

Norfolk Boreas Offshore Wind Farm

Statement of Common Ground

Natural England (Offshore Ornithology)

Applicant: Norfolk Boreas Limited
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Photo: Ormonde Offshore Wind Farm

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Glossary of Acronyms

AEol	Adverse Effect on Integrity
BTO	British Trust for Ornithology
CI	Confidence Interval
CIA	Cumulative Impact Assessment
CRM	Collision Risk Model
DCO	Development Consent Order
DML	Deemed Marine Licence
EIA	Environmental Impact Assessment
ExA	Examining Authority
HRA	Habitats Regulations Assessment
IPMP	In Principle Monitoring Plan
LSE	Likely Significant Effect
PEIR	Preliminary Environmental Information Report
PVA	Population Viability Analysis
sCRM	Stochastic Collision Risk Model
SNCB	Statutory Nature Conservation Bodies
SPA	Special Protection Area
SoCG	Statement of Common Ground

Glossary of Terminology

Offshore export cables	The cables which transmit power from the offshore electrical platform to the landfall.
Development area	An area of 725km ² located approximately 73km from the Norfolk coastline within which Norfolk Boreas Offshore Wind Farm and associated infrastructure would be located
The Project	Norfolk Boreas Wind Farm including the onshore and offshore infrastructure.

1 INTRODUCTION

1. This Statement of Common Ground (SoCG) has been prepared by Norfolk Boreas Limited (hereafter the Applicant) with initial input on version 1 from Natural England to set out the areas where the Applicant considers, following discussions with Natural England, that there are areas of agreement and areas for ongoing discussion in relation to the Development Consent Order (DCO) application for the Norfolk Boreas Offshore Wind Farm (hereafter 'the project'). A full description of the project can be found in Chapter 5 project description of the ES (document reference 6.1.5 of the Application, APP-218).
2. This SoCG comprises an agreement log which has been structured to reflect offshore ornithology aspects under consideration by Natural England with regard to the Norfolk Boreas DCO application (hereafter 'the Application'). The agreement log (Table 2) outlines all offshore ornithology specific matters which are either agreed or not agreed and actions to resolve between Natural England and the Applicant. A separate SoCG has been prepared which collates additional agreement logs on other topics of interest to Natural England (ExA.SoCG-17.D2.V1).
3. The Applicant has had regard to the Guidance for the examination of applications for development consent (Department for Communities and Local Government, 2015) when compiling this SoCG. Matters that are not agreed will be the subject of ongoing discussion wherever possible to resolve or refine the extent of disagreement between the parties.
4. Natural England wishes it to be noted that the SoCG is a developer led process, with the Applicant providing the drafting and Natural England agreeing the wording. The document does not provide full detail on any issues; however, Natural England has provided an issues log with its outstanding issues outlined in full in their Relevant Representations. This issues log is owned by Natural England and reflects their position; it should not be taken as a representation of the Applicant's position.
5. Natural England intends to update the issues log as issues are discussed and potentially resolved. Natural England propose that the issues log will be updated and submitted at appropriate deadlines throughout the Examination (the Applicant understands that Natural England will submit an update at Deadline 2). Natural England has also proposed that input will not be provided to a further SoCG until near the end of examination, once all issues have been either resolved or progressed as far as possible, in order to reduce resource requirements by the need to repeat efforts. It should be noted that these proposals represent the view of Natural England only.
6. The Applicant will maintain this SoCG as a record of its understanding on how issues have been progressed. However it should be noted that, although issues and updates

to this SoCG have been discussed with Natural England, in view of Natural England's position as outlined in paragraph 5 above, final updates to this document have not been approved by Natural England.

1.1 Consultation with Natural England

7. This section briefly summarises the consultation that the Applicant has had with Natural England. For further information on the consultation process please see the Consultation Report (document reference 5.1 of the Application).
8. The Applicant has had regular engagement with Natural England during the pre-Application process, both in terms of informal non-statutory engagement and formal consultation carried out pursuant to Section 42 of the Planning Act 2008. Due to similarities between the Norfolk Boreas project and its 'sister' project Norfolk Vanguard, which is being developed one year ahead of Norfolk Boreas, early consultation with stakeholders was conducted for both projects concurrently. Although latterly, consultation has been undertaken separately for the two projects Norfolk Boreas has had regard to the Norfolk Vanguard consultation and many of the issues on which agreement has been achieved for the Norfolk Vanguard project also apply to the Norfolk Boreas project.
9. During formal (Section 42) consultation, Natural England provided comments on the Preliminary Environmental Information Report (PEIR) by way of a letter dated 27th November 2018.
10. Further to the statutory Section 42 consultation, meetings were held with Natural England through the Evidence Plan Process.
11. As part of the pre-examination process, Natural England submitted a Relevant Representation to the Planning Inspectorate on the 31st August 2019. Natural England will also be engaged throughout the Examination deadlines. One offshore ornithology focussed meeting has been held between the Applicant and Natural England since the Application was submitted (Table 1). Further meetings are anticipated both before and during the project Examination.
12. Table 1 provides an overview of meetings and correspondence undertaken with Natural England for the Norfolk Boreas project. Minutes of the meetings are provided in the Consultation Report Appendix 28.1 (APP-192).

Table 1 Summary of Consultation with Natural England in relation to Offshore Ornithology

Date	Contact Type	Topic
Pre-Application		
27 th February 2018	Discretionary Advice	Natural England feedback on Method Statement

Date	Contact Type	Topic
10 th January 2019	S42 consultation	Natural England's feedback on the PEIR
27 th February 2019	Expert Topic Group meeting	Discussion of PEIR responses
Post-Application		
3 rd September 2019	Relevant Representation	Natural England's feedback on DCO Application
10 th September 2019	Call to discuss outstanding issues with Natural England's ornithologists	Discussion of Natural England's Relevant Representation responses and next steps
25 th September 2019	1 st draft of the offshore ornithology SoCG	Clarifying areas of agreement and those in need of further discussion
18 th October 2019	NE comments on 1 st draft of SoCG	Natural England's feedback on 1 st draft of SoCG
31 st October 2019	Call with Natural England	Discussion of key aspects in order to agree progress on outstanding issues.
29 th November 2019	Call with Natural England	Discussion of Natural England's comments on the draft ornithology assessment update and other outstanding issues.

2 STATEMENT OF COMMON GROUND

13. The project has the potential to impact upon Offshore Ornithology. Chapter 13 of the Norfolk Boreas ES (document reference 6.1 of the Application) provides an assessment of the significance of these impacts.
14. Norfolk Boreas Limited notes that in Natural England's Relevant Representation (RR-099) it is stated that:

“Natural England feels that issues given Red status are so complex, or require the provision of so much outstanding information, that they are unlikely to be resolved during examination, and respectfully suggests that they be addressed beforehand.”
15. The Applicant has endeavoured to resolve as many of the issues raised prior to the examination as evidenced by the progression of the SoCG submitted prior to examination on 4 November 2019, this current SoCG, and the continued engagement with Natural England. However, it is noted that there are a number of 'red status' issues on which there remains disagreement between Natural England and the Applicant; the Applicant is of course eager to progress these issues prior to the start of examination but the Applicant anticipates that they will predominantly be addressed further and/or resolved throughout the examination. Table 2 provides areas of agreement (common ground) and areas where there is ongoing discussion regarding the nature, magnitude and significance of potential impacts on offshore ornithological interests between Natural England and the Applicant.
16. Within the sections and tables below, the different topics and areas of agreement (marked as green) and areas for ongoing discussion (marked as orange) between Natural England and the Applicant are set out. Areas for ongoing discussion where agreement cannot be reached during the examination will be marked as red in the subsequent SoCG. Notes for Examiners and/or competent authority are marked as purple.

Table 2 Agreement Log - Offshore Ornithology

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
Environmental Impact Assessment (EIA)			
Existing Environment	Survey data collected for Norfolk Boreas for the characterisation of offshore ornithology are suitable for the assessment.	Agreed.	Agreed.
	The methods and techniques used to analyse offshore ornithological data are appropriate for characterising bird distributions and estimating populations.	Agreed.	Agreed.
	The use of generic seabird flight height estimates in Collision Risk Modelling (CRM) is appropriate given the survey contractors statement that heights estimated from digital aerial surveys are inaccurate.	Agreed.	Agreed.
	The method used to assign unidentified birds to species is appropriate.	Agreed.	Agreed.
	The methods used to define the relevant months for seabird breeding seasons in the assessment, presenting both the full breeding seasons as advised by Natural England, and the Applicant's preferred migration-free breeding months, are appropriate.	Agreed.	Agreed.
Assessment methodology			
General	Appropriate legislation, planning policy and guidance relevant to offshore ornithology has been used.	Agreed.	Agreed.
	The list of potential impacts on offshore ornithology assessed is appropriate.	Agreed.	Agreed.
	The methods for determining impact significance on offshore ornithological receptors is appropriate.	Agreed.	Agreed.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	The worst case scenario used in the assessment for offshore ornithology is appropriate.	Agreed.	Agreed.
	The characterisation of receptor sensitivity is appropriate.	Agreed.	Agreed.
Construction impact methods	The list of potential construction impacts and ornithology receptors assessed are appropriate.	Agreed.	Agreed.
	The methods used to estimate impacts during construction, including cable laying operations, based on mean density estimates and presenting both Natural England's preferred rates and the Applicant's evidence based rates (for displacement and mortality) are appropriate.	Agreed.	Agreed.
Operation impact methods	The sources of operational impact assessed are appropriate.	Agreed.	Agreed.
	The lists of ornithology receptors assessed for each impact are appropriate.	Agreed.	Agreed.
	Methods used to assess operational displacement presented in the ES are appropriate, using both the Applicant's preferred mortality and displacement rates and Natural England's preferred rates.	Agreed.	Agreed.
	The method for assessing seabird collision risk is appropriate: using Band option 2, presenting results for mean seabird density (and 95% c.i.), Natural England advised species specific avoidance rates (+/- 2 SD), British Trust for Ornithology (BTO) flight height estimates (and 95% c.i.) and Natural	Agreed. However, Natural England notes that the approach does not allow the uncertainty/variability in the various input parameters to be fully integrated. Therefore, Natural England recommended in its Relevant Representations that if the Applicant undertakes any further collision risk modelling that this is undertaken using the Marine Scotland Science (MSS) stochastic collision risk model (sCRM) and that the log file produced by the sCRM is also included, though we acknowledge that the Applicant's	Agreed.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>England advised nocturnal activity rates. The Applicant additionally presented evidence based nocturnal factors for gannet.</p> <p>The Applicant notes Natural England's request to include stochastic collision mortality outputs using the Marine Scotland sCRM implementation of the Band (2012) model and that this version is still undergoing testing and validation due to output discrepancies (currently the errors identified in the sCRM have not been resolved so it is not possible to use this model at this stage). However, it is important to stress that the current assessment remains robust and the mean collision estimates are the same irrespective of whether model is run deterministically (as presented) or stochastically (as requested). Furthermore, the upper and lower estimates obtained using the upper and lower confidence estimates of seabird density (as requested by Natural England and included in the assessment) provide a reliable guide to the range expected to be obtained using the sCRM version of the model.</p>	<p>consultant has identified some technical issues with the MSS sCRM. If these issues do get resolved and updated collision risk modelling is undertaken due to modification to design parameters, then we would advise this is undertaken using the stochastic model. If the issue with the sCRM cannot be resolved in the timescale of the examination, we will base our advice on the ranges of predictions for the parameter that predicts the greatest uncertainty in the predictions from the variations of Band model outputs, which is the variation of bird density.</p>	
	<p>Non-seabird migrant collision assessment presented in the ornithology technical appendix is appropriate.</p>	<p>Agreed.</p>	<p>Agreed.</p>
	<p>Methods for assessing barrier effects are appropriate.</p>	<p>Agreed.</p>	<p>Agreed.</p>
	<p>Methods for assessing indirect effects are appropriate.</p>	<p>Agreed.</p>	<p>Agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
Impact assessment findings – project alone (EIA)			
Construction impacts	The magnitude of effects and conclusions on significance resulting from impacts during construction are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted.	In Natural England's RR the inclusion of displacement assessments for the site alone based on upper and lower confidence intervals for bird density in addition to the mean densities in the ES were requested, although Natural England agreed that this would not alter the conclusion of the assessments.	Agreed.
Operation impacts	The magnitude of effects and conclusions on significance resulting from displacement impacts during operation are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted.	Agreed for all species except red-throated diver, where Natural England advises moderate adverse impact when the mean estimates of abundance are combined with the upper range of impact magnitudes, and guillemot, for which moderate adverse significant effects are predicted when upper 95% confidence interval estimates of abundance are combined with the upper range of impact magnitudes.	Agreed for all species except for red-throated diver and guillemot.
	Using option 2 of the Band collision model, with Natural England's preferred input parameters and model methods, the magnitude of effects and conclusions on significance resulting from collision impacts for seabirds and non-seabird migrants during operation are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted for all species.	Agreed, although the conclusion for great black-backed gull is made with low confidence as the CRM figure for the upper 95% Confidence Intervals of density exceeds 1% baseline mortality of the largest BDMPS for this species.	Agreed.
	No impacts of greater than minor adverse significance are predicted for gannet resulting from the combined effects of collisions and displacement for the project alone. As requested by Natural England an assessment covering this specific combined impact has been undertaken, and a draft has been reviewed by Natural England. The final version has been submitted at Deadline 2 (ExA;AS-1.D2.V1).	Area for ongoing discussion. Natural England welcomes the completion of this assessment and looks forward to receiving it for review.	Area for ongoing discussion.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	Following a meeting with Natural England on the 29 th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.		
	The magnitude of effects and conclusions on significance resulting from barrier effects during operation are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted.	Agreed.	Agreed.
	The magnitude of effects and conclusions on significance resulting from indirect effects during operation are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted.	Agreed.	Agreed.
Decommissioning impacts	The magnitude of effects and conclusions on significance resulting from impacts during decommissioning are correctly identified and predicted. No impacts of greater than minor significance are predicted.	Agreed that decommissioning impacts are likely to be no worse than those during construction. However, Natural England notes that further consultation will be required (at the time decommissioning is being planned) to ensure potential impacts are minimised.	Agreed.
Cumulative impact assessment (EIA)			
Cumulative construction assessment	The plans and projects considered within the Cumulative Impact Assessment (CIA) for construction are appropriate.	Agreed.	Agreed.
	The magnitude of effects and conclusions on significance resulting from cumulative impacts during construction are correctly identified and predicted. No impacts of greater than minor adverse significance are predicted.	Agreed.	Agreed.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
Cumulative operation assessment	<p>The plans and projects considered within the CIA are appropriate with the inclusion of the additional wind farms identified by Natural England in their Relevant Representation (REP-099) and listed in the column containing Natural England's position. Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	<p>Not currently agreed as Natural England considers that additional wind farm projects (Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands) should be included in the assessment where appropriate data can be obtained.</p>	Not agreed.
	<p>The magnitude of effects and conclusions on significance resulting from cumulative displacement impacts during operation are correctly identified and predicted and no impacts of greater than minor adverse significance are predicted. With respect to the additional wind farms and potentially incorrect figures referred to by Natural England in the column containing their position at Deadline 0, the Applicant has reviewed the figures for all the wind farms and included the additional ones identified in the updated assessment provided to Natural England for comment. The final version has now been submitted at Deadline 2 (ExA;As-1.D2.V1).</p> <p>The 'inappropriate approach' referred to by Natural England in their Deadline 0 position with respect to red-throated diver assessment has now been supplemented</p>	<p>Not agreed. Natural England considers that significant cumulative displacement impacts cannot be ruled out at present for red-throated diver, razorbill and guillemot due to missing wind farm projects (see above) and potentially incorrect figures for some wind farm projects (Gallopier, Greater Gabbard and the Hornsea projects). Natural England also noted in its Relevant Representations that for red-throated diver they had concerns that an inappropriate approach to cumulative assessment had been taken for this species. Furthermore, Natural England notes that gannet may be added to the species of concern once cumulative displacement and cumulative collision assessment is considered. Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that a significant adverse effect could not be ruled out for cumulative displacement for razorbill, guillemot and red-throated diver and for the combined impact of displacement and collision cumulatively for gannet. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the cumulative figures presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	Not agreed.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>with the requested 'like for like' assessment (ExA;As-1.D2.V1) which the Applicant considers demonstrates that Norfolk Boreas will not have a significant cumulative impact on this species.</p> <p>The updated assessment (ExA;AS-1.D2.V1) includes the combined collision and displacement assessment requested by Natural England. This assessment has demonstrated that there will not be a significant cumulative impact on gannet due to this combined assessment.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>		
	<p>Using the Band collision model option 2, with Natural England's preferred input parameters (see above) and methods, combined with like for like figures for other projects (as far as possible given the information available), the magnitude of effects and conclusions on significance resulting from cumulative collision impacts for seabirds during operation are correctly identified and predicted.</p>	<p>Not agreed for gannet, kittiwake, lesser black-backed gull, herring gull and great black-backed gull for which insufficient information was provided for some wind farms (Vanguard, Thanet Extension, Kentish Flats, Methil and Moray West) in the ES for Natural England to reach a conclusion. Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that a significant adverse effect could not be ruled out for cumulative collision risk for kittiwake and great black-backed gull and for the combined impact of displacement and collision cumulatively for gannet. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the cumulative figures presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>The updated assessment (ExA;AS-1.D2.V1) has reviewed and updated the figures for all wind farms and includes the additional wind farms listed by Natural England in the column containing their position at Deadline 0. Following this update the conclusions of the original assessment are unchanged: there will not be any significant cumulative impacts for any species due to collision risk. Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>		
	<p>No impacts of greater than minor adverse significance are predicted for gannet resulting from the combined effects of collisions and displacement for the project cumulatively with other projects. As requested by Natural England an assessment covering this specific combined impact has been undertaken and reviewed by Natural England. The final version has now been submitted at Deadline 2 (ExA;As-1.D2.V1).</p>	<p>Natural England welcomes the completion of this assessment and looks forward to receiving it for review.</p>	<p>Area for ongoing discussion.</p>
Habitats Regulations Assessment (HRA)			
Screening of LSE	<p>The Approach to HRA Screening is appropriate.</p>	<p>Agreed.</p>	<p>Agreed.</p>
	<p>The following sites and species should be screened in for further assessment:</p> <ul style="list-style-type: none"> Alde-Ore Estuary Special Protection Area (SPA) (lesser black-backed gull); 	<p>Agreed.</p>	<p>Agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<ul style="list-style-type: none"> • Flamborough and Filey Coast SPA (gannet, kittiwake, guillemot, razorbill and the seabird assemblage); • Greater Wash SPA (red-throated diver, common scoter and little gull); and • Outer Thames Estuary SPA (red-throated diver). 		
Assessment of AEol	<p>Conclusion of no AEol alone for lesser black-backed gull population at Alde-Ore Estuary SPA on the basis of collisions at Norfolk Boreas alone is appropriate. The updated assessment submitted at Deadline 2 (ExA;AS-1.D2.V1) provides consideration of the 95% confidence intervals as requested by Natural England in their relevant representation (REP-099). The conclusion of the original assessment (that there will be no AEol) is unchanged following this update.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	Not agreed. The Applicant has considered a range of apportionment values of 3%, 12% and 30% to the Alde-Ore Estuary SPA in the breeding season, which covers the range of values (10-30%) previously recommended by Natural England. However, there remains a need to consider the range of predicted figures from the 95% CIs of the density data (for the range of apportionment rates), as has been done for other receptors.	Not agreed.
	Conclusion of no AEol for lesser black-backed gull population at Alde-Ore Estuary SPA is appropriate, on the basis of collisions for the project in-combination with other plans and projects.	Not agreed for two reasons: Natural England disagrees with the Applicant about the methods used (apportioning rates, missing wind farms from the in-combination table and incorrect values for other wind farms) and also the assessment conclusions.	Not agreed.

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>The Applicant has reviewed and updated figures for all wind farms used in the assessment where necessary (ExA;AS-1.D2.V1). However, the Applicant does not agree with Natural England's overly precautionary assumptions about the degree of connectivity for wind farms included in this assessment and the apportioning rates and conclusions of no AEoI in the updated assessment remain the same as those presented in the original assessment.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	<p>Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEoI could not be ruled out in-combination. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-combination figure presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	
	<p>Conclusion of no AEoI for gannet population at Flamborough and Filey Coast SPA is appropriate on the basis of the predicted collisions, displacement and these impacts combined for the project alone.</p> <p>The updated assessment submitted at Deadline 2 (ExA;AS-1.D2.V1) provides assessment of the combined impact of collisions and displacement for Norfolk Boreas alone as requested. The Applicant has concluded there will be no AEoI for this impact.</p>	<p>Not currently agreed as Natural England considers that additional information on the impacts of the sum of collision and displacement for the project alone is required to allow determination of impact magnitude and significance.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>		
	<p>Conclusion of no AEol for gannet population at Flamborough and Filey Coast SPA is appropriate on the basis of collisions, displacement and these impacts combined for the project in-combination with other plans and projects.</p> <p>The updated assessment submitted at Deadline 2 (ExA;AS-1.D2.V1) provides assessment of the combined impact of collisions and displacement for Norfolk Boreas in-combination with other plans and projects as requested (including additional wind farms). The conclusion of this assessment is unchanged: there will be no AEol for this impact.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this on the updated issues log to be submitted at Deadline 2.</p>	<p>Not currently agreed as Natural England consider that figures for some wind farms need to be reviewed, additional information on the impacts of the sum of collision and displacement for project alone is required and the addition of projects currently missing from the in-combination list (Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands) to allow determination of impact magnitude and significance.</p> <p>Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEol could not be ruled out in-combination when Hornsea Project Three was included. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-combination figure presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	<p>Not agreed.</p>
	<p>Conclusion of no AEol alone for kittiwake population at Flamborough and Filey Coast</p>	<p>Not currently agreed as Natural England considers that additional information on age classes of kittiwakes recorded during baseline surveys should be provided in the assessment and that a range of breeding season</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>SPA is appropriate on the basis of the predicted collisions for the project alone. The updated assessment (ExA;AS-1.D2.V1) provides a summary of the kittiwake age class records as requested by Natural England in their Relevant Representation (ExA;AS-1.D2.V1) and a wide range of possible breeding season apportioning rates. The conclusion of the original assessment is unaffected by these additions: there will be no AEoI for kittiwake due to Norfolk Boreas alone.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this on the updated issues log to be submitted at Deadline 2.</p>	<p>apportioning rates should be presented to allow determination of impact magnitude and significance.</p>	
	<p>Conclusion of no AEoI for kittiwake population at Flamborough and Filey Coast SPA is appropriate on the basis of predicted collisions for the project in-combination with other plans and projects. The updated assessment (ExA;AS-1.D2.V1) provides a summary of the kittiwake age class records, a wide range of possible breeding season apportioning rates for Norfolk Boreas has been assessed, and the figures for all wind farms have been reviewed and the additional wind farms listed by Natural England in their Relevant Representation (REP-099) have been</p>	<p>Not currently agreed as Natural England considers that additional information on age classes of kittiwakes recorded during baseline surveys should be included in the assessment and that a range of apportioning rates for the SPA during the breeding season should be presented to allow determination of impact magnitude and significance for the Boreas project. In addition, the following projects which are currently missing from the in-combination list (Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands) need to be added and figures reviewed for some wind farms. Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEoI could not be ruled out in-combination. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>included. The conclusion of the original assessment is unaffected by these additions: there will be no AEoI for kittiwake due to in-combination collisions.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this on the updated issues log to be submitted at Deadline 2.</p>	<p>combination figure presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	
	<p>Conclusion of no AEoI for razorbill population at Flamborough and Filey Coast SPA is appropriate on the basis of displacement impacts for the project alone.</p>	<p>Agreed for Norfolk Boreas alone using NE's preferred methods.</p>	<p>Agreed.</p>
	<p>Conclusion of no AEoI for razorbill population at Flamborough and Filey Coast SPA is appropriate on the basis of displacement impacts for the project in-combination with other plans and projects. The updated assessment (ExA;AS-1.D2.V1) has reviewed the figures for all wind farms and includes the additional wind farms identified by Natural England in their Relevant Representation (REP-099). The conclusion of the original assessment is unaffected by these additions: there will be no AEoI for razorbill due to in-combination displacement.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's</p>	<p>Not currently agreed for in-combination as Natural England considers that additional displacement information from other wind farms (Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands) plus an update on displacement information for Firth of Forth wind farms (Seagreen sites) should be added to the assessment to allow determination of impact magnitude and significance. Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEoI could not be ruled out in-combination when Hornsea Project Three was included. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-combination figure presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>		
	<p>Conclusion of no AEoI for guillemot population at Flamborough and Filey Coast SPA is appropriate on the basis of displacement impacts for the project alone.</p>	<p>Agreed for Norfolk Boreas alone using NE's preferred methods, although noting that there is lower confidence in this when the upper 95% confidence abundance and upper impact ranges are used.</p>	<p>Agreed.</p>
	<p>Conclusion of no AEoI for guillemot population at Flamborough and Filey Coast SPA is appropriate on the basis of displacement impacts for the project in-combination with other plans and projects. The updated assessment (ExA;AS-1.D2.V1) has reviewed the figures for all wind farms and includes the additional wind farms identified by Natural England in their Relevant Representation (REP-099). The conclusion of the original assessment is unaffected by these additions: there will be no AEoI for guillemot due to in-combination displacement.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the</p>	<p>Not currently agreed for in-combination with other plans and projects as Natural England considers that additional displacement information from other wind farms (Beatrice Demonstrator, Gunfleet Sands, Kentish Flats, Kentish Flats Extension, Methil, Rampion and Scroby Sands) plus an update on displacement information for Firth of Forth wind farms (Seagreen sites) should be added to the assessment to allow determination of impact magnitude and significance.</p> <p>Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEoI could not be ruled out in-combination when Hornsea Project Three was included. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-combination figure presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>updated issues log to be submitted at Deadline 2.</p>		
	<p>Conclusion of no AEoI for the assemblage at Flamborough and Filey Coast SPA is appropriate on the basis of displacement or collision impacts for the project alone and in-combination with other plans and projects.</p> <p>Following the completion of the updated assessment (ExA;AS-1.D2.V1), addressing the issues raised by Natural England in their Relevant Representation (RR-099) on the individual named species (as summarised above) the Applicant has concluded that there will be no AEoI on the seabird assemblage feature of the SPA due to Norfolk Boreas alone or in-combination with other plans or projects.</p>	<p>Not agreed for the project alone due to issues identified above for the individual qualifying features (kittiwake and gannet) or in-combination due to missing offshore wind farms etc. in assessments for the qualifying features, plus should also note:</p> <p>Furthermore, at the end of the Norfolk Vanguard examination Natural England advised the Applicant that an AEoI could not be ruled out regarding the assemblage feature more generally in-combination due to impacts predicted to the kittiwake feature (component of the assemblage) in-combination and to the gannet, razorbill and guillemot features (also components of the assemblage) with the inclusion of Hornsea Project Three. Since Norfolk Boreas (and it is assumed East Anglia ONE North and East Anglia TWO) will be adding additional mortality to the in-combination figures presented for Norfolk Vanguard it is likely that Natural England will provide similar advice here.</p>	<p>Not Agreed.</p>
	<p>Conclusion of no AEoI for the red-throated diver population at the Greater Wash SPA is appropriate on the basis of displacement impacts for the project alone during construction. The Applicant has also included the following restriction on cable installation construction works at Condition 19 of the Transmission DMLs (Schedule 11-12):</p> <p><i>"During the months of January to March inclusive, construction activities consisting of cable installation for Work No. 4A and Work No. 4B must only take place with one main cable laying vessel."</i></p>	<p>Agreed on the basis that the Applicant will give consideration to mitigation options for offshore cable route laying, such as avoiding or reducing cable laying activities during the non-breeding season/period of peak numbers, and that these mitigation measures are agreed with Natural England and then secured appropriately in the DCO.</p>	<p>Agreed as appropriate mitigation is secured in the draft DCO at Condition 19 of the Transmission DMLs (Schedule 11-12).</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>Conclusion of no AEoI for the red-throated diver population at the Greater Wash SPA is appropriate on the basis of displacement impacts during the construction of the project in-combination with other plans and projects.</p>	<p>Agreed on the same basis as above.</p>	<p>Agreed as appropriate mitigation is secured in the draft DCO at Condition 19 of the Transmission DMLs (Schedule 11-12).</p>
	<p>Conclusion of no AEoI for the red-throated diver population at the Greater Wash SPA is appropriate on the basis of displacement impacts during the operational phase for the project alone.</p>	<p>Agreed. With regard to displacement from the Greater SPA due to operation and maintenance vessel movements, Natural England welcomes the Applicant's commitment in paragraphs 335 and 359 of the Report to Inform HRA to engage with Natural England to agree the terms of these vessel management measures, as reflected in the draft DCO (see Schedules 9 & 10, condition 14(1) (d) (vi)).</p>	<p>Agreed (subject to agreement reflected in draft DCO).</p>
	<p>Conclusion of no AEoI for the red-throated diver population at the Greater Wash SPA is appropriate on the basis of displacement impacts during the operational phase for the project in-combination with other plans and projects.</p> <p>The updated assessment (ExA;As-1.D2.V1) submitted at Deadline 2 provides the additional 'like for like' assessment requested by Natural England in their Relevant Representation (REP-099). Following this the Applicant has concluded there will be no AEoI due to Norfolk Boreas in-combination with other plans and projects due to displacement.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	<p>Not currently agreed as Natural England considers that additional assessment using a like for like approach across wind farm sites (as conducted for Thanet Extension and Norfolk Vanguard) is required to allow determination of impact magnitude and significance.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>Conclusion of no AEol for the red-throated diver population at the Outer Thames Estuary SPA is appropriate on the basis of displacement impacts during the operational phase for the project alone.</p>	<p>Agreed. With regard to displacement from the Outer Thames Estuary SPA due to operation and maintenance vessel movements, Natural England welcomes the Applicant's commitment in paragraphs 335 and 359 of the Report to Inform HRA to engage with Natural England to agree the terms of these vessel management measures, as reflected in the draft DCO (see Schedules 9 & 10, condition 14(1) (d) (vi)).</p>	<p>Agreed (subject to agreement reflected in draft DCO).</p>
	<p>Conclusion of no AEol for the red-throated diver population at the Outer Thames Estuary SPA is appropriate on the basis of displacement impacts during the operational phase for the project in-combination with other plans and projects.</p>	<p>Agreed (on the same basis as project alone, above).</p>	<p>Agreed.</p>
	<p>Conclusion of no AEol for the little gull population at the Greater Wash SPA is appropriate on the basis of collision impacts for the project alone.</p> <p>The updated assessment (ExA;AS-1.D2.V1) provides the additional assessment using the 95% confidence intervals as requested by Natural England in their Relevant Representation (REP-099). This update has not changed the conclusions of the original assessment, that there will be no AEol for little gull due to collisions at Norfolk Boreas alone.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	<p>Not currently agreed as Natural England considers that a range of collision impacts accounting for variability/uncertainty in the input parameters in the assessments is required to allow determination of impact magnitude and significance.</p>	<p>Not agreed.</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>Conclusion of no AEoI for the little gull population at the Greater Wash SPA is appropriate on the basis of collisions impacts for the project in-combination with other plans and projects, based on availability of estimates for other wind farms.</p> <p>The updated assessment (ExA;AS-1.D2.V1) has reviewed the figures for all wind farms as requested by Natural England in their Relevant Representation (REP-099). This update has not changed the conclusions of the original assessment, that there will be no AEoI for little gull due to collisions at Norfolk Boreas in-combination with other plans and projects.</p> <p>Following a meeting with Natural England on the 29th November 2019 it is the Applicant's understanding that the methodological aspects are agreed in principle and that Natural England will confirm this in the updated issues log to be submitted at Deadline 2.</p>	<p>Not agreed at present. Natural England is currently unable to reach conclusions regarding in-combination collision impacts as the incorrect figures for Norfolk Vanguard potentially applies here too. Also there is the potential that Norfolk Boreas may also need to revisit to include numbers for East Anglia ONE North and East Anglia TWO if available, as these applications will be submitted to PINS in October 2019.</p>	<p>Not agreed.</p>
Management Measures – Mitigation and Monitoring			
Monitoring	<p>The proposed monitoring, which will be developed through the Ornithological Monitoring Plan in accordance with the In-Principle Monitoring Plan (IPMP), (document 8.12), is adequate.</p> <p>For information the IPMP states:</p> <ul style="list-style-type: none"> • The aims of monitoring should be to reduce uncertainty for future impact assessment and address knowledge gaps. To 	<p>Natural England considers that validation of the assessment methods/models used in the impact assessment is another core aim of post-construction monitoring and suggests this is added to the aims description. We also note that a strategic approach to addressing specific questions around cumulative/in-combination issues would not necessarily preclude individual projects having specific licence conditions that they need to meet as part of a wider strategic approach.</p> <p>In addition, Natural England does not agree with the HRA conclusions (as detailed above) set out by the Applicant in the In-Principle Monitoring Plan</p>	<p>Agreed (subject to noted caveats).</p>

Topic	Norfolk Boreas Limited's position (at Deadline 2)	Natural England's position (at Deadline 0)	Final position (at Deadline 2)
	<p>this end, Norfolk Boreas Limited will engage with stakeholders and the methodology would be developed through the Ornithological Monitoring Plan (required under Condition 14(1)(l) of the Generation Deemed Marine Licences (DMLs) (Schedule 9 and 10 of the DCO)). As for marine mammals (section 4.5), there may be little purpose or advantage in any site-specific monitoring for offshore ornithology and therefore a strategic approach may be more appropriate in providing answers to specific questions where significant environmental impacts have been identified at a cumulative/in-combination level.</p> <ul style="list-style-type: none"> • Aspects for consideration will include collision risks, displacement and improving reference population estimates and understanding of colony connectivity. 	<p>for offshore ornithology. Natural England considers the aspects that are likely to be relevant for consideration for post-consent monitoring are: improving understanding of collision risk and displacement, collection of reliable data on seabird flight heights and colony-based studies. This is reflected in Natural England's previous advice at recent projects (e.g. Vanguard) regarding their concerns about predicted levels of cumulative and in-combination impacts on North Sea seabirds (see above), and Boreas' likely contribution to those impacts.</p>	

The names inserted below are to confirm that this is the current positions of the the Applicant regarding this SOCG (at Deadline 2).

Printed Name	
Position	
On behalf of	
Date	

Printed Name	Jake Laws
Position	Norfolk Boreas Consent Manager
On behalf of	Norfolk Boreas Limited (the Applicant)
Date	05.12.2019