

# Norfolk Boreas Offshore Wind Farm Applicant's Response to Natural England's Onshore Ecology and Onshore Ornithology Deadline 3 Submissions

Applicant: Norfolk Boreas Limited  
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*Photo: Ormonde Offshore Wind Farm*

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## Glossary of Acronyms

COCP	Code of Construction Practice
DCO	Development Consent Order
DOC	Document
EMP	Ecological Management Plan
ES	Environmental Statement
HDD	Horizontal Directional Drilling
LSE	Likely Significant Effect
M	Metres
NE	Natural England
OCoCP	Outline Code of Construction Practice
OLEMS	Outline Landscape and Ecological Management Strategy
OTMP	Outline Traffic Management Plan
OWF	Offshore wind farm
RAG	Red, Amber, Green
SAC	Special Area of Conservation
SoS	Secretary of State
SSSI	Site of Special Scientific Interest
TC	Trenchless Crossing

## 1 Introduction

1. This document contains the Applicant's Response to Natural England's Deadline 3 Submissions specific to Onshore Ecology and Onshore Ornithology:
  - Natural England Risk and Issue Log [REP3-024]- Onshore Ecology and Ornithology Issues; and
  - Natural England Response to Onshore Ecology and Onshore Ornithology Documents submitted at Deadline 1 and 2 [REP3-022].
2. In these documents Natural England use a 'RAG' system to identify the level of risk of the issues raised and identify areas where discussions are still ongoing. At Deadline 3 no issues were identified as red status however some issues were identified as amber and yellow and therefore required further discussion.
3. A meeting was held with Natural England on 14<sup>th</sup> January 2020 to discuss these outstanding issues, identified as yellow or amber at Deadline 3, and this document details the responses discussed with Natural England during this meeting to resolve these issues.
4. Table 1 provides the response to the issues identified in the Natural England Risk and Issues Log [REP3-024] and Table 2 provides the responses to points raised in Natural England's Response to documents submitted at Deadline 1 and 2 [REP3-022] which were not identified in the Risk and Issues Log. The other outstanding issues from the documents submitted at Deadline 1 and 2 are addressed in the Risk and Issues Log.

## 2 Responses to Natural England Risk and Issues Log submitted at Deadline 3

**Table 1 Responses to Natural England Risk and Issues Log submitted at Deadline 3**

Item	Outstanding Issue	RAG status at DL3	Natural England Position at Deadline 3	Applicant's Response
DCO DOC 6.1.22 Environmental Statement Chapter 22 Onshore Ecology				
1	Table 22.13 Identifies core commuting/foraging areas, are these presented on a Figure? Maps of the main commuting/foraging areas for Barbastelle, as provided as Clarification Notes for Vanguard do not seem to have been incorporated within Boreas application Documents. The Examination process is supposed to be front loaded so please provide this evidence as soon as possible.		Applicant has not submitted Clarification Note regarding Paston Great Barn but has included Hedgerow Mitigation as included within Boreas. Is a clarification Note still to be submitted?	The clarification note regarding Paston Great Barn SAC was submitted as Appendix 2 of Comments on Relevant Representations document [AS-025] submitted on the 4 <sup>th</sup> November 2019.
DCO DOC 5.3 Information to Support Habitats Regulation Assessment				
2	5.4.2 Direct impacts on the Paston Great Barn SAC have been ruled out. There is currently no consideration of indirect effects on the SAC in accordance with the conservation objectives. The onshore cable route will pass through a number of medium to high important feeding and foraging hedgerow corridors, which link core foraging areas to the south of the cable route (Satellite Tracking data). Without appropriate mitigation this could have a LSE on the Barbastelle bat population. Suggest the Applicant refer to the OLEMS for Vanguard		The text of the OLEMS [REP1-020, Para 89] differs to that entered for Vanguard Deadline 9 OLEMS in that at each hedgerow a total of up to 22m will be left to become overgrown, whereas for Vanguard OLEMS specified 25m each side of gap. It is not clear why proposed mitigation is different.	The difference is due to the different onshore cable corridor widths for Norfolk Vanguard and Norfolk Boreas (under Scenario 2). For Norfolk Boreas, the cable working width is 35m, with a width of 13m of hedgerow removal to facilitate construction, leaving 22m remaining within the cable working width which is left to become overgrown. For Norfolk Vanguard, the cable working width is 45m, with the width of hedgerow removal being 20m, leaving 25m left to become overgrown.

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	(Deadline 9) and incorporate similar commitment within Boreas DCO.			
DCO DOC 6.6 Schedule of Mitigation				
3	<p>During the Vanguard OWF examination there was a commitment within Appendix 2 Water Dependant sites to produce site specific water crossing plans prior to construction. the Applicant has committed to develop a scheme and programme for each watercourse crossing, diversion and reinstatement, which will include site specific details regarding sediment management and pollution prevention measures. This scheme will be submitted to and approved by the relevant planning authority in consultation with Natural England. This commitment is secured through Requirement 25 (Watercourse Crossings) of the draft DCO. Due to the current uncertainty of ground conditions and sites for HDD and trenchless crossings it is not currently possible for Natural England to comment on potential environmental impacts pre application and detailed comments will be provided post construction. This commitment does not appear to have been included in either the Schedule of Mitigation or the Outline Code of Construction Practice. Please confirm where this commitment has been incorporated within the Boreas OWF application.</p>		<p>Note that oCoCP and Schedule of Mitigation (149) now includes a commitment to site specific water course crossing plans, secured through Requirement 25 of the DCO, in consultation with Natural England. The Ecological Enhancement document only currently allows for enhancement where crossed by open cut trenching or temporary culverts, there does not appear to be a consideration of enhancement of HDD compounds and work areas- would welcome this being specified within the CoCP, schedule of mitigation, ecological enhancements documents as appropriate. Though we do note the commitment to consider conservation objectives of the Wensum. Suggest text is amended so as to include HDD compounds.</p>	<p>The ecological enhancements at watercourse crossings are limited to those locations where there is a direct impact on the watercourse channel from a trenched crossing. As a result of this direct impact there are potential opportunities for enhancements of the watercourse at these locations as part of reinstatement of the channel, as listed in the Ecological Enhancements note [REP2-028]. Enhancement opportunities have not been considered for the trenchless crossings locations as there is no direct impact on the watercourse channel at these locations.</p> <p>With regards to enhancement at the trenchless crossing compound locations, following the completion of the works these locations will be returned to their original use, which for almost all locations is arable land (except 2 potential compounds TC5a (River Wensum) and TC3A (Wending Beck)). Therefore, such locations would not provide suitable opportunities for enhancement to take place. Details of grassland reinstatement which would be employed at TC5a and TC3A, if required, is set out in the Outline Landscape and Ecological Management Strategy (OLEMS) [REP1-020]. With regards TC5a in the River Wensum floodplain, the Outline Code of Construction Practice (OCoCP) [REP1-018], Section 11.1.2 includes a commitment that The River Wensum Restoration Strategy and River Wensum SAC conservation objectives will be considered during restoration.</p>

Item	Outstanding Issue	RAG status at DL3	Natural England Position at Deadline 3	Applicant's Response
				However, the Applicant will update the OCoCP to include consideration of any enhancements where possible, subject to landowner agreement.
DCO DOC 8.1 Outline Code of Construction Practice				
4	10. There are currently no control measures for air quality impact to designated sites on the traffic route.		In discussion, the Applicant confirmed final traffic numbers (as agreed at end of Boreas) were below significant effect levels and agreed to include designated sites in Traffic Management Plan to ensure final Traffic Plan Numbers for Vanguard considered impacts to designated sites. Designated sites are not considered or mapped within Outline Traffic Management Plan [APP-699]. It is not clear how the final Traffic Management Plan will consider potential impacts to designated sites alone or in combination with other projects.	<p>The traffic numbers considered in the ES are secured in Appendix 1 and Appendix 2 of the Outline Traffic Management Plan (OTMP) [REP1-022].</p> <p>The Applicant agrees to include reference to the locations of the designated sites within the OTMP and include the following in the OTMP:</p> <p><i>'In the event that the final vehicle movements differ from those set out in Appendix 1 and Appendix 2, then the assessment of air quality impacts upon designated sites presented within the Norfolk Boreas ES will be revisited to ensure that the impact level upon designated sites remains not significant.'</i></p>
5	13. Environmental incident response and contingency. There is no clarification of how environmental incidents will be responded to and reported on. Natural England would expect to be consulted within 24 hours if the incident occurs within proximity to a designated site. In particular with regards a bentonite break out clear up we would expect to be consulted immediately and prior to clear up operations beginning as clean-up operations may cause more		<p>Welcome the inclusion of environmental incident response reporting to Natural England within 24 hours if any incident occurs within proximity to a designated site within the oCoCP. We advise the Applicant that they may need to consider SSSI consent for operations under The Wildlife and Countryside Act.</p> <p>The immediate seeking of consents required for operations within the SSSI from Natural England during an environmental incident should also be included as a stipulation in the oCoCP. Please see our comments regarding 5.4</p>	<p>The Applicant acknowledges that SSSI consent may be required for operations in response to environmental incidents within a SSSI, such as responding to a drilling fluid breakout which has not been anticipated. The Applicant agrees to update the OCoCP [REP1-018] to include the following commitment in Section 13 on Environmental Incident and Response and Contingency:</p> <p><i>'In the event that operations are required within a SSSI in response to an environmental incident, Natural England must be consulted and SSSI consent sought immediately as required.'</i></p>



Item	Outstanding Issue	RAG status at DL3	Natural England Position at Deadline 3	Applicant's Response
	damage to surrounding features of interest.		Consents and licences required Under Other Legislation for further information.	
DCO DOC 8.7 Outline Landscape and Ecological Management Strategy				
6	In our response to the Vanguard Bat Clarification Note Natural England advised that, <i>as a requirement of the development, that prior to removal of hedgerows, an OLEM/EMP is developed in consultation with Natural England. The plan should include for the improvement of the hedgerows either side of the section to be removed including any gapping up, tree management and the development of scrub/rough grassland margins. The mitigation plan should be in place for 7 years or until the original hedgerow has recovered fully. Consideration could be given within the OLEM/EMP to the planting of more mature hedge plants, that could reduce the time required for these hedgerows to return to their original state/or better.</i>		The Boreas OLEMS (section 89) differs to that entered for Vanguard Deadline 9 OLEMS in that at each hedgerow a total of up to 22m will be left to become overgrown, whereas Vanguard OLEMS specified 25m each side of gap. It is not clear why proposed mitigation is different.	Please see response to Item No.2.
DCO DOC 8.14 Outline Project Environmental Management Plan				
7	7. Environmental Incident and response contingency. Whilst this states that any environmental incidents will be reported this appears to be mainly marine focused. We advise that as a condition of the licence terrestrial incidents are also reported to Natural		Welcome the inclusion within OCoCP of environmental incident response reporting to Natural England within 24 hours if any incident occurs within proximity to a designated site. Natural England will remind the Applicant that works within an SSSI may require consent for Natural England under the Wildlife and	Please see response to Item No.5.

Item	Outstanding Issue	RAG status at DL3	Natural England Position at Deadline 3	Applicant's Response
	England in a timely manner, and in the case of bentonite breakouts within designated sites within 24 hours and before clean-up operations begin.		Countryside Act 1981. Operations requiring Natural England's consent for each SSSI are included on <a href="https://designatedsites.naturalengland.org.uk">https://designatedsites.naturalengland.org.uk</a>	
DCO DOC Appendix 5.3 screening matrices Version 2				
8	The River Wensum SAC -The matrices presents that the use of trenchless crossing techniques will ensure no direct effects upon any of the qualifying features of the SAC. However, given the number of HDD drilling mud breakouts experienced by other wind farms recently Natural England feel that trenchless crossing does not ensure that there will be no direct effects, and further information on the HDD methodology and potential effects need to be provided.		The updated screening Matrices does not currently screen in Direct effects on the Wensum SAC and its features, due to trenchless crossing. As discussed in our Rel Rep [099] we consider the chance of HDD break out likely enough that site and features should be screened in. We note the additional information provided in the Clarification note and Method statement for Crossing the River Wensum and adjacent Watercourses AS-5.D2.V1. Natural England is content these documents provide sufficient information with regards design, methodology and mitigation to be confident that the proposal will not adversely affect the integrity of the site. However the screening matrices should be updated accordingly.	The Applicant will update the Screening matrices [REP1-012] and Integrity matrices [REP1-014] to reflect Natural England's view that due to the risk of bentonite breakout within the River Wensum during construction that potential direct effects upon the River Wensum SAC should be screened in, as discussed in the Clarification note submitted at Deadline 1 [REP1-039].

### 3 Responses to Natural England Response to Documents Submitted at Deadline 1 & 2

Table 2 Responses to Natural England Response to Documents Submitted at Deadline 1 and 2

Item	Natural England Response at Deadline 3	RAG status at DL3	Applicant's Response
Appendix 5.3 Habitat Regulations Assessment Screening Matrices (Tracked Changes)			
1	Site 26 Broadland SPA onshore. As raised during the Vanguard examination there was insufficient baseline data available which linked onshore ornithology numbers to the type of agricultural farmland and crop rotations. 'The additional years of survey data regarding SPA/Ramsar species may however still not accurately represent cropping rotations and be used to predict likely bird species abundance in the future. Arable rotations may be based on a 5 year rotation system, the location of sugar beet and crop feeds in future years may therefore not be evident from the dataset. The Applicant may therefore be unable to accurately predict whether SPA/Ramsar species may be present in the area during future works'. As it is difficult to determine where SPA/Ramsar species may be feeding we advise, as for Vanguard that the Applicant, in accordance with the precautionary principle, provide food stuffs for SPA/Ramsar species on the area of cable route within 5km which is not being worked, or as suggested in the Vanguard Broadland SPA Ramsar Clarification Note in discussion with landowners outside the red line boundary. Natural England therefore advises the Applicant to remove monitoring as a condition and include wording as in OLEMS.		The Applicant will update the wording of the HRA screening matrices [REP1-012] to reflect the mitigation agreed rather than the monitoring as per the wording contained in the OLEMS [REP1-020].
AS-6.D2.V1 Clarification Note Ecological Enhancements			
10	25. During the Vanguard examination 17 hedgerows were identified as being of moderate or high importance, yet the text here states 16, suggest number is amended to ensure it includes all hedgerows of medium to high importance for Barbastelle bats, including those which could not be surveyed previously due to landowner access but will be surveyed post consent.		This discrepancy is between the number of hedgerows cited in the Clarification note submitted during the Norfolk Vanguard examination Deadline 6 [AS-025, Norfolk Boreas Examination Document Reference], which cites 17 hedgerows and the final version of the Norfolk Vanguard OLEMS, submitted for Norfolk Vanguard examination Deadline 9, which cites 16.

Item	Natural England Response at Deadline 3	RAG status at DL3	Applicant's Response
			<p>This discrepancy arises because the Clarification note lists out potential impacts on those hedgerows which provide moderate or greater suitability to support commuting / foraging bats (a total of 17 of the 18 hedgerows located within the study area) and cites that mitigation should be considered for all these hedgerows. However one hedgerow is part of the Witton Plantation woodland, which will be crossed using trenchless techniques, and therefore no hedgerow removal will take place at this location, resulting in a total of 16 hedgerows which both provide moderate or greater suitability to support commuting / foraging bats AND which will be directly affected during construction.</p> <p>Therefore, the 16 hedgerows cited within the OLEMS [REP1-020] is correct, and no updates to the OLEMS are required.</p>