



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL PROCEDURE RULES)
2010

HORNSEA OFFSHORE WIND FARM PROJECT TWO

Planning Inspectorate Reference: EN010053

Summary of Written Representations

15th July 2015

Summary Written Representation

1. Natural England's Written Representations provide Natural England's statutory advice in respect of the potential impacts of the proposed development on the natural environment. Natural England's Written Representations expand upon the issues outlined in Natural England's Relevant Representations, in view of statement of common ground discussions that have taken place with the Applicant to date and the information that has been submitted by the Applicant to address certain issues.
2. In its letter of 22nd June 2015 the Examining Authority asked the parties, including Natural England, a number of first written questions. The answers to those questions are contained within a separate document submitted alongside our Written Representations.

Overview of the sections to Natural England's Written Representations

3. The introductory and background sections of Natural England's Written Representations are as follows:
 - 3.1. Section 1 sets out the introductory and background sections of the Written Representations.
 - 3.2. Section 2 sets out the status and functions of Natural England.
 - 3.3. Section 3 provides information on the legislative framework which applies in this case, with reference to the relevant pieces of environmental law and policy.
 - 3.4. Section 4 provides an account of the policy framework that can provide assistance to competent authorities when considering the legal steps sets out in section 3 in respect of European sites and SSSIs.
 - 3.5. Section 5 introduces the statutory nature conservation designations and interests in the area of the proposed development. It provides links to designation citations and boundary maps. The relevant protected sites potentially affected by the proposed development are as follows:
 - 3.5.1. The Flamborough Head and Bempton Cliffs SPA/Flamborough and Filey Coast potential Special Protection Area pSPA
 - 3.5.2. The Humber Estuary SAC
 - 3.5.3. The Humber Estuary SPA
 - 3.5.4. The Humber Estuary Ramsar Site
 - 3.5.5. Flamborough SSSI
 - 3.5.6. Humber Estuary SSSI
 - 3.6. Section 6 contains the statutory advice of Natural England with regard to the issues of concern arising as a result of the proposed development. In its Relevant Representations, Natural England identified the main issues of concern which are dealt with in the Written Representation under two sections: principal issues in relation to offshore ornithology and principal issues in relation to non-offshore ornithology.

Principal issues in relation to ornithology

4. In its Relevant Representation Natural England raised concerns about aspects of the data and analysis that underpin the offshore ornithological assessment, namely:
 - Baseline Data Collection and Analysis Methodology
 - Population Scales and Apportioning to individual SPAs
 - Collision Risk Modelling (CRM)
 - Assessment of Displacement Impacts
 - Population Modelling Approaches and Demographic Parameters
 - Migratory Bird Analysis
 - Habitats Regulations Assessment (HRA)
 - Environmental Impact Assessment (EIA) and
 - Assessment of Cumulative and In-combination Effects

5. Since our Relevant Representations were submitted, Natural England has been working with the Applicant to clarify and resolve issues relating to the assessment of project impacts for offshore ornithology. Due to a number of the issues relating to the baseline datasets used to underpin the analysis of population impacts, Natural England has not seen or been able to agree on the level or significance of population impacts on protected sites, namely the Flamborough and Filey Coast pSPA (FFC pSPA), and a number of species in the EIA context. We anticipate being able to update the Examining Authority around the baseline datasets by Deadline II.

Baseline Data Collection and Analysis Methodology

Estimation of baseline populations

6. Natural England raised a number of concerns regarding the estimation of baseline populations for species occurring in the Hornsea Project 2 area. The main issues raised were: (1) clarification of methods used to derive population estimates; (2) presentation of coefficient of variation (CVs) for monthly distance estimates; (3) explanation of large differences between kittiwake population estimates for Project 1 and Project 2; and (4) consideration of the variance around the population in the subsequent assessment of impacts.

7. Since the submission of the Relevant Representation the Applicant has provided Natural England with updated tables with the raw data used to generate densities and population estimates, as associated confidence limits. Natural England understands that final versions of these tables will be submitted by the Applicant at Deadline 1, which we'll then review.

Dealing with incomplete surveys

8. Natural England raised concerns regarding the effect of missing and incomplete baseline survey data on the assessment of population impacts of species. Following discussions with Natural England, the Applicant has proposed several methods for addressing the issue of the missing and incomplete baseline survey coverage and will present the results of applying these methods, including population estimates derived using these methods for the months of low or no survey coverage, at Deadline I. Natural England will review these submissions and update the draft SoCG between the two parties for Deadline II.

Treatment of unidentified species

9. Natural England requested clarification that the population estimates, used for individual auk and gull species, take account of the unidentified records and also requested that the Applicant provide information on the method used to generate auk and gull population estimates, taking account of the unidentified individuals.
10. The Applicant has provided methodologies used to assign unidentified species to species level. Natural England is content with the information provided and that the figures derived are suitable for use with the impact assessment.

Estimating the flight height of birds

11. Natural England raised a number of concerns relating to the collection and subsequent analysis of data on the flight heights of birds in the Hornsea Project area. Information on the flight height of birds is a key parameter used in collision risk modelling and site specific flight height information is required for Option 1 of the Basic Band Model (Band 2012).
12. The validity of using the Hornsea site specific flight height data to assess collision risk remains an area of disagreement between Natural England and the Applicant. The Applicant considers that the Hornsea site specific data is suitable for generating the proportion of birds at Potential Collision Height (% PCH) values for the relevant species occurring in the Project area without the need to account for the uncertainty in these estimates in the collision risk modelling. Natural England do not believe it is appropriate to use the site specific flight height data within the collision risk modelling.
13. Due to considerable uncertainty regarding the site specific flight height data, Natural England will base its assessment of potential impacts on the outputs of Band Model Option 2 which uses the generic information on flight heights and provides information on confidence limits around these. The Applicant has presented collision outputs derived from Band Model Option 2, although these do not form the basis of the Applicant's assessment of impacts from potential collisions. Natural England has not yet been able to comment on the impacts of the Assessment until the baseline data issues are resolved.

Population Scales and Apportioning to individual SPAs

14. In our Relevant Representation Natural England raised a number of issues that relate to the population scales and population sizes used to apportion predicted impacts back to individual SPAs during the breeding and non-breeding seasons.

Gannet

15. Natural England understands that the Applicant will be providing updated apportioning information on the gannet population at FFC pSPA at Deadline II. Until this information is provided Natural England are unable to form any conclusions regarding the significance or otherwise of assessments of population impacts

Kittiwake

16. Natural England does not agree with the Applicant's calculations for apportioning kittiwake present at the Project site to the FFC pSPA colony during the breeding season. In particular Natural England does not agree with the Applicant's assumptions about the spatial and numerical distribution of non-breeding (including immature) birds during the breeding season, or assumptions about foraging ranges of breeding adults from FFC pSPA. Following discussions, the Applicant has agreed to undertake sensitivity testing around the effect of using different breeding season months and submit further clarification material on this at Deadline II.

Auks apportioning to individual SPAs

17. In its Relevant Representations (paragraphs 59, appendix I) Natural England did not agree with the Applicant's approach to apportioning auk impacts to FFC pSPA during the breeding season.
18. Natural England understands the Applicant will provide an updated assessment of displacement effects on auks from the FFC pSPA at Deadline II, presenting a range of apportioning figures to explore alternative apportioning scenarios.

Collision Risk Modelling (CRM)

19. Natural England is not able to draw any conclusions regarding the significance of predicted impacts from the collision of birds with turbines in the Project area until the Applicant has presented the full range of CRM outputs as requested in our Relevant Representation.
20. Natural England understands that the Applicant will submit an updated collision risk assessment at Deadline I.

Assessment of Displacement Impacts

21. Natural England is not able to draw any conclusions regarding the significance of predicted impacts from the displacement of birds from the Project area and buffers until issues relating to the underlying baseline data and methodologies have been fully resolved and the figures agreed.

Population Modelling Approaches and Demographic Parameters

22. Natural England advises that where possible Population Viability Analysis (PVA) modelling should be used rather than Potential Biological Removal (PBR) to investigate the population level impacts of the predicted additional mortality arising from the construction and operation of the project and in combination with other projects.
23. Natural England is having discussions with the Applicant regarding updating the Population Viability Analysis for the key species at FFC pSPA and we understand that the Applicant will submit an updated PVA analysis at Deadline II.

Habitat Regulations Assessment (HRA)

24. Given the uncertainty surrounding a number of key elements to the Hornsea P2 HRA assessment outlined in our Relevant Representations and Written Representations, it is not possible to conclude at this stage that the project would not have an adverse effect on the integrity of the FFC pSPA for gannet, kittiwake, guillemot or razorbill and additionally puffin as part of the seabird assemblage.

Environmental Impact Assessment (EIA)

25. Natural England is unable to conclude at this stage that the project will not have a significant impact on the following species: gannet, kittiwake, lesser black-backed gull, great black-backed gull, guillemot, razorbill or puffin at an EIA population scale.

Assessment of Cumulative and In-combination Effects

26. Natural England is currently unable to draw conclusions for the species listed above (see paragraphs 24 and 25) due to disagreement over the methods used and or parameters and options selected by the Applicant.

Principal non-ornithological issues

Marine Mammals

27. At the Relevant Representations stage Natural England raised a number of issues regarding potential impacts to marine mammals. These included noise from construction, cumulative impacts, impacts of vessel disturbance and entanglement with anchored monopiles. Natural England is satisfied that all of the issues raised in our Relevant Representation have been satisfactorily addressed by the Applicant during SoCG discussions. This is on the basis that the Marine Mammals Monitoring Plan (MMMP), as secured under Condition 10(2)(e) of the draft DCO, is updated to ensure that where appropriate consideration is given to the use of noise reduction at source technologies.
28. **SACs for Harbour Porpoise.** In its Relevant Representation National England raised the issue of a possible SAC for harbour porpoise in the Southern North Sea. Since the submission of relevant representations, JNCC and the country agencies have issued formal draft advice to all four UK governments on draft SACs (dSACs) for harbour porpoise. This advice is now being considered by the four UK governments. It is anticipated that a formal consultation for these dSAC may commence within the examination period for the Hornsea Project Two development, subject to clearance.

Marine processes

29. After reviewing the application documents Natural England were unclear on a number of issues and sought clarification from the applicant in order to ensure the assessment of impacts was complete. These issues were surrounding impacts to sediment transport as a result of the export cable protection, the effects of the presence of the operational wind farm and whether climate change and the most up to date data had been considered.
30. During SoCG discussions the Applicant provided further information regarding the issues raised by Natural England. Based on the information provided by the Applicant Natural England is satisfied that the proposed project will not have a significant impact on marine processes and as a result not affect any European sites along the Yorkshire, Lincolnshire and Norfolk coastlines.

Marine and intertidal Ecology

31. **Humber Estuary SAC.** In its Relevant Representation Natural England questioned whether trailer suction hopper dredgers (TSHD) would be used for cable burial and specifically whether this would occur within the Humber Estuary SAC. Natural England welcomed the confirmation, by the Applicant, that TSHD is not proposed as a method for cable burial and would not be used within the Humber Estuary SAC. This satisfied

Natural England that the use of TSHDs would not potentially affect the features of the Humber Estuary SAC.

32. **Method of access.** In our relevant representation Natural England noted that due to the impact of the tidal surges that affected the east coast of England in December 2013 the applicant may have difficulties accessing the foreshore. Therefore, an alternative means of access may be required, such as a ramp onto the embryonic dune system. Natural England advised that a separate method statement for those landfall aspects of the cabling work including details on cabling installation methodologies and access to the landfall should be included in the DCO. This would ensure that impacts from activities proposed are no greater than those assessed in the Environmental Statement (ES).
33. During SoCG discussions the Applicant agreed to include additional details regarding access to the landfall within the Code of Construction Practice in the DCO (under Schedule A, Part 3, Requirement 8). Additionally it was confirmed that details regarding cable installation methodologies would be included the Construction Method Statement (as secured under Part 2, Condition 10(2)(b) of the draft DCO) and the Cable Specification and Installation Plan (as secured under Part 2, Condition 10(2)(f) of the draft DCO). On the basis that the draft DCO (Schedule A, Part 3, Requirement 8) is updated to include the above additional information (i.e. specific details regarding access, vehicle movements, number of trips) Natural England is satisfied that the issues surrounding access have been satisfactorily addressed and there are sufficient controls within the DCO to ensure impacts from activities remain within the parameters of the ES.
34. **SSSI consent.** During SoCG discussions Natural England advised that when carrying out any scheduled maintenance works on the intertidal area within the Humber Estuary SSSI that the Applicant will need to obtain the landowners' permission to access site. Once more specific details are known about the associated activities required to undertake operation and maintenance works further permissions under The Wildlife and Countryside Act 1981 (as amended), from Natural England are also required prior to construction. This is because the export cable route has a landfall at Horseshoe Point, located within the Humber Estuary Site of Special Scientific Interest (SSSI) and, therefore, section 28 of the Wildlife and Countryside Act 1981 (as amended) will apply.

Intertidal Ornithology and the Humber Estuary SPA

35. At the Relevant Representation stage Natural England raised concerns relating to the potential impacts of disturbance to overwintering features of the Humber Estuary SPA during routine scheduled maintenance and inspections of the cable route in the intertidal area. These activities could cause disturbance to features of the Humber Estuary SPA depending on the scale and/or timing of any activity.
36. Natural England has advised that all scheduled maintenance and inspections of the cable route in the intertidal area be conducted outside of the overwintering period for birds (as defined by Condition 20(3) of DMLs A2 and B2 to avoid disturbance to SPA birds) in order to avoid any adverse effects on the Humber Estuary SPA and Ramsar

Site. This is still a matter of ongoing discussion between Natural England and the Applicant.

Draft Development Consent Order / Deemed Marine Licenses

37. At the Relevant Representation stage Natural England provided comments on the draft Development Consent Order (DCO) and draft Deemed Marine Licences (DML). The majority of these comments have been addressed within the SoCG (please see Appendix 1 [row 1.1], Appendix 2 [row 2.5], Appendix 5 [rows 5.3 and 5.5]).
38. Natural England has concerns about potential disturbance to features of the Humber Estuary SPA during the overwintering period as a result of routine scheduled inspections. Natural England recommends that scheduled inspections within the Humber Estuary are conducted outside the main overwintering period (October to March inclusive) for birds and this is secured in the DCO/DML.
39. During SoCG discussions, Natural England agreed that details regarding access at the landfall for cabling works can be included in the Code of Construction Practice (as secured by Requirement 8 of the draft DCO). However, Natural England recommends that the need for these details to appear in the Code of Construction Practice is clearly stated in the DCO.
40. Natural England welcomes the inclusion in the DMLs (Part 2 Condition 10(2)(e)) that, where appropriate, the applicant will consider the use of noise reduction at source technologies in the MMMP.
41. Natural England recommends that the DCO should specify that under the Wildlife and Countryside Act 1981 (as amended) a management scheme for the lifetime of the project to undertake operations and maintenance activities should be agreed with Natural England prior to construction and secured as a condition in the DCO.
42. Natural England is currently in discussions with the applicant surrounding the production of an 'In Principle Monitoring Plan'. The plan will outline the types of monitoring that will be required over the various phases of the project, and must specify each survey's objectives, explaining how monitoring will assist in either: informing a useful and valid comparison with the post-construction position; and/or enabling the validation of key predictions in the Environmental Statement. Natural England consider a requirement in the DCO is needed to ensure that any appropriate monitoring surveys is carried in accordance with the principles set out in the In Principle Monitoring Plan.
43. Natural England has been working with the Applicant to resolve issues relating to the assessment of project impacts on classified birds of interest associated with Flamborough Head and Bempton Cliffs SPA/Flamborough and Filey Coast pSPA. Depending on the outputs of these impact assessments Natural England may advise that a condition for colony-specific monitoring of specific sensitive species is required.
44. Natural England also considers that it would be beneficial for the wording of DCO/DML conditions relating to ornithological monitoring to be revised to enable both standard monitoring and/or input into strategic bird monitoring to address outstanding concerns. It

has been identified in recent workshops involving regulators, advisors and developers that a potential strategic bird monitoring programme/s involving several consented projects may be a better approach to validate assumptions used in the collision risk modelling and displacement assessments as well as the potential consequences of collision and displacement.

Decommissioning

45. Natural England acknowledges that a decommissioning programme will be required post consent (pursuant to the DCO, Schedule A, Part 3, Requirement 9) and that this will be agreed at the relevant time under the provisions of the Energy Act 2004. The decommissioning plan should include an assessment on whether in-combination decommissioning impacts have been assessed fully and, if not, request additional information on the impact assessment. Natural England would welcome a discussion with the Applicant on the potential for in-combination impacts at that time.
46. Furthermore, Natural England recommends that removal of scour protection and cables where scour is severe is essential in order for the seabed to return to its natural state as required under OSPAR. These matters should be subject to consideration at the time of decommissioning.