



**Response to Comments on the Report on the Implications
for European Sites**

**for the
Royal Society for the Protection of Birds**

Submitted for Deadline 10

6th May 2020

Planning Act 2008 (as amended)

In the matter of:

**Application by Norfolk Boreas Limited for an
Order Granting Development Consent for the
Norfolk Boreas Offshore Wind Farm**

Planning Inspectorate Ref: EN010087

Registration Identification Ref: 20022916

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2 Overview				
8	2.5.1		<p>The breeding season apportioning of impacts and breeding season definitions of kittiwakes of the Flamborough and Filey Coast (FFC) SPA and of lesser black-backed gull (LBBG) of the Alde-Ore Estuary (A-OE) SPA, have also been a key subject of discussions.</p> <p>Assessment of displacement impacts for common scoter of Greater Wash SPA has been a subject of discussions.</p> <p>RTD from Greater Wash SPA and Outer Thames Estuary SPA and mitigation commitments by Vanguard -being relevant for Boreas - were also discussed during examination.</p> <p>Offshore wind farms and associated figures included in in-combination assessments have also been a key subject of discussions.</p>	<p>The RSPB agrees that these have been topics for discussion and should be covered in the RIES. Our position on these issues has been set out in our comments at Deadline 2 (REP2-096) and Deadline 5 (REP5-083).</p>
3 Stage 1: Likely Significant Effects				
17	3.5.2		<p>FFC SPA</p> <p>Natural England advises LSE for the assemblage feature of the FFC SPA due to potential connectivity of the Boreas site with the qualifying features of the site (gannet, kittiwake, guillemot, and razorbill), which are components of the assemblage and due to LSE being a coarse filter.</p>	<p>The RSPB has also requested that the seabird assemblage feature from the Flamborough to Filey Coast SPA be assessed fully throughout the examination. We have shared the same position with Natural England regarding the approach to identifying Likely Significant Effects and ensuring this process captures all sites and features where any potential impact</p>

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				pathways exist and would require greater consideration at the Appropriate Assessment stage.
4 Stage 2: Adverse Effects on Integrity				
32	4.8.8		We note that in REP6-024, the Applicant's calculated in-combination collision totals for kittiwakes from the FFC SPA had actually increased slightly from previous submission totals (due to the inclusion of the consented estimates for Dogger Bank Creyke Beck A and B in place of those in the project's non-material change application).	The RSPB agrees that this information must be clearly set out in the RIES following inclusion of additional sites that had not been included in the in-combination assessments prior to the updated assessments at Deadlines 5 and 6.
33	4.8.11	"The Applicant would like to clarify that in [REP2-035] the Applicant stated that if the collision risk assessment was conducted with adjustment to remove the noted sources of over precaution (i.e. the differences between consented and built wind farm designs, use of evidence based nocturnal activity rates, kittiwake flight speed and avoidance rates for gannet and kittiwake) then the collision estimates would be reduced when compared with those on which the assessment was based (and as advised by Natural England). Hence, the more realistic collision estimates would be reduced to around 42% of the precautionary values for large gulls, 32% for kittiwake and 19% for gannet (i.e. for gannet		<p>The RSPB and Natural England have both clearly set out why the Applicant's position with respect to consented and built wind farm designs is not appropriate. There is no accurate, peer-reviewed method that can at this time be applied to safely allow any "adjustments" to modelled collision estimates. The RSPB covered this in detail in our Deadline 9 submission (REP9-052) and Natural England have set this out in various of their submissions (summarised in their Deadline 9 submission, REP9-041).</p> <p>The RSPB and Natural England have also been clear as to why the Applicant's conclusions on its assessment being overly precautionary is also wrong. As the RSPB sets</p>

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		the realistic, evidence based, values are less than one fifth of the precautionary ones)."		<p>out in detail in our combined response to the Secretary of State on Norfolk Vanguard and Hornsea 3¹, use of a precautionary approach is required at every stage of the assessment due to the lack of robust data underpinning that assessment and the use modelling as a result.</p> <p>As previously highlighted, the RSPB disagrees with the Applicant's view that their assessment is over precautionary. As detailed in our earlier submission (Annex 1, REP3-028), precaution is a necessary and proportionate response to uncertainty in assessment. Masden <i>et al.</i>, (2015)² highlight that such assessment is not just a result of methodological or modelling but can arise through misleading use of language. As such, the Applicant's continual use of erroneous information, for example, the claims that tags used in kittiwake tracking studies were un-streamlined, act to increase uncertainty and thereby decrease the confidence in the competence of their assessment. This consequently increases the need for precaution in examining that assessment.</p>

¹ Please see pages 20 to 23 of Annex 1 to our further Deadline 10 submission – *RSPB Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters*

² Masden, E. A., McCluskie, A., Owen, E., & Langston, R. H. (2015). Renewable energy developments in an uncertain world: the case of offshore wind and birds in the UK. *Marine Policy*, 51, 169-172.

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				<p>Notwithstanding the fact that the RSPB disagrees with the Applicant that the assessment is over-precautionary, and that the percentage reductions in mortality suggested by the Applicant are arbitrary and without scientific reinforcement, even if taken into account there would still be unacceptable impacts on the SPA populations. The FFC population of kittiwake would be 6.3% lower than it would be in the absence of in-combination developments, the gannet population would be 15.2% lower (if using the RSPB preferred breeding season avoidance rate, using the Applicants it would be 9.4% lower), and the Alde-Ore Estuary population of lesser black-backed gull would be 17% lower.</p>
36	4.8.31	<p>The Applicant presented estimates of how the reduced kittiwake flight speed would affect the collision estimates in [REP8-027]. The collision estimates would be reduced by 9% to 11.5% (depending on the flight speed used, see REP8-27 for details) compared with those obtained using the higher flight speed advised by Natural England and on which the assessment is based. Natural England provided comments on the Applicant's review (REP7- 048) and, in acknowledgment of the uncertainty regarding kittiwake flight speed and that the Applicant's review</p>		<p>The RSPB has set out in our Deadline 9 submission (REP9-052) why the Applicant's proposed amendment to the kittiwake flight speed for the purposes of collision risk modelling is inappropriate. Given the variability in flight speeds and the need to understand the local conditions that could affect flight speeds, applying a blanket 10% adjustment to all wind farm collision risk estimates is wholly unjustified and misrepresents the evidence.</p>

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		<p>indicated the current rate was likely to be an overestimate, suggested that the Applicant could present collision estimates obtained using the revised flight speed alongside those using the current (standard) rate. The Applicant does not intend to submit further collision risk modelling, however, as noted above, taking account of this evidence based adjustment would reduce the collision estimates for this species by around 10%, and importantly this would apply to the estimates for all other wind farms which have used the higher estimate (which to the Applicant's knowledge is likely to include the majority of those included in the in-combination assessment).</p>		
38	4.8.48	<p>The Applicant notes that Natural England has to date not provided a response to the Applicant's point that while individual elements of precaution may be justified (to a greater or lesser extent) the combination of these in the overall assessment leads to final conclusions which are highly over precautionary.</p>	<p>The RIES currently presents the Applicants position on over precaution and we highlight Natural England's responses in REP4-040, REP4-043, REP5-077 and REP7-046 in response to the Applicant's position.</p> <p>In summary, Natural England notes that our understanding is that in the cumulative and in-combination collision assessments the central predicted value (i.e. those for the mean bird density, mean/central avoidance rate, mean/central flight height) from each individual project assessment is used, rather than the upper figures from any predicted</p>	<p>The RSPB supports the comments made by Natural England. These mirror our position which we have set out in our submissions for Issue Specific Hearing 4 (AS-041) and Deadline 9 (REP9-052).</p>

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			<p>range based on uncertainties in the input data. In any event, for all Round 1 and Round 2 projects the use of a range of figures is simply not possible, because earlier windfarm Environmental Statements did present information to generate ranges of predicted impacts.</p> <p>There are also elements where the assessment may not be precautionary (e.g. the potential limitations in recording of site-specific data on seabird flight heights may have the potential to lead to underestimates of potential collisions and hence assessments may be lacking in precaution in this aspect). Further, for a range of reasons set out in our previous responses the level of uncertainty in the assessments is high, and therefore there is a requirement to be precautionary in our assessment of impacts.</p> <p>Our rebuttal of the Applicant's position on this matter should be reflected in the RIES, as it has been for individual components</p>	
39	4.8.54		<p>Natural England have advised that the density independent PVA model outputs are the most appropriate to use for the colonies and species concerned for the Norfolk Boreas assessment, as for these colonies there is no clear evidence to support the</p>	<p>The RSPB's position remains the same as Natural England's with regard to the application of density dependent models. We set this out in our submission for Issue Specific Hearing 4 (AS-041) and our Deadline 9 submission (REP9-052).</p>

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			application of any particular form or magnitude of density dependence.	
5 Alternatives, compensation and IROPI				
43-44	FFC Kittiwake		<p>Given that the key issue for Kittiwake at FFC SPA, based on our understanding of site condition, is decreased productivity, Natural England are keen that measures focussing on increasing productivity, such as prey availability, are taken forward.</p> <p>However, Norfolk Boreas has decided that construction of artificial nests in the southern North sea / south-east England, but located outside of the Flamborough and Filey Coast kittiwake population would provide the most confidence in deliverability.</p> <p>Though this isn't Natural England's preferred option, we agree that in-principle, the provision of additional nest sites for kittiwakes in the southern North Sea/south-east of England might have the potential to be of benefit to the regional kittiwake population and hence in our view, would ensure coherence of the Natura 2000 network (N2K), particularly if considered as a phased approach that also includes more medium term measures on prey availability. Whilst this measure would not directly benefit the FFC SPA population, we do</p>	The RSPB position is set out in our comments on the derogation case submitted at Deadline 10 (<i>RSPB Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters</i>).

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			<p>recognise that it could be considered as a measure to ensure the coherence of the N2K network for kittiwake.</p> <p>We do advise however, that greater confidence is needed:</p> <ul style="list-style-type: none"> a. That there would be a net benefit to the overall kittiwake population size (not just simply causing a redistribution); and b. That there are sufficient food resources within likely foraging range around any new location to support the required level of productivity. <p>Whilst Natural England consider this measure has the potential to compensate for kittiwake at FFC SPA, more detail is required regarding the size and productivity of any new colony, the location and type of any new structure, the size of new structure, how the project intends to quantify the success of the measure, and the distance of the measure from the FFC SPA population.</p> <p>It should also be noted that depending on the chosen location there may also be an increased collision risk that would need to be taken account of when determining the productivity of any new colony.</p>	
43-44	Alde-Ore Estuary SPA		Given that the key issue for lesser black-backed gull at Alde-Ore Estuary SPA, based	The RSPB position is set out in our comments on the derogation case submitted at

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	Lesser black-backed gull		<p>on our understanding of site condition, is decreased productivity, Natural England are keen that measures focussing on increasing productivity, such as predator control, are taken forward.</p> <p>Ultimately the project has decided that funding a coordinator, whose role would be to facilitate the organisation of a stakeholder working group tasked with overseeing a review of the population's health, factors which have contributed to the decline, and proposals for conservation measures, would be their preferred compensation option. Depending on the outcome of this review, a trial may be undertaken to test options, before a final measure (or suite of measures) is taken forward for implementation, which could include predator control at nesting sites.</p> <p>Natural England's view is that whilst the funding of a project coordinator and scoping study is helpful, there must be a commitment to delivering measures on the ground that would offset the predicted collision risk mortality.</p> <p>Site management measures should be already happening within the designated site. The Section 106 agreement which was</p>	Deadline 10 (<i>RSPB Response to the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence submitted at Deadline 7 and other matters</i>).

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			<p>secured to address the impacts from the Galloper offshore windfarm to the LBBG population by facilitating changes to site management measures for the benefit of LBBG is still in the scoping phase of options which is effectively undertaking the same role as the Applicant's scoping study. Therefore, for Norfolk Boreas' proposals to demonstrate that they would have any added benefit beyond the S106 agreement, the outcomes of the S106 need to be determined first. Any compensation measure proposed by the Applicant would also need to be kept separate to the S106 to clearly demonstrate deliverables from the two projects.</p> <p>Therefore, whilst we recognise the benefit of the Applicant's proposal in helping to identify possible compensation measures; we do not feel it will achieve the desired outcomes without further specification of how Norfolk Boreas will compensate for reduced productivity of the LBBG population as a result of their project.</p> <p>Natural England agrees with the Applicant that mammalian predator control is the most suitable compensation measure and we believe that this could be achieved through partnership working with local land owners</p>	

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			in the wider Alde-Ore. Therefore we feel that further detail on this measure needs to be clarified and conformation that delivery of the measure can be assured.	
7 Annex 2 Summary of Positions in relation to Adverse Effects on Integrity				
52-53	FFC SPA		<p>This table should make clear that Natural England agree AEol can be ruled out for FFC SPA for: gannet in-combination (collision, displacement, collision plus displacement); guillemot and razorbill in-combination displacement; seabird assemblage in-combination (collision and displacement) when H3 and H4 are excluded (REP4-040 and REP7-050).</p> <p>Due to Natural England's uncertainty regarding the appropriate estimates to use for Hornsea Project Three and Hornsea Project Four) Natural England consider there to be an AEol to FFC SPA kittiwakes irrespective of whether Hornsea Project Three and Hornsea Project Four are included or excluded.</p> <p>Further to this, Natural England has highlighted that the in-combination total of collision mortality had already exceeded levels which were considered to be of an AEol to kittiwake at FFC SPA, and that any additional mortality arising from these</p>	It should also be made clear that the RSPB is not able to conclude no AEol for kittiwake, gannet or the seabird assemblage in-combination with other projects. This conclusion is made irrespective of whether Hornsea 3 and Hornsea 4 projects are included, as set out in our Deadline 9 submission (REP9-052).

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			proposals would therefore be considered adverse.'	
52	Alde-Ore Estuary SPA		Natural England have advised [Deadline 9] that it could not be certain that there will be no AEol of Alde-Ore Estuary SPA through impacts to lesser black-backed gull, in-combination with other plans and/or projects.	It should also be made clear that the RSPB is not able to conclude no AEol for the Alde Ore Estuary SPA due to impacts on the lesser black-backed gull population in-combination with other projects, as set out in our Deadline 9 submission (REP9-052).
8 Annex 3: Integrity Matrices				
66-68	Table 8.1 Alde-Ore Estuary SPA and Ramsar: comment on Lesser black backed gull collision mortality	The Applicant agrees with the notes provided. However, the Applicant also considers that the RSPB has presented the outputs from the counterfactuals of population size (CPS) generated by the PVA models in a manner which differs slightly from that which the Applicant considers appropriate (and which Natural England has confirmed is also their interpretation [REP4-043]). The Applicant and Natural England consider that the CPS is a measure of how much smaller the impacted population size will be compared to the unimpacted population at the end of the projection period. Therefore, the Applicant considers that describing this as a 'reduction' in population size as the RSPB has done [REP2-096] risks the inference that the impact will reduce the population size relative to the current size, which is not the case. In fact	Regarding (b), as set out in our Norfolk Boreas Deadline 6 and 7 responses, REP6-049 and REP7-048, to the Applicant's positions on headroom in REP4-014 and REP6-021, Natural England advises that reductions in predicted impacts resulting from 'as-built wind farm designs' should not be given weight in an Appropriate Assessment, unless the reduction of the Rochdale Envelope has been legally secured and that updated CRM is carried out using the final turbine parameters and overall project design. To date, there is only one English OWF where these two criteria have been met: East Anglia One. Natural England considers that an AA that rests its in-combination conclusions on 'as-built' impact reductions for which are not legally secured could leave any associated consent decisions open to challenge.	The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.

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		<p>both impacted and unimpacted population sizes could increase or decrease and the CPS is a measure of the difference between the two (this is also discussed in [REP4-014]).</p>		
69-71	<p>8.2 Flamborough to Filey Coast SPA: Kittiwake collision mortality (in-combination),</p>	<p>The Applicant agrees with the notes provided. However, the Applicant also considers that the RSPB has presented the outputs from the counterfactuals of population size (CPS) generated by the PVA models in a manner which differs slightly from that which the Applicant considers appropriate (and which Natural England has confirmed is also their interpretation [REP4-043]). The Applicant and Natural England consider that the CPS is a measure of how much smaller the impacted population size will be compared to the unimpacted population at the end of the projection period. Therefore, the Applicant considers that describing this as a 'reduction' in population size as the RSPB has done [REP2-096] risks the inference that the impact will reduce the population size relative to the current size, which is not the case. In fact both impacted and unimpacted population sizes could increase or decrease and the CPS is a measure of the difference between the two (this is also discussed in [REP4-014]).</p>	<p>Regarding (b), as set out in our Norfolk Boreas Deadline 6 and 7 responses, REP6-049 and REP7-048, to the Applicant's positions on headroom in REP4-014 and REP6-021, Natural England advises that reductions in predicted impacts resulting from 'as-built wind farm designs' should not be given weight in an Appropriate Assessment, unless the reduction of the Rochdale Envelope has been legally secured and that updated CRM is carried out using the final turbine parameters and overall project design. To date, there is only one English OWF where these two criteria have been met: East Anglia One. Natural England considers that an AA that rests its in-combination conclusions on 'as-built' impact reductions which are not legally secured could leave any associated consent decisions open to challenge.</p>	<p>The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.</p>

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71-75	8.2 Flamborough to Filey Coast SPA: Gannet collision mortality (project alone), Gannet collision mortality (in-combination)	<p>The Applicant agrees with the notes provided. However, the Applicant also considers that the RSPB has presented the outputs from the counterfactuals of population size (CPS) generated by the PVA models in a manner which differs slightly from that which the Applicant considers appropriate (and which Natural England has confirmed is also their interpretation [REP4-043]). The Applicant and Natural England consider that the CPS is a measure of how much smaller the impacted population size will be compared to the unimpacted population at the end of the projection period. Therefore, the Applicant considers that describing this as a 'reduction' in population size as the RSPB has done [REP2-096] risks the inference that the impact will reduce the population size relative to the current size, which is not the case. In fact both impacted and unimpacted population sizes could increase or decrease and the CPS is a measure of the difference between the two (this is also discussed in [REP4-014]).</p> <p>...the RSPB's position is based on the use of a breeding season gannet collision avoidance rate of 98% rather than the rate of 98.9% used by the Applicant and as advised by Natural England.</p>	<p>Regarding (b), Natural England notes that we have agreed that an AEoI can be ruled out for in-combination collision risk when Hornsea 3 and 4 are excluded. This is based on:</p> <ul style="list-style-type: none"> • After 30 years the colony would still be predicted to be above the conservation objective population size of 8,469 pairs or 16,938 individuals with a growth rate of 1% per annum, and that the colony is predicted to still grow above the current mean population of 24,594 adults under any growth rate scenario from 2% to 5% per annum; and, • We considered it to be highly unlikely that the FFC gannet colony annual growth rate would be as low as 1%, and from the analysis of gannet colony growth rates we conducted the current annual growth rate of c 11% appears to be relatively high for a colony of this age and so the colony is likely to do better than a 1.3 % annual growth rate in the foreseeable future [REP4-040]. <p>This was also the case for in-combination collision plus displacement (part h).</p>	<p>The RSPB has set out further comments on the use of counterfactuals in our Deadline 9 submission (REP9-052). We also clarified our position on the use of counterfactuals and their application in our submission for Issue Specific Hearing 4 (AS-041). The Applicant agreed with our definition of the Counterfactual of Population Size presented in this clarification, so it is unclear why the Applicant has brought it up again. Indeed, this approach, whereby the Applicant seeks to present disagreement where there is in fact consensus serves to increase the uncertainty around the assessment and increase the consequent need for precaution.</p> <p>The RSPB agrees with Natural England that the gannet population of Flamborough and Filey Coast SPA appears to be robust. However, given the considerable timescale involved in the wind farm operational period, there is uncertainty as to whether that robustness will remain in the future, regardless of the current population growth rate. As such, the RSPB cannot rule out AEoI, given the scale in the impact shown by the Counterfactual of Population Size.</p> <p>The RSPB disagrees with the Applicant that our decision is based solely on Collision Risk</p>

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				<p>Modelling using our preferred breeding season Avoidance Rate. In our response to Deadline 9 (REP9-052) we presented the results both for our preferred rate and the Applicant's. Both demonstrate that there will be an extremely large impact on the population of gannet at the Flamborough and Filey Coast SPA arising from in-combination impacts.</p>
<p>Razorbill: 75-76 Guillemot: 77 - 78</p>	<p>8.2 Flamborough to Filey Coast SPA: Razorbill operational displacement (in-combination) and Guillemot operational displacement (in-combination)</p>	<p>The Applicant agrees with the notes provided. However, the Applicant notes that the RSPB's position is based on the in-combination total including both Hornsea Project Three and Hornsea Project Four and the most precautionary combination of displacement parameters (70% displaced and 10% mortality). As noted, Natural England considers that a mortality rate as high as 10% is unlikely and that on this basis Natural England was able to conclude there was no risk of an AEoI in-combination with other plans and projects when Hornsea Projects Three and Four are excluded.</p>		<p>While the RSPB agrees with Natural England that 10% mortality arising from displacement is unlikely, we do consider that, given the considerable uncertainty around displacement mortality and the lack of evidence to underpin any mortality estimate, that it is an entirely possible value and therefore should be included in the assessment.</p>