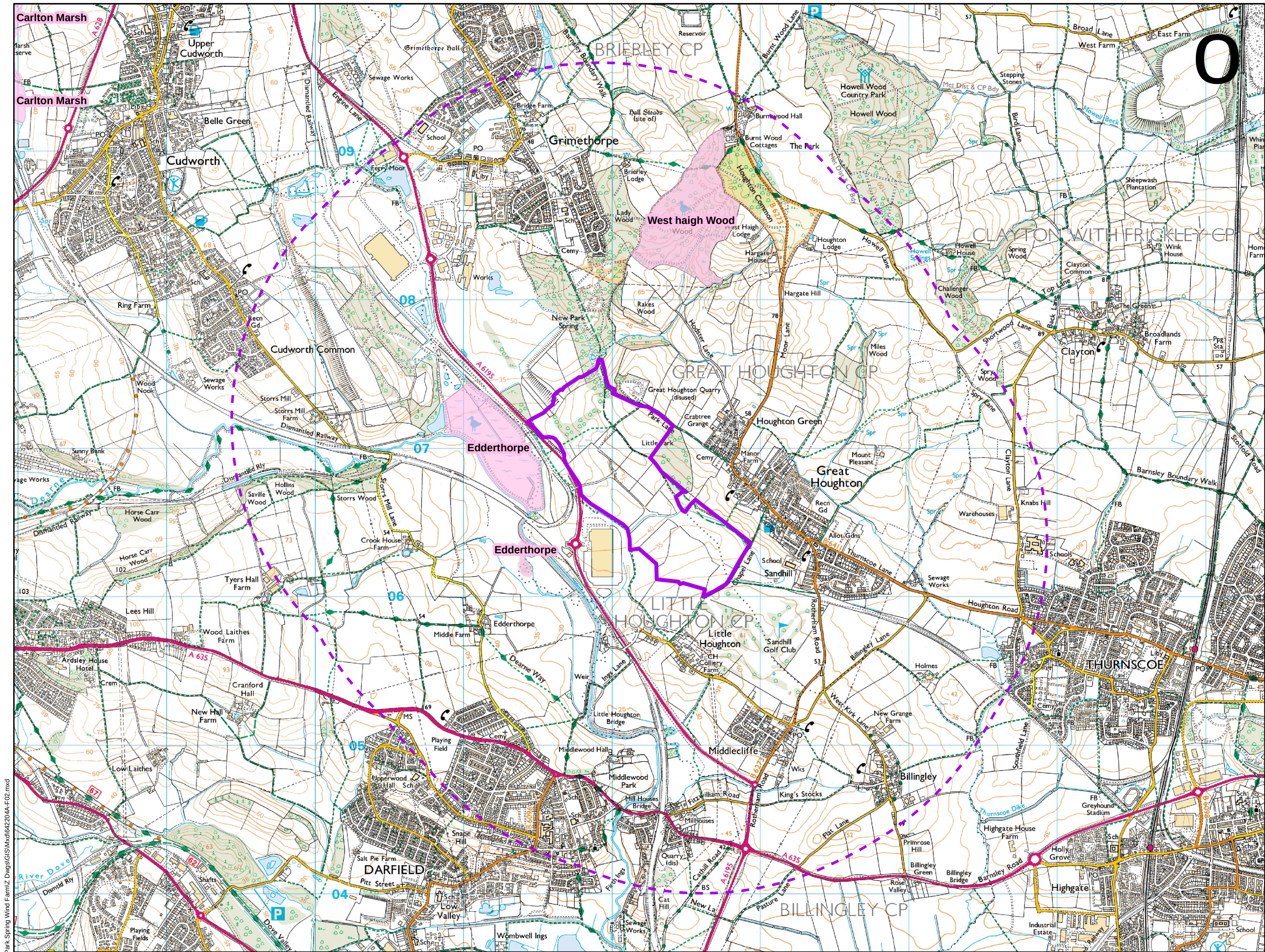




- Key
- Site Boundary
  - 2km Study Area
  - Local Nature Reserve

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Rev Date Description By Chk App Notes:



Queen Victoria House  
Redland Hill, Redland  
Bristol BS6 6US

Tel: 44-(0)117-933-9300  
Fax: 44-(0)117-933-9253

Client:

EDF ENERGY  
RENEWABLES

Project:

PARK SPRING ROAD  
WIND FARM

Title:

NON-STATUTORY  
DESIGNATED SITE

|                  |                 |
|------------------|-----------------|
| Drawn: JSdS      | Checked: LM     |
| Designed: LM     | Approved: UD    |
| Date: 02/06/2011 | Scale: 1:25,000 |
| Project Number:  | Drawing Number: |

64220A

FIGURE 2

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## A Woodland & Scrub

- 1. Woodland
  - 1. Broad-Leaved
    - 1. Semi-natural
    - 2. Plantation
- 3. Parkland/scattered trees
  - 1. Broad-leaved

## B Grassland and marsh

- 4. Improved grassland
- 6. Poor semi-improved grassland

## G Open Water

- 1. Standing water
- 2. Running water

## J Miscellaneous

- 1. Cultivated/disturbed land
  - 1. Arable

## 2. Boundaries

- 1. Intact hedge
  - 1. Native species-rich
  - 2. Species-poor
- 2. Defunct hedge
  - 2. Species-poor
- 3. Hedge and trees
  - 1. Native species-rich
  - 2. Species-poor
- 4. Fence
- 6. Dry-ditch

## 4. Bare ground

## Target Note

## Site Boundary

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| Rev | Date | Description | By | Chk | App |
|-----|------|-------------|----|-----|-----|
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Queen Victoria House  
Redland Hill, Redland  
Bristol BS6 6US

Tel: 44-(0)117-933-9300  
Fax: 44-(0)117-933-9253

## Client:

EDF ENERGY  
RENEWABLES

## Site/Project:

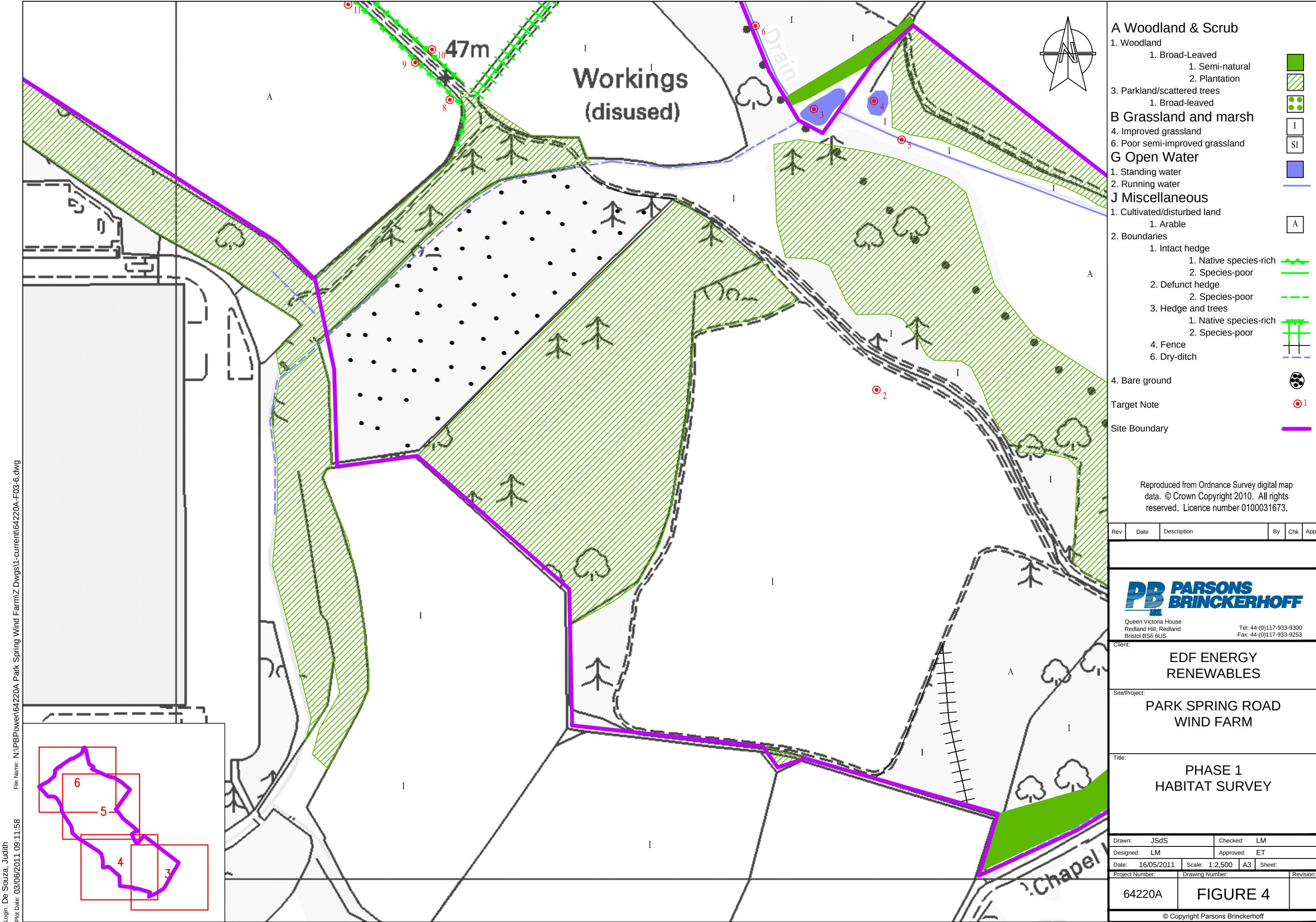
PARK SPRING ROAD  
WIND FARM

## Title:

PHASE 1  
HABITAT SURVEY

|                  |                 |              |        |
|------------------|-----------------|--------------|--------|
| Drawn: JSdS      |                 | Checked: LM  |        |
| Designed: LM     |                 | Approved: ET |        |
| Date: 16/05/2011 | Scale: 1:2,500  | A3           | Sheet: |
| Project Number:  | Drawing Number: | Revision:    |        |
| 64220A           | FIGURE 3        |              |        |

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### A Woodland & Scrub

- 1. Woodland
  - 1. Broad-Leaved
    - 1. Semi-natural
    - 2. Plantation
- 3. Parkland/scattered trees
  - 1. Broad-leaved

### B Grassland and marsh

- 4. Improved grassland
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- 3. Hedge and trees
  - 1. Native species-rich
  - 2. Species-poor
- 4. Fence
- 6. Dry-ditch

### 4. Bare ground

### Target Note

### Site Boundary

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| Rev | Date | Description | By | Chk | App |
|-----|------|-------------|----|-----|-----|
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Queen Victoria House  
Redland Hill, Redland  
Bristol BS6 6US

Tel: 44-(0)117-933-9300  
Fax: 44-(0)117-933-9253

Client:  
**EDF ENERGY  
RENEWABLES**

Site/Project:  
**PARK SPRING ROAD  
WIND FARM**

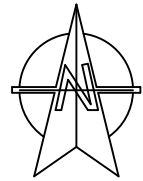
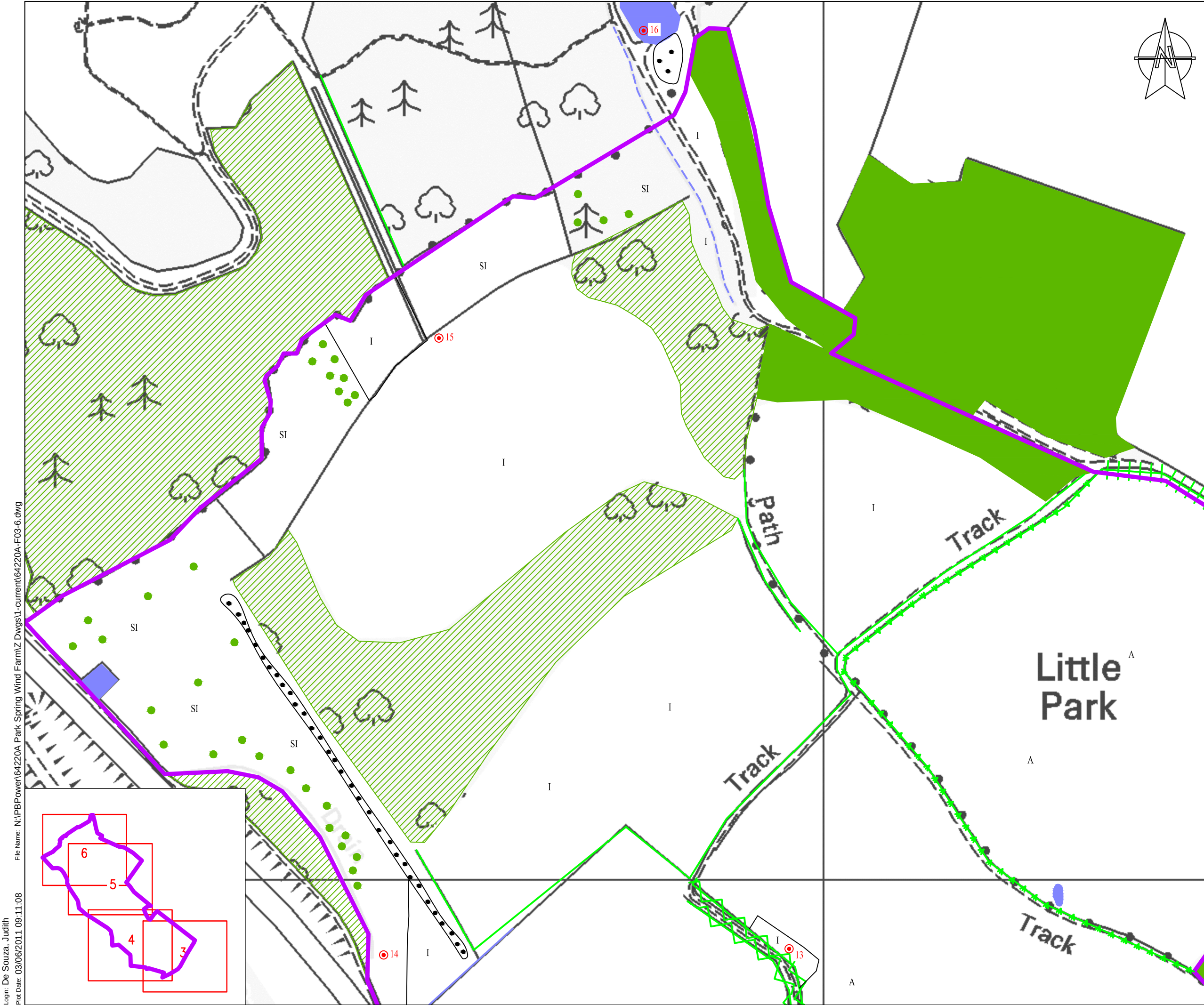
Title:  
**PHASE 1  
HABITAT SURVEY**

|                  |                          |
|------------------|--------------------------|
| Drawn: JSdS      | Checked: LM              |
| Designed: LM     | Approved: ET             |
| Date: 16/05/2011 | Scale: 1:2,500 A3 Sheet: |
| Project Number:  | Drawing Number:          |

64220A **FIGURE 4**

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- A Woodland & Scrub**
- 1. Woodland
    - 1. Broad-Leaved
      - 1. Semi-natural
      - 2. Plantation
  - 3. Parkland/scattered trees
    - 1. Broad-leaved
- B Grassland and marsh**
- 4. Improved grassland
  - 6. Poor semi-improved grassland
- G Open Water**
- 1. Standing water
  - 2. Running water
- J Miscellaneous**
- 1. Cultivated/disturbed land
    - 1. Arable
  - 2. Boundaries
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      - 1. Native species-rich
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    - 2. Defunct hedge
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    - 3. Hedge and trees
      - 1. Native species-rich
      - 2. Species-poor
    - 4. Fence
    - 6. Dry-ditch
  - 4. Bare ground
- Target Note
- Site Boundary

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| Rev | Date | Description | By | Chk | App |
|-----|------|-------------|----|-----|-----|
|-----|------|-------------|----|-----|-----|



Queen Victoria House  
Redland Hill, Redland  
Bristol BS6 6US

Tel: 44-(0)117-933-9300  
Fax: 44-(0)117-933-9253

Client:

EDF ENERGY  
RENEWABLES

Site/Project:

PARK SPRING ROAD  
WIND FARM

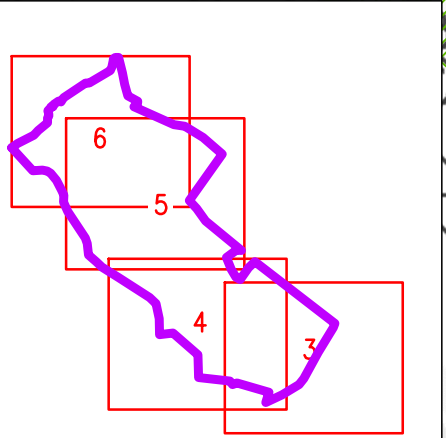
Title:

PHASE 1  
HABITAT SURVEY

|                 |            |                 |                   |
|-----------------|------------|-----------------|-------------------|
| Drawn:          | JSdS       | Checked:        | LM                |
| Designed:       | LM         | Approved:       | ET                |
| Date:           | 16/05/2011 | Scale:          | 1:2,500 A3 Sheet: |
| Project Number: | 64220A     | Drawing Number: | FIGURE 6          |
| Revision:       |            |                 |                   |

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Login: De Souza, Judith  
Plot Date: 03/06/2011 09:11:08  
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## **9.2 ECOLOGY – BADGER SURVEY**

# PARK SPRING WIND FARM BADGER REPORT

*EDF Energy Renewables*

*Final*

# **Park Spring Wind Farm Badger Survey Report**

**Prepared for**

EDF Energy Renewables  
Endeavour House  
Victory Way  
Doxford Business Park  
Sunderland  
SR3 3XL

**Prepared by**

Parsons Brinckerhoff  
The Forum  
Barnfield Road  
Exeter  
EX1 1QR  
01392 229700  
[www.pbworld.com](http://www.pbworld.com)

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**EXECUTIVE SUMMARY**

Parsons Brinckerhoff was commissioned by EDF Energy Renewables (EDF ER) to undertake badger (*Meles meles*) surveys of a 90.4 Ha site adjacent to Park Spring Road, near Great Houghton in Barnsley (SE422066). The surveys were required to accompany and inform the planning application for a proposed wind farm comprising three turbines and associated infrastructure (e.g. access tracks).

A desk study and field survey were carried out in August 2011.

The survey area contained no active badger setts, although evidence of the use of the site by badgers was evident. The desk study revealed an active sett to the north of the site boundary, and it was considered that the badger clan were using the site as part of their territory.

The currently proposed turbine locations and access tracks do not impact any badger setts and therefore would not contravene current legislation.

It is recommended that measures are taken to ensure that badgers aren't trapped by open excavations. In addition immediately prior to construction a final check within 30 m of proposed groundwork is recommended, if no setts were present no further survey or mitigation is required for badgers.

SECTION 1

**INTRODUCTION**

## **1 INTRODUCTION**

### **1.1 Overview**

- 1.1.1 Parsons Brinckerhoff was commissioned by EDF Energy Renewables (EDF ER) to undertake badger (*Meles meles*) surveys of a 90.4 ha site adjacent to Park Spring Road near Great Houghton, Barnsley (approximate central OS grid reference SE422066). The surveys were required to accompany and inform the planning application for a proposed wind farm comprising three turbines and associated infrastructure (e.g. access tracks). The location of the proposed turbines is shown in Figure 1.

### **1.2 Site Context**

- 1.2.1 The site was bordered to the north by woods and arable land; further north, an industrial area was present. To the east of the site habitats included woodland belts and arable land. Disused Great Houghton Quarry, which is surrounded by woodland, is situated to the east. To the south of the site a golf course and additional arable land was present with the village of Little Houghton beyond. Park Spring Road a warehouse and associated hardstanding bordered part of the western site boundary. The River Dearne, a large pond and associated wetland habitats were present beyond the western site boundary. A full description of the habitats present within and adjacent to the survey area is included in the Extended Phase 1 survey report<sup>1</sup>.

### **1.3 Objectives**

- 1.3.1 The ecological study was undertaken to achieve the following objectives:
- To gather existing information on records of badgers and habitats of value to badgers within 5 km of the survey area;
  - To identify the use of the site by badgers in the form of setts or tracks and signs;
  - To make recommendations for appropriate mitigation measures where necessary; and
  - To provide adequate ecological baseline information to support an Environmental Impact Assessment.

### **1.4 Badger Ecology**

- 1.4.1 Badgers are generally nocturnal mammals that live in large family groups within a series of tunnels and chambers that make up a sett. They are found in a wide variety of habitats from woodlands to farmland and rural areas.
- 1.4.2 A badger clan will have a number of setts that are used at different times of the year and for different purposes. Setts are often located where scrub and vegetation can offer shelter at the entrance. The majority of these are linked by well used routes within their territory where boundaries are marked by latrines.
- 1.4.3 They feed on invertebrates such as worms and beetles found within a variety of habitats but prefer grazed pastures for foraging. Activity levels vary throughout the year, with high levels of activity during the summer and lower levels during the winter. Badgers do not hibernate but cubs are born during the winter months, usually in

---

<sup>1</sup> Parsons Brinckerhoff, 2011. Extended Phase 1 Habitat Survey; Park Spring Wind Farm, Barnsley

December or January and will not leave the sett until the spring, as a result adult badgers are also less active at this time.

## **1.5 Legislation and Planning Context**

1.5.1 Articles of wildlife and countryside legislation, planning policy guidance and references to both local and national biodiversity action plans and regional/local strategies and plans are referred to in this report.

1.5.2 The key legislation, planning policies and plans of relevance are:

- The Protection of Badgers Act (1992);
- Schedule six of the Wildlife and Countryside Act 1981(as amended) (WCA); and
- National Planning Policy Framework 2012 (NPPF).

1.5.3 Badgers are protected under the Protection of Badgers Act (1992) and the Wildlife and Countryside Act (1981, as amended). As such it is an offence to wilfully take, kill, injure or ill-treat a badger. Badger setts are also protected against obstruction, destruction or damage in any part.

1.5.4 The Protection of Badgers Act defines a badger sett as 'Any structure or place, which displays signs indicating the current use by a badger' and Natural England takes this definition to include seasonally used setts. The legislation does not directly protect badger habitat or foraging grounds.

1.1.1 Work that may disturb badgers in their setts is illegal without a Natural England development licence, in compliance with the 1992 Protection of Badgers Act. Licences cannot be issued retrospectively so an application should be made at least one month in advance of the proposed work. Work that disturbs badgers without a licence is illegal. Disturbance under licence can normally only be undertaken between July and November inclusive (outside of the breeding season).

1.1.2 As a precautionary principle, all ground works within 30 m of an active sett will likely require a development licence, but will depend on the type of activity and the distance of the activity from the known sett. The buffer distance between a badger sett and the works will be based upon guidance from an appropriately experienced ecologist. This buffer distance should be based upon the size and activity levels at the sett, the topography between the sett and the works and the nature of the works. Depending upon these variables the requirement for the buffer distance may be greater or less than 30 m. Where full details on the location and nature of the works is not yet known a 30 m buffer zone will be used as a precaution.

SECTION 2

**METHODOLOGY**

## **2 METHODOLOGY**

### **2.1 Desk Study**

2.1.1 As part of the Phase 1 Habitat Survey (2011)<sup>1</sup>, background information was collated for records of badgers within 5 km of the site. The following sources were consulted to obtain the data:

- Sheffield Biodiversity Records Centre (SBRC);
- Barnsley Council Biodiversity Officer;
- National Biodiversity Network (NBN) Gateway – accessed on 4<sup>th</sup> May 2011; and
- Barnsley Badger Group.

### **2.2 Field Survey**

2.2.1 The field survey was undertaken on the 22<sup>nd</sup> August 2011 by suitably experienced ecologists<sup>2</sup>. The methodology was based on the standard approach detailed in the Mammal Society publication 'Surveying Badgers'<sup>3</sup>. This involved locating badger setts and signs of territorial activity in the forms of:

- Latrines – badgers deposit faeces in characteristic excavated pits, usually concentrated at the boundaries of the territory;
- Setts – comprising either single isolated holes or a series of holes likely to be interconnected underground;
- Paths between setts or leading to foraging areas;
- Scratching posts at the base of tree trunks;
- Snuffle holes – small scrapes where badgers have searched for food;
- Day nests – bundles of vegetation where a badger may have slept above ground;
- Hair traces; and
- Paw prints

2.2.2 Where setts are present, the following information would be recorded:

- Number of well used holes (with one or more of the features – well worn entrance, freshly excavated soil, or bedding material);
- Number of partially used holes (leaves or twigs in the entrance and/or plants growing in the or around the entrances); and
- Number of disused holes (partially or completely blocked, with considerable amount of excavation required for reoccupation).

2.2.3 Where present setts would then be classified using the criteria defined by Harris et al (1989)<sup>3</sup>

- Main: several holes with large spoil heaps and obvious paths emanating from and between sett entrances;

<sup>2</sup> Further details can be provided if required

<sup>3</sup> Harris, S., Creswell, P., & Jefferies, D.J., 1989. Surveying badgers. Mammal Society, London

- Annexe: normally less than 150 m from the main sett, comprising several holes. May not be in use all of the time, even if the main sett is very active;
- Subsidiary: usually at least 50 m from the main sett with no obvious paths connecting to other setts. May only be used intermittently;
- Outlier: little spoil outside the hole. No obvious paths connecting to other setts and only used sporadically. May be used by rabbits or foxes.

## **2.3 Survey Limitations**

- 2.3.1 The field survey was carried out at a sub-optimal time; the optimal time is October to April when vegetation cover is reduced. However the ground vegetation within the woodland was sparse, fields consisted of arable crops which had recently been cut allowing a clear view of the ground and any subsequent latrines or paths leading into hedges or ditches.
- 2.3.2 The survey focused on the habitats present within the survey boundary only and concentrated on the northern area of the site (within approximately 400 m of proposed turbine locations). Figure 1 shows the extent of the badger survey. It is possible that the surrounding land may support badgers.
- 2.3.3 The above limitations are considered to be minor and are not sufficient to render the survey results invalid.

SECTION 3

**RESULTS**

---

**3 RESULTS****3.1 Desk Study**

3.1.1 Several records of badgers were returned from the Council Biodiversity Officer within the search area. However, none of these fell within the last ten years. No records for badgers were returned through the data search with SBRC.

3.1.2 The badger group monitor setts in the area and returned two records of setts within 3.5 km of the centre of the site. One of these was an active sett located to the north of the site boundary and the second was a disused sett in close proximity to the first.

**3.2 Field Survey**

3.2.1 No used setts were found within the survey area, however latrines, mammal tracks and one disused hole were found within the central region of the site boundary. These are shown in Figure 2.

3.2.2 The disused hole was located within the corner of a hedgerow and was considered to be big enough for a badger. The hole had been identified on previous ecological surveys and sticks had been placed in a cross over the entrance one week previous to the badger survey to check for any evidence of occupation. At the time of the survey, the sticks were not disturbed and remained in the same position suggesting the hole was not in current use. Numerous rabbit holes were identified within the hedgerows.

3.2.3 To the south east of the disused hole, five latrines were recorded within a crop field. Mammal tracks were also recorded in proximity to the latrines with a well used path leading into the wood area to the north of the field.

SECTION 4

**DISCUSSION AND RECOMMENDATIONS**

## **4 DISCUSSION AND RECOMMENDATIONS**

### **4.1 Discussion**

- 4.1.1 No active badger setts were recorded within the site boundary, however it was clear that badgers were using the site for foraging (likely to have been the badgers from the sett to the north).
- 4.1.2 The construction of the wind farm would not result in the significant loss of foraging habitat due to the small footprint of the turbines and the presence of many existing access tracks which can be used around the site. The overall land use would not be altered as a result of the construction of the wind farm.
- 4.1.3 The proposed turbine locations are located away from areas of badger activity.
- 4.1.4 Although no setts were recorded within the site there is a small chance that new setts could be excavated prior to the start of construction. The wind farm development construction period is relatively short and temporary in duration, approximately 6-9 months from start to finish, with groundwork expected to last no longer than 8 weeks. This groundwork phase is the period in which badgers and (in the unlikely event new setts are constructed within the site) badger setts are at risk. The operational phase of the wind farm will typically have minimal impacts to badgers and their ability to use the habitats in their territories.
- 4.1.5 The potential impacts during construction are linked to the groundworks required to construct access routes and turbine bases. Badgers could be at risk of falling into and becoming trapped in excavations, in addition if new setts were excavated within approximately 30 m these areas they could be damaged by the work.
- 4.1.6 The increased construction traffic present within the badger's territory may pose a risk of mortality to individual badgers. However the site speed limit will be 15 mph and most construction activity will be undertaken during the day when badgers are very unlikely to be above ground. Therefore the likely impact of increased traffic mortality is considered to be negligible and is therefore not considered further.

### **4.2 Recommendations**

- 4.2.1 If new setts are recorded within 30 m of the proposed access tracks, turbine locations or compounds further consideration will be required to ensure legal compliance is met.
- 4.2.2 Throughout construction a number of measures should be implemented to avoid potential injury or mortality to individual badgers, these measures would be detailed in a CEMP (Construction Environmental Management Plan) and include:
- a Fencing off of construction sites and compounds;
  - b Safe storage of any materials and chemicals;
  - c Covering of trenches and holes or provision of exit and escape routes such as ramps or mammal ladders; and
  - d Covering any open entrances to pipes / pipeline to prevent badger access.

- 
- 4.2.3 Through the implementation of the above measures, the risk of disturbing badgers will be greatly reduced.
- 4.2.4 Providing that no setts are found within 30 m of the turbine locations or the haul routes, no further mitigation will be necessary.

SECTION 5

**CONCLUSIONS**

---

**5 CONCLUSIONS**

- 5.1.1 The survey area contained no active badger setts although evidence of foraging and use by badgers was found. It is considered that badgers are using the area as part of a territory.
- 5.1.2 The proposed turbine locations and access tracks do not impact any badger setts and therefore would not contravene the existing legislation. A check within 30 m of any proposed groundwork is recommended. Providing no setts are found on this subsequent check no mitigation will be required for badgers.