

**Christchurch
Harbour
Ornithological
Group**



NAVITUS BAY WIND PARK

**WRITTEN REPRESENTATION ON THE ONSHORE
IMPACTS OF THE PROPOSED DEVELOPMENT**

EXECUTIVE SUMMARY

OCTOBER 2014

This executive summary of the written representation on the proposed Navitus Bay Wind Park relates to the onshore impacts of the cable route. It should be read in conjunction with the main report and the written representation on the offshore impacts of the wind park itself produced by the Dorset Bird Club working with a number of local conservation organisations.

This executive summary and the main report should be read in conjunction with the appendices, which are presented in a separate document. .

Contents

1. Executive Summary.....	4
Overview	4
Christchurch Harbour Ornithological Group (CHOG)	4
Relevant Representation Submitted at Registration	4
Scope of CHOG’s Objection	5
Main Concerns with the Onshore Proposals.....	5
Impacts East of the Avon Valley	5
Impacts on the Avon Valley	7
Impacts on Hurn Forest	9
Impacts Elsewhere.....	11
Cumulative Impacts	11
Strategic Alternatives	13
Conclusions.....	14

1. Executive Summary

Overview

- 1.1. In view of the likely impacts on wildlife interests, including birds, Christchurch Harbour Ornithological Group (CHOG) objects in principle:
 - to the proposed cable route north and east of Burton Common SSSI;
 - to the proposed crossing of the Avon Valley, even with the use of Horizontal Direct Drilling (HDD) techniques; and
 - to the proposed cable route through Hurn Forest.
- 1.2. CHOG also has serious concerns about potential impacts on wildlife from the proposed cable route elsewhere, notably north of the A31 in Dorset and on wildlife sites in Hampshire, but does not have the resources to look at these impacts in detail.
- 1.3. It follows that CHOG also objects to the proposed cable route as a whole, in view of the likely impacts on wildlife interests, and considers that NBDL should reconsider the strategic alternatives, including the potential to locate a substation to serve the wind farm:
 - at Chickerell, about 5 km inland, north of Weymouth;
 - at Fawley, about 1 km inland within the extent of Fawley power station on the western shore of Southampton Water; or
 - on an entirely new site close to the coast.
- 1.4. Notwithstanding any consideration of impacts on wildlife from the offshore element of the scheme, in the event that an acceptable onshore cable route (in terms of impacts on wildlife) cannot be found, NBDL should abandon the Navitus Bay Wind Farm Project altogether.

Christchurch Harbour Ornithological Group (CHOG)

- 1.5. CHOG was formed in 1956 to record the birds of Christchurch Harbour. Some members of the group are involved in wildlife recording, such as bird ringing and the Wetland Bird Survey (WeBS) both within the harbour and more widely in Dorset and Hampshire. This local knowledge gives the group a good understanding of the bird (and other wildlife) interests of the local area and some insight into the likely impacts of both the offshore and onshore elements of the proposed Navitus Bay Wind Park, as set out in this written representation.

Relevant Representation Submitted at Registration

- 1.6. CHOG's 'relevant representation' submitted at registration stated that the group "objects to the proposed Navitus Bay Wind Park because the documents submitted with the developer's application do not fully assess the likely impacts of both the

onshore and offshore elements of the development on wildlife (including birds)” and “despite the inadequacy of the assessment of potential impacts on wildlife and birds, CHOG objects to the proposed Navitus Bay Wind Park as a result of ... the likely impact of the proposed onshore elements of the development on wildlife, including birds.”

Scope of CHOG’s Objection

- 1.7. CHOG’s written representation relating to the onshore element of the project largely focuses on the ‘middle’ section of the cable route including:
- the largely agricultural land east of the Avon Valley;
 - the Avon Valley itself; and
 - Hurn Forest to the west of the Avon Valley.
- 1.8. This approach should not be seen as an endorsement of, or support for, other sections of the proposed cable route. It is simply that CHOG does not have the resources to examine the impacts of the rest of the route in detail.

Main Concerns with the Onshore Proposals

- 1.9. CHOG considers that NBDL has not fully assessed the likely impacts of the onshore element of the project on wildlife (including birds). Despite the inadequacy of the assessment, on the basis of the Environmental Statement (ES) and information available to CHOG, it is clear that the proposed onshore elements will have an unacceptable impact on wildlife, including birds.
- 1.10. CHOG’s has concerns relating to the impact the laying of cables (using open trenching) is likely to have on:
- the habitats through which they will pass; and
 - the species that rely on those habitats.
- 1.11. CHOG also has concerns that that noise, vibration, artificial lighting and human activity associated with the use of trenchless techniques will also cause unacceptable levels of disturbance to birds and other wildlife in the vicinity of the proposed crossing of the River Avon.
- 1.12. The laying of the cable will have an unacceptable impact on internationally, nationally and locally important wildlife sites, including a variety of sites used by birds. The laying of the cable is also likely to adversely affect a wide range of species (including protected bird species, such as Nightjar) along the route.

Impacts East of the Avon Valley

- 1.13. CHOG’s principal concerns east of the Avon Valley are the impacts on wildlife interests on and around Burton Common SSSI.

- 1.14. Two alternative corridors for the proposed cable route (i.e. north / east and south / west of the SSSI) were considered and the route to the north and east was selected as the preferred option. CHOG considers that the assessment of alternatives is inadequate and the selection of the preferred cable route has not been properly justified, as the judgement was made in the absence of adequate wildlife survey information.
- 1.15. There are known to be important species occurring on, and in the vicinity of, Burton Common SSSI including:
- Sand Lizard;
 - Smooth Snake;
 - Nightjar;
 - Dartford Warbler;
 - Other breeding birds including Stonechat, Yellowhammer and Great Spotted Woodpecker;
 - Crepuscular or nocturnal birds such as Woodcock, Tawny Owl and Little Owl;
 - Southern Damselfly on the nearby River Mude;
 - Dormouse in nearby Burton Rough; and
 - Badgers on the eastern edge of Burton Common itself.
- 1.16. Other developments proposed to the south and west of Burton Common include:
- Mineral (sand and gravel) extraction;
 - a major urban extension to Christchurch (south of the London to Weymouth railway line);
 - the creation of Suitable Alternative Natural Greenspaces (SANGs) (to the north of the railway line) in association with the urban extension; and
 - a solar farm at Waterditch.
- 1.17. CHOG considers that the possible integration of the proposed cable route with these other developments to the south and west of Burton Common SSSI should be more fully investigated. Such an approach would:
- avoid the proposed cable route having to pass through an otherwise undeveloped area;
 - have less impact on the mosaic of heathland and woodland habitats centred on the SSSI;
 - be likely to have less of an impact on the important species in the area (especially Nightjar);
 - create opportunities to secure net gains to biodiversity in association with SANG creation, mineral site restoration and potentially the undergrounding of existing overhead power lines as part of the development of Christchurch Urban Extension; and
 - reduce the extent to which the cables would pass through the New Forest National Park.

- 1.18. NBDL has not fully examined the cumulative impact of the preferred option for the proposed cable route in this area or the impacts in combination with the other developments outlined above.
- 1.19. At the time of writing (early October) further studies were being produced to enable the potential impacts to be more fully assessed, but were not available. In CHOG's view a cable route to the north and east of the SSSI should only be permitted if these further studies clearly demonstrate that the important wildlife interests in this area would not be adversely affected by this development or the 'in combination' effects of this and other developments proposed in the vicinity.
- 1.20. In the event that an alternative corridor is chosen to the south and west of Burton Common SSSI, further studies (drawing on information already provided by CHOG), should be undertaken to establish the least damaging alignment for the proposed cable route.

Impacts on the Avon Valley

- 1.21. The River Avon and the Avon Valley are subject to three international wildlife designations:
 - the river itself is a SAC;
 - much of the valley from north of Ringwood to Christchurch is a SPA; and
 - a similar area is also a Ramsar Site.
- 1.22. The proposed cable route would intersect with all three designations in the Sabine's Farm / Avon Tyrrell area and this part of the valley supports a wide range of wildlife interests, including:
 - species rich grasslands, which provide suitable habitat for breeding waders;
 - populations of SPA qualifying wintering species: Bewick's Swan and Gadwall;
 - internationally important wintering numbers of the Icelandic subspecies of Black-tailed Godwit, which are known to also use other SPAs on the south coast (for which they are a qualifying species);
 - nationally (and occasionally internationally) important numbers of wintering Pintail and Shoveler;
 - significant proportions of the Avon Valley's wintering populations of Wigeon, Teal and Lapwing;
 - breeding Snipe; and
 - a population of the critically endangered Small Fleabane.
- 1.23. Many of these interests have either been under-represented or not identified at all in the ES prepared by NBDL. Although an extended Phase 1 habitat survey for this part of the Avon Valley was included in the ES, surveys were not undertaken for a range of species that are likely to occur, including:
 - breeding waders;
 - breeding Goosander;

- other breeding wetland birds, including Kingfisher, Cetti's Warbler, Reed Warbler, Sedge Warbler and Reed Bunting; and
 - Otter.
- 1.24. CHOG considers that it would be wholly inappropriate for the proposed cable route to pass through this area, even with the use of HDD techniques, for two main reasons, which are:
- disturbance to identified and likely wildlife interests associated with the proposed drilling; and
 - the risk of harm from unforeseen events and future maintenance.

Disturbance

- 1.25. In the light of the known interests in this part of the valley, and having regard to other interests that may also be present but which have not been the subject of a survey, CHOG considers that there would not be a sufficient 'window of opportunity' to install the cables without causing harm through disturbance. The primary concerns are the potential disturbance to wintering and breeding birds, although Otter (if present) could also be disturbed.
- 1.26. WeBS data show that Black-tailed Godwits can arrive as early as September and may still be present in internationally important numbers in this part of the valley into late March. Other wintering birds including Pintail, Shoveler, Wigeon, Teal and Lapwing have also been recorded in this part of the valley during this period.
- 1.27. Snipe breeds in this area and the breeding season runs from early April to mid-July. There has been no survey for other potential ground nesting wader species, such as Redshank and Lapwing, which typically arrive at their breeding sites in March and stay until June. There has also been no survey for other likely breeding species that could suffer from disturbance, such as the tree hole nesting Goosander or river bank nesting Kingfisher, which often has a second brood in July.
- 1.28. Given: the much more significant level of usage by a range of wintering birds of this part of the Avon Valley than is outlined in the ES; and the need for migratory species, in particular Black-tailed Godwit, to feed up after and before migration; and the need to protect breeding waders (and potentially other wildlife interests) from disturbance and vibration; it is considered that a 'no work' period would have to extend from September to July to reduce the significant risk of harm to known and likely wildlife interests.
- 1.29. In CHOG's view, this would not provide a sufficient 'window of opportunity' to: construct the proposed compound to the east of the valley; install the proposed cables; and dismantle the proposed compound. On that basis, it would be wholly inappropriate for the proposed cable route to pass through this area, even with the proposed use of HDD techniques, due to the disturbance.

Risk of Harm from Unforeseen Events and Future Maintenance

- 1.30. CHOG has shown that the section of the Avon Valley where the cable route is proposed supports a wide range of wildlife interests including species-rich habitats, wintering wildfowl and waders in nationally and internationally important numbers, breeding waders, a rich assemblage of other breeding wetland birds, possibly Otter and a population of the critically endangered Small Fleabane.
- 1.31. The use of HDD techniques may require ‘on the ground’ intervention if problems are encountered. It is proposed to drill a number of cable trenches (up to 6) in close proximity over 800 metres and it will require very accurate drilling to avoid these running into one another. This will be even more of a challenge if it is not possible to use a ‘walk-over’ or ‘wire-line’ guidance system in order to avoid disturbance.
- 1.32. If something goes wrong with the drilling (for example, the drill encountering unfavourable geological conditions or a ‘breakout’ of the drill bit with potential spillage of drilling fluid) there is the potential to harm a wide range of interests. Clearly if a less sensitive section of the Avon Valley had been chosen for the crossing, the risk of harm would be reduced.
- 1.33. The same issues arise with future maintenance or trouble shooting. If future maintenance or problems give rise to a need for ‘on the ground’ intervention, the potential to harm wildlife interests is higher than if a less sensitive section of the Avon Valley had been chosen for the crossing.
- 1.34. In CHOG’S view it would be wholly inappropriate for the proposed cable route to pass through this area, even with the use of HDD techniques, due to the risk of harm from unforeseen events and future maintenance.

Impacts on Hurn Forest

- 1.35. In Hurn Forest the proposed cable route would follow the main access track through the main forest block from Matcham’s Lane (in the south) to Boundary Lane, close to the A31 (in the north). The verges of the main forest track are wide and well-managed supporting heathland, woodland and grassland habitats and a wide range of associated species. However, nearly all of the heathland and grassland habitats (and the species they support) would be destroyed by the works that would be undertaken within the proposed 40 metre-wide cable route ‘working width’ corridor.
- 1.36. The ES produced by NBDL includes a Phase 1 habitat survey and some information on the wildlife interests within Hurn Forest, but is far from comprehensive. CHOG considers that the ES has not fully examined the wildlife interests of Hurn Forest. A great deal of other information is available and by bringing together this (and other) information with the ES a more comprehensive assessment of the impacts can be made. In summary, the key interests that will be affected are:

- Nesting heathland birds including Nightjar, Dartford Warbler, Woodlark, Tree Pipit and Stonechat;
 - Other nesting birds, especially species associated with the narrow fringes of deciduous woodland along the main forest track;
 - Sand Lizard and Smooth Snake;
 - Common reptiles including Common Lizard, Slow Worm, Adder and Grass Snake;
 - Butterflies including three Red Data Book Species: Silver-studded Blue, Grayling and Small Heath; and
 - Vascular Plants including five Red Data Book Species; one nationally scarce species; and four Hampshire notable species.
- 1.37. There remains uncertainty about the potential impacts on some interests due to issues with the adequacy of the surveys produced by NBDL. In particular, there is considerable uncertainty about the impacts on breeding birds due to inconsistencies between tables of summary data and mapped data.
- 1.38. It is clear that the use of the main track in Hurn Forest as the cable route would be particularly damaging because many of the species that occur on this route rely on the heathland, grassland and fringing deciduous woodland habitats present. The management of the verges, in places, mimics the early successional stages of heathland and elsewhere maintains open grassland and patches of bare ground supporting a rich and characteristic flora and fauna. Some interests, such as rare vascular plants, are not found elsewhere within the forest. Other interests, such as Sand Lizards, nesting heathland birds and butterflies are concentrated close to the main track.
- 1.39. Given the wildlife interests of Hurn Forest, which includes part of St Leonard's and St Ives Heaths SSSI and St Leonard's North and South, which both form part of the Moors River System SSSI, CHOG considers that the cable route should not be located in Hurn Forest at all.
- 1.40. There are also major problems with accommodating the proposed cable route beyond Hurn Forest in view of the wide range of wildlife interests that occur further south (through the Avon Valley SSSI, SPA and Ramsar Site and the River Avon SAC) and further north (across St Leonard's Hospital SNCI, West Moors Plantation SNCI, Holt and West Moors Heath SSSI - which is also subject to SAC, SPA and Ramsar designations - and a further 4 SNCIs).
- 1.41. Since the preferred route through Hurn Forest was identified in the absence of adequate wildlife survey information, CHOG considers that its selection has not been properly justified. In CHOG's view it is unlikely to be possible to find an acceptable alternative route in Hurn Forest because of the high level of wildlife interest across the site. However, a route away from the main forest track could be less damaging as it would avoid a number of key interests, such as:

- the concentration of breeding heathland birds on the part of St Leonard's and St Ives Heaths SSSI within Hurn Forest;
- the three main Sand Lizard populations, but especially the small population to the south of the western end of Barnfield Heath, which is vulnerable to extinction; and
- concentrations of rare vascular plants in various locations, which are not found elsewhere within the forest.

1.42. It should be noted however, that because NBDL's surveys have a narrow focus on the proposed cable route itself, a great deal of further survey work would be required to identify the wildlife interests that may be present elsewhere within the forest or on any alternative route that might be identified.

Impacts Elsewhere

1.43. CHOG also has serious concerns about the impacts on wildlife elsewhere along the proposed cable route, but does not have the resources to examine these impacts in detail. Other key sites in Dorset where CHOG has concerns are:

- St Leonard's Hospital SNCI;
- West Moors Plantation SNCI;
- Holt and West Moors Heaths SSSI (also SAC, SPA and Ramsar Site);
- West Moors Long Paddock SNCI;
- West Moors Petroleum Depot SNCI;
- The Nursery SNCI; and
- Mannington Sub-station SNCI.

1.44. Other key sites in Hampshire where CHOG has concerns are:

- Breakhill Copse SINC;
- Breakhill Heath SINC;
- Golden Hill SINC;
- Danes Stream Coppice SINC;
- Great Woar SINC;
- Beckley Moor Copse SINC.
- Dark Firs;
- Tilley's Plantation; and
- Allensworth Wood.

Cumulative Impacts

1.45. NBDL has not properly assessed the impacts in different sections of the proposed cable route or on particular wildlife interests that may be affected. Consequently, any assessments of cumulative impacts in the ES are not robust as they are based on incomplete or inadequate information. Despite this lack of information, assessments of cumulative impacts have been made in the ES that take no account

of impacts that may be identified when (or if) the further survey information comes forward.

- 1.46. The ES fails to identify a range of interests: in the vicinity of Burton Common; in the Sabine’s Farm / Avon Tyrrell area of the Avon Valley; and in Hurn Forest. For example, the ES failed to record the presence of internationally important populations of Black-tailed Godwits, representing a significant proportion of the global population of the Islandica sub-species in the Avon Valley.
- 1.47. In the Avon Valley no surveys were undertaken of Otter, breeding waders and other breeding wetland birds on the assumption that HDD techniques will result in no harm to these interests. This approach is fundamentally flawed because it is not ‘evidence-based’ and also means that these interests are under-represented or entirely omitted from summary tables used to assess cumulative impacts. Inconsistencies with the data, in particular in relation breeding birds in Hurn Forest, also raise concerns in this respect.
- 1.48. In the light of these issues, CHOG’s view is that it would be inappropriate to rely on NBDL’s assessments of cumulative impacts in making judgements about the acceptability of the proposed cable route.
- 1.49. Whilst some judgements have been made in the ES about the cumulative impacts of the proposed onshore cable route, there does not appear to have been an overall assessment of the onshore and offshore impacts combined, either for the project as whole, or for particular interests, such as Nightjar.

Nightjar

- 1.50. The ES suggests that 12 Nightjar territories will be affected by the proposed cable route. This is a serious underestimate of the number of Nightjars that could be affected overall and CHOG considers that other factors that should have been taken into account in assessing the cumulative impact on this species, including:
 - the 2 territories identified within and close to St Leonard’s Hospital SNCI;
 - the population of up to 6 birds on Burton Common SSSI;
 - any additional territories on the 8.5km section of the proposed cable route where survey data has not been available;
 - any territories that may be disturbed on other heathland sites as a result of increased recreational pressure whilst the cable route is installed; and
 - any estimate of losses of Nightjars as a result of collisions with the wind turbines offshore.
- 1.51. In CHOG’s view, it would be inappropriate to rely on NBDL’s assessment of the cumulative impact on Nightjar in making judgements about the acceptability of the proposed cable route or the scheme overall.

In Combination Impacts

- 1.52. The ES does not attempt to assess the cumulative impacts of the proposed cable route together with the impacts of the other developments proposed nearby. This is a particular issue in the Burton Common area where the impacts of the proposed cable route need to be considered alongside the impacts from a range of other proposals. It is also an issue at St Leonard’s Hospital where the impacts of the proposed cable route need to be considered alongside the proposals for housing as set out in the development brief for the site.

Strategic Alternatives

- 1.53. In the light of the unacceptable impacts associated with the preferred cable route, CHOG considers that NBDL should either abandon the Navitus Bay Wind Farm Project altogether or, if they seek to continue to take it forward, undertake a strategic review of the onshore options and alternatives.
- 1.54. The ES identifies three existing substations where a connection could be made:
- at Chickerell, about 5 km inland, north of Weymouth;
 - at Fawley, about 1 km inland within the extent of Fawley power station on the western shore of Southampton Water; and
 - at Mannington, about 20 km inland at Three legged Cross.
- 1.55. Mannington was selected as the preferred option, but CHOG does not consider the assessment of these alternatives to be robust as it:
- fails to recognise that a very long (35 km) cable route would be required with the Mannington option;
 - fails to recognise that there is a need to negotiate extensive built-up areas with the Mannington option, namely those of: Christchurch, Highcliffe, Barton-on-sea and New Milton;
 - wrongly states that the Fawley power station site is in the New Forest National Park (it was excluded from the designated area following a legal challenge);
 - fails to recognise that the proposed cable route for the Mannington option would pass through more of the National Park (about 6 km according to the New Forest National Park Authority) than the Fawley option (about 5 km); and
 - does not recognise that Christchurch Bay, where the cables would come ashore is extensively used by shipping and leisure craft.
- 1.56. The assessment of alternatives also includes no comparative analysis of the potential impact of the different options on wildlife interests, including the very significant wildlife interests outlined in this representation.
- 1.57. In CHOG’s view NBDL should re-evaluate the strategic alternatives outlined in the ES (i.e. the Chickerell and Fawley options) and give serious consideration to the construction of an entirely new substation in a location closer to the coast.

Cable Route Corridors

- 1.58. In CHOG's view, the process to select the preferred corridors for the cable route to reach the Mannington substation is also seriously flawed, as the assessment of alternatives was not based on adequate surveys of wildlife interests.
- 1.59. CHOG considers that a cable route to the 'south and west' of Burton Common SSSI would be less damaging to wildlife interest than the proposed route to the 'north and east'.
- 1.60. In relation to the Avon Valley corridor options, CHOG cannot comment on the merits of the 'Matchams route' as the justification in the ES for rejecting it does not appear to have been based on a proper assessment of the impacts on wildlife interests. In CHOG's view there are likely to be serious difficulties wherever a crossing of the Avon Valley is proposed. However, the Sabine's Farm / Avon Tyrrell option is particularly inappropriate because of the multiple wildlife interests that have been identified which could be harmed by the proposed cable route.
- 1.61. In relation to Hurn Forest, CHOG cannot comment on the merits of the 'west of West Moors route' as the justification for rejecting also does not appear to have been based on a proper assessment of the impacts on wildlife interests. Given the wildlife interests of Hurn Forest, which includes part of St Leonard's and St Ives Heaths SSSI and St Leonard's North and South, which both form part of the Moors River System SSSI, CHOG considers that the cable route should not be located in Hurn Forest at all.

Other Corridor Options and Strategic Alternatives

- 1.62. All the alternative corridor options for the Mannington option appear to have significant problems associated with them. Further survey work would be required to re-examine the alternative corridor options including not only those that have already been considered, but also other potential routes which would have less impact on wildlife and the natural environment.
- 1.63. In CHOG's view, the difficulties in accommodating the cable route for the Mannington substation option strongly indicates that a more fundamental review of the strategic alternatives is required, including not only the identified Chickerell and Fawley substation options, but also the option of an entirely new substation in a location much closer to the coast.

Conclusions

- 1.64. In view of the likely impacts on wildlife interests, including birds, CHOG objects in principle:
- to the proposed cable route north and east of Burton Common SSSI;
 - to the proposed crossing of the Avon Valley, even with the use of HDD techniques; and

- to the proposed cable route through Hurn Forest.
- 1.65. CHOG also has serious concerns about potential impacts on wildlife from the proposed cable route elsewhere, notably north of the A31 in Dorset and on wildlife sites in Hampshire, but does not have the resources to look at these impacts in detail.
- 1.66. It follows that CHOG also objects to the proposed cable route as a whole, in view of the likely impacts on wildlife interests, and considers that NBDL should reconsider the strategic alternatives, including the potential to locate a substation to serve the wind farm:
- at Chickerell, about 5 km inland, north of Weymouth;
 - at Fawley, about 1 km inland within the extent of Fawley power station on the western shore of Southampton Water; or
 - on an entirely new site close to the coast.
- 1.67. Notwithstanding any consideration of impacts on wildlife from the offshore element of the scheme, in the event that an acceptable onshore cable route (in terms of impacts on wildlife) cannot be found, NBDL should abandon the Navitus Bay Wind Farm Project altogether.