

THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

NORFOLK BOREAS OFFSHORE WIND FARM

Planning Inspectorate Reference: EN010087

Deadline 14

Natural England's response to Other Interested Parties (Applicant and MMO) Responses to the Examining Authority's Rule 17 Letter

25th August 2020

Our Ref: NE.NB.D14.04.IPRule17Rep

Table 1: Natural England's response to the Applicant's Responses to the Examining Authority's Rule 17 Letter

Number:	Question:	Applicant's Response at Deadline 13	Natural England's Comments
R17.1.1	In the light of the SoS decision letters for Norfolk Vanguard and Hornsea THREE published on 1 July 2020, can NE and the RSPB give their current positions for the Proposed Development.	The Applicant notes that this question is directed at Natural England and the Royal Society for the Protection of Birds (RSPB). However, the Applicant considers that the Secretary of State's (SoS) decision to award consent for Norfolk Vanguard is highly relevant to offshore ornithological considerations for Norfolk Boreas, due to the close proximity of the two offshore development areas and the consequently very similar levels of seabird activity recorded at the two sites. The Applicant considers that application of the approach taken by the SoS for Norfolk Vanguard will result in the same conclusions of no Adverse Effects on the Integrity (AEoI) of the Special Protection Areas' (SPA) features with potential connectivity to Norfolk Boreas and in these circumstances there would be no requirement for a derogation case or compensatory measures.	With regard to kittiwakes at the Flamborough and Filey Coast (FFC) SPA, as set out in our Deadline 13 response [REP13-038] to point R17.1.8 and in our response to the ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) our advice remains as that submitted at Deadline 9 [REP9-045 and REP9-049]. Namely that, as we have already advised at Hornsea 2 and East Anglia 3 examinations onwards that it was not possible to rule out an AEoI on the FFC SPA from operational and consented projects due to the level of annual in-combination collision mortality predicted for kittiwake and therefore, any additional mortality arising from these proposals would be considered adverse. Therefore, as further FFC SPA kittiwake collisions have been added to the incombination total from five further projects (including Boreas) since the East Anglia 3 examination, our advice remains that there is an adverse effect on integrity (AEoI) of this feature due to in-combination collision mortality and that includes a contribution from Norfolk Boreas. With regard to lesser black-backed gulls (LBBGs) at the Alde-Ore Estuary SPA, as set out in our Deadline 13 response [REP13-038] to point R17.1.6 and in our response to the

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			ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) our advice remains as that submitted at Deadline 9 [REP9-045], namely that as this feature has a restore conservation objective, and because there are indications that the population might even decline from current levels, we continue to advise that we cannot rule out AEoI of Alde-Ore Estuary SPA through impacts to LBBG, incombination with other plans and/or projects and the Norfolk Boreas project does make a contribution to this in-combination impact. Please also see our separate response to the ExA question 5.8.6.1 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding de minimis.
R17.1.2	To provide the latest considerations on the level of precaution applied to the significance of impacts on seabird populations, and how headroom could be taken into consideration when assessing	The Applicant notes that the SoS' decision letter for Norfolk Vanguard highlighted that the ornithology assessment included precaution, and specifically mentioned the presence of headroom as a reason to conclude that there would not be AEoI due to that project. As noted in response to question R17.1.1, the similarities between the Norfolk Boreas and Norfolk Vanguard projects therefore indicate that a similar consideration is appropriate. With respect to headroom, the Applicant's position remains as set out in REP10-033 and REP6-021. Natural England's response to WQ3.8.4.1	As set out in our Deadline 13 response [REP13-038] our position on precaution, regarding both the individual components of precaution and the accumulation of these, has been set out in our previous responses [REP4-039, REP4-040, REP4-043, our response to ExA second round question 2.8.4.4 in REP5-077 and our response to ExA third round question 3.8.4.1 in REP7-049]. No further information has been provided by the Applicant regarding this and as noted in REP13-038, in both the Hornsea Project Three and Norfolk Vanguard decisions, the SoS was satisfied that outputs using Natural England's preferred parameters were suitably precautionary to use as a basis of his impact

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	AEoI.	provided justification for precaution in individual elements of the assessment but did not address the Applicant's concerns on the compounded effect of all of these individual elements of precaution when combined together. The Applicant maintains (as set out in REP4-014) that, while there may be justification in individual elements of precaution (as proposed by Natural England and included in the Applicant's assessment), it does not therefore follow that conclusions based on the combination of all the different sources of precaution are appropriate. The Applicant considers that such an approach in fact results in over precautionary conclusions, and the SoS' decision for Norfolk Vanguard, as noted above, appears to support this position.	assessments. Therefore, our advice regarding precaution in assessments remains unchanged.
R17.1.3	NE and the RSPB to provide their latest conclusions on significant cumulative displacement impacts for redthroated diver, guillemot and razorbill.	The Applicant notes that this question is directed at Natural England and the RSPB. However, the Applicant maintains that there will not be significant cumulative impacts on these species (as set out in REP2-035). The Applicant reached these conclusions following a robust assessment which considered the over estimation of displacement effects due to over precaution in both rates of displacement and consequent mortality (REP2-035) and population trends and mitigation (e.g. timing of cable installation and best practice vessel operations; REP10-03 Schedules 9 and 10, Condition 14(1)(d)(vi) and Schedule 11 and 12. Condition 19). The Applicant understands that Natural England	Please see our response to ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding the availability of updated figures for Hornsea 3 following the additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our response to point R17.1.3, R17.1.4 & R17.1.5 in our Deadline 13 response [REP13-038].

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R17.1.4	NE and the RSPB to provide their latest conclusions on significant	does not require the cumulative assessment to be updated following the SoS' decision on Hornsea Project Three and Norfolk Vanguard (however the Applicant will continue to discuss this point with Natural England should this advice change). Consequently, the Applicant does not intend to update the cumulative assessment and considers that there will be no significant impacts as a result of either the project alone or cumulatively with other projects. The Applicant has also requested a meeting with the RSPB to seek an opportunity to continue engagement on these matters and is awaiting a response to this request. The Applicant notes that this question is directed at Natural England and the RSPB. However, the Applicant maintains that there will not be significant cumulative impacts on these species (as set out in REP2-035). The	Please see our response to ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding the availability of updated figures for Hornsea 3 following the additional data submitted by this
	significant cumulative collision impacts for herring gull, lesser black- backed gull, kittiwake and great black- backed gull.	these species (as set out in REP2-035). The Applicant reached these conclusions following a robust assessment which considered the over estimation of collisions due to over precaution in both the collision risk methodologies (e.g. over-estimated nocturnal activity rates; REP5-051), and how these estimates are interpreted (e.g. density independent population modelling) and the presence of headroom in the cumulative totals when as-built collisions are considered (REP6-021). The Applicant understands that Natural England does not require the cumulative assessment to be updated following the SoS' decision on	following the additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our response to point R17.1.3, R17.1.4 & R17.1.5 in our Deadline 13 response [REP13-038].

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		Hornsea Project Three and Norfolk Vanguard	
		(however the Applicant will continue to discuss	
		this point with Natural England should this	
		advice change). Consequently, the Applicant	
		does not intend to update the cumulative	
		assessments and considers that there will be no	
		significant impacts as a result of either the	
		project alone or cumulatively with other	
		projects.	
		Natural England has stated in the Statement of	
		Common Ground (REP10-039) that a significant	
		cumulative impact on herring gull and lesser	
		black-backed gull cannot be ruled out when	
		Hornsea Project Three and Hornsea Project	
		Four are included due to uncertainty with the	
		estimates for those projects. However, in relation to Norfolk Vanguard the SoS has stated	
		that he considers the Hornsea Project Three	
		estimates to be reliable for assessment and has	
		been able to reach conclusions with that project	
		included (note that Hornsea Project Four is still	
		at pre-application stage and therefore no	
		updates are anticipated within the current	
		examination). Therefore, the Applicant	
		considers Natural England should now be able	
		to assess the cumulative total, and reach the	
		same conclusion as the Applicant that there will	
		be no significant cumulative impact for these	
		two species.	
R17.1.5	NE and the RSPB	The Applicant notes that this question is	Please see our response to ExA question
	to provide their	directed at Natural England and the RSPB.	5.8.6.2 also provided at Deadline 14 (Our ref:
	latest	However, the Applicant maintains that there	NE.NB.D14.01.ExWQ5) regarding the
	conclusions on	will not be a significant cumulative impact on	availability of updated figures for Hornsea 3

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	combined effects of collision and displacement for cumulative projects for gannet.	this species (as set out in REP2-035). The Applicant reached these conclusions following a robust assessment which considered the high likelihood that impacts are over-estimated due to the use of overly precautionary parameter values for predicting displacement and consequent mortality, precautionary rates in the collision risk models (e.g. for rates of avoidance and nocturnal activity REP5-051) and in how the mortality estimates are interpreted (e.g. unrealistic density independent population modelling). In addition, the cumulative totals include over-estimates of the mortality for other wind farms which have been built with less impactful designs (e.g. fewer turbines) than the consented designs which Natural England advise be used in the cumulative assessments (i.e. headroom, REP6-021).	following the additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our response to point R17.1.3, R17.1.4 & R17.1.5 in our Deadline 13 response [REP13-038].
R17.1.6	NE to provide its latest conclusions on no AEoI for lesser black-backed gull population from in-combination collision effects.	The Applicant notes that this question is directed at Natural England. However, the Applicant maintains its position that there will be no AEoI for the lesser black-backed gull at Alde-Ore Estuary SPA due to the project alone or in-combination with other projects (as detailed in REP2-035). The Applicant also considers that the SoS' decision for Norfolk Vanguard is directly relevant to this question (paragraph 5.7): The Secretary of State considers that the potential loss of a relatively very small number of birds through collision impacts does not contribute in a significant way to the total number of birds predicted to be impacted in-combination ("de	As set out in our Deadline 13 response [REP13-038] to this point and in our response to the ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) our advice remains as that submitted at Deadline 9 [REP9-045], namely that as the LBBG feature of the Alde-Ore Estuary SPA has a restore conservation objective, and because there are indications that the population might even decline from current levels, we continue to advise that we cannot rule out AEoI of Alde-Ore Estuary SPA through impacts to LBBG, in-combination with other plans and/or projects and the Norfolk Boreas project does make a contribution to this in-

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		minimis"). On this basis the Secretary of State concludes that the proposed development will not have an adverse effect on the above SPA. Norfolk Boreas is located alongside Norfolk Vanguard, the two projects have been assessed with identical turbine parameters, and both projects share the same seabird sensitivities. This is borne out in the very similar impact magnitudes for the two projects (e.g. using Natural England's preferred precautionary approach, collisions of lesser black-backed gull from Alde Ore SPA is 2.6 at Norfolk Vanguard and 2.1 at Norfolk Boreas, and using the Applicant's preferred evidence based approach is 1.6 at both Norfolk Vanguard and Norfolk Boreas). It is also of note that Norfolk Boreas is slightly further from this SPA than Norfolk Vanguard, and therefore connectivity would be predicted to be lower. Therefore, the Applicant considers that the same conclusion can be made for Norfolk Boreas as was made for Norfolk Vanguard (of no AEoI alone or incombination).	combination impact. Please also see our separate response to the ExA question 5.8.6.1 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding de minimis.
R17.1.7	NE to provide its latest conclusions on no AEoI for razorbill and guillemot populations from in-combination displacement effects.	The Applicant notes that this question is directed at Natural England. However, the Applicant considers that Natural England has applied an over precautionary approach to this assessment (as set out in REP6-021, and noted in response to R17.1.3) and maintains its position that there will be no AEoI for the guillemot and razorbill features of the Flamborough and Filey Coast SPA as a result of either project alone or in-combination	Please see our response to ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding the availability of updated figures for Hornsea 3 following the additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our Deadline 4 response [REP4-040].

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		displacement. Natural England has stated in the Statement of Common Ground (REP10-039) that incombination AEoI can be ruled out for these species when Hornsea Project Three and Hornsea Project Four are excluded, but cannot be ruled out when they are included due to uncertainty with the estimates for those projects. The Applicant considers that the Appropriate Assessment for Norfolk Vanguard provides relevant guidance from the SoS on the interpretation of in-combination totals which include Hornsea Project Three (note that Hornsea Project Four is still at the preapplication stage and therefore no further updates are expected within the current project examination). The SoS has stated (HRA paragraphs 5.4.6 and 5.4.8) that he: is content that the inclusion of the Hornsea Three data does not affect the conclusions of the in-combination assessment. On this basis an AEoI on razorbill of the FFC SPA from displacement can be ruled out from the Project in-combination. And, is content that the inclusion of the Hornsea Three data does not affect the conclusions of the in-combination assessment. On this basis an AEoI on guillemot of the FFC SPA from displacement can be ruled out from the Project in-combination. Norfolk Boreas makes similarly small	

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		contributions to the in-combination totals for these species as Norfolk Vanguard and therefore the Applicant considers that the same conclusions (of no AEoI in-combination, including Hornsea Project Three) are appropriate. The Applicant understands that Natural England does not require the in-combination assessment to be updated following the SoS' decisions on Hornsea Project Three and Norfolk Vanguard (however the Applicant will continue to discuss this point with Natural England should this advice change). Consequently the Applicant does not intend to update the incombination assessments and considers that there will not be an AEoI as a result of either the project alone or in-combination with other projects	
R17.1.8	NE to provide its latest conclusions on no AEoI for kittiwake, populations from in-combination collision effects.	The Applicant notes that this question is directed at Natural England. However, the Applicant considers that Natural England has applied an over precautionary approach to this assessment (as set out in REP6-021 and in the response to R17.1.4) and maintains its position that there will be no AEoI for the kittiwake feature of the Flamborough and Filey Coast SPA as a result of either project alone or incombination collisions. The Applicant also considers that the SoS' decision for Norfolk Vanguard is directly relevant to this question (paragraph 5.7) which states: The Secretary of State considers that the	As set out in our Deadline 13 response [REP13-038] to point R17.1.8 and in our response to the ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) our advice remains as that submitted at Deadline 9 [REP9-045 and REP9-049] namely that as we have already advised at Hornsea 2 and East Anglia 3 examinations onwards that it was not possible to rule out an AEoI on the FFC SPAh due to the level of annual in-combination collision mortality predicted for kittiwake, any additional mortality arising from these proposals would be considered adverse. Therefore, as further FFC SPA kittiwake collisions have been added to the in-

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		potential loss of a relatively very small number of birds through collision impacts does not contribute in a significant way to the total number of birds predicted to be impacted incombination ("de minimis"). On this basis the Secretary of State concludes that the proposed development will not have an adverse effect on the above SPA. In the Norfolk Vanguard HRA (paragraph 5.4.2) the SoS has also stated: He recognises the precautionary nature of the NE approach to CRM upon which this assessment is based. He is also aware of the potential for lower numbers of predicted collisions than previously calculated based on built scenarios as opposed to the assessed or consented scenarios (the 'head room').	combination total from five further projects (including Boreas) since the East Anglia 3 examination, our advice remains that there is an AEoI of this feature due to incombination collision mortality and that includes a contribution from Norfolk Boreas.
		The Norfolk Vanguard and Norfolk Boreas projects are located alongside one another, have been assessed with identical turbine parameters, and both projects share the same seabird sensitivities. This is borne out in the very similar impact magnitudes for the two projects (e.g. Flamborough and Filey Coast SPA kittiwake collisions using Natural England's preferred precautionary approach are 21 at Norfolk Vanguard and 14 at Norfolk Boreas and using the Applicant's preferred evidence based approach these are 4.6 and 6.1 respectively). It is also of note that Norfolk Boreas is slightly further from this SPA than Norfolk Vanguard, and therefore connectivity would be predicted	

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		to be lower. Therefore the Applicant considers that the same conclusion can be made for Norfolk Boreas as was made for Norfolk Vanguard (of no AEoI alone and a de minimis contribution to the in-combination total).	
R17.1.9	NE to provide its latest conclusions on no AEoI for gannet populations from in-combination displacement and collision effects.	The Applicant notes that this question is directed at Natural England. However, the Applicant considers that Natural England has applied an over precautionary approach to this assessment (as set out in REP6-021 and in the response to R17.1.5) and maintains its position that there will be no AEoI for the gannet features of the Flamborough and Filey Coast SPA as a result of either project alone or incombination collisions and displacement combined. Natural England has stated in the Statement of Common Ground (REP10-039) that incombination AEoI can be ruled out for this species when Hornsea Project Three and Hornsea Project Four are excluded, but cannot be ruled out when they are included due to uncertainty with the estimates for those projects. The Applicant considers that the Appropriate Assessment for Norfolk Vanguard provides relevant guidance from the SoS on the interpretation of in-combination totals which include Hornsea Project Three (note that Hornsea Project Four is still at the preapplication stage and therefore no further updates are expected within the current project examination). The SoS has stated (HRA paragraph 5.4.4) that:	Please see our response to ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding the availability of updated figures for Hornsea 3 following the mitigation and additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our Deadline 4 response [REP4-040].

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		the Secretary of State has concluded that the use of the Hornsea Three data within the incombination assessment is appropriate.	
		Norfolk Boreas makes similarly small contributions to the in-combination total for this species as Norfolk Vanguard and therefore the Applicant considers that the same conclusions made for Norfolk Vanguard by the SoS are appropriate.	
R17.1.10	NE to provide its latest conclusions on no AEoI for the assemblage at Flamborough and Filey Coast SPA on the basis of displacement or collision impacts for the project incombination.	The Applicant notes that this question is directed at Natural England. However, the Applicant considers that Natural England has applied an over precautionary approach to this assessment (as set out in REP6-021) and maintains its position that there will be no AEoI for the seabird assemblage feature of the Flamborough and Filey Coast SPA as a result of either project alone or in-combination impacts. Natural England has stated in the Statement of Common Ground (REP10-039) that incombination AEoI can be ruled out for this species when Hornsea Project Three and Hornsea Project Four are excluded, but cannot be ruled out when they are included due to uncertainty with the estimates for those projects. The Applicant considers that the Appropriate Assessment for Norfolk Vanguard provides relevant guidance from the SoS on the interpretation of in-combination totals which include Hornsea Project Three (note that Hornsea Project Four is still at the preapplication stage and therefore no further	Please see our response to ExA question 5.8.6.2 also provided at Deadline 14 (Our ref: NE.NB.D14.01.ExWQ5) regarding the availability of updated figures for Hornsea 3 following the mitigation and additional data submitted by this project post-examination. Therefore, our advice regarding this remains as set out in our Deadline 4 response [REP4-040].

SPA: The Applicant to respond to NE's request [REP10-064, Q4.5.10.2] for a lesser black-backed gull at the Alde-Ore Estuary SPA, submitted without prejudice, proposes to deliver predator exclusion using fencing (REP7-026). However, during discussions with stakeholders the Applicant became aware of debate over how best to decision letter for Vanguard, the SoS state 'that it is important that potential AEoI of designated sites are identified during the papilication period and full consideration is given to the need for derogation of the Hall Regulations during the Examination. He	Number:	Question:	Applicant's Response at Deadline 13	Natural England's Comments
species included in the assemblage (e.g. paragraphs 5.4.6 and 5.4.8). Therefore, it is appropriate to consider that following this guidance from the SoS a conclusion of no AEoI for in-combination impacts on the seabird assemblage feature can be reached. R17.1.11 Alde-Ore Estuary SPA: The Applicant to respond to NE's request [REP10-064, Q4.5.10.2] for a Species included in the assemblage (e.g. paragraphs 5.4.6 and 5.4.8). Therefore, it is appropriate to consider that following this guidance from the SoS a conclusion of no AEoI for in-combination impacts on the seabird assemblage feature can be reached. The Applicant's proposed compensation for lesser black-backed gull at the Alde-Ore Estuary SPA, submitted without prejudice, proposes to deliver predator exclusion using fencing (REP7-026). However, during discussions with stakeholders the Applicant became aware of debate over how best to Species included in the assemblage (e.g. paragraphs 5.4.6 and 5.4.8). Therefore, it is appropriate to consider that following this guidance from the SoS a conclusion of no AEoI for in-combination impacts on the seabird assemblage feature can be reached. We note that in the Secretary of State's (State's (examination). The SoS has stated (HRA paragraph 5.4.4) that: the Secretary of State has concluded that the use of the Hornsea Three data within the in-	
R17.1.11 Alde-Ore Estuary SPA: The Applicant's proposed compensation for lesser black-backed gull at the Alde-Ore Applicant to respond to NE's request [REP10-064, Q4.5.10.2] for a The Applicant's proposed compensation for lesser black-backed gull at the Alde-Ore Estuary SPA, submitted without prejudice, proposes to deliver predator exclusion using fencing (REP7-026). However, during discussions with stakeholders the Applicant became aware of debate over how best to The Applicant's proposed compensation for decision letter for Vanguard, the SoS state 'S' (State's (species included in the assemblage (e.g. paragraphs 5.4.6 and 5.4.8). Therefore, it is appropriate to consider that following this guidance from the SoS a conclusion of no AEoI for in-combination impacts on the seabird	
deliver measures on the ground to offset predicted collision risk mortality. fenced area) and therefore it was considered that the most appropriate first step was to ensure that this was properly considered in advance of finalising any strategy for approval. Thus, while it is anticipated that any final strategy required to be delivered as compensation (should this be required) would be based on the installation of predator proof fencing, this will be discussed with relevant fenced area) and therefore it was considered that conservation bodies ("SNCBs") to engage constructively during the pre-application p and provide all necessary evidence on the matters, including possible compensatory measures, for consideration during the Examination.' As set out in our Deadline 9 response [REF OUT] to the Applicant's in principle Habitation.	R17.1.11	SPA: The Applicant to respond to NE's request [REP10-064, Q4.5.10.2] for a commitment to deliver measures on the ground to offset predicted collision risk	The Applicant's proposed compensation for lesser black-backed gull at the Alde-Ore Estuary SPA, submitted without prejudice, proposes to deliver predator exclusion using fencing (REP7-026). However, during discussions with stakeholders the Applicant became aware of debate over how best to implement this (i.e. the location and size of the fenced area) and therefore it was considered that the most appropriate first step was to ensure that this was properly considered in advance of finalising any strategy for approval. Thus, while it is anticipated that any final strategy required to be delivered as compensation (should this be required) would be based on the installation of predator proof fencing, this will be discussed with relevant	designated sites are identified during the pre- application period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the

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		reason a funded coordinator role was proposed as the first step (as set out in REP7-026). The Applicant welcomes Natural England's agreement that identifying a suitable location and installing predator proof fencing prior to construction would be achievable and is an appropriate compensatory measure (REP9-046). As set out above, the process to identify the location would be undertaken through collaboration with relevant stakeholders, mediated by the proposed facilitator role.	compensation measures, we believe that these proposals are in principle heading in the right direction. However, our view is whilst the Applicant's proposal to fund 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. Therefore, we reviewed all of the options considered by the Applicant as compensation measures and we again note that we believe that predator proof fencing of the nature proposed for LBBG at the Alde-Ore Estuary SPA has the most potential to be considered as an appropriate compensatory measure to address collision mortality impacts. However, there are other factors, including site suitability and management issues, which need to be considered in determining a suitable location for such fencing. Nevertheless, we do consider that it is achievable to have a suitable location identified and a predator proof fence erected before the construction of the windfarm.
			No further information has been presented by the Applicant regarding this matter and no firm commitment has been made by the Applicant that a suitable location for such predator proof fencing will be identified and such a fence erected before construction of the windfarm, which we consider to be required for the compensatory measures to be effective. However, at a meeting 24 August the applicant

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			did confirm that there was an intention to install anti predator fencing and they are looking at possible ways to secure this. Natural England are providing some support on this and have committed to providing a risk tracker outlining what it may be reasonable to achieve within the time remaining for the extended examination. Natural England are currently reviewing proposed updated text for the Schedule 13 compensatory package which may resolve our outstanding issues. We will provide a further update at deadline 15.
R17.1.12	The Applicant [REP11-007, Q4.5.10.2] states that there were different opinions on what the best options for compensation measures would be and the Applicant would continue to engage with NE to further develop this measure post consent. The Applicant is reminded of the SoS decision	Natural England has confirmed to the Applicant (during a meeting on the 10th July): • That they agree with the in principle compensatory measures proposed to be taken forward by the Applicant, if required by the SoS (as also confirmed in REP9-046); • That they do not require any further information on the proposed compensatory measures at this stage, and that they are content that the precise details of the compensatory measures can be dealt with post consent; and • Both Natural England and the MMO have also confirmed that they are content with the proposed mechanism for securing the compensatory measures in the dDCO. Therefore, the Applicant considers that an appropriate level of detail has been provided, with which Natural England agrees, and that should the SoS determine that compensation is required by Norfolk Boreas this can be	See response to R17.1.11 above.

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	letter for Norfolk Vanguard, which requires "Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre- application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination".	appropriately secured through the DCO, with the precise details being finalised post consent in consultation with Natural England.	Natural England 3 Comments
R17.1.13	What compensatory measures does NE consider suitable to deliver for lesser black-backed gull?	Whilst this question is directed to Natural England, the Applicant notes that Natural England provided a review of the proposals made by the Applicant and their respective suitability (REP9-046). Natural England's review did not identify alternative options which the Applicant had not already considered and therefore the Applicant is not aware of any other measures which Natural England might	Please see our response to this point in our Deadline 13 response [REP13-038].

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		consider suitable. In addition, and as noted above (R17.1.12), Natural England has confirmed that it agrees with the proposed in principle compensation measures (REP9-046).	
R17.1.14	Flamborough and Filey Coast SPA Similar to R17.1.12, the Applicant to provide additional details of compensation measures appropriate to the Proposed Development for kittiwake at D13. The ExA reminds the Applicant that compensatory measures must be specific to Norfolk Boreas and not duplicate those for Norfolk Vanguard.	The Applicant has proposed in principle kittiwake compensatory measures which are specific to Norfolk Boreas [REP7-025] and which have been agreed with Natural England (see REP9-047). The compensation measure proposed for kittiwake (an artificial nesting platform) is not limited to a single installation and multiple artificial sites could be constructed without detracting from their effectiveness. In any event, the compensatory measures proposed for Norfolk Vanguard were not required by the SoS, so although the type of measures proposed are the same, there is no potential for these to be duplicated.	We note that in the Secretary of State's (SoS) decision letter for Vanguard, the SoS notes: 'that it is important that potential AEoI of designated sites are identified during the preapplication period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination.' As set out in our Deadline 9 response [REP9-046] to the Applicant's in principle Habitats Regulations Derogation provision of evidence for Flamborough and Filey Coast SPA in principle compensation measures, we believe that these proposals are in principle heading in the right direction in relation to addressing the ecological impacts. However, we note that the compensation measure mostly likely to increase the FFC SPA productivity i.e. fisheries management measures has not been taken forward by Norfolk Boreas in the proposed approach to delivery and draft conditions to

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			secure the compensation; with the Applicant in favour of providing nesting ledge provision for kittiwakes. Please be advised that we still have significant concerns in relation to the evidence base for this proposal, which requires much greater analysis, and implementation/legal issues to fully understand and address before this can be considered an appropriate compensatory measure to address collision mortality impacts. We note that no further information has been provided by the Applicant regarding these concerns and hence these still remain.
			We also noted in REP9-046 that Natural England does not consider it appropriate to restrict the potential compensation for kittiwakes at the FFC SPA to just the option of provision of artificial nesting sites at this this time. Therefore, we would recommend that alternative draft conditions are produced which allow for a range of compensatory measures (e.g. to also include fisheries management). This would allow the Secretary of State (SoS) to consider the appropriateness of a range of potential compensatory measures. Again, no further information has been provided on this issue and our advice remains as that set out in REP9-046.
			Natural England discussed the compensatory package with the applicant in a meeting on 24 August. We have agreed to provide some

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			additional advice to the applicant on what could be included to support the compensatory package and that could also be provided within the limited time remaining prior to the end of examination. A further update will be provided at Deadline 15.
R17.1.15	What compensatory measures does NE consider suitable to deliver for kittiwake?	Whilst this question is directed to Natural England, the Applicant notes that Natural England provided a review of the proposals made by the Applicant and their respective suitability (REP9-046). Natural England's review did not identify alternative options which the Applicant had not already considered and therefore the Applicant is not aware of any other measures which Natural England might consider suitable. In addition Natural England has already agreed that the Applicant's in principle proposal (of an artificial colony) is appropriate for delivering the necessary level of compensation (REP9-047).	Please see our response to this point in our Deadline 13 response [REP13-038].
R17.1.16	General The Applicant to inform the ExA whether any of the compensation measures under consideration would require land access rights. If so, what rights	For the FFC SPA, as the Applicant outlines in paragraph 100 of Appendix 1 of the In Principle Habitats Regulations Derogation Provision of Evidence [REP11-012], the structure for the nest sites would need to be consented by way of a separate Marine Licence post consent. However, the artificial nest sites will be constructed within the existing offshore Order limits for the project for which the Applicant has already entered into an agreement for lease with The Crown Estate. In relation to the AOE SPA, as the Applicant	Natural England remain concerned by the proposal to locate the proposed artificial nest structure within the existing order limits, as this option would seem to be likely to result in any kittiwakes attracted to the platform being subject to considerable collision risk from the Boreas OWF and other neighbouring proposals, reducing the effectiveness of the measure. As noted above, we consider that the proposals require much greater analysis in order to demonstrate that the structure is, among other aspects, located where kittiwake colonisation,

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	would be sought and where and how are these being addressed.	outlines in section 4.6 of Appendix 2 of the In Principle Habitats Regulations Derogation Provision of Evidence [REP11-013], the strategy adopts a phased approach which, at the outset, requires the approval and agreement of the working group to the compensatory measures. This working group would include the Applicant, Natural England, the Local Planning Authority, the RSPB and the National Trust and therefore includes those with land ownership interests in the location in which fencing is likely to be proposed. However, the Applicant would only propose to secure land access rights once the precise location of fencing is established. This would be part of the agreement on the strategy with the Working Group, and would be included within the strategy submitted in accordance with Part 2 of Schedule 19.	productivity and collision mortality will be such that the impacts of the Boreas project will be addressed.
R17.1.17	Updates The Applicant and NE to detail any further updates on agreement to or requirements for compensatory measures.	The Applicant considers the SoS' decision on Norfolk Vanguard, which is located immediately adjacent to Norfolk Boreas and therefore has very similar seabird interests and has very similar impact magnitudes (as referred to above, R17.1.6, R17.1.7, R17.1.8 and R17.1.9), is highly relevant to Applicant's Responses to the Examining Authority's Request for Further Information Norfolk Boreas Offshore Wind Farm ExA.PD.D13.V1 July 2020 Page 16 Reference	No further updates have been provided by the Applicant regarding compensatory measures. Please see our responses to points R17.1.11 and R17.1.14 above.

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R17.1.18	Cable Protection: NE to clarify the statement in the SoCG [REP10-038, p13] that while it does not agree to no AEoI, it acknowledges that mitigation would significantly reduce the risk of an AEoI. Can NE, therefore, confirm whether or not there is	Respondent: Question: Applicant's Response: Norfolk Boreas. The SoS was able to conclude no AEoI on the basis that Norfolk Vanguard's contribution to in-combination impacts was de minimis and consequently no compensatory measures were required for either the Alde-Ore Estuary SPA or the Flamborough and Filey Coast SPA. The Applicant considers that the same approach can be applied to Norfolk Boreas which would lead to the same conclusions as those for Norfolk Vanguard, that there is no AEoI and that no compensatory measures are therefore required. The Applicant met with Natural England on the 10 July 2020. On the basis of discussion during the meeting, the Applicant understands that Natural England are currently considering the Secretary of State's decision documents for the Norfolk Vanguard project and the potential implications for the Norfolk Boreas project. The Applicant understands that until due consideration has been given to the decision in this context and Natural England's review is complete, Natural England's position on AEoI remains as previously stated. The Applicant and Natural England have scheduled a meeting for early August when it is expected that Natural England will be able to provide an update on their position to the Applicant.	Please see Natural England's position submitted at Deadline 14 on the Norfolk Vanguard (NVG) and Hornsea Project 3 (HP3) decision (Our ref: NE.NB.D14.03.BenImp).

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	no AEoI after agreed mitigation?		
R17.1.19	Is NE content with the detail in the In Principle Monitoring Plan on pre- and post-construction surveys? If not, what additional details does it consider needs adding?	The Applicant is not aware of any additional information which Natural England would wish to see included within the IPMP. The commitment has been made within the In Principle Monitoring Plan (IPMP) to agree the scope and timing of each pre-construction survey within the HHW SAC with Natural England and the MMO through the HHW SAC control document, and therefore this will be done at the most appropriate time, which the Applicant maintains is post consent. The Applicant understand that the MMO is content with this position.	Natural England has no further outstanding comments on the In Principle Monitoring Plan
R17.1.20	Reef features The Applicant to respond to NE's advice [REP10-038, p21] that there are uncertainties that micrositing as a mitigation measure would be 100% achievable. NE advise that all reef, including low and patchy reef, should be	The Applicant's position, as presented throughout the Examination is that, based on the best available scientific evidence, micrositing to avoid all Annex I reef will be possible. The Evidence that this will be possible is provided within: • Section 7.4.2 of the Information to Support HRA [APP-201]; • Appendix 7.2 of the Information to Support HRA [APP-207]; • Table 5 of the Applicant's Comments on Relevant Representations - Submitted in response to the Examining Authority's request in the Rule 6 Letter [AS-024]; • Section 5.2 and Appendix 1 of the Outline Norfolk Boreas Haisborough Hammond and	As previously advised throughout the examination [Ref] any area that meets the 'reef' criteria even if 'patchy' should be avoided. To be considered as a reef habitat a clear boundary can be drawn around the feature as its characteristics are distinct from surrounding seabed. Therefore Natural England advises that it would be highly improbable that a clear pathway can be found through a reef for one/two cables even in more patchy areas. Please see Natural England's position submitted at Deadline 14 on the Norfolk Vanguard (NVG) and Hornsea Project 3 (HP3) decision (Our ref: NE.NB.D14.03.BenImp) in relation to potential impacts to reef structures.

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	avoided by micrositing but it is not confident that this would be possible. What leads the Applicant to believe that this would be possible?	Winterton Special Area of Conservation Site Integrity Plan (the most recent version is REP10-028] however evidence has been provided in this plan from its first submission as part of the Application [APP-711]); • Section 4.2 and Appendix 1 of the Cable Specification, Installation and Monitoring Plan [REP10-026]; • The Clarification note Optimising cable routeing through the HHW SAC [REP4-022]; • Section 2.1 and 3.2.2 of The Haisborough Hammond and Winterton Special Area of Conservation Position Paper [REP5-057] (including Appendix 1 [part of REP5-057] and Appendix 2 [REP5-058]); • Section 1.9 of the Applicant's Comments on Deadline 5 Submissions [REP6-013]; • The Applicant's Comments on Responses to the Examining Authority's Further Written Questions [REP6-014], responses to Q2.1.0.4; • Annex 4 of the Applicant's Additional information for the HHW SAC position paper [REP6-019] Section 3.3, Section 5; • Appendix 3, document reference 8.25 In Principle Habitats Regulations Derogation, Provision of Evidence [REP7-027] Section 3 and Section 3.1; • The Applicant's Comments on responses to the third round of written questions [REP8-015] Q3.8.3.6; • The Applicant's Comments on Deadline 9 Submissions and Other Submissions [REP10-033] Sections 1.9 and 1.15;	

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		The Applicant's Statement of Common	
		Ground with Natural England [REP10-038]; and	
		 Section 1.5 of the Applicant's Comments on 	
		Deadline 10 Submissions and Other	
		Submissions [REP11-008].	
		To summarise the evidence contained within	
		the examination documents above, the	
		Applicant maintains that the best available	
		scientific evidence (including site specific	
		survey completed by the Applicant augmented	
		by third party data and used in advanced	
		mapping techniques by Envision Mapping	
		Limited [APP-207]) shows that it will be	
		possible to microsite around the current	
		location and extent of S.spinulosa reef within	
		the Norfolk Boreas offshore cable corridor. This	
		is due to the fact that the corridor is wide	
		(between 2 and 4.7km) and the mapping shows	
		that currently S.spinulosa reef within this	
		corridor does not extend such that it would	
		prevent micrositing.	
		As summarised in REP5-057 Natural England	
		have expressed concerns that the extent of	
		Annex I reef could increase significantly prior to	
		construction which would limit the ability to	
		microsite.	
		As explained in detail in section 2.1.1 of the	
		Haisborough Hammond and Winterton Special	
		Area of Conservation Position Paper [REP5-057]	
		the Applicant does not consider that there is	
		any reasonable scientific evidence to	
		demonstrate that the extent of S.spinulosa reef	
		will have changed significantly by the time	

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		Norfolk Boreas commences construction.	
		Natural England consider that proposed	
		fisheries closures within the HHW SAC could	
		increase the extent of S.spinulosa reef as a	
		result of a reduction in fishing pressure.	
		However, as explained in REP5-057 the	
		Applicant has reviewed current levels of fishing	
		pressure within the proposed fisheries closures	
		and found that there is currently very low or no	
		fishing currently occurring in these areas and	
		therefore implementation of the closures is very	
		unlikely to significantly increase the extent of	
		S.spinulosa reef.	
		Therefore, the Applicant maintains that as it	
		would be possible to microsite to avoid Annex I reef at the present time it is also highly likely	
		that it will be possible to do so at the time	
		Norfolk Boreas starts construction. Working	
		with Natural England and the MMO, the	
		Applicant has introduced further mitigation	
		measures captured within the outline HHW SAC	
		control document (document 8.20, REP10-028	
		and REP10-026) to give further confidence that	
		Annex I S.spinulosa reef will be avoided. The	
		relevant mitigation measures committed	
		throughout the course of the examination are	
		as follows:	
		A reduction in the amount of cable protection	
		to protect export cables which have not been	
		buried to the optimum depth due to ground	
		conditions from 10% to 5%;	
		 A commitment to avoid placing cable 	
		protection in areas that Natural England have	

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		the greatest confidence that S.spinulosa reef	5
		can recover (termed Priority Areas by the	
		Applicant, see the HHW SAC control document	
		Figure 4.1 in the CSIMP or 5.1 in the SIP); and	
		A commitment to decommission all cable	
		protection which has not been buried to the	
		optimum depth due to ground conditions.	
		With regard to the particular point referenced in	
		the question on page 21 of the Statement of	
		Common Ground (SoCG), the Applicant asserts	
		that where an area of seabed has been defined	
		as supporting patchy reef, this will be classified	
		as such due to there being between 10% and	
		20% coverage of actual reef. This is the criteria	
		developed by Gubbay (2007). Therefore, within	
		such an area there would be between 80% and	
		90% of the seabed which would not support reef. The Applicant maintains that even areas	
		defined as patchy reef could be avoided	
		through micrositing based on best available	
		scientific evidence. However, should the extent	
		of reef have expanded significantly prior to	
		construction, areas defined as containing	
		patchy reef may present opportunities for	
		micrositing whilst still avoiding the locations of	
		actual reef. The final cable route or routes	
		would be agreed with the MMO in consultation	
		with Natural England through the HHW SAC	
		control document and the onus would be on the	
		Applicant to demonstrate that it was avoiding	
		all areas of actual reef.	
		The Applicant considers that it has	
		demonstrated that even using the maximum	

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		cable spacing distances it will be possible to route up to two export cables for Norfolk	
		Boreas as well as up to two export cables for	
		Norfolk Vanguard through the HHW SAC whilst	
		avoiding all sensitive features. This is presented	
		within the Optimising cable routeing through	
		the HHW SAC clarification note [REP4-022].	
		This note is based on best available scientific evidence.	
		In response to Natural England's concerns	
		regarding a significant increase in reef to such	
		an extent that it spans the entire cable corridor	
		and therefore micrositing would not be	
		possible, the Applicant considers that in such a	
		scenario, any areas of disturbance caused by	
		cable routing would rapidly recover and any	
		areas of habitat loss through cable protection would be small scale. Therefore, in this	
		hypothetical scenario AEoI could also be ruled	
		out. The Applicant considers that this position is	
		supported by the SoS's decision on the Norfolk	
		Vanguard project which has concluded that	
		there is no AEoI as a result of in-combination	
		cable installation for both Norfolk Vanguard and	
		Norfolk Boreas. This conclusion is based on the	
		fact that the area affected will be small and that the habitats are likely to rapidly recover.	
R17.1.21	Regarding the	As described above and demonstrated within	Please see our response to ExA Q5.2.0.1 also
	potential impacts	the Optimising cable routeing through the HHW	provided at Deadline 14 (Our Ref:
	to Annex 1 reef	SAC clarification note [REP4-022], the	NE.NB.D14.01.ExWQ5)
	and	Applicant's firm position is that micrositing to	
	Archaeological	avoid both Annex I reef (see response to 17.1.2	
	interest features,	above) and Archaeological features will be	

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	MMO in [REP5-073] express concerns that micro-siting may not be possible and would like this to be dealt with at consenting stage rather than post consent. Is the MMO now content with the Applicant's provisions for micrositing to mitigate potential impacts on Annex 1 reef or sandbank features and archaeological interest features? If not, what additional measures would it consider necessary?	possible and that this has been clearly demonstrated at the consenting stage. As demonstrated in the Information to support HRA [APP-201] and the HHW SAC position paper [REP5-057] micrositing to avoid Annex I reef would only not be possible in a hypothetical scenario whereby reef had extended to such an extent that it spanned the majority of the 2 to 4.7km width of the offshore cable corridor. As explained in the response to R17.1.20 above, this is considered to be very unlikely notwithstanding the proposed fisheries closure, given the very low levels of fishing in this location. In any event, under this scenario reef would be so extensive that any impacts associated with a failure to microsite would be very small scale in comparison to the overall reef and would rapidly recover therefore not resulting in AEoI.	
R17.1.22	Sandbank features:	The Applicant maintains that the mitigation measures proposed represent the best method	Whilst the Applicant has committed to agreeing disposal location/s with the MMO in
	NE to detail any	for maintaining sediment composition and that	consultation with Natural England it should be
	remaining concerns that	no condition is required. Following a recent meeting with Natural England we understand	noted that Natural England's advice remains unchanged i.e. that disposal should be with in

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	the Applicant's measures for promoting recovery of sandbanks [REP10-038, p83] would change the sediment composition of the seabed. If it does have concerns, what additional measures does NE consider would be necessary?	that Natural England are considering this further following the SoS's ruling that a specific condition was not required for Norfolk Vanguard (nor for Hornsea Three). The Norfolk Vanguard decision by the SoS supports the Applicant's view that a condition is not required because of the commitment in the HHW SAC control document (document 8.20) to require the location and method for sediment disposal to be agreed with the MMO in consultation with Natural England. Norfolk Boreas has included the same mitigation measures as Norfolk Vanguard in the HHW SAC control document (8.20).	similar sediment grain size. How the developer will achieve this is uncertain given their responses in both the Boreas and Norfolk Vanguard examination in relation to their ability in real time to adequately sample to ensure like with like. Please see Natural England's position submitted at Deadline 14 on the Norfolk Vanguard (NVG) and Hornsea Project 3 (HP3) decision (Our ref: NE.NB.D14.03.BenImp)
R17.1.23	SIP and CSIMP Does the Applicant accept NE's and MMO's view that the Cable Specification, Installation and Monitoring Plan should be re- named Cable Specification, Installation, Mitigation and	As stated at Deadline 10 in the Applicant's Comments on Deadline 9 Submissions and Other Submissions [REP10-033], "The Applicant does not fundamentally object to this name change, but it does consider that a change in name at this late stage of the examination would be unhelpful and lead to confusion given that so many of the Examination submissions thus far refer to the document under its current title. This could, however, be addressed as part of the final submission of the document post consent." The Applicant's position remains unchanged from that stated at Deadline 10. Furthermore, the Applicant considers that	Whilst Natural England recognises that the title of a document is less important than its content, on this occasion given the long lead in time and to assist all parties having 'mitigation' included in the title of a plan further emphasises the requirement for the document to consider mitigation in addition to cable specification, installation and monitoring

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	Monitoring Plan and that mitigation should be included? If not, why not?	agreement on the actual content of the document is more important than agreement on the exact name of the document, and as agreement has been reached on the content to be included in the document, the naming of it is to all intents and purposes immaterial at this stage.	
R17.1.24	a) NE expresses concern in [REP9-039, p4] that there is no evidence presented that a 30-year temporary cable protection would have no impact on site conservation objectives. Does NE still have these concerns? b) If so, how would the	The Applicant responded to this concern raised by Natural England in row 5, Section 1.9 of the Applicant's Comments on Deadline 9 Submissions and Other Submissions [REP10-033] and further information is provided in that response. The Applicant understands that Natural England is concerned that there are no studies available which can specifically demonstrate that Sandbank or S.spinulosa reef communities would rapidly recover from the decommissioning of types of cable protection which the Applicant proposes to deploy. This is because offshore windfarms located within such habitats and using such cable protection techniques have not yet been decommissioned. However, based on the rapid recovery of	Please be advised that Natural England doesn't agree with the removal of Condition 3(1)(g). Please see comments on the DCO. In addition Natural England's advice remains unchanged in light of the SoS recent decisions on the certainty of full recovery back to per impacted state and the speed at which this will be achieved. There is limited evidence present to support the Applicant statement that 'rapid' recovery across the Piste is guaranteed. It is our view that recovery will be highly dependent on the interest feature impacted. Even the SoS decision caveated their HRA recognising this uncertainty by stating 'there will be some degree of recoverability'
	Applicant address these? c) What evidence can the Applicant present about the likely effects of cable protection being	Sandbank communities to other impacts, such as windfarm installation and to dredging activity, the Applicant maintains that the best available scientific evidence indicates that recovery would occur rapidly following the decommissioning of cable protection (see below). Furthermore, in light of the condition included by the SoS on the Norfolk Vanguard DCO, the	In relation to applicability of the Dogger Bank decisions to Boreas OWF: Natural England wishes to highlight that updated/evolved knowledge of decommissioning techniques and potential impacts since those decisions in 2015 would likely led to change in Natural England's advice provided at the time of consent and decommissioning is subsequently one of the key pre construction issues that is proving

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		Available to download from the MMO Public	
		Register.	
		• Gibb et al. (2014); Assessing the sensitivity	
		of Sabellaria spinulosa reef biotopes to	
		pressures associated with marine activities.	
		• Cooper et al., 2007; Recovery of the seabed	
		following marine aggregate dredging on the	
		Hastings Shingle Bank off the southeast coast	
		of England.	
		• Pearce et al. 2007 Recoverability of Sabellaria	
		spinulosa Following Aggregate Extraction;	
		• Pearce et al., 2011a Sabellaria spinulosa Reef	
		Ecology and Ecosystem Services;	
		Pearce et al 2011b Impacts of marine Aggregate system on adjacent Schollegia	
		aggregate extraction on adjacent Sabellaria spinulosa aggregations and other benthic fauna	
		Hendrick et al., 2011 Biogenic Reefs and the	
		Marine Aggregate Industry;	
		• Holt et al 1998 Biogenic reefs: An overview of	
		dynamic and sensitivity characteristics for	
		conservation management of marine SACs;	
		• Leonhard & Pedersen 2006 Benthic	
		Communities at Horns Rev Before, During and	
		After Construction of Horns Rev Offshore Wind	
		farm;	
		Hill et al 2011. Recovery of seabed resources	
		following marine aggregate extraction [REP10-	
		033];	
		Foden 2009 Recovery rates of UK seabed	
		habitats after cessation of aggregate extraction	
		[REP10-033];	
		• Newell et al 2002 Impact of Marine Aggregate	
		Dredging and Overboard Screening on Benthic	

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		Biological Resources in the Central North Sea [REP10-033]; and • Newell & Woodcock 2013 Aggregate dredging and the marine environment: an overview of recent research and current industry practice [REP10-033].	
		The Applicant also notes that the Appropriate Assessment undertaken by the SoS for Hornsea Project Three has made reference to evidence presented by the Orsted Applicant from the Race Bank offshore windfarm, much of which relies upon the information provided in DONG 2017 (which has also been quoted as evidence in the Norfolk Boreas Information to Support HRA APP-201). The SoS states that "studies undertaken on Race Bank showing that the majority, if not all, of sandbank features will recover following the cessation of activities." The SoS goes on to state that: "The Secretary of State is not aware of any substantive evidence as to why the complete removal of all infrastructure above or protruding from the seabed at the time of decommissioning within the North Norfolk Sandbanks and Saturn Reef SAC would not have the same beneficial effects as those from similar type of impacts predicted to occur within the Dogger Bank SAC." The North Norfolk Sandbanks and Saturn Reef and Dogger Bank SACs are both designated for Sandbanks which are slightly covered by sea	
		water all the time, as is the HHW SAC.	

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		Therefore, this provides further support for the conclusion reached by the Applicant. In summary, although it is not possible to provide like for like examples of recovery following the decommissioning of cable protection as decommissioning of cable protection in similar environments has not yet been studied, the Applicant has provided a large body of comparable evidence to show that in this habitat recovery has occurred and that it has occurred rapidly. Therefore, based on the best available scientific evidence it is reasonable to conclude that the same would occur following the decommissioning of Norfolk Boreas's cable protection.	
R17.1.25	In the light of the SoS decision on Norfolk Vanguard, what is NE's and MMO's final conclusion regarding the appropriateness of both the SIP and CSIMP for undertaking appropriate assessment and addressing uncertainties related to cable laying?	Given that the SIP is described by the SoS in his letter as "an additional safeguarding mechanism" and " not critical to our recommendation", the Applicant considers that the CSIMP, which contains all of the same mitigation measures but without the Grampian condition, can be relied upon to address uncertainties and to mitigate impacts such that a conclusion of no AEoI can be reached. Furthermore, the Applicant understands that Natural England and the MMO support the approach of securing the CSIMP in preference to the SIP. However, in the interests of consistency between Norfolk Boreas and Norfolk Vanguard, and in the event that the additional safeguard is recommended by the Examining Authority or considered appropriate by the Secretary of State, the Applicant	Our advice remains unchanged on the use of a SIP/CSIMP. Please see Natural England's position submitted at Deadline 14 on the Norfolk Vanguard (NVG) and Hornsea Project 3 (HP3) decision (Our ref: NE.NB.D14.03.BenImp).

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		proposes to retain optionality for both the SIP and CSIMP in the dDCO.	
R17.1.26	Compensatory Measures Notwithstanding the Applicant's view that it is not possible to conclude the precise size of any compensatory measures [REP11-008, p27] pending the SoS decision, the ExA requires details of possible compensation measures in the event of no AEoI for one or more features of cable protection, cable installation, Annex I reef or Annex I sandbank.	The Applicant is of the firm opinion that AEoI for the HHW SAC can be ruled out at the consenting stage and therefore compensatory measures are not required [APP-201, REP5-057, REP6-016 and REP7-027]. The findings of the SoS's Appropriate Assessment for the Norfolk Vanguard project support this view especially in the in-combination assessment which rules no AEoI as a result of both Norfolk Boreas and Norfolk Vanguard. Therefore, any compensatory measures remain "in-principle" and are provided on a without prejudice basis. The principle of developing compensatory measures provided within REP7-027 and REP11-014 has been agreed in consultation with Natural England. During this process it was determined that the most suitable method for providing compensatory measures was through an extension to the HHW SAC. In order to determine the size of the possible extension it was proposed that a 10:1 ratio should be used, i.e. the area of extension should be ten times the size of the area impacted. This recognises that the whole extension area is not guaranteed to achieve favourable condition. A worked example is included within the in principle document which uses the impact of habitat loss as a result of installed cable protection, and is presented again in summary here. The maximum area of habitat loss due to	This point is agreed.

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		cable protection would be 20,000m2 and	
		therefore using the ratio of 10:1 an area of	
		200,000m2 or 0.2km2 would be sufficient to	
		compensate for the loss. As the HHW SAC is	
		nearly 1,500km2 an extension of 0.2km2 would	
		be proportionately very small and therefore	
		Natural England advised that, given the amount	
		of work involved to designate the extension, it	
		would better to extend the HHW SAC by a	
		much greater area in order to make a	
		meaningful contribution to the SAC.	
		As demonstrated in the in principle	
		compensatory measures document [REP7-027]	
		it would be feasible to extend the HHW SAC by	
		up to 120km2 if required. An extension of this	
		size would clearly overcompensate for the	
		worked example provided of cable protection.	
		The example of habitat loss due to cable	
		protection was chosen for the worked example	
		as this was the impact of greatest concern for	
		Natural England. However, an extension of the	
		size proposed would also overcompensate in	
		the event AEoI could not be ruled out due to	
		other impacts. For example, the impact that	
		could result in the largest possible area affected	
		is the temporary impacts caused by cable	
		installation. Cable installation could temporarily	
		affect a maximum area of 2.45km2 [REP10-	
		026] and therefore using the 10:1 ratio this	
		would equate to 24.5km2. This assumes a	
		highly over precautionary approach whereby	
		the absolute maximum area of impact would	
		occur and that there would be no recovery at	

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		all following cable installation; which is	
		extremely unlikely as all available scientific	
		evidence points to recovery occurring. If it were	
		determined that an area of 2.45km2 was	
		required, this would also be sufficient to	
		compensate for all other impacts such as	
		habitat loss through cable protection as that	
		impact would occur within the 2.45km2 for	
		cable protection. 24.5km2 is only 20% of the	
		size of the indicative extension area illustrated	
		in Figure 4.4 of REP11-014. Therefore,	
		regardless of what impact is concluded to cause	
		AEoI, if any, the indicative extension area to	
		the HHW SAC would comfortably be able to	
		accommodate the size of any compensatory	
		measures.	
		With regard to a potential that AEoI could not be ruled out for either Sandbank or Reef	
		features, it should be noted that within the	
		HHW SAC there is no overlap between the	
		Areas to be managed as Annex I reef and the	
		areas to be managed as Annex I Sandbanks	
		(this is illustrated in Figure 4.4 of the document	
		[REP11-014]). This is because the S.spinulosa	
		reef is only supported by the stable trough	
		areas between the Sandbanks. Therefore	
		should the SoS determine that Norfolk Boreas	
		was to have an impact on 20,000m2 of	
		Sandbank due to habitat loss, it would not also	
		be possible for the project to have an impact on	
		20,000m2 of Annex I S.spinulosa reef.	
		Therefore, the Applicant considers that	
		compensatory measures would not be required	

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Number:	Question:	for the full maximum area of each feature separately as this would be double counting. Notwithstanding this the indicative extension area is sufficiently large to compensate for any effects on either feature. As shown in Figure 4.4 of the document [REP11-014] the proposed extension area encompasses extensive Annex I sandbanks as well as areas where Natural England are confident that Annex I S.spinulosa reef can	Natural England's Comments
		occur (or re-establish). The final size of any SAC extension would be determined based on the impacts for which AEoI had not been ruled out by the SoS and the final project design. As stated in REP9-048 and confirmed during a recent meeting (10 July 2020), "Natural England support the thorough consideration of compensatory measures which have been proposed [by the Applicant (in consultation with Natural England)]. Natural England confirmed during the meeting on the 10 July that they	
		consider that the proposals contain a sufficient level of detail to demonstrate that they can suitably compensate for any AEoI and they are in agreement that any further detail would be agreed post consent in the final plans. In summary the indicative extension area would be large enough to compensate many times over, for the maximum combined size of impact that could occur within the HHW SAC as result of the Norfolk Boreas Project.	

Table 2: Natural England's response to the MMO's Responses to the Examining Authority's Rule 17 Letter

Number:	Question:	MMO's Response at Deadline 13	Natural England's Comments
R17.1.29	The MMO to	The MMO continues to attend the Regulators	Natural England welcome the work that has
	provide an	Group. The MMO advised in REP7-040 that a	been done to date by the Regulators Group
	update on	mechanism had been agreed in the form of a tool	to produce the SNS Activity Tracker, which
	discussions with	which had been created to manage the noise in	is available on the OPRED website. Natural
	Regulators	the Southern North Sea across the different	England believe the purpose of the tracker is
	Group regarding	regulators. The MMO can now confirm that even	to document the 'noisy' activities taking
	management of	though the mechanism is still within the	place in the southern North Sea, their
	underwater	development phase it is now available for public	location and start and end dates amongst
	noise risk.	access through the OPRED website:	other information, which will be updated in
		https://www.gov.uk/guidance/oil-and-gas-	real time by the regulators. We understand
		offshore-environmental-legislation#offshore-	the tracker to be a first step in developing a
		petroleum-activities-conservation-of-habitats-	mechanism to manage impacts from
		regulations-2001-as-amended under the section	underwater noise and that further work is
		entitled 'SNCB Underwater Noise'. The MMO notes	still to be done to identify how clashes
		the Examining Authority prefers submissions to be	between activities will be managed.
		entered into examination, in light that the	Therefore, we do not consider the SNS
		document is live and online please refer to	activity tracker to be an agreed mechanism
		Appendix 1 for an example of the document dated	in itself. Natural England would welcome
		21 July 2020.	further discussion on the SNS activity
		The MMO makes that all industries have been	tracker and further development of the
		The MMO notes that all industries have been	mechanism with the MMO. Natural England
		encouraged to offer suggestions as to what other	is not aware of the August meeting referred
		information they feel would be appropriate within	to by MMO in paragraph 2.4.4.
		the tracker and these submissions from	
		developers can be made through the MMO or directly with OPRED.	
		directly with OPKLD.	
		The subject of piling prioritisation has been	
		discussed and it was concluded that it would not	
		be possible to enable this kind of approach. The	
		foundations of the agreement between offshore	

Number:	Question:	MMO's Response at Deadline 13	Natural England's Comments
		industry regulators relies on close collaboration	
		and an unbiased approach. It could be argued	
		that a seismic survey for an Oil and Gas	
		development should be viewed as being just as	
		important as an Offshore Wind Farm (OWF) piling	
		schedule, albeit with shorter notice periods.	
		Ultimately, it would be the responsibility of OWF	
		developers to ensure that their individual	
		schedules align with their CFD commitments etc.,	
		whilst regulators will endeavour to be as	
		pragmatic and flexible as possible. The focus	
		remains entirely on the activities remaining within	
		the JNCC suggested threshold limits.	
		It was also discussed that Natural England (NE)	
		could not conclude no adverse effect on integrity	
		for the Southern North Sea (SNS) Special Area of	
		Conservation (SAC) until a formally recognised	
		mechanism is put in place to document proposed	
		underwater noise activity. NE have been invited to	
		the next meeting in August to enable discussions	
		and to understand what is required for the	
		mechanism to be formally recognised by industry	
		and Statutory Nature Conservation Bodies alike.	
		The MMO will provide an update at Deadline 15.	