



Banks Developments

Property.Energy.Waste.

HAZLEHEAD WIND FARM

FACILITATING ENGINEERING WORKS

PLANNING APPLICATION

MAY 2010

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1. BACKGROUND

- 1.1 Planning consent was granted for the erection of No 3 wind turbines and associated infrastructure on a former spoil heap adjacent to the Hepworths pipe factory at Crow Edge, Flint Lane (Barnsley MBC permission reference :2006/1575) on 20th June 2007. The planning application for the proposed wind turbines was accompanied by a comprehensive Environmental Statement (ES). The terms of the planning consent require work to commence on site before 20 June 2010. The consent will last for a period of 25 years from the energisation of the wind turbines.
- 1.2 The land occupied by the three turbines and their associated infrastructure i.e. access tracks, crane pads and control building, lies predominantly within the extent of the Hazlehead Reclamation Scheme granted planning consent by Barnsley MBC in 2002 (Barnsley MBC permission Reference : B/99/0780/PR).
- 1.3 The layout of the proposed wind turbines and associated infrastructure took into account the presence of the land reclamation scheme and the interaction between the wind turbines and the land reclamation scheme was examined fully in the ES. At the time of submission and consideration of the wind turbine development it was assumed that the infilling stage of the land reclamation scheme would have commenced such that insofar as there is any interaction between the two consented developments, the wind turbine development would effectively "follow on" from the infilling and land reclamation works.
- 1.4 It is now unlikely that the infilling operations will progress and in 2009 planning permission was granted for the route of an alternative access track linking turbines T1 and T2 to account for the fact that the wind farm was now likely to be built on the landform as it currently exists rather than the landform consented by the reclamation and landfill permission. (Barnsley MBC permission reference :2009/0005).
- 1.5 In February 2010 details pursuant to conditions of the planning permission for the wind farm were submitted to Barnsley MBC with a view to work commencing on site in May/June 2010. The information submitted included a detailed layout of the wind farm comprising the turbine locations and associated crane pads as well as details of the access tracks serving the turbines and the site control compound and building. Having received the details Barnsley MBC confirmed that the engineering works required to facilitate the access track serving turbines T1 and T2 requires to be the subject of a separate planning application.

2. THE PROPOSAL

- 2.1 Site investigation works, including the geology and mining history of the site and recommendations on the routeing of the access tracks serving the turbines, as well as turbine foundation design have been undertaken by Grontmij, a consultancy with expertise in wind farm design. A detailed wind farm site layout supported by the findings of the site investigation works was submitted to Barnsley MBC in February 2010 in order to discharge conditions attached to the planning permission for the wind farm.
- 2.2 In carrying out the detailed site assessment Grontmij noted the specialist vehicles required to deliver turbine components to the consented turbine locations would not be able to achieve the vertical alignment were the access track serving turbines T1 and T2 to be built on existing ground levels. As a consequence, Grontmij has recommended that the access track serving turbines T1 and T2 be cut into the existing ground levels in order to reduce the changes in vertical alignment along its length. Material taken from the cutting operation would be used to infill an existing void to the east of turbine T1.
- 2.3 The extent of the proposed engineering works is depicted on drawing HJB/574/PA31a. Details of the cutting, including cross sections are shown on drawings HJB/574/PA32a and HJB/574/33.
- 2.4 It is proposed that the engineering works will be undertaken concurrently with the works associated with the construction of the access track, crane pads and turbine foundation works. An indicative programme of construction formed part of the information contained in the Environmental Statement which accompanied the planning application for the consented wind farm and is reproduced at Appendix 1.

3. ENVIRONMENTAL EFFECTS

- 3.1 The environmental effects of the proposed engineering works are considered in detail below. Where appropriate reference is made to the comprehensive environmental information which accompanied the planning application for the wind turbine development. The route of the access track serving turbines T1 and T2 was amended as per permission reference :2009/2005. While it is recognised that a small part of the existing void into which the excavated material from the cutting will be placed lies outside the permitted extent of the wind turbine development it is the case that the majority of baseline studies undertaken as part of the EIA process which accompanied that wind turbine development did include the land affected by the proposed engineering works.

BIODIVERSITY AND CONSERVATION

- 3.2 The route of the proposed access track and cutting crosses land identified as acid grassland in the baseline assessment (see drawing HJB/574/PA15 and chapter 7 of the wind farm ES). The affected land does not cross any national, regional or local ecological designations, and although noted in the ES which accompanied the wind turbine development as acid grassland, the land affected by the cutting is predominantly bare ground. The existing void is noted in the baseline assessment as containing standing water. This water is seasonal (unlike the areas of standing water in the south of the site which are long established and unaffected by the proposed wind farm development). The ES noted that none of the plant species recorded in the area surveyed are nationally rare and none of the habitats recorded are of particular merit. The proposed engineering works will not therefore have any substantive effects on biodiversity and conservation interests.

AVIAN EFFECTS (INCLUDING BATS)

- 3.3 The construction of the access track and cutting will not require the removal of any trees or bushes. The ES which accompanied the wind turbine development noted that the spoil heap provides relatively poor habitats for breeding birds. The ES also noted that woodland fringing the southern boundary of the spoil heap was providing a habitat for bats. The proposed access track will have no effect on this habitat.

LANDSCAPE AND VISUAL

- 3.4 As noted above, the cutting and access track to T1 and T2 will cross land which forms part of a larger spoil heap associated with the presence of the adjoining industrial use. The proposed track and cutting will not be visible from outside the extent of the spoil heap. The visual effect of the proposed development is considered to be negligible.

CULTURAL HERITAGE (INCLUDING ARCHAEOLOGY)

- 3.5 The engineering works only affect land previously disturbed by mineral extraction and disposal. The full extent of the spoil heap and adjoining land were assessed as part of the baseline assessment of the archaeological and cultural heritage interests in the ES which accompanied the wind turbine development. The findings of the assessment noted that while the possibility must remain that construction works may result in previously unknown archaeological deposits being disturbed, the likelihood of important archaeology being present was low. The assessment further noted that the presence of the spoil heap (a relatively recent development in archaeological terms), would ensure that any archaeology

of interest will be unaffected by the development of the wind turbines and associated infrastructure on the surface. It is highly unlikely the proposed engineering works will have any archaeological or cultural heritage effects.

HYDROLOGY AND DRAINAGE

- 3.6 The spoil heap is situated in an area designated as Flood Zone 1, putting it at low risk of flooding. The engineering works will not cross or pass within 50 metres of any of the surface water bodies (save for the seasonal water body in the existing void) within and adjacent to the spoil heap. As noted above, the void to the east of turbine T1 to be used to receive material from the cutting contains a seasonal water body, not considered to be of any ecological interest. The proposed access track and cutting has the potential to alter surface water flow paths over the heap. The ES which accompanied the wind turbine development noted that the majority of surface water run-off from the spoil heap flows towards Town Brook or Crow Edge Slack and as such, will not be interrupted by the proposed access track. Insofar as there may be any localised effects, the proposed track will incorporate diagonal cross drains at appropriate intervals to minimise any impact on surface water flow. The route has also been chosen to ensure it does not run perpendicular to onsite contours, thereby minimising the potential for the track to become the preferential route for surface water flow.

ENVIRONMENTAL STANDARDS

- 3.7 The environmental information which accompanied the planning application for the wind turbine development included a draft Environmental management plan (EMP). The EMP has been updated to take account of the terms of the planning consent issued for the wind turbine development and was resubmitted to Barnsley MBC in February 2010. As part of the works associated with the construction of the wind farm, the proposed engineering works will be undertaken in accordance with the working practices set down in the latest version of the EMP to be agreed in writing with Barnsley MBC. A copy of the current draft of the EMP, setting down the standards to which the proposed engineering operations will comply is attached at appendix 2.

4. PLANNING POLICY CONSIDERATIONS

- 4.1 The proposed development is associated with, and will facilitate the development of a renewable energy development for which there is strong planning policy support at national, regional and local level. As with the consented wind turbine development, the proposed engineering works lie within the Green Belt as defined in the Barnsley Unitary Development Plan. Policy GS7 of the UDP reflects national policy advice in PPG2 and expects new development in the Green Belt to maintain openness and not to conflict with the main purposes of including land within the Green Belt. Policy GS9 goes on to deal with visual amenity within the Green Belt and states that development within the Green Belt or conspicuous from it should not result in significant harm to visual amenity.
- 4.2 The proposed development constitutes engineering operations. Paragraph 3.12 of PPG2 notes that engineering operations are inappropriate development in the Green Belt unless they maintain openness and accord with the aims of including land in the Green Belt. In this instance, the proposed development will have no material effect on the openness of the area. The land affected by the proposed engineering operations forms part of the former spoil heap which is the subject of a separate planning consent for land reclamation. Although lying within the Green Belt, it is clear the principle of disturbing the surface of this land has already been considered and established when the consent for the land reclamation works was granted. Whereas parts of the former spoil heap have begun to re-vegetate, The area of land crossed by the access track comprises predominantly bare ground. By virtue of its scale, nature and effect, it is not considered that the proposed development could constitute inappropriate development in the Green Belt.

5. CONCLUSIONS

- 5.1 The proposed development is minor in nature and is required in order to facilitate the speedy delivery of a renewable energy development for which there is strong planning policy support at all levels. The proposed engineering works will not have any substantive on site effects, the land in question forming part of a spoil heap for which extant consent exists for major land reclamation works. Control of off site effects will be facilitated by the implementation of an Environmental Management Plan which comprehensively addresses the effects. The proposal constitutes appropriate development in the Green Belt as defined in PP2 and meets the UDP policy requirements.

PLANS & DRAWINGS

HJB/574/PA30a	Engineering Works – Location Plan
HJB/574/PA31a	Engineering Works – General Arrangement: Site Plan
HJB/574/PA32a	Engineering Works – Earthworks: Site Plan
HJB/574/PA33	Engineering Works – Earthworks: Cross Sections

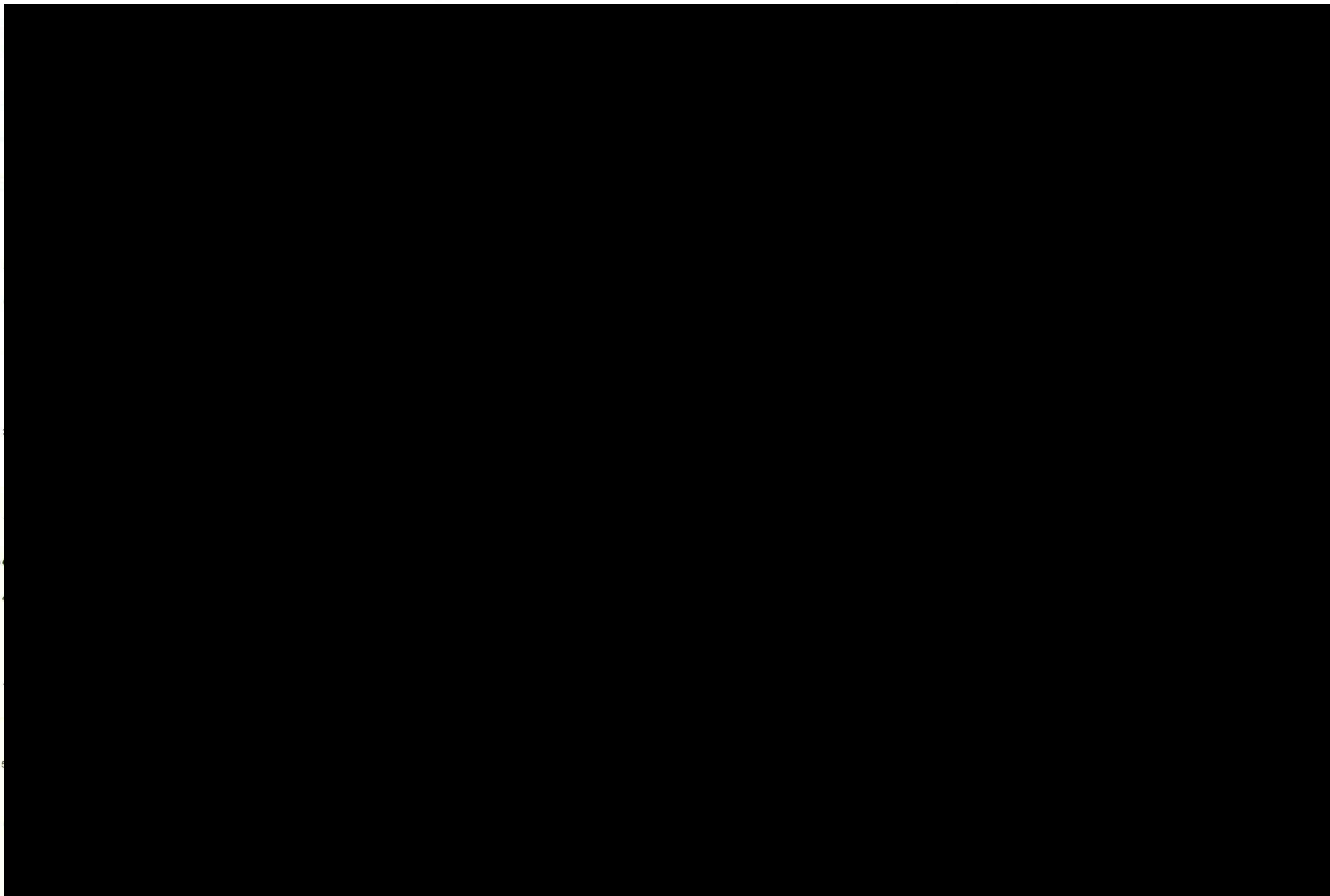


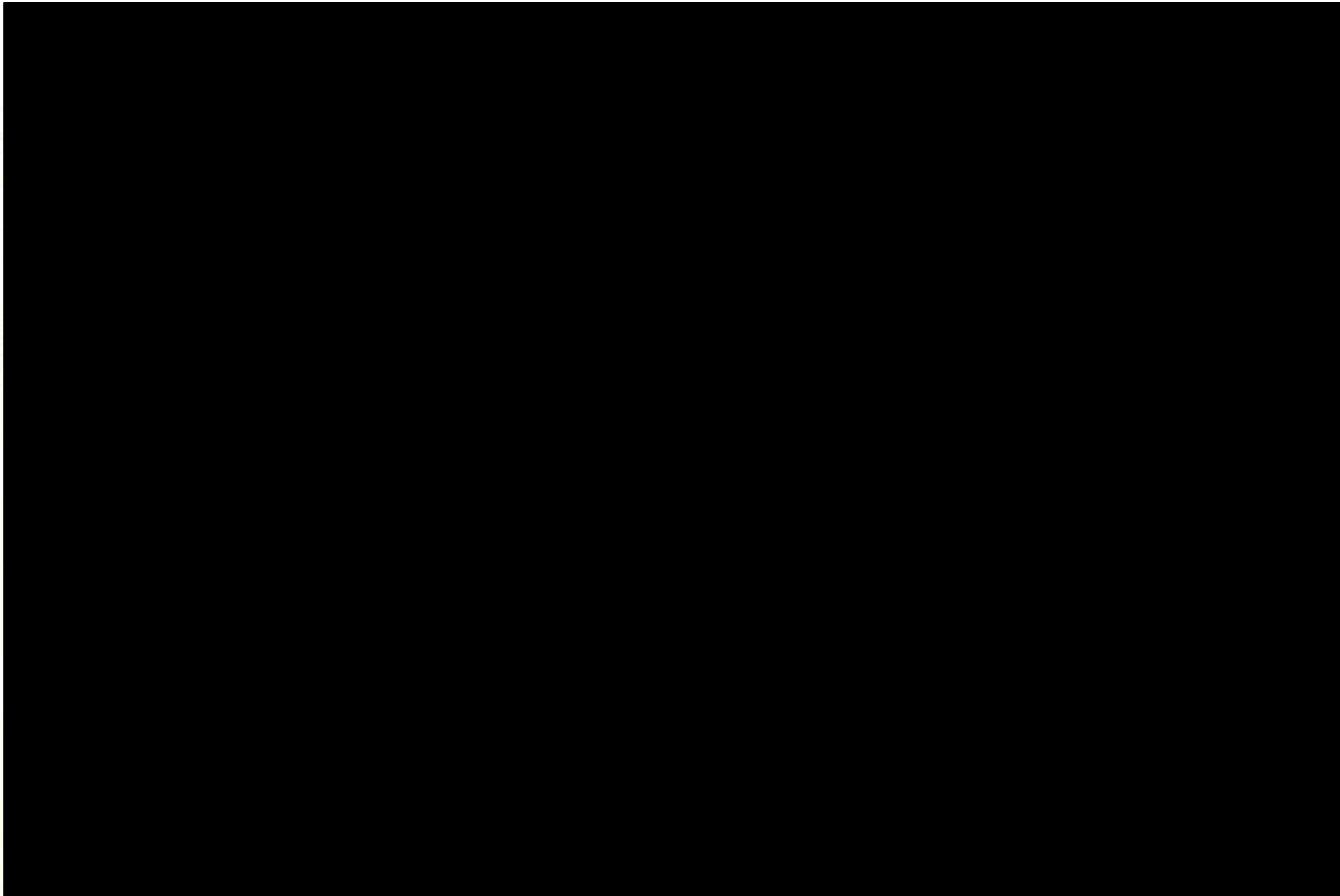
Key

-  Application boundary
-  Land in applicant's control
- 

A Amendment to application MJR SP 11.05.10			
Revision:	Description:	Drm:	Chkd: Date:
Scale:  0m 500m 1km 1.5km 2km			
Drawn: MJR	Org: SP	Checked: SP	App: 10.05.10
Scale: 1:50000	Date: 03.05.10	Drawing Status: APPROVED	
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Project: Hazelhead Wind Farm			
Title: Engineering Works - Location Plan			
Ref: HJB / 574 / PA30a	Sheet: 1 / 1	Issue: A4	
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Development With Care			

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APPENDICES

1. Construction Programme
2. Environmental Management Plan

APPENDIX 1

CONSTRUCTION PROGRAMME

**BANKS**Property. **Energy.** Waste.[illegible]

Banks Dwg No: HJB/574/PA10
WYG Ref: A029103_21_CS_S_004_P4
28/07/06
EGP

Programme does not allow for any delays due to weather or ecological constraints.

Rev.			Drawn	Chkd	App.	Date			
							HJ Banks & Company Limited 3 Linderley Way, Boltonbrook Links, Chesterfield, Derbyshire S413 4XE Telephone 01246 571500 Fax 01246 571555		
Development Division Midlands Area									
Project Hazlehead Windfarm									
Title Indicative Construction Programme									
Drawn: PSC Scale N.T.S Date: 14.08.06					Checked: SAB O.S. Ref. SE10				
Consultant: Whiter Young Green Consulting Ltd Associate Client: Haslingbury Leicestershire LE19 7JJ					Drawing Number A2310/01 21, CS, 5, Dm, PA, PA10				
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Drawing number					HJB/574/PA10				
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DOC NO. DE V/D09504

and the methodology of monitoring, reporting and rectifying any environmental concerns will be reviewed and altered, if deemed necessary.

Wherever updates are required a revised Environmental Management Plan will be issued. The revised plan and the standards set out therein will be in force until the next review.

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Working Draft 1

in line with the controls adopted for construction and any changes in legislation that have occurred since the construction phase. The controls listed below are therefore general measures for this stage and further detail will come from the statement.

3.1 REMOVAL OF WIND TURBINES

a) The applicable controls under the 'Transportation of Abnormal Loads' section will be followed when transporting the decommissioned turbine parts off site.

3.2 REMOVAL OF ANCILLARY INFRASTRUCTURE

a) Turbine foundations will be levelled and covered with subsoil and topsoil.

b) Tracks that are to be utilised for ongoing agricultural and land management operations would be left in-situ.

c) All other tracks will be allowed to grass over or covered with soil and reseeded.

d) All ancillary buildings and access points will be removed from the site

3.3 WASTE

a) Materials will be reused or recycled where possible.

b) All waste will be removed from site by a registered waste carrier.

4. REVIEWS OF THE ENVIRONMENTAL MANAGEMENT PLAN

This Environmental Management Plan will be reviewed annually during the construction phase of the Hazlehead Wind Farm Site through the ISO14001 management review process. The specific operational objectives and actions

d) All complaints will be acknowledged either by telephone, personal call or in writing.

e) A person competent in assessing television reception issues will visit the area allegedly affected and take signal strength readings. These readings will then be compared to the readings taken before the construction of the wind farm.

f) If following the investigation process the complaint is found to be justified then further action will be taken to resolve the issue. Examples of further action that can be taken include the following:

g) The replacement of the receiving aerial(s) for affected household(s). The provision of a new aerial that receives a narrower frequency band can reduce the amount of interference.

h) The Re-tuning of the television receivers at affected household(s). Re-tuning the receiver to a different transmitter in the area. This could involve replacing the aerial or changing the direction the aerial is facing to receive signals from an alternative source.

i) The provision of a cable system. This would involve the construction of a master receiving aerial located in an unaffected area, connected by cable to the affected properties.

j) The provision of a satellite reception dish and the necessary equipment to receive satellite television. This would be accompanied by an offer to pay the minimum subscription rate for a period of 5 years.

k) Once the complaint has been thoroughly investigated the complainant will be advised either by telephone, personal call or in writing of the results of the investigation undertaken, if the complaint is justified and any further action taken to resolve the matter.

l) The complaint will only be closed out when the full investigation and any action identified has been undertaken to resolve the matter.

3. DECOMMISSIONING PHASE

Objective Twenty Four – To decommission the site in a manner that minimises impacts to the environment.

ACTIONS

Operational Control

a) Within a period of at least 12 months prior to the decommissioning of the site a Decommissioning Method Statement will be prepared and submitted to the Local Planning Authority, which will include relevant environmental controls for this activity. The Decommissioning Method Statement will cover site restoration, soil replacement, landscaping, creative conservation, and a timetable for its implementation and maintenance. These will be

All complaints and incidents will be investigated and any necessary corrective and/or preventative action will be taken and recorded.

ACTIONS

a) Prior to work commencing on the Windfarm development contact details for the operators of the wind farm will be circulated within the local community.

b) Upon the receipt of a complaint the complaint and notifiable incidents procedure/s will be followed by the office staff.

c) All complaints will be acknowledged either by telephone, personal call or in writing.

d) Any complaints and incidents are reported to the Environment and Sustainability Coordinator who ensures that they are fully investigated, resolved and closed out. With a person competent in assessing shadow flicker visiting the area allegedly affected.

e) Once the complaint has been thoroughly investigated the complainant will be advised either by telephone, personal call or in writing of the results of the investigation undertaken, if the complaint is justified and any further action taken to resolve the matter.

f) Within the first 6 months after the wind farm is commissioned, a visual survey will be conducted at each of the properties identified around the perimeter of the site as sensitive when the sun is low in the sky and is casting a shadow in the direction of the properties, to ensure that the shadows do not contact the properties.

g) The results will be compared with the predicted ground shadow ranges to confirm the wind farm has been designed within these ranges.

h) If following the investigation the complaint is found to be justified then further action will be taken to resolve the issue, an example of which could include the programming of any affecting turbines to shut down when conditions that produce shadow flicker are present.

i) The complaint will only be closed out when the full investigation and any action identified has been undertaken to resolve the matter.

2.4 TELEVISION RECEPTION

Onshore wind turbines can cause electromagnetic interference (EMI) in certain circumstances, with physical interference causing a 'scattering' of signals which can lead to a phenomenon called 'ghosting' on some television screens.

Objective Twenty Three - To ensure that any complaints in relation to television reception are fully investigated with appropriate action being taken by following a complaint and notifiable incident procedures.

Banks Developments implements an external complaints and notifiable incidents procedure as part of the Environmental Management System. The following outlines the steps that will be followed should a complaint relating to television reception be received by telephone, letter, fax, email, personal call or at any liaison committees.

ACTIONS

a) Prior to work commencing on the Windfarm development contact details for the operators of the wind farm will be circulated within the local community.

b) On receipt of a complaint, the Banks Developments complaint and notifiable incidents procedure will be followed.

c) Complaint forms will be available at all area offices and on site during the construction phase. Details to be recorded on the complaint form include the name and contact details of the complainant, the date the complaint was received, the date and time the issue commenced, details of the concern, who received the initial complaint, details of investigation and action taken, how the complainant was informed of the investigation results and any action taken.



Noise monitoring

b) The results will be compared with the predicted noise levels to confirm that the wind farm is functioning as predicted.

c) Once it has been confirmed that the wind farm is operating within these limits the malfunction shut down mechanism and maintenance of the turbines will ensure that these noise limits are not exceeded due to malfunction.

Relevant Legislation

Under the Environmental Protection Act (EPA) 1990 levels of noise that are prejudicial to health or interfering with an individual's right to use or enjoy their property is a Statutory Nuisance therefore 'Best Practicable Means' (BPM) should be taken to prevent/abate any noise nuisance.

2.3 SHADOW FLICKER

During certain weather conditions the rotating wind turbine blades can cast moving shadows that cause a flickering effect on the ground. The extent to which this effect exists is dependent upon the height of the turbines, along with the angle of the sun in relation to the ground. Shadow flicker only occurs in relative proximity to sites – allowing for this affect to be designed out.

Objective Twenty One- To ensure that shadow flicker does not affect any properties within the shadow range of the Hazlehead Wind Farm.

ACTIONS

The wind farm has been designed so that shadow flicker will not affect any properties as a result of the site's operation. The extent of this affect has, in the design stage, been calculated using the geometry of the turbines and the latitude of the site. Shadow flicker only occurs in relative proximity to sites.

2.3.1 Complaint and Notifiable Incident Procedures

Objective Twenty Two - To ensure that any complaints and incidents that occur on site in regards to Shadow Flicker are reported, investigated and appropriate action taken by following complaint and notifiable incident procedures.

Complaint and notifiable incident procedures will be in place, that state how incidents of shadow flicker that may arise from the site's activities will be managed. Any complaint received will be logged at the company offices.

c) Any leaks will be contained and will be mopped up during maintenance and will be transported and disposed of as required by the Hazardous Waste Regulations and Duty of Care (See 'Relevant Legislation' below).

d) Any oil and chemicals required during maintenance would be brought on site in minimum quantities on an 'as required' basis by the technicians; this reduces the risk's that would be associated with storing large volumes on an unmanned site.

e) Fuels and chemicals will be stored in bunded lockable vessels contained within the construction compound, any transportation of fuel to vehicles will utilise a wheeled bunded bowser. Any onsite refuelling vehicles will utilise drip trays.

f) Emergency spill kits will be provided at the fuel storage area, with the mobile bowser and in large plant items.

g) Any chemical containers will be bunded in a manner so as to retain at least 110% volume of the largest tank within the bund, with bunding impervious with no associated drainage.

Relevant Legislation

The Control of Pollution (Oil storage) Regulations 2001 contains specific requirements for the safe storage of oil in any tank or container of greater capacity than 200 litres. The containers must be robust and in good condition and must be situated within adequate secondary containment to prevent the release of any oil that has escaped from its container and positioned to minimise the risk of impact. Although these regulations do not apply to oil contained in generators and transformers that is being used or stored in quantities less than 200 litres the potential for harm to the environment from an oil spill remains. Therefore it is good practice to provide secondary containment.

The Water Resources Act 1991 states that preventative action to minimise the risk of accidental spillage of a polluting substance being discharged into controlled waters must be taken.

The Hazardous Waste Regulations 2005

Regulation 29 allows a mobile service operator producing waste in the course of their business from premises at which they perform their mobile service activities, to register their main operating premises rather than the premises at which they produce the waste. This is dependent on a tenure restriction (Regulation 31) and a qualifying limitation (Regulation 30(1)(a)). The tenure restriction is that this only applies where the mobile service operator neither owns nor occupies the premises where they perform their mobile service activities.

Under both the Hazardous Waste Regulations 2005 and The Environment Protection Act 1990 and The Environment Protection (Duty of Care) Regulations 1991 movement of waste without using a registered carrier or one who is exempt from registration would be an offence. A waste producer carrying their own waste is exempt.

2.2 NOISE

Objective Twenty - To ensure that noise emissions are controlled to acceptable levels during the operation of the Hazlehead Wind Farm.

ACTIONS

Operational Control

The wind farm has been designed to comply with noise limits contained in ETSU-R-97, The Assessment and Rating of Noise from Wind Farms. The following monitoring measures will confirm that the wind farm is operating within the predicted limits.

a) Within the first six months after the wind farm is commissioned, a continuous noise survey set to an agreed methodology will be conducted to monitor the noise levels from the wind farm at or adjacent to locations agreed with the Environmental Health Officer (subject to permission from the various householders).

protection of migratory species by designating Special Protection Areas (SPAs) for areas associated with the species including their breeding and wintering areas.

The Hedgerow Regulations 1997 prevent the removal of most countryside hedgerows without submitting a hedgerow removal notice to the local planning authority first. The Regulations also set out criteria used by the local planning authority to determine which hedgerows are important.

Planning Policy Statement Biodiversity and Geological Conservation 2004 (formally PPG 9) makes it a legal obligation of developers to sustain, and where possible improve, the quality and extent of natural habitat and geological and geomorphological sites; the natural physical processes on which they depend; and the populations of naturally occurring species which they support.

Eurobats Resolution (2006) led to Natural England developing interim guidance regarding bats and wind farms (2008). This guidance advises the survey effort should aim to establish bat activity across the site, and good practice recommendation are made for development including buffer zones from habitat features such as hedgerows.

2. OPERATIONAL PHASE

2.1. OILS AND CHEMICALS

Objective Nineteen – To minimise the risk associated with oil and chemicals used on site when the wind farm is operational.

ACTIONS

Operational Control

The volumes of oil, fuel and chemicals stored on site that are necessary during construction will not be required once the wind farm is operational. However, oil will be contained within the turbine generator and gearbox and transformers to enable these to operate effectively.

- a) The turbines are constructed so that any leak of oil from the generator and gearbox within the nacelle would be contained within the turbine.



Access to the turbines for maintenance

- b) All turbine transformers will be sited on bunded foundations that are able to contain 110% of the oil contained within it.



A bunded transformer

b) Buffer zones of a minimum of 50 metres will be placed around features which may act as bat flightlines and foraging areas.

c) The layout of the access tracks will be planned to minimise the need to cross field boundaries that may damage hedgerows or trees.

d) A buffer zone of 200 metres will be implemented around woodland and buildings, as this may provide foraging habitat and potential roost sites.

e) Any tree felling must be undertaken before March in order to avoid summer roosting season.

f) An ecologist will review trees prior to their removal to ensure the absence of bats.

g) All night lights and security lights will where appropriate be directed towards the ground, away from any bat habitats e.g flightlines to reduce disturbance.

h) All site construction staff will be briefed regarding bats prior to any site clearance.

i) Natural England will be notified if any bats are discovered via the following contact number, and work must cease immediately.

NATURAL ENGLANDS REGIONAL TEAM – 01924 334500

1.12.4 Badgers

a) There will be a 200 metre stand off in terms of turbine layout from any woodland, to minimise disturbance of setts.

b) Access tracks will be limited to a width of 5 metres, ensuring minimum land take.

c) A speed limit will be imposed on newly built access tracks to reduce the likelihood of badger collisions associated with vehicles.

d) Lighting employed at night will be avoided where possible to reduce disturbance.

e) Trenches left open over night will have a means of escape for any animals that may become trapped.

f) Contractors and site workers will be given clear instruction on how not to cause damage or disturbance to badgers or their setts.

g) The site compound will be located at a distance greater than 50 metres from any known badger sett to minimise disturbance.

h) Badger paths will not be obstructed by fencing

1.12.5 Otters

a) Contractors and site staff will be advised on the actions to take in the event that otters are sited.

1.12.6 Water Voles

a) Contractors and site staff will be advised on the actions to take in the event that Water Voles are sited.

1.12.7 White Clawed Crayfish

a) Contractors and site staff will be advised on the actions to take in the event that White Clawed Crayfish are sited.

1.12.7 Great Crested Newts

a) Contractors and site staff will be advised on the actions to take in the event that Great Crested Newts are sited.

Relevant Legislation

The Wildlife and Countryside Act 1981 (as amended) allows for the designation of National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) and protects certain species and their habitats. Wild birds, their eggs and nests and disturbance to a nesting bird or its young is an offence where the bird species is listed in schedule 1 of this Act.

Council Directive on the Conservation of Natural Habitats and Wild Flora and Fauna (92/43/EEC) (The Habitats Directive) provides protection to specific habitat types and species listed as being under threat.

Council Directive on the Conservation of Wild Birds (79/409/EEC) (Bird Directive) requires

l) Regularly maintained and appropriately silenced equipment will be used.

m) Equipment/plant will be shut down when not in use, i.e. a 'no idling policy' will be maintained.

Relevant Legislation

Under the Environmental Protection Act (EPA) 1990 levels of noise that are prejudicial to health or interfering with an individuals right to use or enjoy their property is a Statutory Nuisance therefore 'Best Practicable Means' (BPM) should be taken to prevent/abate any noise nuisance.

BS 5228 (1997) 'Noise and vibration control on construction and open sites, Code of practice for basic information and procedures for noise and vibration control' provides a code of practise for predicting and assessing noise and vibration.

Permitted hours of operation shall be detailed in the planning permission.

1.12. ECOLOGY AND ORNITHOLOGY

Objective Eighteen - To minimise any temporary or permanent effects on wildlife and areas of ecological interest .

Appropriate ecological surveys for various species have been undertaken and completed prior to this planning application. Key mammal, invertebrate and amphibian surveys were undertaken for Bird species, Bats, Badgers, Otters, Water Voles, White Clawed Crayfish and Great Crested Newts. The mitigation measures that are suggested below for each species will be employed during the construction phase to avoid any potential impacts upon ecology.

ACTIONS

Operational Control

1.12.1 Birds

a) If breeding birds are present the areas where they are breeding will be cordoned off including appropriate buffers agreed with an independent Ecologist.

b) The exclusion area will include warning signs to act as a reminder to site staff.

c) The cordon will only be removed when an independent Ecologist has confirmed that the young have fledged.

d) To reduce the effect of construction noise and human disturbance on breeding birds, construction will begin where possible outside of breeding season.

1.12.2 Vegetation

a) Any trees and vegetation identified for retention on the Hazlehead Wind Farm Site will be marked on a plan and will be given sufficient stand-off. They will also be protected by fencing or stakes with bunting or hazard tape and identified with warning signs. With the removal of sections of hedgerow kept minimised where possible.



Fenced off vegetation

b) Ecological mitigation measures will be established for any identified protected species.

c) Any ecological mitigation measures required at the Hazlehead Wind Farm Site will be included in an ecological monitoring programme to measure their success.

1.12.3 Bats

a) Works will be undertaken in day light hours where possible to minimise disturbance.

Turbine Construction

1.11. NOISE

Objective Seventeen- To use best practice to ensure that noise emissions are controlled to acceptable levels during the construction of the Hazlehead Wind Farm.

ACTIONS

Operational Control

a) Hours of working will be agreed with the Local Planning Authority. No heavy goods vehicle deliveries will be permitted outside of these hours other than turbine component deliveries. Any requirements to work outside of these periods will only occur through agreement with the Local Authority.

b) All construction activities will be undertaken in accordance with good practice as set out in BS5228:1997.



c) All employees on the proposed wind farm construction site will be informed of any noise sensitive receptors in the vicinity of the site, and they will be advised regularly by the Site Manager of the quietest best practice methods of operating plant and tools and to report any damage to noise control measures immediately when they are identified.

d) All equipment will be maintained in good working order. Noise control measures will be fitted where appropriate for example, broadband reversing alarms, silencers, mufflers and acoustic hoods.

e) Where flexibility exists, activities will be separated from residential neighbours by the maximum possible distances, and using natural land features to screen the works.



Site generators

f) Pumps, generators and lighting sets will be located to ensure that they are inaudible at the nearest noise sensitive premises.

g) Queuing on public highways with engines running will be avoided.

h) The quietest working equipment available will be utilised, e.g. electric/battery powered equipment where possible.

i) Construction equipment will be sited behind physical barriers, e.g. existing features and hoarding.

j) Lined and sealed acoustic covers will be provided for equipment that could potentially cause a noise nuisance.

k) Plant noise will be directed away from sensitive receptors.

ACTIONS

Operational Control

1.10.1 Water Supply

a) A supply of water is required on site for dust suppression, wheel washing and concrete washout.

b) Provision will be made to ensure that the site has access to sufficient quantities of water for these activities.

c) Either abstraction from a borehole, mains supply or tankering water onto the site or a combination of these will be used. This will be agreed with the Environment Agency and Local Authority.

d) Unless otherwise agreed by the local planning authority before development commences, details of mitigation measures to protect raw water mains shall be submitted.

1.10.2 Maintenance of Tracks and Operation of Water Bowsers

a) Internal tracks at the Hazlehead Wind Farm Site will be clearly marked and all movement of mobile plant will be restricted to these.

b) The site will have access to a water bower that can be employed to spray water onto the surface of the tracks when required, during particularly dry conditions that may cause dust emissions.

c) The water bowser may also be used to spray water during excavation and tipping of soil, where necessary to prevent dust emissions.



An example of a water bowser used for dust suppression

1.10.3 Additional Measures

a) If for any reasons these precautions are not effective at preventing dust emissions from leaving the site, the Site Manager will suspend operations giving rise to the emissions until weather conditions change or effective dust control measures have been implemented.

b) The Site Manager may move site activity to another part of the site where operations can proceed without giving rise to dust emissions.

Relevant Legislation

Under Part III of The Environmental Protection Act (EPA) 1990 levels of dust that are prejudicial to health or interfering with an individuals right to use or enjoy their property is a Statutory Nuisance and therefore measures to prevent it becoming a nuisance should be taken.

The Water Resources Act 1991 requires an abstraction licence in order to abstract water from a borehole. If this method of water supply is used on site the licence will contain certain conditions such as the quantity of water that is permitted for abstraction.



A wheel wash in action

- b) The wheel wash will be effective at cleaning the wheels and underside of the lorries.
- c) Signs will be erected directing all lorries to use the wheel wash before leaving the site.
- d) The area surrounding and immediately after the wheel washing facilities will be maintained in good repair and kept free of slurry, mud or dirt to prevent recontamination of wheels.
- e) The road between the wheel wash facility and the access onto the highway will either be surfaced with tarmac or clean hard core material to provide a hard surface that is clean and free of ruts or potholes.
- f) If an automatic wheel wash is used water will be regularly replaced in order to keep it clean enough to be effective.



Wheel wash facilities ensure wheels are sufficiently clean

- g) Wastewater from the wheel wash will pass through silt traps and a settling sump before reuse. When the water can no longer be re-used

it shall be disposed of in a method agreed with the Environment Agency.

- h) The access road will be long enough to prevent any contamination washed from the wheels from being carried onto the highway.

- i) The access road at the site entrance will be provided with either a tarmac or hard core surface, and if necessary will be regularly cleaned and brushed to ensure that mud and dust deposits do not accumulate.

- j) A road brush will be used to supplement the wheel washing facilities.

- k) Measures to prevent mud/debris from being deposited on the public highway will be submitted to and approved by the local authority and such measures be retained for the entire construction period.

Relevant Legislation

It is likely that there would be a Planning Condition requiring wheel washing facilities.

Under Part III of The Environmental Protection Act (EPA) 1990 deposits or accumulations that are prejudicial to health or interfering with an individuals right to use or enjoy their property is a Statutory Nuisance and therefore measures to prevent it becoming a nuisance should be taken.

The Highways Act 1980 requires a site operator to do such works as necessary to prevent soil from being carried onto public highways. Any item deposited on a highway which is to the interruption of any user of the highway, The Highways Authority may, by way of a notice, require a person who deposited it there to remove it immediately.

See Section 1.7 for waste legislation.

See Section 1.4 for water discharge legislation.

1.10. PREVENTION OF FUGITIVE DUST EMISSIONS

Objective Sixteen - To prevent emissions of dust from site operations.



Road adaptation for abnormal loads

c) Any necessary temporary removal of street furniture will be carried out under the appropriate road construction consents and permits for carrying out works to the public road network.

d) Sight lines, the dimensions of which are to be confirmed, shall be safeguarded at the drive entrance/exit, such that there is no obstruction to visibility at a height exceeding 1.05m

e) The timings, management and delivery routes of the abnormal loads will be agreed with the police and the Highway's Authority and the local authorities will be informed.



Supervised abnormal loads

f) Any permits and consents required for the turbine component movements will be in place and followed.

g) The photographs and video evidence of the road's condition before the abnormal load transport will be submitted to the Council if considered necessary so that if any concern is raised about possible damage caused by the transport of the wind turbines to the site this can be assessed.

h) Any repair and maintenance work required will be carried out during and following the construction period to rectify any damage caused by the passing of heavy vehicles associated with the wind farm. All works will be carried out to the relevant road authority's required specifications.

i) All on site vehicular areas shall be hard surfaced and drained in an approved manner to prevent mud/debris being deposited on the public highway.

Relevant Legislation

The Road Vehicles (Authorisation of Special Types) (General) Order 2003

Permits and consents from the Council and Highways Authority

1.9. GENERAL SITE VEHICLE MOVEMENTS

Objective Fifteen- To ensure that the Hazlehead Wind Farm Site operates in a manner that results in internal and external surfaced roads being of an acceptable cleanliness.

ACTIONS

Operational Control

1.9.1 Traffic Movements

a) All traffic movement requirements will be issued to all suppliers and sub-contractors to ensure that they are aware of the requirements. This will include the requirement to go to the site compound or site control cabin to sign in and out, permitted hours of operation and traffic routes.

1.9.2 Wheel Wash Facilities

a) Wheel washing facilities will be available to clean the wheels and underside of all lorries before they exit from the Hazlehead Wind Farm Site. This will either be a hard standing wheel wash or a manned pressure washer.



Segregated hazardous waste storage

f) All controlled non - hazardous waste produced on site shall be stored in designated lidded skips, separate from the hazardous waste.

g) All controlled non - hazardous waste shall be removed from site by registered waste carriers to a suitable licensed waste management facility and duty of care waste transfer notes will be completed and retained.

h) All fences will be inspected at least once per week by a site engineer for wind blown litter which will be removed and placed in the designated skips. This inspection will be recorded on the weekly inspection form.

i) Bonfires and the burning of waste in the open are prohibited.

Relevant Legislation

The Hazardous Waste Regulations 2005 require the site to be registered as a producer of hazardous waste with the Environment Agency . Hazardous Waste must be stored separately and in a controlled way that prevents pollution. Hazardous Waste Consignment Notes must be completed before removal off site by a registered waste carrier. The waste must be disposed at a Hazardous Waste Management Facility.

Controlled waste is subject to Environmental Protection Act 1990 and Environmental protection (Duty of Care) Regulations 1991 imparts legal responsibility for responsible storage, handling and disposal of waste. A Duty of Care Waste Transfer Note must be

completed for waste leaving the site and a registered waste carrier must remove the waste. The waste must be disposed at a Non-Hazardous Waste Management Facility.

Under Part III of The Environmental Protection Act (EPA) 1990 deposits and accumulations that are prejudicial to health or interfering with an individual's right to use or enjoy their property is a Statutory Nuisance and therefore measures to prevent litter becoming a nuisance should be taken.

The Clean Air Act 1993 prohibits dark smoke from being emitted from industrial premises and therefore prevents the burning of waste on site.

Also see Oils, Fuels and Chemicals regarding waste oil.

1.8. TRANSPORTATION OF ABNORMAL LOADS

Objective Fourteen – To ensure that the transportation of abnormal loads to the Hazlehead Wind Farm Site are conducted in a safe, controlled manner that minimises impact along the route.

Abnormal loads associated with the construction of the wind farm include transporting the plant required for construction and the structural parts for the wind turbines.

a) A condition survey (including structural integrity) of the minor public roads on the defined haulage route will be surveyed and recorded using photographs and video prior to their use to check their adequacy for the abnormal loads required for the wind farm. A second condition survey will be carried out identifying any defects attributable to the wind farm traffic.

b) Civil engineering works will take place where necessary to adapt the roads, for example to widen road corners to allow the delivery vehicles to sweep around the corner and addition of passing bays.

Oil Spillage Kits

k) All accidental spillages will be immediately cleaned up in accordance with the emergency spillage procedure.

Relevant Legislation

The Control of Pollution (Oil storage) Regulations 2001 contains specific requirements for the safe storage of oil in any tank or container with a capacity of 200 litres or more. The containers must be robust and in good condition and must be situated within adequate secondary containment to prevent the release of any oil that has escaped from its container and positioned to minimise the risk of impact.

Waste Management Licensing Regulations 1994 continue to regulate waste oil as this is exempt from The Control of Pollution (Oil storage) Regulations 2001.

The Water Resources Act 1991 states that preventative action to minimise the risk of accidental spillage of a polluting substance being discharged into controlled waters must be taken.

The Environmental Protection Act 1990 places the duty of care on anyone who is holding waste to ensure that the waste is securely stored and cannot escape from a person's control. This is therefore relevant to the storage of waste oil.

1.7 WASTE MANAGEMENT

Objective Thirteen - To minimise the impact of waste generated by the Hazlehead Wind Farm Site.

The Hazlehead Wind Farm may produce relatively small amounts of both municipal / general waste from the sites offices and also hazardous wastes from the items of machinery on site. Hazardous waste that may be produced as a result of the construction phase include engine, hydraulic and transmission oils along with oil filters and absorbents.

ACTIONS

Operational Control

a) The Hazlehead Wind Farm site will be registered with the Environment Agency as a producer of hazardous waste.

b) A labelled, double-skinned waste oil tank will be provided for the collection of waste engine, hydraulic and transmission oils.



Waste oil storage

c) All waste shall be stored more than 10 metres away from any ditch, water lagoon, watercourse or pond.

d) Different types of hazardous waste shall be stored separately in labelled containers for example drained engine oil filters and oil absorbents.

e) All hazardous waste produced on site shall be removed from site by registered waste carriers to a waste management facility licensed to receive such waste and hazardous waste consignment notes will be completed and retained.

1.6. OIL FUEL AND CHEMICALS

Objective Twelve - To minimise the risk associated with storage, use and disposal of oils, fuels and chemicals.

This subsection covers the usage, storage and handling of any oils, fuels and chemicals that may be present on the Hazlehead Wind Farm site. Any oils, fuels and chemicals will where possible not be stored on site and will only be done so in relatively small amounts for short time periods. These materials will be used on site within the construction machinery and generators.

ACTIONS

Operational Control

- a) An inventory of all oils, fuels, and other chemicals that are stored in significant quantities with the potential to have significant environmental impacts will be kept on site recording the maximum amount, type and hazard associated with the substance.
- b) A Hazlehead Emergency Spillage Procedure will be prepared setting out the procedure to be followed in the event of any accidental spillage.
- c) All chemicals, oil and fuel will be stored in labelled containers which are of sufficient strength and structural integrity to ensure that they are unlikely to burst or leak during ordinary use.
- d) All deliveries of oil and fuel to the site will be supervised to ensure that storage tanks are not overfilled. A record of this will be kept on site.



Oil and fuel deliveries are supervised

e) Stationary and mobile fuel and oil tanks and their ancillary pipes will be provided with an impermeable bund of at least 110% capacity of the tank.

f) Any bunding that is exposed to the elements will be checked at least weekly for accumulated rainwater and litter. Litter will be removed and rainwater removed by pump ensuring that surface oil is first mopped up with oil absorbent pads. This will be recorded on the weekly inspection form once completed.

g) All oil storage will be located more than 10 metres from any ditch, water lagoon, watercourse or pond.

h) Drip trays will be used where necessary and waste oil will be drained into waste oil drainage tanks and transported to the waste oil storage tanks. These will have blanking valves to prevent leaks.



An oil drip tray

- i) Waste oil storage tanks will be labelled and double skinned.
- j) Sufficient quantities of absorbent materials, booms and mop up sheets will be provided in a labelled, waterproof container and available for use in the event of accidental spillage.



effluent discharge consent from the local water and sewage undertaker in order to discharge into the foul sewer network. This may set various limits for flow, pH, temperature and concentrations of various pollutants, which will need to be monitored if this method is used.

a) Lorries will deliver pre-mixed concrete to the site and pour the concrete directly into the prepared excavations.

b) When concrete lorries have unloaded, there is a requirement to wash out the inside of the concrete drum. A few gallons of water will be used to wash out the drum and the wastewater will be directed into the concrete washout pit.

c) The pit for concrete washout will be located near the construction compound, away from water courses in a location agreed with the Environment Agency.

d) The settlement pit will be sufficient for the volume of concrete lorries on the site.

e) The pit will be lined with an impermeable sheet and granular fill to assist in the settling process.

f) The washout bay shall be maintained as necessary by replacing the granular fill with clean stone.

g) Wastewater from this process shall be reused as much as possible to wash out more concrete lorries.

h) When wastewater can no longer be re-used it will be stored and disposed of as agreed with the Environment Agency.

1.5. CONCRETE MANAGEMENT

Objective Eleven – To effectively manage the use of concrete on site to protect water courses.

Cement, and concrete washout water can have a detrimental effect on watercourses by drawing oxygen from the water and affecting the alkalinity. The following management will prevent this water from entering watercourses.

ACTIONS

Operational Control

Relevant Legislation

The Water Resources Act 1991 states that preventative action to minimise the risk of accidental spillage of a polluting substance being discharged into controlled waters must be taken. Under this act it is an offence to cause or knowingly permit any poisonous, noxious or polluting matter, solid waste or trade effluent to enter any controlled waters, except in accordance with a discharge consent issued by the Environment Agency.

The Environmental Protection Act 1990 places the duty of care on anyone who is holding waste to ensure that the waste is securely stored and cannot escape from a person's control. This is therefore relevant to the storage of waste concrete wash out water.



Site lighting

1.4.3 Site Parking, Welfare Facilities and Site Offices

Objective Ten- To ensure that all employees and visitors are welcomed to a safe and clean site with the necessary welfare facilities.

ACTIONS

1.4.3.1 Compound Condition and Parking

- a) The Hazlehead Wind Farm Site car park will be physically separated from areas where mobile plant or lorries are operated or parked by installing boulders, fencing or bunting on stakes.
- b) The car park will be surfaced with either tarmac, crushed clean stone or hard core.
- c) Visitor car parking will be provided adjacent to the Hazlehead Wind Farm Site offices.
- d) All site plant will be prohibited from entering the site car park to prevent contaminating the surface of the car park with mud. A separate area will be provided for parking plant and site vehicles.

1.4.3.2 Site Offices and Cabins

a) The Hazlehead Wind Farm Site offices and cabins will be located in the compound area.

b) The Hazlehead Wind Farm Site office will be identified with a sign providing instructions on how the manager may be contacted if the office is unattended.

c) The site offices will be clean, tidy and free from excessive mud or dust on the floor.



An example site office

d) The external condition of site offices will be maintained in good repair.

e) Grass verges of the access road and highway in the immediate vicinity of the Hazlehead Wind Farm Site will be maintained and protected from damage by vehicles and kept free of litter.

1.4.3.3 Welfare Facilities

a) All drainage from sinks, showers and lavatories will be connected to a septic tank, cess pool or to the foul sewer. If septic tanks are used, subject to agreement with the Environment Agency, these will be connected to a soakaway below ground and not discharged to any open ditches.

b) Lavatories, washing and shower facilities will be maintained in a clean and hygienic condition suitable for visitors.

Relevant Legislation

There is likely to be a planning condition requiring the detailed compound layout to be agreed with the Local Authority.

The Water Industry Act 1991 requires a trade

c) All ditches will be maintained free of any obstruction to the flow of water.

d) Ditches will be maintained free from excessive erosion and where necessary remedied by lining with plastic sheeting, netting, stones or placing turf along the banks and channel of the ditch.

e) All existing land drains will be identified and disconnected from watercourses.



Turbine base construction.

f) The ditches will be laid and maintained to avoid low points that prevent water draining.

g) All excavated materials will be placed within the area surrounded by the perimeter ditches. This will ensure that any runoff containing sediment that is generated enters the ditches, rather than any natural water courses on site.

h) The ditches will be reinstated using soils on completion of the backfilling of the foundation excavation.

1.3.3 Construction of Cable Trenches

a) Cable trench excavation, cable laying and backfill will be carried out in a continuous operation, minimising the length of trench open at any one time and therefore reducing the risk of runoff.

b) Cable trenches will either be clay lined or will have intermittent impermeable material to prevent the trench from acting as a ditch or a conduit for water flow.

Relevant Legislation

The Water Resources Act 1991 states that preventative action to minimise the risk of accidental spillage of a polluting substance being discharged into controlled waters must be taken. Under this act it is an offence to cause or knowingly permit any poisonous, noxious or polluting matter, solid waste or trade effluent to enter any controlled waters, except in accordance with a discharge consent issued by the Environment Agency.

The Construction (Design Management) Regulations 1994 (and amendments) require a detailed management plan for construction activities on site.

1.4. SITE COMPOUND

1.4.1 Construction

Objective Eight – To ensure that the Hazlehead compound is constructed in an environmentally acceptable manner.

a) The compound location and layout will be in accordance with a plan agreed with the Local Authority.

b) The applicable dust suppression techniques contained in Section 1.10 will be implemented whilst constructing the compound area to ensure that this operation does not give rise to dust emissions.

1.4.2 Lighting

Objective Nine- To ensure that the compound is well illuminated by lighting that is not intrusive outside the site boundary.

ACTIONS

a) All lighting rigs used at the Hazlehead Wind Farm Site compound will be downward facing.

b) All floodlights on the compound will be switched off during daylight hours.

The Construction (Design Management) Regulations 1994 (and amendments) require a Site Construction Design Management Plan which will include more detail on management of fencing and security.

1.3. DRAINAGE

Objective Seven – To effectively manage drainage on site to minimise and control surface runoff during construction of the wind farm.

1.3.1 Construction of Site Tracks



Site tracks

ACTIONS

Operational Control

a) Drainage will be provided alongside the site tracks to ensure that the impact on local hydrology is minimised.



An example of drainage alongside tracks

b) The track routes that follow the contours of the land will reduce the risk of the roads

becoming preferential drainage lines by running perpendicular to the contours.

c) Where tracks cannot be prevented from running perpendicular to the contours the drainage design will prevent excessive sediment run-off by the use of steps or small dams to reduce flow rates.

d) Diagonal cross drains will also be provided at appropriate intervals to divert flow into existing drain lines or watercourses to minimise erosion.

e) Tracks will be constructed of material to allow them to be permeable, so reducing runoff from these surfaces.



Example of drainage of an existing watercourse

f) Water discharge points will have water treatment measures as agreed with the Environment Agency.



Surface water treatment measures for silt removal

1.3.2 Construction of Turbine Foundations and Crane Pads

a) The perimeter of the foundation excavation and crane pad areas will be ditched to prevent runoff of materials or silt laden water. This will feed into the track ditches.

b) All ditches will be inspected once a week to ensure they are in good condition.

Site are safely and securely fenced to discourage unauthorised access

ACTIONS

Operational Control

1.2.1 Fencing

a) The perimeter of the Hazlehead Wind Farm Site is to be fenced along any open sections that are not already closed.



Perimeter fencing

b) The areas where ground work will be carried out on the Hazlehead Wind Farm Site will be temporarily fenced and marked with warning signs to discourage unauthorised access whilst they remain active.



Construction site warning signs

c) There will also be warning signs on any fencing adjacent to public access areas such as footpaths and public highways and any stiles and gates provided on footpath crossing points will be maintained in a good condition.

d) The fencing will be inspected once per week by a site engineer to check for damage. The results of this inspection will be recorded on the weekly inspection form.

1.2.2 Road Access Point

The permitted Hazlehead Wind Farm Site access points from public roads onto the site will be provided with the following :-

- A lockable gate in good condition.
- A sign stating the name of site and the operator, a contact name and 24 hour telephone number.
- A sign on the road either side of the entrance warning of site access.



Warning sign of site entrance

b) All the above will be maintained in a clean condition.

c) The access road and public highway will be hard surfaced, maintained in good repair free from excessive cracks, unevenness, raised trenches or potholes.

1.2.3 Security

a) Site security staff will be present outside of the construction site's permitted working hours.

b) All security staff shall be provided with emergency and out of hours contact details.

c) The compound will be surrounded with a security fence and warning signs

Relevant Legislation



Site liaison meetings discuss any issues raised

1.2. FENCING AND SECURITY

Objective Six- To ensure that the active construction areas of the Hazlehead Wind Farm

quarter from the start of the operation.

ACTIONS

Before an audit the following documents will be consulted in order to check conformance where applicable:

- Any discharge consents and abstraction licences
- Planning Permission and conditions
- Records of any previous environmental audits, non-conformance notices, complaints and environmental incidents.



An environmental audit taking place

- a) The measures to control significant aspects outlined in this report and their effective implementation will be checked during regular environmental audits of the site, during the site construction phase.
- b) The Local Authority, Environmental Health Department, representatives from the local community and liaison committee members will be welcome to attend the audits.
- c) The results of the audit will be recorded on the environmental audit report and any non conformances found will be formally recorded along with the action required.
- d) Each non conformance will be issued to the relevant person/s to take the corrective / preventative action detailed within an agreed timescale.
- e) The Environment and Sustainability Coordinator will monitor the progress of actions and once action has been taken it will be checked and if satisfactory the non-conformance will then be closed out. If there are any outstanding actions at the next audit, these will be priority items to check.

- f) The audit results will be reported at the site liaison committee.

1.1.5 Site Liaison Committee

Objective Five– To establish and maintain regular Liaison Committee meetings to communicate the Hazlehead Wind Farm Site's progress and environmental performance and to listen to any issues raised.

ACTIONS

- a) A Hazlehead Wind Farm Liaison Committee will be established prior to commencing the site construction phase and meetings will be held regularly during the construction phase. Meetings will also be held at a frequency agreed by the committee, possibly extending into the first year of the operational phase if considered necessary.
- b) The purpose of the committee is to discuss relevant issues that arise out of the development which could have an effect on people living or working in nearby properties or enjoying nearby land.
- c) Representatives from the Local Environmental Health Officers, Councillors, the Environment Agency and local residents will join Hazlehead Wind Farm Ltd to form the committee.
- d) The aim of the committee is to act as a forum for the exchange of information on progress of the site and for the company to listen to any views of local residents relating to the development and respond accordingly.
- e) Environmental audit findings will be presented to the liaison committee.

- Contact names, addresses and telephone numbers and general emergency procedure for environmental or safety incidents
- Emergency Spillage Procedure for environmentally significant oils, fuels and chemicals
- Environmental audit reports and non-conformance notices
- Duty of care waste transfer notes for removal of municipal waste from site, and hazardous waste consignment notes for removal of any oils / chemicals not handled by any contractors.
- Site Waste Management Plan

1.1.3 Complaint and Notifiable Incident Procedures

Objective Three - To ensure that any environmental complaints and incidents that occur on Banks' site are reported, investigated and appropriate action taken by following complaint and notifiable incident procedures.

Complaint and notifiable incident procedures will be in place, that state how any environmental complaint or incident of a notifiable nature that may arise from the site's activities will be managed. Any complaint received will be logged at the site or the company offices. All complaints and incidents will be investigated and any necessary corrective and/or preventative action will be taken and recorded.



Complaints and incidents are logged and investigated

ACTIONS

- a) Contact telephone numbers including a 24 hour number will be published in leaflets distributed to occupants of neighbouring premises before site operations commence and will also be detailed on the site entrance sign.
- b) The complaint and notifiable incidents procedure/s will be followed by the site management and office staff.
- c) Any complaints and incidents are reported to the Environment and Sustainability Coordinator who ensures that they are fully investigated, resolved and closed out.

1.1.4 Environmental Audits

Objective Four- To ensure that the site is regularly audited against this EMP to monitor the achievement of the environmental objectives at the Hazlehead Wind Farm.

Environmental audits are fundamental to ensuring that the actions for each objective contained within this EMP are established and maintained on the Hazlehead Wind Farm. Audits are set to take place provisionally every

The Site Manager is Responsible for the implementation of the Environmental Management Plan

1. CONSTRUCTION PHASE

1.1 GENERAL MANAGEMENT

1.1.1 Management Awareness

Objective One - To ensure that the Hazlehead Wind Farm Site Management is fully aware of the site environmental standards and is encouraged to be committed to complying with the standards.

It is the site management's responsibility to ensure that the actions contained in this EMP are conducted and maintained. Therefore the site management's awareness of the environmental standards set out in the EMP is critical to the successful working of the Hazlehead Wind Farm Site and the attitude that they take will be reflected in the overall conditions prevailing at the site.



ACTIONS

a) Regular site environmental audits, undertaken by the Environment Team to assess the site's environmental performance against the EMP, will be used to educate and motivate site management to achieve the desired environmental standards on site by explaining the importance of conforming to the standards and focussing on any areas that require improvement. The responsibility to ensure the mitigation measures are implemented and the relevant environmental legislation is complied with, is set with the site management.

b) The site management will have had environmental awareness training. This will be conducted by talks from the environment team, and include the BANKS environmental policy and environmental issues raised within the EMP.

1.1.2 Documentation

Objective Two- To ensure that the site management understands and maintains up-to-date copies of relevant documentation.

ACTIONS

a) The following documents are important to the environmental management of the Hazlehead Wind Farm Site. These will be available on site and will be kept up-to-date by Site Management.

- The Hazlehead Wind Farm Environmental Management Plan (this document)
- Planning permission, planning conditions and associated documents
- Any discharge consents and abstraction licences
- Complaint and notifiable incident log books and procedures
- Weekly site inspection forms
- Banks Environmental Policy
- Results of any site environmental monitoring

INTRODUCTION

AIMS AND SCOPE OF THE ENVIRONMENTAL MANAGEMENT PLAN

This Draft Environmental Management Plan (EMP) sets the standards of environmental performance for the Hazlehead Wind Farm. These standards will form the basis against which the site will be measured during environmental audits. The primary purpose of this document is to act as an example of the various working practices that will be involved.

This is an indicative EMP for the Hazlehead Wind Farm, enabling factors that affect wind farm construction, operation and decommissioning to be addressed. The EMP at this stage is classed as a draft, and will be followed by a more detailed site specific EMP and Construction Management Plan once planning permission has been granted. Factors unique to this operation will be addressed within the site specific EMP.

The document sets a number of objectives to ensure that the site is operated in an environmentally acceptable manner through managing the site's significant environmental aspects¹. The scope of this EMP for the Hazlehead Wind Farm is all activities, whether conducted by Hazlehead Wind Farm Ltd, other parts of The Banks Group or other companies and sub-contractors, that are part of the construction, operation and decommissioning of the wind farm. The products of the activities are the wind farm itself and the energy it produces. The connection to the existing electricity supply grid will be the subject of a separate consenting process. It will be detailed in all contractor's contracts that they will have to demonstrate compliance with the sections of this EMP relevant to their activities.

This EMP is split into three sections for the phases of the Hazlehead Wind Farm Site; construction, operational and decommissioning. All environmental controls contained in these

sections refer exclusively to those phases unless stated otherwise.

Each significant aspect has one or more objectives, which are followed by actions to ensure that the objectives are met through operational controls. A section on the relevant legislation follows, which details the environmental guidance and legislation relevant to that particular significant aspect.

The Banks Environmental Management System is certified to the ISO14001:2004 standard and is subject to regular internal and independent external audit to ensure that the management system is implemented and effective. The standards of the EMS will be applied to this site.

A Hazlehead Liaison Committee will be established to communicate progress of site operations and report the internal environmental performance audit results during the construction phase.



¹ A significant environmental aspect is any element of our activities, products and services that can interact with the environment and has the potential to have a significant environmental impact (BS:EN ISO14001:2004)

Banks Environmental Policy

Banks Group is a leading developer of surface mines, land and property projects, waste management facilities and renewable energy projects.

The aim of our Environmental Policy is to support the continued development of these businesses whilst maintaining a high standard of environmental performance.

We recognise that our activities may have the potential to make a significant impact on both the environment and local communities, and that it is our responsibility to maximise environmental benefits and minimise any adverse impacts arising from these activities. We produce project specific Environmental Management Plans which set out how our identified significant environmental aspects, such as noise, waste management and emissions to water or air are to be managed for that particular project. Through the implementation of this we remain firmly committed to our longstanding policy of Development with Care.

We are committed to continuing the achievement of the following environmental policy objectives throughout the design, development and operation of our projects:

- 1 To ensure the continuous improvement by implementing a programme of regular audit and annual review of the environmental management system at the EMS Management Review meeting and maintain certification to the BS EN ISO 14001:2004 standard.
- 2 To ensure that all projects are designed, developed and operated incorporating measures to prevent pollution by avoiding, reducing or controlling emissions and discharges to an acceptable level.
- 3 To adopt best practice to achieve the environmental objectives and targets set down in each project's Environmental Management Plan and to comply with all relevant environmental legislation.
- 4 To assess the environmental performance of individual projects operated by the Group through a programme of environmental audits and monitoring.
- 5 To communicate the requirements of this policy and to make sure that additional copies of the policy and individual project environmental management plans are made available to all employees, any suppliers and contractors that could have a significant environmental impact, to the public and to any other interested parties that request such information.

Harry Banks

Chairman
The Banks Group
18 October 2005

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Development with Care

BANKS

Banks Developments

Property. Energy. Waste.

Hazlehead Wind Farm

Environmental Management Plan

Working Draft 1 - February 2010



APPENDIX 2

HAZLEHEAD ENVIRONMENTAL MANAGEMENT PLAN