site, beyond a small agricultural field used for livestock grazing, is Lee Lane (B6106). Whams Road borders the larger site to the west with agricultural land (livestock grazing) beyond this. The site is bordered by mixed agriculture to the south and east. There are several wind farms in the surrounding area (Figure 5). The largest is located 1.3 km to the north east of the application site, and includes thirteen turbines. A pocket of three turbines is located 1.7 km to the north of the development. Finally there are two turbines situated 1.2 km to the southeast of the development site. There are no statutory or non-statutory wildlife sites on or adjacent to the application site. The site is however located 1 km from a statutory designated wildlife site, and 1.2 km from a non-statutory wildlife site.

3.4 Survey Constraints

There were no constraints with regards to site access.

4 METHODOLOGY

The Phase 1 Habitat survey and Protected Species Risk Assessment comprised two parts; a desktop study and a site visit. The desktop search collates all available public information regarding the biodiversity of the area, the habitat structure of the surrounding area and statutory and non-statutory designations. A detailed records search would be completed for the presence of protected species in the area using the National Biodiversity Network Gateway. The field survey consisted initially of an assessment of the habitats on site. The dominant vegetation structure was identified, allowing the habitats on site to be classified. Following this, the site was searched using visual encounter survey techniques; checking under any refuges present for sheltering animals. The thick vegetation bordering the site was assessed in detail for commuting tracks used by species such as badgers and foxes. All bird species of interest were recorded. A detailed examination was undertaken to ascertain if the field was or had been utilised by ground nesting birds. The vegetation on site was assessed for presence of invasive species. Any trees of habitat importance would be noted. These activities were not limited solely to the site and the surrounding area was also investigated.

It is generally understood that wind farm developments have a low impact on ecology in terms of land take, relative to the size of the development site. Impacts have been known to occur at some sites through birds avoiding turbines or birds and bats striking turbines during flight, or as in the case of bats being killed by barotrauma. The emphasis of the impact assessment will therefore be on the potential impact of the operational wind farm on birds and bats, particularly through blade strike. However, potential impacts throughout the construction and operation phases of the proposed wind turbine on other notable species will also be considered.

The 'Guidelines for Ecological Impact Assessment' (IEEM, 2006) (hereafter referred to as 'the IEEM Guidelines') provide guidance on the process of identifying the value of ecological receptors, characterising impacts upon them and assessing whether these impacts are significant. An ecologically significant impact is defined in the IEEM Guidelines as: *'an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area.'* The Guidelines focus on assessment of impacts at a variety of geographic scales and set out the following process for assessment:

- Identification of the nature conservation value of each ecological receptor that is present within the site and adjacent areas which may be affected by the development and the level of sensitivity of each of these receptors to the development;
- Identification of potential impacts, based on the nature of the construction, operation and decommissioning phases of the development;
- Determining the magnitude of potential impacts - i.e. the scale of the change in population / number of individuals affected and the duration / reversibility of the potential impact;
- Determining the geographic level at which an impact will be significant, based on the interaction between the magnitude of the impact and the nature conservation value of the receptor likely to be affected;
- Identifying mitigation and, if required, compensation measures that are proposed to avoid, reduce or offset significant adverse impacts.

5 RESULTS

5.1 Desktop Study

The desktop study looked at current publically available data relating to protected species within the area and to local knowledge from past surveys undertaken by team members in the area. Naturally Wild have completed a search on the National Biological Network (NBN): Species that are relevant to this Ecological Survey, are noted at BAP 2007 species and have been recorded in SE20 are listed below.

Amphibian Species

Common Toad (*Bufo bufo*) Great Crested Newt (*Triturus cristatus*) – records 3 km to the north

Bird Species

Common Cuckoo	Common Grass Warbler	Corn Crake
Eurasian Curlew	Nightjar	Greater Scaup
Eurasian Tree Sparrow	European Turtle Dove	Great Bittern
Grey Partridge	Hawfinch	House Sparrow
Tree Pipit	Lesser Redpoll	Northern Lapwing
Reed Bunting	Ring Ouzel	Spotted Flycatcher
Wood Warbler	Yellowhammer	

Terrestrial Mammal

Brown Hare (<i>Lepus europaeus</i>)	Brown Long-eared bat (<i>Plecotus auritus</i>)
Eurasian Red Squirrel (<i>Sciurus vulgaris</i>)	Mountain Hare (<i>Lepus timidus</i>)
European Water Vole (<i>Arvicola amphibius</i>)	European Otter (<i>Lutra lutra</i>)
Noctule Bat (<i>Nyctalus noctula</i>)	Pine Marten (<i>Martes martes</i>)
Polecat (<i>Mustela putorius</i>)	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)
West European Hedgehog (<i>Erinaceus europaeus</i>)	

5.1.1 Data records search

Ecological data was requested from various groups, with the findings presented below: The records search covered an area around the site with a 2 km radius. The focus of the records search was completed through Sheffield Biological Records Centre, will full results presented in Appendix 2.

Grid ref	Common name	Latin name	Taxon group	Date	Record type	Location	Comments	Designation
SE187029	Otter	<i>Lutra lutra</i>	Terrestrial mammal	03/06/1997	Field record	River Don, Soughley Farm.		Sch5; UKBAP; WYBAP
SE187029	Otter	<i>Lutra lutra</i>		03/06/1997	Field record			
SE196028	Badger	<i>Meles meles</i>		02/98		Hazlehead		
SE201030	Bluebell	<i>Hyacinthoides non-scripta</i>	Flowering plant	09/08/1988	Field record	Semi-natural broad-leaved woodland		Sch8_sect 13.2

Table 1: Data records search for the site area

There are four Natural Heritage Site/ Local Wildlife Sites within 10 km of the survey area.

Site Name	Site Area	Grid Reference	Notes, importance & distance from proposed turbine
Whitley Edge	39.38 ha	418999, 404907	Twite, kestrel, curlew, lapwing, oystercatcher, meadow pipit, skylark and snipe. 3.2 km from application site.
Small Shaw and High Bank	19.29 ha	421263, 404053	Recorded, lapwing, linnet, meadow pipit, oystercatcher, skylark, tree sparrow, grey partridge and yellow hammer. 1.3 km from application site.
Hartcliff Hill	13.75 ha	422140, 401983	Ancient woodland habitat – bluebell and wood sorrel. Brown hare recorded on site, and evidence of badger. 5.8 km from application site.
Western Moors	3,404 ha	SE 150020	Diversity of upland habitat, areas of woodland and several water bodies. High importance for upland birds. Over 3 km from the application site.

Table 2: Data records provided by Trevor Mayne (Biodiversity Officer: Barnsley Metropolitan Borough Council), full details on the survey reports for the four sites can be provided on request.

Site code	Designation	Site name & notes	Area (Ha)
1083118	Local Nature Reserve	Town End Common ² . > 5 km from application site.	8.43
UK0030280	Special Areas of Conservation	South Pennine Moors ³ . > 10 km from application site. Upland bog habitat.	65025.5
UK9007021	Special Protected Areas	Peak District Moors ⁴ . > 1 km from application site.	45300.56
1003966	Site of Special Scientific Interest	Little Don Stream Section ~5km from application site. ⁵	1.01
1004074	Site of Special Scientific Interest	Pye Flatts Meadows. > 5 km from application site. neutral lowland grassland ⁶ .	2.21
1002023	Site of Special Scientific Interest	The Dark Peak, > 4 km from application site upland bog ⁷ .	31823.79
1084115	Site of Special Scientific Interest	Spring Meadows, Alderman's Head & Cow Croft Meadows ⁸ 9.1 km from application site and of importance to neutral lowland grassland	16.83
1002361	Site of Special Scientific Interest	Canyards Hills. > 10 km from application site and of importance to aquatic plants, invertebrates and amphibians ⁹ .	65.62

Table 3: Appraisal of designated sites found within 10 km of the application site.

² <http://www.sheffield.gov.uk/out--about/parks-woodlands--countryside/ecology-service/l-n-r>

³ http://www.sssi.naturalengland.org.uk/special/sssi/sssi_details.cfm?sssi_id=1007196

⁴ http://www.sssi.naturalengland.org.uk/special/sssi/sssi_details.cfm?sssi_id=2000354

⁵ http://www.sssi.naturalengland.org.uk/special/sssi/sssi_details.cfm?sssi_id=1004154

⁶ http://www.sssi.naturalengland.org.uk/special/sssi/searchresults.cfm?sssi_name=pye+flatts

⁷ http://www.sssi.naturalengland.org.uk/special/sssi/searchresults.cfm?sssi_name=dark+peak&frmcount

⁸ http://www.sssi.naturalengland.org.uk/special/sssi/searchresults.cfm?sssi_name=spring+meadows

⁹ http://www.english-nature.org.uk/citation/citation_photo/1002667.pdf

5.2 Site Visit

Naturally Wild staff who have been fully trained in ecological surveying and mitigation techniques undertook the site visit on 02/11/2011. During the site visit the owner gave full access to the site. In addition, a general walk over of the surrounding land was made to determine the overall characteristics and potential value of all habitats for European Protected Species. All survey and assessment work was completed in line with official assessment guidelines produced by Natural England and the Institute for Ecology and Environmental Management.

5.2.1 On Site Ecological Features

The location of the proposed wind turbine is central within a large improved grassland field that is currently grazed to a low intensity by cattle. The field, where the turbine is proposed, is 3 hectares in size, and bordered by dry stonewalls on all sides. Directly beyond the dry stonewalls on the eastern and southern boundary are young plantation woodland strips. Flora diversity recorded within the improved grassland was limited, and was dominated by rye-grass species (*Lolium spp*) and white clover (*Trifolium repens*). The improved grassland field is subject to annual fertiliser application. To conclude, species-poor improved grazed grassland was the only habitat recorded on or within a 100 m radius of the proposed position of the turbine, and was considered to be of minimal ecological importance, and as having no value to any protected species.

As is the nature of the location of wind turbines, the proposed turbine will be situated on an exposed position on the top of a hill, which has a prevailing southwesterly wind direction. The nearest ecological feature to the application site, apart from improved grassland, is the surrounding dry stonewalls (~100 m to the N, E, S & W), and woodland strips beyond this (> 100 m to the SW, S & E). The desktop data search detailed no records of any protected species or habitats on the application site.

The habitat types recorded on and around the application site have been mapped and are presented in Figure 4. In conclusion, the habitats on the application site were not considered to be of significant value to any protected species.

5.2.2 Off Site Ecological Features

A detailed assessment was undertaken to identify any potential ecological impacts that may result on protected species or habitats surrounding the application site as a consequence of the proposed development.

Habitats

The wider area is used largely for agricultural production, and is primarily livestock focused (sheep and cattle). Upland habitat is present > 1 km to the west and extends to the south and west. Beyond a small agricultural field to the north of the application site is Lee Lane (B6106). Whams Road borders the larger site to the west with agricultural land (livestock grazing) beyond this. The improved grassland field surrounding the application site is bordered by mixed plantation woodland to the south and east. The application site is located on the north face of a valley with the River Don flowing west to east 360 m to the south. Areas of mature woodland are located 450 m and 600 m to the south and northwest respectively of the application site. These woodland areas are partially joined by a small stream and strip of young mixed plantation woodland that runs north to south, and is located 225 m from the proposed position of the wind turbine.

There are no statutory or non-statutory wildlife sites on or adjacent to the application site. The application site is however located 1 km from a statutory designated wildlife site (Peak District Moors), and 1.2 km from a non-statutory wildlife site (Small Shaw and High Bank), although it is not considered that there is any habitat interaction between these sites and the application site itself. The vegetation on and surrounding the site was fully assessed for presence of invasive species; there were no recordings of Japanese Knotweed on site, or any other invasive plant species of concern.

There are several wind farms in the surrounding area, and these have been mapped in Figure 5. The largest is located 1.4 km to the northeast of the application site, and includes thirteen turbines. A pocket of three turbines is located 1.7 km to the north of the development. Finally there are two turbines situated 1.2 km to the southeast of the development site.

Protected Species

Great crested newts (GCN) have been recorded 3 km to the north of the application site (NBN Gateway Records). Although there are several ponds within 500 m of the application site, all of these are lagoons within a stream system and have a high presence of domestic wildfowl, and are therefore considered low risk for GCN presence. Further to this, the development site is considered to hold no suitable GCN terrestrial habitat (short cropped grassland), and therefore it is understood that the proposed works hold no risk to great crested newt activity.

During the wider ecological assessments completed on the Hazelhead Farm site in mid-2011 by NWC, confirmation of an active badger sett was recorded. Such activity was noted next to a large artificial pond 221 m south of the location of the planned turbine. A thorough assessment of the improved grassland field around the turbine footprint was completed with no evidence of any badger foraging or

commuting activity recorded. It is not anticipated that the erection of the turbine will have any impact on badger activity on site, during or post completion.

The desktop research confirmed historical records of otter in the stream 410 m to the south of the proposed turbine, however no impact upon otter populations is anticipated as a consequence of the planned development.

As part of the desktop records search full data was requested from the Barnsley Avian Study Group. Their records were supplied through the Sheffield Biological Records Centre, and are presented in Appendix 2. Records included raptor species (goshawk, sparrow hawk & kestrel), agricultural species (skylark and lapwing) and common species (finches and sparrows) with full analysis of these records presented in 5.2.4.

The findings of a series of bird vantage point surveys, that were completed as part of a separate wind farm development 1.7 km to the north of the application site were consulted. During 108 hrs of Vantage Point surveys, the passage rate of birds across the site was generally low, with lapwing and golden plover the most frequent of the significant species recorded at turbine height.

The habitats surrounding the application site (improved grassland) are considered low value for bird species. There are no large areas of open water or marsh or bog habitat within 1 km of the application site. The pockets of woodland plantation around 100 m from the proposed turbine are likely to be moderate value to smaller bird species, notably finches. However these habitats were considered too dense and immature to be of significant value to raptor and owl species.

With the majority of the habitats surrounding the application site managed for the purpose of agriculture, these are deemed totally unsuitable for reptile use. The nearest suitable reptile habitat is located in excess of 1 km to the south of the application site, and therefore no risk is anticipated to reptile populations during the construction phase.

The nearest habitats considered suitable for bat activity are the woodland strips 100 m to the south and east of the application site. The woodland strips were dense and immature, and were therefore not considered high risk for bat presence, although they may be used as foraging corridors by bats. The improved grassland around the application site is of no value to foraging or commuting bats, does not provide a link between suitable bat habitats and is in an extremely exposed position. The nearest mature woodland that holds trees suitable for bat roosting activity is approximately 600 m to northwest and 350 m to the southeast of the application site. The nearest buildings considered suitable for bat roosting activity are located 316 m to the southeast at Hazelhead Farm. The analysis of the application site and surrounding areas strongly suggests that the position of the proposed turbine is not located within or near to a bat movement corridor or where bats are likely to forage. The aerial maps would suggest that bat activity was focused around Hazelhead Farm and the woodland bordering the stream to the west, and these assumptions were supported with the findings of the bat transect surveys completed in mid-2011. To conclude, none of the habitats within 100 m of the application site were considered of

value to bats, and furthermore the focus of the habitats considered suitable for bat use are > 200 m to the west and south of the location of the proposed turbine.

The closest Natural Heritage Site is Small Shaw and High Bank located 1.2 km to the north east of the application site. Habitats present at this site include dry heath/acid grassland mosaic, coniferous and broadleaved plantation, ponds and continuous scrub; with such habitats known to be of importance to several UKBAP, LBAP and Red List bird species including lapwing, linnet, meadow pipit, tree sparrow and yellow hammer. Pye Flatts Meadow (SSSI) is located around 5 km from the application site and contains neutral lowland grassland habitat. Thurlstone Moors, which is part of the Peak District Moors (Special Protected Areas), is located around 1 km to the southwest of the site, and is of importance to upland flora and bird species. South Pennine Moors (Special Area of Conservation) and The Dark Peak (SSSI) hold additional upland habitat, and are located 4 – 10 km from the site. To conclude there are no Natural Heritage Sites (Local Wildlife Sites) or designated sites on or adjacent to the application site.

5.2.3 Ecological Impact Assessment During Turbine Construction

Located at National Grid Reference point 419876.727, 403456.984, the proposed single wind turbine will be positioned at a central point within a large species-poor improved grassland field, currently used for livestock grazing. Apart from improved grassland the nearest ecological feature are young plantation woodland strips, which are located in excess of 100 m to the southwest, south and east. No trees will be impacted during the installation process of the proposed wind turbine.

The proposed development will cause the loss of a small area of species-poor improved grassland habitat during the construction of the base work for the turbine. Improved grassland is one of the few habitats in the UK that is not currently under threat¹⁰, and is abundant in the area surrounding the site; therefore it is not considered that the loss of a small area of this habitat type will have any ecological significance in a local or wider context. As there are no statutory or non-statutory wildlife sites on or directly adjacent to the application plot it is not deliberated that the construction of the turbine will have any associated impact on protected sites.

Under the current development proposal, for reasons discussed above, it is considered that the installation process of the proposed turbine will have to significant direct or indirect impact on any protected species or habitats.

¹⁰ http://www.kentbap.org.uk/images/uploads/Improved_grasslands.pdf

5.2.4 Ecological Impact Assessment During Turbine Operation

Habitats

No significant impact is anticipated on the habitats (improved grassland & woodland strips) surrounding the application site during the operational phase of the wind turbine.

The closest Natural Heritage Site is Small Shaw and High Bank located 1.2 km to the north east of the application site. Habitats present at this site include dry heath/acid grassland mosaic, coniferous and broadleaved plantation, ponds and continuous scrub; with such habitats known to be of importance to several UKBAP, LBAP and Red List bird species including lapwing, linnet, meadow pipit, tree sparrow and yellow hammer. It is not considered that the habitats at Small Shaw and High Bank or the species using such habitats have any significant interaction or reliance on the habitats present on and immediately surrounding the application site. Pye Flatts Meadow (SSSI) is located around 5 km from the application site and contains neutral lowland grassland; it is not understood that this site has any interaction, at habitats or species levels, with the application site.

Although Thurlstone Moors, which is part of the Peak District Moors (Special Protected Areas), is located around 1 km to the southwest of the site, it is not considered that any species using this habitat, especially upland bird species, will use the habitats on or directly surrounding the application site, and furthermore there is no evidence to suggest the application site is located within a movement corridor between areas of upland heath habitat. There are several further areas of upland heath habitat, principally to the south and west of Hazelhead Farm, located between 4 - 10 km from the application site. Such habitat is located on South Pennine Moors (Special Area of Conservation) and The Dark Peak (SSSI). To conclude there are no Natural Heritage Sites (Local Wildlife Sites) or designated sites on or adjacent to the application site.

Protected Species

The nearest open water is located 211 m (small stream) and 219 m (artificial pond) to the west and south of the development site respectively. Whilst open water close to improved grassland habitat may potentially be of importance to wildfowl, the high density of domestic wildfowl (mallard sp.) in the water bodies surrounding the development site will significantly reduce any value of these habitats to native wildfowl species, and therefore no associated risk is anticipated. In addition, with the improved grassland fields on and surrounding the development site being grazed, these features are considered to be of low value to ground nesting birds, such as lapwing (*Vanellus vanellus*) and skylark (*Alauda arvensis*), as these species prefer fields used for silage production (where vegetation cover is greater). Common agricultural bird species, such as those named above, have been recorded in the area surrounding the application site, however it is important to note that as there is no suitable habitat for such species on or within at least 100 m of the application site no impact is anticipated. The lack of hedgerows surrounding the improved grassland fields also limits their appeal to ground nesting bird species. The only habitat on or within 100 m of the application site is grazed species-poor improved grassland, which was considered to be of very low value to bird species.

Raptor and owl species are understood to be at particular risk to collision impacts with turbines, however as there is no mature woodland, or suitable feeding grounds (un-grazed grassland) surrounding the application site the risk to raptors being in the immediate area surrounding the turbine is considered low. Several raptor and owl records were identified during the desktop assessment, although all records were considered too far away from the application site to have any associated risk. Recorded species included goshawk (7.4 km away), sparrowhawk (7.4 km away), kestrel (7.2 & 1.5 km away) and tawny owl (7 km away). Wading birds are also known to be susceptible to colliding with turbines; however as there are no large expanses of water/ wetland habitat within 2.5 km of the application site no impact is anticipated.

The majority of the bird species using the habitats, notably the woodland strips, surrounding the application site will be smaller and more agile (sparrows and finches), and the RSPB generally consider that such species are better equipped to avoid collision. Therefore, it is not considered that there will be any significant collision issues regarding bird species and the proposed turbine.

Due to the small scale of the proposed development (single turbine), the proposed location (large improved grassland field), the land management (livestock and game bird rearing) it is not considered that the wind turbine will have any significant impact on bird species during operational phase. As the predicted risk for impact on bird populations is low it is not considered necessary for additional survey work.

The assessment of how the proposed wind turbine may affect bat populations was undertaken in line with the Technical Information Note TIN051, in light of the Eurobats Agreement, entitled 'Bats and Onshore Wind turbines' produced by Natural England. This report summaries that potential impacts on bats as a consequence of wind turbines are unlikely should a 50 m buffer area be present from foraging habitat. In the case of the proposed development the nearest area of suitable bat foraging habitat is

located > 100 m to the south. Therefore, with the wind turbine located outside of the 50 m buffer zone, under the risk assessment guidelines set by Natural England, no significant risk on bat populations is anticipated during the operational phase of the turbine.

In addition, the nearest coniferous plantation woodland block to the south of the application site was dense and was not considered ideal for bat foraging activity. During a series of bat transect surveys completed on the site in mid-2011, as part of a separate survey instruction, low numbers of bats (Pipistrelle) were recorded feeding along the western edge of the mixed woodland strip and the stream 214 m to the west of the application site. The vast majority of the bat activity recorded during these surveys was focused > 300 m to the south around the stream and more mature vegetation blocks.

It is not considered that the habitats within 100 m radius of the proposed turbine hold any value to bat activity. The exposed positioning and high elevation of the habitats would not be preferable for bat foraging or commuting behavior. In the wider area there is ample commuting, foraging and roosting habitat to the south of the application site, in the valley, and therefore it is highly unlikely that the habitats within 100 m of the proposed turbine hold any value to bats. UK bat species, especially Pipistrelle bats, are known to prefer to remain close to habitat features when commuting¹¹, therefore it is highly unlikely that the proposed turbine will impact commuting bats as the nearest commuting feature is > 100 m from the turbine.

It should also be noted that none of the trees within the woodland surrounding the improved grassland field were considered suitable for bat roosting habitat (too small/ no cracks or crevices). The nearest large mature trees are located 350 m from the application site to the south.

Bat species known to be present within the area include primarily Pipistrelle, Long-eared and to a lesser extent Noctule. Under the risk assessment tool (Produced by Natural England) for assessing the potential impact of wind turbines on bat species Long-eared and Pipistrelle bats are classified as low and medium risk respectively. The risk associated to bats as a consequence of the development proposal is low for the following reasons: the site is small, in a windy exposed position, at a high altitude, open habitat – at least 100 m from suitable foraging/ commuting habitat and there is no suitable roosting habitat surrounding the site. As the predicted risk for impact on bat populations is low it is not considered necessary for additional survey work.

There is no evidence to indicate that the following protected species will be impacted by the proposed turbine during the operation phase: reptiles, otters, badgers and great crested newts.

¹¹ Technical Information Note TIN051: 'Bats and Onshore Wind turbines' produced by Natural England
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Phase 1 Habitat & Protected Species Assessment, Earth Mill, Hazelhead Farm ©

5.2.5 Phase 1 Habitat Maps



Figure 4: Phase 1 Habitat Survey Findings.

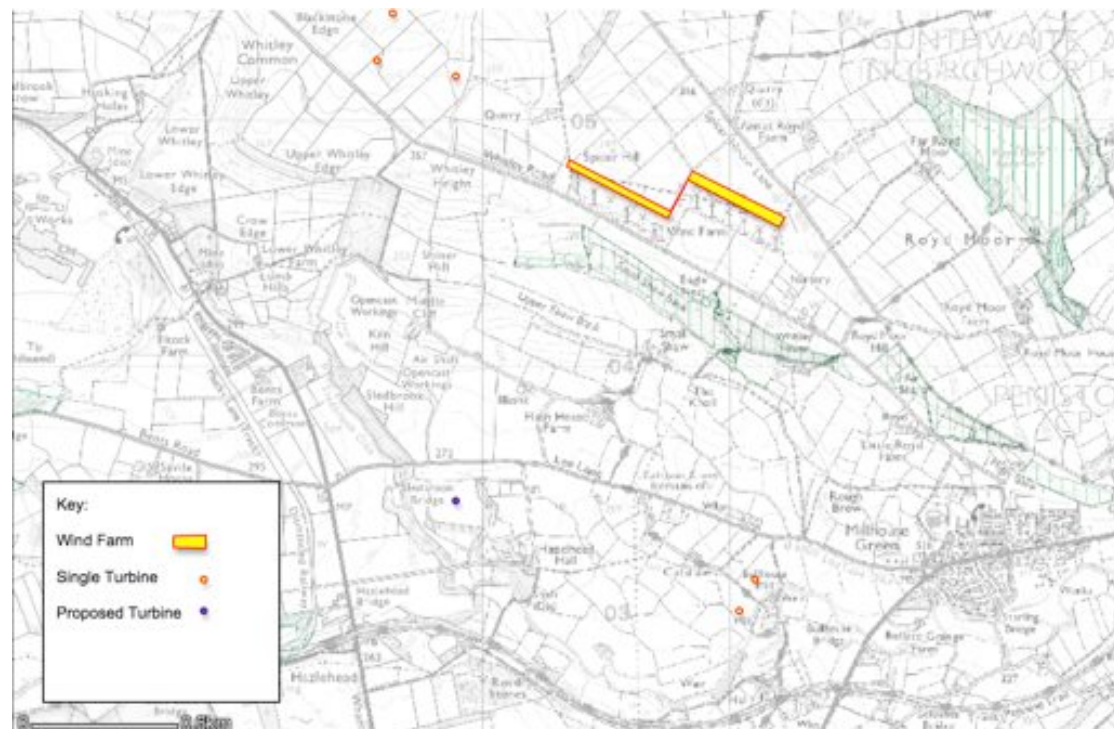


Figure 5: Additional wind turbines in the surrounding area.

6 EVALUATION & RECOMMENDATIONS

Following the completion of the Phase 1 Habitat Survey and Protected Species Risk Assessment in line with the initial objectives, Naturally Wild are wholly confident that the proposed construction and operation of a single wind turbine on an improved grassland field will have no significant impact on either protected species or habitats (statutory and non-statutory) on the application site or in the surrounding area.

In conclusion, there are no further habitat or species issues to consider and no requirement for additional ecological survey work in advance of the application being determined.

7 IMAGES



Image 1: View from the proposed footprint of the turbine. The woodland strip to the south, as seen in this image, is located 105 m away from the proposed location of the turbine shaft.



Image 2: View from the proposed footprint of the turbine, looking east. The woodland strip visible in this image is located 114 m away.



Image 3: Habitats surrounding the proposed wind turbine to a southwest aspect.



Image 4: View to the northeast, from the footprint of the turbine shaft. The fertiliser pile is located 107 m from the proposed turbine.



Image 5: Showing an example of the coniferous plantation woodland bordering the improved grassland field.



Image 6: View of the mixed species plantation woodland to the southwest of the turbine footprint.



Image 7: View of the western boundary of the field where the turbine will be located.



Image 8: The improved grazed grassland field. Another wind farm can be seen in the distance. Viewing aspect to the north.



Image 9: View of the southern boundary of the field where the turbine will be located.



Image 10: View looking across the site, from a southern viewpoint.



Image 11: Northern part of the field, where the turbine will be located.



Image 12: View looking across the site, from a southern viewpoint.



Image 13: Distant view of the site from a northwest perspective.



Image 10: Google Earth image of the surveyed site, and location of proposed wind turbine.

(Image taken from Google earth Pro: ©2010 Tele Atlas; ©2010 Infoterra Ltd & Bluesky).



Figure 6: The red line shows the boundary of the Hazelhead Farm site.

Appendix 1:

I would recommend that this application is refused in the interests of protecting biodiversity.

The main reasons for this is the lack of supporting evidence for the applicant's claim that there are no issues for biodiversity.

At section 13 they state that there are no issues for either priority and protected species, or for designated sites/habitats/ biodiversity - but their supporting information is inadequate in justifying this assertion.

- Earthmill's Design and Access Statement (July 2011, ref P 1087) says nothing about their ecological qualifications to enable them to justify their ecological statements. I would expect to see an ecological assessment and recommendations from a consultant who is a member of IEEM or similar with several years' appropriate experience to be detailed.
- The applicant's supporting Design and Access Statement states at 4.19 that 'there is little evidence to suggest that the wind turbines....would cause any significant impact on local birdlife or indeed any other species', yet they do not provide an analysis to support this assertion. A list of nearby designated sites is attached but without saying how close to the site they are or for what the sites are listed. This is unacceptable. The site is less than 1000m from a Special Protection Area which is designated for birds and less than 3000m from a Special Area for Protection - both Nature Conservation designations which show international importance.
- They comment at 4.22 on local bird species yet provide no supporting evidence/ data. Again at 4.23 disturbance effect on birds is discussed but no site-specific analysis provided.
- At 4.24 bat issues are discussed but no data provided following records searches.
- There appears to have been no attempt to make any enquiries to find out what non-statutory Natural Heritage Sites (Local Wildlife Sites) or Regionally Important Geological Sites are nearby - and there are several close by which we could have informed them of if asked. Again, this is unacceptable. Developers/ applicants now have access to a Barnsley Biological Records Centre which can provide data on local ecological issues - they can access this via myself for the time being.
- I expect to see a data search for all protected and priority species leading to an assessment of risks of the proposed turbines to flying animal species to include birds and bats which breed and nest locally, and birds which migrate in the area.
- The applicant does need to mitigate the loss of the biodiversity value of the grassland where the turbines and supporting infrastructure will stand - yet at 4.21 they state 'no loss of ... vegetation not result in any loss of habitat'. They should base the ecological mitigation proposals on recommendations of an ecological consultant who has also assessed the biodiversity value of the grassland to be lost.
- I have not addressed the issue of any trees which may be lost - I'll leave that to Ed Jowett to answer.

Appendix 2: Biological records – 1 km around application site.

Grid Ref	Location Name	Date	Location	Group	Scientific Name	Common Name
SE1902	Swinden Plantation	22/04/2009	Swinden Plantation, Langsett Moors	bird	Accipiter gentilis	Goshawk
SE1902	Swinden Plantation	22/04/2009	Swinden Plantation, Langsett Moors	bird	Accipiter nisus	Sparrowhawk
SE198029		03/12/2000	Thurston, Crow Head and Hepworth	bird	Aegithales caudatus	Long-Tailed Tit
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Aegithales caudatus	Long-Tailed Tit
SE1902	SE10W-3	31/05/2008	BARNLEY MBC	bird	Aegithales caudatus	Long-Tailed Tit
SE1902	SE10W-3	23/05/1993	Low Moor, Thurstone Moors	bird	Alauda arvensis	Starling
SE202030		03/12/2000	River Don, Perilstone to Dunford Bridge	bird	Anas platyrhynchos	Mallard
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Anas platyrhynchos	Mallard
SE1903	SE10W-4	31/05/2008	BARNLEY MBC	bird	Anas platyrhynchos	Mallard
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Arthus pratensis	Meadow Pipit
SE1903	SE10W-4	31/05/2008	BARNLEY MBC	bird	Arthus pratensis	Meadow Pipit
SE1902	Swinden Plantation	22/04/2009	Swinden Plantation, Langsett Moors	bird	Arthus trivialis	Tree Pipit
SE1904-1	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	31/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
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SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1902	SE10W-3	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Linnet
SE1903	SE10W-4	11/05/2008	BARNLEY MBC	bird	Carduelis cannabina	Lin

SE1903	SE10W-4	11/05/2008	'BARNSELEY MBC'	bird	Troglodytes troglodytes	Wren
SE1902	SE10W-3	31/05/2008	'BARNSELEY MBC'	bird	Troglodytes troglodytes	Wren
SE1903	SE10W-4	31/05/2008	'BARNSELEY MBC'	bird	Troglodytes troglodytes	Wren
SE197042		03/12/2000	Thurston Moors north of Peak Park Boundary to Thurston, Crow Head and Hapworth	bird	Turdus merula	Blackbird
SE205038		03/12/2000	Thurston Moors north of Peak Park Boundary to Thurston, Crow Head and Hapworth	bird	Turdus merula	Blackbird
SE1902	SE10W-3	11/05/2008	'BARNSELEY MBC'	bird	Turdus merula	Blackbird
SE1903	SE10W-3	11/05/2008	'BARNSELEY MBC'	bird	Turdus merula	Blackbird
SE1902	SE10W-4	31/05/2008	'BARNSELEY MBC'	bird	Turdus merula	Blackbird
SE1902	SE10W-3	11/05/2008	'BARNSELEY MBC'	bird	Turdus philomelos	Song Thrush
SE1902	SE10W-3	31/05/2008	'BARNSELEY MBC'	bird	Turdus philomelos	Song Thrush
SE1902		23/05/1993	Low Moor, Thurston Moors	bird	Vanellus vanellus	Lapwing
SE194025		22/04/2001	Floath Inn to Hazlehead	bird	Vanellus vanellus	Lapwing
SE1902		01/03/2002	Floath Inn to Hazlehead	bird	Vanellus vanellus	Lapwing
SE1902		01/03/2002	Floath Inn to Hazlehead	bird	Vanellus vanellus	Lapwing
SE1903	SE10W-4	11/05/2008	'BARNSELEY MBC'	bird	Vanellus vanellus	Lapwing
SE1903	SE10W-4	31/05/2008	'BARNSELEY MBC'	bird	Vanellus vanellus	Lapwing
SE2003	SE20B-2	03/05/2009	'BARNSELEY MBC'	bird	Vanellus vanellus	Lapwing
SE194035	dunford	14/06/1984	Dunford Bridge	flowering plant	Lychnis flos-oculi	Ragged Robin
SE1902		19/06/2007	Hazlehead	liverwort	Lophocolea bidentata	Lophocolea bidentata
SE1902		19/06/2007	Hazlehead	moss	Brachythecium rutabulum	Brachythecium rutabulum
SE1902		19/06/2007	Hazlehead	moss	Bryum capillare	Capillary Thread-moss
SE1902		19/06/2007	Hazlehead	moss	Calliergon cuspidatum	Calliergon cuspidatum
SE1902		19/06/2007	Hazlehead	moss	Campylopus introflexus	Heath Star Moss
SE1902		19/06/2007	Hazlehead	moss	Ceratodon purpureus	Redshank
SE1902		19/06/2007	Hazlehead	moss	Cratoneuron filicinum	Fern-leaved Hook-moss
SE1902		19/06/2007	Hazlehead	moss	Dicranoweisia cincta	Common Pin-tushion
SE1902		19/06/2007	Hazlehead	moss	Encalypta streptocarpa	Spiral Extinct-moss
SE1902		19/06/2007	Hazlehead	moss	Eurhynchium praelongum	Eurhynchium praelongum
SE1902		19/06/2007	Hazlehead	moss	Homalothecium sericeum	Homalothecium sericeum
SE1902		19/06/2007	Hazlehead	moss	Isotrientalis elegans	Isotrientalis elegans
SE1902		19/06/2007	Hazlehead	moss	Orthotrichum affine	Wood Bristle-moss
SE1902		19/06/2007	Hazlehead	moss	Orthotrichum saphanum	White-tipped Bristle-moss
SE1902		19/06/2007	Hazlehead	moss	Plagiothecium denticulatum	Plagiothecium denticulatum
SE1902		19/06/2007	Hazlehead	moss	Rhytidelaphus squarrosus	Springy Turf-moss
SE1902		19/06/2007	Hazlehead	moss	Ula crassa var. norvegica	Ula crassa var. norvegica
SE196028	Hazlehead	15/02/1998	'BARNSELEY MBC'	terrestrial mammal	Meles meles	Badger
SE194029	Hazlehead Bridge	04/10/2005	'BARNSELEY MBC'	terrestrial mammal	Mustela vison	American Mink