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Land Adjacent to Mount Pleasant

Ecological Appraisal and Bird Reconnaissance Report

October 2012

Universal Green Energy

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Appendices

Appendix 1 Wildlife Legislation and Policy
Appendix 2 Desk Study Search Criteria
Appendix 3 Nature Conservation Value Assessment Criteria for Birds

Contact Details can be found at the end of this document

1.0 Introduction

Background

1.1 Keystone Ecology was instructed by Universal Green Energy to undertake an Ecological Appraisal and Bird Reconnaissance Survey of a proposed wind energy development of land adjacent to Mount Pleasant off Stonebridge Lane, Great Houghton, South Yorkshire (Ordnance Survey grid reference SE 43494 07090).

1.2 The development proposals are for the installation of two 32 metre (to blade tip) 80 kilowatt turbines, and associated infrastructure.

Aims and Objectives

1.3 The aim of the survey and supporting desk study was to satisfy the requirements of the National Planning Policy Framework (NPPF – see Section 5.0), identifying ecological features within or near the site that could potentially pose a constraint to the proposed development and opportunities for incorporating biodiversity enhancements into the development proposals. The following ecological features are relevant to this exercise:

- Statutory and non-statutory designated wildlife sites;
- UK and local Biodiversity Action Plan (BAP) habitats and networks of these habitats;
- Ancient Woodland Inventory sites;
- Important hedgerows (as defined by The Hedgerows Regulations 1997);
- Veteran Trees;
- Legally protected species;
- UK and local BAP species;
- Invasive species

1.4 The report considers potential effects to birds and bats in detail as these are widely considered to be the most pertinent receptors for wind farm developments.

1.5 This report has been produced with reference to current guidelines for preliminary ecological appraisal (IEEM, 2012).

1.6 All wildlife legislation and policy potentially relevant to wind farm developments is presented in *Appendix 1*.

Site Context

1.7 The site lies immediately to the north of the village of Great Houghton, some 6 kilometres from the urban centre associated residential area of Barnsley. The site consists of a single

large arable field, in an exposed and open location. Surrounding land use, other than the residential areas of Great Houghton and other Barnsley villages, is predominantly arable, with occasional smaller stands of broad-leaved woodland present. The wetland areas associated with the Dearne Valley lie some 4 kilometres to the south.

2.0 Methodology

Desk Study

2.1 The local biological records centre, Barnsley Biological Record Centre (BBRC), South Yorkshire Bat Group (SYBG) and web-based data (accessed on 26th November 2012) were contacted and searched respectively to provide background information on ecological features in the vicinity of the site. Refer to *Appendix 2* for details of records requested, search radius and source of information.

Field Survey

2.2 The Extended Phase I Habitat Survey was undertaken on 26th October 2012 by a Principal Ecologist from Keystone Ecology. The survey area is illustrated in *Drawing Number: 121684/1/wor1*.

2.3 Phase I Habitat Survey (JNCC, 2010) is a standard technique for obtaining baseline ecological information for large areas of land in which the main vegetation types present within the survey area are mapped using a standard set of habitat categories. The site was surveyed using a modified version of this technique whereby an additional habitat category, 'coarse grassland,' was used to describe species-poor, unmanaged, secondary grasslands

2.4 In addition to mapping, each of the main habitats within the survey area was described; including details of component plant species abundances (recorded using the DAFOR scale[1]).

2.5 Incidental observations of protected and/or BAP priority species and the potential for such species to occur on site (and in the surrounding landscape where relevant) were also noted. However, with the exception of birds, no specific protected/BAP species surveys were undertaken.

Bird Reconnaissance Survey

2.6 A Reconnaissance Survey of the application site was conducted on 16th October 2012 by an experienced Ornithologist. Weather conditions on the day of the survey are presented in *Table 1*.

Table 1: Weather conditions encountered during bird reconnaissance survey

Survey Date	Survey Time	Temperature (°C)	Wind Speed	Cloud Cover (%)	Precipitation
16/10/2012	08:15 -17.00	4-5	3-4	25-50	Some Drizzle

2.7 The survey involved a combination of 'walkover methods' and vantage point (VP) Surveys as recommended by Scottish Natural Heritage (2005), combining a 6 hour long Vantage Point watch to record flights of birds over the application site and adjacent land, with

[1] D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

transect/Common Bird Census (CBC) style survey methods also employed. All bird flights and registrations were mapped in the field according to the standard notation (Marchant, 1983; Gilbert, Gibbons & Evans, 1998), and are summarised in *Table 6*.

2.8 A single vantage point was selected along a transect route that combined good visibility across the survey area and coverage of habitats that were anticipated to be of potential ornithological importance (e.g. waterbodies and woodland). The VP Survey was undertaken between 09.30 and 12.30 and 14.00 to 17.00. During the VP Surveys, location, height and duration of flights were recorded for all target bird species (i.e. birds potentially at risk of collision with a wind turbine i.e. all waterbirds[2] and raptors). Notes were also made on flight height and flock size for other bird species of conservation concern (secondary species[3]).

2.9 The Transect Survey was undertaken between VP Surveys (alongside the Phase I Survey) and involved recording the presence/location of all species within the survey area, according to standard Common Bird Census notation. The transect route was 2.66 kilometres in length.

2.10 The survey area, transect and VP locations are displayed on *Drawing Number: 121684/1/wor2*.

Nomenclature

2.11 The English names of flora and fauna species are given in the main text of this report. Scientific names are used only in the absence of English names. Vascular plants and Charophytes follow the nomenclature of The Botanical Society for the British Isles database (2008) with all other flora and fauna following the National Biodiversity Network (NBN) Gateway (NBN, 2012).

Limitations

2.12 The results of the survey and assessment work undertaken by Keystone Ecology are representative at the time of surveying.

2.13 This document does not contain a comprehensive list of botanical species on site. Only plant species characteristic of each habitat and incidental observations of notable plant species were recorded. In addition, many plant species are only evident at certain times of the year and so some plant species may have gone undetected.

2.14 The data held by consultees may not be exhaustive. The absence of records does not necessarily indicate absence of a species/habitat from an area but rather that these have not been recorded or are perhaps under-recorded within the search area. The search radius for bats and birds also overlapped with other record centre administrative areas, but these were not contacted. The data received is considered to provide a sufficient level of contextual information to allow a robust assessment of potential effects.

2.15 The accuracy of GIS datasets that are downloaded from the Joint Nature Conservation Committee (JNCC) and Natural England varies due to the quality and scale that they were

[2] As defined by the RAMSAR convention, including Herring Gull but excluding all other gull species.

[3] All European Birds Directive Annex 1, Wildlife and Countryside Act (1981 and as amended) Schedule 1, Birds of Conservation Concern 'Red List', National and Local Biodiversity Action Plan priority species.

digitised to and the supporting information used to define boundaries. Keystone Ecology cannot take responsibility for the accuracy of external data sources and as such discrepancies and inaccuracies may occur.

3.0 Results and Evaluation

Important Sites

3.1 Sites and habitats identified by the desk study are presented in *Table 2.*

Table 2: Sites and habitats identified by the desk study

Name	Direction/Distance from proposed Development site	Details	Potential Constraint
Statutory Sites			
Denaby Ings SSSI/Old Denaby Wetland LNR	8186m, South-east	The site is notable for its breeding bird community which includes typical riparian species such as Sedge and Reed Warblers, Mallard and Coot together with more unusual waders like Little Ringed Plover and Common Sandpiper. The wet meadows provide nesting sites for Lapwing and Yellow Wagtail. A wide range of passage wildfowl and wader species are recorded for the site and regular overwintering parties of Whooper Swan are a noteworthy feature.	No - site is too distant with no ecological connectivity to the application site for direct effects. Impacts to supported bird species are reasonably unlikely given the lack of supporting habitats within the application sites and the large separation distance.
Non Statutory Sites			
None within search parameters			
UK BAP Priority Habitats			
None within search parameters			
Ancient Woodland			
None within search parameters			

Key to site designations: LNR – Local Nature Reserve, SSSI – Site of Special Scientific Interest

Habitats Identified on Site

3.2 Habitats identified on site along with their UK BAP (JNCC, 2012) and/or Local BAP (Natural England 2012) listing where applicable, are presented in *Table 3*.

Table 3: Habitats identified on site

Habitat		UK BAP	LBAP
Arable The site is dominated by large arable fields, which had been tilled at the time of survey – no arable weed species were recorded.	 Plate 1: View across the approximate turbine position.	✓[4]	

[4] Arable Field Margins only

Habitat		UK BAP	LBAP
Hedgerow with trees This habitat type surrounds the site to the north, east and west. Some sections are defunct and entirely dominated by Bramble, or have large gaps. Hawthorn is the dominant woody species, with Blackthorn, Dog-rose and Elder occasionally present. Ground flora is dominated by coarse grasses including Cock's-foot and Yorkshire Fog with occasional Cleavers, Common Nettle, Hogweed and Cow Parsley. White dead-nettle, Creeping Buttercup and Dandelion spp are rarely present.		✓	✓
Dry Ditch Short sections of dry ditch are present, with dominant Cock's-foot, Creeping Bent, Yorkshire Fog and Annual Meadow-grass and occasional/rare Broad-leaved Dock, Common Nettle (Locally dominant), and Cow Parsley.	No photo		

Habitat		UK BAP	LBAP
Standing Water A single wet ditch with flowing water runs north-south along the main eastern field boundary. Floating Sweet-grass is the only aquatic species present which occurs very occasionally in slower flowing areas. There is coarse grassland present on the banks, with species as above.	No Photo		
Scattered Scrub Present as components of long since defunct hedgerows/field boundaries. Occasional Hawthorn and Elder present.	No Photo		

Protected Species Excluding Birds

3.3 The possibility that protected species will pose a constraint to the proposed development is evaluated for each of the main protected species/groups in *Table 4*, based on assessment of habitat suitability and other relevant factors, such as:

- National distribution of each species/group;
- Previous records of species occurrence obtained through the desk study;
- Connectivity to suitable habitats in the surrounding landscape;
- Field signs (e.g. tracks, droppings, direct sightings) suggesting presence of species within or near to the site;
- Probability of the proposed development having an adverse impact on the species/group if present

UK BAP Priority and Local BAP Species

3.4 The possibility that UK BAP or Local BAP species(JNCC, 2012; Natural England, 2012) will pose a constraint to the proposed development is evaluated in *Table 5* using the same evaluation criteria as *Table 4* (refer to *Paragraph 3.3*). Given the large number of BAP species that occur in the UK, species have only been included in the table if present in the desk study records and/or observed on site during the field survey.

Invasive Species

3.5 No invasive species were recorded during the field survey.

Birds

3.6 The desk study and field survey results for target species are presented in *Table 6* for both vantage point and transect surveys combined. Counts are provided as daily totals, or peak flock counts where there was a substantial risk of double counting.

3.7 Birds species considered to be a potential constraint, and therefore discussed in the final section of the report; are those which are i) of at least Low conservation value, ii) for which suitable breeding and/or regular foraging habitat is present within the application site or neighbouring land and iii) which are widely considered to be behaviourally sensitive to wind turbine developments. Widespread passerines are generally not considered to be sensitive to wind turbine developments and are not considered to be a potential constraint (SNH, 2005), other than the active nests of such species, during the breeding season. Passerines are not therefore included in the assessment.

Table 4: Protected species constraints evaluation (excluding birds)

Species/ Group	Desk Study Record	UK BAP	LBAP	Potential Habitat	Other Relevant Factors	Potential Constraint?
Bats	Common Pipistrelle Soprano Pipistrelle Bats Sp. Brown Long-eared Daubenton's Leisler's Myotis Sp. Natterer's Noctule Nyctalus Sp. Pipistrelle Sp. Whiskered	✓*	✓*	No trees or buildings within the application site, (no roost potential). The hilltop location of the proposed turbine site is exposed. The windy conditions at this location are likely to prevent the accumulation of insect prey and therefore result in only low levels of bat foraging activity. There is however extensive suitable bat foraging habitat, including woodland, and hedgerows in the nearby surrounding landscape.	Noctule, Leisler's Bat, and Pipistrelle spp may cross open parts of the site regardless of insect abundance. Turbine size is small, and 2 are proposed, both at least 50 metres from linear features (hedgerows and streams). No mature trees (potential roost locations) are to be removed/affected by the proposals	Yes
Badger	×	×	×	The application site contains no suitable habitat for this species (setts). Although viable habitat in the form of hedgerows is present in the study area.	Foraging habitat only within the application site, no setts/ main sett, annexe sett, subsidiary sett, outlying sett, single hole sett recorded by the surveys.	Yes

Species/ Group	Desk Study Record	UK BAP	LBAP	Potential Habitat	Other Relevant Factors	Potential Constraint?
Dormouse	×	✓	×	Hedgerows are present within the study area.	No Dormice recorded in the vicinity of the site. Site lies appreciably distant from the known range of this species. No connectivity to suitable habitat off site, and no hedgerows will be removed by the proposals.	No
Otter	×	✓	✓	Wet ditch present within study area.	Wet ditch is very shallow and not connected directly to other potential supporting habitats. There are no records of this species in the desk study.	No
Water Vole	×	✓	✓	Wet ditch present within study area.	Wet ditch is very shallow and not connected directly to other potential supporting habitats. There are no records of this species in the desk study.	No
Reptiles	×	✓	×	Suitable reptile habitat is restricted to coarse grassland adjacent to hedges/ditches.	Only considered to be a potential constraint if hedgerows/ditches are to be affected by the proposals – e.g. for the installation of the access track etc.	Yes

Species/ Group	Desk Study Record	UK BAP	LBAP	Potential Habitat	Other Relevant Factors	Potential Constraint?
Great Crested Newt	×	✓	✓	Two ponds present c.500 metres from the proposed nearest turbine location and potentially closer to access tracks. Suitable terrestrial habitat for dispersal is present in the form of arable land, and hedgerow bases. Potential hibernation habitat present at hedgerow bases.	No desk study records of this species within the vicinity of the site. The ditch was shallow, with flowing water. Limited egg laying opportunities. Two ornamental[5] ponds some 500 metres from turbine locations (within back garden of adjacent residential property), with connecting habitat (hedgerows).	Yes
Invertebrates	×	n/a	×	The site contains habitats suitable for a range of protected invertebrate species.	Even if present, the proposed development is highly unlikely to have any adverse impact on invertebrate species.	No

[5] Ponds appear to be ornamental and set in amenity grassland as viewed on satellite imagery.

Species/ Group	Desk Study Record	UK BAP	LBAP	Potential Habitat	Other Relevant Factors	Potential Constraint?
White-clawed Crayfish	×	✓	✓	Wet ditch present on site.	No desk study records of this species within the vicinity of the site. Site lies appreciably distant from known natural range of this species. Ditch is shallow, turbid and not connected to other aquatic features with optimal potential to support this species.	No
Plants	×	n/a	✓*	The site contains no habitats suitable for protected plant species.	No protected plant species have been recorded in the vicinity of the site. It is highly unlikely that the grassland and arable areas and small amount of hedge (if any) that will be affected by the development contain such species.	No

*Status dependant on species

Table 5: BAP species Constraints Evaluation (excluding protected species and birds)

Species/ Group	Desk Study Record	UK BAP	LBAP	Potential Habitat	Other Relevant Factors	Potential Constraint?
Amphibian	Common Toad	✓	×	Suitable terrestrial habitat limited to grassland and hedgerows. Two ponds within 500 metres of the proposed turbine location but potentially closer to the access tracks, location currently unconfirmed.	The turbines preferred location lies within the centre of an extensive arable field, considered to be sub-optimal habitat for this species.	Yes

Table 6: Bird Reconnaissance Survey and Desk Study Results and Evaluation

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
American Golden Plover	-	Negligible	✓	×		-	-	No
Arctic Skua	UKBAP, RL	Medium	✓	×	-	-	-	No

[6] Adapted from Percival (2007). Refer to *Appendix 3*

[7] Minimum counts (i.e. max flock size at any point during survey) are supplied where double counting could have occurred.

[8] Total number of flights through study area.

[9] Total duration of all flights within rotor swept zone.

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Arctic Tern	A1	High	✓	×	-	-	-	No
Avocet	A1, S1,	Very High	✓	×	-	-	-	No
Baird's Sandpiper	-	Negligible	✓	×	-	-	-	No
Bar-Headed Goose	-	Negligible	✓	×	-	-	-	No
Barn Owl	S1, LBAP	High	✓	✓	-	-	-	Yes
Barnacle Goose	A1	High	✓	×	-	-	-	No
Bar-tailed Godwit	A1	High	✓	×	-	-	-	No
Bean Goose	-	Negligible	✓	×	-	-	-	No
Bewick's Swan	A1, UKBAP	High	✓	×	-	-	-	No
Bittern	A1, S1, UKBAP, RL, LBAP	Very High	✓	×	-	-	-	No
Black Scoter	-	Negligible	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Black Swan	-	Negligible	✓	×	-	-	-	No
Black Tern	A1, S1	Very High	✓	×	-	-	-	No
Black-Headed Gull	-	Negligible	✓	✓	-	-	-	No
Black-necked Grebe	S1	High	✓	×	-	-	-	No
Black-Tailed Godwit	S1, UKBAP, RL	High	✓	×	-	-	-	No
Black-Winged Stilt	A1, S1	Very High	✓	×	-	-	-	No
Brent Goose	-	Negligible	✓	×	-	-	-	No
Buff-Breasted Sandpiper	-	Negligible	✓	×	-	-	-	No
Buzzard	-	Negligible	✓	✓	1	1	90	No
Canada Goose	-	Negligible	✓	✓	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Common Gull	-	Negligible	✓	✓	-	-	-	No
Common Moorhen	-	Negligible	✓	×	-	-	-	No
Common Pheasant	-	Negligible	✓	✓	-	-	-	No
Common Scoter	S1, UKBAP, RL	High	✓	×	-	-	-	No
Common Tern	A1	High	✓	×	-	-	-	No
Coot	-	Negligible	✓	×	-	-	-	No
Cormorant	-	Negligible	✓	✓	-	-	-	No
Corncrake	A1, S1, UKBAP, RL	Very High	✓	×	-	-	-	No
Crane	A1	High	✓	×	-	-	-	No
Curlew	UKBAP	Low	✓	✓×	-	-	-	Yes
Curlew Sandpiper	-	Negligible	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Dotterel	A1, S1	Very High	✓	×	-	-	-	No
Dunlin	RL	Low	✓	×	-	-	-	No
Egyptian Goose	-	Negligible	✓	×	-	-	-	No
Gadwall	-	Negligible	✓	×	-	-	-	No
Gannet	-	Negligible	✓	×	-	-	-	No
Garganey	S1	High	✓	×	-	-	-	No
Glaucous Gull	-	Negligible	✓	×	-	-	-	No
Golden Plover	A1	High	✓	✓	75	75	0	Yes
Goldeneye	-	Negligible	✓	×	-	-	-	No
Goosander	-	Negligible	✓	×	-	-	-	No
Goshawk	S1	High	✓	✓	1	1	0	Yes
Great Bittern	-	Negligible	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Great Black-backed Gull	-	Negligible	✓	✓	-	-	-	No
Great Crested Grebe	-	Negligible	✓	×	-	-	-	No
Great Grey Shrike	-	Negligible	✓	×	-	-	-	No
Great Skua	-	Negligible	✓	×	-	-	-	No
Great White Egret	-	Negligible	✓	×	-	-	-	No
Greater Scaup	-	Negligible	✓	×	-	-	-	No
Greater White-fronted Goose	UKBAP	Low	✓	×	-	-	-	No
Green Sandpiper	S1	High	✓	×	-	-	-	No
Greenshank	S1	High	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Green-Winged Teal	-	Negligible	✓	×	-	-	-	No
Grey Heron	-	Negligible	✓	✓	-	-	-	No
Grey Phalarope	-	Negligible	✓	×	-	-	-	No
Grey Plover	-	Negligible	✓	×	-	-	-	No
Greylag Goose	-	Negligible	✓	✓	-	-	-	No
Gull-Billed Tern	A1	High	✓	×	-	-	-	No
Hen Harrier	A1, RL	High	✓	×	-	-	-	No
Herring Gull	UKBAP, RL	Medium	✓	✓	-	-	-	Yes
Hobby	S1	High	✓	✓	-	-	-	Yes
Honey Buzzard	A1, S1	Very High	✓	×	-	-	-	No
Hoopoe	S1	High	✓	×	-	-	-	No
Iceland Gull	-	Negligible	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Jack Snipe	-	Negligible	✓	×	-	-	-	No
Kestrel	LBAP	Low	✓	✓	1	4	0	Yes
Kittiwake	-	Negligible	✓	×	-	-	-	No
Knot	-	Negligible	✓	×	-	-	-	No
Lapwing	UKBAP, RL, LBAP	Medium	✓	✓	-	-	-	Yes
Lesser Black-backed Gull	-	Negligible	✓	✓	7	7	0	No
Lesser White-Fronted Goose	A1	High	✓	×	-	-	-	No
Little Egret	A1	High	✓	×	-	-	-	No
Little Grebe	-	Negligible	✓	×	-	-	-	No
Little Gull	A1, S1	Very High	✓	×	-	-	-	No
Little Owl	-	Negligible	✓	✓	-	-	-	No
Little Ringed Plover	S1, LBAP	High	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Little Stint	-	Negligible	✓	×	-	-	-	No
Little Tern	A1, S1	Very High	✓	×	-	-	-	No
Long-Eared Owl	-	Negligible	✓	×	-	-	-	No
Long-Tailed Duck	S1	High	✓	×	-	-	-	No
Long-Tailed Skua	-	Negligible	✓	×	-	-	-	No
Mallard	-	Negligible	✓	✓	-	-	-	No
Mandarin	-	Negligible	✓	×	-	-	-	No
Mandarin Duck	-	Negligible	✓	×	-	-	-	No
Marsh Harrier	A1	High	✓	×	-	-	-	No
Mediterranean Gull	A1, S1	Very High	✓	×	-	-	-	No
Merlin	A1, S1	Very High	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Moorhen	-	Negligible	✓	×	-	-	-	No
Mute Swan	-	Negligible	✓	✓	-	-	-	No
Osprey	A1, S1	Very High	✓	×	-	-	-	No
Oystercatcher	-	Negligible	✓	×	-	-	-	No
Pectoral Sandpiper	-	Negligible	✓	×	-	-	-	No
Peregrine	A1, S1	Very High	✓	×	-	-	-	No
Pied Avocet	-	Negligible	✓	×	-	-	-	No
Pink-footed Goose	-	Negligible	✓	✓	19	19	0	No
Pintail	-	Negligible	✓	×	-	-	-	No
Pochard	-	Negligible	✓	×	-	-	-	No
Purple Sandpiper	S1	High	✓	×	-	-	-	No
Quail	S1	High	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Red Kite	A1, S1	Very High	✓	×	-	-	-	No
Red Knot	-	Negligible	✓	×	-	-	-	No
Red-Breasted Merganser	-	Negligible	✓	×	-	-	-	No
Red-Crested Pochard	-	Negligible	✓	×	-	-	-	No
Red-legged Partridge	-	Negligible	✓	✓	-	-	-	No
Red-Necked Phalarope	A1, S1, UKBAP, RL	Very High	✓	×	-	-	-	No
Redshank	-	Negligible	✓	×	-	-	-	No
Ringed Plover	-	Negligible	✓	×	-	-	-	No
Ring-Necked Duck	-	Negligible	✓	×	-	-	-	No
Roseate Tern	-	Negligible	✓	×	-	-	-	No
Ruddy Duck	-	Negligible	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Ruddy Turnstone	-	Negligible	✓	×	-	-	-	No
Ruff	A1, S1, RL	Very High	✓	×	-	-	-	No
Sanderling	-	Negligible	✓	×	-	-	-	No
Sandpiper	-	Negligible	✓	×	-	-	-	No
Sandwich Tern	A1	High	✓	×	-	-	-	No
Scaup	S1, UKBAP, RL	High	✓	×	-	-	-	No
Shelduck	-	Negligible	✓	×	-	-	-	No
Short-Eared Owl	A1	High	✓	×	-	-	-	No
Shoveler	-	Negligible	✓	×	-	-	-	No
Smew	A1	High	✓	×	-	-	-	No
Snipe	-	Negligible	✓	✓	-	-	-	No
Sparrowhawk	-	Negligible	✓	✓	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
Spoonbill	A1, S1	Very High	✓	×	-	-	-	No
Spotted Crake	A1, S1	Very High	✓	×	-	-	-	No
Spotted Redshank	-	Negligible	✓	×	-	-	-	No
Teal	-	Negligible	✓	×	-	-	-	No
Temminck's Stint	S1, RL	Very High	✓	×	-	-	-	No
Tufted Duck	-	Negligible	✓	×	-	-	-	No
Turnstone	-	Negligible	✓	×	-	-	-	No
Water Rail	-	Negligible	✓	×	-	-	-	No
Whimbrel	S1, RL	Very High	✓	×	-	-	-	No
Whiskered Tern	A1	High	✓	×	-	-	-	No
White Stork	A1	High	✓	×	-	-	-	No

Species	Conservation Status	Conservation Value[6]	Desk Study Record	Suitable breeding/ regular foraging habitat/ within study area, or anticipated regular overflights	Survey Count[7]	No. Flights[8]	Total time at risk height[9]/ Seconds	Potential Constraint
White-Fronted Goose	-	Negligible	✓	×	-	-	-	No
White-Rumped Sandpiper	-	Negligible	✓	×	-	-	-	No
White-Winged Black Tern	-	Negligible	✓	×	-	-	-	No
Whooper Swan	A1, S1	Very High	✓	×	-	-	-	No
Wigeon	-	Negligible	✓	×	-	-	-	No
Wood Sandpiper	A1, S1	Very High	✓	×	-	-	-	No
Yellow-legged Gull	-	Negligible	✓	×	-	-	-	No

RL – RSPB Birds of Conservation Concern Red List, UKBAP – United Kingdom Biodiversity Action Plan Priority Species, LBAP – Local Biodiversity Action Plan Species, A1 – European Birds Directive Annex 1 Species, S1 – Schedule 1, Wildlife and Countryside Act 1981 (and amendments) Species

4.0 Discussion and Recommendations

Overview of Potential Ecological Constraints Associated with the Proposed Development

4.1 The following sites/habitats/species have been identified as potential constraints to the proposed development:

- Hedgerow;
- Bats;
- Badger;
- Reptiles;
- Great Crested Newt;
- Common Toad;
- Birds; and
- Nesting Birds

Further Survey and Mitigation

Hedgerow

4.2 Hedgerows are not anticipated to be affected by the development proposals. However in the event that the site layout requires the unavoidable loss of such habitats, it is recommended that an area/linear length of at least equivalent size is provided in compensation.

Bats

4.3 Noctule and Leisler's Bat are considered to be potentially at high risk of potential effects from wind turbines (Natural England, 2009). Pipistrelle spp. are considered to be at medium risk on an individual level, with other species considered to be at Low risk.

4.4 In accordance with Natural England interim guidance (Mitchell-Jones & Carlin, 2009) all turbines should be sited so that the blade tips are all at least 50 meters from the nearest hedge/woodland. Provided this advice is followed it is highly unlikely the proposed development would have an impact on bats and no further survey would be required.

Badger

4.5 A small reduction in available foraging (arable) habitat will be the result of the development. This is not anticipated to result in the loss of favorable conservation status if indeed Badgers are present within the wider area.

4.6 The application site is considered to be reasonably unlikely to support a (newly excavated) Badger sett, given that it lies wholly within regularly tilled arable land, however a check for signs of recent mammal excavations should be undertaken immediately prior to works and if such evidence is present, a suitably qualified ecological consultant should be contacted, to ensure legal compliance with The Protection of Badgers Act (1992).

Reptiles

4.7 In the event that impacts to the ditches, hedgerows and associated (coarse grassland at base of these cannot be avoided a precautionary approach is recommended with suitable reptile habitat cleared in a sensitive manner. Habitats should be strimmed in 2 passes (first to a height of no less than 300 millimetres) working towards suitable habitat off-site; to encourage reptiles to disperse into adjacent habitat. If hedge/ditch removal is required, a refugia check should be carried out by a suitable qualified ecologist immediately prior to clearance in order to minimise the risk of accidental killing or injury.

4.8 This approach can only be undertaken between May and September when reptiles are active. It is not appropriate for use at all other times of year, when reptiles are in hibernation.

Great Crested Newt and Common Toad

4.9 To avoid the need for further survey and/or precautionary methods of working, It is recommended that the turbine and associated access tracks are located at a distance of 500 metres from the 2 identified garden ponds and that the removal of hedgerows, ditches and associated coarse grassland habitat is avoided.

4.10 If the above cannot be achieved further assessment in respect of Great Crested Newts would be required once the position of the haul road is confirmed. However, further survey could still be avoided using a Precautionary Working Method Statement (PWMS) provided the loss of hedgerow, ditch and coarse grassland habitat is below 0.01hectares within 100 metres of a breeding pond, 0.1-0.5 hectares within 100-250 metres of any breeding pond and 1-5 hectares on land greater than 250 metres from any breeding pond (Natural England, 2011).

Birds

4.11 The following bird species are potentially a constraint to development:

- Barn Owl;
- Golden Plover;
- Curlew;
- Goshawk;
- Herring Gull; and
- Lapwing

Barn Owl

4.12 Barn Owl was not recorded within the field surveys despite the survey period continuing into dusk. Due to their low level hunting flights, Barn Owl are generally not considered to be particularly sensitive to wind turbine developments. However, it is recommended that, as a precautionary measure, in recognition of the high conservation status of this species; the existing arable land use should be maintained for the life of the turbine to ensure that long grassland does not develop, which may encourage small mammals (prey species for Barn Owl) to proliferate.

Golden Plover and Curlew

4.13 There is no suitable (moorland and upland grassland) breeding habitat for either species within the study area. The site could however be occasionally used during the non-breeding season for foraging/roosting in the case of Golden Plover. Curlew activity is only anticipated as irregular overflights especially during the spring and autumn migration periods. Given the paucity of records from the reconnaissance survey for both species and the relative abundance of both species at local and National scales (BTO Bird Facts website), together with the small size of the turbines; significant impacts to these species are considered unlikely.

Lapwing

4.14 Although there is suitable breeding and wintering habitat on site for this species, it was not recorded during the reconnaissance surveys, and so the site is unlikely to support wintering populations. During the breeding season this species may be displaced by the moving turbines, at least from their immediate vicinity although such effects are unlikely to be significant, given the abundance of similar arable habitat within the locality. Collision risks may also be apparent during the breeding season, although given the small scale of the proposed turbines and the abundance of this species at local and national scales, no significant effects are predicted.

Goshawk

4.15 A single Goshawk flight was recorded during the Vantage Point Survey. This species is considered unlikely to make regular flights within the vicinity of the proposed turbines, with the recorded event being unusual given that Goshawk normally hunt (and breed) within dense coniferous woodland. Given the excellent flight manoeuvrability and visual acuity of this species Goshawk populations are considered unlikely to be sensitive to collision effects, especially from small turbines placed beyond their preferred habitats.

Herring Gull

4.16 Herring Gull were recorded flying over the study area, however their National population is robust and they are a species with high visual acuity and flight manoeuvrability, and are generally considered to be less sensitive to wind turbine developments, especially from small turbines such as are proposed here, which are located beyond breeding/roosting habitats. No nesting or regular foraging habitats are present on/adjacent to site although overflights are anticipated given the wetland habitats associated with the Dearne Valley some 6 kilometres to the south.

Nesting Birds

4.17 Due to the possible presence of ground nesting bird species (Skylark) within the application site, it is recommended that works are carried out outside the nesting bird period taken to be mid March to August (inclusive). If works cannot be timed to fall outside this period, a nesting bird check should be carried out by a suitably qualified ecologist, prior to works commencing. Any nesting birds recorded should be protected until the nesting attempt is complete.

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Web addresses for access to full legislation and policy text:

Birds Directive:
eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en

Conservation of Habitats and Species (Amendment) Regulations 2012:
http://www.legislation.gov.uk/uksi/2012/1927/contents/made

Countryside and Rights of Way Act 2000:
www.legislation.hmso.gov.uk/acts/acts2000/20000037

Habitats Directive:
www.europa.eu.int/eur-lex/en/lif/dat/1992/en_392L0043

National Planning Policy Framework:
http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf

Natural Environment and Rural Communities Act 2006:
www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

Protection of Badgers Act 1992:
www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1

Wildlife and Countryside Act 1981:
www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Plans

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GARRABY CL

PINFIELD CL

PINFIELD CLOSE

MANOR FIELDS

POTTS CRES

PLEASANT

STONEBRIDGE LANE

Mount
Pleasant

A

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Recn Gd

PW

N
W E
S

Key:

- Site boundary
- Scattered scrub
- Scattered tree
- Intact hedgerow
- Line of trees
- Wet ditch
- Dry ditch
- A — Arable
- Proposed turbine location



Drn	Description	Rev	App
RF	Phase I	0	SP

Land Adjacent to Mount Pleasant

Drawing Title:

Extended Phase I Habitat Survey Results

Client Name: Universal Green Energy Ltd

Scale: 1:3,500 @ A3 | Date: 30/11/2012

Drawing Number: 121684/1/wor1

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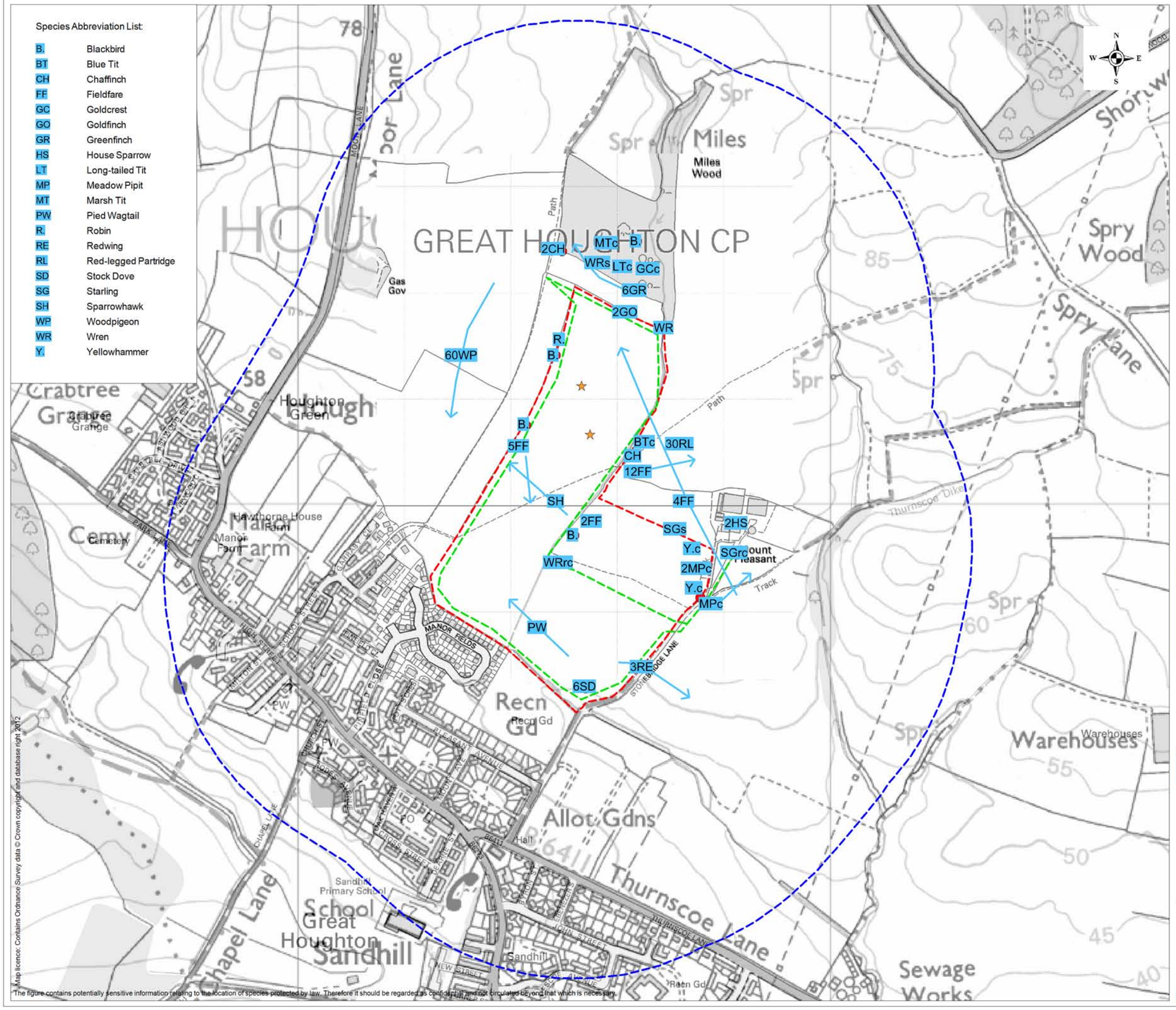
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File Path: O:\Southern Office\GIS\Jobs\121684 - Mount Pleasant Farm\Final wksp\121684_1_wor1.wor

Species Abbreviation List:

B.	Blackbird
BT	Blue Tit
CH	Chaffinch
FF	Fieldfare
GC	Goldcrest
GO	Goldfinch
GR	Greenfinch
HS	House Sparrow
LT	Long-tailed Tit
MP	Meadow Pipit
MT	Marsh Tit
PW	Pied Wagtail
R.	Robin
RE	Redwing
RL	Red-legged Partridge
SD	Stock Dove
SG	Starling
SH	Sparrowhawk
WP	Woodpigeon
WR	Wren
Y.	Yellowhammer



Key:

A.	A bird sighting*
A.c	A bird calling*
A.rc	A bird repeatedly giving alarm-calls or other vocalisation (not song) thought to have strong territorial significance*
A.s	Bird in song*
→	Bird flight path*
★	Proposed turbine location
	500m buffer from site boundary
	Site boundary
	Bird transect route

**For specific species please refer to the species abbreviation list*



Drn	Description	Rev	App
RF	Bird Survey	0	SP

Land Adjacent to Mount Pleasant

Drawing Title:

Bird Walkover Survey Results

Client Name: Universal Green Energy Ltd

Scale: 1:7,000 @ A3 | Date: 30/11/2012

Drawing Number: 121684/1/wor2

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Species Abbreviation List:

BZ	Buzzard
GI	Goshawk
K.	Kestrel
PG	Pink-footed Goose

BZ
GI
19PG
K.
K.
K.
K

GREAT HOUGHTON CP

Key:

A.	A bird sighting*
A.c	A bird calling*
A.rc	A bird repeatedly giving alarm-calls or other vocalisation (not song) thought to have strong territorial significance*
A.s	Bird in song*
→	Bird flight path*
★	Proposed turbine location
	500m buffer from site boundary
	Site boundary
◆	Vantage point

For specific species please refer to the species abbreviation list



Drn	Description	Rev	App
RF	Bird Survey	0	SP

Land Adjacent to Mount Pleasant

Drawing Title:

Bird Vantage Point Survey Results

Client Name: Universal Green Energy Ltd

Scale: 1:7,000 @ A3 | Date: 30/11/2012

Drawing Number: 121684/1/wor3

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Appendices

Appendix 1

Wildlife Legislation and Policy

This section sets out the wildlife legislation and policy potentially relevant to wind developments. Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information. Web addresses providing access to the full text of these documents are given in the References section of this document.

Important Sites

Designated Site/Habitat	Legal Status
Ramsar Sites	Ramsar Sites are wetlands of international importance designated under The Ramsar Convention. They are afforded the same level of protection as SSSIs under the Wildlife and Countryside Act 1981 (as amended).
SPA (Special Protection Areas)	SPAs are strictly protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), also known as the Birds Directive. They are classified for rare and vulnerable birds, listed in Annex I of the Birds Directive, and for regularly occurring migratory species. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) Regulations 2012 are the legal instrument for implementing the Birds Directive in the UK.
SAC (Special Areas for Conservation)	SACs are strictly protected areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed in Annexes I and II of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) Regulations 2012 are the legal instrument for implementing the Habitats Directive in the UK.
SSSI (Sites of Special Scientific Interest)	SSSIs are the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been renotified under the Wildlife and Countryside Act 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.
NNR (National Nature Reserves)	NNRs contain examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. NNRs are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). Legal protection of NNRs is provided under The Wildlife and Countryside Act 1981 (as amended).

Designated Site/Habitat	Legal Status
Hedgerows	Hedgerows that meet certain criteria are protected by the Hedgerows Regulations 1997, under which it is an offence to remove or destroy such hedgerows without permission from the Local Planning Authority.
LNR (Local Nature Reserves)	Under the National Parks and Access to the Countryside Act 1949, LNRs may be declared for nature conservation by local authorities after consultation with the relevant statutory nature conservation agency. Legal protection of LNRs is provided under The Wildlife and Countryside Act 1981 (as amended).

Protected Species

Species	Legal Status
European Protected	
Creeping Marshwort, Early Gentian, Fen Orchid, Floating-leaved Water Plantain, Killaney Fern, Lady's Slipper, Shore Dock, Slender Naiad, Yellow Marsh Saxifrage	Under the Conservation of Habitats and Species (Amendment) Regulations 2012, it is illegal to deliberately pick, collect, uproot or destroy any plants belonging to these species.
Bats, Dormice, Otter, Wild Cat, Great Crested Newts, Natterjack Toad, Sand Lizard, Smooth Snake, Large Blue Butterfly	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; Deliberately disturb[10] such an animal; Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licenses can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: The development is for reasons of overriding public interest; There is no satisfactory alternative; and The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This

[10] Under the Conservation Regulations, disturbance of protected animals includes in particular any disturbance which is likely to: (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young or to hibernate or migrate; (ii) significantly affect the local distribution or abundance of the species in question.

Species	Legal Status
	means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
Nationally Protected	
Bats, Dormice, Great Crested Newts, Heath Fritillary, High Brown Fritillary, Large Blue, Marsh Fritillary, Natterjack Toad, Pine Martin, Otter, Red Squirrel, Sand Lizard, Smooth Snake, Swallowtail, Water Vole, Wildcat	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: Intentionally kill, injure or take any such animal; Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Adder, Common Lizard, Grass Snake, Slow Worm, White-clawed Crayfish	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: Intentionally kill, injure or take any wild bird; Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Barn Owl etc.	Special penalties relate to offences concerning birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.
Badgers	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also makes it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive.
Wild Mammals	The Wild Mammals (Protection) Act 1996 makes it illegal to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Invasive Species	
Giant Hogweed, Japanese	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species

Species	Legal Status
Knotweed etc.	which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act.

Relevant Policy

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including Local and Regional Planning Authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England. This is known as the England Biodiversity List, of which there are 56 habitats and 941 species, all of which make up the UK BAP Priority Habitats and Species (2007). This list is used by Regional Planning Bodies and Local Planning Authorities to identify the species and habitats that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF).

The NPPF sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined.

The NPPF states that:

> *'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*
>
> - *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
> - *proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;*
> - *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
> - *opportunities to incorporate biodiversity in and around developments should be encouraged;*
> - *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged*

or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and

- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'*

Under the NPPF the Planning Authority has a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan[11].

Also under the NPPF the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

[11] Habitat types and species originally identified in Section 74 of the Countryside and Rights of Way Act 2000 as being of principal importance for the conservation of biodiversity. This has since been updated by the England Biodiversity List, which comprises the UK BAP Priority Habitats and Species.

Appendix 2

Desk Study Search Criteria

Record Type	Search Radius[12] (km)	Source(s)
Sites and Habitats		
Statutory sites designated for bats or birds	10	Locations: Joint Nature Conservation Committee UK-wide Digital GIS Datasets for Internationally Designated Sites: www.jncc.gov.uk/ProtectedSites/SACselection/gis_data/terms_conditions.asp Natural England GIS Digital Boundary Database: www.gis.naturalengland.org.uk/pubs/gis/tech_ds.htm Citations: Joint Nature Conservation Committee Special Areas of Conservation (SAC): www.jncc.gov.uk/page-23 Natural England Sites of Special Scientific Interest (SSSI): www.naturalengland.org.uk/ourwork/conservation/designatedareas/sssi/default.aspx
Statutory sites designated for Great Crested Newts	0.5	Natural England GIS Digital Boundary Database: www.gis.naturalengland.org.uk/pubs/gis/tech_ds.htm
Other statutory sites	On site	Natural England GIS Digital Boundary Database: www.gis.naturalengland.org.uk/pubs/gis/tech_ds.htm
Non-statutory sites (ecological and geological)	On site	Local biological records centre
Ancient woodland	On site	Natural England GIS Digital Boundary Database[13]: www.gis.naturalengland.org.uk/pubs/gis/tech_ds.htm
Waterbodies	0.5	Ordnance Survey map data and Google Maps
Species		
Noctule, Leisler's and Nathusius' Pipistrelle	10	Local biological records centre

[12] In each case the search included the site and the specified area beyond the site boundary.

[13] Only ancient woodland sites that were over 2 ha on the 1920's base maps are included on the Inventory.

Record Type	Search Radius[12] (km)	Source(s)
Other bat species	5	Local biological records centre
Birds (only Annex I, Schedule 1, BAP and Red List species)	5	Local biological records centre
Other protected species	0.5	Local biological records centre
UK and local BAP species	0.5	Local biological records centre

Appendix 3

Nature Conservation Value Assessment Criteria for Birds[14]

Nature Conservation Value/Sensitivity	Selected Examples
Very High (International)	Internationally significant and viable populations of birds listed on Annex 1 of the EC Birds Directive. Regularly occurring globally threatened species. Any regularly occurring populations of internationally important species that are rare or threatened in the UK or of uncertain conservation status. A regularly occurring significant population/number of any internationally important species.
High (National)	A regularly occurring significant population/number of any nationally important species i.e. listed on Schedule 1 of the 1981 Wildlife and Countryside Act (as amended). Any regularly occurring population of a nationally important species that is threatened or rare in the county or region.
Medium (Regional/ County)	Any regularly occurring significant population of a species listed as being nationally scarce, or in the local BAP or relevant Natural Area Profile on account of its regional rarity or localisation. Significant populations of a species important at regional or county level. A viable significant population of a UK Biodiversity Action Plan (BAP) priority species.
Low (Local/District))	Species that are scarce within the locality or which appreciably enrich the local area's habitat resource. Any regularly occurring significant population of a species that is listed in a Local RDB or BAP on account of its rarity or localisation. Any other species of conservation importance e.g. species listed in Birds of Conservation Concern (BoCC) i.e. Red List Species (Eaton, M.A et al. 2009).
Negligible (Parish)	Species populations considered to enrich the habitat resource appreciably within the context of the Parish or Neighbourhood

[14] Adapted from Percival, S. M (2007) *Predicting the Effects of Wind Farms on Birds in the UK: The Development of an Objective Assessment Method.* Quercus.

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