

25 March 2010

Hammonds
2 Park Lane
Leeds
LS3 1ES

Our Ref: APP/R2928/A/07/2039188
Your Ref: 20060040

Dear Sir,

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78
APPEAL BY WIND PROSPECT DEVELOPMENTS LTD
LAND AT GREEN RIGG FELL, BIRTLEY PARISH, TYNEDEALE,
NORTHUMBERLAND
APPLICATION REF: 20060040**

1. I am directed by the Secretary of State to say that consideration has been given to the report of the Inspector, David M H Rose, BA(Hons) MRTPI, who held a public local inquiry on dates between 15 January and 18 December 2008 into your client's appeal against non-determination of an application by Tynedale District Council for the erection and operation of 18 wind turbines with associated tracks, underground cables, switchgear building and anemometer mast at land at Green Rigg Fell, Birtley Parish, Tynedale, Northumberland in accordance with application ref 20060040, dated 5 January 2006.
2. On 10 May 2007, the appeal was recovered for the Secretary of State's determination, in pursuance of section 79 of, and paragraph 3 to Schedule 6 to, the Town and Country Planning Act 1990. The reason for the recovery was that the appeal relates to proposals giving rise to substantial regional or national controversy.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that the appeal be allowed and planning permission granted subject to conditions. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and agrees with his recommendation. A copy of the Inspector's report (IR) is enclosed for the main parties. For all other parties, a copy of the Inspector's conclusions is enclosed. Copies of the full 717-page Inspector's Report can be obtained upon request to

Department for Communities and Local Government
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the address at the foot of the first page of this letter. All references to paragraph numbers, unless otherwise stated, are to the Inspector's report.

Procedural Matters

4. The inquiry held by Mr Rose also considered two applications for consent under section 36 of the Electricity Act 1989. Those two applications are referred to in the IR and in this letter as the "Steadings" scheme and the "Ray" scheme, and both fall to be determined by the Secretary of State for Energy and Climate Change. His decision on those applications is the subject of a separate letter of today's date, copies of which may be obtained from www.og.decc.gov.uk/EIP/pages/recent.htm.
5. The Secretary of State has carefully considered whether the appellant was prejudiced as set out at IR15.10. He agrees with the Inspector's reasoning and conclusions on this matter, in so far as they relate to the appeal proposal, as set out at IR15.11 – 15.12, and like the Inspector he considers that your client has not been prejudiced to a material degree (IR15.12).
6. In relation to the submission of documents by the Ministry of Defence (MOD), the Secretary of State agrees with the approach taken by the Inspector at the Inquiry, as set out at IR1.29 – 1.31, and considers that no party was prejudiced by this approach. The Secretary of State has also had regard to the Inspector's comments at IR1.32 – 1.33, and he is satisfied that no party was prejudiced by the matters set out there.
7. Like the Inspector, the Secretary of State has given careful thought to the submissions made during the course of the Inquiry about the absence of clear details on grid connections with particular reference to Environmental Impact Assessment. Having had regard to the Inspector's comments as set out at IR1.24 – 1.28 and IR15.13 – 15.15, he shares the Inspector's view that even though the wind farms and the grid connections would not proceed independently, they could be distinguished from each other and be said to be separate projects and, on that basis, each could be the subject of a separate application and appropriate Environmental Impact Assessment (IR15.14).
8. In determining this appeal, the Secretary of State has taken into account the Environmental Statement which was submitted under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and the supplementary environmental information submitted under Regulation 19 in May 2008 (IR1.16). The Secretary of State is content that the Environmental Statement, as supplemented, complies with the above regulations and that sufficient information has been provided for him to assess the environmental impact of the appeal.
9. The Secretary of State agrees with the Inspector's reasoning and conclusions, as set out at IR15.19 – 15.28, with respect to the consideration of alternative sites. He agrees with the Inspector that there is no policy basis within PPS22, its Companion Guide and the development plan to render necessary the consideration of alternative sites (IR15.28). He has had regard to the fact that, following the close of the Inquiry, the legal position on this matter has been

clarified by the *Carsington* case but considers that the judgment in that case does not constitute a material change in circumstances in the matters relevant to this proposal to an extent that would affect his decision, or require him to refer back to the parties for further representations prior to reaching his decision (IR15.28).

10. Following the close of the inquiry, the Secretary of State received representations from Mr Sherod Walker dated 5 February, 2 March, and 15 March 2010. The Secretary of State has given careful consideration to Mr Walker's representations, but he does not consider that they raise any new issues which require him to refer back to parties before reaching his decision. Copies of these representations may be obtained upon request from the address at the foot of the first page of this letter or from PCC@communities.gsi.gov.uk.
11. At the inquiry an application for costs was made by the appellant against the MOD. That application will be the subject of a separate decision letter.

Policy considerations

12. In deciding the application, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise.
13. In this case, the development plan comprises the North East of England Plan - Regional Spatial Strategy to 2021 (RSS), published July 2008, the Tynedale Local Development Framework – Core Strategy (CS), adopted October 2007, and those saved policies of the Tynedale District Local Plan (LP), adopted April 2000, which have not been superseded by the Core Strategy. The Secretary of State has had particular regard to the development plan policies set out by the Inspector at IR1.68 – 1.71. In addition, he observes that LP policy NE16 was saved by his direction of 31 August 2007, and he considers that it does therefore form part of the development plan.
14. Other material considerations which the Secretary of State has taken into account include Planning Policy Statement (PPS)1: *Delivering Sustainable Development*, including the supplement on Planning and Climate Change; uncanceled parts of PPS7: *Sustainable Development in Rural Areas*; PPS9: *Biodiversity and Geological Conservation*; PPS22: *Renewable Energy* and PPS22 Companion Guide: *Planning for Renewable Energy*; PPS23: *Planning & Pollution Control*; PPG24: *Planning and Noise*; Circular 11/95: *The Use of Conditions in Planning Permission*; Circular 05/05: *Planning Obligations*; CLG Guidance note: *The Good Practice Guide on Planning for Tourism*; the Minerals planning documents as referenced by the Inspector at IR1.66 (with the exception of MPG11, which is no longer Government policy, having been replaced by MPS2); the Energy White Paper 2003: *Our energy future – creating a low carbon economy*; the Energy Challenge Energy Review Report 2006; and the Energy White Paper 2007: *Meeting the Energy Challenge*. The Secretary of State has also had regard to the other published documents as set out by the Inspector at IR1.74 – 1.88.

15. Since the close of the inquiry, Planning Policy Statement 4: *Planning for Prosperous Economies* was published on 29 December 2009, and PPS5: *Planning for the Historic Environment* was published on 23 March 2010. In so far as these policy documents are relevant to the appeal proposal, he considers that they do not constitute a material change in circumstances in the matters relevant to this proposal to an extent that would affect his decision, or require him to refer back to the parties for further representations prior to reaching his decision.

Main issues

16. The Secretary of State considers that the main issues in this case are those set out at IR1.18 and addressed below.

Accordance with the development plan

17. The Secretary of State agrees with the Inspector's reasoning and conclusions, as set out at IR15.31 – 15.42 and IR Appendix A paragraphs A.1 – A.19, in as much as they relate to the appeal proposal, in respect of the extent to which the proposed development would be in accordance with the development plan for the area. Like the Inspector, he has had regard to RSS Policy 3.1(c), and the fact that RSS Policy 41 identifies the Knowesgate Area, within which the site lies, as having potential for medium scale wind energy development (IR15.31). He has also had regard to Policy 39(a) of the RSS which sets out to facilitate the generation of at least 10% of the Region's consumption of electricity from renewable sources within the Region by 2010 (IR15.32). He agrees with the Inspector that, in using targets as a general monitoring tool it is apparent that the desired level of installed capacity by 2010 will not be achieved, and that is something that should not be ignored given the wider imperatives of Government policy and the explicit target, in PPS22, of generating 10% of the UK's electricity from renewable sources by 2010 (IR15.38). In conclusion, like the Inspector (IR15.39), the Secretary of State considers that the published targets are not immaterial in the determination of this appeal and he has taken them into account in his decision.

Accordance with Government policy on energy

18. With regard to the extent to which the appeal proposal would be consistent with Government policy on energy, the Secretary of State agrees with the Inspector's analysis at IR15.43 – 15.47 and with his conclusion that there is clear support for the project in principle (IR15.49). He further agrees with the Inspector that PPS22 indicates that the wider environmental and economic benefits of renewable energy projects are material considerations that should be given significant weight (IR15.48).

Justification for the sites

19. The Secretary of State has had regard to the Inspector's remarks about the appeal site's having been identified by your client as a suitable potential site following an extensive search of the region and the detailed consideration of at least 13 sites (IR15.53 – 15.54). He agrees with the Inspector that there is no

suggestion that your client has failed to comply with the Environmental Impact Assessment Regulations in relation to the site selection process (IR15.55).

Landscape and Visual Impact

20. To the extent that they are related to the appeal proposal, the Secretary of State has had regard to the Inspector's comments at IR15.56 – 15.59, IR15.61 and IR15.63 – 15.69. The Secretary of State agrees with the views set out by the Inspector at IR15.92 – 15.93, and with his conclusion at IR15.94, in so far as it relates to the Green Rigg scheme. He agrees with the Inspector, for the reasons set out by him at IR15.142 – 15.153, that the proposal would have minimal impact on the Upland Fringe Farming Landscape Character Type and that its effects on the Outcrop Hills and Escarpment Landscape Character Type would not be material (IR15.154). He further agrees that, in visual terms, the proposed turbines would be seen to be out of character with their immediate landscape setting, but such impacts would diminish with distance; and variations in topography and vegetation would often provide a measure of shielding (IR15.154).

21. The Secretary of State agrees with the Inspector that, overall, the proposal would be consistent with Policy 41 of the RSS (IR155) and shares his conclusion that, in terms of Policy 40(b) of the Regional Spatial Strategy and Policy EN2 of the Tynedale Core Strategy, having regard to the character and sensitivity of the surrounding landscape, that the proposal by virtue of its location, scale and visual impact would not result in serious harm (IR156).

22. Like the Inspector (IR15.157), the Secretary of State has also taken account of the potential cumulative landscape and visual impacts that would arise from the appeal proposal taken together with the existing Kirkheaton wind farm and either or both the proposed Steadings and Ray wind farms. He agrees with the Inspector's assessment of these cumulative impacts at IR15.179 – 15.190.

Noise

23. For the reasons given by the Inspector at IR15.192 – 15.195, the Secretary of State shares his view that ETSU-R-97 should be used to assess and rate noise in relation to the appeal proposal. For the reasons given by the Inspector at IR15.196 and IR15.202, he takes the view that there is little reason to support the proposition that the assessments in relation to the appeal scheme are less than reliable (IR15.202). The Secretary of State also agrees with the Inspector that, in terms of construction noise, the impacts could be mitigated to a sufficient degree by appropriate planning conditions (IR15.222). Overall, he agrees with the Inspector that, having established what the appropriate noise levels should be, on the basis of ETSU-R-97, these can be translated into planning conditions which will limit noise from the operation of the proposed wind farm or a combination of Green Rigg with either or both the Steadings and Ray applications (IR15.230). Like the Inspector (IR15.574), he is satisfied that, in respect of noise, the proposal would be consistent with policy EN2(a) of the CS, and policy C19 of the LP.

Impact on Aviation Interests

24. The Secretary of State has had regard to the Inspector's comments and analysis, in so far as they apply to the appeal proposal, as set out at IR15.231 – 15.251 and IR15.260. On the basis of the evidence before him, he agrees with the Inspector that there is a justifiable need to secure mitigation with regard to the operations of National Air Traffic Services (En-Route) Limited (NERL) (IR15.251). He has taken into account the fact that NERL accepts that, for its own operations (but contrary to its contractual obligations with the MOD), it would be possible to accommodate the wind farm by blanking out returns from Great Dun Fell over the area of the proposed site given its comparatively small size and its location towards the edge of Airway L602 (IR15.258). On the basis set out by the Inspector at IR15.259, he agrees that NERL's preference for blanking appears well-founded. Given the overall characteristics of the airway and the nature of aviation activity in the area, the Secretary of State agrees with the Inspector that the appeal proposal would be capable of the pragmatic solution of blanking (IR15.265).
25. Having taken account of the Inspector's remarks and analysis (in so far as they relate to the appeal before him) at IR15.267 – 278, the Secretary of State shares the Inspector's view that it would be undesirable to superimpose added complexities to air traffic control in this particular location, even though it is accepted generally that Newcastle International Airport Limited's (NIAL) controllers could absorb additional work (IR15.276). To that extent, he considers that the proposition that no mitigation of the scheme's effects on the operations of NIAL is required, as advanced by your client, is undermined, and he has gone on to consider this in his conclusions below (IR15.277).
26. The Secretary of State has carefully considered the Inspector's background comments and his assessment of the impacts of the scheme on the air traffic control responsibilities of RAF Spadeadam (IR15.279 – 15.290 and 15.293 – 15.306). The Secretary of State sees no reason to disagree with the Inspector's analysis in those paragraphs. He agrees with the Inspector that there is no dispute, given the nature of RAF Spadeadam, that safety is the paramount consideration (IR15.304), but he further agrees with the Inspector's conclusion that the available evidence points to limited impacts which would not impinge to a material degree on the operations of RAF Spadeadam and that, in the event of such impacts, the unit would manage them to ensure that safety was not compromised (IR15.306). He also shares the Inspector's view, for the reasons given at IR15.310 – 311, that the blanking of Great Dun Fell, to meet NERL's objection, would not have a material impact on the operations and responsibilities of RAF Spadeadam (IR15.312).
27. With regard to the impact of the appeal proposal on the electronic warfare threat emitter equipment located at RAF Spadeadam and at related remote sites, the Secretary of State has given very careful consideration to the Inspector's comments and analysis at IR15.315 – 15.389, in so far as it relates to the appeal before him. For the reasons given in those paragraphs, the Secretary of State agrees with the Inspector's overall conclusion that there is no compelling

evidence to suggest that the operation of RAF Spadeadam would be undermined to a material degree (IR15.388). He also sees no reasons to disagree with the Inspector's conclusions at IR15.389.

28. With specific reference to mitigation in respect of the appeal scheme's adverse effects on NERL, the Secretary of State agrees with the Inspector that mitigation measures are known and agreed and they could be implemented within a reasonable time frame with a high degree of confidence that they could be achieved within the life-time of the permission (IR15.410). He further agrees that a suspensive condition in this regard would therefore be appropriate (IR15.410).

Impact on the Historic Environment

29. Having had regard to IR15.412 – 15.413, the Secretary of State agrees with the Inspector's conclusion that the Outstanding Universal Value of the World Heritage Site would not be harmed to a material degree (IR15.414). He also shares the Inspector's conclusion for the reasons given at IR15.416 – 15.423 that, in relation to the impact of the appeal proposal on the Great Wanney Crag Univallate Hillfort, the monument and its setting would be preserved (IR15.423). In relation to the cumulative effects of the appeal scheme taken together with other schemes identified, the Secretary of State agrees with the Inspector's conclusions at IR15.424. Having had regard to the Inspector's reasoning at IR15.486 – 15.458, he agrees that in respect of the Derwentwater Stone, the presence of the proposed turbines away to the north, although plainly visible, would fall outside its setting and would not materially diminish the interest, understanding, or cultural association of the monument (IR15.457). He further agrees with the Inspector's analysis at IR15.461 and with his conclusion that the proposed turbines would stand sufficiently apart from Carrycoats Hall so as not to have a material impact on its setting.
30. Overall, like the Inspector, the Secretary of State is satisfied that, with the imposition of conditions where necessary, no material adverse impacts would arise in respect of the cultural heritage assets in the general locality of the proposed wind farm (IR15.467). Like the Inspector (IR15.580), the Secretary of State concludes that the scheme would be in accordance with RSS policies 32 and 40(c), CS policy EN2(a), and LP policies NE17, BE22, BE25, BE28 and BE29.

Other matters

31. The Secretary of State has had regard to IR15.525 – 15.530 and agrees with the Inspector that, in terms of tourism and economic impacts, speculation is not a sufficient reason to refuse the appeal scheme (IR15.527) and that, given the overall characteristics of the main traffic corridors, the scheme would not significantly impair either the quality of the journey or the impression of the county (IR15.529). Like the Inspector, the Secretary of State is satisfied that, in terms of important entry points into the county, taking account of the distances involved and the characteristics of the various landscapes, the proposal would not result in any material adverse impacts (IR15.530). He is also satisfied, for the reasons given at IR15.535 – 15.547 (in so far as they relate to the appeal scheme), that the proposal would not have significant adverse impacts with respect to ecology

and hydrology. Having had regard to IR15.557 – 15.558, he agrees with the Inspector that there is sufficient information to indicate that future grid connections could be addressed in a satisfactory manner; and that, despite the recorded delays in securing grid connections, there is no impediment to approving the appeal proposal (IR15.559). In so far as they relate to the appeal before him, the Secretary of State has taken account of all other matters raised by interested persons and he shares the Inspector's view that none of these amounts to significant factors weighing against the proposal (IR15.561).

Conditions

32. The Secretary of State has considered the proposed conditions and national policy as set out in circular 11/95, as well as the Inspector's assessment of the proposed conditions, in so far as they apply to the appeal proposal, as set out at IR15.469 – 15.524 and IR15.410. He considers that the proposed conditions are reasonable and necessary and meet the tests of Circular 11/95.

Planning Balance and Overall Conclusions

33. The Secretary of State has concluded that the appeal proposal gains clear support in principle from Government policy on energy and he attaches significant weight to its wider environmental and economic benefits. He has also concluded that the targets set out in the RSS are material considerations in his determination of this appeal, and he agrees with the Inspector (IR15.563) that greater urgency must therefore attach to securing appropriate development to meet those targets. He has come to the view that the scheme would not result in material harm to the landscape, and that it would have limited visual impacts. The Secretary of State is satisfied that noise can be adequately controlled by conditions and that the appeal scheme would not result in material adverse impacts in terms of cultural heritage.

34. With regard to aviation interests, having given very careful consideration to the evidence before him, the Secretary of State is of the view that the proposal would not result in material adverse impacts on the MOD's interests and that no mitigation is required in this respect. As set out above, he considers that there is a need to secure mitigation with regard to NERL's operations, and he is satisfied that this can be satisfactorily achieved through the imposition of a suspensive condition.

35. With respect to the operations of NIAL, the Secretary of State has concluded above that it would be undesirable to superimpose added complexities to air traffic control in this particular area. However, like the Inspector (IR15.594) he considers that, given the area in question is one where the presence of radar impacts, within a confined and compact area, would have limited impacts on NIAL's operations, greater weight should attach to the benefits to be gained from the proposed wind farm. Like the Inspector (IR15.595), he considers that the appeal scheme's impacts in respect of NIAL's interests are outweighed by its benefits.

36. In terms of the cumulative impacts of this scheme when taken together with the Ray and Steadings schemes being determined under section 36 of the Electricity

Act 1989 (and, in relation to landscape and visual impact, the existing Kirkheaton windfarm), the Secretary of State has set out his views above in respect of landscape and visual impact (paragraph 22), noise (paragraph 23), and the historic environment (paragraph 30).

37. The Secretary of State has also given careful consideration to cumulative impacts in relation to aviation interests. With regard to the MOD's interests, the Secretary of State sees no reason to conclude that material cumulative impacts would arise. He understands that the Secretary of State for Energy and Climate Change has today written to parties with his decision to refuse to grant consent under section 36 of the Electricity Act 1989 for the Steadings scheme. He also understands that the Secretary of State for Energy and Climate Change has today written to parties in relation to the Ray scheme explaining that he is minded to grant consent under section 36 of the Electricity Act 1989 and issue a direction under section 90 of the Town and Country Planning Act 1990 subject to the agreement of conditions in relation to the mitigation of adverse impacts on the primary surveillance radar of NERL and NIAL. He observes that the Secretary of State for Energy and Climate Change has stated in his letter that any such mitigation should ensure that any remaining impacts on NERL's and NIAL's operations were acceptable, and would have to be designed on the basis of an assessment of the impacts of the development on NERL's and NIAL's primary radars, considered both in isolation and in combination with any impacts from Green Rigg (and elsewhere). He also observes that the letter makes clear that the Secretary of State for Energy and Climate change considers that no potential solution to mitigate the impacts of the Ray scheme on NERL's and NIAL's operations would be acceptable unless the cumulative level of impacts on the primary radars were to remain at an acceptable level after the implementation of the proposed mitigation. In light of these considerations, the Secretary of State is satisfied that material cumulative impacts with regard to aviation interests will be adequately controlled by conditions imposed in relation to this scheme and, if it is consented, the Ray scheme.

38. The Secretary of State has concluded that the scheme gains support in principle from national energy policies. He also considers that the appeal proposal would comply with PPS1, PPS4, PPS5, uncanceled parts of PPS7, PPS9, PPS23, and PPG24 and with relevant development plan policies. Overall the Secretary of State concludes that those factors which weigh in favour of the proposal outweigh the harm he has identified. The Secretary of State does not consider that there are any material considerations of sufficient weight to determine the appeal other than in accordance with the development plan.

Formal Decision

39. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He hereby allows your client's appeal and grants planning permission for the erection and operation of 18 wind turbines with associated tracks, underground cables, switchgear building and anemometer mast at land at Green Rigg Fell, Birtley Parish, Tynedale, Northumberland in accordance with application ref 20060040, dated 5 January 2006, and the plans submitted with it, as amended by the site layout plan ref 176-900H (GRNRd001

H) (submitted to the local planning authority under cover of a letter dated 3 July 2006) and subject to the conditions set out in Annex A to this letter.

40. An applicant for any consent, agreement or approval required by a condition of this permission for agreement of reserved matters has a statutory right of appeal to the Secretary of State if consent, agreement or approval is refused or granted conditionally or if the Local Planning Authority fail to give notice of their decision within the prescribed period.
41. This letter does not convey any approval or consent which may be required under any enactment, bye-law, order or regulation other than section 57 of the Town and Country Planning Act 1990.
42. This letter serves as the Secretary of State's statement under regulation 21(2) of the Town and Country (Environmental Impact Assessment) (England and Wales) Regulations 1999.

Right to challenge the decision

43. A separate note is attached setting out the circumstances in which the validity of the Secretary of State's decision may be challenged by making an application to the High Court within six weeks from the date of this letter.
44. A copy of this letter with the full Inspector's report has been sent to Northumberland Council. Copies of this letter with the Inspector's conclusions have been sent to all other parties who requested a copy.

Yours faithfully

Christine Symes

Authorised by Secretary of State to sign in that behalf

Schedule of Conditions

Commencement of development

1. The development hereby permitted shall be commenced within 5 years from the date of this decision.

Duration of permission

2. The generation of electricity from the development shall cease no later than 25 years after the first commercial generation of electricity at the site, after which time the site shall be restored in accordance with the approved Decommissioning and Site Restoration Scheme as referred to in condition 4 below.
3. The operator shall, within one month of the first commercial generation of electricity from the wind farm, notify the local planning authority in writing of the date on which the first commercial generation of electricity occurred.

Decommissioning and Restoration

4. No later than 3 years before the expiry of the planning permission hereby granted, a Decommissioning and Site Restoration Scheme shall be submitted to the local planning authority. The scheme shall, in particular, include the methods and measures and timetable to secure the removal of the turbines, turbine bases, buildings, site compound and related mitigation measures arising from the proposed operations. The scheme shall be implemented as approved.
5. If any turbine fails to produce electricity for a continuous period of 12 months, the turbine and any ancillary equipment shall be dismantled and removed from the site (unless the developer has demonstrated to the local planning authority that the turbine is under repair and that there is a remedy) in accordance with a restoration plan, which shall include a time-table for the works. The restoration plan shall be submitted to the local planning authority within 2 months after the expiry of the 12 month period; and the relevant turbine shall thereafter be removed and that part of the site shall be restored in accordance with the approved scheme.

Details of the development

6. No development shall take place until details of the external appearance of the turbines, including blade configuration, direction of rotation, design, colour and surface finishes, have been submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the approved details.
7. No development shall take place until a scheme for the lighting of the turbines and other parts of the site has been submitted to the local planning authority and approved in writing. The scheme shall be implemented as approved.
8. No development shall take place until details of the proposed temporary site compound, and a scheme for its subsequent clearance and restoration, has been submitted to and approved in writing by the local planning authority. The details shall include means of enclosure; the siting of temporary buildings; areas for the storage of materials and machinery and operative parking; oil/fuel and chemical storage and related measures for secure bunding; and any proposals for temporary lighting. The compound shall be constructed and laid out in accordance with the approved details and within a period of 12 months of the final commissioning of the wind farm it shall be restored in accordance with the approved restoration scheme.

9. No development shall take place until details of turning facilities for all vehicles likely to enter the site, and a timetable for its implementation, has been submitted to the local planning authority and has been approved in writing. The scheme shall be implemented as approved.
10. No development shall take place until detailed access and road improvement drawings, and a timetable for the implementation of the works, have been submitted to the local planning authority and agreed in writing. The details shall be implemented as approved.
11. No development shall take place until a scheme for the external treatment of the sub-station building and compound, its access from the public highway and its landscaping, including a timetable for implementation, has been submitted to the local planning authority and approved in writing. The development shall be carried out in accordance with the approved details.
12. No development shall take place until details of the height, siting, appearance and construction of all permanent means of enclosure to be erected on the site, including a timetable for implementation, have been submitted to the local planning authority and have been approved in writing. The development shall be carried out in accordance with the approved details.
13. All interconnecting cabling between the turbines and the sub-station within the site shall be installed underground apart from where it joins to the appropriate apparatus.
14. No development shall take place until details of the alignment, width, construction, surface treatment and drainage of new temporary and permanent tracks, lay down and storage areas, turbine bases, crane standings and cable routing (including any necessary mitigation measures) have been submitted to the local planning authority and have been approved in writing. Where access tracks cross peat that is 0.5 metres in depth, or greater, measures to protect the peat and to safeguard water movement shall be submitted. The details shall also include a timetable for implementation and measures for the restoration of temporary works. The development shall be carried out in accordance with the approved details.
15. No development shall take place until the exact siting of the turbines has been submitted to the local planning authority and has been approved in writing. Thereafter the turbines shall be erected in the approved positions.

Construction Hours

16. No construction activities shall be carried out on the site on any Sunday or Bank Holiday or outside the hours of 08:00 to 18.00 Mondays to Fridays, or outside the hours of 08:00 to 13.00 on Saturdays.

Construction Method Statement

17. No development shall take place before a Construction Method Statement has been submitted to the local planning authority and has been approved in writing. Thereafter construction works shall be carried out in accordance with the approved Statement. The Construction Method Statement shall include the following details:
 - (a) dust management;
 - (b) measures to secure the cleaning of site entrances, bound or covered site tracks and the adjacent public highway including the provision of a wheel wash facility in an agreed location for vehicles leaving the site;

- (c) measures for the protection of water courses, including submission of details of watercourse engineering works and crossing points, and mitigation measures to protect ground water and soils;
- (d) sewage disposal;
- (e) noise management during the construction phase;
- (f) vibration control;
- (g) any temporary site illumination;
- (h) the disposal of surplus materials;
- (i) any temporary on-site diversions of public rights of way, or temporary closures of Access Land, and associated signage;
- (j) temporary fencing to define and protect archaeological features; and
- (k) a construction schedule and programme of the proposed works.

Environmental Management Plan

18. No development shall take place until an Environmental Management Plan covering all aspects of the construction process has been submitted to the local planning authority and has been approved in writing. The development shall be carried out in accordance with the approved details.

Transport Management Plan

19. No development shall take place until a Transport Management Plan has been submitted to the local planning authority and has been approved in writing. The plan shall include details of routing; a schedule and timing of abnormal traffic movements; details of escorts for abnormal loads; details of temporary warning signage; and proposed mitigation measures. The Transport Management Plan shall be implemented as approved.

Archaeology

20. No development shall take place until a written scheme of investigation for an archaeological watching brief has been submitted to the local planning authority and has been approved in writing. The scheme shall be framed in compliance with the draft Brief dated 30/01/07 as set out in Annex WPD/A to this schedule. The development shall be carried out in accordance with the approved details.

Ecology

21. No development shall take place until the developer has appointed an Ecologist Clerk of Works to oversee site preparation works and the construction of the wind farm having particular regard to the requirements of the planning conditions relating to ecology and to address any other ecological matters that might arise; the appointed person, or any successor, shall remain in post for the duration of the construction works.
22. No development shall take place until a Habitat Management Plan has been submitted to the local planning authority and has been approved in writing. The plan shall relate to the areas shown on the plan forming part of Annex WPD/B attached to this schedule. The approved Habitat Management Plan shall run from the commencement of construction until the completion of decommissioning, and will be reviewed in consultation with the local planning authority every five years. The Habitat Management Plan shall be implemented as approved.
23. No development shall take place until a scheme for checking and updating the protected species surveys submitted as part of the Environmental Statement,

including methodology, implementation and timing, has been submitted to and approved in writing by the local planning authority. The updated survey results shall be submitted to the local planning authority with a programme of works to mitigate any significant effects which shall be implemented following the written approval of the local planning authority.

24. No development shall take place until pre construction surveys for Schedule 1 raptors have been undertaken within 500 metres of any proposed construction works and the results have been submitted to the local planning authority. If any Schedule 1 raptors are found nesting, mitigation measures shall be agreed in writing by the local planning authority in advance of any construction work. The agreed mitigation measures shall be implemented as approved.
25. Ornithological monitoring shall be undertaken in the breeding season prior to construction work commencing, and the results shall be submitted to the local planning authority within three months of the end of the monitoring period. The monitoring methodology to be used is set out in Annex WPD/B attached to this schedule.
26. No tree felling, vegetation removal or ground clearance shall be undertaken between 1 March and 31 August unless the on-site Ecologist Clerk of Works has first confirmed, to the local planning authority in writing, that no bird's nests which are being constructed or are in use, or bird's eggs or birds will be damaged or harmed. In any instance where any active nest site is identified as that belonging to a species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), no construction works associated with the development shall take place within 500 metres of the site identified until dependant young have moved from the nest site or the nest has been abandoned. If an active nest of any other species is found, the on-site Ecologist Clerk of Works shall determine measures to protect it from damage and to minimise disturbance while adults and dependent young are present.
27. None of the turbines within the wind farm hereby approved shall commence operation between 1 March and 31 August unless the results of a breeding bird survey demonstrate that there would not be a significant risk to breeding birds from the operation of the wind farm and following the approval of the local planning authority. The specification of the breeding bird survey shall be approved by the local planning authority before the survey is undertaken.
28. Before the first commissioning of the wind farm a specification for the long term post construction monitoring of bats shall have been submitted to the local planning authority and approved in writing. The monitoring shall be undertaken annually for a period of 10 years following the first commercial generation of electricity, unless, following any two year consecutive period demonstrating a lack of significant bat activity, the local planning authority agrees that monitoring shall cease. Annual monitoring reports shall be submitted to the local planning authority within three months of the end of the monitoring period to which they refer.
29. Ornithological monitoring and reporting shall be undertaken for a period not exceeding 10 years from the first generation of electricity to the grid in accordance with the methodology set out in Annex WPD/B attached to this schedule. The annual monitoring reports shall be submitted to the local planning authority within three months of the monitoring period to which they refer. If the monitoring report and formal review by the local planning authority, at the end of the first three year period, shows no significant effects continued monitoring and reporting will be deemed to be unnecessary.

30. No development shall take place until a hen harrier management plan has been agreed in writing with the local planning authority in the event that the local planning authority identifies a potentially suitable hen harrier nesting habitat within 500 metres of the wind farm. The management plan shall provide for surveys to determine the presence of displaying and nesting birds, location of any nests and sensitivity to collision; the duration of and method of monitoring; and measures for mitigation. The hen harrier management plan shall be implemented as approved.

Highways

31. No development shall take place until a scheme for the improvement of the existing A68/Sweethope Loughs road junction, and a timetable for its implementation, has been submitted to the local planning authority and has been approved in writing. The scheme shall be implemented as approved.
32. A system of inter-visible passing places shall be provided along the Sweethope Loughs road from its junction with the A68 to the entrance into the site, in accordance with a scheme to be agreed in writing by the local planning authority. No development shall commence until the approved passing places have been constructed.

Noise

33. The rating level of noise from the combined effects of the wind turbine generators on the wind farm hereby approved shall not at any time exceed the levels derived according to the procedure set out below ('Maximum permitted noise levels') at any dwelling which is in existence (or for which planning permission has been granted) at the date of this permission. The noise levels shall be measured and calculated in accordance with the Guidance Notes at Appendix A(iv) to these conditions.

Maximum permitted noise levels

The noise level dB ($L_{A90, 10\text{minutes}}$) at any dwelling shall not exceed:-

The Reference Background Noise Level at that dwelling, at any stated wind speed, plus 5dB or a level of 'x' dB, whichever is greater.

The values of 'x' are as follows:-

- (i) For properties where the occupier has no financial involvement with the wind farm, the value of 'x' is 43dB $L_{A90,10\text{minutes}}$ between the hours 23.00 – 07.00 and 35dB $L_{A90,10\text{minutes}}$ at all other times;
- (ii) For properties where the occupier has financial involvement with the wind farm, the value of 'x' is 45dB $L_{A90, 10\text{minutes}}$ at all times.

The maximum permitted noise levels at any location are to be derived from the Reference Background Noise Levels ($L_{A90, 10\text{minutes}}$) set out in Tables A and B below:-

Table A – Reference Background Noise Levels dB($L_{A90, 10\text{ minutes}}$) 23:00 hours – 07:00 hours

Location	Wind speed at 10 metres above ground level – metres/second											
	1	2	3	4	5	6	7	8	9	10	11	12
Fourlawshill Top	28	28	28	28	31	34	36	38	41	43	44	45
Waterfalls	31	31	31	31	34	37	40	43	45	47	48	49
White House	29	29	29	29	31	34	37	39	41	44	45	46
Any other dwelling	29	29	29	29	32	35	38	40	42	45	46	47

Table B – Reference Background Noise Levels ($L_{A90, 10 \text{ minutes}}$ dB) 07:00hours – 23:00 hours

Location	Wind speed at 10 metres above ground level – metres/second											
	1	2	3	4	5	6	7	8	9	10	11	12
Fourlawshill Top	31	31	31	31	34	36	38	40	41	42	43	44
Waterfalls	33	33	33	33	37	39	41	43	44	45	46	47
White House	32	32	32	32	35	38	40	41	43	44	45	46
Any other dwelling	32	32	32	32	35	38	40	41	43	44	45	46

Note: *Wind speed at 10 metres above ground level means the wind speed at 10 metres above local ground level at a position to be agreed with the local planning authority, either measured at this position or calculated from measurements at another position by means of a calculation procedure to be agreed with the local planning authority.*

34. No development shall take place until a scheme for the monitoring of the noise of the operational wind turbines, to confirm compliance with the noise limits set out in Condition 33 above, has been submitted to the local planning authority and has been approved in writing. The noise monitoring survey shall be carried out as approved and the results submitted to the local planning authority within the timescale agreed in the noise monitoring scheme.
35. No development shall take place until the wind farm developer/operator has notified the local planning authority of a nominated representative to act as a point of contact for local residents and liaison with the local planning authority in relation to any complaints made about noise and any other matters arising during construction, operation and decommissioning of the wind farm.
36. At the reasonable request of the local planning authority, following a complaint relating to noise from the wind turbines, the operator of the development shall employ a suitably qualified independent consultant to measure and assess the level of noise emissions resulting from the operation of the wind turbine generators. The assessment shall be undertaken in accordance with a methodology to be agreed in writing by the local planning authority and in accordance with the procedures described in the Guidance Notes attached to these conditions.
37.
 - (i) Not later than the first commercial generation of electricity, and for a period of three years thereafter, the wind farm operator shall log wind speed (in metres per second) and wind direction data (in degrees from north) for each ten-minute period at a grid reference location previously approved in writing by the local planning authority.
 - (ii) After the three year period the same data shall be taken from turbine nacelle anemometers and wind vanes or similar and shall be retained for a period of not less than 12 months.
 - (iii) At the reasonable request of the local planning authority the recorded data at 10 metres height above ground level, at the agreed location, and relating to any periods during which noise monitoring took place, or any periods when there was a specific noise complaint, shall be made available to the local planning authority.
 - (iv) Where wind speed is measured at a height other than 10 metres above local ground level the wind speed data shall be converted to 10 metres height, accounting for wind shear, by a method whose details shall also be submitted to and approved in writing by the local planning authority.
 - (v) At the reasonable request of the local planning authority the wind farm operator shall provide, within 28 days of the request, a list of ten-minute periods during which any one or more of the turbines was not in normal operation. This information will only be required for periods during which noise monitoring is being undertaken in accordance with other conditions attached to this permission.

- (vi) For the avoidance of doubt '*normal operation*' is defined in the Guidance Notes attached to these conditions.

Shadow Flicker and Television Reception

38. No development shall take place until a scheme detailing the protocol for the assessment of any complaints of shadow flicker resulting from the development, including remedial measures, has been submitted to the local planning authority and has been approved in writing. Operation of the turbines shall take place in accordance with the agreed protocol.
39. No development shall take place until a scheme designed to safeguard existing television reception quality arising from the operation of the wind turbines has been submitted to the local planning authority and has been approved in writing. The scheme shall, in particular, provide for a base line survey of residential properties that might be affected; and a protocol for dealing with any complaints arising from the operation of any of the wind turbines and for the identification and implementation of necessary mitigation measures to be undertaken in accordance with details and a time-table previously submitted to and approved in writing by the local planning authority.

Aviation

40. No development shall take place before a scheme of technical measures to mitigate the adverse impacts of the development on the Primary Surveillance Radar at Great Dun Fell used by NATS (En-Route) Plc, including a programme of implementation, has been submitted to the local planning authority and has been approved in writing. The scheme shall be implemented as approved.

Planning Conditions – Noise Conditions Guidance Notes

The following paragraphs are based on steps 2 - 6 specified in Section 2 of the Supplementary Guidance Notes to the Planning Obligation contained within pages 102 et seq of 'The Assessment and Rating of Noise from Wind Farms, ETSU-R-97' published by ETSU for the Department of Trade and Industry. It has been adapted in the light of experience of actual compliance measurements.

NOTE 1

Values of the $L_{AF90,10\text{minute}}$ noise statistic should be measured at the affected dwelling using a sound level meter of at least IEC 651 Type 1 quality. This should be fitted with a ½" diameter microphone and calibrated in accordance with the procedure specified in BS 4142: 1990. The microphone should be mounted on a tripod at 1.2 - 1.5 m above ground level, fitted with a two layer windshield or suitable equivalent, and placed in the vicinity of, and external to, the dwelling. The intention is that, as far as possible, the measurements should be made in 'free-field' conditions. To achieve this, the microphone should be placed at least 3.5m away from the building facade or any reflecting surface except the ground.

The $L_{AF90,10\text{minute}}$ measurements should be synchronised with measurements of the 10-minute average wind speed and with operational data from the turbine control systems of the wind farm or farms.

The wind speed and wind direction and a note of all 10 minute periods when one or more of the turbines was not operating normally should be provided to the consultant to enable an analysis to take place.

The precise definition of 'normal operation' should be agreed in writing with the local authority prior to the commencement of the development on the basis of data available but should generally be taken to mean when the turbine power output is not significantly different from the reference power curve, which may be a noise optimised power curve if appropriate, using the nacelle anemometer.

In the interests of commercial confidentiality no information is required to be provided for individual turbines or on the nature of any abnormality or for any period during which noise monitoring is not taking place.

NOTE 2

The noise measurements should be made over a period of time sufficient to provide not less than 100 valid data points. Measurements should also be made over a sufficient period to provide valid data points throughout the range of wind speeds considered by the local authority to be most critical. Valid data points are those that remain after the following data have been excluded:-

- all periods during rainfall;
- all periods during which wind direction is more than 45 degrees from every line from each of the turbines and the measurement position;
- all periods during which turbine operation was not normal.

A least squares, 'best fit' curve should be fitted to the data points.

NOTE 3

Where, following a complaint to and in the reasonable opinion of the local planning authority, the noise emission contains a tonal component, the following rating procedure should be used. This is based on the repeated application of a tonal assessment methodology.

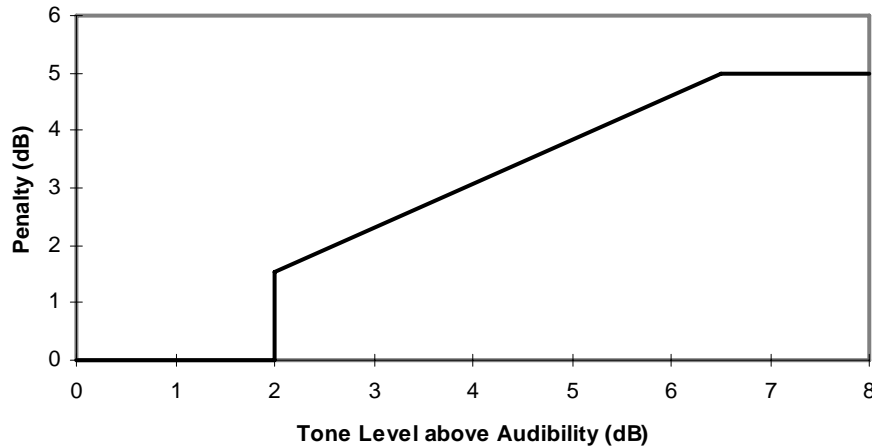
For each 10-minute interval for which $L_{AF90,10\text{minute}}$ data have been obtained, a tonal assessment is performed on noise emission during 2-minutes of the 10-minute period. The 2-minute periods should be regularly spaced at 10-minute intervals provided that uninterrupted clean data are obtained.

For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference, ΔL_{tm} , is calculated by comparison with the audibility criterion given in Section 2.1 on page 104 et seq of ETSU-R-97.

The margin above audibility is plotted against wind speed for each of the 2-minute samples. For samples for which the tones were inaudible or no tone was identified, substitute a value of zero audibility.

A linear regression is then performed to establish the margin above audibility at the assessed wind speed. If there is no apparent trend with wind speed then a simple arithmetic average will suffice.

The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



The rating level at each wind speed is the arithmetic sum of the wind farm noise level, as determined from the best fit curve described in Note 2, and the penalty for tonal noise.

The rating level shall be determined for each wind speed. If the values lie below the maximum values of turbine noise indicated by the table in the annex to these conditions then no further action is necessary.

NOTE 4

If the rating level is above the limit, a correction for the influence of background noise should be made. This may be achieved by repeating the steps in Note 2, with the wind farm switched off, and determining the background noise at the assessed wind speed, L_b . The wind farm noise at this speed, L_w , is then calculated as follows where L_a is the measured level with turbines running but without the addition of any tonal penalty:

$$L_w = 10 \log \left(\frac{L_a}{10^{10}} - \frac{L_b}{10^{10}} \right)$$

The Rating level is re-calculated by adding the tonal penalty (if any) to the wind farm noise. If the rating level lies below the values indicated from the table in the annex then no further action is required.

If the rating level exceeds any of the turbine noise levels in the table in the Annex then the development fails to comply with the relevant Planning Condition.

Planning ref: 20060052
NCCCT ref: T42/4; 5413
DRAFT

LAND AT GREEN RIGG FELL, BIRTLEY, NORTHUMBERLAND

Brief for a programme of archaeological mitigation

1. Introduction

- 1.1 A planning application has been submitted to Tynedale District Council for the construction of a windfarm, associated infrastructure and services on land at Green Rigg Fell, Birtley, Northumberland (Fig 1). An archaeological assessment and walkover survey has been undertaken on behalf of the applicant as a component of the supporting Environmental Impact Assessment. This assessment indicated that the application lies within an area of high archaeological potential containing known sites of prehistoric, medieval and post-medieval date. The application boundary encloses a large upland area and potential also exists for the development to directly or indirectly impact ancient on peat deposits containing archaeological and palaeoenvironmental data.
- 1.2 Following the submission of the archaeological assessment a targeted programme of archaeological evaluation was undertaken within the development footprint of the application site. This evaluation was targeted on areas of highest archaeological potential within the proposed development footprint and specifically evaluated the potential impact of the main components of the development, namely the turbine and crane bases, site access roads and associated infrastructure. The evaluation methodology comprised a programme of intrusive trenching and a detailed topographic survey of earthwork features identified during the earlier walkover survey.
- 1.3 A number of archaeological and palaeoenvironmental remains were identified within the application site which require further archaeological mitigation. These comprise:
 - **Turbine 2**

A group of open earthwork enclosures and associated features (identified as Site 20 within the archaeological assessment) approximately coincides with the proposed location of Turbine 2. Following a detailed topographic survey, the proposed location of Turbine 2 was revised to avoid directly impacting the earthworks. Some of these features were examined during the subsequent trial trenching exercise but could not be dated by artefactual means. The earthworks are assumed to be prehistoric in date on morphological grounds.
 - **Turbine 9**

A peat deposit observed within Trench 9 was sampled in order to assess its potential to provide palaeoenvironmental data. Following detailed examination of this sample, it was concluded that although analysis of the sample was possible, more suitable samples able to

provide greater levels of resolution and accuracy may be recovered from the site of Turbine 9 during any future work.

- **Turbine 16 and access roads**

A linear earthwork on an approximate north-south alignment identified during the walkover survey was examined during the subsequent trial trenching exercise. Ditch features were observed to be cut into the natural geology on either side of the bank. These features were not dated. A second earth bank identified within the footprint of the access track may represent a post-medieval field boundary.

- 1.4 NCC Conservation Team has therefore advised Tynedale District Council that, should permission be granted, a condition should be attached to the permission requiring a scheme of archaeological mitigation work comprising:
 - Strip and record on the site of Turbine 2 and associated infrastructure.
 - Targeted palaeoenvironmental sampling and analysis of the peat deposits on within the footprint of Turbine 9.
 - Continuous watching brief during soil stripping for all remaining groundworks within the application area with the potential for an intermittent watching brief following discussion.
- 1.5 This brief constitutes Northumberland County Council Conservation Team's justification for the investigation, its objectives and the strategy and procedures to apply to the programme of archaeological recording. **This brief does not constitute the 'written scheme of investigation' required in the planning condition.**
- 1.6 The brief is intended to establish the project parameters to enable an archaeological consultant or contractor to tender for the work and once commissioned to prepare and submit an appropriate Method Statement, Project Design or Specification to the Conservation Team for approval prior to work commencing. The project design should be based on a thorough study of all relevant background information, in particular any assessment or evaluation reports or, in their absence, data held or referenced in Northumberland Sites and Monuments Record (SMR).
- 1.7 The extent of the mitigation work (Fig 1) has been decided based on the evidence included in the evaluation report¹. The archaeological consultant or contractor will need to confirm the extent of the mitigation areas with reference to that report as part of the specification.

Method of work

- 2.1 The purpose of this work is to ensure that locally and regionally important archaeological remains are not destroyed without first being adequately recorded.
- 2.2 Based on the results of the evaluation and the archaeological potential of the site, a mitigation strategy has been formulated which reflects the archaeological potential of the site and takes into consideration the nature, extent, date, importance and level of survival of known archaeological remains

¹ McPhillips, S., 2006, Middlemoor Windfarm, North of Alnwick, Northumberland. Archaeological Evaluation

and the possibility that further archaeological remains may be present on site. This programme of work comprises:

2.3 Strip and Record – Turbine 2 and associated infrastructure

2.3.1 The construction footprint of Turbine 2 has already been subject to sample excavation as part of the archaeological evaluation. The evaluation did not detect any additional archaeological features and deposits other than those already identified during the earlier topographic study. Nevertheless, given the very close proximity of this turbine location in relation to the identified earthwork enclosure, there is a high potential for unknown archaeological features and deposits to be impacted by the construction works. This area in particular requires a greater level of archaeological excavation and recording than is possible under watching brief conditions.

2.4 Palaeoenvironmental sampling and analysis – Turbine 9

2.4.1 Peat deposits with the potential to contain palaeoenvironmental data have been identified within the construction footprint of Turbine 9. In line with the recommendations laid out in the evaluation report (Appendix B: Environmental Assessment), the additional samples should be recovered from the peat deposits as part of the mitigation work. Advice should be sought from English Heritage regarding the optimum conditions and locations which should be targeted during the sampling process. Following further discussions with English Heritage, the most suitable samples should be selected for radiocarbon AMS dating.

2.5 Continuous watching brief

Given the archaeological potential of this area, it is important that the remaining areas of the development are archaeologically monitored. The continuous watching brief is designed to provide a low level of archaeological monitoring during soil stripping in the following area:

- road system within the application boundary;
- all remaining turbine and crane bases;
- service connections;
- any other areas of intrusive groundworks

The continuous watching brief will enable archaeological remains to be identified, excavated and recorded and should not significantly slow down the development process. The appointed archaeological contractor should agree a strategy for stripping these areas with the developer and NCC Conservation Team. The strategy should be included in the specification for approval by NCC Conservation Team prior to work commencing.

A contingency requirement is laid out in section 2.7.9 which enables archaeological remains which are of a greater number or extent than anticipated or that continue outside the continuous watching brief to be adequately excavated and recorded.

Once on-site working practices have been established and the watching brief commenced, it may become apparent that specific areas can be dealt with by an intermittent low level watching brief or have been so heavily disturbed that no further archaeological involvement is required. In this event, NCC

Conservation Team should be contacted at the earliest opportunity to establish whether the watching brief strategy can be altered. **No alteration to the strategy should be carried out until agreed with NCC Conservation Team.**

2.6 The archaeological work should conform to the following standards:

2.7 General Standards

2.7.1 All work will be carried out in compliance with the codes of conduct of the Institute of Field Archaeologists (IFA)² and will follow the IFA Standard and Guidance for Excavations³.

2.7.2 The archaeological contractor must be able to prove that they have appropriate and current insurance to undertake excavations.

2.7.3 All staff must be suitably qualified and experienced for their project roles, with practical experience of excavating prehistoric and medieval sites. Curriculum vitae will be supplied to NCC Conservation Team for approval.

2.7.4 Pre-site work preparation

- i) A specification in line with this brief must be submitted and approved by Northumberland County Council Conservation Team **prior** to work commencing.
- ii) An appropriate environmental sampling strategy is a mandatory part of this project. Advice on such a strategy must be obtained from the English Heritage Scientific Advisor for North-East England, Dr Jacqui Huntley, Department of Archaeology, University of Durham, Science Laboratories, South Road, Durham. **The sampling strategy should be included in the specification and submitted to the Conservation Team for approval.**
- iii) **The Museum of Antiquities, Newcastle-upon-Tyne should be contacted to discuss archiving prior to work commencing.**
- iv) All staff must familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff must be aware of the work required under the specification, and must understand the projects aims and methodologies.

2.7.5 Strip and record and continuous watching brief: soil stripping

- i) Topsoil and unstratified modern material may be removed mechanically by a machine using a **wide toothless ditching bucket**, under continuous archaeological supervision. **Should archaeological remains continue outside the strip and record area shown in figure 1, further machining will be required so that the full extent of archaeological remains are exposed as per the strip and record contingency (section 2.9.8)**
- ii) The topsoil or recent overburden should be removed down to the first significant archaeological horizon in successive level spits

² Institute of Field Archaeologists, 2000, Code of Conduct

³ Institute of Field Archaeologists, 1995, Standard and Guidance for archaeological excavation

- iii) No machinery should track over areas that have previously been stripped.
- iv) The full nature and extent of archaeological features and deposits should be exposed
- v) Areas containing archaeological features and deposits should be recorded on a pre-excavation plan within the Strip and Record area.

2.7.6 Strip and record area: recording and excavation

- i) All features exposed should be sample excavated. This should comprise:
 - i) 50% of every discrete feature and features of particular interest
 - ii) 25% of the area of linear/curvilinear features with a non-uniform fill
 - iii) 10% of the area of linear/curvilinear features with a uniform fill
- ii) All archaeological features and deposits must be excavated by hand
- iii) Deposits in should be assessed for their potential for providing environmental or dating evidence. Sampling should be in line with the strategy agreed with Jacqui Huntley and NCC Conservation Team **and included in the specification**. Any variation from this scheme must be approved by Jacqui Huntley, NCC Conservation Team and representatives of the developer
- iv) In the event of human burials being discovered, they should be left *in situ*, covered and protected and the coroners' office informed. If removal is essential, work must comply with relevant Home Office regulations.
- v) Appropriate procedures under the relevant legislation must be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996
- vi) During and after the excavation, all recovered artefacts and environmental samples must be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this should include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material)
- vii) The site should be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area
- viii) A full and proper record (written, graphic and photographic as appropriate) should be made for all work, using pro-forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings should be drawn at 1:50, 1:20 and 1:10 scales as appropriate.
- ix) All archaeological deposits and features must be recorded with an **above ordnance datum (aOD)** level
- x) A photographic record of all contexts should be taken in colour transparency and black and white print and should include a clearly

visible, graduated metric scale. A register of all photographs should be kept

- xi) Where stratified deposits are encountered, a 'Harris' matrix should be compiled

2.7.7 Continuous watching brief: recording and excavation

- i) This observation shall involve the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.
- ii) **If archaeological remains are uncovered, the archaeologist should be given the opportunity of excavating and recording the remains before they are destroyed.**
- iii) A full and proper record (written, graphic and photographic as appropriate) should be made for all work, using pro forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings should be drawn at 1:50, 1:20 and 1:10 scales as appropriate. Where skeletons are encountered, they should be recorded by photography and the use of pro forma skeleton recording sheets.
- vii) The area watched by the archaeologist should be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological deposits and features and at the top and base of all groundworks must be recorded with an **above ordnance datum (aOD)** level.
- viii) A photographic record of all contexts should be taken in colour transparency and black and white print and should include a clearly visible, graduated metric scale. A register of all photographs should be kept.
- ix) In the event of human burials being discovered, the archaeologist will procure and comply with all statutory consents and licences under the Burial Act 1857.
- x) **Where any part of a human burial is disturbed, the whole burial must be archaeologically excavated.**
- xi) Appropriate procedures under the relevant legislation must be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.
- xii) During and after the excavation, all recovered artefacts must be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this should include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material).

2.7.8 Strip and Record: contingency

In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated or that continue outside the strip and record area (within the area of construction impact of Turbine 2), work will cease and the County Archaeological Officer and a representative of the developer will

be notified. An assessment will be made of the importance of the remains, the need to extend the area to reveal the full extent of features and any provision for their recording or preservation in situ as appropriate.

The contingency for the continuous watching brief on this project has been set at up to 50 person-days with limited expansion of the Strip and Record area to encompass contiguous features that continue outside the area.

2.7.9 Continuous watching brief: contingency

In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated or that continue outside the continuous watching brief, work will cease and the County Archaeological Officer and a representative of the developer will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation in situ as appropriate.

The contingency for the continuous watching brief on this project has been set at up to 300 person-days with limited expansion of the watching brief area to encompass features that continue outside the area shown on figure 1.

2.7.10 Palaeo-environmental sampling and analysis and AMS radiocarbon dating

- i) All work should be carried out in compliance with the codes of practice of the Institute of Field Archaeologists (IFA) ⁴ and should follow the English Heritage and IFA Standards and guidelines for environmental sampling and analysis.
- ii) All staff must be suitably qualified and experienced for their project roles.
- iii) All staff must familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff must be aware of the work required under the specification, and must understand the projects aims and methodologies.
- iv) **The archaeological contractor should note that the formulation of an appropriate environmental sampling strategy is a mandatory part of this project. Advice on such a strategy must be obtained from the English Heritage Scientific Advisor for North East England, Dr Jacqui Huntley, Department of Archaeology, University of Durham, Science Laboratories, South Road, Durham. Tel. 0191 334 1137**

3 Post excavation work, report production and archive

- 3.1 While the strip and record and watching brief may not require extensive post-excavation work and publication, further analysis will be required of the palaeoenvironmental samples taken through the pond deposits and the AMS radiocarbon dating samples.
- 3.2 An allowance **up to 60%** of the total cost of the fieldwork phase (including any contingency expenditure) of the work must be allowed for Post-excavation costs. This must include **up to 15%** of the costs for the Post-excavation

⁴ Institute of Field Archaeologists, 2000, Code of Conduct

assessment and updated project design (see section 3.3 below) and **up to 45%** of the total cost for reporting and publication of the report (see section 3.5 below).

3.3 Finds and environmental remains

3.3.1 All finds processing, conservation work and storage of finds must be carried out in compliance with the IFA Guidelines for Finds Work and those set by UKIC.

3.3.2 The deposition and disposal of artefacts must be agreed with the legal owner and recipient museum **prior** to the work taking place. Where the landowner decides to retain artefacts adequate provision must be made for recording them. Details of land ownership should be provided by the developer.

3.3.3 All retained artefacts must be cleaned and packaged in accordance with the requirements of the recipient museum.

3.4 Finds and environmental analysis

3.5 Following detailed discussions with English Heritage's Science Advisor for the North East and NCC Conservation Team the full nature and extent of further analysis will be established although this is most likely to include:

- AMS radiocarbon dating of selected samples from peat samples recovered from the construction footprint of Turbine 9
- Pollen analysis
- Analysis of surviving carbonised and waterlogged plant macrofossils

3.5.1 All finds and environmental samples should be processed and subsequently analysed by appropriate specialists as part of the post-excavation assessment.

3.6 Reporting

3.6.1 **If a low level of locally important archaeological and environmental remains are uncovered on the site**, NCC Conservation Team may decide that only an archive report is required. The archaeological consultant or contractor must submit a copy of the report to their client and Northumberland County Council Conservation Team within 2 months of completion of the work.

3.6.2 The Conservation Team require two copies of the report (one bound and one unbound)

3.6.3 Northumberland County Council Conservation Team will need to approve the report before discharging the condition on the planning permission

3.6.4 Each page and paragraph should be numbered within the report and illustrations cross-referenced within the text.

3.6.5 The report should include as a minimum the following:

- i) Planning application number, Northumberland County Council Conservation Team reference, OASIS reference number and an 8 figure grid reference
- ii) A location plan of the site at an appropriate scale of at least 1:10 000

- iii) A location plan of the extent of the watching brief and location of the core sample within the site. This must be at a recognisable planning scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Sites and Monuments Record
- iv) Plans and sections of archaeology located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
- v) A summary statement of the results from the watching brief and analysis of the core samples
- vi) A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
- vii) Specialist reports associated with further analysis of finds and environmental samples from the watching brief and further analysis of the core samples
- viii) **Any variation to the above requirements should be approved by the planning authority prior to work being submitted**

3.6.6 If a high level of locally and regionally important archaeological remains are uncovered on the site, NCC Conservation Team should be consulted to establish whether the archaeological mitigation work requires full post-excavation assessment and publication.

3.6.7 A post-excavation assessment report, where required, must include all the information necessary to make decisions about the future direction of the project in line with Section 6 and Appendix 4 in English Heritage's Guidelines on the Management of Archaeological Projects⁵. The report should be submitted to NCC Conservation Team for comment and approval prior to any further analysis or publication work commencing.

3.6.8 This document should be submitted within six months of the end of fieldwork unless previously agreed with all relevant parties.

3.7 Updated project specification for full analysis and publication (if required)

3.7.1 The archaeological contractor must submit an updated specification for full analysis and publication in line with Section 6 and Appendix 5 in English Heritage's Guidelines on the Management of Archaeological Projects⁶. This document should be submitted to NCC Conservation Team for approval, prior to further work commencing and should detail the level and location of publication.

3.7.2 This document should be submitted within two months of the approval of the Post-excavation Assessment report, unless previously agreed with all relevant parties.

3.8 Publication (if required)

3.8.1 An appropriate level of publication will be agreed with NCC Conservation Team and should be prepared in line with the approved project design and

⁵ English Heritage, 1991, Management of Archaeological Projects

⁶ English Heritage, 1991, Management of Archaeological Projects

Sections 7 and 8 and Appendix 7 in English Heritage's Guidelines on the Management of Archaeological Projects⁷.

3.8.2 Where deemed appropriate by NCC Conservation Team, the publication article should be submitted within one year of the approval of the updated project design for full analysis and publication, unless previously agreed with all relevant parties.

3.8.3 Northumberland County Council will require confirmation that the publication report has been submitted in a satisfactory form to an appropriate journal

3.8.4 A summary should be prepared for 'Archaeology in Northumberland' and submitted to Sarah MacLean, Northumberland HER Officer, by December of the year in which the publication work is completed.

3.8.5 Greater levels of publication and publicity, where appropriate, will be at the developer's discretion.

3.9 Site and Research Archive

3.9.1 The site archive and the finds and the research archive must be deposited in the appropriate local museum, within **6 months** of completion of the post-excavation work. The archive must be submitted in line with Appendices 3 and 6 in English Heritage's Guidelines on the Management of Archaeological Projects⁸.

3.9.2 Before the commencement of fieldwork, contact should be made with the landowners and with the appropriate local museum to make the relevant arrangements. Details of land ownership should be provided by the developer. Details of the appropriate museum can be provided by the Assistant County Archaeologist.

3.9.3 Northumberland County Council will require confirmation that the archive had been submitted in a satisfactory form to the relevant museum

4 OASIS

4.1 Northumberland County Council Conservation Team and HER support the Online Access to Index of Archaeological Investigations (OASIS) Project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large scale developer funded fieldwork.

4.2 The archaeological consultant or contractor must therefore complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. If the contractors are unfamiliar with OASIS, they are advised to contact Northumberland HER prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, Northumberland HER will validate the OASIS form thus placing the information into the public domain on the OASIS website. **The archaeological consultant or contractor must indicate that they agree to this procedure within the specification/project**

⁷ English Heritage, 1991, Management of Archaeological Projects

⁸ English Heritage, 1991, Management of Archaeological Projects

design/written scheme of investigation submitted to Northumberland County Council Conservation Team for approval

5 Monitoring

- 5.1 The County Archaeologist must be informed on the start date and timetable for the watching brief **in advance** of work commencing.
- 5.2 Reasonable access to the site for the purposes of monitoring the archaeological scheme will be afforded to the County Archaeologist or his/her nominee at all times.
- 5.3 Regular communication between the archaeological contractor, the County Archaeologist and other interested parties must be maintained to ensure the project aims and objectives are achieved.

6 Further Guidance

- 6.1 Any further guidance or queries regarding the provision of a specification should be directed to:

Nick Best
Assistant County Archaeologist
Northumberland County Council
e-mail: nbest@northumberland.gov.uk
County Hall
Morpeth
Northumberland
NE61 2EF

Tel: 01670 534095
Fax: 01670 533086

30/01/07

Dr Steve Percival
ECOLOGY CONSULTING

17th October 2006.

Tim Matthews
Wind Prospect Developments Ltd
12 Waddington Street
Durham
DH1 4BG.

Dear Tim,

Green Rigg Proposed Wind Farm

Please find below our outline proposal for an ornithological monitoring programme and habitat enhancement plan.

Bird Monitoring

1. Pre-construction surveys would be undertaken during the 2007 breeding season to provide further comparative data for the site monitoring programme. This would at the same time provide more information on the general level of use of the site by raptors.

These surveys would take the form of:

- (a) Species-specific surveys following the methods of Gilbert *et al.* (1998) for the following species: hen harrier, goshawk, peregrine, merlin and short-eared owl. The study area would include at least 500m from all of the proposed wind turbine locations.
- (b) Vantage point surveys, following same methodology as used in the supplementary winter surveys, carried out during March-July giving at least 36 hours' observations of the wind farm site plus at least a 200m buffer.

2. Post-construction surveys would include a 3-visit Brown and Shepherd survey, the same species-specific surveys discussed above and the same VP surveys discussed above. These would be undertaken in the first three years following construction, after which the data would be reviewed. If any adverse effects were apparent on local bird populations, then monitoring would continue through to year 10 from construction, otherwise it would cease.

3. The post-construction surveys would, as well as adding to the overall knowledge base, inform a hen harrier mitigation scheme. This would be implemented to ensure that if this species did move into the area in the future, it would be safeguarded from any adverse effects of the wind farm. Though there is not currently any of this species' preferred nesting habitat within the wind farm site or its surrounds, forest felling to the north of the site could result in potentially suitable habitat being temporarily available for this species (which will nest in second generation rotational forestry up until canopy closure) in the future. The monitoring surveys would include specific checks for the presence of breeding hen harriers. If any indication were found that they were breeding, then specific observations would be carried out to determine their nest-site location and assess the risk of collision to that specific breeding pair. If a pair were nesting within 500m of any turbines and these birds were flying regularly in close proximity to the turbines (within 200m) at rotor height, then those turbines would be shut down for up to 4 weeks during the main displaying period and for 4

weeks following fledging of the young birds (if the nest were successful), from one hour before sunrise to one hour after sunset (hen harriers are not active at night and therefore the shutdown would not need to be implemented during darkness).

Habitat Enhancement Plan

The purpose of this plan is to deliver a conservation gain to the peatland habitat that will outweigh any losses that might result from the wind farm development, resulting in a net nature conservation gain. The main aim would be to improve the quality of the main areas of active blanket bog within the study area, to ensure that the very small loss of lower quality bog that would be lost as a result of the development (0.26ha.) would be more than offset by overall improvements to the quality of the bog habitat.

This scheme would complement and add value to the existing Countryside Stewardship and Entry Level Schemes. Two key measures would be implemented:

1. Blocking of existing drains within the bog to encourage re-wetting in areas that have been drained in the past.
2. Management of stock grazing levels to facilitate the regeneration of dwarf shrub cover.

The main areas over which it is proposed to implement these measures are shown in Figure 1. This includes a total area of 33ha. that would be targeted for drain blocking and 26ha. for reduced grazing levels (in comparison with the 0.26ha. that of lower quality bog that would be lost to the development). Both of these areas would be fenced so that they could be managed as independent grazing units. The measures would be put in place for the lifetime of the wind farm.

Details of the drain blocking method and the optimum grazing levels will be agreed with Natural England, following more detailed condition surveys of these enhancement areas. A vegetation monitoring programme would be undertaken to measure any effects of the wind farm and the benefits of the enhancement plan, and to feed back into future management (for example fine-tuning grazing prescriptions). This would be measured by regular survey of the vegetation communities in and around the construction and the enhancement area. The cover of *Sphagnum* bog mosses and other key species such as cross-leaved heath *Erica tetralix* would be used as an indicator of bog quality. Following the granting of planning permission, the vegetation communities in the area would be mapped and sample quadrats taken to quantify *Sphagnum* and other key species cover before construction takes place, in the year after commissioning of the wind farm and then at 5-yearly intervals through the lifetime of the wind farm.

Yours sincerely,



Dr Steve Percival

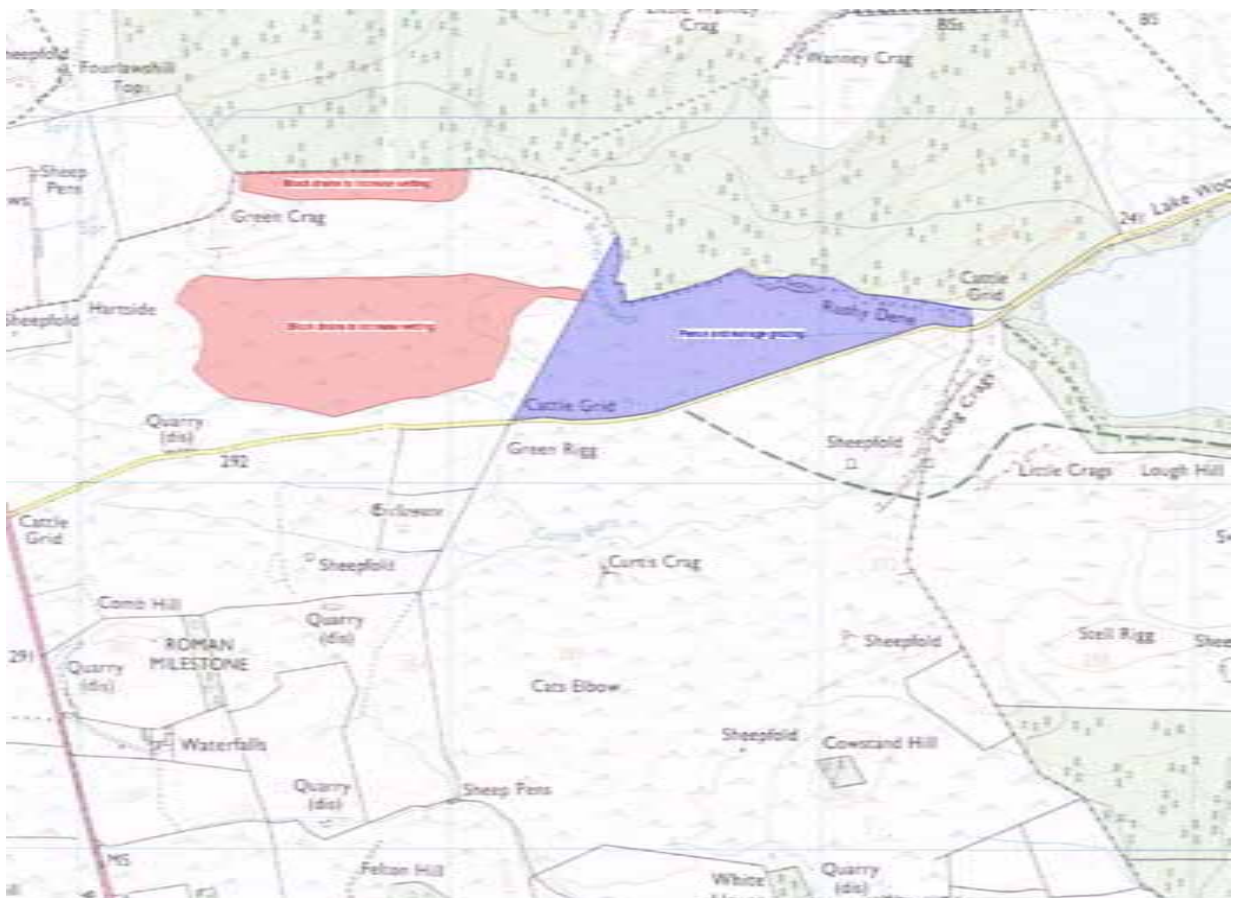


Figure 1.

Proposed enhancement areas