

From: Dawkins, James [<mailto:James.Dawkins@rspb.org.uk>]
Sent: 26 November 2015 21:04
To: Hornsea2
Subject: RSPB Submission for Deadline 6
Importance: High

FAO Katherine King:

Dear Katherine,

I attach the RSPB's submission for Deadline 6.

The RSPB have just seen the Examiners' Rule 17 letter. We are profoundly concerned about the potential implications of this letter.

You will remember that at Deadline 5 we wrote expressing concern about the late notice of the proposed change to 6MW turbines. At that point we anticipated that the information about the proposed changes to the schemes would be made available at Deadline 5 and that we would therefore have the opportunity to consider their implications in time to comment at Deadline 6. Regrettably we have still not seen the detailed information, although the Applicant has responded to our request to supply the key turbine parameters. This, however, has not been enough information for us to review the likely impacts.

We now note with equal concern the Lead Examiners' new questions, to be answered by Deadline 7. In particular we note that the Applicant is required by item 2 to provide details of the underpinning assessment of the potential implications for offshore ornithology by Deadline 7. If the Applicant does not provide this information ahead of this date, the RSPB will have been deprived of the opportunity to consider it during the Examination period. Similarly, the RSPB will not have the opportunity to comment upon Natural England's response to item 10: as this is a key area of difference between the RSPB and Natural England we are, again, concerned that we will not get the opportunity to respond.

The RSPB will review the information provided at Deadline 6 and the Rule 17 letter's questions in more detail and will, if necessary, contact the Examining Authority as far ahead of Deadline 7 as possible.

Yours sincerely,
James Dawkins

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The RSPB is the country's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654

**Deadline 6 Submission
for
The Royal Society for the Protection of Birds**

26 November 2015

Planning Act 2008 (as amended)

In the matter of:

**Application by SMartWind for an Order granting Development Consent for the
Hornsea Offshore Wind Farm – Project Two**

**Planning Inspectorate Ref: EN010053
Registration Identification Ref: 10031166**



The RSPB's response to the Applicant's Response to Deadline 5

1. This document is divided into 3 sections: Offshore, Intertidal and Monitoring. These update the RSPB's position in the light of documents submitted at Deadline 5.
2. Wherever reference is made to the DCO we have noted changes shown in the *Comparison of Version 6 of the draft DCO against Versions 5* (Applicant, Deadline 5, Appendix B), but have updated the numbering to reflect *Draft Development Consent Order – Version 7* (Applicant, Deadline 5, Appendix E). References to “the revised draft DCO” should be taken to mean the changes as set out in version 7 of the draft.
3. The RSPB notes that the Applicant considers that it has addressed our concerns in the Issues Specific Hearing of 27 October 2015 (*The Applicant's Response to Deadline 5*, part 2, *The RSPB*, para 1). We respectfully disagree with that contention and continue to have concerns with a number of aspects of the scheme, set out at the Issue Specific Hearing on 27 October, developed further in our Deadline 5 response, and again in this document for Deadline 6.

Offshore

4. There have been several new pieces of information submitted at Deadline 5 from the Applicant (Appendices G, U and V) and Natural England (Written Submission for Deadline 5) with relation to offshore issues, however a key new piece of information from the Applicant, that is the revised turbine dimensions for the worst case scenario, is not to be submitted until Deadline 6. While some prior notice of these changes had been provided to both Natural England and the RSPB, the information provided is not sufficient to complete an assessment. There has been no new information with regard to guillemot, razorbill and puffin, and so the RSPB maintains its objection to Hornsea Project 2 for these species, both alone and in-combination.
5. There has also been no new information submitted with regard to gannet. The changes in turbine specification will have implications for the collision risk modelling for gannet, but the applicant has not provided an update on collision risk. In the absence of this update, the RSPB maintains its objection to Hornsea Project 2 for gannet, both alone and in-combination.
6. Appendix V submitted by the Applicant at Deadline 5 details the migratory seabird collision risk modelling carried out by the Applicant. In this assessment, the final stage for birds considered to exceed a threshold of baseline mortality is an analysis using Potential Biological Removal (PBR). The RSPB has previously detailed at some length its objection to the use of this method for such an assessment, and that it considers PBR wholly unsuitable. As such we do not accept the conclusions presented in Appendix V of the Response submitted to Deadline 5.
7. All the other information presented relates to the collision mortality of kittiwake, and the RSPB's continuing position is laid out below under the following headings:
 - Ongoing issues with:
 - Flight Height
 - Avoidance Rate
 - Flight Speed
 - Model Version

- Extent of Breeding Season
- Apportioning to the Flamborough and Filey Coast pSPA
- The Flamborough and Filey Coast pSPA population
- New Turbine specifications:
 - Revised PVA outputs
 - Requirement for further modelling

Kittiwake Ongoing issues

Flight Height

8. The RSPB maintains its position that the flight height data collected by the Applicant are not of a suitable resolution for use with the Band extended model (Option 4), and since the height data given (as summarised by the Potential Collision Height (PCH) value) lie outwith the confidence intervals presented in Johnston *et al* (2014) for several species, these data cannot be relied upon for the basic model, Option 1 either.
9. In order to attempt to explain the very low flight heights recorded at surveys for Hornsea Project 2, the Applicant presented a review of kittiwake flight height data estimated at other proposed developments, in Table 1.5 of Appendix DD of its Deadline 4 response. The RSPB provided some criticism of this in their Oral Submissions (*Summary of oral case from Issue Specific Hearing 15 & 16 September 2015, Submitted for Deadline 3*, p7, para 8.4.3 b and c) and Natural England have also provided a critique, in their Written Submission to Deadline 5, paras 3.38 to 3.40. The RSPB agree with NE's critique. In the Applicant's Appendix G submitted for Deadline 5, it responds to some of the RSPB criticisms in paras 8.12 and 8.13, with regard to the missing sites not included within its original review despite data being available for those sites. The Applicant suggests that East Anglia One and Three offshore wind farms were omitted because the PCH was derived from measurements from digital aerial survey, despite the Applicant including aerial data from Blyth demonstration wind farm project in its review. These data were used in collision risk modelling using the Band model and as such are directly comparable. They are also potentially of greater interest because aerial surveys are likely to provide more accurate measurements of flight height than boat based estimates as we have highlighted previously¹. The PCH data for East Anglia Three are available in that application's Preliminary Environmental Information Report², although the Applicant would appear not to have accessed this.
10. In addition it is unclear why the Applicant did not present PCH values for the Seagreen Alpha and Bravo offshore wind farms. Both sites clearly presented the PCH values in their Environmental Statement. The Applicant suggests these were omitted as Seagreen used the generic data (Cook *et al* 2011, an earlier version of Johnston *et al* 2014) for collision risk modelling, although the Applicant presents values for Aberdeen, Beatrice, Dogger Bank Creyke Beck A and B and Teeside A and B, and Moray Firth offshore wind farms, who similarly preferred using the generic data.

¹ In our Written Representations at para 5.20 and 6.9, in our Deadline 3 responses at 8.4.3 b and 8.4.13, and in our Deadline 5 response at 8.5 (page 10) and pages 31-32.

² Available at <https://eastangliathree.eastangliawind.com/downloads.aspx>

11. Data describing kittiwake PCH have also been presented elsewhere. From a comprehensive review of published studies, Furness *et al* (2013) predicted a PCH of 16% for kittiwake. Using offshore surveys, there are the following PCH values 9%, 4%, 10.9% and 18%, from Leopold *et al.*, 2004, Chamberlain *et al.*, 2005, Paton *et al.*, 2010 and Garthe *et al.*, 18%. In addition land based studies have presented PCH values of 10%, 11% and 0%, as set out in Day *et al.*, 2003, Rothery *et al.*, 2009 and Paton *et al.*, 2010. Data have also been recorded from other platforms, such as radar, presenting PCH values of 38% and 45% (Krijgsveld *et al.*, 2005 and 2011), and laser rangefinders recorded a PCH of 20%, (see Mendel *et al.*, 2014).
12. All these studies, alongside those presented by the Applicant, reinforce the argument of Natural England and the RSPB that the PCH recorded at Hornsea Project 2 is exceptionally low, and as such cannot be relied upon.
13. In addition the range of values of PCH presented above and by the Applicant demonstrates that there is considerable variability in the flight height of kittiwake compounded by the uncertainty in observer accuracy from boat based surveys. It is because of this uncertainty that there is great utility in using pooled data, such as that presented in Johnston *et al.*, (2014) rather than relying on data from a single site, in the absence of any coherent explanation as to what ecological circumstances would make that site different. As previously described (RSPB, *Summary of oral case from Issue Specific Hearing 15 & 16 September 2015, Submitted for Deadline 3*, p9, para 8.4.10), another important utility of the generic data set is the inclusion of confidence interval to facilitate consideration of variability in flight height in modelled collision mortality estimates. This incomplete consideration of variability and uncertainty in the assessment is dealt with below.

Avoidance Rate

14. The RSPB are in agreement with the SNCB guidance, including Natural England, on the correct Avoidance Rates for use in collision risk modelling of kittiwake (JNCC *et al.*, 2014), and the lack of an appropriate Avoidance Rate to use for the Band extended model. The arguments around this have been well rehearsed and therefore we will not repeat them here but please see Section 5 of our Written Representation (in particular paras 5.10, 5.11, 5.18, 5.19, 5.20 and 5.30), our response to Question EOO4 (Deadline 2), and section 8.4 in our Deadline 3 response. The Applicant has presented no further information in its submissions that would support any change from the SNCB position.
15. It is also important to note the SNCB guidance recommends, as also pointed out by Natural England in their Written Submission to Deadline 5, that a range of collision estimates be presented using the standard deviations given in Cook *et al.*, (2014) in order to reflect the variability and uncertainty associated with the Avoidance Rate. The Applicant has neglected to do this. This incomplete consideration of variability and uncertainty in the assessment is dealt with below.

Flight Speed

16. In guidance produced by SNH for Collision Risk Modelling, (SNH, 2014), the importance of flight speed as one of the variables included in the Band model was highlighted, and the inverse

exponential relationship between flight speed and predicted collision mortality demonstrated. Subsequent sensitivity analysis carried out by Masden (2015) reinforced the importance of flight speed as a variable, and showed that it had as equally as strong an influence as Avoidance Rate on the outputs of the collision modelling. Uncertainty around Avoidance Rates was previously thought to “dwarf” the uncertainty arising from other variables (Band, 2012). This highlights the need to use as accurate as possible measurements of flight speed in collision modelling as well as providing an indication of variability and uncertainty around it.

17. The Applicant relies on data presented in Alerstam *et al.*, (2007) for the flight speed data inputted into the collision risk model. This gives a speed of 13.1ms^{-1} derived from only 2 radar flight tracks of kittiwake in Sweden. The data were presented with standard deviations, from which confidence intervals could be derived, although the Applicant has not used these in their subsequent analysis.
18. In Masden, (2015), flight speed recorded by GPS tracking of kittiwake in UK waters during the breeding season is presented, alongside standard deviations. A copy of this report was provided to the Applicant by Natural England, and it is now published online. The flight speed calculated was somewhat lower than that in Alerstam (2007), 7.26ms^{-1} , and if used for collision modelling would give an increased collision estimate. This value can be considered more accurate, as it has a greater sample size, is derived from breeding birds and is from UK waters. Furthermore the standard errors presented by both Alerstam *et al.*, (2007) and Masden (2015) should have been included in the Applicant’s assessment. This incomplete consideration of variability and uncertainty in the assessment is dealt with below.

Model Version

19. The RSPB are in agreement with Natural England that the correct version of the Band (2012) model to be used for assessment of kittiwake is the Basic model. This is in alignment with the recommendations of the BTO Avoidance Rate review (Cook *et al.*, 2014) and SNCB guidance (JNCC *et al.*, 2014), and also in consideration of the inadequacy of the Applicant’s survey data, discussed above, and in previous submissions.
20. Also, as previously discussed, there have been concerns with the Applicant’s derivation of PCH, *post hoc* from its boat based surveyors’ estimates of flight height to the nearest 5m. For the proposed mitigation through modifying the turbine specifications, the Applicant has followed recommendations of Natural England in including birds assigned *post hoc* to the height band below the lower rotor height. This value is then taken forward for use in Option 1 of the Basic Band model. While we agree that this approach is more precautionary than that used previously by the Applicant, the RSPB still has serious concerns with the approach to estimating flight height by the Applicant, as detailed at length previously³. These serious concerns remain, and as such preclude the use of a site specific PCH, as required for Option 1. Therefore we consider the only manner in which a robust assessment can be carried out is by the use of the Band Basic model, Option 2.

³ In our Written Representations at para 5.20 and 6.9, in our Deadline 3 responses at 8.4.3 b and 8.4.13, and in our Deadline 5 response at 8.5 (page 10) and pages 31-32.

Extent of Breeding Season

21. The RSPB are in agreement with Natural England that the appropriate breeding season months for kittiwake at Flamborough and Filey Coast pSPA are April to July. This is in the context of Furness (2015) who defines the breeding season for UK colonies as March to August, and information provided by RSPB staff monitoring the colony at Bempton Cliffs Reserve as well as published literature (Pennington *et al.*, 2004, Brown and Grice, 2005 and Forrester *et al.*, 2007).
22. The Applicant has been unable to provide any new supporting evidence for its view that the appropriate breeding season for kittiwake is May to July.

Apportioning to the Flamborough and Filey Coast pSPA

23. The Applicant has presented in Appendix DD (submitted at Deadline 4) a rationale for adjusting Natural England's assumed apportionment of 95% of adult kittiwake recorded during the breeding season as Flamborough and Filey Coast pSPA adults. To an extent this adjustment has been accepted by Natural England.
24. While the RSPB acknowledge that this 95% is likely to be a precautionary figure, since baseline surveys will have allocated 2nd and 3rd summer birds as adults due to the difficulty in aging a bird during a survey after its second year, there is considerable uncertainty as to what the true proportion will be. The calculation presented by the Applicant to reduce the proportion does nothing to decrease this uncertainty. It is dependent on the use of demographic rates in the calculation. Such demographic rates are considered to be unreliable by Horswill and Robinson, (2015) in a report that is most comprehensive review of seabird demographic rates in UK waters. It concluded there was poor evidence for setting the survival rates for immature kittiwake as used in these calculations, (with the exception of the value for the survival rate of juvenile birds, which while presented in the Applicant's calculation is not actually used). As such, while there are arguments that the original apportionment value is precautionary, there is no cohesive argument presented to justify any revised values.

The Flamborough and Filey Coast pSPA population

25. In the Applicant's Appendix U (submitted for Deadline 5) it has again highlighted the doubts of Dr. Coulson on the kittiwake counts carried out at Flamborough Head & Bempton Cliffs SPA in 1987. The RSPB's position (and that of Natural England) remains the same as during the Hornsea Project 1 examination (RSPB, *Comments on Responses to the Examining Authority's 2nd Written Questions and Applicant's New Information, Deadline V*), as detailed below:

Counts of kittiwakes at Flamborough

"3.1. At the First Hearing (March 2014), the Applicant raised a query about the decline in the Flamborough kittiwake population and, in particular, the count of kittiwakes on the Flamborough Head & Bempton Cliffs SPA citation, owing to a challenge in print by Dr John Coulson (see Extract pages from "The Kittiwake", Coulson 2011, Appendix T, 22nd April 2014). We understood that this issue had been resolved to the satisfaction of Natural England and the JNCC, and have had sight of the email correspondence between JNCC, the RSPB's site manager and John Coulson. However, the Applicant raised this point again (1.4.11, Clarification note relating to cumulative and in-combination collision assessments, Appendix U, 22nd April 2014), and appended copies of

the original count forms for 1986 and 1987 (Flamborough and Filey Coast pSPA count sheets, Appendix Q, 22nd April 2014).

3.2. The RSPB has now scrutinised the count forms for 1986 and 1987, and the relevant entries in the RSPB Bempton Cliffs Annual Reports for 1979 and 1987 (please see Appendix 2 attached). It is clear from the entries in the annual report for 1979 and 1987, as well as the count form for 1987, that the counts in these years were of pairs of kittiwakes. There was no count of kittiwakes in 1986.

3.3. In 1987, the warden carried out a comprehensive count of the Bempton Cliffs reserve “I enlisted to help of two competent volunteers to assist with the clifftop counts. We each counted a section of cliff, then swapped over, so that each section was counted at least twice by independent observers. Where our results differed by greater than 5% the section were recounted together.” In addition, counts were made from a boat. The result was 75,000 occupied nests (equivalent to pairs) of kittiwakes for the reserve recording area, Speeton Heights to Gull Nook. The overall accuracy of the count was estimated to be approximately 10%, because the boat-based count was lower than the figures obtained from the clifftop. The separate count for Flamborough Head was of 8,668 pairs (count by Mike Higgins; Keith Clarkson, Bempton Cliffs Site Manager and Roddy Mavor, JNCC Seabird Monitoring Programme, pers comms.), making a total count for the Flamborough Head & Bempton Cliffs SPA of approximately 83,668 pairs.

3.4. The RSPB Bempton Cliffs Annual Report for 1979 (Appendix 3, page 1 attached) indicates that a total of c.64,180 pairs of kittiwakes was counted and estimated for the Bempton Cliffs reserve plus c.16,000 for Flamborough Head, making a total of c.80,180 pairs of kittiwake for the SPA. This was considered at the time to compare “well with the rapid increase of this species over the rest of Britain and Ireland during recent years”. Note also that the count for 1979 was sent to John Coulson, as organiser of the 1979 British Trust for Ornithology Kittiwake Survey, at that time and cited by him in 1983: “Although this colony [Bempton – Flamborough Cliffs] is difficult to census, there can be no doubt that a large increase has taken place there during the past 20 years and that the increase probably started with the cessation of extensive egg collecting on the cliffs.” Sizeable declines were recorded for some colonies, away from the North Sea coasts, at this time, presaging further, and more widespread, declines in later years. Coulson (1983) also acknowledged that “the change in population trend has been large and rapid”.

3.5. The time elapsed since these counts makes it impossible to do more to verify the information. However, the available documentation indicates that the counts of kittiwake in the SPA citation stand. This is the position accepted by the JNCC as curator of the Seabird Monitoring Programme.”

26. This position with regard to the count data was upheld by the Secretary of State for the Hornsea Project 1 decision⁴, and is in agreement with Natural England and JNCC. The RSPB can see no justification for departing from the approach adopted by the Secretary of State in the previous decision based on both NE and JNCC’s advice. We are unaware of any new information being advanced by the Applicant and consequently respectfully request the Examiners to disregard the revival of this already determined point.

⁴ DECC, *Environmental Assessment Report Comprising: Habitats Regulations Assessment; Transboundary Assessment; Assessment of Impact Upon Gulls* (27 November 2014), para 6.58 (page 30).

New Turbine specifications

27. The Applicant has indicated that a proposed mitigation, to be submitted at Deadline 6, will be to exclude the 5MW turbines and to raise the minimum hub height by 3.5m. The RSPB welcome this proposal as it is likely to reduce, to some extent, the ornithological impacts of Hornsea Project 2. However, we feel that this change has been made extremely late in the examination process, despite previous assurances that such changes would not be made, and even now without full details of the change meaning the RSPB will only be able to fully comment on it (assuming the Applicant does provide all necessary information at Deadline 6) at the final deadline. This is in no way helpful to the assessment and examination process and has put the RSPB at a serious disadvantage in terms of having the necessary time (with only two weeks between Deadlines 6 and 7) to fully consider these changes and how they may affect the possible impacts to the SPA, pSPA and its species and therefore provide the Examining Authority with the RSPB's detailed consideration of those changes along with its final position.

Revised PVA outputs

28. Based on the Option 2 values presented in Table 9 of Natural England's Written Submission for Deadline 5, Table 1 below presents our revised population viability assessment (PVA) modelling which gives a predicted percentage change in the kittiwake population of the Flamborough and Filey Coast pSPA, after the lifetime of the project.

Table 1, Predicted collision mortality arising from Hornsea Project 2 alone, with lower and upper confidence intervals, derived from bird density, and the counter factual of population size, after 25 years

	Lower CL	Mean Collisions	Upper CL
Kittiwake Collision Mortality	42	78	134
CPS	1.1%	2.1%	3.5%

29. PVA modelling indicates that even under the revised turbine specifications, the predicted collision mortality alone could result in a decrease in the pSPA kittiwake population of 3.5%. Given the proven decline in the UK kittiwake population, and the likely decline in the pSPA population, this is unacceptable and the RSPB maintains its objection to Hornsea Project 2 on the grounds of impact to kittiwake at the Flamborough and Filey Coast pSPA for the project alone and in-combination.

Requirement for further modelling

30. There has been considerable time passed since the Applicant presented their original collision risk estimates in its Environmental Statement and information for the Appropriate Assessment reports and the estimates due to be presented under Deadline 6. During this time Natural England and the RSPB have consistently argued that a coherent presentation of the variability and uncertainty inherent in such estimates must be presented, and rather than presented as individual variables, be presented combined in a statistically robust manner. There are, as noted by the Applicant, statistical difficulties in this approach, however these have been overcome by

the model presented by Masden (2015) “*Developing an avian collision risk model to incorporate variability and uncertainty*”.

31. As mentioned above, complete documentation of this model was shared with the Applicant by Natural England, and is now available online. It should be noted that the mechanistic fundamentals of this model are identical to the Band (2012) model, and so produce identical results. It is only modified by presentation of an indication of uncertainty and variability around those results, as specifically recommended by Band (2012), and this is the first time a robust method to do so has been presented. The model code itself has been used in previous assessments and accepted by the Examining Authorities and the Secretary of State (Cook, *pers. comm.*).
32. As the model requires details on the relationship between local wind speed and turbine rotation speed and pitch which the Applicant has not presented, the RSPB has been unable to carry out the calculations for ourselves. However given the considerable uncertainty associated with the Applicant’s Hornsea Project 2 assessment, as referred to by both Natural England and the RSPB consistently throughout their submissions, and the availability of this model to the Applicant for sometime, it is entirely appropriate that the Applicant now uses this model version to carry out the assessment for the revised turbine specifications, for both gannet and kittiwake, and therefore we ask that this is done in response to the next deadline..
33. The RSPB notes that in relation to the information provided in the updated HRA matrices for the Flamborough Head and Bempton Cliffs SPA that Natural England

“differs with the opinion of the Applicant on some of the detail as set out in our written submissions.” (NE, Written Submission for Deadline 5, para 2.5).

Intertidal

34. The RSPB notes the Applicant’s description of the additional bird data provided to it by the RSPB as “very limited” (*Applicant’s Response to Deadline V*, EL19, para 2). However, the RSPB wishes to make it clear that all monitoring data held by WeBS for this part of the coast (and relied upon by the Applicant) is supplied by RSPB staff. We also note that although the information available online covers up to recent months the Applicant continues to rely upon data that is five years’ old.
35. In addition the RSPB disagrees with the Applicant’s contention that the data on bird distribution shows that usage of the intertidal area is not exceptionally high at high tide during the proposed construction window. We provide a number of counts from the past 10 years to demonstrate:

Table: Significant counts (>100) Waterfowl Roost Counts from Horseshoe Point since 2005 during migration passage times (April, May, August and September)

Species	Date	Count
Oystercatcher	24/4/08	400
	20/8/08	800
	21/4/10	960

	18/5/10	1,020
	19/8/10	750
	17/5/11	665
	23/8/11	1,600
	30/4/13	134
	15/5/13	200
	29/9/13	1,220
	17/4/14	250
	21/4/15	1,250
	18/8/15	2,800
	16/9/15	2,800
Ringed Plover	20/8/08	404
	18/5/10	778
	17/5/11	680
	23/8/11	230
	15/5/13	569
Golden Plover	21/4/10	260
	18/8/15	300
	16/9/15	1,800
Grey Plover	17/5/11	445
	18/8/15	120
Knot	29/9/13	165
	16/9/15	800
Sanderling	20/8/08	111
	18/5/10	158
	17/5/11	116
	30/4/13	162
	15/5/13	120
Dunlin	20/8/08	400
	17/5/11	746
	23/8/11	350
	15/5/13	1,028
	17/4/14	1,300
	18/8/15	600
	16/9/15	282
Bar-tailed Godwit	20/8/08	220
	21/4/10	180
	17/5/11	160
Common Tern	20/8/08	7,000

	18/8/15	400
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Winter working

36. The RSPB notes the Applicant's response to our answer to Question EL17 where we pointed out that we could identify no assessment of effects outside of the summer working period either within the HRA or the ES (para 2)(Applicant's Response to Deadline 5). The RSPB note that the Applicant has not challenged this statement, and therefore we consider that their response should be taken as confirmation that working outside the summer period has not been assessed. This has significant implications when considering the tailpiece wording for Condition 18(3). For convenience we repeat para 3 of the Applicant's response:

"The Applicant notes that any attempt to rely on the tailpiece wording within Condition 20(3) would be subject to the restrictions contained within Condition 18(2) of the draft DMLs and would therefore not allow for the subsequent approval of any works that are not in accordance with the principles and assessments set out in the ES."⁵ (Applicant's Response to Deadline 5)

37. We consider that the Applicant's answer in para 2 presents difficulties for the approach set out above to allow any over-run for the works into the wintering period, as the Applicant appears to have confirmed that this has not been assessed. Consequently, before any consent could be granted by the MMO the Applicant would need to present information indicating that the works that they are proposing would not have an impact. This would appear to present a problem for the Applicant as any application for work outside the April to September construction window would need to be accompanied by a fresh assessment of the likely effects. We question whether it will be possible for the Applicant to gather sufficient up-to-date information to properly underpin such an application, particularly in light of the Applicant's stated desire that it should

"cover a situation where, for example, construction were to experience unforeseen delays and require a very limited overlap with the onset of the overwintering period (i.e. a couple of days) to achieve completion." (para 4)(Applicant's Response to Deadline 5)

38. This indicates that the Applicant is unlikely to have a significant lead-in period ahead of the need to make an application within which to gather such information.

39. From the Applicant's statement reproduced above, the RSPB considers that the provision is intended to cover exceptional and limited access to the intertidal area during the winter months because if the Applicant had intended it to be a regular occurrence in the winter months the likely impacts would have been assessed in the ES and the HRA as the Applicant was fully aware of the constraints set out within Condition 16(2) of the DCO⁶.

40. The RSPB note the Applicant's confirmation that both NE and the MMO are content with the current wording of the DCO, but it has advanced no evidence that indicates that NE and/or the

⁵ The provisions are 18(3) and 16(2) of version 7 of the DCO.

⁶ Version 7 – previously provision 18(2).

MMO are content that the assessment work undertaken to date would enable them to consent the sort of overrun that the Applicant requires, or indeed any other sort of wintering works.

41. The RSPB considers that the simplest way to address this issue is for the Applicant to delete the current tailpiece and replace it with an alternative version allowing for emergency access onto the intertidal area in the first few days of the wintering period for the sole purpose of retrieving equipment that would otherwise have to be left there throughout the winter. We consider that a suitable provision could be worded as follows:

“Access onto the intertidal area, for the sole purpose of removing construction equipment, will be permitted for no more than 7 days, commencing on 1 October.”

42. We request that this provision is inserted into the DCO in place of the existing tailpiece.

Restricted summer working period

43. The RSPB notes the Applicant’s statement that the potential to reduce the construction window to June, July and August is still being discussed (Applicant, Appendix G – *Summary of Oral Case – Issue Specific Hearing on 27 October 2015*, para 9.3). The RSPB remains of the view that it is still possible for the Applicant to reduce the number of months within which it works in the intertidal area both on a year-by-year and an overall basis, and consequently to reduce the risk of a disturbance impact upon the Humber Estuary SPA and its species arising from the intertidal construction works.

Over winter access

44. The RSPB notes NE’s agreement with the Applicant’s proposed restrictions on winter access “for no more than five people no more than two days” (NE, *Written Submission for Deadline 5*, para 2.3). The RSPB considers that this is a reasonable restriction to put in place to avoid disturbance impacts on the SPA.

Intertidal Access Management Plan

45. The RSPB notes that Natural England consider that the Intertidal Access Management Plan (IAMP) provides the necessary control mechanisms to ensure that mitigation measures and final access techniques are subject to an approval process prior to activity (*SoCG between the Applicant and Natural England – Intertidal Matters*, SMartWind, Deadline 5, Appendix Y, para 2.1.2). However, the RSPB notes paragraph 3.14 of the Applicant’s *Summary of Oral Case – Issue Specific Hearing on 27 October 2015* (Deadline 5, Appendix G), which states that “the Intertidal Access Management Plan would be drafted post consent, prior to the commencement of works”. As highlighted in the RSPB’s Deadline 5 submission (section 3.4, page 2), as no detail is available ahead of the Secretary of State’s decision it is not possible for the RSPB to comment further on this issue.

Tide height restrictions

46. The RSPB notes that Natural England has declared itself satisfied with the provision in Condition 20(4) of DMLs A2 and B2 of the Draft DCO (now Condition 18(4)) (*SoCG between the Applicant and Natural England – Intertidal Matters*, SMartWind, Deadline 5, Appendix Y, para 2.5.1).

47. The RSPB has now had the opportunity to consider the revised clause covering tide height restrictions, presented in the revised draft DCO. Whilst welcoming the Applicant's confirmation that the tide height is 6.5m Chart Datum, the RSPB is concerned with the introduction of the rider:

“unless provided for in the construction and monitoring programme submitted and approved under Condition 8(2)(a) or the construction method statement submitted and approved under Condition 8(2)(b)” (Condition 18(3), DMLs A2 and B2, Schedules I and K).

before the tailpiece of the original provision:

“unless otherwise agreed in writing by the MMO, in consultation with Natural England”

which the RSPB considers was entirely adequate without the new additional provision.

48. The RSPB is concerned that whilst the original provision appears to have envisaged that working outside the tidal restrictions would have been an exceptional event the revised version appears to treat the tidal restriction as something that can regularly be avoided by the way in which intertidal work requirements are subsequently couched within the construction and monitoring programme and/or the construction method statement. This rider has the scope to entirely negate the tidal restriction that the modified provision introduces. The RSPB is keen to ensure that all possible safeguards are clearly set out in the DCO rather than deferred to post-consent documents, and consequently we consider the inclusion of this rider to be of significant concern. With it in place we are unable to conclude that adverse effects on the Humber Estuary SPA and its species will be avoided because there is insufficient certainty about the work scheme to enable such a conclusion to be reached.

Monitoring

49. The RSPB has reviewed version 2 of both the Outline Ecological Management and the In Principle Monitoring Plan (submitted by the Applicant at Deadline 5). Understandably our concerns set out in our Deadline 5 submission have yet to be taken account of, but we hope that a further versions will be submitted for Deadline 6 which do include changes to the provisions relating to the requirements for ornithological monitoring as we have suggested.

50. We also hope that changes will be introduced into the next version of the DCO to also reflect requirements we have suggested for the ornithological monitoring.

51. The RSPB wishes to comment on some of the representations made by other parties at Deadline 5.

The In Principle Monitoring Plan

52. The RSPB notes that the MMO is content that any comments on the IPMP can be raised post-consent and has agreed in principle with the latest version of the plan (MMO, Deadline 5 response, Annex I). Similarly, Natural England confirmed it had agreed the IPMP pending further ornithological discussion (NE, Issue Specific Hearing 27 October, para 2.4). Importantly Natural England:

“also highlighted that the IPMP will remain a useful live document to capture agreed monitoring needs as and when they arise through the project lifecycle.” (para 2.4)

53. Whilst the RSPB agrees that the monitoring document should continue to be discussed and be updated throughout the construction, operation and decommissioning of the scheme to ensure that the information it gathers remains pertinent, it is essential that key pre-requisites are set out within the IPMP at the outset for the Examining Authority to review and take account of when considering whether adequate monitoring will be carried out as required by NPS EN-3, para 2.6.51:

“Owing to the relatively new and complex nature of offshore wind development, the IPC should consider requiring the applicant to undertake monitoring prior to and during construction and during its operation to measure and document the effects of the development. This enables an assessment of the accuracy of the original predictions and may inform the scope of future EIAs.”

54. For example at the every least monitoring should be required pre, during and post construction for certain areas and species. Whilst it may be acceptable to leave the precise details including how many surveys, for how long, by what method, on which years etc, for later discussion at this stage the overall aim does need to be included thus ensuring that the Applicant will be required to achieve that aim in the future. It is therefore important that the Applicant and the regulators (MMO and NE) are clearly required to consider monitoring now and as the scheme progresses. We note that NE considered that

“The IPMP doesn’t mention during construction monitoring at all but equally, doesn’t preclude it should it become necessary to answer a very specific question.” (NE, Issue Specific Hearing 27 October, para 2.29)

55. However, for the reasons set out above, the RSPB consider that it is essential that the requirement is explicitly set out at this stage.

56. The RSPB notes the Applicant’s key response on the monitoring regime:

“The ExA also queried why there was no proposal for ornithology monitoring during the construction period, and whether disturbance monitoring post-construction considered both displacement and collision. The Applicant confirms that when defining any post-construction monitoring plan consideration will be given to both displacement and collision related effects. The Applicant can confirm that it has not proposed any construction monitoring within the IPMP. This is in line with the principles of the IPMP (as set out in section 2.3 of the document). As outlined by the Applicant at the hearing, it has sought to focus the monitoring on validating the uncertainties avoid questions relating to key effects (namely, displacement and collision), which are experienced during the operation phase of the project. The Applicant believes this to be in line with standard industry practice.” (the Applicant, Deadline 5, Appendix G, para 4.3)

57. The RSPB consider there to be significant uncertainty associated with the construction period and consequently disagree with the Applicant. For the reasons set out above we consider that a requirement to evaluate the need for construction stage monitoring needs to be included. The

RSPB notes the Applicant's references to paragraphs 8.26 to 8.31 of Appendix G (*Summary of Oral Case – Issue Specific Hearing on 27 October 2015*) and paragraph 3.2.12 of its updated Offshore SoCG with Natural England. The RSPB also notes the Applicant's agreement with the RSPB's response to the Examining Authority's second round of written questions that the monitoring should be focussed and efficient and ensure that changes can be detected through appropriate methodological design of the surveys (Appendix G, para 8.27). The RSPB notes that there is no reference to construction stage monitoring for the intertidal within the SoCG, and that there appears to be an error – we presume that para 3.2.12 intended to refer to DMLs A1 and B1 as the Conditions in A2 and B2 do not correspond to ornithology. The RSPB considers that the current wording of Condition 14(1) of DMLs A1 and B1 is capable of including construction stage monitoring. The RSPB notes that the Applicant's focus is on collision impacts on gannet and kittiwake and the discounting of the need to monitor displacement impacts on guillemot and kittiwake and razorbills (the RSPB notes that the Applicant makes no reference to puffins) as

“There has been extensive monitoring of auks at offshore wind farms in the UK due to the ubiquity, particularly of guillemot and razorbill, in British waters and further monitoring of these species is less of a priority than understanding the collision risk to species such as gannet and kittiwake.” (Appendix G, para 8.29)

58. The RSPB are not sure which monitoring reports the Applicant is referring to, and it is not clear whether they rely upon **post**-construction monitoring work. On the information currently available the RSPB considers that monitoring of all five species of concern at all stages of construction is essential.
59. The RSPB considers that it is too early to exclude the need for monitoring of these species. Monitoring of impacts upon these species at other sites cannot automatically preclude the need for monitoring for this scheme, particularly given the European and national importance of the Flamborough SPA/pSPA for these species and the potentially high impacts that may be experienced from this scheme.

The Ecological Management Plan

60. The RSPB notes that at the Issue Specific Hearing on 28 October that Natural England had agreed with the Applicant

“that the outline Ecological Management Plan (EMP) will be updated to include intertidal monitoring over the lifetime of the project.” (NE, Issue Specific Hearing 28 October, para 2.38)

61. The RSPB welcomes this proposed change. However, we have been unable to identify changes in the documents currently submitted.

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