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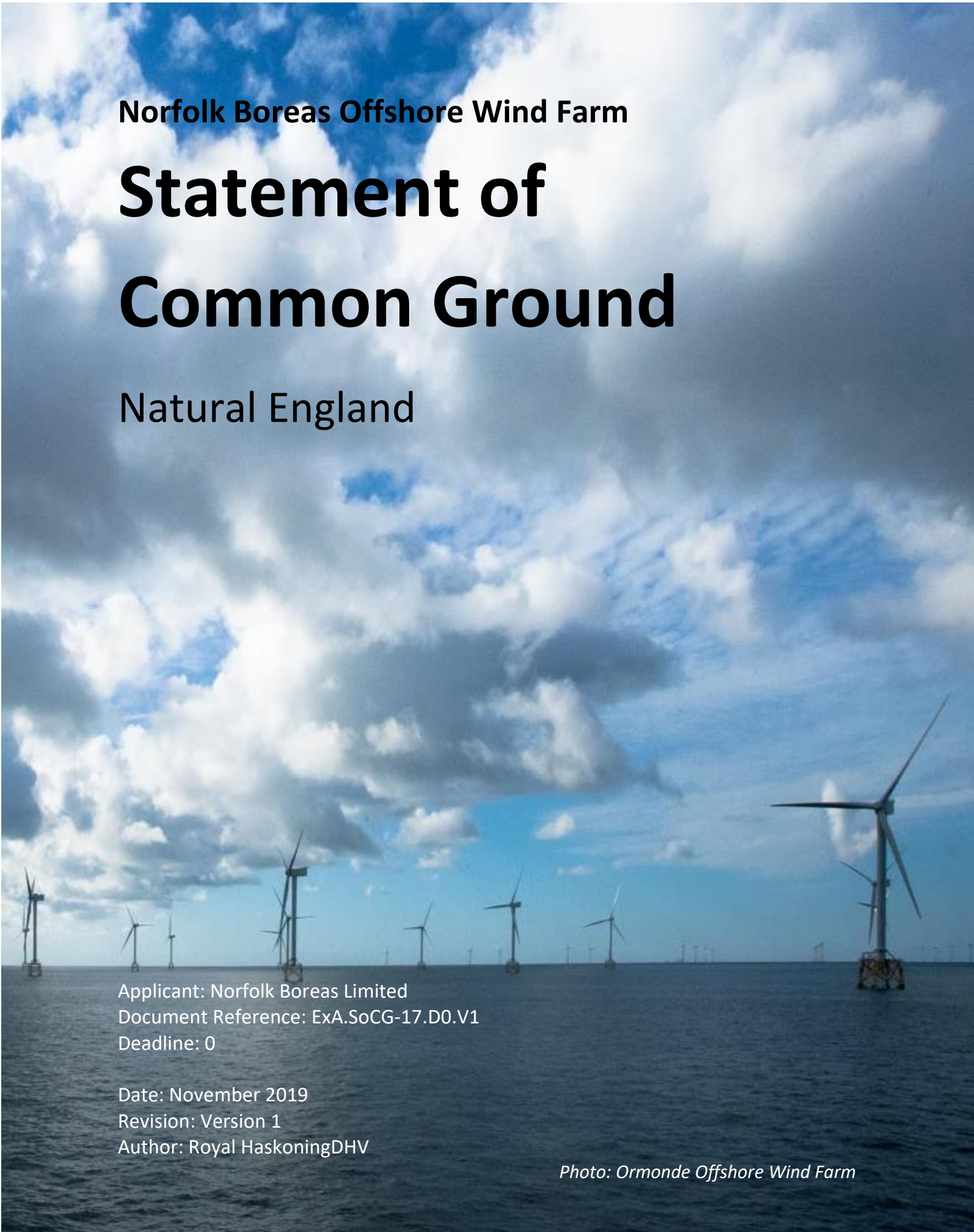

Norfolk Boreas Offshore Wind Farm

Statement of Common Ground

Natural England

Applicant: Norfolk Boreas Limited
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Table of Contents

Table of Tables

Table of Figures

Glossary of Acronyms

AEoI	Adverse Effect on Integrity
ALC	Agricultural Land Classification
BDMPS	Biologically Defined Minimum Population Size
BMV	Best and Most Versatile
CIA	Cumulative Impact Assessment
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CoCP	Code of Construction Practice
CRM	Collision Risk Model
DCO	Development Consent Order
DML	Deemed Marine Licence
EIA	Environmental Impact Assessment
ES	Environmental Statement
ESS	Entry Level Stewardship Scheme
ETG	Expert Topic Group
ExA	Examining Authority
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
LiDAR	Light Detection and Ranging
LSE	Likely Significant Effect
MarESA	Marine Evidence based Sensitivity Assessments
MarLIN	Marine Life Information Network
MCZ	Marine Conservation Zone
MMMP	Marine Mammal Mitigation Protocol
MMMZ	Marine Mammal Mitigation Zone
MMO	Marine Management Organisation
OCoCP	Outline Code of Construction Practice
OLEMS	Outline Landscape and Environmental Management Strategy
O&M	Operation and Maintenance
PBR	Potential Biological Removal
PEIR	Preliminary Environmental Information Report
PVA	Population Viability Analysis
pSPA	potential Special Protection Area
RoC	Review of Consents
SAC	Special Area of Conservation
SCI	Site of Community Importance
SIP	Site Integrity Plan
SMP	Soil Management Plan
SNCB	Statutory Nature Conservation Bodies
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SoCG	Statement of Common Ground
UXO	Unexploded Ordnance

Glossary of Terminology

Array cables	Cables which link wind turbine to wind turbine, and wind turbine to offshore electrical platforms.
Evidence Plan Process	A voluntary consultation process with specialist stakeholders to agree the approach to the EIA and information to support the HRA.
Export Cables	Cables that transmit power from an offshore electrical platform to the onshore project substation
Interconnector cables	Offshore cables which link offshore electrical platforms within the Norfolk Boreas site
Landfall	Where the offshore cables come ashore at Happisburgh South
Mobilisation area	Areas approx. 100 x 100m used as access points to the running track for duct installation. Required to store equipment and provide welfare facilities. Located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of heavy and oversized materials and equipment.
National Grid overhead line modifications	The works to be undertaken to complete the necessary modification to the existing 400kV overhead lines.
Necton National Grid substation	The grid connection location for Norfolk Boreas and Norfolk Vanguard.
Norfolk Boreas Site	The Norfolk Boreas wind farm boundary. Located offshore, this will contain all the wind farm array.
Offshore cable corridor	The corridor of seabed from the Norfolk Boreas site to the landfall site within which the offshore export cables will be located.
Offshore electrical platform	A fixed structure located within the Norfolk Boreas site, containing electrical equipment to aggregate the power from the wind turbines and convert it into a suitable form for export to shore.
Offshore export cables	The cables which transmit power from the offshore electrical platform to the landfall.
Offshore project area	The area including the Norfolk Boreas site, project interconnector search area and offshore cable corridor.
Offshore service platform	A fixed structure (if required) providing accommodation for offshore personnel. An accommodation vessel may be used instead.
Onshore cable route	The up to 35m working width within a 45m wide corridor which will contain the buried export cables as well as the temporary running track, topsoil storage and excavated material during construction.
Onshore project substation	A compound containing electrical equipment to enable connection to the National Grid. The substation will convert the exported power from HVDC to HVAC, to 400kV (grid voltage). This also contains equipment to help maintain stable grid voltage.
Project interconnector cable	Offshore cables which would link either turbines or an offshore electrical platform in the Norfolk Boreas site with an offshore electrical platform in one of the Norfolk Vanguard OWF sites.
Project interconnector search area	The area within which project interconnector cables would be installed.

The Applicant	Norfolk Boreas Limited
The Norfolk Vanguard OWF sites	Term used exclusively to refer to the two distinct offshore wind farm areas, Norfolk Vanguard East and Norfolk Vanguard West (also termed NV East and NV West) which will contain the Norfolk Vanguard arrays.
Trenchless crossing zone (e.g. HDD)	Areas within the onshore cable route which will house trenchless crossing entry and exit points.

1 INTRODUCTION

1. This Statement of Common Ground (SoCG) has been prepared between Natural England and Norfolk Boreas Limited (hereafter the Applicant) (together 'the parties') to set out the areas of agreement and ongoing discussion in relation to the Development Consent Order (DCO) application for the Norfolk Boreas Offshore Wind Farm (hereafter 'the project'). A full description of the project can be found in Chapter 5 of the Environmental Statement (document reference 6.1.5 of the Application, APP-218).

2. This SoCG comprises an agreement log which has been structured to reflect the topics of interest to Natural England with regard to the Norfolk Boreas DCO application (hereafter 'the Application'). The agreement logs (section 2.1 to 2.7) outline all topic specific matters agreed and those which are subject to ongoing discussion between Natural England and the Applicant.

3. The Applicant has had regard to the Guidance for the examination of applications for development consent (Department for Communities and Local Government, 2015) when compiling this SoCG. Matters that are not agreed will be the subject of ongoing discussion wherever possible to resolve or refine the extent of disagreement between the parties.

4. It is the intention that this document will help facilitate post-application discussions between the parties and also give the Examining Authority (ExA) an early sight of the level of common ground between both parties from the outset of the examination process.

5. Natural England wish it to be noted that the SoCG is a developer led process, with the Applicant providing the drafting and Natural England agreeing the wording. The document does not provide full detail on any issues; however, Natural England will provide an issues log with its outstanding issues outlined in full. This issues log is owned by Natural England and reflects their position; it should not be taken as a representation of the Applicant's position.

6. Natural England intends to update the issues log as issues are discussed and potentially resolved. Natural England propose that the issues log will be submitted at appropriate deadlines throughout the Examination. Natural England have also proposed that a further SoCG will only be submitted near the end of examination once all issues have been either resolved or progressed as far as possible, in order to reduce resource requirements by the need to repeat efforts. The Applicant understands that these proposals will be formally presented to the Examining Authority by Natural England in the response to the Rule 6 letter. It should be noted that these proposals represent the view of Natural England only.

1.1 Consultation with Natural England

7. This section briefly summarises the consultation that the Applicant has had with Natural England. For further information on the consultation process please see the Consultation Report (document reference 5.1 of the Application, APP-027).

1.1.1 Pre-Application

8. The Applicant has engaged with Natural England regarding the project during the pre-Application process, both in terms of informal non-statutory engagement and formal consultation carried out pursuant to Section 42 of the Planning Act 2008. Due to similarities between the Norfolk Boreas project and its 'sister' project Norfolk Vanguard, which is progressed one year ahead of Norfolk Boreas, early consultation with stakeholders was conducted for both projects concurrently. Although latterly, consultation has been undertaken separately for the two projects, Norfolk Boreas has had regard to the Norfolk Vanguard consultation and many of the agreements achieved for the Norfolk Vanguard project also apply to the Norfolk Boreas project.

9. During formal (Section 42) consultation, Natural England provided comments on the Preliminary Environmental Information Report (PEIR) by way of a letter dated 27th November 2018.

10. Further to the statutory Section 42 consultation, meetings were held with Natural England through the Evidence Plan Process.

11. Table 1 provides an overview of the key meetings and correspondence undertaken with Natural England for both projects. Minutes of the meetings are provided in Appendices 9.29 to 9.32, 9.43 to 9.45 (pre-Section 42) and Appendices 27.2 and 28.1 (post-Section 42) of the Consultation Report (document reference 5.1 of the Application, APP-027).

1.1.2 Post-Application

12. As part of the pre-examination process, Natural England submitted a Relevant Representation to the Planning Inspectorate on the 31st August 2019. Natural England has also engaged throughout the Examination deadlines. A series of meetings have been held between the Applicant and Natural England since the Application was submitted. These are summarised in Table 1.

Table 1 Summary of Consultation with the Natural England

Date	Contact Type	Topic
Pre-Application		
21st March 2016	Benthic and Geophysical Survey Scope Meeting	Discussion on the required scope of the geophysical surveys to inform the approach to the offshore surveys which cover the Norfolk Boreas offshore cable corridor

Date	Contact Type	Topic
		and part of the project interconnector search area. The surveys were conducted in Summer/Autumn 2016
22nd June 2017	Email from the Applicant	Provision of survey reports relevant to the Norfolk Boreas offshore cable corridor and project interconnector search area. These were discussed at the Norfolk Vanguard Benthic Ecology and Marine Physical Processes Expert Topic Group meeting held on the 7th July 2017.
17th November 2017	Email from the Applicant	Provision of a report demonstrating that the sediment contaminant samples and benthic ecology samples collected and analysed were sufficient to characterise the Norfolk Boreas site.
1st November 2017	Letter from the Natural England	Letter confirming that no additional sampling is required.
16th January 2018	Email from the Applicant	Provision of the following draft technical reports to support the Information to Support HRA report: • Appendix 7.1 ABPmer Sandwave study; and • Appendix 7.2 Envision Sabellaria data review
January/ February 2018	Emails from the Applicant	Provision of the following Method Statements to Natural England: • Marine Physical Processes, Marine water and Sediment Quality, Benthic and intertidal Ecology, Fish ecology (see Appendix 9.16 of the Consultation Report document reference 5.1.9.16 of the application APP-053); • Marine Mammal ecology (see Appendix 9.26 of the Consultation Report document reference 5.1.9.26 of the application APP-063); • Offshore ornithology (see Appendix 9.27 of the Consultation Report document reference 5.1.9.27 of the application APP-064); and • Onshore Ecology and Archaeology (see Appendix 9.17 of the Consultation Report document reference 5.1.9.17 of the application, APP-054).
12th March 2018	Norfolk Boreas- Marine mammal ETG Meeting	Agreement on the methods used to conduct the assessment (minutes provided in Appendix 9.43 of the Consultation report (document reference APP-082)).
14th March 2018	Norfolk Boreas- Marine Physical Processes, Benthic Ecology and Fish ETG meeting	Agreement of the methods to be used in the EIA (minutes provided in Appendix 9.43 of the Consultation report (document reference APP-080).
17th October 2018	Email from the Applicant.	Early provision of relevant chapters of the PEIR Chapter.
7th December 2018	Letter from the Natural England	Natural England response to the Norfolk Boreas PEIR.
18th February 2019	Onshore Ecology and ornithology ETG meeting	Onshore Ecology and Ornithology progress meeting to discuss section 42 responses and approach to Environmental Statement (document 5.1.28.1 of the Application, APP-192).
21st February 2019	Marine Mammals ETG meeting	Comments on PEIR and agreement on the approach to

Date	Contact Type	Topic
		HRA (minutes provided in Appendix 28.1 of the Consultation report (document reference 5.1.28.1 of the Application, APP-192)).
27th February 2019	Offshore Ornithology ETG meeting	Comments on PEIR and agreement on the approach to HRA (minutes provided in Appendix 28.1 of the Consultation report (document reference 5.1.28.1 of the Application, APP-192)).
22nd March 2019	Email from the Applicant	Provision of draft Norfolk Boreas Information to Support Habitats Regulations Assessment (HRA) report.
22nd March 2019	Email from the Applicant	Provision of draft DCO and other draft DCO documents for review
23rd April 2019	Letter from Natural England	Email from Natural England providing comments on the HRA
13th June 2019	Email from the Applicant	Provision of early access to relevant documents from the DCO application.
Post-Application		
31st August 2019	Relevant and Written Representations	Natural England's initial feedback on the DCO application.
30 September 2019	Email to Natural England	First draft of this SoCG provided to Natural England
21st October 2019	Meeting	To discuss Natural England's Relevant Representation and the draft SoCG

2 STATEMENT OF COMMON GROUND

13. Within the sections and tables below, the different topics and areas of agreement (marked as green) and areas for ongoing discussion (marked as orange) between Natural England and the Applicant are set out. Areas where agreement cannot be reached will be marked as red and notes for Examiners and/or competent authority are marked as purple.

14. The Applicant notes that in Natural England's Relevant Representation (RR-099) it is stated that:

"*Natural England feels that issues given Red status are so complex, or require the provision of so much outstanding information, that they are unlikely to be resolved during examination, and respectfully suggests that they be addressed beforehand*."

15. The Applicant will endeavour to resolve as many of the issues raised prior to the examination as evidenced by both the progression of this SoCG and continued engagement with Natural England. However, it is noted that there are a number of 'red status' issues on which there remains disagreement between Natural England and the Applicant; the Applicant is of course eager to progress these issues prior to the start of examination but the Applicant anticipates that they will predominantly be addressed further and/or resolved throughout the examination.

2.1 Marine Geology, Oceanography and Physical Processes

16. The project has the potential to impact upon Marine Geology, Oceanography and Physical Processes. Chapter 8 of the Norfolk Boreas Environmental Statement (ES) (document reference 6.1.8 of the Application, APP-221) provides an assessment of the significance of these impacts.

17. Table 2 provides areas of agreement (common ground) and areas of ongoing discussion regarding Marine Geology, Oceanography and Physical Processes.

Table 2 Agreement Log - Marine Geology, Oceanography and Physical Processes

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Site Selection and Project Design			
Landfall	Landfall at Happisburgh South is the most appropriate of the options available, avoiding the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ).	Agreed	It is agreed by both parties that landfall at Happisburgh South is a viable option.
Landfall	The design of the landfall works will adopt a highly conservative approach to ensure cables do not become exposed as a result of erosion. A construction method statement, including cable landfall, must be agreed with the MMO prior to construction, as required under the Deemed Marine Licence (DML) Schedules 11 and 12 Part 4 Condition 9(c)(iv).	Agreed, following receipt of further information from Norfolk Vanguard Limited on 29/11/2018 Natural England is satisfied that the specific issues relating to the assessment of coastal erosion at Happisburgh have been resolved.	It is agreed by both parties that the design of the landfall works will adopt a suitably conservative approach to ensure cables do not become exposed as a result of erosion
Environmental Impact Assessment			
Existing Environment	Survey data collected for Norfolk Boreas used in the characterisation of Marine Geology, Oceanography and Physical Processes are suitable for the assessment as agreed during the survey scope meetings in March 2016 (the offshore cable corridor) and February 2017 (the Norfolk Boreas site).	Agreed	Agreed
	The ES adequately characterises the baseline environment in terms of Marine Geology, Oceanography and Physical Processes.	Agreed	Agreed
Assessment methodology	The list of potential impacts assessed for Marine Geology, Oceanography and Physical Processes is appropriate	Agreed	Agreed
	The impact assessment methodologies used provide an appropriate approach to assessing potential impacts of the proposed project. In particular: • The assessment uses expert judgement based upon knowledge of the sites and available contextual information (Zonal and East Anglia ONE studies and modelling); therefore no new modelling (e.g. sediment plumes or deposition) was undertaken for the assessment	Agreed	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	• The definitions used of sensitivity and magnitude in the impact assessment are appropriate. These are in line with the Method Statement provided in February 2018 (see Appendix 9.16 of the Consultation Report (document reference 5.1 of the consultation report) and as discussed during expert topic group meetings.		
	The worst case scenario used in the assessment for Marine Geology, Oceanography and Physical Processes is appropriate. This includes a conservative assessment for cable installation based on pre-sweeping as well as potential reburial requirements.	Agreed, although it is noted by Natural England in the Relevant Representation (Appendix 2 of RR-099) that there is currently no evidence that sandwave levelling ensures cables remain buried and therefore there is no future need for reburial or cable protection.	Agreed
	Cable protection will only be required at cable crossing locations and in the unlikely event that hard substrate (i.e. areas that are not Annex 1 Sandbank) is found along the cable route that cannot be avoided. The Haisborough Hammond and Winterton (HHW) SAC SIP ensures that the deployment of cable protection must be agreed with the MMO in consultation with Natural England prior to construction. For cables outside the HHW SAC, the Scour Protection and Cable Protection Plan (required under DCO Schedules 9 and 10 Part 4 Condition 14(1)(e) and Schedules 11 and 12 Part 4 Condition 9(1)(e)) provides the mechanism for the volume, extent and location of cable protection to be agreed with the MMO in consultation with Natural England prior to construction and Condition 22 of Schedules 9 and 10 requires that the location, volume and any other information relating to cable protection is reported to the MMO and Natural England within four months of the construction phase being complete.	Agreed that cable protection should only be used at essential locations such as cable crossings. Natural England notes that past experience has shown that additional cable protection has often been required beyond that which is expected. Agreed, for outside of MPAs. However as noted in the Relevant Representation (RR-099) Natural England has concerns in relation to cable protection within designated sites. Please also note that the MMO and Natural England are producing a joint position on cable protection that will be available during the examination.	Area for ongoing Discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	The Applicant commissioned an Interim Cable Burial Study following consultation with Natural England which has allowed the Applicant to commit to reducing the cable protection contingency from 10% which is the quantity included within the application to 5%. The HHW SAC SIP (APP -711), which will be updated to reflect this further commitment, ensures that the deployment of cable protection must be agreed with the MMO in consultation with Natural England prior to construction. Diagram 5.2 in the Outline HHW SAC SIP outlines the process regarding minimising cable protection for potential unburied cable and seeking agreement from the MMO in consultation with Natural England.	Not agreed. As outlined in Appendix 2 of the Relevant Representation (RR-099) Natural England have concerns with the principle of the HHW SIP particularly with cable protection within the SAC, even with the 5% reduction in cable protection, these commitments may still be considered insufficient to agree no AEoI at the pre-construction stage.	Area for ongoing discussion
Project alone assessment findings	The conclusions of the impact assessments of no impact or negligible are appropriate.	As stated in Appendix 2 of the Relevant Representation (RR-99 section 280) Natural England does not agree there will be negligible impact.	Agreed for all impacts apart from changes in suspended sediment concentrations due to cable installation within the offshore cable corridor
Cumulative Impact Assessment (CIA)	The plans and projects considered within the CIA are appropriate and as agreed during the expert topic group meeting in March 2018.	Agreed	It is agreed by both parties that the plans and projects included in the CIA are appropriate.
	The CIA methodology is appropriate.	Agreed	Agreed
	The cumulative impacts between Norfolk Boreas and Norfolk Vanguard in the HHW SAC will be considered further based on latest evidence and pre-construction survey findings in the development of the HHW SAC SIP.	As stated in Appendix 2 of the Relevant Representation (RR-099 Natural England does not believe that they [SIPs] are appropriate for benthic issues where a worst case scenario can be determined.	Area for ongoing discussion
Habitats Regulations Assessment (HRA)			
Screening of Likely Significant Effect (LSE)	The approach to HRA Screening is appropriate. The following site is screened in for further assessment as agreed during the expert topic group meeting in February 2019: Haisborough, Hammond and Winterton SAC	Agreed	Agreed
Assessment of	The approach to the assessment of AEoI is appropriate.	Agreed	It is agreed by both parties that

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Adverse Effect on Integrity			the approach to the assessment of potential adverse effects on site integrity presented in the Information to Support HRA report (APP-201) is appropriate
	The physical processes of Annex 1 Sandbanks in the Haisborough, Hammond and Winterton SAC has the potential to recover from construction activities, within the range of natural variation.	Agreed, noting that there is limited empirical evidence and sandbank recovery should be monitored (see monitoring below). It is also not clear how single build vs phased build and either option in combination with Norfolk Vanguard has been assessed.	Area for ongoing discussion
	The small scale of cable protection assessed will not interfere with the physical processes (e.g. bed level, morphology, sediment transport) associated with the Annex 1 Sandbanks. Due to the patterns of erosion, accretion and movement of sand waves naturally occurring within the offshore cable corridor (discussed in Appendix 7.1 of the Information to Support HRA report) it is expected that the cable protection may undergo some periodic burial and uncovering and therefore there would be no adverse effect on the form and function of the Sandbanks.	Not agreed. Natural England does not agree there will be negligible impact on the sandbank feature and relevant attributes (volume, extent, morphology etc. described in the supplementary advice on conservations objectives[1]). Natural England have a number of concerns regarding the Appendix 7.1 which are detailed within the relevant section of Appendix 2 of the Relevant Representation.	Area for ongoing discussion
	The HHW SAC SIP combined with the Transmission DML Condition 9(1)(m) allows a conclusion of no AEOI to be made at the consent determination stage on the basis that it restricts the commencement of construction until such time that mitigation measures can be adopted to rule out an AEoI.	Not Agreed. As stated in the Relevant Representation. Natural England do not believe that SIPs are an appropriate means of avoiding adverse effect on site integrity for benthic issues where a worst case scenario can be determined.	Area for ongoing discussion

[1] https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK0030369&SiteName=hais&SiteNameDisplay=Haisborough%2c+Hammond+and+Winterton+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Management Measures – Mitigation and Monitoring			
Monitoring	The In Principle Monitoring Plan (document 8.12), provides an appropriate framework to agree monitoring with the MMO in consultation with Natural England As stated in the In Principle Monitoring Plan (APP-703), swath-bathymetric survey would be undertaken pre- and post-construction in order to monitor changes in seabed topography, including any changes as a result of sand wave levelling. It is acknowledged that the purpose of the post-construction monitoring is to address evidence gaps in this area as well as for engineering purposes.	Agreed, noting that as stated in the Relevant Representation Natural England advise that a pre-construction sandwave levelling report and assessment is required to ensure that the results of any further monitoring and specific site characteristics are taken into consideration and the impacts remain within the parameters assessed especially in relation to orientation of levelling to wave and involvement in troughs. This should be secured as part of the DML.	Area of Ongoing discussion.
Mitigation and Management	All seabed material arising from the Haisborough, Hammond and Winterton SAC during cable installation would be placed back into the SAC using an approach, to be agreed with the Marine Management Organisation (MMO) in consultation with Natural England. The HHW SAC is an open system with sediment both entering and leaving it around the boundaries. The proposed works are over 6km from the southern boundary) and are unlikely to bring about any disruption to the transport regime. Therefore, the movement in and out of the HHW SAC as occurs at present will continue, irrespective of the proposed dredging or disposal activities as discussed in the Information to Support HRA report Appendix 7.1 ABPmer Sandwave Study. The methods for sediment disposal would be agreed through the Cable Specification, Installation and Monitoring Plan, required under the draft DCO Schedules 9 and 10 Part 4 Condition 14(1)(g) and Schedules 11 and 12 Part 4 Condition 9(1)(g) and would be based on latest evidence, engineering knowledge and pre-construction surveys.	Only agreed if material remains in the site after deposition, modelling will need to demonstrate this.	It is agreed by both parties that seabed material arising from the Haisborough, Hammond and Winterton SAC during cable installation would be placed back into the SAC using an approach, to be agreed with the MMO in consultation with Natural England.

2.2 Benthic and Intertidal Ecology

18. The project has the potential to impact upon Benthic and Intertidal Ecology. Chapter 10 of the Norfolk Boreas ES (document reference 6.1.10 of the Application, APP-223) provides an assessment of the significance of these impacts.

19. Table 3 provides areas of agreement (common ground) and areas for ongoing discussion regarding Benthic and Intertidal Ecology.

Table 3 Agreement Log - Benthic and Intertidal Ecology

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Site Selection and Project Design			
Landfall	Landfall at Happisburgh avoids impacts on the Cromer Shoal Chalk Beds MCZ	Agreed	It is agreed by both parties that landfall at Happisburgh avoids impacts on the Cromer Shoal Chalk Beds MCZ
Environmental Impact Assessment			
Existing Environment	Survey data collected for Norfolk Boreas for the characterisation of Benthic and Intertidal Ecology are suitable for the assessment as agreed in the survey planning meeting in March 2016 and the expert topic group meeting in March 2018.	Agreed	Agreed
	The ES adequately characterises the baseline environment in terms of Benthic and Intertidal Ecology. For the purposes of the EIA, the site characterisation has identified the potential extent and location of *S. spinulosa* reef as far as reasonably practicable. This has allowed the EIA to assess potential impacts on *Sabellaria* reef. The assessment does not discount "low reef". Figure 7.2 of the Information to Support HRA report presents a map of potential *Sabellaria* reef extent based on medium to high confidence of reef presence (N.B. this includes reef of any reefiness characteristic, including low). *Sabellaria* reef identified during the Norfolk Boreas benthic surveys in 2016 and 2017 was found to be of low or medium reefiness and this is included in the assessment.	Agreed, although noting the uncertainty associated with *S. spinulosa* reef mapping due to the ephemeral nature of the reef, the analytical use of a range of datasets, and the confidence levels applied to reef presence	It is agreed by both parties that the ES adequately characterises the baseline environment in terms of Benthic and Intertidal Ecology, although noting the uncertainty associated with *S. spinulosa* reef mapping.
	The approach to *S. spinulosa* reef mapping is appropriate to inform the EIA based on the data available. The assessment does not discount "low reef". It should be noted however that by definition, "low reef" is inherently patchy (with only 10-20% coverage, Gubbay	Not agreed. Natural England has uncertainty associated with *S. spinulosa* reef mapping due to the ephemeral nature of the reef, the analytical use of a range of datasets, and the confidence levels applied to reef presence Appendix 2 (RR-099)	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	(2007)[2]) and therefore increases the potential for micrositing. Medium reef also has high potential for micrositing, being classified by 20-30% coverage. The Applicant agrees there is uncertainty associated with *S. spinulosa* reef mapping due to the ephemeral nature of the reef. The HHW SAC SIP provides a framework for further consideration of the effects on *Sabellaria* reef in the HHW SAC to be made prior to construction, based on the results of the pre-construction surveys. The surveys and the SIP will be developed in consultation with Natural England.		
	The mapping of potential *S. spinulosa* reef by Envision on behalf of Norfolk Boreas (and Norfolk Vanguard Limited) identifies potential reef areas which are largely consistent with areas Natural England has identified (as shown on Figure 2.1 below).	Agreed	Agreed
Assessment methodology	Appropriate legislation, planning policy and guidance relevant to Benthic and Intertidal Ecology has been used.	Agreed, but with the caveat that there is disagreement between the parties on the application of the Habitats Directive. Please see Natural England issues log which will be submitted at Deadline 2.	Ongoing discussion
	The list of potential impacts on Benthic and Intertidal Ecology assessed is appropriate.	Agreed	Agreed
	The EIA impact assessment methodology is appropriate, and is in line with the Method Statement provided in February 2018 (See Appendix 9.16 of the consultation report, APP-053) and agreed during the Norfolk Boreas ETG in March 2018 (APP-066).	Agreed, with the exception of assessment of impacts on the HHW SAC. Further details are provided within the Relevant Representation (RR-099).	Agreed, except for the assessment of impacts within the HHW SAC

[2] Gubbay (2007) Defining and managing *Sabellaria spinulosa* reefs: Report of an inter-agency workshop 1-2 May, 2007

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	The worst case scenario used in the assessment for Benthic and Intertidal Ecology is appropriate.	As stated in the Relevant Representation (RR-099) more information on cable burial operations is needed for us to agree this position. We acknowledge that much of the technical detail will only be available post-consent, and as such, we strongly recommend that the Applicant's assessment must be considered with sufficient precaution added to allow for significant, post-consent increases in worst case scenarios, especially when operations occur within Marine Protected Areas. Please see following point.	Area for ongoing discussion
	Should additional cable protection be required during maintenance this would be subject to additional consent/licensing.	Agreed, for outside of MPAs. However as noted in the Relevant Representation (RR-099) this should be made explicit in the Outline Scour and Cable protection Plan. Please also note that the MMO and Natural England are producing a joint position statement on cable protection that will be available during examination.	Area for ongoing discussion
	It is the Applicant's preference to cut and remove redundant cables where possible. This requires agreement from the owners of the redundant cable, and therefore until this can be agreed post consent, an assumption that nine existing cables will be crossed has been assessed in order to provide a conservative assessment. In the HHW SAC, the cable installation method and deployment of cable protection must be agreed with the MMO in consultation with Natural England through the HHW SAC SIP. Outside the HHW SAC, the cable installation methodology will be agreed with the MMO through the Construction Method Statement. The Scour Protection and Cable Protection Plan will be updated as the final design of the project develops and must be agreed with the MMO prior to construction. This will include	Agreed, however Natural England advises that where there are out of service cables, in the HHW SAC, it would be better to reduce impacts by cutting cables rather than introducing unnecessary hard substrate to cross redundant cables. In addition, where strictly necessary the type of cable protection should be selected on the basis of least environmental impact at each particular location.	It is agreed by both parties that it is preferable to cut and remove redundant cables where possible subject to agreement from the cable owner(s). However Natural England reserve the right to review its position once the joint position statement on cable protection has been published.

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	justification of the location, type and volume/area of essential cable protection based on crossing agreements and preconstruction surveys.		
Assessment findings	The characterisation of receptor sensitivity is appropriate. <u>*Sabellaria spinulosa* reef</u> Gibb *et al.* (2014)[3] reports that *S.spinulosa* reef has medium sensitivity to habitat change where the change represents an increase in fine sediments which is not applicable to Norfolk Boreas. Gibb *et al.* (2014) also states that *Sabellaria spinulosa* reef is considered to be 'Not Sensitive' to a change which results in increased coarseness.	Mostly agreed, however all references in the document should note that *S. spinulosa* reef has medium sensitivity to heavy smothering and habitat change and high sensitivity to habitat loss.	Mostly agree apart from for *S. spinulosa* reef
	The magnitude of effect is correctly identified.	As stated in the Relevant Representation (RR-099) the magnitude of the impact to *S.spinulosa* reef is only low if micro-siting is possible. Natural England has several concerns related to the Applicant's ability to successfully microsite to avoid *S.spinulosa* reef. These are provided in the relevant representation (Appendix 2).	Area for ongoing discussion
	There would be no permanent loss of *S. spinulosa* reef as this is an ephemeral species which is likely to recolonise.	Not agreed. Evidence presented to date is in relation to recovery of individuals and not Annex I reef. And particularly disagree due to potential for cable protection.	Not Agreed
	The impact significance conclusions of negligible or minor adverse for Norfolk Boreas alone are appropriate.	Not agreed. Natural England has concerns relating to the significance conclusions made for impacts on *S.spinulosa* reef (further detail is provided within the Relevant Representation, RR-099).	Area for ongoing discussion
CIA	The plans and projects considered within the CIA are appropriate as agreed during the expert topic group meeting in March 2018.	Agreed	Agreed

[3] Gibb, N., Tillin, H., Pearce, B. & Tyler-Walters, H. (2014). Assessing the sensitivity of Sabellaria spinulosa reef biotopes to pressures associated with marine activities. Available at: http://jncc.defra.gov.uk/PDF/JNCC_Report_504_web.pdf

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	The cumulative impacts between Norfolk Boreas and Norfolk Vanguard in the HHW SAC will be considered further in the development of the HHW SAC SIP (APP-711).	Not agreed. Natural England has a number of concerns with the HHW SIP and its suitability for use for the project; these are detailed in Natural England's Relevant Representation (Appendix 2).	Area for ongoing discussion
Habitats Regulations Assessment (HRA)			
Screening of LSE	The approach to HRA Screening is appropriate. The following site is screened in for further assessment as agreed during the expert topic group meeting in February 2019: • Haisborough, Hammond and Winterton SAC.	Agreed	Agreed
Assessment of Adverse Effect on Integrity	The effects on the HHW SAC will be considered further through the HHW SAC SIP based on pre-construction survey findings, available evidence and latest guidance prior to construction.	Not agreed. Natural England has a number of concerns with the HHW SIP and its suitability for use for the project; these are detailed in Natural England's Relevant Representation (RR-099, Appendix 2).	Area for ongoing discussion
	The communities of Annex 1 Sandbanks in the Haisborough, Hammond and Winterton SAC will recover as the physical processes of the Sandbanks recover within the range of natural variation as the communities are habituated to highly mobile sediments.	Not agreed, Natural England acknowledges that the mobile nature of this particular sandbank system would make it more likely to recover from changes in structure than less mobile ones however as noted in the relevant representation there is currently no evidence that Natural England has seen that sandwave levelling ensures cables remain buried and there is no future need for reburial or cable protection. Whilst this has been asserted by a number of projects we are yet to understand if this is the reality.	Area for ongoing discussion
	Based on available data, micrositing around *S. spinulosa* reef is likely to be possible. However, it is acknowledged that *S. spinulosa* reef extent may change prior to construction of Norfolk Boreas and therefore pre-construction surveys are required to determine the extent of *S. spinulosa* reef at that time. A cable specification, installation and monitoring plan, must be agreed with the MMO in consultation with Natural England as discussed under 'Mitigation and Management' below. This will provide the mechanism to agree cable routing/micrositing.	Not agreed, Natural England has outlined concerns within the Relevant Representation (RR0-99) regarding the Applicant's ability to microsite around Sabellaria reef.	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	In the unlikely event that micrositing around *S. spinulosa* reef is not possible, a small proportion of reef may be temporarily disturbed. *S. spinulosa* in its individual and reef forms, is known to be ephemeral and opportunistic and can be expected to recover/recolonise within the range of natural variation. Therefore, a small proportion of temporary disturbance to *S. spinulosa* reef would not cause an adverse effect on the restoration objective of the Haisborough, Hammond and Winterton SAC. The following references provide examples of evidence that *S. spinulosa* reef can be expected to recover/recolonise: Tillin and Marshall, 2015; OSPAR Commission, 2010; Holt, 1998; Cooper *et al*., 2007; Pearce *et al*., 2007. As stated in Natural England's position, there is a high likelihood that *Sabellaria spinulosa* reef will recover/develop following cessation of disturbance from fisheries. This would also apply following cable installation.	Not agreed, there is currently a restore objective for reef features of HHW SAC. Site management measures are being developed for other operations likely to damage the interest features of the site and will be implemented in the future. In the absence of those pressures there is a high likelihood that *Sabellaria spinulosa* reef will recover/develop. One such management measure that is being considered is the use of fisheries byelaws to protect areas where *Sabellaria spinulosa* reef have been shown to be regularly present. Therefore, it is hoped that more extensive *Sabellaria spinulosa* reefs will be restored in these areas, and that existing encrusting and low quality reef will develop into higher quality reef habitat. Natural England would therefore advise that cable installation activities are avoided in these areas. In addition, the evidence presented in the HRA to support conclusions on recoverability relates only to individuals/abundance, but not to reef. Thus we have limited confidence in the ability of reef to recover from cable installation activities. Therefore, we further advocate that the standard mitigation measure of avoidance is adhered to.	Area for ongoing discussion
	Cable protection would not affect the potential of *S. spinulosa* reef to recover within the Haisborough, Hammond and Winterton SAC as *S. spinulosa* reef can be expected to colonise cable protection as an artificial substrate, in accordance with the UK Biodiversity Action Plan Priority Habitat Description for *S. spinulosa* Reefs (JNCC, 2016[4]):	Not agreed, Natural England does not consider the colonisation of artificial sub-sea structures as beneficial as it is not natural change. Natural England considers that the cable protection will result in permanent loss of habitat.	Area for ongoing discussion

[4] http://jncc.defra.gov.uk/page-5706

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	"S. spinulosa requires only a few key environmental factors for survival in UK waters. Most important seems to be a good supply of sand grains for tube building, put into suspension by strong water movement....The worms need some form of hard substratum to which their tubes will initially be attached, whether bedrock, boulders, artificial substrata, pebbles or shell fragments." The HHW SAC SIP ensures that the deployment of cable protection must be agreed with the MMO in consultation with Natural England prior to construction. Diagram 5.2 in the Outline HHW SAC SIP outlines the process regarding minimising cable protection for potential unburied cable and seeking agreement from the MMO in consultation with Natural England.		
	The HHW SAC SIP combined with the Transmission DML Condition 9(1)(m) allows a conclusion of no AEOI to be made at the consent determination stage on the basis that it restricts the commencement of construction until such time that mitigation measures can be adopted to rule out an AEoI. If a solution cannot be agreed for that would allow the MMO in consultation with Natural England to be confident that there would be no AEoI, the Applicant would need to consider: a New Marine Licence application, a variation to existing red line boundary or a variation to the Transmission DML Condition 9(1)(m) to allow a finding of AEoI should the project satisfy the HRA Assessment of Alternatives, Imperative Reasons of Overriding Public Interest (IROPI) and Compensatory Measures tests.	Not Agreed. Natural England have a number of concerns with the HHW SIP and its suitability for use for the project, these are detailed in Natural England's Relevant Representation, Appendix 2 (RR-099).	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Management Measures – Mitigation and Monitoring			
Mitigation and Management	A 50m buffer from *S. spinulosa* reef is proposed for disposal of sediment in accordance with advice provided by Natural England by email to the Norfolk Vanguard Project. The method by which sediment within the SAC would be disposed of would be agreed through the HHW SIP	Not Agreed. As noted in the Relevant Representation (RR-099), for offshore designated sites the appropriate buffer is normally 500m and therefore further justification for a reduced buffer should be considered to ensure a consistent approach across sites and industry. If the sediment is to be surface released then this needs to be taken account of and release points identified at specific states of the tide that will ensure the resting place of the bulk of the material is a minimum of 50m from S*abellaria spinulosa* reef identified in pre-construction surveys (noting *Sabellaria spinulosa* is tolerant to a certain amount of smothering, but the volumes being discussed here are large). This needs to be a licence condition.	Area for ongoing discussion
	The Conditions of the DMLs (Schedules 9, 10, 11 12, and 13; Part 4) state that a cable specification, installation and monitoring plan, must be agreed with the MMO. This includes a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques. This gives the MMO and their advisors the opportunity to input to the cable laying plan including the cable route and potential for micrositing.	Agreed, noting that on the basis of current survey data micrositing around reef in cable corridor should be possible but due to its ephemeral nature, this may not be the case pre-construction. It should be noted that these conditions do not address Natural England's current adverse effect on integrity concerns. But are in line with standard OWF licence requirements.	It is agreed by both parties that the cable specification, installation and monitoring plan gives the MMO and their advisors the opportunity to input to the cable laying plan including the cable route and potential for micrositing.
	The HHW SAC SIP ensures that the deployment of cable protection must be agreed with the MMO in consultation with Natural England prior to construction. Diagram 5.2 in the Outline HHW SAC SIP outlines the process regarding minimising cable protection for potential unburied cable and seeking agreement from the MMO in consultation with Natural England.	Natural England agrees that cable protection for the HHW SAC must be agreed with the MMO in consultation with Natural England prior to construction. However, Natural England currently have a number of concerns with the HHW SIP and its suitability for use for the project, these are detailed in Natural England's Relevant Representation (RR-099, Appendix 2). Please note that Natural England and the MMO hope to	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
		provide further clarification on this during the examination.	
Monitoring	The In Principle Monitoring Plan (APP-703) provides an appropriate framework to agree monitoring with the MMO in consultation with Natural England.	Agreed, Natural England advises in the relevant representation that a pre-construction sand wave levelling report and assessment is required to ensure that the results of any further monitoring and specific site characteristics are taken into consideration and the impacts remain within the parameters assessed especially in relation to orientation of levelling to wave and involvement in troughs. This should be secured as part of the DML. Please note that depending upon project determination and discussion through examination, pre-construction benthic monitoring of all features within the MPA additional monitoring to that of Annex I sandbanks would be required.	It is agreed by both parties that the In Principle Monitoring Plan (document 8.12), provides an appropriate framework to agree monitoring with the MMO in consultation with Natural England. The principles set out in the IPMP reflect that monitoring of all Annex 1 features will be required to demonstrate that the designated features within the SAC are not significantly impacted by the construction of the project and that the project has not inhibited recovery of the SAC toward favourable condition.

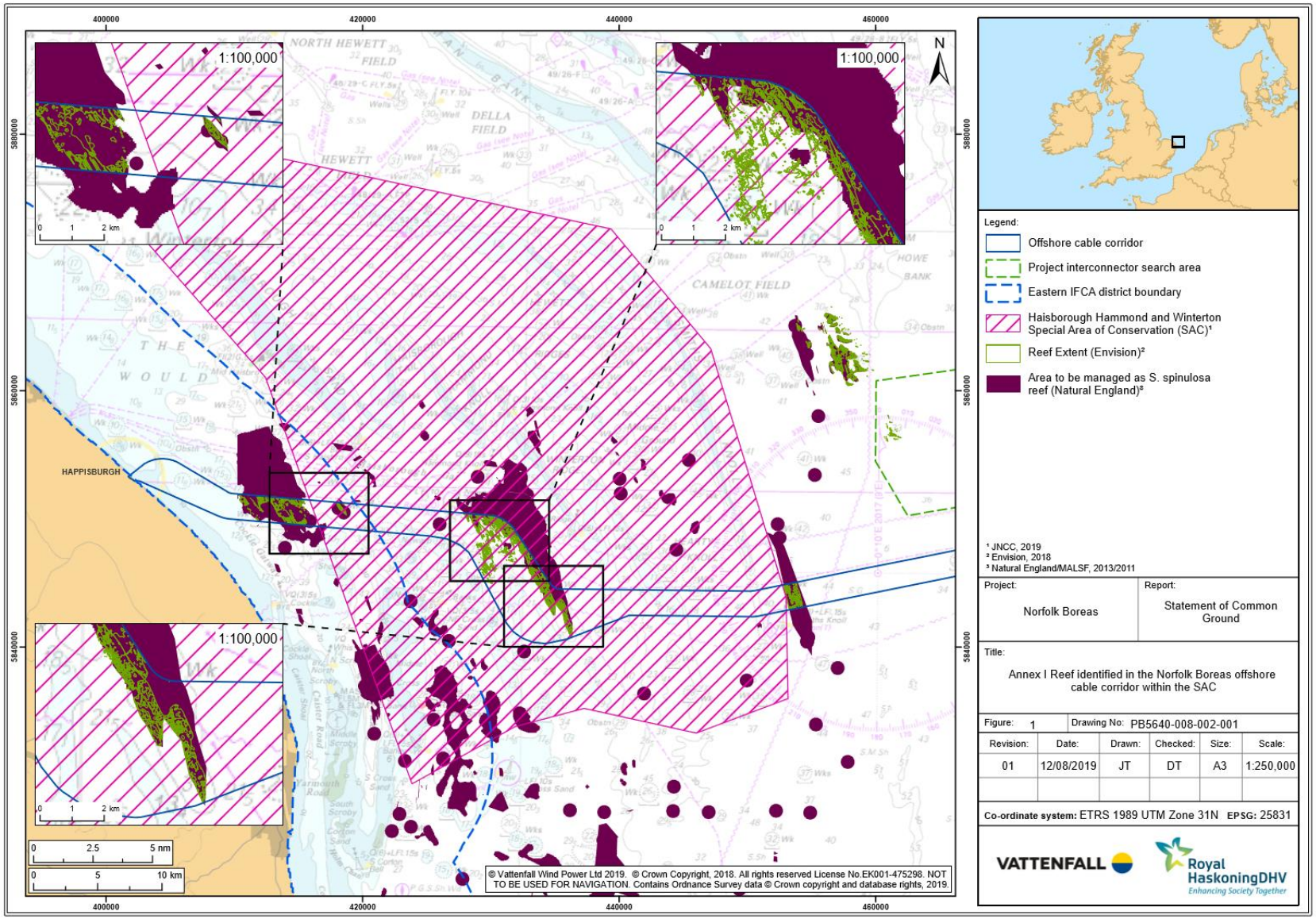

Figure 1 *Sabellaria spinulosa* reef mapping by the Applicant and Natural England

2.3 Fish and Shellfish Ecology

20. The project has the potential to impact upon Fish and Shellfish Ecology. Chapter 11 of the Norfolk Boreas ES (document reference 6.1.11 of the Application, APP-225a) provides an assessment of the significance of these impacts.

21. Table 4 provides areas of agreement (common ground) and areas for ongoing discussion regarding Fish and Shellfish Ecology.

Table 4 Agreement Log - Fish and Shellfish Ecology

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Environmental Impact Assessment			
Existing Environment	The ES adequately characterises the baseline environment in terms of Fish and Shellfish Ecology. No site specific survey data is required for the characterisation of Fish and Shellfish Ecology as agreed during ETG meetings in March 2018.	The ES Fish and Shellfish ecology focuses mainly on marine species and there is currently only limited assessment of freshwater or diadromous sp or consideration of potential impacts of proposed project infrastructure such as open cut trenching on fish species. We would like further information regarding potential impact of open cut trenching and management measures on fish species.	Area for ongoing discussion. However, the Applicant feel that these matters should be included under the topic of Onshore Ecology (see section 2.6).
Assessment methodology	Appropriate legislation, planning policy and guidance relevant to Fish and Shellfish Ecology has been used.	Agreed	Agreed
	The list of potential impacts on Fish and Shellfish Ecology assessed is appropriate.	Agreed	Agreed
	The impact assessment methodology is appropriate, and is in line with the Method Statement provided in February 2018 (see Appendix 9.16 of the Consultation Report (APP-053)) and agreed during the topic group meeting in March 2018.	Agreed	Agreed
	The worst case scenario used in the assessment for Fish and Shellfish Ecology is appropriate.	Agreed	Agreed
Assessment findings	The characterisation of receptor sensitivity is appropriate.	Agreed	Agreed
	The magnitude of effect is correctly identified.	Agreed	Agreed
	The impact significance conclusions of negligible or minor adverse for Norfolk Boreas alone are appropriate.	Agreed	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Cumulative Impact Assessment (CIA)	As agreed through the EPP, the methodology including the plans and projects considered within the CIA and the outcomes of the assessment are appropriate. The Applicant undertook a screening exercise and screened out all developments apart from wind farms and aggregate sites.	The CIA should incorporate all proposed developments within the Zones of Influence and not be limited to just wind farms and aggregate.	Ongoing discussion
Management Measures – Mitigation and Monitoring			
Mitigation and Management	As agreed through the EPP, given the impacts of the project, the embedded mitigation outlined in section 11.7.1 of Chapter 11 is adequate.	If necessary would like to see incorporation of mitigation for fish species at open cut trenching locations.	Ongoing discussion. However the Applicant feels that these matters are covered under the Topic of Onshore Ecology (see section 2.6).
Monitoring	Given the minor impacts of the project, no monitoring is proposed for fish and shellfish ecology. The In Principle Monitoring Plan provides a framework to agree monitoring post consent.	Agreed	Agreed

2.4 Marine Mammals

22. The project has the potential to impact upon Marine Mammals. Chapter 12 of the Norfolk Boreas ES (document reference 6.1.12 of the Application, APP-225) provides an assessment of the significance of these impacts.

23. Table 5 provides areas of agreement (common ground) and areas for ongoing discussion regarding Marine Mammals.

Table 5 Agreement Log – Marine Mammal Ecology

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Environmental Impact Assessment			
Existing Environment	Survey data collected for Norfolk Boreas for the characterisation of marine mammals are suitable for the assessment.	Agreed	Agreed
	The ES adequately characterises the baseline environment in terms of marine mammals.	Agreed	Agreed
Assessment methodology	Appropriate legislation, planning policy and guidance relevant to marine mammals has been used.	Agreed	Agreed
	The list of potential impacts on marine mammals assessed is appropriate.	Agreed	Agreed
	Harbour porpoise, grey seal and harbour seal are the only species of marine mammal required to be considered in the impact assessment.	Agreed Other marine mammal species are at such low density that it is not necessary to assess further.	Agreed
	The reference populations as defined in the ES are appropriate.	Agreed	Agreed
	The approach to underwater noise modelling and assessment of impacts from pile driving noise for marine mammals follows current best practice and is therefore appropriate for this assessment as agreed during the expert topic group meeting in March 2018.	Agreed	Agreed
	The impact assessment methodology is appropriate.	Agreed	Agreed
	The worst case scenario for Norfolk Boreas alone used in the assessment for marine mammals is appropriate.	Agreed.	Agreed
	Unexploded Ordnance (UXO) clearance is considered in the EIA to provide a conservative assessment but would be subject to additional licensing once the nature and extent of UXO	Agreed	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	present is known following pre-construction surveys. This licensing would be supported by a UXO Marine Mammal Mitigation Protocol (MMMP).		
Assessment findings	The characterisation of receptor sensitivity is appropriate.	Agreed	Agreed
	The magnitude of effect is correctly identified.	Agreed	Agreed
	The impact significance conclusions of negligible or minor for Norfolk Boreas alone are appropriate.	Agreed	Agreed
Cumulative Impact Assessment (CIA)	The plans and projects considered within the CIA are appropriate.	Agreed	Agreed
	The CIA methodology is appropriate.	Agreed	Agreed
	The cumulative impact conclusions of negligible or minor significance are appropriate. The Southern North Sea SIP (DCO Schedules 9 and 10 Part 4 Condition 14(1)(m) and Schedules 11 and 12 Part 4 Condition 9(1)(l))) provides the framework to agree appropriate mitigation measures based on the latest guidance and provides the mechanism for the MMO to ensure that disturbance can be limited to an acceptable level, as piling cannot commence until the MMO is satisfied that there would be no adverse effect on integrity. As outlined in the In Principle Site Integrity Plan (Table 2.1 of document 5.3), it is proposed that the Site Integrity Plan would be updated to capture all relevant assessments and mitigation measures. The Applicant agrees that a strategic mechanism is required from the Regulator to ensure that disturbance can be limited to an acceptable level. In accordance with the Marine Management	Natural England is broadly in agreement that the implementation of the SIP is appropriate. However as stated in the Relevant Representation (RR-099) a mechanism needs to be developed by the regulators to ensure continuing adherence to the SNCB thresholds over time. Multiple SIPs will be developed, piling can take place over several years, and new projects can come online during this time. Should potential exceedance of the thresholds occur, a process for dealing with this issue needs to be in place – the affected developers / industries will need to work together with the regulator and SNCBs to prevent adverse effect on the Southern North Sea SAC. Until the mechanism by which the SIPs will be managed, monitored and reviewed is developed, Natural England are unable to advise that this approach is sufficient to address the in-combination impacts and therefore the risk of adverse effect on integrity on the Southern North Sea SAC cannot be fully ruled out.	It is agreed by both parties that a strategic mechanism is required from the Regulator to ensure that disturbance can be limited to an acceptable level. The current requirement for a SIP is sufficient to allow any mechanism to be fully incorporated without need for variation. However, without a mechanism in place to manage the SIPs then Natural England are concerned that an AEoI could remain.

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	Organisation's Deadline 6 submission in the Norfolk Vanguard examination, the Applicant considers that the current requirement for a SIP is sufficient to allow any mechanism to be fully incorporated without need for variation.		
Habitats Regulations Assessment (HRA)			
Screening of LSE	The Approach to HRA Screening is appropriate. The following sites are screened in for further assessment: • Southern North Sea SAC • Humber Estuary SAC • The Wash and North Norfolk Coast SAC • Winterton-Horsey Dunes SAC • Klaverbank SAC • Noordzeekustzone SAC	Agreed	It is agreed by both parties that the designated sites and potential effects screened in for further assessment are appropriate.
Assessment of Adverse Effect on Integrity	The approach to the assessment of AEoI is appropriate.	Agreed	Agreed
	The reference populations as defined in the Information to Support HRA report are appropriate.	Agreed	Agreed
	The conclusions of the Information to Support HRA report are appropriate for Norfolk Boreas alone. For the in-combination assessment of grey seal, to take into account the wide ranging movements of the species and the large area covered by the in-combination projects that have been included, it is much more appropriate to use the wider reference population for assessment, which includes the South East England, North East England, and South Coast Scotland MUs and the Waddenzee. Using	Agreed, however Natural England would welcome further discussion with the Applicant regarding their conclusion of no adverse effect on integrity of the Humber Estuary SAC considering up to 37% of the grey seal population of the SAC could potentially be impacted from Norfolk Boreas and all other projects and plans.	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	this wider reference population for the assessment results in a total of 6.6% of the grey population being potentially temporarily disturbed. In addition, not all grey seal that have been predicted to be temporarily affected from the in-combination projects included will be from the Humber Estuary SAC, due to the large distances between the projects assessed and the Humber Estuary SAC. With the implementation of the Southern North Sea SAC SIP to reduce in-combination disturbance effects to harbour porpoise, the in-combination effect of disturbance to grey seal will also be reduced.		
	The conclusions of the In-combination Assessment provided in the Information to Support HRA report are appropriate. See position above regarding the CIA conclusions above.	Effectively the Worst Case Scenario (WCS) presented in the HRA will be that all consented projects and those in the planning system will undertake 'noisy' pre-construction site preparation and construction activities at the same time which will almost certainly result in an Adverse Effect on Integrity (AEoI). We recognise that this is an unrealistic WCS because for no other reason it is not technically feasible. However, it does remain probable that two, or more, projects will wish to undertake noisy activities at the same time and depending on the combination of projects there remains a risk of an AEoI. It is also the view of Natural England that the assessment of any future plan or project, such as Norfolk Boreas, is unable to fully complete any in-combination assessment and Habitat Regulation Assessments until a wider mechanism is in place to ensure that disturbance can be limited to an acceptable	It is agreed by both parties that a strategic mechanism is required from the Regulator to ensure that disturbance can be limited to an acceptable level. The current requirement for a SIP is sufficient to allow any mechanism to be fully incorporated without need for variation.

Topic	Norfolk Boreas Limited position	Natural England position	Final position
		level.	
Mitigation and Management			
Mitigation and Management	The Offshore In Principle Monitoring Plan (document reference 8.12 of the Application, APP-703) provides an appropriate framework to agree monitoring of effects on marine mammals with Statutory Nature Conservation Bodies (SNCB)s and the MMO prior to construction.	As stated in the Relevant Representation (RR-099) Natural England considers it is not sufficient to just commit to undertaking strategic marine mammal monitoring. Marine mammal monitoring should seek to answer questions or validate assumptions made in the environmental assessment and it is those questions and issues that should be included in the monitoring plan. Natural England acknowledges that marine mammal assessment issues are likely to be very similar across projects and it may be that monitoring is best undertaken at or between several projects to address these issues and find answers to the original questions. How this is devised and undertaken is for discussion and agreement between the Applicant and other developers, and Natural England will be happy to work with them to achieve this.	Area for ongoing discussion
	The Site Integrity Plan, in accordance with the In Principle Site Integrity Plan (document reference 8.17 of the Application, APP-708) provides an appropriate framework to agree mitigation measures for effects on the Southern North Sea SAC with Statutory Nature Conservation Bodies (SNCB)s and the MMO prior to construction.	Agreed, however Natural England note that 4 months is not much time to agree the final SIP so it will be imperative that as much information and review as possible is undertaken as soon as possible, particularly after the final project design has been decided.	It is agreed by both parties that the Site Integrity Plan provides an appropriate framework to agree mitigation measures for effects on the Southern North Sea SAC with SNCBs and the MMO prior to construction.
	The MMMP, in accordance with the draft MMMP (document reference 8.13 of the application, APP-704), provides an appropriate framework for securing marine mammal mitigation measures in agreement with the MMO prior to construction.	Agreed	Agreed

2.5 Offshore Ornithology

24. The project has the potential to impact upon Offshore Ornithology. Chapter 13 of the Norfolk Boreas ES (document reference 6.1.13 of the Application, APP-226) provides an assessment of the significance of these impacts. A separate Ornithological SoCG has been progressed between the Applicant and Natural England (ExA.SoCG-17a.D0.V1).

2.6 Onshore Ecology and Ornithology

25. The project has the potential to impact upon Onshore Ecology and Ornithology. Chapters 22 Onshore Ecology (document reference of the Application 6.1.22, APP-235) and Chapter 23 Onshore Ornithology (document reference 6.1.23 of the Application, APP-236) of the Norfolk Boreas ES provides an assessment of the significance of these impacts.

26. Table 6 provides areas of agreement (common ground) and areas for ongoing discussion regarding Onshore Ecology and Ornithology.

Table 6 Agreement Log - Onshore ecology and ornithology

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Environmental Impact Assessment			
Survey methodology	Survey methodologies for Phase 1 Habitat Surveys are appropriate and sufficient and were agreed during the Expert Topic Group meeting held in January 2017. Phase 1 habitat surveys were undertaken in February 2017 and February 2018. Whilst the Applicant acknowledges that the optimum period for Phase 1 Habitat Survey is between March and September, the findings of the Phase 1 survey are considered appropriate for fulfilling their purpose, which was to characterise the broad habitats present within the study area and to provide the scope for detailed, species-specific Phase 2 surveys. The Applicant has committed to undertaking any post-consent surveys at the optimum time of year, which is captured in the Outline Landscape and Environmental Management Strategy (OLEMS) (document reference 8.7 of the Application, APP-698).	Agreed that surveys were not undertaken at the optimum time of year, but that future surveys will be, as committed to within the OLEMS and refer the Applicant to Natural England's standing advice.	Agreed
	Survey methodologies for Phase 2 Surveys are appropriate and sufficient, and were discussed during the Expert Topic Group meeting held in January 2017 and agreed via email on 3rd April 2017.	Agreed, and refer Applicant to Natural England's Standing Advice (Link) for detail.	Agreed
Existing Environment	Survey data collected for Norfolk Boreas for the characterisation of onshore ecology and ornithology are suitable for the assessment.	Agreed. Natural England notes the commitment within the OLEMS to undertake post consent surveys at the optimum time of year and refer the Applicant to Natural England's standing advice.	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	The ES adequately characterises the baseline environment in terms of onshore ecology and ornithology. Further information on baseline environment is included in Clarification Notes produced as part of the Norfolk Vanguard Examination. These have been considered by Norfolk Boreas and submitted as an appendix to the Comments on Relevant Representations.	Natural England is satisfied that the ES and further information submitted within Clarification Notes as part of the Norfolk Vanguard examination adequately characterise the baseline environment. We would expect the additional information provided during the Norfolk Vanguard examination to also be submitted as part of the Norfolk Boreas examination to ensure that the baseline environment is characterised.	Agreed
Assessment methodology	Appropriate legislation, planning policy and guidance relevant to ecology and ornithology has been considered for the project (listed in section 22.2 and 23.2 in Chapter 22 Onshore Ecology and Chapter 23 Onshore Ornithology respectively).	Natural England is satisfied that future surveys if undertaken in accordance with Standing Advice, will adhere to guidance on completion during optimum survey period.	Agreed
	The list of potential impacts on onshore ecology and ornithology assessed is appropriate. Additional information provided in Clarification Notes produced as part of the Norfolk Vanguard examination have been considered by Norfolk Boreas and submitted as an appendix to the Comments on Relevant Representations.	During the Norfolk Vanguard examination a number of Clarification Notes were provided which provided further information on the impacts to onshore ecology and ornithology, and further commitments and mitigation incorporated within the CoCP and OLEMS. Similar information and commitments should be submitted in relation to the Norfolk Boreas application at the earliest opportunity.	Agreed
	The impact assessment methodologies used for the EIA provide an appropriate approach to assessing potential impacts of the project.	Agreed	Agreed
	The worst case scenario presented in the ES, is appropriate for the project.	Agreed	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
Assessment findings	The receptors which have been identified and the level of sensitivity applied is appropriate. A 2km buffer has been applied within the assessment detailed in Chapter 22 Onshore Ecology (APP-235), Chapter 23 Onshore Ornithology (APP-236), and the Information to Support Habitats Regulations Assessment Report (APP-201), where no interest features which require larger buffer zones have been identified. Where the need for larger buffers have been identified (for example, for barbastelle bats of Paston Great Barn SAC, or bird species of the Broadland SPA/Ramsar site), this has been set out within the Information to Support Habitat Regulations Assessment Report (APP-201) (which Chapter 22 Onshore Ecology (APP-235) and Chapter 23 Onshore Ornithology (APP-236) draw on). A general 2km buffer for designated sites was agreed with Natural England during the Evidence Plan Process.	As detailed in the Relevant Representation (Appendix 4) Natural England has some concerns about how the zone of influence has been applied.	Area for ongoing discussion
	The magnitude of impact has been assigned appropriately.	Agreed	Agreed
	The conclusions of the Onshore Ecology and Ornithology assessments of no impact to minor adverse for Scenario 1 (with mitigation) and no impact to moderate significance under Scenario 2 (with mitigation) are appropriate.	As detailed in the Relevant Representation (Appendix 4) Natural England have concerns about the possible impacts of HDD drilling mud breakouts which have been experienced on a number of other OWF projects. The Relevant Representation (RR-099) provides further detail of further information required .	Area for ongoing discussion
Embedded Mitigation	Ancient Woodland and trees Under Scenario 2 Trenchless crossing techniques are proposed to be used at any location (limited to those listed in Requirement 16 of the draft DCO, APP-020) where mixed lowland deciduous woodland is present and which cannot be avoided, and no works will take place within 15m of any woodland.	Welcome that site specific measures for Ancient Woodland will be informed by a pre-construction survey and be in line with the Forestry Commission and Natural England's Standing Advice (Link). This commitment should be incorporated within the OLEMS. The 15m buffer is the absolute minimum required	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	As detailed in section 9.1 of the OLEMS a pre-construction survey will be undertaken by an appropriately experienced arboriculturalist which will inform site-specific measures to protect trees adjacent to the works, including defining root protection areas (calculated using guidance from BS5837:2012).	and a larger buffer may be required based on site specific circumstances. There is the potential for the wording in the OLEMS to be misconstrued and recommend this is amended to more accurately reflect the standing advice.	
	Badgers The procedure outlined within the OLEMS for badger main setts within the project area which require closure and destruction will include other types of setts which may be found within (previously un-surveyed) areas of the project area. This will be captured within the final Ecological Management Plan, secured through DCO Requirement 24, which will require consultation with Natural England prior to discharge.	Agreed on the basis that this is captured within the final Ecological Management Plan, allowing sufficient controls to be put in place.	Both parties agree that the measures for main sett closure (and applied to other setts) are appropriate.
	Wintering and breeding birds To account for potential noise disturbance a buffer of 300m from designated sites (where birds are qualifying features) was identified and potential noise impacts considered. This was agreed with Natural England in January 2017 (Onshore Wintering Bird Surveys Survey Methodology Approach agreed through the Norfolk Vanguard EPP). Beyond this no additional requirement was identified to assess potential disturbance effects. In addition, further measures to deal with the risk of damaging or destroying ground nesting birds' nests (i.e. skylarks) during construction agreed during the Norfolk Vanguard examination have been included within the OLEMS (section 10.3.1). On this basis the assessment of impacts for construction,	Natural England is satisfied that further measures to reduce risk of damaging or destroying ground nesting birds' nests (i.e. skylarks) during construction as agreed for Norfolk Vanguard should be incorporated within the Norfolk Boreas OLEMS at the earliest opportunity.	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	operation and decommissioning presented are consistent with the agreed assessment methodologies.		
	Air Quality Potential air quality impacts arising from vehicle movements have been assessed for designated sites within 200m of the road transport network that will be required during construction. This is presented in ES Chapter 26 Air Quality and ES Chapter 22 Onshore Ecology. The Applicant will commit to producing an Air Quality Management Plan (AQMP), as part of the final CoCP, for each stage of the works (this will be secured under Requirement 20(l)) which will deliver mitigation that has been identified within Chapter 26 Air Quality. The final CoCP must be submitted and approved by the relevant planning authority in consultation with Natural England post-consent, this commitment will be captured in an update to Requirement 20 within the draft DCO. The traffic related air quality impact assessment was based on the worst case construction traffic on identified transport routes, and also cumulatively with other projects based on their reported construction traffic. No traffic related air quality impacts were identified for ecological receptors for Norfolk Boreas and no air quality mitigation has been identified that would be captured within any AQMP to be developed post-consent. In ES Chapter 22 section 22.8.1.1 the cumulative assessment of Norfolk Boreas and Hornsea Project Three, nitrogen deposition is not predicted to breach the critical load at any designated site. At two designated sites (Felbrigg Woods SSSI and River Wensum SAC/SSSI), nitrogen deposition is	As stated in the Relevant Representation Natural England are concerned there may be in combination air quality impacts on designated sites (River Wensum SAC/SSSI and Felbrigg woods SSSI) in proximity to the traffic and transport routes and advise the Applicant include mitigation measures to reduce potential effects. Natural England also note the Traffic and transport chapter does not assess potential impacts with regards designated sites and features. Advise that the final Traffic Management Plan includes a consideration of designated sites identified in proximity to routes, with mitigation measures outlined on how traffic and transport air quality impacts will be minimised.	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	predicted to be 2% of the critical load, which is above the 1% threshold in the IAQM guidance for considering potential effects further. The further assessment presented in Section 22.8.1.1 of ES Chapter 22 concludes that an effect of at most negligible magnitude is predicted, resulting in a not significant impact, and as such no mitigation is required. Norfolk Boreas will confirm the Project's actual traffic numbers within the final Traffic Management Plans to be produced post-consent. Provided traffic numbers remain wholly within the worst case scenario that was assessed there would be no requirement to update the air quality impact assessment.		
	Land Use/Soils The onshore cable duct installation strategy (only required under Scenario 2) will be conducted in a sectionalised approach in order to minimise impacts. Construction teams would work on a short length (approximately 150m section) with topsoil stored adjacent to the excavated trench. Once the cable ducts have been installed, the section would be back filled and the top soil replaced before moving onto the next section. This would minimise the amount of land being worked on at any one time and would also minimise the duration of works on any given section of the route. This embedded mitigation is specified through the ES and secured through the Outline Code of Construction Practice (OCoCP). Topsoil should be reinstated where it originated. A Soil Management Plan (SMP) will be developed and approved prior to commencing each stage of the works. The scope of the SMP is detailed in Appendix A of the OCoCP. All land classified as Grade 3 has been assumed to be 'best and most versatile' (i.e. Grade 3a) land for the purpose of the	Natural England welcomes the commitment made in Section 8 (soil management) of the (OCoCP) that topsoil will be stored adjacent to the excavated trench and will be reinstated where it originated.	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	assessment presented in the ES.		
	Land Use/ Agri environment Within the study area there are Entry Level Stewardship Schemes (ESS) with Higher Level components. A commitment will be made within the private agreements between Norfolk Boreas Limited and the landowner/occupier to compensate for losses incurred due to potential impacts on ESS during the construction phase of the project. In addition, the applicant will discuss any Countryside Stewardship agreements with landowners and the Rural Payments Agency post-consent. These will form part of the private agreements described above.	There are both Higher Level Stewardship and Higher Tier Countryside Stewardship agreements along the cable route. Due consideration will need to be given to ensure the delivery of these schemes will not be hindered or compromised. As stated in the Relevant Representation. The applicant will need to discuss any Countryside Stewardship agreements with the landowners and the Rural Payments Agency (this is no longer administered by Natural England) at the earliest possible opportunity.	Agreed
	The assessment of cumulative impacts is consistent with the agreed methodologies.	Agreed	Agreed.
Mitigation and Management			
Approach to mitigation	All mitigation measures required are outlined in the Outline Code of Construction Practice and OLEMS (APP-698). As noted in OLEMS, hedgerows will be replanted in the first winter after their removal where they are removed to facilitate duct installation, with the exception of the 6m gap retained for the running track. This is the earliest time after removal when they are mostly likely to take successfully. Therefore, there would be no advantage in employing temporary planting or fencing in these areas. In addition, the 6m gap is considered likely to be too small to act as a barrier to commuting / foraging activity (JNCC, 2001; BCT, 2012), therefore temporary planting is not considered to provide an	We would like to see further commitments with regards traffic management and air quality to designated sites, as discussed above. We would like to see further detail on potential impacts of HDD outbreak and management and mitigation measures. We are satisfied that other mitigation measures stated in EIA and consultation are outlined in OCoCP and OLEMS.	Cumulative air quality impacts is an area for ongoing discussion. Agreed for all other mitigation

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	ecological benefit in this area either.		
	River Wensum SAC The commitments made within the OCoCP (APP-692) to sediment management in the river Wensum flood plain and wider catchment are appropriate. The Applicant has committed to develop a detailed 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. With these commitments in place there will be sufficient control measures to safeguard designated sites in relation to sediment control, pollution prevention and reinstatement of all work areas at watercourse crossings. The Applicant agrees to produce a clarification note to provide further information on the potential for bentonite breakout and the potential impacts on the River Wensum SSSI and SAC.	Natural England is generally satisfied with the information as provided within the OCoCP and look forward to being consulted on the site specific water crossing plans as secured through Requirement 25 of the DCO. As noted above, Natural England (RR-099) have concerns about the possible impacts of HDD drilling mud breakouts which have been experienced on a number of other OWF projects. The Relevant Representation provides further detail of what further mitigation should be included within respect to bentonite breakout.	Bentonite breakout is an area for further discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	Wintering and breeding birds in wider countryside The mitigation measures for wintering and breeding birds set out in paragraphs 227 to 230 of the Norfolk Vanguard OLEMS (REP9-014 of the Norfolk Vanguard Examination), will be adopted for the relevant Scenarios by the Norfolk Boreas project and the OLEMs (APP-698) updated accordingly. The updated OLEMS will be submitted to the ExA at the appropriate deadline.	As stated in the Relevant Representation, the mitigation agreed for Broadland SPA as part of the Norfolk Vanguard Examination process has currently not been included within the Boreas OLEMS. Without mitigation there may be an effect on the SPA. Mitigation should be included and documents updated as soon as possible.	Can be agreed once appropriate mitigation submitted as part of examination process.
	Semi natural habitats Any topsoil strip of semi-natural grassland habitats, within 10m of any watercourses within the River Wensum catchment will be undertaken using a deep turf strip to increase the effectiveness of subsequent reinstatement. This has been captured within an update to the OLEMS (APP-698). The Applicant has committed to develop a scheme and programme for each watercourse crossing, diversion and reinstatement, which will include site specific details regarding the reinstatement of semi-natural habitats in proximity to watercourses. 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.	Agreed, Natural England has provided advice and is satisfied this is reflected in the OLEMS, we look forward to being consulted on the site specific crossing plans.	Agreed
	The use of trenchless crossing techniques under Scenario 2 at County Wildlife Sites is acceptable subject to detailed design. Trenchless crossing techniques are not required under Scenario 1 as they will have been completed by Norfolk Vanguard.	Agreed	Agreed
	The provision of an Ecological Management Plan (based on the OLEMS submitted with the DCO application, APP- 698) is	Natural England looks forward to being consulted on the final Ecological Management	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	considered suitable to ensure potential impacts identified in the Ecological Impact Assessment are appropriately minimised.	Plan.	
	The mitigation proposed for great crested newts is appropriate and proportionate (as outlined in the draft great crested newt mitigation licence application, circulated and discussed during May to September 2019). A Letter of No Impediment in response to the draft great crested licence application has been issued by Natural England and will be included within the updated OLEMS to be submitted at Deadline 1.	Natural England have provided a letter of No Impediment to Norfolk Boreas Limited (09 September 2019 Case Ref 10570) in response to the application which includes a number of issues which will need to be addressed before the licence application is formally submitted. A copy of the LONI should be sent to the inspectorate.	Agreed
	The OLEMS identifies where licences may be required for bats, water voles and badgers. The final Ecological Management Plan will provide full details of the licences to be sought, once full post-consent survey data has been obtained and the development scenario has been confirmed.	We advise the Applicant to submit draft wildlife licence applications as soon as possible in accordance with The Planning Inspectorate, Advice Note 11.	Agreed
	Impacts to fish species are considered within the EcIA and the impact assessment is sufficient to characterise the baseline environment for this species. Under Requirement 25 of the draft DCO (APP-020) no stage of the onshore transmission works involving the crossing, diversion and subsequent reinstatement of any designated main river or ordinary watercourse may commence until a scheme and programme for any such crossing, diversion and reinstatement in that stage has been submitted to and, approved by Natural England.	Natural England notes in its Relevant Representation (RR-099) that there is currently insufficient information provided for Natural England to comment on the potential impact of water crossings on fish we would expect any impacts to fish to be considered in the site specific water crossing plans.	Area for ongoing discussion
	Where protected species mitigation measures are proposed which include displacement or translocation of species, appropriate post-construction monitoring programmes are detailed within the EcIA and OLEMS.	Natural England notes in its Relevant Representation (RR-099) that there is currently no onshore post construction survey or monitoring proposed to ensure protected	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	Post-construction monitoring for reinstated habitats and for specific species is set out within the OLEMS (APP-698). This includes details of the required aftercare period for all replanted trees and hedgerows, and post-construction monitoring requirements for water voles subject to displacement and for great crested newts subject to mitigation and translocation. Note also that further detail on the monitoring and maintenance requirements specifically for hedgerows will be detailed in the Hedgerow Mitigation Plan which will be developed in consultation with Natural England post-consent. Post-construction monitoring will be undertaken of any UKHPI and Norfolk LBAP grasslands one year after the completion of construction to identify failure of the grassland to naturally regenerate. This commitment will be captured in the updated OLEMS, submitted during the examination.	habitats and species have been successfully reinstated post construction.	
	Environmental Incident response and reporting The OCoCP (APP-692) identified that a project specific environmental emergency / incident response plan will be prepared post-consent. The plan will include a response flow chart and detail how to report and deal with an environmental incident, including the measures available to contain/clean up an incident. A contact list for notifying relevant stakeholders will be appended to the plan. The OCoCP (APP-692) will be updated to include this reporting requirement i.e. Natural England Site Officer to be consulted within 24 hours if any incident occurs within proximity to a designated site.	Natural England note in the Relevant Representation that there is currently no clarification of how terrestrial environmental incidents will be responded to and reported on. The CoCP states that a project specific environmental emergency/incident response will be prepared. Natural England would wish to see further detail as part of the DCO and expect to be consulted within 24 hours if an incident occurs within proximity to a designated site.	Agreed

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	Net Gain The proposals for net gain fall outside of the NSIP consenting regime. However, the mitigation measures set out within Chapter 22 Onshore Ecology (APP-235) have been designed to result in no loss of biodiversity, with all habitats removed to be either reinstated or enhanced following construction (for example, hedgerows temporarily severed along the onshore cable route), or compensated for where permanently lost (for example, at the onshore substation). Furthermore, for selected species (for example commuting / foraging bats), the mitigation set out within Chapter 22 Onshore Ecology (APP-235) has been designed to result in an overall enhancement in biodiversity through increasing the quality of foraging habitat provided following construction of the project. This will also apply to hedgerows at the substation site, ensuring there is no net loss of commuting / foraging habitat.	Other bodies such as Highways England and Network Rail who are delivering major infrastructure have committed to delivering net gain where possible. Whilst NSIPs are exempt from the statutory requirement to deliver Net Gain we recommend and consider that Net Gain could be delivered as part of this proposal.	Area for ongoing discussion
HRA			
Screening of LSE	The methodology and sites screened in for the HRA as presented in Appendix 5.2 of the Information to Support HRA report (APP-201) are considered appropriate, considering sites within 5km of onshore infrastructure. The following sites were screened in for further assessment: • River Wensum; • Paston Great Barn • Norfolk Valley Fens; and • The Broads SAC Appendix 5.3 of the Information to Support the HRA will be updated to reflect the updated position on the Broadland SPA and Ramsar and submitted as part of the examination. The Applicant agrees to produce a clarification note to	Generally agreed, however Natural England note in the Relevant Representation that, during the Norfolk Vanguard examination it was noted that the survey data collected for onshore ornithology species was not of sufficient duration and had not been linked to crop rotations so it would not be possible to comment on where Broadland SPA and Ramsar species may be using Functionally Linked Land, during the construction phase and that there could be direct effects on ex situ habitats. The Applicant committed to providing mitigation. This is not reflected within Appendix 5.3 Screening Matrices and	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	provide further information on the potential for bentonite breakout and the potential impacts on the River Wensum SSSI and SAC.	the tables should be updated accordingly. Marsh Harrier is also on the Broadland SPA citation. As discussed below: 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 believe 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.	
	Broadland SPA/Ramsar Commitments made during the Norfolk Vanguard examination at Deadline 9 and included in the updated OLEMS for that project (REP9-014 of the Norfolk Vanguard Examination) will be adopted under Scenario 2 for the Norfolk Boreas project and the OLEMs (APP-698) will be updated accordingly and submitted to the examination at the appropriate deadline. These commitments are: • Potentially undertake a second year of wintering bird surveys and undertake an assessment of predicted crop patterns to assess the potential use of the affected areas by foraging goose and swan species (see bullet point three below).	Agreed, Natural England is satisfied that the commitments laid out within the Vanguard OLEMS in relation to Broadland SPA/Ramsar swan and geese species and ex situ habitats, reflect our advice and that there will be no Adverse Effect on Integrity for the features of the site.	Agreed once these commitments are also incorporated within the Boreas OLEMS

Topic	Norfolk Boreas Limited position	Natural England position	Final position
	• If required provide suitable alternative habitat (by introducing feed) for potentially displaced qualifying species associated with Broadland SPA / Ramsar site elsewhere within the Order limits or (subject to separate landowner agreements) within nearby fields. • The Applicant may progress directly to delivering the above mitigation without undertaking the second year of survey, subject to agreement with Natural England.		
Assessment of Adverse Effect on Integrity	River Wensum SAC The commitment to undertake trenchless crossing techniques at the River Wensum allows direct impacts to the SAC to be ruled out. The Applicant agrees to produce a clarification note to provide further information on the potential for bentonite breakout and the potential impacts on the River Wensum SSSI and SAC. 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 Norfolk County Council, the Environment Agency, relevant drainage authorities, and Natural England. This commitment is secured through Requirement 25 (Watercourse Crossings) of the draft DCO.	Direct impacts on the River Wensum SAC have been ruled out given the use of HDD. However, given the number of HDD drilling mud breakouts that have occurred recently on other OWF projects, Natural England advise in their Relevant Representation that that this is a regular enough occurrence to be considered a likely impact. We therefore advise that direct effects of HDD breakouts on the Wensum SAC designated features are scoped in and impacts assessed against a worst case scenario considering, scale, duration and timing. Further advice is provided in the Relevant Representation (Appendix 4).	Area for ongoing discussion due to the fact that this advice differs from that provided on the Norfolk Vanguard project.
	The approach to undertaking the assessment is appropriate.	Natural England is generally satisfied with the	Area of ongoing

Topic	Norfolk Boreas Limited position	Natural England position	Final position
		assessment of adverse effect on integrity, with the CoCP and OLEMS. However further assessment is required with regard to bentonite breakout at the River Wensum SAC (see positions above and further comment within Appendix 4 of the Relevant Representation).	discussion regarding the River Wensum SAC
	Paston Great Barn SAC The conclusion of No Adverse Effect on Integrity for the Paston Great Barn SAC is appropriate. The commitment to undertake preconstruction bat surveys at specific hedgerows (along North Walsham Road from Edingthorpe Green to Edingthorpe Heath and at two hedgerows between Witton and North Walsham Road) that was included in the Norfolk Vanguard OLEMS (REP9-014 of the Norfolk Vanguard Examination), will be adopted for Norfolk Boreas project and the OLEMs (APP-698) updated accordingly. The updated OLEMS will be submitted to the examination at the appropriate deadline.	As stated in the Relevant Representation Natural England has concerns that 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 Clarification Note and OLEMS for Norfolk Vanguard (Deadline 9) and incorporate similar commitments within the Norfolk Boreas DCO.	Area of ongoing discussion until the updated OLEMs are submitted.
	The conclusions of no adverse effect on site integrity for all onshore sites presented in the Information to Support HRA report (document 5.3) are appropriate. The Applicant agrees to produce a clarification note to provide further information on the potential for bentonite breakout and the potential impacts on the River Wensum SSSI and SAC.	Natural England have concerns regarding the possible impacts of breakout from the trenchless crossing under the River Wensum and therefore cannot yet agree with this statement. Natural England look forward receiving copies of supporting information and commitments with regards Broadland SPA/Ramsar and	Area for ongoing discussion

Topic	Norfolk Boreas Limited position	Natural England position	Final position
		Paston Great Barns SAC being submitted as part of the DCO process.	

2.7 Development Consent Order

27. Natural England's relevant representation (RR-099), submitted to the Planning Inspectorate on the 31st August 2019 includes comments on the draft DCO (contained within Appendix 5 of the Relevant Representation) which The Applicant is addressing where possible. Comments from Natural England regarding the draft DCO, where relevant, will be responded to at each appropriate Examination Deadline.

28. Table 7 provides areas of agreement (common ground) and areas for ongoing discussion regarding the DCO.

Table 7 Agreement Log – DCO, DML and other DCO document

Topic	Natural England position	Norfolk Boreas Limited position	Final position
Development Consent Order			
DCO Schedule 1 General	All references to Natural England should be amended to the Statutory Nature Conservation Body and an interpretation should be added to define the Statutory Nature Conservation Body.	The Applicant notes this and will amend the definition throughout the next version of the dDCO and DMLs.	Agreed
DCO Schedule 1 General	Natural England requests that a requirement be added to the DCO for the Applicant to confirm in writing to the MMO and Relevant Local planning Authorities once the construction phase has ended and the operations and maintenance phase has commenced. Following that notification no more activities related to the construction of the offshore wind farm may be conducted. This is to ensure clarity on when conditions applying to construction end and when conditions applying to operations and maintenance are active.	The Applicant notes this comment. The Applicant, however, does not consider that this amendment is necessary for the following reasons: 1. The Applicant must provide the MMO with a Construction Programme and Monitoring plan in accordance with the offshore in principle monitoring plan, as secured by Condition 14(1)(b) (Schedule 9-10), Condition 9(1)(b) (Schedule 11-12) and Condition 7(1)(b) (Schedule 13). This will set out the proposed construction programme; 2. The Applicant must also provide an offshore operations and maintenance plan at least four months prior to commencement of operation of the licensed activities, pursuant to Condition 14(1)(j) (Schedule 9-10), Condition 9(1)(j) (Schedule 11-12), and Condition 7(1)(i) (Schedule 13); 3. The Applicant must notify the MMO (including Kingfisher Information Service of Seafish and the UK Hydrographic Office) upon completion of licensed activities (for example, Condition 9 (Schedule 9-10)). In the case of the Kingfisher Information Service of Seafish notification, this must be no later than 24 hours of completion of construction of all offshore activities. The MMO will therefore be notified accordingly and will be in a position to share the information with relevant stakeholders, such as Natural England. This approach is also in line with precedent, following	Area for Ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
		other as made offshore wind DCOs; and 4. In respect of the onshore works, the Applicant must submit a scheme to the LPA setting out the stages of onshore transmission works (Requirement 14). The detail of the stages and construction measures for each stage will then be secured through the Code of Construction Practice (Requirement 20), to be submitted to the LPA in consultation with Norfolk County Council, the Environment Agency and (as per the latest version of the dDCO) Natural England. Accordingly, there are sufficient measures contained in the DCO to provide control and transparency for the enforcement bodies - in consultation with their statutory advisers - in relation to commencement, construction, and stages of works.	
DCO Schedule 1 General	Natural England recommends that a condition be included in the DCO for the Applicant to produce a net gain DCO plan demonstrating how the proposed project will deliver net gain.	The Applicant does not consider this necessary or appropriate for a project of this nature. The proposals for net gain fall outside of the NSIP consenting regime. This is confirmed in the Government response to consultation dated July 2019, at page 5 as follows: "*Government will continue to work on exploring potential net gain approaches for these types of development, but nationally significant infrastructure and net gain for marine development will remain out of scope of the mandatory requirement in the Environment Bill.*" This document can also be located at the following link: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf The mitigation measures set out within Chapter 22 Onshore Ecology	Area for ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
		(APP-235) have been designed to result in no loss of biodiversity, with all habitats removed to be either reinstated or enhanced following construction (for example, hedgerows temporarily severed along the onshore cable route), or compensated for where permanently lost (for example, at the onshore substation). Furthermore, for selected species (for example commuting / foraging bats), the mitigation set out within Chapter 22 Onshore Ecology (APP-235) has been designed to result in an overall enhancement in biodiversity through increasing the quality of foraging habitat provided following construction of the project.	
DCO Schedule 1 part 3 page 55, 5 and 11	The total volumes for cable protection do not match the ES; I suspect this is due to not including cable crossings. Clarification required. The total volumes and areas for scour protection do not match the ES.	The Applicant notes this and will review the dDCO and make any changes accordingly. The Applicant, however, suspects that the figures Natural England are referring to can be explained by reference to the Reconciliation Document (document reference: APP-689). This document explains how the "worst case scenario" as assessed within the EIA has been adequately secured within the DCO and DMLs. For many of the parameters secured within the DCO it is clear that the same values have been assessed within the ES, for example the minimum gap between turbines - which is stated at requirement 2 in Schedule 1 of the DCO and also presented throughout. However, due to the fact that the DMLs are defined by a group of assets and the EIA takes a geographical approach to assessing impacts, values for other parameters, such as the maximum quantities of cable protection and/or scour protection, are not so easily cross referenced between the ES and the DCO. This is explained further in the Reconciliation Document.	Area for ongoing discussion
DCO Schedule 1 Part 3 Page 59, 20	The code of construction practice details Environment Agency for consultation, but not Natural England.	The Applicant has agreed to include Natural England within the list of consultees for Requirement 20 and this will be reflected within the next version of the dDCO.	Agreed

Topic	Natural England position	Norfolk Boreas Limited position	Final position
DCO Schedule 1 Part 3	Natural England requests that the maximum hammer energy to be used while piling be included within the requirements and within the Deemed Marine Licences. This is an important metric in the measurement of noise impact and represents a significant part of the projects Rochdale envelope.	The maximum amount of hammer energy is secured within the dDCO at Condition 14(3) (Schedule 9-10), and Condition 9(3) (Schedule 11-12) of the DMLs, which states the following: ..."(3) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed 5,000kJ." The Applicant does not therefore consider it necessary to amend this condition further.	Area of ongoing discussion
DML Schedule 9/10/13 General	The DCO and ES project description provide assessment of specific volumes of boulder relocation work. However, there is no mention of this as a licensed activity nor of the limits of this licensed and potentially damaging activity within any of the DMLs.	Disposal volumes have been separated into drill arisings and dredged sediment in the dDCO. Any boulders of significant size would be relocated as assessed in the ES. These would not be lifted to the surface and are therefore not considered in the volumes for disposal. The Applicant considers that it is not practicable or necessary to distinguish between sand and mud volumes. Notwithstanding this, the Applicant has included the amount of boulders to be cleared within the HHW SAC within the Outline HHW SAC SIP (document reference 8.20, APP-711). This is secured within condition 9(1)(m) of the Transmission DMLs (Schedule 11-12).	Area for ongoing discussion
DML Schedule 9/10/13 General	The Offshore In Principle Monitoring Plan includes potential marine mammal monitoring. However, no DML contains any condition that would secure the requirement to conduct any agreed Marine Mammal monitoring. Natural England considers that a condition should be included to ensure that monitoring occurs.	The Applicant must produce a marine mammal mitigation protocol, in accordance with the draft marine mammal mitigation protocol, prior to commencement of any piled foundations (Condition 14(1)(f) (Schedule 9-10) and Condition 9(1)(f) (Schedule 11-12)). Pursuant to Condition 20 (Schedule 9-10) and Condition 14 (Schedule 11-	Area of ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
		12), the Applicant must then submit further details, in accordance with the offshore In Principle Monitoring Plan (document 8.12, APP-703), for approval by the MMO in consultation with the relevant SNCBs. This submission must cover any proposed monitoring, including methodologies and timings, to be carried out during the construction of the authorised scheme. Noise monitoring results must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type and, if in the opinion of the MMO in consultation with Natural England, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, then all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed. The Applicant therefore considers that these measures cover Natural England's concerns in relation to marine mammal monitoring.	
DML Schedule 9/10/13 Part 4 Condition 12 (5)	This condition should be amended to ensure that any material of non-natural origin must be disposed of to an appropriate disposal site onshore. Subject to any requirements under the appropriate archaeological conditions.	The Applicant considers that all material dredged or drilled from the seabed would be of natural origin. Furthermore, all material would be disposed of within the vicinity of the dredge location and therefore would not be transported far from source. Therefore, the wording of the DCO should remain in keeping with the precedent set by previous DCO projects.	Area of ongoing discussion
DML Schedule 9/10/13 Part 4 Condition 14 (g) (iii)	Natural England does not agree that cable protection can be deployed under this licence for the duration of operation. The outline Operations and Maintenance plan states that cable protection may be deployed up to the full volume assessed in the ES across the full operation lifetime of the project. Cable protection to be deployed after construction has ended should	The Applicant can confirm that any new areas of cable protection required during the operation stage would be subject to a separate marine licence. The wording of the current DCO does not allow for the applicant to install new areas of cable protection during operation. The Outline OOMP demonstrates this in the Table in Appendix 1 that has a yes in the Additional licence likely to be required column against cable	Area of ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
	be applied for under a new consent. This is due to the wide spatial and temporal scale of these construction works. Additionally the definition of maintain within the DCO and DMLs does not include construction of new works such as new areas of cable protection. Furthermore, there appears to be no provision which would require provision of updated plans and methodologies prior to each instance of additional work to allow consultation on their appropriateness and the MMO to make a determination on if the works are within those assessed in the ES, or HRA.	protection. The MMO previously advised the Norfolk Vanguard project that the wording of the draft DCO did not allow for new areas of cable protection to be installed during the operation and maintenance phase of the project. The Norfolk Boreas draft DCO uses the same wording as the Norfolk Vanguard DCO and therefore no changes to the draft DCO are considered necessary.	
DML Schedule 9/10/13 Part 4 Condition 14 (l)	Natural England notes there is no reference to the timing requirement within this condition and would suggest cross linking to condition 14 (b) for the avoidance of doubt.	The general position is that stated under Condition 15(3) in that each programme, statement, plan, protocol or scheme required to be approved under condition 14 must be submitted for approval at least four months prior to the intended commencement of licensed activities (unless stated otherwise). Condition 14(b) is an exception where it is necessary to 'otherwise state' the timeframe. The express reference to a timeframe within condition 14(1)(b) is necessary given that the four month deadline is relevant for the submission of details at different stages and prior to certain events (as opposed to that under the general Condition 15(3) position) – for instance, prior to the first survey; prior to construction; and prior to commissioning. The Applicant does not therefore consider it necessary to amend the conditions in this manner.	Area of ongoing discussion
DML Schedule 9/10/13 Part 4 Condition 15 (4)	Natural England does not consider 4 months an appropriate timeframe to approve all plans and documentation. Documents such as site integrity plans are likely to require detailed assessment, such as habitats regulation assessment. This is likely to take multiple consultation periods of 4 weeks. Natural England would recommend this be amended to 6 months prior	The Applicant notes Natural England's comments. The Applicant, however, considers that the four month time frame conditioned within the DMLs is appropriate and proportionate to allow the MMO, in consultation with statutory bodies, sufficient time for stakeholder consultation and the provision of comments, whilst ensuring no	Area of ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
	to commencement, to ensure sufficient time to sign off the large volume of complex documentation that will need to be submitted.	unnecessary delay to the commencement of development and completion of construction works. This time period is contained on a number of other Offshore Wind Farm (OWF) DCOs (including The East Anglia Three Offshore Wind Farm Order 2017, the Hornsea Two Offshore Wind Farm Order 2016, the draft Norfolk Vanguard Offshore Wind Farm Order [2019], and the draft Hornsea Project Three Offshore Wind Farm Order [2020]). Four months is, therefore, well-established as an appropriate time frame for OWF schemes and one that ensures a balance is struck between the expedient discharge of the relevant conditions attached to the DML whilst allowing a reasonable period of time for consideration by the MMO and its consultees. The Applicant acknowledges that it has, in some recent cases, taken the MMO much longer than 4 months to discharge certain DML conditions on other OWF projects and it should be recognised that with no mechanism to encourage the determination of applications within a reasonable period (such as arbitration or appeal) the developer is then left in a position which is wholly unsatisfactory.	
DML Schedule 9/10/13 Part 5 Appeals Process	Natural England notes this condition implies only 1 survey will be conducted in any event. However, the Offshore In Principle Monitoring Plan table 4.2 highlights that in the event of damage to reef features further surveys may be needed as to be agreed with the MMO, in consultation with Natural England. Natural England would, therefore, recommend that this condition be altered to reflect that more than 1 survey may be needed. For example the use of the term appropriate surveys as used in condition 18 (2) (a)	The obligations in condition 20(2)(a) are in respect of the surveys referred to in sub-paragraph (1) (i.e. all the post-construction surveys) and condition 14(1)(b) (the construction programme and monitoring plan). The construction programme and monitoring plan, submitted pursuant to condition 14(1)(b), must accord with the IPMP. As stated in the IPMP (document 8.12, APP-703), "post-construction survey(s) will be undertaken at a frequency to be agreed with the MMO (e.g. 3 years non-	Area of ongoing discussion

Topic	Natural England position	Norfolk Boreas Limited position	Final position
		consecutive e.g. 1, 3 and 6 years or 1, 5 and 10 years)". In any event, the MMO must be satisfied and approve both the construction programme and monitoring plan and the post-construction surveys under condition 20. The MMO (and, by extension, Natural England) therefore has sufficient opportunity to raise any further points during this approval process. Accordingly, the Applicant does not consider it necessary to change the wording of the condition.	
DML Schedule 9/10/13 Part 4 Condition 20 (2) (a)	At this time Natural England has no detailed comment to make on the appeals process proposed. However, we are aware such a process was proposed for the Norfolk Vanguard project. The MMO raised concerns regarding this process and Natural England support and agree with the MMO position on these concerns.	The Applicant notes Natural England's comments. The Applicant's position remains the same as that put forward during the Norfolk Vanguard examination and through the joint position statement with the MMO (Appendix 3 of the Applicant's Comments on Relevant Representations document).	Area of ongoing discussion
DML Schedule 11/12 Interconnector General	All issues raised on Schedules 9 and 10 also apply to this schedule where similar conditions exist. To avoid repetition Natural England will only provide detail of additional issues within this section.	The Applicant notes this and has interpreted the representations accordingly.	Area of ongoing discussion
DML Schedule 11/12 Interconnector Part 4 Condition 9 (1) (m)	Natural England notes the inclusion of a Site Integrity Plan for the Haisborough, Hammond and Winterton SAC. Natural England would refer to the advice we provided on Norfolk Vanguard on the appropriateness of including a site integrity plan given that the maximum impacts of this project on the site are known. It is important that any decision made should be made on the worst case scenario and not deferred to post consent.	The Applicant has set out the worst case scenario within the HRA. The Applicant believes that it is possible without the SIP to conclude no AEoI for the SAC because, in summary: 1. The Applicant believes that neither the dredging of sand waves nor the introduction of cable protection will change the form and function of the Annex 1 sand banks as they will rapidly recover (as concluded in Appendix 7.1, APP-206 of the HRA) 2. The Applicant believes that the project will have the ability to	Area of ongoing discussion

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		microsite around confirmed *sabellaria* reef. The only locations where this will not be possible is at cable crossings; and 3. The Applicant believes that there is enough evidence to suggest that *sabellaria* would colonise cable protection. However, the Applicant acknowledges that Natural England do not agree with this conclusion and therefore the SIP has been developed for Natural England and the MMO to manage any potential effects of the project on the SAC.	
Offshore Operations and Maintenance Plane Appendix 1	The table plan lists new cable protection as amber. Amber implies that a new marine licence will only be needed if cable protection exceeds the volumes assessed in the ES. Natural England's interpretation is that this is implying cable protection may be deployed across the full operation lifetime of the project. However, the wording in the table is ambiguous and Natural England would request clarification on if this is the case. If the undertaker confirms their intention is for cable protection to be deployed for the lifetime of this development under this licence then Natural England would reiterate the points raised on the Vanguard case. Natural England does not agree that cable protection can be deployed under this licence for the duration of operation. Cable protection to be deployed after construction has ended should be applied for under a new marine licence. This is due to the wide spatial and temporal scale of these construction works. Additionally the definition of maintain within the DCO and DMLs does not include construction of new works such as new areas of cable protection. Furthermore, there appears to be no provision which would require provision of updated plans and methodologies prior to each instance of additional work to	The Applicant agrees that new areas of cable protection installed during the operation phase of the project would be subject to a separate marine licence and the next version of the OOOMP will be updated accordingly.	Agreed

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	allow consultation on their appropriateness and the MMO to make a determination on if the works are within those assessed in the ES, or HRA.		
Offshore Operations and Maintenance Plane Appendix 2	Replacement of a failed foundation is listed as amber. Given that removal and reinstallation of foundations have not been assessed in the ES, Natural England considers this should be marked as red. Any need for removal and reinstallation of a foundation will require a new Marine Licence.	The Applicant agrees with Natural England and this will be updated to red in the next version of the OOOMP.	Agreed

2.8 References

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The names inserted below are to confirm that these are the current positions of the two parties contributing to this SoCG

Printed Name	Alan Gibson
Position	Senior Responsible Officer
On behalf of	Natural England
Date	31/10/2019

Printed Name	Jake Laws
Position	Norfolk Boreas Consents Manager
On behalf of	Norfolk Boreas Limited (the Applicant)
Date	31/10/2019