

PLANNING APPLICATION FOR LIFE EXTENSION OF WIND FARM

ENVIRONMENTAL STATEMENT – ADDENDUM

HAZELHEAD WIND FARM

ON BEHALF OF BANKS RENEWABLES (HAZELHEAD WIND FARM) LIMITED



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APPENDICES:

Appendix 1 – Environmental Statement, Non-Technical Summary, dated August 2006

1.0 INTRODUCTION

- 1.1 This Environmental Statement Addendum has been prepared to accompany a planning application on behalf of Banks Renewables (Hazelhead Wind Farm) Limited for a life extension to the existing wind farm at Hazelhead, to the west of Crow Edge, between Holmfirth and Penistone.
- 1.2 Planning permission was granted for the installation of 3no., 100m high wind 3 bladed turbines under application reference 2006/1575. This application was supported by an Environmental Statement, dated August 2006, the Non-Technical Summary of which is included at **Appendix 1**. Permission was granted on 20th June 2007.
- 1.3 Following the implementation of the planning permission, a retrospective application (no. 2011/0859) was submitted seeking consent for the relocation of the substation approved as part of application no. 2006/1575. The application for the relocation of the substation was approved on 29th August 2012.
- 1.4 Condition 2 of the decision sets out that the permission shall expire no later than 25 years from the date that electricity from the development is first exported to the grid. The project has been in successful operation since 14th December 2011 and therefore the expiry date of the windfarm is currently 14th December 2036. This application seeks to vary this condition to extend the life span of the windfarm by a further 15 years lasting until 14th December 2051.
- 1.5 The purpose of this Environmental Statement Addendum is to identify whether there would be any significant environmental effects that would arise from the continued operation of the wind farm for an additional 15 year period, that have not already been addressed in the original Environmental Statement. The Addendum should therefore be read alongside the Environmental Statement which it serves to update.
- 1.6 The location of the wind farm is shown on drawing HJB/574/PA01 which formed part of the original Environmental Statement and included along with the original ES Non-

Technical Summary at **Appendix 1.**

1.7 The content of the ES Addendum comprises a section addressing each of the topics which were considered in the original Environmental Statement, as follows:

- Chapter 2 Biodiversity and Conservation (Ecology and Ornithology)
- Chapter 3 Landscape and Visual Effects
- Chapter 4 Water Environment
- Chapter 5 Geology and Ground Conditions
- Chapter 6 Noise
- Chapter 7 Air Quality and Climate Change
- Chapter 8 Cultural Heritage
- Chapter 9 Traffic and Transport
- Chapter 10 Electromagnetic Interference and Aviation

1.8 This ES Addendum should be made available by Barnsley Council for public viewing during normal office hours. For details of where it can be viewed and the times it will be available contact Barnsley Council's Planning Department:

- **Telephone:** (01226) 773555
- **Email:** developmentmanagement@barnsley.gov.uk
- **Address:** Planning Development Management, PO Box 634, Barnsley, S70 9GG
- **Website:** <https://www.barnsley.gov.uk/services/planning-and-buildings/view-or-comment-on-planning-applications/>

1.9 The ES and planning application documents may also be available via Barnsley Council's website once the planning application has been registered. Alternatively, the ES Addendum may be purchased, the costs for which are set out below:

- Environmental Statement – £50
- Non-Technical Summary (NTS) – £10
- Digital copies of the above documents – £10

1.10 For copies of any of the above please contact Pegasus Group (quoting reference P21-2481) at the following address:

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2.0 BIODIVERSITY AND CONSERVATION (ECOLOGY AND ORNITHOLOGY)

Introduction

2.1 The ES included an assessment of potential effects on biodiversity and conservation (ecology and ornithology) in Chapter 7. A Phase 1 Habitat Survey was undertaken across the site to determine the habitats present and their potential value for protected and otherwise notable species. In light of these survey results, further targeted species surveys were carried out for birds, bats and badgers.

2.2 After mitigation, all ecology and ornithology effects during construction and operation of the wind farm were identified to be slight/moderate adverse or less, and therefore not significant.

2.3 Given the time which has passed since the Biodiversity and Conservation Chapter was prepared it was deemed appropriate as part of this Addendum to establish the current baseline ecological conditions at the site and review any changes from that previously set out in the two ES Chapters in order to establish if there are any changes to the assessment of effects previously identified.

Updated Legislation

2.4 Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of current legislation, including:

- National Planning Policy Framework (NPPF, revised 2021);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerow Regulations 1997; and
- The Protection of Badgers Act 1992.

Methodology

Data Search

- 2.5 In July 2022, available records of protected and notable species were collated from the local records centre, Sheffield Biological Records Centre, along with the non-statutory designated sites from within 2 km of the Site centre.
- 2.6 A search for internationally, nationally, and locally designated statutory sites for nature conservation was undertaken using the Multi-Agency Geographic Information for the Countryside (MAGIC) website. The search radius was 6 km from the Site centre for internationally designated statutory sites and 2 km from the Site centre for nationally and locally designated statutory sites. A search for non-statutory ancient woodland was undertaken within 2 km of the Site centre, and an assessment was made regarding the location of Habitats of Principal Importance (HPIs) on or near the Site using MAGIC.
- 2.7 A search for species data available on the MAGIC website was undertaken (i.e. granted European Protected Species Licence applications, GCN Class Survey Licence Returns and Natural England GCN Pond Survey Data 2017–2019).

Previous Reports

- 2.8 The previous reports for the Site were reviewed and compared against the current baseline conditions within the Site. These reports comprise the original Biodiversity and Conservation Chapter ES Chapter and its supporting Figures/Appendices.

Preliminary Ecological Appraisal Survey

- 2.9 The habitats on Site, were surveyed on 17th August 2022 by two Delta-Simon's ecologists. Habitats were classified and mapped using the standard JNCC Phase 1 habitat classification and methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of

Stace (2010).

- 2.10 Habitats on-Site were surveyed for the presence of, or field signs to indicate the presence of protected or notable birds, amphibians, reptiles, mammals, and widespread invasive plants. This included an external visual assessment of any trees/buildings on the Site for potential bat roost features and any evidence of bat activity, and an assessment of the Site's suitability to support commuting and foraging bats as set out in Table 3.1 below, in line with Collins (2016).

Data Search

- 2.11 The results of the MAGIC data search and the Biodiversity Records Centre desk search indicate that there are:

- Two international statutory designated sites within 6 km of the Site centre
- No national, or local statutory designated sites within 2 km of the Site centre
- No locally designated sites within 2 km of the Site centre.
- Three non-statutory designated Local Wildlife Sites (LWS) within 2 km of the Site centre.

- 2.12 Tables 2.1 and 2.2 below set out the current statutory and non-statutory designated sites identified and considered relevant to the Site.

Table 2.1 – Internationally Designated Statutory Sites within 6 km of the Site

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
South Pennine Moors	Special Area of Conservation (SAC)	2.10 km southwest	The South Pennine Moors are representative of upland dry heath the habitat's most south-easterly upland location in the UK. Dry heath covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and blanket bogs. Around the fringes of the upland heath and bog are blocks of old sessile oak woods,

			usually on slopes.
Peak District Moors (South Pennine Moors Phase 1)	Special Protection Area (SPA)	2.10 km southwest	The Site is used regularly by 1% or more of the Great Britain population of the following qualifying bird species; Merlin <i>Falco columbarius</i> , Golden Plover <i>Pluvialis apricaria</i> and Shorteared Owl <i>Asio flammeus</i> . The site supports a rich upland breeding bird assemblage which, as well as the qualifying species listed above, includes important numbers of Peregrine <i>Falco peregrinus</i> , Lapwing <i>Vanellus vanellus</i> , Dunlin <i>Calidris alpina schinzii</i> , Snipe <i>Gallinago gallinago</i> , Curlew <i>Numenius arquata</i> , Redshank <i>Tringa totanus</i> , Common Sandpiper <i>Actitis hypoleucos</i> , Whinchat <i>Saxicola rubetra</i> , Wheatear <i>Oenanthe oenanthe</i> , Ring Ouzel <i>Turdus torquatus</i> and Twite <i>Carduelis flavirostri</i> .

Table 2.2 – Local Non-Statutory Designated Sites within 2 km of the Site

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
Western Moors	Local Wildlife Site (LWS)	0.2 km west	A large expanse of upland. The range of habitats on the site include large areas of heather <i>Calluna vulgaris</i> moorland with bilberry <i>Vaccinium myrtillus</i> and locally abundant cloudberry <i>Rubus chamaemorus</i> , a rare plant in the district. A number of cloughs dissect the upland and it is mainly in these areas that species-rich acidic flushes occur. Areas of woodland, largely conifer plantations, are found around the reservoirs. Around the moorland edge fields of rough grassland are found.
Whitley Edge	LWS	0.58 km northeast	A large section in the east of the site is species-poor semi-improved grassland, on the steep well drained slopes, unimproved acid grassland is prevalent. In the southwest extremity there are two areas of open water surrounded by broadleaved plantation. In the southeast corner there is a complex mosaic of acid and wet habitats. UKBAP breeding bird species include skylark <i>Alauda arvensis</i> , linnet <i>Carduelis cannabina</i> , reed bunting <i>Emberiza schoeniclus</i> , curlew <i>Numenius</i>

			arquata and lapwing <i>Vanellus vanellus</i> . The site is also important for breeding snipe <i>Gallinago gallinago</i> , an Amber List species.
Wogdon Foot	LWS	1.3 km south	Narrow strip of land that was formerly occupied by sidings on the Woodhead railway line. After the sidings were dismantled, the site was unmanaged for some time, allowing the processes of natural regeneration to take place. However, not all of the vegetation is typically acidic in character, as much of the limestone ballast used for the sidings remained. A small suite of plants atypical of this acid area survives including, for example, cowslip <i>Primula veris</i> , ploughman's spikenard <i>Inula conyza</i> and wild marjoram <i>Origanum vulgare</i> .

SSSI Impact Risk Zones

- 2.13 The Site also falls within several SSSI Impact Risk Zones (IRZ) that require the Local Planning Authority (LPA) to consult with Natural England and assess planning applications for likely impacts on SSSIs/SACs/SPAs and Ramsar sites. The proposed extension of the operational phase of the turbines would not cause any of the impacts that would require the LPA to consult with Natural England based on current conditions at the site.

Priority Habitats

- 2.14 The MAGIC data search also provided information regarding Priority/HPI habitats on and around the Site. The MAGIC Maps suggest that there is a strip of Priority/HPI Deciduous Woodland adjacent to the southern Site boundary. In addition, the Site lies within an extensive area of Priority River Habitat – Headwater Areas.

Update on Habitats in Relation to Previous Reports

Plantation Coniferous Woodland

- 2.15 The access track bisects an area of plantation woodland west of T2, planted with Scots pine *Pinus sylvestris*. The ground here was mostly covered with pine needles,

consistent with the findings of the previous Environmental Statement Chapter (ES Chapter).

Semi-Improved Acid Grassland

- 2.16 Semi-improved acid grassland is present adjacent to access tracks across much of the Site. Species composition and structure varies across the Site however the grassland typically comprises abundant red fescue *Festuca rubra* and wavy-hair grass *Avenella flexuosa*. Scattered patches where hard rush *Juncus inflexus* and soft rush *Juncus effusus* have achieved local dominance are present across the Site, and scattered patches of heather *Calluna vulgaris* and bilberry *Vaccinium myrtillus* are present within grassland to the west.
- 2.17 Herbaceous species including hawkweed *Hieracium* sp, black knapweed *Centaurea nigra*, broadleaf dock *Rumex obtusifolius*, ribwort plantain *Plantago lanceolata*, creeping thistle *Cirsium arvense*, coltsfoot *Tussilago farfara* yarrow *Achillea millefolium*, common ragwort *Jacobaea vulgaris*, common fleabane *Pulicaria dysenterica*, common mugwort *Artemisia vulgaris*, sneezewort *Achillea ptarmica* and white clover *Trifolium repens* are present within the sward in varying abundance. Rosebay willowherb *Chamaenerion angustifolium* was also frequently recorded across the Site.
- 2.18 The presence of acid grassland within the Site is consistent with the findings of the previous ES Chapter. The species diversity found during the 2022 survey was lower than that identified within the previous ES Chapter, however this is considered likely to reflect the level of survey effort being only a high-level walk over, and not an indication of any degradation in the quality of the habitat.

Heathland

- 2.19 Heathland and acid grassland formed a habitat mosaic across much of the eastern extent of the Site, between T2 and T3. Heathland was dominated by common heather *Calluna vulgaris* with the addition of frequent bilberry and occasional bramble *Rubus fruticosus* scrub at the margins. Occasional rowan *Sorbus aucuparia* saplings and

immature trees were also recorded. Both red fescue and wavy-haired grass were frequently recorded. Heathland of similar composition including common heather and bilberry is mentioned as present within the previous ES Chapter.

Dense/Continuous Scrub

- 2.20 Dense scrub was recorded adjacent to access tracks at the western extent of the Site and comprised abundant goat willow *Salix caprea* and alder *Alnus glutinosa*, with the addition of occasional rowan *Sorbus aucuparia* white willow and silver birch *Betula pendula*. Scattered scrub of similar species composition is mentioned within the previous ES Chapter, and is likely to have developed into the denser scrub recorded during the 2022 survey effort.

Dry Ditch

- 2.21 Drainage ditches that appeared dry at the time of the survey were identified alongside some of the tracks between T1 and T2, and beside T3 and were very overgrown with vegetation. The ditches are not included within the previous ES Chapter and are considered likely to have been created alongside the development of the wind farm.

Buildings

- 2.22 Four buildings were present within the Site, comprising electricity substations of metal construction with flat roofs. The structures were considered to be of negligible suitability for roosting bats.

Bare Ground

- 2.23 Unsealed access tracks are present across the Site alongside areas of bare ground adjacent to the three wind turbines.

Species Assessment in Relation to Previous Reports

Birds

- 2.24 Forty-six species of notable birds were returned by the records centre within 2 km of the Site centre and within the last 10 years. Of these, four are currently listed on

Schedule 1 of the WCA (1981, as amended), fieldfare *Turdus pilaris*, redwing *Turdus iliacus*, peregrine *Falco peregrinus* and red kite *Milvus milvus*. Thirtythree species of bird currently listed on the Red/Amber List of BoCC (Stanbury et al., 2021) were recorded within 2km of the Site centre in the past ten years, including lapwing *Vanellus vanellus*, Curlew *Numenius arquata* and skylark *Alauda arvensis* which are most likely to utilise the upland habitats found on-Site. Breeding bird surveys undertaken in 2006 recorded thirteen species as holding territory or breeding within or adjacent to the Site, with low numbers of generally passerine species recorded. The most abundant species recorded were willow warbler *Phylloscopus trochilus* (four territories), skylark (three territories) tree pipit *Anthus trivialis* and meadow pipit *Anthus pratensis* (two territories). The remaining species were recorded as holding only one territory. The most significant species recorded was skylark, of which three individuals were recorded holdings territories over the four survey visits. Skylark is listed within the Red List of BoCC (Stanbury et al., 2021). In addition, curlew were observed foraging within and adjacent to the Site across all surveys but were considered likely to be breeding outside of the Site. No records of lapwing were recorded during the surveys. Small numbers of wildfowl were recorded within ponds south of the Site boundary.

- 2.25 A single, fresh owl pellet considered to be produced by a short-eared or long-eared owl was identified outside of the Site boundary. Neither species was recorded during the surveys and no evidence of nesting was identified. Tawny owls were heard calling outside of the Site on one occasion. The previous ES Chapter considers that the low numbers of individuals and breeding territories recorded reflects relatively poor habitat for breeding birds within and adjacent to the Site. It was concluded within the previous ES chapter that any displacement of breeding species was highly unlikely to be of significance for the maintenance of local populations due to the low numbers of individuals utilising the Site. Collision risk was considered low as species recorded within the Site were not considered to be at particular risk, in addition to the low numbers recorded during the surveys and number of turbines proposed. The Site was not raised by the RSPB as currently or historically being on a major flight path of resident or passage birds, despite the nearby statutory designated sites which support such species. The previous ES chapter considers the local presence of short-eared or long-eared owl likely and occasional overflight of the Site by owl species

possible. However, significant impacts were considered highly unlikely due to the infrequency of overflights and number of turbines, as well as the flight habits of the species whilst foraging, which tend to be beneath rotor height.

- 2.26 Habitats featured on the Site suitable for nesting birds, include plantation coniferous woodland, dense scrub and longer areas of grassland. No nests were observed within the Site. Bird species recorded at the time of the survey were limited to a single meadow pipit at the southern Site boundary, however it should be noted that this is not an exhaustive list of birds on-Site.

Amphibians

- 2.27 There were twenty records of amphibians of conservation concern returned by the local biological records centre within 2 km of the Site centre and within the last 10 years. These comprise eleven records of common frog *Rana temporaria*, and nine records of common toad *Bufo bufo*. The closest and most recent record was for common toad and was recorded in 2022, within a pond approximately 200 m south of the Site boundary. There were no records of GCN returned within 2 km of the Site boundary. A search of the MAGIC database returned no European Protected Species License (EPSL) applications for GCN, or license returns for GCN within the search radius. During the survey undertaken on the 17th August 2022 there were no areas of standing water identified within the Site. Terrestrial habitats within the Site such as scattered scrub and longer areas of grassland were of some suitability for amphibians. A review of aerial imagery and OS mapping identified eight waterbodies within 500 m of the Site boundary with the potential to support amphibian populations. Waterbodies surrounding the Site were assessed as unlikely to support GCN populations within the previous ES due to their acidic nature. At least one waterbody was subject to an egg search, with no eggs found. The previous ES considered GCN as likely absent from the Site and therefore predicted no impacts upon the species as a result of the wind farm development. It is considered likely that GCN remain absent from the Site due to the lack records within the surrounding landscape and lack of suitable aquatic habitat within the Site boundary.

Reptiles

- 2.28 The local biological records centre data search returned one reptile record submitted within 2 km of the Site centre within the last 10 years. The record comprises two common lizards *Zootoca vivipara* identified within scrub approximately 150 m south of the Site.
- 2.29 The Site is not assessed for the likely presence of reptiles within the previous Environmental Statement. As the predominant habitats within the Site remain similar in structure and extent it is considered likely that the status of reptiles within the Site remains unchanged.

Bats

- 2.30 There were fifty-eight records of bats returned by the local biological records centre within 2km of the Site centre within the last 10 years. Of these, three were roosting records. All three roosting records were submitted between 2019 and 2020 and refer to Daubenton's bat *Myotis daubentonii* roosting within culverts and a bridge on the River Don, approximately 1.5 km south of the Site. A search of the MAGIC database returned no granted European Protected Species License (EPSL) applications for bats within 2 km of the Site centre. Substations of metal construction within the Site constructed alongside the wind farm development are considered to represent negligible potential to support roosting bats.
- 2.31 The previous ES Chapter identified a small number of trees within the survey area with the potential to support roosting bats, however these are now all located beyond the final Site boundary which was used for the scheme. In addition, the report considers the frequent use of the Site by bats unlikely due to its exposed nature and elevation. The previous ES Chapter identified a small number of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* bats using habitats surrounding the Site for foraging and commuting activity, particularly associated with plantation woodland and developing heath and grassland adjacent to Flint Lane, south of the Site boundary. The report considers the direct impacts of collision unlikely.

These impacts are normally associated with longer distance and higher-flying species, which were not recorded during surveys and are not normally associated with the nature or elevation of the Site. It is considered likely that the value of the Site as a habitat/resource for bats remains unchanged due to the lack of significant changes in habitat within the Site boundary.

Badgers

- 2.32 The local biological records centre data search returned two records of badger *Meles meles* within 2 km of the Site centre within the last 10 years. The most recent record was submitted in 2020 with the closest record located approximately 1.7 km from the Site boundary. The previous ES Chapter did not identify any evidence of badger setts or activity within the Site boundary. The Site contains habitat suitable to support sett building and foraging activity, however no evidence of badger activity was identified during the 2022 survey. It is considered likely that the value of the Site with regards to badgers remains unchanged due to the lack of significant changes in habitat within the Site boundary.

Conclusions

- 2.33 Habitats: With the exception of the developed areas, the habitats within the Site are largely unchanged from previous surveys. The species-diversity recorded within the acid grassland was lower than identified within the previous ES chapter. This is considered likely to reflect the level of survey effort rather than a degradation of condition caused by the development and it is likely that a detailed botanical survey would identify greater species diversity, more akin to that found originally. The previous ES Chapter identified no residual impacts on habitats within the Site as a result of the windfarm development, and no significant impacts were recorded during the 2022 survey. Therefore, it is considered that no significant impacts have occurred on the habitats during the operational phase of the windfarm, and there is no evidence to suggest that the extension of the lifespan of the windfarm will result in significant impacts in the future, should the current management and layout of the Site remain the same.

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- 2.34 Species: No significant changes with regards to protected species are considered to have occurred at the Site during the operational phase to date. Whilst the walkover covered a much smaller survey area than the original protected species surveys in the ES Chapter, the lack of significant changes to either the habitats or land use during the operational phase of the Wind Farm makes it unlikely that species distributions across the Site have significantly altered.
- 2.35 The previous ES Chapter identifies issues during the operational phase associated with bird and bat strikes from turbine blades. No evidence of either bat or bird strikes was recorded during the walkover, however, it is noted that evidence of such strikes is difficult to identify. As habitats have not significantly altered from the baseline, it is unlikely that bat foraging/commuting paths across the Site have altered, and bird nesting opportunities remain similar. Therefore, it is considered that no significant impacts on protected species, in particular birds and bats, have occurred as a result of the operational phase of the windfarm and there is no evidence to suggest that the extension of the lifespan of the windfarm will result in any impacts in the future, should the current management and layout of the Site remain the same.

3.0 LANDSCAPE AND VISUAL EFFECTS

Introduction

3.1 The Landscape and Visual Impact Assessment (LVIA) was set out in Chapter 8 of the Environmental Statement. This addendum considers the proposed life extension in the context of the previous assessment to determine whether there are any changes to landscape designations, landscape character, visual amenity or cumulative impacts which would alter the overall findings from the original assessment such that any additional significant effects not previously identified would arise.

3.2 It was identified in the ES that whilst Hazlehead Windfarm would have a major impact upon a localised area within 3km of the development site, the landscape and visual impacts diminish significantly at greater distances, mainly due to the local topography. Landform plays a significant role in limiting views from the urban areas to the north of the site as well as from the Peak District National Park to the south.

Landscape Designations

Peak District National Park

3.3 The site is located within approximately 2km of the Peak District National Park boundary. No significant effects on the Special Qualities were identified in the ES. The current version of the Peak District National Park Management Plan 2018–23 sets out 7no. Special Qualities which include *“Beautiful views created by contrasting landscapes and dramatic geology”*, *“Undeveloped places of tranquillity and dark night skies within reach of millions”*, *“Landscapes that tell a story of thousands of years of people, farming and industry”*, and *“An inspiring space for escape, adventure, discovery and quiet reflection”*. Noting that landform serves to limit views from much of the National Park to the south, it is considered that there would continue to be no significant effects on the Special Qualities of the National Park during the proposed life extension period.

Local Landscape Designations

- 3.4 The wind farm site was identified in the ES to be located in Barnsley Council's Area of High Landscape Value (AHLV) – Ingbirchworth Upland Farmland. This local designation is however no longer extant in the current Local Plan. This matter is therefore no longer relevant as part of this addendum.

Landscape Character

- 3.5 The existing LVIA considered the landscape character types across the study area as set out in the national Joint Character Areas (JCAs) as well as published studies produced by Barnsley Council. The Barnsley Council Landscape Character Assessment was the version which was published in 2002. This study remains extant.
- 3.6 The LVIA defined the site as lying within a Landscape Character Area (LCA) known as 'F – Upland Farmland', with the subdivision Character Area F1, Ingbirchworth Upland Farmland surrounding the development site and to the east.
- 3.7 In terms of the site and its immediate context, it was identified that there would be a major adverse effect on Landscape Character within the Upland Farmland during operation up to 3 km, which was considered to be significant. No significant effects were identified in relation to any other surrounding LCAs. These effects would also continue to apply to the life extension period.
- 3.8 As the life extension of the wind farm represents no change from what currently exists on site, it is understood that the landscape continues to have the capacity to accommodate the wind farm for the life extension period with no new significant effects arising.

Visual Amenity

- 3.9 It is understood that there are no new visual receptors of note in the vicinity of the site that were not previously considered in the original LVIA which would now experience a significant visual effect.
- 3.10 There would therefore be no change to the previous assessment of effects on residential properties or wider visual receptors and no new significant effects beyond 3 km that were not already reported in the ES.

Cumulative Effects

- 3.11 At the time the LVIA was undertaken there were 3no. additional schemes considered within the cumulative assessment comprising the 13 turbine windfarm located at Royd Moor around 3.5 km to the east and two single turbines at Bull House, Ecklands around 4km to the south-east and Longley Farm around 4 km to the north-west.
- 3.12 It was noted in the ES that Royd Moor was the primary contributor with regard to potential cumulative views, with any impacts associated with Bull House and Longley Farm only minor. Cumulative views of the two schemes were identified to be generally limited to more isolated areas of higher ground (primarily at Carlcotes, Victoria, Maythorne and Whitley Common and areas to the west of Millhouse Green).
- 3.13 Having undertaken a search of other wind farms either consented or in planning which are now applicable in the vicinity of the site, it is noted that the Blackstone Edge wind farm, comprising 3no. turbines 99m to blade tip, became operational in March 2013 and lies around 2.5 km to the north-east of the site. In addition, the Spicer Hill wind farm, also comprising 3no. turbines has also become operational since the ES was undertaken and lies around 3 km to the east of the site, adjacent to the Royd Moor scheme.
- 3.14 It is acknowledged that there are locations in the landscape where the additional two

schemes would be visible together, in addition to the other cumulative schemes. There are also visual receptors located between the various schemes which may have the potential for successive views of more than one of the schemes when looking in different directions. The matter of cumulative effects between the various schemes was considered during the decision-making process for the Blackstone Edge and Spicer Hill schemes and it was determined that there were no unacceptable cumulative effects between each of the schemes. It is not considered that there would be any new significant cumulative effects arising since this conclusion was reached.

Conclusion

The proposed life extension of the Hazelhead Wind Farm would not change the landscape and visual effects reported in the previous LVIA in a substantive manner. There is no evidence to suggest that the site does not still has the ability to accommodate the development within the landscape for the period of the life extension. It is noted that the Blackstone Edge and Spicer Hill wind farms have come forward in the landscape to the north of the site since the LVIA was undertaken. However, it is not considered that there would be any cumulative effects between the schemes that should prevent the life extension application being consented

4.0 WATER ENVIRONMENT

- 4.1 The potential for effects on the water environment was set out in ES Chapter 9. The assessment considered how alterations to the onsite surface water drainage system would impact upon surface waters and flood risk in the locality. It detailed potential impacts upon groundwater flow and quality, as well as how water supply and foul drainage might be affected.
- 4.2 The ES assessment considered effects during both the construction and operation phases. The construction of the wind farm has already taken place and no new construction works are proposed. This phase of the development is not therefore considered again in this Addendum.
- 4.3 Regarding operation stage effects, it was noted that the access track has potential to disrupt or alter surface water flow paths. However, the majority of surface water run-off flows to Town Brook or Crow Edge Slack and as such would not be impacted by the new track. Overall, it was identified that the development site is located in an area at low risk of flooding. In terms of the potential for effects to water quality it was noted that an extensive surface water management system and lagoons for the treatment of run-off from the landfill void have been/were being established by Banks Developments as part of their reclamation scheme. These measures were set out in the ES to ensure any potential impact from operation of the windfarm is removed.
- 4.4 The overall impact of the windfarm on the water environment were noted to be negligible. However, a number of mitigation measures were still set out and implemented to ensure any potential impact was reduced or removed. Overall, no significant impacts were identified and this would continue to be the case for the life extension period.

5.0 GEOLOGY AND GROUND CONDITIONS

- 5.1 Geology and Ground Conditions were considered in ES Chapter 10. This included consideration of the risk of land contamination resulting from former onsite land uses.
- 5.2 The ES assessment considered effects during both the construction and operation phases. The construction of the wind farm has already taken place and no new construction works are proposed. This phase of the development is not therefore considered again in this Addendum.
- 5.3 Regarding potential operational phases effects, it was set out that it was unlikely that there will be any additional disturbance of onsite geology and soils and therefore there would be no impact. This would continue to be the case for the life extension period.

6.0 NOISE

- 6.1 The previous ES considered the potential for effects from turbine noise in Chapter 11. This included a consideration of noise from construction and operation. For each phase of the development the assessment was based on the applicable noise limit, i.e. a breach of the noise limits would indicate a 'significant' effect, whereas compliance with noise limits would indicate a 'not significant' effect. The construction of the wind farm has already taken place and no new construction works are proposed. This phase of the development is not therefore considered again in this Addendum.
- 6.2 Operational noise was assessed in accordance with ETSU-R-97 guidance. The design of the scheme was noted to be such that, based upon a Nordex N80 turbine, worst-case predictions of operational noise levels were within noise limits derived from measurements taken at a number of receptors surrounding the wind farm. The final turbine model was to be selected by competitive tender but any turbine installed would be required to meet the noise limits derived within the ES Chapter, by way of planning condition. In conclusion, it was considered that no significant impacts would arise in relation to noise.
- 6.3 The final turbine model selected for construction was a Repower MM82, rather than the Nordex N80 on which the ES noise assessment was made. Noise compliance monitoring was therefore undertaken in line with the commitment set out in the ES in order to ensure that this turbine type met the required noise limits derived within the ES Chapter.
- 6.4 An operational noise compliance assessment was undertaken to ensure the wind farm was noise compliant at all nearby residential receptors. During the assessment the turbines were shut down a number of times during the day, in specific wind conditions, to facilitate noise data collection when turbines are not operating and validate the previous survey to ensure appropriate ETSU-R97 noise limits were set for the wind farm. A comparison of these limits with total background noise levels demonstrated compliance at all locations for both quiet daytime and night-time periods.

7.0 AIR QUALITY AND CLIMATE CHANGE

- 7.1 The potential for effects on air quality and climate change was set out in ES Chapter 12. The assessment considered emissions during both the construction and operation phases, as well as the contribution of the scheme towards the need for renewable energy.
- 7.2 The construction of the wind farm has already taken place and no new construction works are proposed. This phase of the development is not therefore considered again in this Addendum.
- 7.3 Regarding the operation phase, it was concluded that there would be no significant impact on air quality from the emissions from periodic vehicle movements. It was also identified that the windfarm would have a beneficial impact on reducing greenhouse gas emissions from the energy sector and that it supports planning policy on climate change and the need for renewable energy at a national and regional level. This would continue to be the case for the life extension period.

8.0 CULTURAL HERITAGE

- 8.1 The potential for effects on archaeology and cultural heritage was set out in ES Chapter 13. The assessment considered the potential for both any direct effects on features of cultural heritage interest as a result of the construction phase works, as well as any indirect effects on the setting of off-site features as a result of the visual relationship with the constructed development.
- 8.2 As the Life Extension would not require any further construction works there is no potential for any further impacts on below ground archaeology and no significant effects would arise.
- 8.3 Indirect effects on the settings of designated features within the surroundings of the turbines was also considered as part of the assessment. It was identified that although some cultural heritage features beyond the site boundary would receive visual effects upon their settings, these were assessed as negligible and therefore not considered significant in terms of the EIA regulations. This conclusion would also continue to apply to the life extension period.

9.0 TRAFFIC AND TRANSPORT

- 9.1 The previous ES considered the potential for effects on traffic and transport in Chapter 14. This considered traffic generation to/from the site during construction and operation.
- 9.2 The construction period has now taken place and any potential effects were appropriately mitigated at that time. No further consideration of construction phase traffic is therefore provided within this addendum.
- 9.3 Once the wind farm is operational, it was envisaged in the ES that the amount of traffic associated with the scheme would be minimal. It was noted that occasional visits may be made to the site for maintenance activities. Nonetheless, it was considered that the effects of operational traffic would be negligible. The same very limited number of transport movements associated with the maintenance and safe operation of the wind farm would continue to apply for the life extension period. It is therefore considered that no significant effects on traffic and transport would continue to arise during this period.

10.0 ELECTROMAGNETIC INTERFERENCE AND AVIATION

- 10.1 The previous ES considered the potential for effects on telecommunication systems or aviation radar systems in Chapter 15. no adverse effects were identified for any of the electromagnetic links in the vicinity of the proposal. There were also no predicted impacts on military or civil air traffic interests from the wind farm. It is understood that there are no new issues relating to electromagnetic interference associated with the wind farm that would prevent its continued operation for the life extension period and no new significant effects.

**APPENDIX 1 - Environmental Statement, Non-Technical Summary, dated
August 2006**



HAZLEHEAD WIND FARM

NON TECHNICAL SUMMARY

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1. INTRODUCTION

- 1.1 Banks Developments is seeking to construct a windfarm on brownfield land at Hazlehead in Barnsley, South Yorkshire. The development site is situated at National Grid Reference (NGR) SE 183 041 and is shown on HJB/574/PA01. It lies to the west of Crow Edge, between Holmfirth and Penistone. The land within the development site has been previously developed for a variety of uses.
- 1.2 Banks Developments commissioned White Young Green Environmental (WYGE) to undertake an Environmental Impact Assessment (EIA) for the windfarm. This summary document offers a non-technical overview of the development, identifies any significant environmental effects and describes the mitigation measures to be implemented for the proposed development:

Project Title: Hazlehead Windfarm

Applicant: Banks Developments

2. SITE LOCATION AND CONTEXT

- 2.1 The site lies at the northwestern perimeter of the administrative area of the Barnsley Metropolitan Borough Council (BMBC), which borders that of Kirklees Metropolitan Borough Council (KMBC) only 1km to the north. The Peak District National Park (PDNP) also begins 1km to the south. The nearest main service centres are Barnsley, 17km to the east, and Huddersfield, 13km to the northwest.
- 2.2 The development site is located immediately south of Hazlehead Pipeworks, operated by Hepworth Building Products Ltd. The pipeworks consist of a number of buildings, outbuildings and storage areas spread over 25 hectares. Beyond the development site the land has been largely given over to livestock farming and largely comprises a mosaic of fields with dry-stone wall borders.
- 2.3 Residential dwellings in the immediate vicinity include Carlecotes to the south and Victoria and Crow Edge 1km to the north and east respectively. Beyond these there are a number of isolated dwellings and small villages before the larger conurbations of Holmfirth and Penistone.
- 2.4 To the south the development site is bound by the B6106, known as Flint Lane as it approaches from the west and then becoming Bents Road as it continues east beyond Flint Lane Head. The A616 passes approximately 400m to the east and heads northwest beyond the pipeworks. Crow Edge Road also passes approximately 500m to the northwest. Vehicular access can only be gained from the B6106.

3. DEVELOPMENT DESCRIPTION

- 3.1 The windfarm will involve the erection of three turbines. These will have a hub height of around 60m and rotor diameter of around 80m giving a maximum swept height of 100m. An anemometer 60m in height will also be constructed, along with a control building, 5m wide access tracks, a temporary construction compound and crane pads adjacent to each turbine. It may also be necessary to construct a small substation box at the base of each turbine.

4. ENVIRONMENTAL ASSESSMENT PROCESS

- 4.1 BMBC is the local planning authority that encompasses the Hazlehead Windfarm development site. BMBC determined that an EIA was required for the windfarm.

- 4.2 The EIA process undertaken involved the following steps:

- Collation of existing baseline data for the development site and surroundings.
- Identifying features of the existing environment likely to be affected by the development.
- Identification of potential environmental impacts arising from the development.
- Production of an Environmental Scoping Report to support the consultation process.
- Consultation process with statutory and non-statutory consultees.
- Undertaking environmental surveys to supplement existing baseline data.
- Substantiation of the environmental impacts arising from the development.
- Identification of mitigation and enhancement measures.
- Production of an ES to support the planning application.

5. PLANNING AND LEGISLATIVE FRAMEWORK

- 5.1 The development site lies within the jurisdiction of BMBC and as such the planning policies set out in the Barnsley Unitary Development Plan will need to be complied with.

6. BIODIVERSITY AND CONSERVATION

- 6.1 The potential effect of the proposed construction and operation of three turbines on biodiversity and nature conservation was assessed against national and local planning policies, and in particular Planning Policy Statement 9. Standard approaches comprising consultations, field surveys and desk exercises were undertaken and assessed by reference to established methodologies for assessing significance of any effects. This was undertaken in the context that within the study area a landfill operation had been granted permission and would itself have a wider effect.
- 6.2 Within the study area a number of High value habitats (heathland) and species (skylark, spotted flycatcher, bat species) were recorded along with two Medium importance bird species. Outside, two internationally designated sites, South Pennine Moors Special Protection Area, the South Pennine Moors Special Area of Conservation, the nationally important Eastern Peak District Moors Site of Special Scientific Interest and the Whitley Edge Local Site occur.
- 6.3 The effect of the proposed windfarm on the biodiversity within the study area was assessed to be neutral at the construction and operational stages, except in the latter there potentially could be a slightly/moderate adverse effect on foraging bat species around Turbine 3; however, this can be mitigated by managing the nearby woodland to create foraging areas away from the turbine.
- 6.4 There would be no direct effect on the important sites outside of the study area, and indirect adverse effects on birds were considered to be unlikely given the few number of turbines proposed and their position away from migration routes. Cumulative impacts were considered due to the nearby Royd Moor Windfarm, but were assessed to be insignificant given the low importance of the area for birds.
- 6.5 It is concluded that Hazlehead Windfarm is compliant with national planning policy (PPS9) and current good practice.

7. LANDSCAPE AND VISUAL EFFECTS

- 7.1 The landscape and visual assessment has established the likely landscape effects (changes in the character and quality of the development site) of the proposed development and the likely visual effects on people (receptors) who may live, work, travel through or undertake recreational activity within the study area for the development.
- 7.2 The assessment has been completed through a combination of desk based review, field survey, the use of computer modeling, computer generated images of the proposed development and professional judgment. It has also been informed by responses from the consultation and scoping liaison undertaken with BMBC and its consultees.

- 7.3 Construction activity will generate a low level of activity with negligible landscape effects to the development site. There is potential for more extended effects from the cranes, albeit they will only be onsite for approximately one month of the construction period. Overall the site and the immediate surrounding landscape have the capacity to absorb such temporary low levels of change. Despite the more extended effects due to the cranes it is concluded that the overall magnitude of landscape change during construction will not generate any significant negative landscape effects.
- 7.4 During the operational period the development will have negligible impact on the essentially industrial nature of the development site which has planning permission for landfill and restoration.
- 7.5 The development site lies within a local area of high landscape value; the Ingbirchworth Upland Farmland as identified in the BMBC Landscape Character Assessment 2002.
- 7.6 It is clear that whilst this area already contains existing elements and activities that have a detrimental effect upon its landscape character and quality, it has been assessed that the introduction of the wind turbines will have a major visual impact.
- 7.7 A study has been undertaken to assess the likely visual impact of the windfarm up to 10km from the site. This study clearly illustrates the importance of the local landform in reducing the visual impact of the proposed turbines.
- 7.8 Within the areas where the turbines are likely to be visible there are three additional landscape character areas as defined by the above Landscape Character Assessment. The impact of the turbines on the landscape of the Upper Don Valley and the Thurlstone and Langsett moorland is assessed to be moderate within the identified areas of visibility.
- 7.9 The closest residential areas to the development site are at Victoria, Crow Edge, Carlcotes, Maythorn and Whitley Common as well as a number of individual properties on the northern and western boundaries of the site. The visual impact of the turbines upon certain properties in these areas is assessed to be major. However visual impact on other residential properties beyond 3km of the site is assessed to be minor.
- 7.10 Three major footpaths lie within or are in close proximity to the study area. These include the Trans Pennine Way, The Pennine Way and the Barnsley Boundary Walk. The visual impact of the windfarm on the Barnsley Boundary Walk at the point identified is assessed to be moderate and as a mid distance view. The visual impact upon the Pennine Way and Trans Pennine Way is assessed to be only minor.
- 7.11 The visual impact of the windfarm upon local footpaths and the adjacent area of public open space at Tinker Hill will be major although boundary planting and onsite planting proposals will have a mitigating effect.

- 7.12 The cumulative visual assessment concludes that impact of the windfarm in relation particularly to the existing development at Royd Moor is limited to an area defined by Thurstone Moor in the south, Royd Moor to the east, Tinker Hill to the west and the Harden to Victoria Road to the north. This area contains the villages of Crow Edge, Carlecotes and Millhouse Green.
- 7.13 Overall the landscape and visual assessment concludes that whilst Hazlehead Windfarm will have a major impact upon a localised area within 3km of the development site the landscape and visual impacts diminish significantly at greater distance mainly due to the local topography. Landform plays a significant role in limiting views from the urban areas to the north of the site as well as from the PDNP to the south.

8. WATER ENVIRONMENT

- 8.1 The area is within the catchment of the River Don. The river lies approximately 1km south of the development site, but a number of its tributaries run in close proximity to the site boundary. Surface water flows from the site into either Town Brook or Sledbrook Dyke, which in turn flow into the Don. There is minimal risk of flooding in the surrounding area.
- 8.2 Ponds can be found onsite at various points. In the main there are three bodies of standing water that have formed in depressions resulting from quarrying. Boggy ground and a smaller pond can be found in the northwest. In addition to ponds, Crow Edge Dyke enters the site from the west, while Crow Edge Slack enters from the east.
- 8.3 Groundwater flows both north and south from the site. Water abstraction in the surrounding area tends to be for manufacturing purposes.
- 8.4 Excavations for the turbines and other windfarm infrastructure will be relatively shallow and will not affect groundwater flow. Similarly, the turbines and much of the infrastructure will take up such minimal amounts of land that surface water flow will remain uninterrupted. However, this is not true of the access track which will total approximately 1.25km in length. Appropriate drainage and routing of the track will ensure that surface water flow is maintained.
- 8.5 The main threat posed by the windfarm to the water environment is that of pollution during construction. This may come from the spillage of fuels or other construction materials which drain into the water environment via surface water run-off. It is also possible that sediment from excavations and stored earth could enter the water environment in the same manner. Extensive planning before construction commences will ensure responsible onsite conduct and the implementation of measures to reduce spillage incidents or ensure they are efficiently remedied should they occur. The creation of silt traps during construction will allow any sediment to settle before any surface run-off is discharged to watercourses.

9. GEOLOGY AND GROUND CONDITIONS

- 9.1 Local geological features are not considered to be of any major importance. The development site is located on Lower Coal Measures with two coal seams, the Halifax Hard and Middle Beds, running east-west through its centre. There are no sites designated for their geological importance in the surrounding area.
- 9.2 Previous uses of the site have resulted in complicated ground conditions. The main previous uses have been mining and waste disposal. There are numerous mineshafts and shallow workings beneath the surface, both known and unknown. There are also areas where a range of wastes have been deposited, including a large area of clay spoil from the brickworks to the north of the site.
- 9.3 Due to the site's history ground conditions vary beneath the different features of the windfarm. However, in general any excavations will be minimal and are unlikely to impact upon the geology of the area. Investigations suggest that in those areas where the site has been used for waste disposal there are no contaminants present below ground and as such any excavations or movement of earth is unlikely to result in pollution of the environment.
- 9.4 Any damage will be reduced through such measures as the reinstatement of soils that have been removed during construction. It is also proposed that the turbines can be moved anywhere within a 50m radius of their current proposed locations to account for ground conditions should additional issues arise during construction.

10. NOISE

- 10.1 Monitoring has been undertaken to establish the existing noise levels at five points around the site:
- Bents Farm (NGR SE 419070 403967)
 - Bents Road (NGR SE 418528 403743)
 - Brookhill Lane, Carlecotes (NGR SE 417766 403687)
 - Riddlepit, off Flint Lane (NGR SE 417106 404163).
 - Green Acres, off Bedding Edge Road (NGR SE 417681 405274)
- 10.2 The noise climate in the area was generally dominated by intermittent road traffic movement, particularly off the A616. Additional noise sources included general farming noise, some construction noise and industrial noise. It should be noted that high levels of wind will also have contributed to the measured noise level when present.

- 10.3 Noise and vibration generated from construction activities will generally be localised and negligible but will vary during the construction programme. Construction will be undertaken during normal day time working hours only and will be in line with current noise limits within the landfill consent.
- 10.4 The potential noise impact from the operation of the proposed turbines has been calculated following the guidance specified within ETSU-R-97, the conclusions of which determine, that the noise levels from the operational turbines will achieve the limits specified within current guidance.

11. AIR QUALITY AND CLIMATE CHANGE

- 11.1 As the area surrounding the development site is largely rural there are no known issues regarding air quality. Construction of the windfarm may result in some emissions from vehicles and machinery, while excavations and the movement of earth may create some dust. Such occurrences will be minor and will be easily remedied through pre-construction planning and responsible onsite conduct. There will be virtually no emissions to air from operation of the windfarm. In addition to this, when compared with conventional methods of energy production the windfarm will make considerable savings regarding a number of known greenhouse gases.

12. CULTURAL HERITAGE

- 12.1 At the time of the first Ordnance Survey mapping of the study area in 1854, the area was partly enclosed. Land to the immediate north of Bents Road had been laid out in regular parcels respecting the north-west to south-east alignment of Mucky Lane. To the west the study area had been divided into larger parcels, particularly Crow Edge Pasture and Long Moors.
- 12.2 There was a concentration of coal extraction sites to the west, adjacent to Knolls and along the north of Crow Edge Slack. Some of these extraction sites had been designated old by 1854, particularly those near Knolls. Other recorded extraction industries within the study area included a number of sandstone quarries.
- 12.3 The Hepworth Iron Works was first depicted on 1906 Ordnance Survey mapping along with Hazlewood and Sledbrook Collieries. The Iron Works was shown to occupy land recorded as an "Old Clay Pit" with further "Old Clay Pits" indicated to the east of Town Edge. Town Edge Piece and southern parts of Crow Edge Pasture were recorded as active clay pits. By 1906 Larches Plantation had been established.
- 12.4 A walkover survey in 1998 identified a number of archaeological features. These included a group of small-scale surface workings located at the top of Town Edge. These types of features are often associated with medieval or post medieval mineral extraction and are considered to be of national importance by English Heritage. A further extraction site was located within Larches plantation together with several hollow-way features. A crescent shaped pool and associated mounds were located in an area

marked as having coal shafts in 1854, and the Knowles Farmstead survived as an earthwork after having been levelled.

12.5 With the exception of the medieval or post medieval mineral excavations, all features identified were considered to be of low archaeological importance.

12.6 In view of their design, siting and limited visual impact there will be no significant effect from the three turbines upon any identified archaeological feature. Their wide spacing will help to minimise their impact upon visual amenity and the openness of the landscape and this is furthered by the fact that the site has the character of previously-developed land.

13. TRAFFIC AND TRANSPORT

13.1 The main Transportation impacts will be associated with the movements of commercial Heavy Goods Vehicles (HGV's) to and from the site during the construction phase.

13.2 The additional construction traffic is likely to consist of:

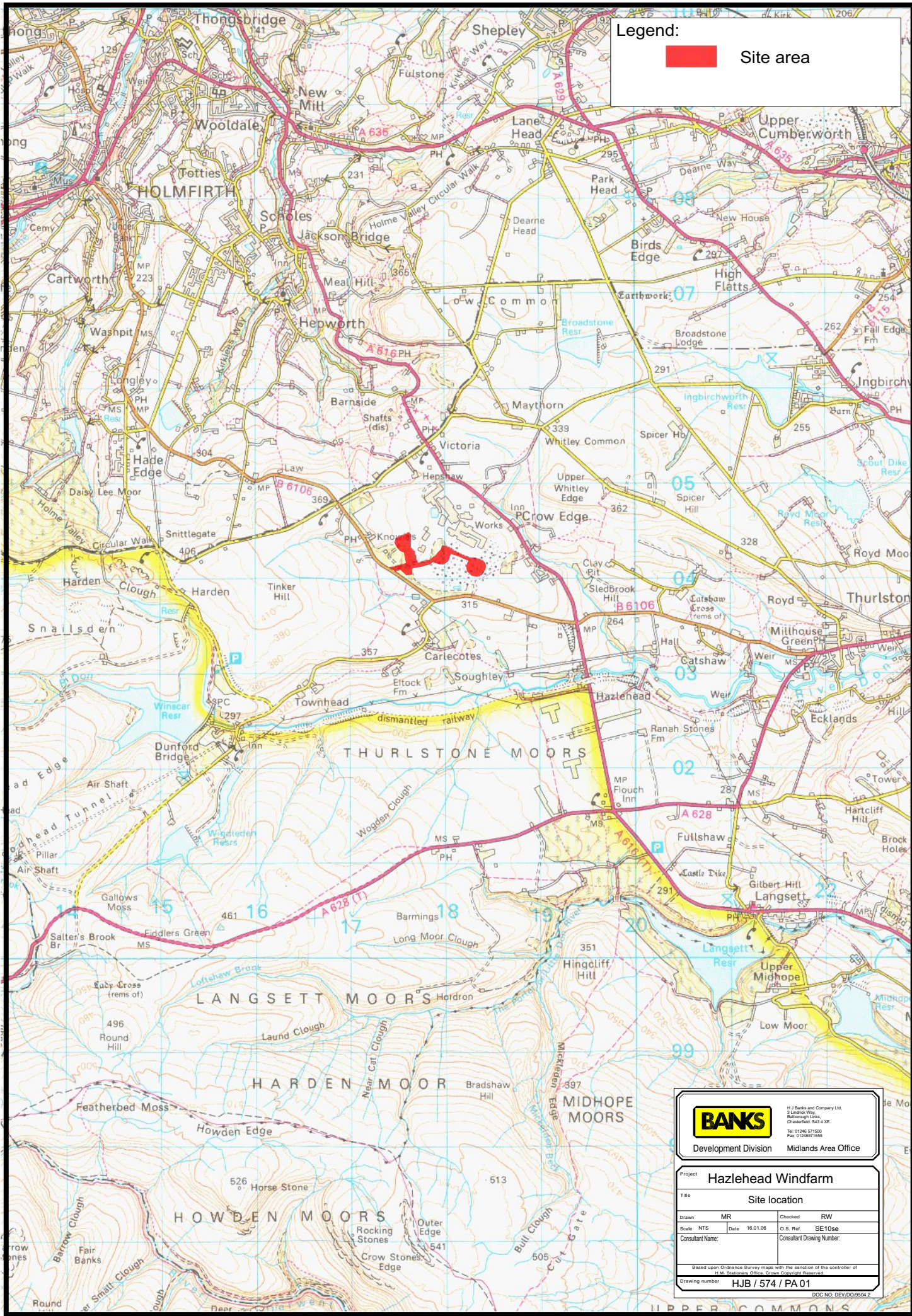
- HGV's traveling to and from the development site during construction, when the delivery and removal of materials and other equipment is required;
- Light goods vehicles making general deliveries to the site; and
- Private vehicles transporting construction personnel to and from the site.

13.3 Once the windfarm is operational it is envisaged that the amount of traffic associated with the day to day operation will not have a material impact on the adjacent highway network.

13.4 Estimates of traffic generations associated with the construction phase have been derived from first principles. Therefore, the total number of two way trips to/from the development site for construction purposes is estimated at a total of 672 trips. The delivery and removal of the crane will add another 80 trips.

13.5 Based on an assumed construction period of six months, it is estimated that the development will add an average of 10 trips per day to the adjacent highway network. Given the level of traffic using the adjacent network, this is not considered a material impact.

13.6 Construction traffic will access the site from the motorway network which is approximately 21.5km from the site along the A616 which is a designated Abnormal Load Route. However, the A616/B6106 junction at Bents Road will require some modification to accommodate the abnormal load trailers that will deliver the turbine blades.



Legend:



Site area



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Project Hazlehead Windfarm			
Title Site location			
Drawn MR	Checked RW		
Scale NTS	Date 16.01.06	O.S. Ref. SE1056	
Consultant Name:		Consultant Drawing Number:	
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Drawing number HJB / 574 / PA 01			
DOC NO: DEV/009504.2			