



Oakland International Ltd

On behalf of Wind Direct Ltd.

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Extended Phase I Habitat Survey

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1 Summary

This report presents the results of an ecological appraisal of the site of a proposed double 2MW wind turbine development, at Oakland International Ltd near Redditch, West Midlands.

The appraisal comprised of an Extended Phase I habitat survey and a desk study. The field survey was conducted on 18th March 2008.

An Extended Phase 1 habitat survey is an initial walk-over that determines the baseline habitat of the study area, outlining the potential ecological value and significance of habitats for protected and notable flora and fauna.

The desk-based study summarises information received from consultees and on-line searches, also detailing nearby sites designated for nature conservation. An overview of the relevant legislative framework is also presented.

The site comprises farmland under intensive pastoral management and industrial hard standing areas, and therefore contains no habitats that are considered of conservation significance. Overall, the proposed development site is of limited ecological value, although there is some potential habitat for a range of protected or notable species; it is possible that the woodland to the south east of the site, and the hedgerow trees may provide roosting and foraging habitat for bat species. It is unlikely that these sites will be directly impacted on by the scheme, but a series of activity surveys would indicate whether the proposed turbines may affect bat behaviour across the site. It is considered unlikely that any other protected species would be adversely affected by the proposed turbines, and that no offences under relevant legislation are likely to be committed. Breeding bird species are likely to be typical of the available habitat and unlikely to include any species generally considered to be vulnerable to the potential negative effects of wind turbine developments.

It is also considered highly unlikely that any statutory designated sites would be adversely affected by the proposed scheme.

2 Introduction

Wind Direct Ltd proposes to submit a planning application for two 1.5MW wind turbines with a hub height of 61.5m and a blade tip height of 100m. The location of the proposed turbines is on land at Oakland International Ltd., near Redditch West Midlands at grid references 408538,271135 and 408638,270873. The original scheme was for three turbines, the first of which (turbine 1) was to be located in a separate area to the north of the surveyed site adjacent to Windmill Naps SSSI; this turbine was dropped following concerns expressed by Natural England (NE) about the proximity of the SSSI. The surveyed site is semi-industrial and farmland and comprises areas of improved grassland with species-poor hedgerows, interspersed with oak trees linking small deciduous copses typical of the surrounding area.

2.1 Objectives

The objectives of the study were to;

- To obtain baseline information on the current habitat and ecological features both on site and in the immediate surrounding area;
- To identify the presence or potential presence of any protected species or habitats;
- To identify the proximity of any sites designated for nature conservation interest and provide an appraisal of any potential effects the proposed scheme may have on these, and;
- To identify any requirements for further survey work.

2.2 Legislative Framework

Protected species are referred to in Planning Policy Statement 9 (PPS9), paragraphs 15 and 16, with a general reference to certain plants, animals and wild birds all being protected under the Wildlife and Countryside Act 1981 (as amended). This emphasises that, regardless of any planning policy or guidelines, certain species are legally protected and any type of development that would injure, kill, ill treat, intentionally damage or destroy any protected species or place of shelter would be a criminal act.

Councils also now have a statutory obligation under the Natural Environment and Rural Communities (NERC) Act 2006 to make material consideration to biodiversity conservation in the determination of all types of planning applications. Planners therefore require relevant information from wildlife surveys and details on proposed mitigation for priority species and habitats (as well as for legally protected species) in order to assess the effects on biodiversity of a proposed development.

In 2007, the UK list of priority species and habitats was fully revised taking into account emerging priorities, conservation successes, and information gathered in the past decade. This contains 1149 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UKBAP). The framework for conserving biodiversity is laid out in a 'Conserving Biodiversity - The UK Approach' (Defra 2007), which aims to halt the loss of biodiversity by 2010.

As part of the action plan process, Local Biodiversity Action Plans (LBAPs) were also produced for every county in the UK, although other public bodies may also produce them. These LBAPs highlight local biodiversity issues, with specific action plans being implemented for priority habitats and species where they occur. The relevant scheme for the proposed development is the Worcestershire LBAP.

Species of European importance receive additional protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (the 'Habitats Regulations') and others receive protection through specific legislation (e.g. the Protection of Badgers Act, 1992).

Any development which may have an impact upon the integrity of statutory designated sites is also subject to the terms of the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations, in particular Regulations 48 and 49 of the latter, where an Appropriate Assessment may be required in order for a competent Authority to determine this impact, both from the proposed scheme and in combination any other schemes.

With legal responsibilities and planning implications it is important that any ecological assessment of a proposed development site addresses the possibility of protected species being within the site, along with any potential impacts of the proposed scheme on statutory designated sites.

Without such an assessment, a developer is unable to demonstrate due diligence in its responsibilities, with reference to both the legal protection and the possible information required in support of the planning application. It would, however, be unreasonable for an ecological assessment to survey for every protected species. Any such assessment should therefore be based upon the results of a habitat survey and the associated possibility or likelihood of protected species being present.

This study therefore seeks to establish the potential for protected species on the site and makes recommendations for further surveys to establish the presence or likely absence of any protected species, or the potential effects of the proposed scheme on statutory sites designated for nature conservation purposes.

3 Methodology

3.1 Desk Study

Designated Sites

This report has been compiled by means of a desk-based study to include a review of readily available information obtained from the Government Multi-Agency Geographical Information System for the Countryside (MAGIC) on-line search facility.

Consultations

The following organizations were contacted:

- Natural England (NE).
- The Royal Society for the Protection of Birds (RSPB).
- Warwickshire Wildlife Trust.
- Worcestershire Wildlife Trust.

3.2 Field Survey

The technique used for the survey was based upon the methodology outlined in the publication 'Handbook for Phase 1 Habitat Survey' (JNCC, 1990) whereby all habitats within the study area are mapped and described using a series of 'target notes' to provide an overview of the site. The field survey was undertaken on 18th March 2008 by an experienced ecological surveyor.

The survey included an assessment of the likely presence or use of the site by species protected under UK and European legislation (as previously outlined).

Survey limitations

The survey is intended as a snapshot of the conditions on the site at the time; it is therefore likely that some species, particularly botanical and invertebrate species, were not present at the time of survey given the date (18th March), which is at the beginning of the survey season. The scrapyards area was not visited during the survey; however it is not considered that any protected species or key habitats would occur within this area. No other constraints were encountered.

4 Results

4.1 Desk Study

Designated Sites

A brief overview of statutory designated sites within the vicinity of the scheme is included as follows;

Windmill Naps Wood SSSI.

This 35.3 ha semi natural woodland area lies 1.4km to the northeast of the proposed development site at its nearest point. Qualifying interests are broadleaf woodland tree species and examples of rare coppicing woodland management.

River Blythe SSSI

A 39km stretch of the River Blythe, from the point at which the Spring Brook exits from under the Stratford-upon-Avon to Birmingham railway line, to its confluence with the River Tame; the Blythe is an example of a lowland river on clay.

Branson's Cross Wood Special Wildlife Site

This site is located 500m south west of the proposed site. It has no statutory designations, or listings as a local nature reserve on the Worcestershire County Council website or the Worcestershire Wildlife Trust website, therefore no specific information regarding ecological interest of the site has been obtained. In the context of the scheme, however, the presence of any bat species is likely to represent the most relevant interest.

Consultations

In a letter dated 24th September 2007, Natural England made mainly commented on the close proximity of Turbine 1 (now dropped) to Windmill Naps SSSI. Natural England registered its intention to object to the turbine 1 development. Specific comments regarding the site for turbines 2 and 3, detailed the statutory designated sites in the area specifically Spring Brook which is a tributary of the River Blythe SSSI. (see above) They also stated that they would expect the appropriate surveys for protected species to be undertaken as required.

In an email dated 18th September 2007, the RSPB stated that '*turbine location T1 lies very close to the edge of Windmill Naps Wood SSSI. You should confirm this with Natural England. However, birds are not significant features of interest of this site. We do not hold records of non-statutory sites and we advise you to contact the local planning authority and the Wildlife Trust on this point.*

'We have no specific species or habitat records relating to this site. As you will know, all birds, their eggs, nests and young are protected by law,

barring some exceptions under the general licence. Based on the location and character of the area, in our opinion it is possible that some Schedule 1 species (specially protected at all times under the Wildlife and Countryside Act 1981) occur in the area, potentially including barn owl, kingfisher, hobby, and red kite'.

'It is likely that many Red-listed species of high conservation concern breed in the area, possibly including grey partridge, skylark, song thrush, marsh tit, willow tit, spotted flycatcher, starling, house sparrow, tree sparrow, linnet, bullfinch, reed bunting, corn bunting and yellowhammer. Other species of high or moderate (Amber listed) conservation concern may also occur. However, at this time we identify no significant ornithological interest at this site, of greater than local importance.'

In a letter dated 9th October 2007 Warwickshire Wildlife Trust raised concerns regarding the close proximity of turbine 1 to Windmill Naps Wood SSSI, which has since been dropped. Turbines 2 and 3 are in Worcestershire, and therefore outside their area.

In a letter dated 3rd October 2007 Worcestershire Wildlife Trust also noted the proximity to Windmill Naps SSSI and the Branson's Cross Special Wildlife Site, and suggests the southern turbine may sit within interesting habitat. They recommend a full ecological survey covering BAP species and Section 74 habitats (under the CROW Act, 2000) and protected species.

4.2 Field Survey

An Extended Phase I habitat map and list of target notes (TN's) is included in Appendix 1. A summary of habitats and pertinent species or species groups is outlined below.

4.2.1 Habitats

The site is generally under intensive pastoral management and therefore contains no habitats that are of conservation significance.

The site comprises lowland improved grassland with a single pocket of semi-natural deciduous woodland (TN2) containing a flood pond, this pond seems to be of low value to amphibians as it holds no aquatic or bank vegetation. It is indicative of a woodland pond with low oxygen levels due to the high level of leaf litter and lack of sunlight. Field boundaries are primarily managed, species-poor hedgerows and fences, the field boundaries have trees spaced along them (mainly oak) A narrow stream follows the eastern boundary of the site, the stream has steep culverted banks with little bank vegetation, the water flow is rapid, with no aquatic vegetation (TN5). Some fresh spoil has been shaped to form a bund area on the eastern side of the factory (TN4).

The site also contains the Oakland International Ltd factory, which comprises of a series of modern brick and prefabricated buildings and associated infrastructure.

4.2.2 Protected Species

Vascular Plants and Fungi, lichens & bryophytes

The site has limited botanical interest, being predominantly improved grassland, and is considered highly unlikely to support any protected or notable species.

Amphibians

All six native amphibian species receive some degree of protection under Wildlife and Countryside Act 1981 (as amended), four are listed on the revised UKBAP list and two are on the Worcestershire LBAP. The most relevant species in the context of this scheme is great crested newt.

The species is rare in a European context and receives additional protection under the Conservation (Natural Habitats, &c.) Regulations 1994. If great crested newts are present on a development site, the development may require a European Protected Species (EPS) license issued by Natural England in order to proceed.

The great crested newt has a specialised habitat preference and its presence is influenced by the existence of particular features and/or the absence of others. They require both aquatic and terrestrial habitat, generally favouring ponds which have good marginal and emergent vegetative structure with areas of open water; typical pond size varies between 50-250m². Suitable ponds need to have good invertebrate community density and diversity to provide food for developing efts (recently hatched newts). Fish predation on larvae is a major limiting factor and so ponds without fish populations are favoured. Great crested newts also require a surrounding habitat that has good terrestrial cover e.g. scrub, grassland and wooded areas with permanent refuges to provide shelter in all weather conditions and cover from predation. They often exist in metapopulations i.e. a group of associated populations. These metapopulations will breed and live within the range of a cluster of ponds, moving from pond to pond at different times to suit different needs.

Four ponds are present on site. The first pond adjacent to the scrap yard (TN1) has been filled in with rubbish. A second pond (TN2) is located in a wooded area (TN3) adjacent to the poultry houses, and appeared to have more of flooded woodland conditions than an established pond, as no aquatic vegetation occurred within the water or on the banks. Two other ponds fall within the 500m of the proposed site mapped on the appended map as TN6 and TN7 both of which are located in residential gardens and contain permanent water. These could provide potential breeding habitat for amphibian species, including great crested newt.

The terrestrial habitat on the scheme site probably represents limited suitable great crested newt habitat, although this is likely to be restricted to the hedgerows. The grassland where the proposed turbines are offer very limited terrestrial habitat. The wider area provides largely similar conditions to the proposal site.

Birds

All wild birds, their nests and eggs are, with few exceptions, protected under the Wildlife and Countryside Act 1981 (as amended). Over eighty species or groups of species are listed under Schedule 1 of the Act, which confers special protection with increased penalties for offences committed. Additional protection is provided to species listed under Annex I of the Birds Directive. Fifty-nine species are listed in UKBAP, with two species listed on the Worcestershire LBAP.

The status of all British birds has been analysed by conservation agencies including the RSPB. On the basis of ongoing population trends, species are assigned to one of three lists of Conservation Concern. These are the red list, amber list and green list. Although the lists confer no legal status in themselves, they are useful in assessing the significance of impacts and appropriate levels of mitigation that may be required when birds are affected by development or other activity.

The site is likely to contain a suite of breeding birds typical of lowland pastoral farmland, as is demonstrated by the list of species recorded during the survey;

The following species were noted during the survey; black-headed gull *Larus ridibundus*, woodpigeon *Columba palumbus*, green woodpecker *Picus viridis*, wren *Troglodytes troglodytes*, dunnoek *Prunella modularis*, robin *Erithacus rubecula*, blackbird *Turdus merula*, blue tit *Cyanistes caeruleus*, great tit *Parus major*, rook *Corvus frugilegus*, magpie *Pica pica*, carrion crow *Corvus corone*, house sparrow *Passer domesticus*, chaffinch *Fringilla coelebs*.

It is acknowledged that this is not a formal bird survey, so it is likely that other species which utilise the area were not detected or not present at the time of survey. However, given the available habitat, it is considered likely that a typical suite of breeding and wintering lowland farmland bird species are present on and around the site.

The potential impacts of the scheme on statutory designated sites for birds are discussed in the conclusions section of this report.

Bats

All 16 species of British bat are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), and are therefore afforded special protection. It is an offence to:

- Intentionally kill, injure or take any wild bat;
- Intentionally damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection;
- Intentionally or recklessly disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection.

Bats are further protected under the Conservation (Natural Habitats &c.) Regulations 1994 (the 'Habitat Regulations'), which make it an offence to:

- Capture or kill a bat;
- Significantly disturb a bat (in any location); and
- Damage or destroy a breeding site or resting place of any bat.

If bats are present on a development site and, as a result of the development there is a likelihood that a roost may be damaged or destroyed, or where there is considered to be a reasonable possibility that bats occupying a roost may be significantly disturbed, or where there would be a requirement to significantly disturb a bat irrespective of its location, the development can only proceed if an EPS license is issued by Natural England.

The revised UK BAP lists seven bat species and the Worcestershire LBAP contains an action plans for the fourteen species of bat recorded within the county.

It is possible that some bat species, most likely common pipistrelle and brown long-eared bats, are present around the development area, but the improved grassland around the turbine location area is unlikely to offer much foraging potential for bats. However, some of the trees occurring in the hedgerows and woodland edge are approximately 30m from one of the turbine locations do have bat roost potential, as do several other trees on-site (all TN8). The modern, pre-fabricated design of the processing plant is unlikely to contain conditions suitable for a bat roost.

Brown Hare

The species receives limited legal protection through the Ground Game Act (1880) and the Hare Protection Act (1911). Brown hares are not protected under the Wildlife and Countryside Act, but protection from cruelty is afforded under the Wild Mammals (Protection) Act 1996. The Hunting Act (2004) affords additional legislative protection, whereby it is illegal to hunt any mammal with a dog.

Although legal protection for brown hare is limited, concern over the status of the species led to its inclusion in the UK BAP.

Hares *Lepus europaeus* favour open areas of pasture and arable land with patchy cover. The habitats surveyed within the scheme area therefore display potential as suitable habitats for the species, although no evidence of presence was noted during the survey.

Water Vole

Water voles are currently included in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), in respect of Section 9(4) only. This limited legal protection does not protect the animals themselves, but makes it an offence to damage, destroy or obstruct access to any place that water voles use for shelter or protection, and to disturb them while they are using such places. From April 6th 2008, however, the species will be afforded full legal protection. The species is listed on UKBAP and the Worcestershire LBAP.

Water voles preferred habitats are along densely vegetated banks of slow flowing rivers, they can also be found in ditches, lakes and marshes where water is present throughout the year.

The stream located in the east of the site (TN5) is considered to be sub-optimal for water voles due to the streams topography lack of bank vegetation and fast flowing water. The stream lies approximately 25m from the proposed turbine locations.

Badger

Badgers are known to inhabit a wide range of habitats throughout the UK. However it is generally accepted that certain characteristics are preferred e.g. underlying geology, slope, vegetation cover and food supply.

The area around the proposed turbines (up to approximately 150m radius of each) was checked and does not contain any badger setts or evidence of badger activity, nor was any evidence of presence located elsewhere on the site.

A large mammal run was found during the survey (TN11), but this could not be identified to species.

4.2.3 Other Species

No other noteworthy observations were made, therefore no other species are considered.

5 Conclusions and Recommendations

The ecological value of the site is limited as it comprises intensively managed lowland pastoral farmland.

A number of protected and notable species may be present in the area, however, and these include great crested newt and bats. Breeding bird species are also likely to be present. Each of these are discussed below, as are the potential impacts of the scheme on designated sites.

Designated Sites

The statutory designated sites located close to the proposed scheme will be largely unaffected by the proposed scheme.

The initial scheme included a turbine (turbine 1) located close to Windmill Naps SSSI, after consultation the scheme was modified by dropping this particular turbine location.

The scheme will now comprise of turbines two and three, which are located within the grounds on Oakland International Ltd. This will ensure that the scheme will not impact on Windmill Naps SSSI. However it is close to Spring Brook, which is a tributary of the River Blythe which is designated as a SSSI. An environmental risk assessment and subsequent safeguards should be initiated to ensure that the water quality of Spring Brook is not affected by the proposed development, so as not to impact upon the River Blythe SSSI.

It is therefore considered that the proposed scheme would have no impact on the integrity of any of designated sites outlined in 4.1.

Birds

The site is a typical lowland pastoral farm, with associated species-poor hedgerows and woodland patches along with recently planted areas. Whilst some of species likely to be present may be of local conservation interest (for example song thrush *Turdus philomelos*), such species are not generally considered vulnerable to any potential negative effects from wind turbine developments according to SNH guidance (2005); potentially at-risk species are typically larger birds such as raptors or wildfowl, or concentrations of estuarine waterfowl.

Given the limited value of the habitat on the site and the low likelihood of the occurrence of any species which are typically considered potentially vulnerable to the potential effects of wind turbine developments, no specific bird surveys are considered necessary.

Areas of woodland and hedgerows around the site do provide suitable habitat for nesting birds. As all birds nests and eggs are protected under the Wildlife and Countryside Act (1981) as amended, it is recommended

that any removal of nesting habitat should take place outside of the bird breeding season (March-August inclusive). If this is not possible, areas of suitable nesting habitat should be hand searched by a suitably experienced ecologist prior to removal.

Great crested Newts

The site offers some suitable habitat for amphibians, most notably great-crested newts.

In January 2008, NE revised their European Protected Species (EPS) licensing procedure for great crested newts. The accompanying instruction notes state that NE wish to see a move-away from 'risk-averse mitigation strategies', whereby a license application is made so there is no perceived risk of an offence being committed, primarily as there is no legal requirement and little benefit to newt conservation, and goes on to state that, *'even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, or even killing low numbers of newts, it is arguable that impacts beyond the core area often have little or no tangible effect on the viability of populations'*.

Given that the location of the proposed turbine is in sub-optimal terrestrial habitat and is located over 250m across from any ponds with favourable habitat, even if a population were present it is considered highly unlikely that the scheme would have any impact upon it or cause any offence to be committed. As such, it is considered that specific surveys for great crested newts are unnecessary for this proposal.

Bats

Specific guidance on the effects of wind turbine developments on bats, EUROBATS, was published in 2006, following an increase in information on the negative impacts of some wind turbine developments on bat populations in the USA and on Continental Europe. In general, the guidance recommends that developers should consider locating wind turbines away from bat migration routes and concentrated feeding, breeding and roosting areas, and that buffer zones should be created around nationally and regionally important roosts.

Given that the proposal site and surrounding area holds some potential roost sites and foraging habitat it is recommended that specific bat activity surveys are undertaken to assess the level of bat activity around the turbine locations in order to determine any potential effects of the scheme on bats.

Any activities that require the destruction of, or disturbance to, a bat roost would require an EPS license from Natural England. If any such activities (e.g. the removal of mature trees or farm buildings) are likely to occur during the construction of the scheme, then additional bat roost surveys are recommended to determine the location of any such roosts.

6 References

Defra (2007). *Conserving Biodiversity – The UK Approach*. HMSO.

English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

EUROBATS (2006) *Wind Turbines and Bats: guidelines for the planning process and impact assessments*. Available online at:
http://www.bats.org.uk/news_events/documents/EUROBATSWindTurbinesResolutionAnnex.pdf.

JNCC (1990). *Handbook for Phase I Habitat Survey – a Technique for Environmental Audit*. JNCC, Peterborough.

SNH (2005). *Survey methods to assess the impacts of proposed onshore wind farms on bird communities*. SNH Guidance Note, SNH, Edinburgh, UK.

Appendix 1

Target Note (TN) Number	Details
1	Pond in-filled with rubbish, rendering the habitat as unsuitable for Great Crested Newts due to the lack of any open water surface.
2	Flood water within woodland, poor quality water, with no bank or aquatic vegetation.
3	Semi Natural Broadleaf woodland mixed Oak <i>Quercus spp</i> with some understory mainly Holly <i>Ilex aquifolium</i> .
4	Bund of spoil at rear of factory, poor ground flora, and bare ground.
5	Stream with culverted steep banks, holding poor vegetation, fast flowing water approximately 12 inches deep.
6	Pond in garden located opposite side of Seafield Lane from the scheme.
7	Pond in garden providing good terrestrial and aquatic amphibian habitat
8	Oak and Ash <i>Fraxinus excelsior</i> on field/woodland edge trees with bat roost potential.
9	Brockhill Wood – Managed Oak/Ash mixed woodland, with some limited ground flora.
10	Semi improved rough tussocky grassland.
11	Large mammal run – species unknown.

Table 1. Target notes as detailed in Figure 1.