The Planning Inspectorate
Yr Arolygiaeth Gynllunio

SCOPING OPINION:

Proposed Dogger Bank D Offshore Wind Farm

Case Reference: EN010144

Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

01 June 2023

TABLE OF CONTENTS

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

1. INTRODUCTION

1.0.1 On 21 April 2023, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from SSE Renewables and Equinor (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed Dogger Bank D Offshore Wind Farm (the Proposed Development). The Applicant notified the Secretary of State (SoS) under Regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development and by virtue of Regulation 6(2)(a), the Proposed Development is 'EIA development'.

1.0.2 The Applicant provided the necessary information to inform a request under EIA Regulation 10(3) in the form of a Scoping Report, available from:

http://infrastructure.planninginspectorate.gov.uk/document/EN010144-000011

1.0.3 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the Proposed Development as currently described by the Applicant. This Opinion should be read in conjunction with the Applicant's Scoping Report.

1.0.4 The Inspectorate has set out in the following sections of this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information provided as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects/ matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.

1.0.5 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in Appendix 1 in accordance with EIA Regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in Appendix 2. These comments have been taken into account in the preparation of this Opinion.

1.0.6 The Inspectorate has published a series of advice notes on the National Infrastructure Planning website, including Advice Note 7: *Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping* (AN7). AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.

1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:

https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

1.0.8 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on formal submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.

2. OVERARCHING COMMENTS

2.1 Description of the Proposed Development

(Scoping Report Section 3)

ID	Ref	Description	Inspectorate's comments
2.1.1	Section 3	Description of development	The description of the Proposed Development within the Scoping Report is indicative and relatively high level, which does affect the level of detail possible in the Inspectorate's comments. In particular, the Inspectorate notes the locations of principal development components within the application site (for example, the Hydrogen Production Facility (HPF) (if the Hydrogen Option is pursued) and the landfall) have not been confirmed and that the production output of the HPF is currently unknown. The Inspectorate understands that at this point in the evolution of the Proposed Development, a final description of the development is not yet confirmed, and the red line boundary is likely to be refined. However, the Applicant should be aware that the description of the Proposed Development provided in the ES must be sufficiently certain to meet the requirements of the EIA Regulations. The description of the Proposed Development in the ES should make reference to the design, size and locations of each element, including maximum heights, design parameters and limits of deviation. The description should be supported (as necessary) by figures, cross sections and drawings which should be clearly and appropriately referenced.
2.1.2	Paras 12, 35 and 168; Section 3.2, Table 3-2	Design envelope approach - 'Hydrogen Option' and 'National Grid Option'	The Scoping Report identifies available options for the principal components of the Proposed Development - mostly notably, whether the Hydrogen Option or National Grid Option would be pursued. There is also uncertainty around the components within those options (for example, the National Grid Option may be High Voltage Direct

ID	Ref	Description	Inspectorate's comments
			Current (HVDC) or High Voltage Alternating Current (HVAC) configuration; and the Hydrogen Option requires a water supply and treatment system, with the sources for water supply/ abstraction and wastewater discharge point(s) currently under consideration and with potential for a desalination plant if abstraction is from marine waters). The Scoping Report states that both options *"…may be retained throughout the application process",* although only a single option will be taken forward for construction and operation. The worst case scenario defined as the basis for the Scoping Report is the Hydrogen Option, plus three additional offshore platforms which would be required if the National Grid Option HVAC configuration were to be progressed (i.e. the Offshore HVAC Booster Station, Offshore Converter Station and Offshore Collector Platform) and the potential use of HVAC export cable configuration resulting in six offshore export cables. It is unclear if this same worse case scenario is proposed to form the basis for the ES, although the Inspectorate notes paragraph 168 of the Scoping Report states: *"The EIA methodology will be applied consistently to all parts of the proposed development to ensure comparability between effects associated with the two development options where appropriate".* It is acknowledged that a Rochdale Envelope approach is widely used for offshore wind farm NSIP applications for the components described in paragraph 87 of the Scoping Report. A Rochdale Envelope approach is supported by the relevant National Policy Statements (NPS) and the Inspectorate's Advice Note 9 (Rochdale Envelope). However, the Inspectorate considers that the physical characteristics and potential impacts of the Hydrogen Option and National Grid Option are likely to be substantially different to one another. If both the Hydrogen Option and National Grid Option are to form part of the application for Development Consent, the Inspectorate is

ID	Ref	Description	Inspectorate's comments
			concerned that relying solely on assessment of the worst case scenario described in the Scoping Report would not provide a sufficient robust assessment of likely significant effects (LSE) and any mitigation which might be required. The ES should therefore present the descriptions of potential impacts and assessments of LSE resulting from the Hydrogen Option and National Grid Option as distinct from one another, based on applicable worst case scenarios for each option.
2.1.3	Section 3.2	Design envelope approach	Some aspect sections of the Scoping Report (e.g Benthic and Intertidal Ecology; Fish and Shellfish) refer to a *"realistic"* worst case scenario and it is not clear how this would relate to the design envelope approach described in Section 3 of the Scoping Report. Having regard to the comments in the row above, the ES should assess the worst case that could potentially be built out in accordance with the Authorised Development of the Development Consent Order (DCO) being applied for; this includes (but is not limited to) parameters relating to the number of turbines, turbine height, foundation types, scour protection, cable protection and the layout of offshore structures.
2.1.1	Table 3-1 and Plate 3-3	Landfall Electrical Infrastructure, Onshore Export Cable and Onshore Converter Station/ substation (if National Grid option is pursued); and hydrogen pipeline and storage	Table 3-1 of the Scoping Report shows that if the Hydrogen Option is taken forward, the required Landfall Electrical Infrastructure, Onshore Export Cable and Onshore Converter Station/ substation would form part of the Proposed Development. However, if the National Grid Option is pursued, Table 3-1 states that those elements would be developed by National Grid Electricity Transmission (NGET) and have not been included in the Scoping Report. As shown on Plate 3-3, the hydrogen pipeline and storage elements (if the Hydrogen Option is pursued) are described as *"…outside the scope of this Project".* The ES should clearly describe the relationship between the Proposed Development and connected projects. This should include the extent

ID	Ref	Description	Inspectorate's comments
			to which the Proposed Development is dependent on their delivery and the development timelines and anticipated consenting routes of the other projects, with an explanation of how these will be coordinated. The assessment should address the potential for the connected projects to result in a likely significant effect. The Inspectorate advises that the ES sets out clearly and in detail, how the assessment addresses impacts resulting from consequential development and activity where significant effects are likely to result. The ES should clearly explain and justify the boundaries and limitations of the assessment and, noting uncertainty may persist, any reasonable assumptions that have been applied. The assessment should address the worst case (which may differ for different aspects).
2.1.2	Table 3-3 and para 100	Drill arisings	The ES should identify the likely site/s for the disposal of drill arisings and include an assessment of any likely significant effects resulting from these activities.
2.1.3	Table 3-3 and para 100	Seabed preparation	The ES should provide further detail on the proposed seabed preparation activities required and identify the worst-case footprint of seabed disturbance that would arise. Should seabed preparation involve dredging, the ES should identify the quantities of dredged material and likely location for disposal. Any likely significant effects from dredging or dredge disposal should be assessed.
2.1.4	Paras 102 and 103	Scour protection	The ES should confirm the amount of scour protection required for each foundation type under consideration, what the maximum seabed footprints would be and the timeframes for installation.
2.1.5	Paras 105, 106, 114; Table 3-4	Cable protection	The ES should detail the maximum volume of material required for cable protection and explain how this has been quantified.

ID	Ref	Description	Inspectorate's comments
2.1.6	Paras 117 to 119; Table 3-2	Landfall electrical infrastructure	Table 3-2 of the Scoping Report identifies the proposed landfall installation method as Horizontal Directional Drilling (HDD) or open cut trenching, although paragraph 117 states it is *"assumed"* that landfall electrical infrastructure would be installed using trenchless solutions, such as HDD – meaning the proposed method is unclear. The ES should describe and assess the option/s in this regard, including effects during construction, operation and decommissioning. Impacts associated with the anticipated changes at the coastal landfall site throughout the lifetime of the Proposed Development (including both vertical change in beach profile and the effects from coastal retreat) should be assessed where significant effects are likely. The ES should describe how cable burial and siting of associated infrastructure will be managed throughout the lifespan of the Proposed Development. The Alternatives chapter of the ES should describe the main reasons for the option/s chosen, including a comparison of the environmental effects.
2.1.7	Paras 120 and 121; Table 3-2	Onshore export cable corridor	As the locations of the landfall and onshore components have yet to be confirmed, it is not yet clear whether any temporary or permanent crossings of watercourses, major roads and/ or railways would be required. The Scoping Report explains that onshore export cables would be installed via open cut trenching methods, using trenchless crossings eg HDD *"where required".* The ES should identify the locations and types of all such crossings within the onshore export cable corridor, as well as the nature of any associated construction works (eg dewatering, trenching and HDD). Where reliance is placed on the use of a specific method to mitigate significant effects, the Applicant should ensure that such commitments are appropriately defined and secured.

ID	Ref	Description	Inspectorate's comments
2.1.8	Section 3	Inshore export cable corridor	The 'inshore export cable corridor' (or inshore ECC) is mentioned in the aspect sections of the Scoping Report and included in the Glossary. However, as this component is not described in Section 3 of the Scoping Report or shown on Plates 1-1, 1-2 or 1-3, the exact part of the cable corridor this refers to remains unclear. The ES should include a description and figure(s) to clearly illustrate the differentiation between areas covered by the onshore export cable corridor, inshore export cable corridor and offshore export cable corridor.
2.1.9	Section 3.5	Construction activities	The ES should provide a full description of the nature, location and duration of construction activities. The construction programme should be described including any phasing in delivery.
2.1.10	Section 3.6	Operation and maintenance activities	The Applicant should make effort to identify the location of the port and operation and maintenance base, where possible, and assess any likely significant effects associated. In the event that the location/s cannot be confirmed, the ES should explain the assumptions and worst-case scenario which have informed the assessment. The ES should provide a full description of the nature and scope of operation and maintenance activities, including types of activity, frequency, and how works will be carried out for both offshore and onshore components. This should include consideration of potential overlapping of activities with those required for the continuing operation of existing windfarms in the area and construction of those proposed.
2.1.11	Section 3.6	Decommissioning	The Scoping Report contains limited information with regards to likely decommissioning activities and does not specify the likely duration of the decommissioning phase. The Inspectorate expects the ES to describe the likely decommissioning activities and timescales and

ID	Ref	Description	Inspectorate's comments
			include an assessment of impacts arising from decommissioning, where likely significant effects could occur.
2.1.12	Paras 246, 354, 419, 478 and 870	Unexploded Ordnance (UXO)	The Inspectorate notes that separate Marine Licence application(s) will be made prior to construction for UXO investigation and clearance works, with an accompanying assessment of UXO clearance impacts on relevant receptors. The Scoping Report states that any assessments for UXO clearance in the EIA will be for information only and are not part of the DCO application. The Inspectorate understands that the number, type and size of UXO devices is not known at this stage and that a dedicated UXO survey will be conducted prior to construction works. The Inspectorate advises that the ES should still include a high-level assessment in relevant aspect chapters based on a likely worst case scenario (any assumptions used in the definition of the worst case scenario should be explained in the ES). The ES should address any cumulative effects from the construction of the Proposed Development with the likely effects from the UXO clearance.
2.1.13	n/a	Lighting	The ES should detail any temporary or permanent lighting requirements. Where significant effects are likely to occur as a result of lighting, these should be assessed within the ES; with particular consideration given to ecological, landscape and visual, heritage and navigational receptors.
2.1.14	n/a	Vehicle and vessel movements	The ES should detail the type and number of anticipated vehicle and vessel movements during all phases of the Proposed Development and explain the assumptions upon which these have been established.

2.2 EIA Methodology and Scope of Assessment

(Scoping Report Section 5)

ID	Ref	Description	Inspectorate's comments
2.2.1	Paras 31 and 171	Baseline data	The Scoping Report indicates that the ES will utilise previous data collected for other similar projects in the Dogger Bank Zone (updated where relevant), alongside data collected by the Applicant specifically for the Proposed Development. The ES should utilise the most recently available representative datasets at the time of production. Data collected in relation to other projects and used within the ES for this Proposed Development should be clearly referenced; and the ES should include an explanation of why that data is considered applicable and (where not updated) considered to remain representative of the current state of the environment. The Applicant should make effort to agree the suitability of information used for the assessments in the ES with relevant consultation bodies.
2.2.2	Section 5.2	Future baseline	The ES should clearly explain which other developments will be assumed to be under construction or operational as part of the assessment of the future baseline, with and without the Proposed Development.
2.2.3	Paras 190 to 194	Mitigation and monitoring	The ES should confirm how all mitigation proposed is secured, with reference to specific DCO requirements or other legal mechanisms. The ES should describe any proposed monitoring and explain how the results of such monitoring would be utilised to inform any necessary remedial actions.

ID	Ref	Description	Inspectorate's comments
2.2.4	General	Mitigation and Plans	Draft/ outline copies of all mitigation/ management plans should be appended to the ES. This should include an outline Marine Mammal Mitigation Plan (MMMP) and draft/ In Principle Site Integrity Plan (SIP), as relevant.
2.2.5	Para 199	Cumulative effects assessment (CEA)	Paragraph 199 of the Scoping Report states *"…only plans and projects that are accessible, reasonably well-defined, and sufficiently advanced to provide information on which to base a meaningful and robust assessment will be included in the CEA."* As set out in the Inspectorate's Advice Note 17 on CEA, an assessment should be provided for all Tier 1 and Tier 2 other development, where possible. For other development falling into Tier 3, the Applicant should aim to undertake an assessment where possible, although this may be qualitative and at a very high level. The assessment should be carried out with reasonable effort and should be clearly documented in the ES, for example using the format presented in Matrix 2 of Advice Note 17. The Inspectorate expects the ES to specifically identify how impacts could interact and to provide an assessment of any likely significant cumulative effects, in accordance with the advice in Advice Note 17. The Inspectorate advises that where projects are not fully defined, the worst-case scenario available should be used in the assessment.
2.2.6	Para 200	CEA	The Scoping Report states that where possible, the assessment would use 'as built' project parameter information, as opposed to the use of consented parameters to avoid over-precaution in the assessment. It is the Inspectorate's understanding that unless a DCO or other consent has been revised to recognise the 'as built' rather than as consented parameters, then the consented parameters should be the ones which are considered since the possibility still exists that further build out could be allowed. The ES should undertake the cumulative

ID	Ref	Description	Inspectorate's comments
			effects assessment on the basis of the consented parameters for other developments. The Applicant's attention is drawn to the advice from NE on this point in Appendix 2 of this Opinion. In addition, it would assist the decision maker if a cumulative effects assessment was also included in the ES which uses the 'as built' parameters for other developments.
2.2.7	Section 5.6	CEA	In general, the description of the approach to the cumulative impact assessment within the aspect sections of the Scoping Report is limited. Some sections of the Scoping Report (eg Benthic and Intertidal Ecology; Fish and Shellfish Ecology) state that impacts that are considered highly localised (ie occur only within the red line boundary of the Proposed Development), may be screened out of the cumulative assessment on this basis. The Inspectorate considers that impacts that are highly localised still have potential to contribute to significant cumulative effects. For example, multiple highly localised impacts that occur across a broad area of the seabed could lead to a cumulative effect across multiple projects. Where impacts (including any 'highly localised impacts') are scoped out of the CEA, this should be sufficiently justified.
2.2.8	Section 5.8	Transboundary effects	Paragraph 210 of the Scoping Report states that transboundary effects are not expected to be relevant to onshore aspects. The Scoping Report identifies potential transboundary effects in relation to: Benthic and Intertidal Ecology; Fish and Shellfish Ecology; Marine Mammals; Intertidal and Offshore Ornithology; Commercial Fisheries; Shipping and Navigation; Aviation, Radar and Military; Offshore Archaeology and Cultural Heritage; and Climate Change (for contextualisation of Greenhouse Gas (GHG) assessment only). The Inspectorate notes that it has an ongoing duty in relation to consideration of transboundary effects and will undertake a separate

ID	Ref	Description	Inspectorate's comments
			transboundary screening exercise on behalf of the SoS under Regulation 32 of the EIA Regulations following adoption of the Scoping Opinion. As that exercise has yet to be undertaken, the Inspectorate is not in a position to agree to scope out all proposed transboundary effects at this stage. The Inspectorate recommends that where Regulation 32 applies, the ES should identify whether the Proposed Development has the potential for significant transboundary effects and if so, what these are and which European Economic Area (EEA) States would be affected.
2.2.9	n/a	Residues and emissions; Waste	The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments. The Scoping Report does not include a specific section about waste. The ES should include information regarding the expected quantities and types of waste that will be produced during construction, operation and decommissioning. An assessment of impacts relating to waste should be provided where significant effects are likely to occur, including any such effects arising from the transport of waste and from waste produced during operation of the HPF (if the Hydrogen Option is pursued).

3. ENVIRONMENTAL ASPECT COMMENTS - OFFSHORE

3.1 Marine Physical Processes

(Scoping Report Section 7.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.1.1	Para 244 and Table 7-1	Impacts on wave and tidal currents from the presence of physical structures in the water column - construction and decommissioning	The Applicant proposes to scope this matter out on the basis that during construction, the potential effect from the presence of physical structures in the water column on wave and tidal currents will increase incrementally with the greatest effects being predicted during operation. The Inspectorate notes that the ES would include an assessment of the greatest effects during operation and agrees that this matter can be scoped out of further assessment for the offshore area. However, where significant effects on nearshore coastal processes are likely to occur as a result of construction works in the nearshore area, these should be assessed in the ES.
3.1.2	Para 248 and Table 7-1	Impacts on coastal and nearshore sediment transport due to marine outfalls and intakes for the HPF – construction and decommissioning	The Applicant proposes to scope out potential impacts on coastal and nearshore sediment transport due to the physical presence of marine outfalls and intakes during construction and decommissioning, given the limited nature of their spatial and temporal extent. On the basis that this matter will be assessed within the operational phase assessment and that impacts on suspended sediment concentrations during construction due to the installation activities for outfalls/ intakes associated with the HPF are scoped in at paragraph 247 of the Scoping Report, the Inspectorate agrees that this matter can be scoped out for construction and decommissioning.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.1.3	Para 263 and Table 7-1	Transboundary impacts - all phases	The Applicant proposes to scope transboundary effects in relation to physical processes out of the assessment on the basis that modelling of cumulative changes to wave and tidal regime and cumulative sediment plumes shows that effects would be limited. See comment in Table 2.2 above - the Inspectorate is not in a position to agree to scope this matter out until it has undertaken its own transboundary screening.

ID	Ref	Description	Inspectorate's comments
3.1.4	Para 246	Impacts from UXO	See comment in Table 2.1 above.
3.1.5	Para 270	Numerical modelling	The Applicant states that there is an extensive and robust evidence base from the previous Dogger Bank Zone wind farms to negate the need for numerical modelling to support the assessment of the Proposed Development. The ES should provide a justification as to why use of existing modelling provides a robust approach, supported by evidence of agreement with key stakeholders to this approach. In the absence of such agreement, the Applicant should provide updated modelling, using approaches agreed with the relevant consultation bodies.
3.1.6	Para 233	Study area	The Scoping Report states that the assessment of effects on marine physical processes will consider near-field and far-field areas, with the Zones of Influence (ZoI) to be determined as part of the Preliminary Environmental Information Report/ ES, through further understanding of tidal ellipses and wave data relative to the direct footprint of the Proposed Development.

ID	Ref	Description	Inspectorate's comments
			The ES should clearly define the study area, based on the ZoI, together with a robust justification for its final extent.
3.1.7	Section 7.2	Identification of receptors	Section 7.2 of the Scoping Report does not refer to designated sites. The Applicant's attention is drawn to comments from NE (Appendix 2 of this Opinion) regarding designated sites/ features located within the marine physical processes study area. The Applicant should make effort to agree relevant receptors for inclusion in the Marine Physical Processes ES assessment with relevant consultation bodies including NE.
3.1.8	Section 7.2.2	Baseline environment	NE highlight in their scoping consultation response (Appendix 2 of this Opinion) that the baseline characterisation presented does not cover underlying geology, seabed mobility, sediment transport pathways and rates, bedforms, thickness of sediment units, surge water levels and currents and seismic activity. NE further highlight that the baseline should consider the Flamborough Front relative to the Proposed Development, and if needed, temperature, salinity, stratification, primary productivity. The Applicant should make effort to agree the description of the baseline environment presented within the ES with relevant consultation bodies.
3.1.9	Paragraph 242	Coastal erosion	Paragraph 242 of the Scoping Report states that the Holderness coast is one of the most rapidly eroding coasts in Europe. The Inspectorate considers that the ES should provide a full assessment of the potential for future, rapid, erosion of the cliffs. The potential for any infrastructure to be exposed to coastal processes during the operational phase, or decommissioning, should be considered in order to reduce the need to carry out mitigation and the Applicant is advised to consider the implications of coastal change on their chosen landfall siting and construction methodology. The

ID	Ref	Description	Inspectorate's comments
			Applicant's attention is drawn to the comments from the Environment Agency (EA) on this point (Appendix 2 of this Opinion).

3.2 Marine Water and Sediment Quality

(Scoping Report Section 7.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.2.1	Table 7-6	Reduction in marine water quality during operation of the HPF - construction and decommissioning	On the basis that the HPF will not be operational during construction and decommissioning, the Inspectorate agrees to scope this matter out as there would be no pathway for effect.
3.2.2	Paras 247 and 299 and Table 7-6	Increases in suspended sediments for cable and array foundations – construction and decommissioning	Scoping Report paragraph 299 proposes to scope this matter out of the Marine Water and Sediment Quality assessment on the basis that impacts from increases in suspended sediments are scoped into the Marine Physical Processes chapter in Scoping Report paragraph 247. Data presented in Scoping Report Figure 7-7 also identifies that sediment is coarse in the array and cable study areas therefore sediments suspended in large volumes for medium to long term duration during construction/ decommissioning is unlikely. The Inspectorate agrees that impacts to water quality from increased suspended sediments may be assessed in the Marine Physical Processes Chapter of the ES, but the ES should employ appropriate and clear cross referencing.
3.2.3	Para 299 and Table 7-6	Remobilisation of existing contaminated sediments for cable and array foundations – all phases	Data presented in the Scoping Report in Tables 7-4 and 7-5 identifies that contamination levels present in sediments is low and Figure 7-7 identifies that the sediments in the cable and array areas are coarse. The Applicant seeks to scope out remobilisation of contaminated sediment on the grounds that the impact is likely to be negligible. However, it is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D array area.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			In the absence of information demonstrating likely contaminant levels for the seabed area affected by the Proposed Development and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out. The ES should include an assessment of these matters or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE. Any mitigation measures which would be relied on to avoid significant effects must also be described.
3.2.4	Para 301 to 303	Localised temporary increases in suspended sediments for the array and cable route - operation	Scoping Report paragraphs 301 to 303 state that impacts associated with maintenance activities and scour around the turbine foundations would be temporally and spatially limited and that eventually, scouring will reach equilibrium and cease impact. Whilst the Inspectorate agrees that scour from the turbine bases is unlikely to cause significant effects and can be scoped out from further assessment, the maintenance activities required for operation are not fully described in the report and the parameters unknown. The ES should include an assessment of impacts from maintenance activities or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE. Any mitigation measures which would be relied on to avoid significant environmental effects must also be described.
3.2.5	Table 7-6 and section 7.3.3.2	Localised temporary increases in suspended sediments and remobilisation of existing contaminated sediments from operation of the HPF - operation	The description provided in Scoping Report section 7.3.3.2 does not align with the conclusions presented in Table 7-6, eg Scoping Report paragraph 305 states that impacts from localised temporary increases in suspended sediments and remobilisation of existing contaminated sediments from the operation of the HPF will be scoped in whilst Table 7-6 proposes to scope this out. The proposed approach is therefore unclear.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			It is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D array area. In the absence of information demonstrating likely contaminant levels and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out. The ES should include an assessment of this matter or evidence demonstrating agreement with the relevant consultation bodies that the matter can be scoped out and the absence of LSE. Any mitigation measures which would be relied on to avoid significant effects must also be described.
3.2.6	Section 7.3.4 and Table 7-6	• Cumulative impacts for array area - construction and decommissioning; and • Cumulative impacts for cable route and array area - operation.	Scoping Report section 7.3.4 states that impacts associated with the construction and operation of wind farm infrastructure within the array area and cable route are proposed to be scoped out and subsequently, are proposed to be scoped out of the cumulative assessment. The Inspectorate does not agree with this approach as the Scoping Report does not provide a justification as to why there would be no likely significant cumulative effects during construction and operation of the cable route, array and HPF alongside other development. In addition the Inspectorate has not agreed to scope some impacts out during these phases. The Inspectorate does not agree to scope these matters out. The ES should assess cumulative effects from all elements of the Proposed Development during construction, operation and decommissioning where significant effects are likely to occur.
3.2.7	Paras 299 and 346 to	Accidental pollution - all phases	Scoping Report paragraphs 299 and 346 to 348 state that embedded mitigation will include vessel compliance with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78, provision of a Marine Pollution Contingency Plan to include

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	348 and Table 7-6		emergency plans for pollution incidents, undertaking chemical risk assessments where chemicals not listed on the Offshore Chemical Notification Scheme are used and securing best practice measures through a Project Environmental Management Plan (PEMP). Scoping Report section 7.4.3.1.4 identifies mitigation measures to reduce the risk of pollution events which are proposed to be implemented during the operational phase of the Proposed Development however, it is not clear how this will be secured. The Inspectorate accepts that potential pollution events are anticipated to be less likely to occur during operation than construction, as lesser vessel movements will be required. Based on the information provided on the proposed mitigation and control measures, the Inspectorate agrees that significant effects from accidental release of pollution during all phases are unlikely. The Inspectorate agrees that this matter can be scoped out; the ES should identify and ensure that mitigation for all potential pollution incidents are accounted for in the Marine Pollution Contingency Plan. The ES should explain where appropriate management and control measures to reduce/ avoid potential pollution events are secured through the dDCO or other legal mechanism, for all phases of the Proposed Development.
3.2.8	Section 7.3.5	All phases – transboundary	See comment in Table 2.2 above. The Inspectorate is not in a position to agree to scope this matter out until it has undertaken its own transboundary screening.

ID	Ref	Description	Inspectorate's comments
3.2.9	n/a	n/a	n/a

3.3 Benthic and Intertidal Ecology

(Scoping Report Section 7.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.1	Paras 343 and 360 and Table 7-10	Increases in suspended sediments for all elements but the HPF and inshore ECC – all phases	Scoping Report paragraph 343 proposes to scope this matter out of the Benthic and Intertidal Ecology Chapter for all elements but the HPF and inshore ECC during construction, on the basis that the Dogger Bank Teesside A and B environmental statements concluded the effects would have negligible impact on receptors of low sensitivity at the array areas. Additionally, Scoping Report Figure 7-7 identifies that sediment is coarse in the array study area, therefore sediments suspended in large volumes for medium to long term duration during construction/ decommissioning is unlikely. During operation, Scoping Report paragraph 360 scopes this matter out on the basis that as potential for physical disturbance from maintenance activities is scoped out in the Scoping Report, there would be no impact from suspended sediments. However, the Inspectorate has not agreed to scope out impacts from physical disturbance during operation (as detailed below in this table). The Inspectorate notes that the array area and offshore ECC interacts with sensitive receptors: Annex I sandbank and Dogger Bank Special Area of Conservation (SAC) and as such, considers that the potential remains for significant effects. Details of the maintenance activities required during operation are also not fully described in the report. Therefore, in the absence of evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters out from the assessment. The ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			bodies and the absence of LSE. This should include any associated impacts with boulder clearance.
3.3.2	Section 7.4.3.1.3, paras 344 and 345 and Table 7-10	Remobilisation of contaminated sediments for all elements but the HPF and inshore ECC - construction and decommissioning	Scoping Report Figure 7-7 identifies that sediment is coarse and Tables 7-4 and 7-5 identify that contamination levels are low in the cable and array area. Scoping Report paragraph 345 states that Dogger Bank Teesside A and B environmental statements concluded that impacts from remobilised sediments on water quality would have a negligible impact. However, it is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D Array Area. In the absence of information demonstrating likely contaminant levels and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out. The ES should include an assessment of this matter or evidence demonstrating agreement with the relevant consultation bodies that the matter can be scoped out and the absence of LSE. Any mitigation measures which would be relied on to avoid significant environmental effects must also be described.
3.3.3	Section 7.4.3.2.4, paras 361 and 362 and Table 7-10	Remobilisation of contaminated sediments for all elements – operation	Scoping Report paragraphs 361 and 362 propose to scope out impacts from remobilisation of contaminated sediments during operation, on the basis that contamination data presented in Scoping Report Chapter 7.3 (Marine Water and Sediment Quality) demonstrates contamination is low. However, it is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D Array Area.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			In the absence of information demonstrating likely contaminant levels and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out. The ES should include an assessment of this matter or evidence demonstrating agreement with the relevant consultation bodies that the matter can be scoped out and the absence of LSE. Any mitigation measures which would be relied on to avoid significant environmental effects must also be described.
3.3.4	Table 7-10	Colonisation of introduced substrate - construction and decommissioning	Whilst the Inspectorate agrees this matter can be scoped out for the construction phase due to the introduced substrate not yet being present, this is not applicable to the decommissioning phase. Considering the potential for colonisation on the introduced substrate (eg wind turbine foundations), this has potential to cause significant effects should they be removed at decommissioning. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter out from the assessment. Accordingly the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
3.3.5	Table 7-10	Long-term habitat loss – construction and decommissioning	The Inspectorate accepts that the assessment of long-term habitat loss spans all phases of the Proposed Development and therefore, this can be assessed during the operational phase only. However, the ES assessment should ensure that the reported duration of loss accounts for the loss across all phases of the Proposed Development and not just the operational phase.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.6	Table 7-10	Reduction in marine water quality during operation of the HPF in the intertidal area - construction and decommissioning	On the basis that the HPF would not be operational during the construction and decommissioning phases, the Inspectorate agrees to scope this matter out of further assessment.
3.3.7	Table 7-10	Interactions of electro-magnetic field (EMF) (including potential cumulative effects) - construction and decommissioning	The Inspectorate agrees to scope out impacts from EMF during construction and decommissioning as the cables will not be live and therefore there would be no pathway for effect.
3.3.8	Paras 352 to 354	Noise and vibration impacts on benthic and intertidal ecology during construction from vessel movement and UXO clearance - construction and decommissioning	Scoping Report paragraphs 352 to 354 propose to scope out impacts from noise and vibration from vessel movements and UXO clearance on benthic and intertidal ecology. This is on the basis that there is no evidence to suggest that the low level of noise and vibration from vessels has a significant effect on benthic ecology and UXO clearance would only have small spatial and temporal impacts. On the basis of the above information, the Inspectorate agrees to scope this matter out.
3.3.9	Table 7-10	Temporary habitat loss - operation	The Inspectorate agrees that this assessment is captured in the long-term habitat loss assessment and therefore can be scoped out of further assessment.
3.3.10	Section 7.4.3.2	Noise and vibration impacts on benthic and intertidal ecology - operation	Impacts from noise and vibration during operation is proposed to be scoped out on the premise that maintenance activities will be the only source of impact (piling is only proposed during construction) and will be similar to construction impacts but lesser in extent and magnitude. Maintenance activities are not fully described in the Scoping Report and therefore, there is no evidence to support that there is no potential for likely significant effects; they are additional to those

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			during construction and NE highlight (Appendix 2 of this Opinion) that maintenance activities can inhibit or slow recovery of impacted habitat. On this basis, the Inspectorate does not agree to scope this matter out; the ES should describe the maintenance activities during operation and assess significant effects where they are likely to occur.
3.3.11	Para 358	Physical disturbance - operation	Scoping Report paragraph 358 scopes out impacts from physical disturbance during operation on the basis that impacts would be temporary, localised and smaller in scale than at construction. However, as the operation and maintenance activities are not fully described, the Inspectorate does not feel that it has sufficient evidence available to reach a conclusion. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. The ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
3.3.12	Section 7.4.3.1	Hydrodynamic changes – all phases	Impacts from hydrodynamic changes have not been considered in Scoping Report Chapter 7.4, although paragraph 783 states that there is potential for direct and indirect changes to the local and regional hydrodynamic processes. The ES should include an assessment of impacts from hydrodynamic changes on benthic and intertidal ecology receptors where significant effects are likely to occur, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.13	Section 7.4.3.2.7	Interactions of EMF (including potential cumulative effects) - operation	The target depth for the burying of cables is proposed as 0.5m and there are likely to be areas where cable cannot be buried and would instead require cable protection (Scoping Report paragraph 366). The Scoping Report cites studies that demonstrate minimal impacts of EMF on benthic species and the assessment undertaken for Teesside A and B Nationally Significant Infrastructure Projects, which identified a minor adverse effect due to low magnitude of impact. However, a low impact magnitude does not automatically result in non-significant effects. It is also unclear whether the cited studies account for all potential sensitive benthic receptors and whether the parameters of the assessment align with those of the Proposed Development. It is also noted that the target burial depth of 0.5m is shallower than the depth required to trigger assessment in line with NPS EN-3, where a depth of 1.5m or shallower requires assessment. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters out from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of LSE.
3.3.14	Para 348 and Section 7.4.3.2.6	Pollution events resulting from the accidental release of pollutants – all phases	Scoping Report paragraphs 346 to 348 state that embedded mitigation will include vessel compliance with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78, provision of a Marine Pollution Contingency Plan to include emergency plans for pollution incidents, undertaking chemical risk assessments where chemicals not listed on the Offshore Chemical Notification Scheme are used and securing best practice measures through a PEMP.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			Scoping Report section 7.4.3.1.4 identifies mitigation measures to reduce the risk of pollution events which are proposed to be implemented during the operational phase of the Proposed Development. However, it is not clear how this will be secured. The Inspectorate accepts that potential pollution events are anticipated to be less likely to occur during operation than construction as fewer vessel movements will be required. Based on the information provided on the proposed mitigation and control measures, the Inspectorate agrees that significant effects from accidental release of pollution during all phases are unlikely. The Inspectorate agrees that this matter can be scoped out for further assessment. The ES should explain how the full range of potential pollution incidents are captured in the Marine Pollution Contingency Plan. The ES should explain where appropriate management and control measures to reduce/ avoid potential pollution events are secured through the dDCO or other legal mechanism, for all phases of the Proposed Development.
3.3.15	Para 351	Introduction of marine invasive non-native species from vessel traffic – all phases	The Inspectorate agrees that by employing biosecurity measures secured through the PEMP (in line with the regulations and guidance listed in Scoping Report paragraph 349), significant effects are unlikely to occur. It is unclear where this mitigation would be secured for the operational phase of the Proposed Development. The Inspectorate agrees to scope this matter out for all phases, provided the ES explains how appropriate mitigation measures would be secured for the operational phase, through the dDCO or other legal mechanism.

ID	Ref	Description	Inspectorate's comments
3.3.16	Table 7-9	Features of designated sites and benthic and intertidal receptors	It is unclear whether Scoping Report Table 7-9 is displaying all features of the designated sites or those only identified as receptors in the benthic and intertidal assessment. In either situation, features are missing and do not align with those receptors/ features identified as being located within the scoping boundary in Scoping Report paragraphs 324 and 326. For example, sea lamprey, river lamprey and ocean quahog are omitted from paragraphs 324 and 326 but are present in Table 7-9; Grey Seal as a feature of the Humber Estuary SAC is omitted from both paragraphs and the Table. The Applicant should confirm what designated site features are being assessed as benthic and intertidal receptors and where appropriate, cross reference to relevant chapters where features are assessed elsewhere in the ES.
3.3.17	Para 390	Consultation with key stakeholders	Scoping Report paragraph 390 states that liaison with key stakeholders will take place to agree the approach to data collection. The Inspectorate advises that consultation with key stakeholders should also seek agreement on wider matters such as the assessment methodology and identification of receptors and potential impacts.
3.3.18	Para 105	Cable burial risk assessment	A Cable Burial Risk Assessment is proposed in Scoping Report paragraph 105. NE highlight (Appendix 2 of this Opinion) that Dogger Bank SAC is formed by underlying glacial sediments with surface sediments in the SAC varying in depth and subsequently, cable burial could have varying degrees of impact to the designated site. This should be reflected in the ES assessment of impacts from cable burial to the SAC.
3.3.19	Table 7-9 and para 324	Holderness Offshore Marine Conservation Zone (MCZ) and Holderness Inshore MCZ	NE has advised (Appendix 2 of this Opinion) that North Sea glacial tunnel valleys has been omitted as a feature of the Holderness Offshore MCZ site in Scoping Report paragraph 324 and Table 7-9; and subtidal Spurn Head has been omitted for Holderness Inshore

ID	Ref	Description	Inspectorate's comments
			MCZ in Table 7-9. For clarity, these should be included as receptors in the ES assessment.
3.3.20	Para 326	Dogger Bank SAC as a relict sandbank	NE highlight in their scoping consultation response (Appendix 2 of this Opinion) that Dogger Bank SAC is a relict sandbank, which increases its sensitivity to activities and pressures as it is unlikely that it would return to a stable condition once depleted. This should be taken into account in the ES assessment when determining the sensitivity of the receptor, magnitude of impacts and significance of effects.
3.3.21	Para 359	Long term habitat loss – scour protection	Scoping Report paragraph 359 does not identify scour protection as a potential source of impact for long term habitat loss on benthic and intertidal ecology during operation. For clarity, this should be assessed in the ES.

3.4 Fish and Shellfish Ecology

(Scoping Report Section 7.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.1	Para 409 and Table 7-14	Long term habitat loss - construction and decommissioning	The Inspectorate accepts that the assessment of long-term habitat loss spans all phases of the Proposed Development and therefore, this can be assessed during the operational phase only. However, the ES assessment should ensure that the reported duration of loss accounts for the loss across all phases of the Proposed Development and not just the operational phase.
3.4.2	Table 7-14	EMF - construction and decommissioning	On the basis that cables will not be live until the beginning of operation, the Inspectorate agrees to scope out impacts from EMF during construction and decommissioning as there would be no pathway for effect.
3.4.3	Para 437 and Table 7-14	Introduction of hard substrate - construction and decommissioning	Whilst the Inspectorate agrees this can be scoped out for the construction phase due to the introduced substrate not yet being present, this is not applicable to the decommissioning phase. Considering the potential for colonisation on the introduced substrate (eg wind turbine foundations) and with the potential to act as fish aggregating devices, this has potential to cause significant effects should they then be removed at decommissioning. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter out from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.4	Section 7.5.3.2.2	Temporary habitat loss/ physical disturbance - operation	The Scoping Report proposes that this matter is scoped out on the basis that impacts would be greatly reduced in comparison to construction and would happen infrequently. However, it is unclear how often this would occur or what degree of impact this would have on sensitive receptors. Additionally, whilst some of the maintenance activities are mentioned in Scoping Report paragraph 426, it is unknown whether there would be any other/ further maintenance activities required. The Proposed Development also interacts with nursery and spawning grounds as displayed in Scoping Report Figures 7-12 and 7-13. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter from the assessment. Accordingly the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
3.4.5	Section 7.5.3.2.3	Increase suspended sediment and sediment redeposition - operation	The Scoping Report proposes that this matter is scoped out on the basis that only small volumes of sediment could be resuspended during maintenance activities which would occur infrequently with only local and temporary effects. However, details of the operation and maintenance activities are not fully described in the report. The Inspectorate does not agree to scope this matter out as insufficient evidence has been provided. The ES should include an assessment of this matter, or evidence of agreement with the relevant consultation bodies and the absence of LSE.
3.4.6	Section 7.5.3.2.5	Underwater noise and vibration - operation	Scoping Report paragraphs 432 to 435 cite studies from 2007 and 2014 to support that operational noise and vibration from wind farms

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			do not impact fish and shellfish species. However, wind turbine output and size has increased since this time. Reference is also made to a study from 2021 but the turbine output assessed in this study (10MW) is less than those anticipated to be delivered for the Proposed Development (14 to 27MW; Scoping Report paragraph 97). In the absence of evidence that the proposed turbines would have comparable noise outputs to those considered in the 2007 and 2014 studies, the Inspectorate is not in a position to agree to scope this matter out from the assessment. The ES should include an assessment of this matter or evidence demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
3.4.7	Section 7.5.3.2.4	Remobilisation of contaminated sediments if present (cable and foundation installation)- all phases	Scoping Report Figure 7-7 identifies that sediment is coarse and Tables 7-4 and 7-5 identify that contamination levels are low in the cable and array area. However, it is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D Array Area. In the absence of information demonstrating likely contaminant levels and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out. The ES should include an assessment of remobilisation of contaminated sediments and impacts on fish and shellfish for all offshore areas of the Proposed Development and demonstrate that the remobilisation of contaminants would not be significant. Any mitigation measures which would be relied on to avoid significant effects must also be described.
3.4.8	Section 7.4.3.2	Impacts from temperature changes from cables - operation	The Scoping Report has not discussed impacts from changes in temperature from cables. The ES should include an assessment of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			this matter or evidence demonstrating agreement with the relevant consultation bodies that this matter can be excluded and the absence of a LSE.

ID	Ref	Description	Inspectorate's comments
3.4.9	Section 7.4.3	Potential impacts from abstraction/ discharge to marine waters for hydrogen/ desalinisation plants	Abstraction/ discharge to marine waters is included in the parameters of the HPF infrastructure in Scoping Report section 3.4.6. It is unclear whether this infrastructure would lead to impingement or entrainment of fish, leading to increased mortality. The ES should include an assessment of impacts to fish from infrastructure required for abstraction/ discharge to marine waters for the hydrogen and desalinisation plants, where significant effects are likely.
3.4.10	Paras 410 and 411	Disturbance and habitat loss impacts on migratory species	Scoping Report paragraphs 410 and 411 do not explain whether migratory species will be included in the ES assessment. The ES should assess impacts from disturbance and habitat loss on migratory species.
3.4.11	Para 419	Impacts from UXO	See comments in Table 2.1 above.

3.5 Marine Mammals

(Scoping Report Section 7.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.5.1	Table 7-16 and 12-1	Underwater noise: physical and auditory injury resulting from impact piling during construction - operation and decommissioning phases	It is noted that this impact would only occur during the construction phase. The Inspectorate is content that this matter can be scoped out of further assessment at the operation and decommissioning stages.
3.5.2	Table 7-16 and 12-1	Underwater noise: behavioural impacts resulting from impact piling during construction - operation and decommissioning phases	It is noted that this impact would only occur during the construction phase. The Inspectorate is content that this matter can be scoped out of further assessment at the operation and decommissioning stages.
3.5.3	Table 7-16 and 12-1	Underwater noise: physical and auditory injury resulting from operational wind turbine noise - construction and decommissioning phases	It is noted that this impact would only occur during the construction phase. The Inspectorate is content that this matter can be scoped out of further assessment at the construction and decommissioning stages.
3.5.4	Table 7-16 and 12-1	Underwater noise: behavioural impacts resulting from operational wind turbine noise - construction and decommissioning phases	It is noted that this impact would only occur during the construction phase. The Inspectorate is content that this matter can be scoped out of further assessment at the construction and decommissioning stages.
3.5.5	Table 7-16 and 12-1	Underwater noise: physical and auditory injury resulting from noise associated with other construction and maintenance activities (such	This matter is proposed to be scoped out on the basis of noise modelling undertaken for other offshore wind farm projects in the North Sea, which "*show PTS cumulative ranges (ie the noise over a period of 24 hours (PTS_{cum})) to have the potential to cause PTS or*

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		as dredging and rock placement) and vessel noise - all phases	*TTS within 100m of the construction activity or vessel (with the exception of up to 500m or 1000m for rock placement activities (for PTS and TTS respectively), or up to 150m or 250m for dredging (for PTS and TTS respectively)*". The Applicant considers this unlikely to pose a significant risk to marine mammals. The Inspectorate has considered the evidence and is aware that such activities do have the potential to cause PTS and TTS, particularly during the construction phase. Considering the evidence and the nature and scale of the Proposed Development, the Inspectorate does not agree that physical and auditory injury from noise during can be scoped out of the assessment during construction, operation (ie maintenance activities) and decommissioning phases. The ES should include an assessment of physical and auditory injury effects from noise associated with other construction activities (such as dredging and rock placement) and vessel noise) during the construction, operation/ maintenance and decommissioning stages, where likely significant effects could occur or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE.
3.5.6	Table 7-16 and 12-1	Vessel interaction (increase in risk of collision) - all phases	Risk of collision with vessels is proposed to be scoped out for all stages, based on the commitment to best practice measures for all vessel movements and for all stages of the Proposed Development. The Scoping Report acknowledges some interaction between vessels and marine mammals, and this coupled with the limited information on vessel movements and controls at this stage, the Inspectorate does not agree to scope this matter out of the assessment. In the absence of information demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter out of further assessment. The ES should include an

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			assessment of vessel interaction and collision risk to marine mammals, where likely significant effects could occur or evidence demonstrating the agreement of the relevant consultation bodies that the matter can be scoped out and the absence of LSE.
3.5.7	Para 494, Tables 7-16 and 12-1	Changes to water quality – increased suspended sediments (except HPF, which is scoped in) - construction and decommissioning	The Scoping Report states that increased suspended sediment is unlikely to have any direct or indirect impacts on marine mammals given the existing turbidity in the environment and the way species detect their prey. The Inspectorate agrees that impacts of increased suspended sediment is unlikely to result in significant effects on marine mammals and can be scoped out of further assessment.
3.5.8	Paras 495-496, Tables 7-16 and 12-1	Changes to water quality – potential release of contaminants (except HPF, which is scoped in) - construction and decommissioning	Potential impacts related to changes in water quality, such as the release of sediment bound contamination or accidental spillages during cable and foundation installation are scoped out on the basis of data collected in the vicinity of the Proposed Development does not indicate significant levels of chemicals within the sediments that could potentially be disturbed. However, it is noted that the contamination data relies on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D array area. In the absence of information demonstrating likely contaminant levels and clear agreement with relevant statutory bodies, the Inspectorate does not agree this matter can be scoped out., The ES should include an assessment of changes to water quality due to the potential release of contaminants for all offshore areas of the Proposed Development (including array area and ECC) and demonstrate that the remobilisation of contaminants would not be significant. Any mitigation measures which would be relied on to avoid significant environmental effects must also be described.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.5.9	Para 497, Tables 7-16 and 12-1	Changes to water quality – accidental spillages (except HPF, which is scoped in) - construction and decommissioning	The Scoping Report states that with regards to the potential for accidental spillages, control measures as required under MARPOL will be in place, as well as standard good practice measures to be secured within a PEMP. The Inspectorate agrees that, with the implementation of such measures, potential impacts on marine mammals are unlikely to result in significant effects and therefore further assessment is not required. However, the Inspectorate considers that the detail of such measures, including how they would be employed and be secured should be presented within the ES.
3.5.10	Para 509, Table 7-16, and Table 12-1	Changes to water quality associated with the array infrastructure and export cables - operation	The remobilisation of existing contaminated sediments is scoped out for the operational phase on the basis of the low level of sediment contamination in the region demonstrated by other nearby projects, and the low likelihood of any remobilisation of sediments occurring during operation (eg during cable repair). As noted for construction above, the contamination data is noted to rely on Dogger Bank A&B ES data and Figure 7-7 indicates only one sample has been taken from the proposed Dogger Bank D array area. The Inspectorate does not agree that this matter can be scoped out of further assessment. The ES should assess the potential impacts on marine mammals or provide adequate evidence to demonstrate that likely significant effects would not occur.
3.5.11	Table 7-16 and 12-1	Physical barrier effect - all phases	The Scoping Report describes monitoring studies and tagging data that indicate that the physical presence of operational wind farms does not present a physical barrier to seals, although more limited evidence is stated with respect to harbour porpoise. Other potential marine mammal receptors are not mentioned. In the absence of information such as evidence demonstrating clear agreement with

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter out from the assessment. Accordingly, the ES should include an assessment of this matter, or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of an LSE.
3.5.12	Table 7-16 and 12-1	Effects from EMF - all phases	This matter is proposed to be scoped out on the basis of an absence of evidence to date that marine mammal activity will change as a result of the presence of increased EMF in the environment from inter-array cables, and the magnetic field intensities reducing with distance from the cable. The Inspectorate is content to scope this matter out of further assessment on this basis.

ID	Ref	Description	Inspectorate's comments
3.5.13	Para 466	Marine mammal receptors - bottlenose dolphin	The ES should include an assessment of impacts on bottlenose dolphin from the Proposed Development in its entirety, including the offshore array area and not just the offshore ECC and landfall.
3.5.14	Para 472	Marine mammal receptors	The ES should review the list of marine mammal receptors once the site-specific surveys have been completed and analysed. This paragraph currently identifies seven species.
3.5.15	Para 477 and Figure 7-14	Management Units	The ES should include an assessment of seal management units 8 (Northeast England) and 9 (Southeast England) due to the maximum foraging ranges of grey and harbour seals as advised by NE (see Appendix 2 of this Opinion).
3.5.16	Para 478	Impacts from UXO	See comments in Table 2.1 above. The Applicant's attention is directed to the comments of NE at Appendix 2 of this Opinion with

ID	Ref	Description	Inspectorate's comments
			regards to the UXO assessment and reference to NE's Best Practice advice to Offshore Wind (Phase III) (Parker et al., 2022c).
3.5.17	Para 485	Potential impacts - Behavioural Impacts Resulting from Impact Piling, Other Construction Activities and Vessel Noise	The Applicant's attention is directed to the comments of NE at Appendix 2 of this Opinion regarding the use of TTS range as a proxy for disturbance, which is not advised. The Applicant should make effort to agree the appropriate approach to assessing disturbance from construction activities with the relevant consultation bodies, including NE.
3.5.18	Table 7-18	Surveys	It is noted that the proposed survey coverage is the array area plus 4km buffer area. The ES should clearly explain and justify the selection of the site-specific survey area for all marine mammals as 'the array area plus a 4km buffer', with reference to agreements sought through the Evidence Plan Process (EPP).

3.6 Intertidal and Offshore Ornithology

(Scoping Report Section 7.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.6.1	Sections 7.7.3.1.1 and 7.7.3.2.1, and Table 7-20	Direct habitat loss – offshore ornithology receptors - all phases	The Scoping Report states that no direct habitat loss for offshore ornithological receptors is predicted and is therefore scoped out (noting that indirect habitat loss for offshore ornithology is scoped in as 'displacement', and direct habitat loss for prey species is also scoped in as 'changes to prey distribution'). The Scoping Report provides limited justification for scoping this matter from the ES. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. The Inspectorate considers this impact could occur at the construction/ decommissioning stage and potentially the maintenance stage. The ES should include an assessment of direct habitat loss associated with the Proposed Development on offshore ornithology receptors, or evidence of agreement with relevant consultation bodies that the matter can be scoped out and the absence of LSE.
3.6.2	Para 567 and Table 7-20	Direct disturbance and displacement due to work activity in the offshore ECC during operation – offshore ornithology receptors - operation	This matter is proposed to be scoped out on the basis that operation and maintenance activities on the offshore ECC would be infrequent, temporary, and localised, and unlikely to result in detectable effects on offshore ornithology receptors at either the local or regional population level. In the absence of information on the work activities, including information on the offshore ornithology receptors that could be affected by such activities, the Inspectorate cannot agree to scope out direct disturbance and displacement effects from work activities

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			along the offshore ECC at this stage. The ES should assess impacts on offshore ornithology receptors from disturbance and displacement during operation and maintenance, where significant effects are likely to occur or provide evidence demonstrating agreement with the relevant consultation bodies that the matter can be scoped out and the absence of LSE. Any assumptions made in the assessment, including mitigation relied upon such as through a Vessel Management Plan, should be clearly set out.
3.6.3	Para 558 and Table 7-20	Direct disturbance and displacement due to nearshore vessel movements – intertidal ornithology receptors -all phases	This matter is proposed to be scoped out on the basis that the vessels to be used in construction will not be of appropriately small size or low draught to make sufficiently close approaches to intertidal ornithology receptors (such as wading birds and specifically high tide roosting aggregations). In the absence of information on the likely vessels to be used, together with information on the intertidal ornithology receptors that could be affected, the Inspectorate cannot agree to scope out direct disturbance and displacement effects due to nearshore vessel movements at this stage. The ES should assess impacts on intertidal ornithology receptors from disturbance and displacement due to vessel movements, where significant effects are likely to occur or provide evidence demonstrating agreement with the relevant consultation bodies that the matter can be scoped out and the absence of LSE. Any assumptions made in the assessment should be clearly set out.
3.6.4	Table 7-20	Direct disturbance and displacement due to presence of wind turbines and other offshore infrastructure - offshore ornithology receptors only (red-	On the basis that this impact would only occur during the operation phase, the Inspectorate is content that this matter can be scoped out of further assessment at the construction and decommissioning stages.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		throated diver, gannet, auks) - construction and decommissioning	
3.6.5	Paras 570 and 571 and Table 7-20	Barrier effect due to presence of wind turbines and other offshore infrastructure - offshore and intertidal ornithology receptors (including migratory waterbirds) - all phases	The Scoping Report states at paragraph 570 that for the seabird species, the impacts from barrier effects are assumed to be encompassed within the assessment of displacement due to the presence of wind turbines during operation (and as determined using the matrix approach). Paragraph 571 also states that potential barrier effects on seabirds and migrant birds are proposed to be scoped out of the operational phase due to the results of the assessment of the same array area within the Dogger Bank Teesside A & B ESs. This concluded that potential impact of barrier effects on seabirds and migrant birds ranged from 'minor adverse' for kittiwake, guillemot, fulmar, gannet and razorbill and all migrant birds, to 'no impact' for remaining species. The Scoping Report states that on the basis that the array area occupies the same sea area and would not be expanded beyond the area covered in the previous assessment, barrier effects on intertidal and offshore ornithology receptors due to presence of wind turbines during the operation phase are proposed to be scoped out of the ES. On the basis of the information provided and given that displacement effects are scoped in to the assessment, the Inspectorate is content to scope out barrier effects due to presence of wind turbines and other offshore infrastructure on offshore and intertidal ornithology receptors (including migratory waterbirds).
3.6.6	Table 7-20	Accidental pollution - offshore and intertidal ornithology receptors – all phases	Based on the information provided on the proposed mitigation and control measures, the Inspectorate agrees that significant effects from accidental release of pollution during all project phases are unlikely. The ES should provide full details of the proposed mitigation

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			measures for all project phases and describe how they are to be secured through the dDCO or other legal mechanism.
3.6.7	Table 7-20	Collision risk - offshore and intertidal ornithology receptors - construction and decommissioning	The Inspectorate acknowledges that this potential impact is associated with the presence of operational wind turbines and agrees to scope this matter out of the construction and decommissioning phases.
3.6.8	Table 7-20	Entrapment and/ or entrainment of prey at marine outfall/ intake locations for the HPF - offshore ornithology receptors only - construction and decommissioning-	The Inspectorate acknowledges that this potential impact is associated with the presence of operational development, and agrees to scope this matter out of the construction and decommissioning phases.
3.6.9	Table 12-1 and Section 7.7.5	Transboundary effects – intertidal ornithology receptors – all phases	See comment in Table 2.2 above. The Inspectorate is not in a position to agree to scope this matter out until it has undertaken its own transboundary screening.

ID	Ref	Description	Inspectorate's comments
3.6.10	Para 553	Intertidal ornithology receptors – functionally-linked land	The ES should include an assessment of impacts on ornithology receptors using functionally linked land, where likely significant effects could occur.
3.6.11	Paras 554 to 555	Survey data – intertidal ornithology receptors at Saltend	Where likely significant effects to the mudflat habitats at Saltend and/ or the ornithology receptors that use these mudflats could occur, the Applicant should ensure that the assessment is informed by appropriate survey data regarding the distribution and abundance of ornithology receptors. The Applicant should make effort to agree the data collection with the relevant consultation bodies, including NE.

ID	Ref	Description	Inspectorate's comments
3.6.12	Section 7.7.8	Data collection and survey methodologies	The Inspectorate notes the reference to the EPP in the Scoping Report and the limited information provided with regards to specific survey methodologies. In the context of offshore and intertidal ornithology, the Inspectorate advises that, amongst other matters, effort is made to agree via the EPP the extent of the study area, the methodologies for data collection, characterisation of the baseline and key species to be included in the assessment and the assumptions made around connectivity of the populations within the study area to designated sites. The ES should fully explain how the baseline has been established and the outcomes of consultation undertaken in relation to these matters.
3.6.13	n/a	Highly Pathogenic Avian Influenza (HPAI)	The Inspectorate notes that survey data collection commenced in 2021, prior to the 2022 outbreak of HPAI in seabird populations, but will be completed after the impacts of HPAI in 2022/2023. The Applicant should make effort to agree with NE how to appropriately consider the effects of HPAI on ornithology receptors in the assessment. The Applicant is directed to Annex C of NE's scoping consultation response (Appendix 2 of this Opinion).

3.7 Commercial Fisheries

(Scoping Report Section 7.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.7.1	Table 7-24	Reduction in access to, or exclusion from established fishing grounds; additional steaming to alternative fishing grounds; and physical presence infrastructure leading to gear snagging (for mobile gear fleets in the Dogger Bank byelaw area) – all phases	On the basis that mobile gear fleets are already prohibited from fishing within the Dogger Bank byelaw area, the Inspectorate agrees that these matters can be scoped out of further assessment.
3.7.2	Table 7-24	Physical presence of infrastructure leading to gear snagging for all other fleets during construction in the Dogger Bank byelaw area	The Inspectorate assumes that this impact is only relevant during the operation and decommissioning phases and subject to this assumption being correct, agrees to scope it out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.7.3	Paras 598 - 602	Assumptions and limitations	Paragraph 598 states that the datasets used to inform the Scoping Report do not capture all commercial fisheries activity, with Vessel Monitoring System datasets only covering vessels over 12m in length. Paragraph 599 also states that due to the time periods considered, the potential changes in commercial fishing activity as a result of the COVID-19 pandemic are expected to have been captured in the existing baseline data. The Scoping Report states that other published data sources (Inshore

ID	Ref	Description	Inspectorate's comments
			Fisheries and Conservation Authority (IFCA) publications and surveillance data) and consultations with stakeholders and industry will be used to further inform the baseline. The ES should clearly state the limitations associated with any data used. Efforts should be made to agree the data sources with relevant consultation bodies and outcomes should be evidenced within the ES.

3.8 Shipping and Navigation

(Scoping Report Section 7.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.8.1	Table 7-26	The following impacts during construction and decommissioning: • Vessel to structure allision risk for third party vessels; • Reduction in under keel clearance; • Vessel interaction with sub-sea cables; • Interference with vessel navigation and communication equipment; and • Reduction of emergency response capability.	The Inspectorate has assumed that these impacts are considered only relevant to the operation phase and subject to this assumption being correct, agrees to scope them out of the ES. The ES should explain the impacts relevant to each project phase, including where impacts are limited to a particular phase of the project.

ID	Ref	Description	Inspectorate's comments
3.8.2	Para 677	Safety Zones	The Scoping Report states that Safety Zones of up to 500m will be applied for where a vessel is Restricted in Her Ability to Manoeuvre (RAM) during construction, major maintenance and decommissioning activities. The ES should provide additional information on these safety zones including details of any potential diversions to

ID	Ref	Description	Inspectorate's comments
			navigational routes which will be required for existing vessels to avoid the Proposed Development.
3.8.3	Para 677	Mitigation measures	The ES should include details of all mitigation measures that the assessment has relied on in determining the significance of effects.
3.8.4	Para 687	Interference with vessel navigation and communication equipment	In line with the advice from Trinity House (see Appendix 2 of this Opinion), both shore based and offshore based aids to navigation should be included within this assessment.
3.8.5	Paras 701 to 705 and Table 7-29	Assessment methodology	The Scoping Report proposes to determine significance as either broadly acceptable, tolerable, or unacceptable. The ES should clearly set out how the risk assessment approach leads to an assessment of significance of effect consistent/ compatible with the terminology used in the ES, for which the intended approach is set out in Chapter 5 (Section 5.4) of the Scoping Report.
3.8.6	n/a	Future baseline	The ES should identify a future baseline for vessel movements and explain how this has been established, taking into account the existing sea users and numerous proposed projects in the vicinity.
3.8.7	n/a	Pre-construction compass deviation study	The Inspectorate notes comments from the Maritime and Coastguard Agency (MCA) (Appendix 2 of this Opinion) regarding the potential impact on ships compasses from any HVDC transmission infrastructure required for the Proposed Development. If HVDC transmission infrastructure forms part of the application for Development Consent, the Applicant should make effort to discuss and agree the timing of the pre-construction compass deviation study and any necessary mitigation measures with the MCA. Where necessary any such study should be completed before submission of the DCO application.

ID	Ref	Description	Inspectorate's comments
3.8.8	n/a	Hydrographic surveys	The Inspectorate highlights to the Applicant the risk of invalidating the Navigational Risk Assessment if the hydrographic surveys do not fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard as required by Marine Guidance Note 654; this guidance should be taken into account. The Applicant is referred to the comments of the MCA in this regard (Appendix 2 of this Opinion).

3.9 Aviation, Radar and Military

(Scoping Report Section 7.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.9.1	Paras 741 and 742 and Table 7-30	Impacts on military and civil radar – all phases	The Scoping Report seeks to scope out impacts on military and civil radar, across all phases of the development, on the basis that Radar Line of Sight (RLoS) modelling suggests that completed wind turbines will not be visible to radar as they will be a minimum of 210km from shore. Onshore elements of the Proposed Development with the potential to impact on radar are also stated to be outside of the EUR Doc 015 recommended safeguarded zone. The Inspectorate agrees that this matter can be scoped out of further assessment.
3.9.2	Paras 743 and 744 and Table 7-30	Impacts on radio navigation aids – all phases	The Scoping Report seeks to scope out impacts on radio navigation aids across all phases of the development, on the basis that, whilst infrastructure within the Onshore Scoping Area has the potential to cause interference to the NATS Ottringham VOR/DME, it is outside of the EUR Doc 015 recommended safeguarded zone for VOR/DME facilities. On this basis, the Inspectorate is content to scope this matter out.

ID	Ref	Description	Inspectorate's comments
3.9.3	Paras 758 - 759	Approach to Assessment	The Scoping Report states that the assessment will be supported by further desk-based studies alongside consultations with relevant stakeholders. However, no criteria have been provided to define the significance of effects. The ES should provide clarity on how the assessment has been undertaken, taking account relevant guidance and aspect specific methodology, and detail the methodology used.

3.10 Offshore Archaeology and Cultural Heritage

(Scoping Report Section 7.11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.1	Paras 787, 793 and 797; Table 7-32	Direct impacts to heritage assets within the proposed array area – all phases	The Scoping Report proposes that impacts in relation to the array area are scoped out on the basis that these have already been assessed in the Teesside A & B ES, with the ES concluding that, with the application of industry standard mitigation measures, all residual effects within Teesside B (now known as Dogger Bank C) would be of negligible significance or that no discernible impact would occur. The Scoping Report states that the same conclusions are considered to apply to the proposed DBD array area. In view of the flexibility sought around the precise location and seabed footprint of the turbines within the array area and the high archaeological significance of the Dogger Bank area, the Inspectorate does not agree that this matter can be scoped out. The ES should assess direct impacts to heritage assets within the proposed array area, supported by robust baseline survey data, unless otherwise agreed with Historic England.
3.10.2	Paras 791 and 797; Table 7-32	Impacts to the setting of heritage assets and to the historic seascape character - construction and decommissioning	The Scoping Report states that the assessments undertaken in the Teesside A & B ES concluded any changes in setting due to construction activities would be temporary and of sufficiently short duration that they would not give rise to material harm. Similarly, the Scoping Report states that changes to the historic seascape character during construction of the Proposed Development (associated with the presence of installation vessels) would be short term and temporary would not result into a material change to the character of the historic seascape. Decommissioning impacts are described as similar to those of construction (although likely lower in magnitude).

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The Inspectorate agrees that any impacts on the setting of heritage assets and historic seascape character from construction and decommissioning of the offshore infrastructure are not likely to result in significant effects and that this matter can be scoped out.

ID	Ref	Description	Inspectorate's comments
3.10.3	n/a	Impacts to heritage assets from the potential marine intake/ outfall systems for the HPF and desalination plant – all phases	The description of potential impacts and proposed approach to assessment in Section 7.11 of the Scoping Report is focussed on the proposed array area and offshore ECC. It is unclear whether there is potential for direct and/ or indirect impacts to heritage assets from the potential marine intake/ outfall systems for the HPF and desalination plant and whether an assessment of any such impacts is proposed. The scope of the proposed geophysical surveys (Table 7-34) includes only the offshore ECC, so the Inspectorate assumes that the areas of the potential marine intake/ outfall systems are not proposed to be subject to geophysical survey. The ES should address potential direct and indirect impacts on heritage assets from the potential marine intake/ outfall systems, supported by robust baseline survey data, unless otherwise agreed with relevant consultation bodies.
3.10.4	Section 7.11.3.1	Impacts from UXO	The ES should explain whether there is potential for UXO clearance to impact on heritage assets. The Applicant's attention is drawn to the Inspectorate's comments regarding impacts from UXO in Table 2.1 above.
3.10.5	Para 764	Study area	The Scoping Report describes the study area but does not explain why the area chosen is sufficient to reflect the likely ZoI for the Proposed Development. The ES should be based on a defined study

ID	Ref	Description	Inspectorate's comments
			area, which is sufficient to identify the likely significant effects of the Proposed Development, including any potential effects caused by changes to marine physical processes. The ES should also confirm whether the study area aligns with relevant policy and guidance and provide justification for any divergences.
3.10.6	Paras 807 to 812; Table 7-34	Baseline data collection	The Scoping Report identifies that a geophysical survey, multibeam echosounder, side scan sonar and sub bottom profiler survey covering part of the offshore ECC was completed in 2022, with the intention to carry out the same surveys of the offshore ECC in 2023. The offshore ECC has not yet been fully defined and it will be essential for the ES to clearly set out the areas subject to these surveys. The Scoping Report (paragraph 811) explains that geotechnical investigations are scheduled to take place; however, the exact programme is described as unknown and the proposed coverage is unclear. The ES should explain how stakeholder consultation has informed the data collection for the assessment. The Applicant should make effort to agree the survey methodology, the investigations needed to inform the assessment (including techniques, quality and coverage) and any mitigation measures with the relevant consultation bodies including Historic England.

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3.11 Seascape, Landscape and Visual Impact

(Scoping Report Section 7.12)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
3.11.1	Table 7-35	Seascape, Landscape and Visual Impact (SLVI)	The Applicant proposes that a SLVI aspect assessment is scoped out of the ES in its entirety. The Inspectorate agrees with this approach as detailed in the comments below. A SLVI aspect assessment can be scoped out of further assessment in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.11.1	Paras 834, 835 and 841; Table 7-35	Impacts on visual receptors – all phases	The Scoping Report states that there will be no visibility of the proposed offshore infrastructure from the coast, due to the minimum intervening distance of approximately 140km. The offshore infrastructure would be visible from transient visual receptors (eg ships), but the Inspectorate agrees that such receptors would be of low susceptibility to changes in views. The Inspectorate agrees that any impacts on visual receptors from the offshore infrastructure are not likely to result in significant effects and this matter can be scoped out. Regarding the onshore infrastructure, Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on visual receptors from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore Landscape and Visual Assessment (LVIA) ES Chapter. However, Section 8.10 of the Scoping Report (onshore LVIA) (Table 8-33) proposes that impacts on visual receptors resulting from construction of the landfall and onshore export cables are scoped out, meaning the Applicant's

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			proposed approach is unclear. The Applicant is referred to Table 4.9 below.
3.11.2	Paras 834, 838 and 839; Table 7-35	Impacts on seascape character – all phases	In seeking to scope out this matter the Scoping Report notes the temporary and localised nature of construction offshore and states that the operational offshore infrastructure is unlikely to impact on the key characteristics of the Dogger Bank Marine Character Area or other Marine Character Areas within the SLVI assessment study area due to the presence of existing and consented wind farms. The Inspectorate agrees that any impacts on seascape character from the offshore infrastructure are not likely to result in significant effects and that this matter can be scoped out. Regarding the onshore infrastructure, Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on seascape from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore LVIA ES Chapter. However, Section 8.10 of the Scoping Report (onshore LVIA) does not reference impacts on seascape character, meaning the Applicant's proposed approach is unclear. The Applicant is referred to Table 4.9 below.
3.11.3	Paras 835 and 840; Table 7-35	Impacts on landscape character and designated landscapes – all phases	Taking into account the nature and duration of the offshore cable installation works and the intervening distance between the land area and the other proposed offshore infrastructure, the Inspectorate agrees that significant effects on landscape character and designated landscapes from the proposed offshore infrastructure are not likely. This matter can be scoped out of further assessment. Regarding the onshore infrastructure, Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on landscape receptors from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore LVIA ES Chapter.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			However, Section 8.10 of the Scoping Report (onshore LVIA) (Table 8-33) proposes that impacts on landscape character and designated landscapes resulting from construction of the landfall and onshore export cables are scoped out, meaning the Applicant's proposed approach is unclear. The Applicant is referred to Table 4.9 below.
3.11.4	Para 843 and Table 7-35	Cumulative impacts – all phases	The Scoping Report states that given the seascape characteristics of the area and the low sensitivity of potential seascape and visual receptors, any cumulative impacts would not be significant. The Inspectorate agrees that significant cumulative effects are unlikely and that this matter can be scoped out of further assessments.
3.11.5	Paras 844 and 845; Table 7-35	Transboundary impacts – all phases	As noted under Table 2.2 above, the Inspectorate has not yet concluded its own transboundary screening. However, given that no LSE are predicted, the Inspectorate agrees that impacts on the environment of EEA States are unlikely. This matter can be scoped out of further assessment in the ES.

ID	Ref	Description	Inspectorate's comments
3.11.1	n/a	n/a	n/a

3.12 Other Marine Users

(Scoping Report Section 7.13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.12.1	Table 7-39	Impacts on aggregate dredging activities and Disposal Sites – all phases	The Scoping Report proposes to scope these matters out on the basis that there is no overlap of aggregate licence areas and Disposal sites with the Offshore Scoping Area, with the closest active sites being 13km and 23km away respectively. On this basis, the Inspectorate is content to scope this matter out.
3.12.2	Table 7-39	Impacts of Ministry of Defence (MoD) activities – all phases	In the absence of information such as evidence demonstrating clear agreement with the relevant statutory body, the Inspectorate is not in a position to agree to scope these matters from the assessment. The Inspectorate considers that this impact could occur at the construction/ decommissioning stage due to the presence of project ships within Practice and Exercise Areas (PEXA).
3.12.3	Table 7-39	Cumulative impacts – all phases	The Scoping Report proposes to scope out this matter on the basis that there will be no impact pathway that cannot be appropriately mitigated. Potential cumulative impacts should still be assessed within the ES with the measures envisaged to mitigate them laid out in a subsequent section.
3.12.4	Para 900 and Table 7-39	Transboundary impacts –all phases	Paragraph 900 of the Scoping Report proposes that this matter is scoped out on the basis that the nearest offshore wind farm is in German waters approximately 90km away and that no international cables or pipelines have been identified which could come into conflict with the Proposed Development. However, paragraph 662 of the Scoping Report identifies the proposed offshore ECC as intersecting subsea cables/ pipelines including the VSLN Northern Europe

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			interconnector telecommunications cable (UK to the Netherlands) and the Langeled gas pipeline (UK to Norway). See comment in Table 2.2 above - the Inspectorate is not in a position to agree to scope this matter out until it has undertaken its own transboundary screening.
3.12.5	Para 886 and Table 7-39	Potential interference with other wind farms - operation	The Scoping Report proposes to scope this matter out on the basis that potential impacts during operation are primarily on vessels associated with other wind farms, which are to be assessed in the Shipping and Navigation ES Chapter. The Inspectorate agrees with this approach and as such this matter can be scoped out. The ES should provide clear cross-referencing to where the relevant impacts are considered.
3.12.6	Paras 887 – 889 and Table 7-39	Potential interference with oil and gas operations and decommissioning activities - operation	The Scoping Report Proposes to scope this matter out on the basis that the impacts will be assessed in other ES chapters (Shipping and Navigation; and Aviation, Radar and Military). The Inspectorate agrees that this matter can be scoped out of further assessment. The ES should provide clear cross-referencing to where the relevant impacts are considered.
3.12.7	Para 890 and Table 7-39	Physical impacts on sub-sea cables and pipelines - operation	The Scoping Reports proposes to scope out this matter on the basis that if cables require maintenance, standard industry techniques would be followed to ensure that other operators' cables are not impacted. Limited information has been provided in the Scoping Report regarding the operation and maintenance activities that are to be carried out. As such, the Inspectorate is not in a position to scope this matter out.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.12.8	Para 891 and Table 7-39	Impacts on Carbon Capture Storage (CCS) sites - operation	The Scoping Report proposes to scope this matter out on the basis that the effects of permanent structures can be mitigated during the construction phase via consultation with the CCS operators and effects from vessel movements are to be assessed in the Shipping and Navigation aspect chapter. Limited information has been provided on the nature of potential effects and mitigation. As such, the Inspectorate is not in a position to scope this matter out. The ES should include an assessment of impacts on CCS sites from permanent structures, where significant effects are likely to occur, or provide evidence demonstrating agreement with relevant consultation bodies that the matter can be scoped out and the absence of LSE. The ES should provide details of any mitigation relied on and how it is secured through the dDCO or other legal mechanism.

ID	Ref	Description	Inspectorate's comments
3.12.1	Para 870	Impacts from UXO	See comment in Table 2.1 above.

3.13 Offshore Air Quality

(Scoping Report Section 7.14)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
3.13.1	Table 7-41 and para 923	Offshore Air Quality	The Applicant proposes that an Offshore Air Quality aspect assessment is scoped out of the ES in its entirety. The Inspectorate agrees with this approach as detailed in the comments below. An Offshore Air Quality aspect assessment can be scoped out of further assessment in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.13.2	Para 923 and Table 7-41	Offshore air quality impacts on human and ecological receptors – all phases	The Inspectorate agrees that this matter may be scoped out of further assessment in the ES on the basis that the main source of emissions would be exhaust emissions from vessels, temporary generators and, due to the nature and location of the Proposed Development, associated vessel movements and temporary generators would only generate a small increase in emissions, which is unlikely to result in significant effects on human and ecological receptors.
3.13.3	Para 924 and Table 7-41	Cumulative effects – all phases	The Inspectorate agrees that due to the nature and location of the Proposed Development it is unlikely that offshore air emissions would combine with other offshore proposals to result in significant cumulative effects. This matter can therefore be scoped out of further assessment in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.13.4	Para 295 and Table 7-41	Transboundary effects – all phases	The Applicant proposes to scope this matter out on the basis that although the array area is located adjacent to Dutch Territorial Water, it is unlikely that exhaust emissions from project related vessels would give rise to any significant transboundary effects. The Inspectorate agrees that this matter may be scoped out on the basis that due to the nature of the Proposed Development associated vessel movements would only generate a negligible increase in emissions in all phases which is unlikely to result in significant transboundary effects.

ID	Ref	Description	Inspectorate's comments
3.13.5	n/a	n/a	n/a

3.14 Offshore Airborne Noise

(Scoping Report Section 7.15)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
3.14.1	Table 7-42	Offshore Airborne Noise	The Applicant proposes that an Offshore Airborne Noise aspect assessment is scoped out of the ES in its entirety. The Inspectorate agrees with this approach as detailed in the comments below. An Offshore Airborne Noise aspect assessment can be scoped out of further assessment in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.14.2	Table 7-42	Offshore airborne noise impacts on human, intertidal and offshore ornithology, marine ecological receptors and coastal receptors – all phases	The Scoping Report proposes that impacts from noise are considered in the following ES chapters: • Chapter 7.7 (Intertidal and Offshore Ornithology) – impacts from airborne noise on intertidal and offshore ornithology receptors; • Chapters 7.4 (Benthic and Intertidal Ecology); 7.5 (Fish and Shellfish Ecology); and 7.6 (Marine Mammals) – impacts from underwater noise on marine ecological receptors; and • Chapter 8.8 (Onshore Noise and Vibration) – impacts from airborne noise from nearshore construction activities on coastal receptors. On the basis of the above, the information presented in sections 7.15.3.1, 7.15.3.2 and 7.15.3.3 of the Scoping Report concerning the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			offshore activities that would generate airborne noise, and the distance of these activities from the nearest onshore receptors (at approx. 140km), the Inspectorate agrees that offshore airborne noise can be scoped out of further assessment in the ES. The ES should provide clear cross-referencing to where the relevant impacts are considered.
3.14.3	Paragraph 946 and Table 7-42	Cumulative effects – all phases	The Inspectorate considers that due to the nature and location of the Proposed Development it is unlikely that offshore airborne noise emissions from it would combine with other offshore proposals to result in significant cumulative effects. This matter can therefore be scoped out of further assessment in the ES.
3.14.4	Paragraph 947 and Table 7-42	Transboundary effects – all phases	The Applicant proposes to scope this matter out on the basis that although the Array Area is located adjacent to Dutch Territorial Waters, it is unlikely that noise emissions from project vessels and offshore construction, operation and maintenance and decommissioning works would give rise to any significant transboundary effects. As noted in Table 2.2 above, the Inspectorate has not yet concluded its own transboundary screening. However, given that no LSE are predicted, the Inspectorate agrees that impacts on the environment of EEA States are unlikely. The Inspectorate agrees that this matter may be scoped out of further assessment in the ES.

ID	Ref	Description	Inspectorate's comments
3.14.5	n/a	n/a	n/a

4. ENVIRONMENTAL ASPECT COMMENTS - ONSHORE

4.1 Geology and Ground Conditions

(Scoping Report Section 8.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Description	Inspectorate's comments
4.1.1	Table 8-1	Source Protection Zones (SPZ) of private groundwater abstractions	The Scoping Report states that "*If private groundwater abstractions are present, a 50m SPZ 1 would be enforced around the abstraction".* The ES should provide a justification for this approach and explain why it is appropriate to use a specified distance when each possible abstraction would have specific characteristics such as permitted volume, borehole depth and geological information.
4.1.2	Section 8.2.3.1.2	Impacts to groundwater	The ES should identify potential impacts on groundwater quality as a result of saline intrusion (for example, resulting from dewatering activities or abstractions associated with the HPF) and provide an assessment of any likely significant effects. Cross-reference can be made to the Water Resources and Flood Risk ES assessment to avoid duplication.

4.2 Onshore Air Quality and Dust

(Scoping Report Section 8.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.1	Table 8-5	Emissions of dust on human and ecological receptors - operation	The Inspectorate has considered the information in the Scoping Report and agrees that significant effects are unlikely. However, the information on the likely emissions of dust during operation and the receptors which could be affected is very limited. The Inspectorate would expect the ES to provide a reasoned justification supported by evidence to demonstrate why a detailed assessment is not required.
4.2.2	Para 1008 and Table 8-5	Emissions from plant and machinery on human health and ecological sites - operation	The Inspectorate does not consider that the Scoping Report has provided a sufficient amount of detail to justify scoping out the impacts of emissions from plant and machinery on human health and ecological sites during operation. Additionally, limited information has been provided with regard to hydrogen, oxygen and sulphur hexafluoride (SF_6) emissions associated with operation of the HPF. The Inspectorate considers that an assessment of emissions associated with operational plant and machinery and the HPF should be included in the ES where likely significant effects could occur, or for the ES to provide a reasoned justification supported by evidence to demonstrate why a detailed assessment is not required.
4.2.3	Para 1005 and Table 8-5	Emissions from road traffic on human health and ecological sites - operation	The Inspectorate agrees it is unlikely that road traffic associated with operation and management activities would result in significant effects in respect of air quality. However, the ES should confirm that the anticipated road vehicle movements are below the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK) screening values, and if values are exceeded then an assessment of likely significant effects should be provided.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.4	Para 1007 and 1024; Table 8-5	Impact from visible plume (from cooling towers) on human receptors - construction and decommissioning	The Inspectorate is content that this matter can be scoped out for construction and decommissioning and notes that a visible plume assessment will be undertaken for the operational phase and assessed further within the LVIA.
4.2.5	Section 8.3.4 and Table 8-5	Cumulative effects - operation	The Inspectorate considers that the Scoping Report has provided insufficient detail regarding the rationale for scoping out cumulative effects during operation. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter out from the assessment. The ES should include an assessment of this matter or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
4.2.6	Paragraph 1006 and Table 8-5	Impacts of emissions associated with the HPF (only from backup power on human and ecological sites) - construction and decommissioning	The Inspectorate is content that impacts of emissions associated with the HPF (only from backup power on human and ecological sites) during construction and decommissioning can be scoped out from further assessment on the basis that the backup power facility would form part of the operational project infrastructure and would not be operating during construction or decommissioning.

ID	Ref	Description	Inspectorate's comments
4.2.1	Section 3.4.6	Desalinisation plant	The Scoping Report references the potential need for a desalinisation plant. Details of the likely emissions associated with the construction and operation of the desalinisation plant are currently unknown, as is the location and therefore the distance to sensitive receptors. The Inspectorate considers that should this option be pursued, an assessment of emissions associated with the desalination plant on

ID	Ref	Description	Inspectorate's comments
			human and ecological receptors should be included in the ES where likely significant effects could occur.
4.2.2r	Para 1015	Baseline data collection	The Scoping Report states that it is not proposed to collect any primary air quality data sets for the assessment as it is expected there will be sufficient data from monitoring undertaken by the relevant local authorities. Effort should be made to agree the requirement for any additional baseline survey data with the relevant consultation bodies. The assessment in the ES should be carried out with reference to a robust baseline position reflecting the relevant study area, including an understanding of relevant pollutant concentrations. Where required, further monitoring should be conducted to supplement available data taken from the relevant local authorities monitoring.
4.2.3	n/a	Study area	The ES should include a figure(s) to identify the final study areas for each element of the air quality assessment, including the location of human and ecological receptors that have been considered.

4.3 Water Resources and Flood Risk

(Scoping Report Section 8.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	Para 1092 and Table 8-9	Direct disturbance of surface water bodies - operation	The Scoping Report proposes to scope this matter out on the basis that post-construction, there will be no mechanisms by which elements of the Proposed Development could directly disturb water bodies. The Inspectorate agrees that significant effects are not likely and that this matter can be scoped out of the ES.
4.3.2	Para 1075 and Table 8-9	Increased sediment supply - operation	The Scoping Report proposes to scope out the effects of increased sediment supply during operation, but a rationale has not been provided within the Scoping Report. However, considering the information provided in paragraph 1075 of the Scoping Report relating to increased sediment supply during construction and given that no construction activities would be required during the operational phase, the Inspectorate considers that this matter can be scoped out of the assessment.
4.3.3	Section 8.4.3.2.1 and Table 8-9	Supply of contaminants to surface and groundwater - all phases	The Scoping Report proposes to scope this matter out on the basis that construction and operation activities would adhere to best practice embedded mitigation. In the absence of detail relating to potential sources of pollutants, and sufficient information to confirm the absence of a pathway for LSE, the Inspectorate is not in a position to agree to scope this matter out at this time. The ES should provide an assessment of impacts on surface and groundwater from the supply of contaminants for all phases, where significant effects are likely to occur. Any mitigation and/ or design measures relied upon for the purposes of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the assessment should be explained in the ES and appropriately secured through the dDCO or other legal mechanism.
4.3.4	Table 8-9	Water abstraction and effluent discharge - construction and decommissioning	The Scoping Report proposes to scope this matter out but does not provide a rationale. In the absence of detail relating to requirements for water abstraction and effluent discharge during construction and decommissioning and sufficient information to confirm the absence of a pathway for LSE, the Inspectorate is not in a position to agree to scope this matter out at this time. The ES should provide an assessment of impacts on water abstraction and effluent discharge during construction and decommissioning where significant effects are likely to occur, or evidence demonstrating agreement with relevant statutory bodies that this matter can be scoped out of further assessment and the absence of LSE.

ID	Ref	Description	Inspectorate's comments
4.3.1	n/a	Watercourse crossings	The ES should consider the potential for watercourse crossings and associated construction works to negatively impact the ecological status of watercourses under the WFD. Where reliance is placed on the use of a specific method to mitigate significant effects, the Applicant should ensure that such commitments are appropriately defined and secured.
4.3.2	n/a	Water Framework Directive (WFD)	The Scoping Report does not confirm whether a WFD assessment will be provided. The Inspectorate considers that the ES should include an assessment of the potential impacts from the Proposed Development on WFD waterbodies. The Applicant's attention is drawn to the Inspectorate's

ID	Ref	Description	Inspectorate's comments
			Advice Note Eighteen: The WFD in this regard. The ES should explain the relationship between the Proposed Development and any relevant water bodies in relation to the current relevant River Basin Management Plan.

4.4 Soils and Land Use

(Scoping Report Section 8.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.1	Para 1132	Disruption to farming practices (soil heating) – all phases	The Scoping Report Proposes to scope this matter out on the basis that the electrical system will be designed to minimise heat loss. The Inspectorate agrees that significant effects are not likely and this matter can be scoped out of the ES.
4.4.2	Para 1133	Soil degradation and erosion - operation	The Scoping Report states that soil degradation and erosion are unlikely to occur during this phase of development. The Inspectorate agrees that the operation of the Proposed Development is unlikely to result in significant effects in terms of soil degradation and erosion and that this matter can be scoped out.
4.4.3	Para 1135	Impacts on land associated with Stewardship and land management schemes from the landfall and within the onshore ECC - operation	The Scoping Report proposes to scope this matter out on the basis that land located at the landfall and within the onshore ECC would be reinstated following construction and is unlikely to be significantly impacted as a result of the operation phase. The Inspectorate agrees with this justification and that this matter can be scoped out.
4.4.4	Para 1136	Existing utilities - operation	The Scoping Report proposes to scope this matter out on the basis that any maintenance works required during the operation of the Proposed Development would be undertaken following consultation with potentially affected utility providers, with the location of existing services identified prior to commencement of any works. The Inspectorate agrees that with appropriate consultation, significant effects are unlikely to occur on existing utilities and this matter can be scoped out of further assessment in the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.5	Para 1139	Impacts to National Cycle Network (NCN) Routes - operation	The Scoping Report proposes to scope out impacts to NCN routes on the basis that the scoping area does not overlap with any and they are covered separately in Chapter 8.9 (Traffic and Transport). The Inspectorate agrees that significant effects as a result of impacts to NCN routes are unlikely to occur, as such this matter can be scoped out of further assessment in the ES.

ID	Ref	Description	Inspectorate's comments
4.4.1	Para 1123	Agricultural disruption and land classification	The Scoping Report states that impacts on farming practices, including the loss of land availability, will be assessed within the ES. For the avoidance of doubt, Agricultural Land Classification data should be obtained and provided in the ES for any agricultural land to be permanently lost as a result of the Proposed Development.

4.5 Onshore Ecology, Ornithology and Nature Conservation

(Scoping Report Section 8.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	Tables 8-15 and 12-1	Spread of invasive non-native species (INNS) - operation	INNS are noted to be present with the study area and the Scoping Report confirms that where required, control measures for INNS during the construction phase will be included in a project-specific Ecological Management Plan (EMP). The Scoping Report contains limited justification for scoping this matter out. However, the Inspectorate agrees that spread of INNS during operation is unlikely to result in significant effects and can be scoped out of the ES, provided suitable mitigation is in place. The ES should detail and secure mitigation/ biosecurity measures during all phases of the Proposed Development to avoid/ reduce the spread and introduction of INNS.
4.5.2	Tables 8-15 and 12-1	Impacts from ongoing maintenance - construction and decommissioning	The Inspectorate agrees that an assessment of impacts from ongoing maintenance activities at the construction and decommissioning stages can be scoped out, on the basis that they would not occur at these stages.

ID	Ref	Description	Inspectorate's comments
4.5.1	Section 8.6.1	Study area and scoping areas	The ES should clearly define and justify the study area for each ecological receptor, with reference to the ZoI for the Proposed Development. The Scoping Report also does not make clear the extent of works in different areas of the onshore and intertidal scoping areas. The ES should clearly define the extent and nature of works in these areas.

ID	Ref	Description	Inspectorate's comments
4.5.2	Section 8.6.3	Potential impacts – direct impacts associated with loss of resting/ breeding habitats for species (including European Protected Species)	Direct impacts on habitats of conservation value and indirect impacts on species as a result of lighting, noise and emissions are scoped into the assessment. However, direct effects on the resting/ breeding habitats of species are not identified in the Scoping Report. The ES should include an assessment of such matters where likely significant effects could occur, or evidence demonstrating agreement with relevant statutory bodies that this matter can be scoped out of assessment
4.5.3	Para 1177	Potential impacts – operation	It is noted potential impacts of 'long-term loss/ damage/ disturbance' of the HPF is proposed to be included in the assessment at the operational stage, although 'loss/ damage/ disturbance within the scoping area' is also proposed to be considered at the construction stage. It is unclear why these similar impacts of long-term loss are being considered at different stages. Similarly, paragraph 1179 describes effects associated with construction rather than operation. It is recommended the assessment of long-term loss/ damage/ disturbance in the ES be clearly set out and consistent.
4.5.4	Para 1197	Surveys for great crested newts	The Scoping Report identifies a buffer of 250m for great crested newts; however, depending on the habitats present, connectivity and the nature and scale of the Proposed Development, it may be necessary to extend this survey area to 500m. The Applicant should make effort to agree the survey extent with NE, or provide suitable justification for the extent of the surveys undertaken.
4.5.5	Table 8-17	Bird surveys	The Inspectorate advises that, amongst other matters, effort is made to agree via the EPP the scope of the proposed bird surveys, including the methodologies for data collection. The Applicant's attention is also directed to the comments of NE at Appendix 2 of this Opinion in this regard.

ID	Ref	Description	Inspectorate's comments
4.5.6	n/a	Confidential Annexes	Public bodies have a responsibility to avoid releasing environmental information that could bring about harm to sensitive or vulnerable ecological features. Specific survey and assessment data relating to the presence and locations of species such as badgers, rare birds and plants that could be subject to disturbance, damage, persecution, or commercial exploitation resulting from publication of the information, should be provided in the ES as a confidential annex. All other assessment information should be included in an ES chapter, as normal, with a placeholder explaining that a confidential annex has been submitted to the Inspectorate and may be made available subject to request.

4.6 Onshore Archaeology and Cultural Heritage

(Scoping Report Section 8.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	Para 1234; Table 8-18	Impacts on the setting of historic landscapes - construction and decommissioning	The design and location of facilities such as the HPF is not yet confirmed, and therefore the potential activities for these elements during construction or decommissioning are not yet defined. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters out from the assessment. The ES should include an assessment of impacts on the setting of historic landscapes (both from land and sea) during construction and decommissioning, or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
4.6.2	Paras 1235 and 1239; Table 8-18	Direct, physical impacts to designated, known and unknown non-designated heritage assets - operation	The Inspectorate agrees that there would be limited direct impacts on onshore archaeology during operation of the onshore infrastructure and agrees these matters can be scoped out of the assessment.
4.6.3	Para 1239; Table 8-18	Indirect, physical impacts to designated and non-designated heritage assets - operation	Given the early stage of the project design, it is not yet clear whether there is potential for indirect physical impacts during operation. The Inspectorate does not agree that these effects can be scoped out of the assessment at this stage.

ID	Ref	Description	Inspectorate's comments
4.6.1	Section 8.7.7	Assessment methodology	The ES should clearly explain what aspect-specific criteria have been used to define receptor value/ sensitivity and magnitude of change for the archaeology and cultural heritage assessment. The approach to determining how these combine to inform the conclusions on the significance of effects should also be described.
4.6.2	Para 1214; Table 8-19	Data sources	The Inspectorate considers that the 5km study area for the HPF at Saltend could include heritage assets to the west of the Humber Estuary. This is also confirmed with reference to the LVIA study areas shown on Figure 8-22. The ES should therefore also consult the Lincolnshire Historic Environment Record to identify potential heritage assets that could be affected in that location, and an assessment of effects should be provided where significant effects are likely to occur.
4.6.3	Section 8.7.7 and para 1218	Peat deposits – approach to assessment	The Inspectorate notes there is potential for peat deposits within the low-lying areas of the East Riding. The ES should describe the methodology that will be used to establish the location of these deposits and any heritage assets associated with them, and the approach to the assessment of likely significant effects.
4.6.4	Para 1230	Potential impacts	Impacts on heritage assets from alterations to drainage patterns, changes to groundwater flows and levels and from the movement of contaminants or pollutants should be assessed where significant effects are likely to occur. This should consider the potential for hydrological effects from both drying out and inundation.
4.6.5	Para 1230	Potential impacts	Potential impacts on cultural heritage remains associated with World War One and World War Two should be assessed where significant effects are likely. Historic England (Appendix 2 of this Opinion) consider that these remains require very specific levels of expertise to correctly assess their extent and significance. The Applicant should

ID	Ref	Description	Inspectorate's comments
			make effort to discuss and agree these details with relevant consultation bodies.
4.6.6	Para 1230	Potential impacts	The assessment should consider the potential impacts on the visual relationship between the Church of St Augustine, Hedon and Church of St Patrick, Patrington (both Grade I listed).
4.6.7	Paras 1252 and 1254	Impacts to setting	The Zone of Theoretical Visibility (ZTV) developed for the LVIA assessment should be used to confirm which heritage assets may experience visual impacts from the Proposed Development. The assessment should be supported by appropriate visualisations such as photomontages to help illustrate the likely impacts of the Proposed Development. Effort should be made to agree appropriate viewpoint locations for such visualisations with relevant consultation bodies including local authorities and Historic England. Cross-reference can be made to the LVIA ES assessment to avoid duplication.
4.6.8	Table 8-20	Geoarchaeological fieldwork	The Applicant should also consider the need for geoarchaeological survey and associated palaeoenvironmental assessment separate from any engineering led ground investigation work. The Applicant should make effort to discuss and agree the methodology for surveys and approach to assessment with relevant consultation bodies.

4.7 Onshore Noise and Vibration

(Scoping Report Section 8.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	Section 8.8.3.2.3 and Table 8-22	HPF vibration effects at Noise and Vibration Sensitive Receptors (NSVR) - operation	The Scoping Report states that all onshore plant with potential to emit high levels of vibration will be isolated from the ground meaning any vibration transmitted into the ground would be negligible. It is further stated that as the vibration level would be negligible at source, it would be orders of magnitude less than what would be expected to give rise to significant effects at a NVSR. Details of the likely vibration emissions associated with operation of the HPF are currently limited, additionally the confirmed location of the HPF is currently unknown and therefore the proximity of this facility to sensitive receptors. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. The ES should include an assessment of these matters or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
4.7.2	Paras 1287, 1295, 1352; Table 8-22	Road traffic vibration effects at NVSR - all phases	Construction vehicle routes and potential operational export routes via the road network (referred to in paragraph 1352) are currently unknown and therefore so is the distance to sensitive receptors. In addition, the number and type of vehicles have not yet been confirmed. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope these matters from the assessment. The ES should include an assessment of these

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			matters or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of a LSE.
4.7.3	Section 8.8.3.1.5	Noise and vibration effects from offshore construction at onshore NVSR	The Inspectorate agrees that given the offshore infrastructure will be circa 140km from the shore and any onshore NVSR's, this matter can be scoped out of the assessment, as significant effects from noise and vibration over this distance are unlikely to occur.
4.7.4	Para 1291	Noise impacts associated with operation of the buried infrastructure at the landfall site and along the onshore ECC	The Inspectorate agrees that once buried, there is unlikely to be any significant noise effects from buried infrastructure, and this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
4.7.1	Para 1268 and Table 8-21	Ecological receptors	The Inspectorate notes that there is limited reference within this section of the Scoping Report to other receptor types which may be sensitive to noise and vibration, such as ecological receptors. The Inspectorate welcomes the consideration of noise and vibration effects on ecological receptors within Scoping Report Section 8.6 (Onshore Ecology, Ornithology and Nature Conservation). The sensitivity of ecological receptors to noise and vibration should be clearly defined and the ES should clearly explain any assumptions made regarding the assessment of likely significant effects arising from noise and vibration on ecological receptors. The Onshore Noise and Vibration ES assessment should cross-refer to the findings of other relevant ES assessments, such as Onshore Ecology, Ornithology and Nature Conservation, to avoid duplication.

ID	Ref	Description	Inspectorate's comments
4.7.2	Section 3.4.6	Desalination plant	The Scoping Report references the potential need for a desalinisation plant. Details of the likely noise and vibration emissions associated with the construction and operation of the desalinisation plant are currently unknown, as is the location and therefore the distance to sensitive receptors. The Inspectorate considers that should this option be pursued, an assessment of noise and vibration emissions associated with the desalination plant on human and ecological receptors should be included in the ES where likely significant effects could occur.
4.7.3	n/a	Impacts of noise and vibration from the installation and usage of construction compounds	The construction noise and vibration assessment should incorporate effects arising from the installation and use of construction site compounds, where significant effects are likely to occur.

4.8 Traffic and Transport

(Scoping Report Section 8.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	Paras 1358, 1347, 1341 and Table 8-28	Onshore impacts of traffic and transport associated with offshore construction, operation and maintenance, decommissioning and any associated cumulative effects	The Scoping Report states that the preferred base port (or ports) for the offshore construction and operation and maintenance of the Proposed Development is not known, and any decision would not be expected until post-consent. It is also stated that such facilities would typically be provided or brought into operation by means of one or more planning applications or as port operations with permitted development rights. On this basis, the Applicant is seeking to scope out the onshore impacts of the traffic and transport associated with offshore construction, operation and maintenance decommissioning and any associated cumulative effects. The Inspectorate notes that paragraph 1341 of the Scoping Report states that as a worst case scenario it is assumed that the majority of construction traffic would be by road, albeit, potentially originating from one of the existing ports or rail freight facilities. Given that the base port (or ports) is not currently known, and in the absence of road vehicle movements associated with the offshore element of the Proposed Development, potential impacts are not fully understood. The Inspectorate does not agree to scope this matter from the assessment. Accordingly, the ES should include an assessment of these matters, or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE.
4.8.2	Paras 1349, 1350, 1355	Hazardous loads – all phases	The Scoping Report seeks to scope out a separate assessment of hazardous loads and instead seeks to use a road safety assessment to investigate the types of vehicles involved in collisions to

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	and Table 8-28		understand if there are areas where vehicles transporting hazardous loads may be at greater risk. Paragraph 1349 of the Scoping Report states for construction, "*it is not envisaged that there would be a significant number of movements of hazardous loads and that such loads would likely comprise of fuel (petroleum) deliveries*", and paragraph 1355 states for operation, "*it is not envisaged that there would be a significant number of HGV movements of operational hazardous loads in context to the background HGV flows and that such loads would likely comprise of potential exports of oxygen and hydrogen by tanker*". The Inspectorate agrees that a separate Hazardous Load Assessment does not need to be prepared, however the ES should provide clarification regarding the potential number of hazardous loads and where there is potential for hazardous loads that could give rise to significant effects, an assessment should be undertaken and presented in the ES. Additionally, the Road Safety Assessment should provide information on how the routes of hazardous loads may be amended in light of findings regarding collision sites.

ID	Ref	Description	Inspectorate's comments
4.8.1	Para 1366	Assessment methodology	The Scoping Report states that the assessment will be undertaken with reference to the Guidance for Environmental Assessment of Road Traffic (GEART). No reference is made within the Scoping Report about potential effects on pedestrians from fear and intimidation as identified in GEART. Impacts on pedestrians from fear and intimidation should be assessed in the ES where significant effects are likely to occur.

ID	Ref	Description	Inspectorate's comments
			The Applicant should make effort to discuss and agree details of the criteria and methodology to be applied to the assessment, including the determination of the affected road network and the requirement for junction capacity assessments, with relevant consultation bodies.
4.8.2	Para 1341 and Figure 8-21	Impacts to rail infrastructure	Figure 8-21 of the Scoping Report identifies a Port and Rail Head Facility within the Scoping Area. The ES should include an assessment of any potential disruption to the railway network, where likely significant effects could occur.

4.9 Landscape and Visual Impact

(Scoping Report Section 8.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	Para 1386 and Table 8-33	Impacts on landscape character and designated landscapes – construction of the landfall and onshore export cables	Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on landscape receptors from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore LVIA ES Chapter. However, Section 8.10 of the Scoping Report (LVIA) (para 1386 and Table 8-33) proposes that impacts on landscape character and designated landscapes resulting from construction of the landfall and onshore export cables are scoped out, meaning the Applicant's proposed approach is unclear. The Inspectorate is therefore not in a position to agree that impacts on landscape character and designated landscapes from construction of the landfall and onshore export cables can be scoped out of the onshore LVIA ES Chapter. The ES should assess potential impacts on landscape character and designated landscapes from construction of the landfall and onshore export cables, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE.
4.9.2	Para 1387 and Table 8-33	Impacts on visual receptors - construction of the landfall and onshore export cables	Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on visual receptors from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore LVIA ES Chapter. However, Section 8.10 of the Scoping Report (LVIA) (para 1387 and Table 8-33) proposes that impacts on visual receptors resulting from construction of the landfall and onshore export cables are scoped out, meaning the Applicant's proposed approach is unclear.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The Inspectorate considers there is potential for significant effects on visual receptors as a result of vegetation removal associated with the construction corridor (which would be mostly open trench and up to 100m in width). The Inspectorate is therefore not in a position to agree that impacts on visual receptors from construction of the landfall and onshore export cables can be scoped out of the onshore LVIA ES Chapter. The ES should assess potential impacts on visual receptors from construction of the landfall and onshore export cables, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE.
4.9.3	n/a	Impacts on seascape character - all phases	Section 7.12 of the Scoping Report (SLVI) (paragraph 837) proposes that impacts on seascape from construction works in the intertidal and inshore areas at the landfall will be assessed within the onshore LVIA ES Chapter. However, Section 8.10 of the Scoping Report (LVIA) does not reference impacts on seascape character, meaning the Applicant's proposed approach is unclear. A confirmed location for the HPF is also not available at this stage. The Inspectorate is therefore not in a position to agree that impacts on seascape character during construction of the landfall and onshore export cable, or construction, operation and decommissioning of the HPF, can be scoped out of the onshore LVIA ES Chapter. The ES should assess potential impacts on seascape character from construction of the landfall and onshore export cable, and from construction, operation and decommissioning of the HPF, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE. The Inspectorate is content that impacts on seascape character during operation of the landfall and onshore export cables are not likely to result in significant effects and can be scoped out.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.4	Paras 1390 and 1392; Table 8-33	Impacts on landscape character, designated landscapes and visual receptors – operation of landfall and onshore export cables	The Scoping Report notes (Table 3-2) that a permanent corridor width of 50m is proposed for the onshore export cables. It is unclear whether there would be planting restrictions over the cable corridor during operation. The Inspectorate is content that significant effects on landscape character, designated landscapes and visual receptors are not likely to arise from operation of the landfall and buried onshore export cables and agrees that these matters can be scoped out of the ES. However, the Inspectorate advises that consideration should be given to the potential for operational phase effects to landscape character, designated landscapes and visual receptors as a result of any planting restrictions imposed by easements. The ES should assess any likely significant effects.
4.9.5	Para 1396 and Table 8-33	Impacts on landscape character, designated landscape and visual receptors - decommissioning of the landfall and onshore export cables	The Scoping Report assumes that, at decommissioning, the onshore export cables will be removed without need for re-excavation. On this basis, the Inspectorate agrees that impacts during the temporary decommissioning of the landfall and onshore export cables are not likely to result in significant effects on landscape and visual receptors. This matter can be scoped out of further assessment.
4.9.6	Para 1399 and Table 8-33	Cumulative impacts on landscape and visual receptors – all phases of the landfall and onshore export cables	The Inspectorate is content that cumulative impacts on landscape and visual receptors during operation and decommissioning of the landfall and onshore export cables are not likely to result in significant cumulative effects. This matter can be scoped out of further assessment. In view of the comments above, and the absence of a confirmed location for the landfall, the Inspectorate is not in a position to agree that cumulative impacts on landscape and visual receptors during construction of the landfall and onshore export cables can be scoped

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			out of the onshore LVIA ES Chapter. The ES should assess potential cumulative impacts on landscape and visual receptors from construction of the landfall and onshore export cables, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE.

ID	Ref	Description	Inspectorate's comments
4.9.7	Section 8.10.1	Study area	The Scoping Report states that significant effects on landscape and visual receptors are considered unlikely to occur beyond 5km from the permanent above ground elements of the Proposed Development and describes the study area for the LVIA as *"…likely to be a 5km radius around the HPF".* However, in the absence of a maximum height parameter for the HPF (noting that one design option being considered for the HPF includes a cooling tower of an undefined height, which periodically may have a visible plume), it is unclear on what basis the potential for significant effects beyond 5km has been excluded and why this study area is considered appropriate. The assessment of impacts to landscape and visual amenity (including the study area and ZTV) should be based on the relevant worst-case scenarios for the Hydrogen Option and for the National Grid Option (including all proposed structures such as any cooling tower and visible plume) and should encompass any long views of the HPF from the south bank of the Humber Estuary.
4.9.8	Para 1406	Viewpoints and visualisations	Proposed locations for viewpoints and visualisations have not been provided in the Scoping Report.

ID	Ref	Description	Inspectorate's comments
			Effort should be made to agree the number and location of viewpoints (representative, specific and illustrative), as well as the locations for visualisations, with relevant consultation bodies including local authorities and Historic England. Appropriate viewpoints should be selected to capture any long views of the HPF from the south bank of the Humber Estuary.
4.9.9	n/a	Lighting	See comment in Table 2.1 above.

5. ENVIRONMENTAL ASPECT COMMENTS – PROJECT WIDE TOPICS

5.1 Human Health

(Scoping Report Section 9.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.1.1	Para 1434	Impacts to housing – all phases	The Scoping Report proposes to scope this matter out on the basis that no new housing will be required to support the workforce and temporary accommodation requirements would be met with the usual capacity around ports. The Inspectorate agrees that the accommodation needs of the Proposed Development are unlikely to result in significant effects, as such this matter can be scoped out.
5.1.2	Paras 1436 - 1438	Impacts to open space, leisure and play - operation	The Scoping Report states that the Proposed Development is unlikely to have significant effects on space, leisure and play activities during operation. The Inspectorate agrees and is content to scope this matter out.
5.1.3	Para 1442	Impacts to community safety – all phases	The Inspectorate agrees that the Proposed Development is unlikely to result in significant effects on community safety, this matter can be scoped out.
5.1.4	Paras 1443 - 1444	Impacts to community identity, culture, resilience and influence – construction and decommissioning	The Scoping Reports proposes to scope this matter out on the basis that offshore visual impacts are not expected to occur and the temporary construction and decommissioning of onshore infrastructure are not expected to be of a scale of visual impact that would affect human health. The Inspectorate agrees that visual impacts of the Proposed Development are unlikely to result in significant effects to community identity, culture, resilience and

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			influence. This matter can be scoped out of further assessment in the ES.
5.1.5	Para 1449	Impacts to unemployment or Adverse Economic Implications – all phases	The Scoping Report states that significant unemployment or adverse economic implications are not expected to occur, including potential adverse effects to commercial fisheries. The Inspectorate agrees that the Proposed Development is unlikely to result in significant effects as a result of adverse economic implications. This matter can therefore be scoped out of the ES.
5.1.6	Para 1450	Impacts to climate change and adaptation – construction and decommissioning	The Scoping Report does not provide a justification for excluding LSE from effects on climate change during the construction and decommissioning phases. In the absence of this information, the Inspectorate is not in a position to agree to scope this matter from the assessment. The ES should include an assessment of this matter or a justification as to why LSE would not arise.
5.1.7	Para 1451	Water quality or availability – construction and decommissioning	As set out in Table 3.2 above, the Inspectorate is content that this matter can be scoped out of further assessment.
5.1.8	Paras 1453 – 1454 and Table 9-2	Land quality – all phases	Whilst the Inspectorate acknowledges that the offshore portion of the Proposed Development is unlikely to impact on land quality, little justification is given for scoping out impacts from onshore elements. It is noted at Section 8.2: Geology and Ground Conditions, that impacts to human health from contamination sources are to be scoped into the assessment. It is the Inspectorate's opinion that any impact pathways that are likely to have an effect on human health should be referenced within this chapter. The Inspectorate agrees that land quality can be scoped out of the offshore assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.1.9	Paras 1455 - 1457	Offshore air quality	As set out in Table 3.13 above, the Inspectorate agrees that an Offshore Air Quality aspect assessment (including offshore air quality effects to human health) can be scoped out of further assessment in the ES.
5.1.10	Para 1458	Offshore airborne noise	As set out in Table 3.14 above, the Inspectorate agrees that an Offshore Airborne Noise aspect assessment (including offshore airborne noise effects to human health) can be scoped out of further assessment in the ES.
5.1.11	Para 1461	Radiation (EMF) – all phases	The Scoping Report proposes to scope this matter out on the basis that the Proposed Development would not include using or altering active major electrical infrastructure producing EMF and the use of temporary electrical equipment would follow relevant public and occupational safeguards. On the basis that the ES can demonstrate all electrical infrastructure will remain below negligible levels in line with the International Commission Non-Ionising Radiation Protection (ICNIRP) guidelines (2020), the Inspectorate is content to scope out the potential for EMF effects on human health from the Proposed Development.
5.1.12	Paras 1462 - 1463	Health and social care services – all phases	The Inspectorate agrees that it is unlikely that there would be significant effects on health and social care services arising from workers associated with the Proposed Development. However, the Scoping Report does not present any information about the predicted number of workers, the proportion of these that are expected to already live in the local area or the baseline condition/ capacity of services including GPs, dentists and schools and there is therefore insufficient information on which to exclude the possibility of LSE. In the absence of evidence that demonstrates agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			scope this matter out from the assessment. The ES should include an assessment of this matter or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE.
5.1.13	Paras 1465 and 1466	Built environment – construction and decommissioning	Whilst the Inspectorate agrees that affects to offshore utilities are unlikely to occur and can be scoped out, little justification has been provided to demonstrate that the Proposed Development would not have significant effects on the onshore built environment. As such, the Inspectorate is not in a position to scope this matter out.
5.1.14	Paras 1506 -1508	Transboundary impacts – all phases	The Inspectorate agrees that due to the likely localised nature of any potential effects on human health, this matter can be scoped out of the assessment.
5.1.15	Table 9-2	Offshore impacts to: • Housing; • Transport modes, access and connections; and • Community identity, culture, resilience and influence.	The Inspectorate agrees that the offshore elements of the Proposed Development are unlikely to result in significant effects on these matters. They can therefore be scoped out of the assessment.

ID	Ref	Description	Inspectorate's comments
5.1.1	n/a	Impacts on water abstraction or private water supplies or contamination of waters used for recreational purpose	The ES should assess any LSE on human health as a result of impacts on water abstraction or private water supplies, or contamination of waters used for recreational purposes.

5.2 Socioeconomics, Tourism and Recreation

(Scoping Report Section 9.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.2.1	Para 1549 and Table 9-4	Loss of, disruption to or pressure on local infrastructure and services - operation	The Applicant proposes to scope these matters out on the basis that any impacts would be negligible. In the absence of estimated worker numbers associated with operation for all potential design options, the Inspectorate is not in a position to agree to scope out this matter out from assessment. The ES should include an assessment of these matters or evidence demonstrating agreement with the relevant consultation bodies and the absence of LSE.
5.2.2	Para 1548 and Table 9-4	Impacts on tourism, recreation assets and social infrastructure as a result of the presence of offshore infrastructure - operation	The Inspectorate considers that impacts on tourism, recreational assets and social infrastructure as a result of the presence of offshore infrastructure during operation can be scoped out given the spatial extent of effects associated with these matters.
5.2.3	Para 1555 and Table 9-4	Transboundary effects associated with socioeconomics, tourism and recreation – all phases	The Applicant proposes to scope out transboundary effects associated with socioeconomics, tourism and recreation for all phases on the basis that transboundary effects are likely limited to supply chain opportunities for businesses based outside of the UK and would be beneficial in nature. It is noted that potential transboundary effects to commercial fishing and shipping and navigation will be considered separately. On this basis, the Inspectorate agrees that this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
5.2.1	Para 1524	Inter-relationships with other aspects	The Scoping Report notes that the socioeconomics, tourism and recreation assessment is likely to have key interrelationships with the aspects listed at paragraph 1524 and that these will be considered appropriately, where relevant in the EIA. The ES should clearly set out where this information will be presented and cross refer as appropriate.

5.3 Climate Change

(Scoping Report Section 9.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.3.1	Para 1622	GHG Assessment - cumulative impacts – all phases	Paragraph 1622 of the Scoping Report outlines the global approach to assessment of GHG emissions, seeking to scope out an assessment with other projects in line with Institute of Environmental Management and Assessment (IEMA) guidance[1]. The Inspectorate is in agreement with this approach provided that overall emissions are considered.
5.3.2	Paras 1650 and 1651	Climate Change Resilience (CCR) Assessment - Project's vulnerability to climate change impacts - decommissioning	The Scoping Report proposes to scope this matter out on the basis that the approach to decommissioning of the project is not yet known and uncertainties in climate projections mean that new climate change adaption measures are expected to be developed. The Inspectorate is of the opinion that the ES should still include an assessment of these matters, albeit it is acknowledged that it may be high level and it may involve cross-referencing to other assessments within the ES.
5.3.3	Para 1652	CCR Assessment - cumulative impacts - decommissioning	No justification has been provided to scope this matter out of the ES. As such, the Inspectorate is not in a position to scope this matter out.
5.3.4	Para 1653	CCR Assessment - transboundary impacts – all phases	Transboundary impacts are proposed to be scoped out of the CCR assessment on the basis that the assessment focuses on the effects of climate change on the project itself. The Inspectorate agrees that transboundary effects are not relevant to the CCR assessment, this matter can be scoped out.

[1] Institute of Environmental Management and Assessment (IEMA) (2022): Assessing Greenhouse Gas Emissions and Evaluating their Significance

ID	Ref	Description	Inspectorate's comments
5.3.1	Paras 1631 and 1659	Approach to assessment	Where significance criteria are not explicitly defined within the guidance ,the ES should clearly set out where deviation from guidance has occurred and professional judgement has been applied.

5.4 Major Accidents and Disasters

(Scoping Report Section 9.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.4.1	Para 1665	Offshore major accidents and disasters	The Scoping Report states that major accidents and disasters associated with the Offshore Scoping area will be considered in relevant aspect chapters (as set out in paragraph 1665 of the Scoping Report), rather than a separate assessment in the Major Accidents and Disasters ES Chapter. The Inspectorate is content with this approach. The Major Accidents and Disasters ES Chapter should provide clear cross-referencing to where the relevant impacts are considered.
5.4.2	Paras 1675 and 1676 and Table 9-13	Impacts during construction and decommissioning including: • major accident or disaster impact arising from the HPF upon the Project site, human or ecological receptors; • impact of an incident associated with an existing major accident hazard risk on the HPF; and • impact of natural hazards on the HPF	The Scoping Report states that due to the implementation of a formal construction phase plan and a Construction Environmental Management Plan (CEMP), potential environmental consequences associated with major accidents and hazards will be adequately assessed and mitigated, leaving no need for further assessments of the construction and decommissioning phases within the ES. An assessment of these matters is proposed in relation to the operational phase of the Proposed Development, including commissioning activities. The Inspectorate agrees with this approach and that these matters can be scoped out of further assessment in the ES for construction and decommissioning. However, identified risks and corresponding mitigation should still be cross-referenced within the ES.
5.4.3	Paras 1690 and 1691	Cumulative impacts – construction and decommissioning	Table 9-13 of the Scoping Report indicates that cumulative impacts are scoped out for the construction and decommissioning phases.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	and Table 9-13		However, paragraph 1690 states that cumulative impacts are scoped in (with no mention of the construction and decommissioning phases), meaning the proposed approach is unclear. The Inspectorate is therefore not in a position to agree that this matter can be scoped out. The ES should assess potential cumulative impacts from risks of major accidents and disasters during construction and decommissioning, or include information to demonstrate agreement with the relevant consultation bodies and the absence of a LSE.
5.4.4	Paras 1692 and 1693 and Table 9-13	Transboundary impacts – all phases	See comment in Table 2.2 above. The Inspectorate is not in a position to agree to scope this matter out until it has undertaken its own transboundary screening.

ID	Ref	Description	Inspectorate's comments
5.4.1	Para 1674	Subsea hazards	For the avoidance of doubt, the ES should also consider subsea hazards (such as subsea movements, turbidity currents and the movement of sand waves) where relevant.

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES[2]

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Integrated Care Board	NHS Humber and North Yorkshire Integrated Care Board
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England
The relevant fire and rescue authority	Humberside Fire and Rescue Service
The relevant police and crime commissioner	Humberside Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Easington Parish Council
	Paull Parish Council
	Thorngumbald Parish Council
	Welwick Parish Council
	Aldbrough Parish Council
	Roos Parish Council
	Skeffling Parish Council
	Preston Parish Council
	Bilton Parish Council
	Sproatley Parish Council
	Burstwick Parish Council

[2] Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
	Burton Pidsea Parish Council
	Patrington Parish Council
	Rimswell Parish Council
	Esltronwick Parish Council
	Humbleton Parish Council
	East Garton Parish Council
	Hedon Town Council
	Hollym Parish Council
	Holmpton Parish Council
	Withernsea Town Council
The Environment Agency	The Environment Agency
The Joint Nature Conservation Committee	Joint Nature Conservation Committee
The Maritime and Coastguard Agency	Maritime & Coastguard Agency
The Marine Management Organisation	Marine Management Organisation (MMO)
The Civil Aviation Authority	Civil Aviation Authority
The Relevant Highways Authority	East Riding of Yorkshire Council Highways Authority
	Hull City Council Highways Authority
The relevant strategic highways company	National Highways
The Coal Authority	The Coal Authority
The relevant internal drainage board	Beverley and North Holderness Internal Drainage Board
	South Holderness Internal Drainage Board
Trinity House	Trinity House

SCHEDULE 1 DESCRIPTION	ORGANISATION
United Kingdom Health Security Agency, an executive agency of the Department of Health and Social Care	United Kingdom Health Security Agency
Relevant statutory undertakers	See Table A2 below
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	The Forestry Commission
The Secretary of State for Defence	Ministry of Defence

TABLE A2: RELEVANT STATUTORY UNDERTAKERS[3]

STATUTORY UNDERTAKER	ORGANISATION
The relevant Integrated Care Board	NHS Humber and North Yorkshire Integrated Care Board
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	Yorkshire Ambulance Service NHS Trust
The relevant NHS Foundation Trust	Humber Teaching NHS Foundation Trust
Railways	Network Rail Infrastructure Ltd
	National Highways Historical Railways Estate
Dock and Harbour authority	Associated British Ports
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	The Environment Agency

[3] 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant water and sewage undertaker	Yorkshire Water
The relevant public gas transporter	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	Wales and West Utilities Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Mua Gas Limited
	Quadrant Pipelines Limited
	Squire Energy Limited
	National Grid Gas Plc
The relevant electricity generator with CPO Powers	Westermost Rough Limited
	Saltend Cogeneration Company Limited

STATUTORY UNDERTAKER	ORGANISATION
	Doggerbank Offshore Windfarm Project 3 Projco Ltd
	RWE Renewables UK Dogger Bank (East) Limited
	Orsted Hornsea Project Four Limited
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Mua Electricity Limited
	Optimal Power Networks Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	Northern Powergrid (Yorkshire) plc
The relevant electricity transmitter with CPO Powers	Humber Gateway OFTO Limited
	National Grid Electricity Transmission Plc
	National Grid Electricity System Operator Limited
	TC Westermost Rough OFTO Limited

TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))[4]

LOCAL AUTHORITY[5]
City of York Council
City of Doncaster Council
Hull City Council
East Riding of Yorkshire Council
North Lincolnshire Council
North Yorkshire Council

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
Royal National Lifeboat Institution
North East Lincolnshire Council
Lincolnshire County Council
East Lindsay District Council

[4] Sections 43 and 42(B) of the PA2008

[5] As defined in Section 43(3) of the PA2008

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:
East Riding of Yorkshire Council
Environment Agency
ESP Utilities Group
Historic England
Holmpton Parish Council
JNCC
Maritime and Coastguard Agency
NATS En-Route Safeguarding
Natural England
National Grid Electricity Transmission Plc
Northern Gas Networks
Trinity House
United Kingdom Health Security Agency

From: [redacted]
To: Dogger Bank D
Cc: [redacted]
Subject: EN010144 – Dogger Bank D Offshore Wind Farm - EIA Scoping Notification and Consultation
Date: 28 April 2023 13:03:11

Good Afternoon

Thank you for your email and attached letter regarding the above.

I can confirm that East Riding of Yorkshire Council has no comments to make at this stage.

We would, however, request to be consulted as the proposed development progresses bearing in mind the cable run connecting the windfarm to the national grid electricity network looks like it will be through the East Riding of Yorkshire Councils administrative boundary.

Kind Regards

Matthew Sunman
Principal Planning Officer - Minerals and Waste
[redacted]@eastriding.gov.uk
CertHE, MPhysGeog (Hons), MSc Urban and Regional Planning,
MRTPI

The Planning Inspectorate

[Via email: doggerbankd@planninginspectorate.gov.uk]

Our ref: RA/2023/145767/01-L01
Your ref: EN010144

Date: 19 May 2023

To whom it may concern,

EIA SCOPING OPINION CONSULTATION FOR DOGGER BANK D OFFSHORE WINDFARM. DOGGER BANK D OFFSHORE WINDFARM, ERYC.

Thank you for consulting us on the EIA Scoping Opinion for the above project. We have reviewed the Scoping Report, referenced F000016-CST-DOG-REP-0001 and dated 21 April 2023, and have the following advice:

We acknowledge that there are two options currently being considered by the Applicant. Option 1 relates to offshore development only and is therefore largely outside of our remit. Most of our comments therefore apply to Option 2, which is requires onshore infrastructure and includes hydrogen production.

The comments on each topic section within our remit are provided below, together with reference to the questions posed by the Applicant at the end of each section:

Offshore Topics

Comments below relate to both landfall options, which reside within the East Riding of Yorkshire Local Authority. We believe at this time that the comments for landfall at both Aldborough - Saltend & Easington are likely to be the same or very similar.

Marine Physical Processes

Scoping Questions

In regard to the questions posed in section 7.2.9:

Have all the relevant data sources been identified in the Scoping Report?
Yes. We are pleased to see reference to Shoreline Management Plans (SMP). The relevant SMP is currently the 2010 Flamborough Head to Gibraltar Point. This contains the current information on the shoreline policy units. In brief, this identifies areas where there is a policy to “Hold the Line”, such as around existing settlements, and areas

where natural erosion will continue. The Holderness coastline is retreating in many parts of the study area.

The National Coastal Erosion Risk Mapping (https://data.gov.uk/dataset/7564fcf7-2dd2-4878-bfb9-11c5cf971cf9/national-coastal-erosion-risk-mapping-ncerm-national-2018-2021) may be of relevance to the assessment. Please note that a new national product is in the process of being developed (NCERM2) mapping coastal erosion. This is likely to be available by the end of the year.

Do you agree with the proposed assessment approach?
Yes. This part of the coast is particularly prone to erosion, so we expect a full assessment to be carried out of the potential for future, rapid, erosion of the cliffs; particularly the risk of any infrastructure built on the hinterland becoming exposed to coastal processes due to the accelerated erosion of the Till cliff, exacerbated by climate change. The potential for any infrastructure to be exposed to coastal processes during the operational phase, or decommissioning, should be considered in order to reduce the need to carry out mitigation.

Regarding the use of previous modelling work, we note the Applicant's intention to refer back to modelling previously undertaken for other Dogger Bank offshore wind projects (Section 7.2.8, para 270). We would welcome additional clarity from the Applicant that this modelling work is fit for purpose; for example, that it applies the latest climate change projections to consider the realistic worst case scenarios.

The Applicant will need to consider the implications of coastal change on their chosen landfall siting and construction methodology. This will also need to consider the impact on coastal processes both within the development site, and the consequences elsewhere. We recommend the Applicant also speaks to East Riding of Yorkshire Council, as the Coastal Risk Management Authority, to obtain the latest data and projections on coastal erosion and change. The Applicant should also consider precautionary estimates for coastal change, ensuring they set back any infrastructure where coastal erosion is expected to occur. Where relevant, they should consider a credible maximum for coastal change, and consider any implications this may have on flood risk within their site.

When narrowing the areas of interest for landfall, we also recommend the Applicant identifies and considers locations where future schemes or interventions are expected / likely. Examples include the recently completed Withernsea South scheme and Tunstall Drain. Information on such options is likely to come primarily from East Riding of Yorkshire Council, or the Environment Agency.

The Applicant should identify a construction methodology for the landfall works that minimises the impact of their development on the environment. The east coast landfall section includes beaches and cliffs, and also some hard engineered structures. When considering suitable method of works, they should consider the impact on:

- Nearshore coastal processes (including any trenching or temporary activities that could disrupt sediment transport)
- Natural features that influence wave action and local flood risk – for example cliffs and beaches
- Any temporary access requirements (e.g. ramps) to the coast, and whether this could introduce a mechanism for increased wave impacts (e.g. ramping or spray).
- Other existing development, ensuring no increase in flood risk.

Marine Water and Sediment Quality

Scoping Questions

Do you agree with the characterisation of the existing environment?
Yes.

Have all the marine water and sediment quality impacts resulting from the Project been identified in the Scoping Report?
Yes. The Scoping Report has identified the extent of the designated Bathing Waters within the East Riding Area (from Flamborough to Withernsea). There is potential for impact upon bathing water quality during the designated bathing water season (1 May – 30 September) when monitoring of these receptors is carried out by the Environment Agency, to determine levels of Intestinal Enterococci and Escherichia Coli, which are also referred to as Faecal Indicator Organisms (FOIs) – with higher FOI levels having the potential to be indicative of sources of contamination which may have elevated levels of associated waterborne pathogens, which could impact upon human health.

It is noted within the report that finer suspended solids can be associated with higher concentrations of contaminants. In view of this, the ES should take into account the potential for mobilising any sources of contamination associated with higher concentrations of fine suspended solids, which could result in elevated levels of bacteria and, in particular, the FIOs identified.

The coastal waters in the East Riding are also utilised throughout the year for water sports, although these activities are generally concentrated, but not confined to, around areas north of Hornsea, particularly around Fraisthorpe and Bridlington.

Do you agree with the marine water and sediment quality impacts that have been scoped in for / out from further consideration within the EIA?
Yes.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach?
Yes.

Benthic & Intertidal Ecology

In reference to section 2.5 ‘Environmental Legislation’, the following pieces of environmental legislation may also apply to the proposed development:

- The Salmon and Freshwater Fisheries Act 1975 (SAFFA)
- The Eels (England and Wales) Regulations 2009

Scoping Questions

Do you agree with the characterisation of the existing environment?
Yes. However, the results of the intertidal surveys (proposed for 2023) should provide further detail and should be included as part of the Environmental Statement (ES).

Have all the benthic and intertidal ecology impacts resulting from the Project been identified in the Scoping Report?
Yes.

Cont/d..

Do you agree with the benthic and intertidal ecology impacts that have been scoped in for / out from further consideration within the EIA?
Yes.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach?
Yes.

Fish and Shellfish Ecology

Scoping Questions

Do you agree with the characterisation of the existing environment?
Mostly. Migratory fish (including eel, salmonid and lamprey species) should be acknowledged.

Have all the fish and shellfish ecology impacts resulting from the Project been identified in the Scoping Report?
Potential impacts on migratory fish (including eel, salmonid and lamprey species) may not have been identified, such as impact upon migratory pathways and feeding grounds.

It is unclear from the details provided in the Scoping Report what method(s) of dredging will be used. If methods of water-injection dredging or pump-suction dredging are to be used then The Eel Regulations (2009) may apply.

Under Regulation 17(4) of the Eels (England and Wales) Regulations 2009, on or after 1 January 2015, a responsible person must ensure an eel screen is placed in a diversion structure that:

- is capable of abstracting at least 20 cubic metres of water through any one point in any 24-hour period; or
- returns water to a channel, bed or sea.

A method statement will be required to allow the Environment Agency to assess whether the Eels Regulations (2009) apply to the proposed dredging operation. If the Environment Agency determine that the Eel Regulations do apply, the operator must fit a screen of appropriate specifications or hold an Exemption Notice under Section 17(5)(a) of the Eels (England and Wales) Regulations 2009 in order to operate the equipment in compliance with the Eels Regulations.

Do you agree with the fish and shellfish ecology impacts that have been scoped in for / out from further consideration within the EIA?
Potential impacts on migratory fish may not have been identified.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach?
Yes, provided migratory fish are considered.

Cont/d..

Intertidal & Offshore Ornithology

Red Throated Diver, Little Tern, and the Common Scoter (features of the Greater Wash Special Protection Area) may need to be added to Table 7-19, as they may be present in the area affected.

Scoping Questions

Do you agree with the methodology by which the existing and baseline environment is characterised?
Yes.

Have all the intertidal and offshore ornithology impacts resulting from the Project been identified in the Scoping Report?
Yes, but see comment above regarding specific species.

Do you agree with the intertidal and offshore ornithology impacts that have been scoped in for / out from further consideration within the EIA?
Yes.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach
Yes.

Onshore Topics

Geology & Ground Conditions

Due to the large scale of the proposed scheme, the site is underlain by several geological formations, and includes Secondary (undifferentiated), Secondary A, Secondary B and Principal aquifers. The Principal aquifer is associated with the Chalk bedrock.

The water quality of the Chalk groundwater is known to be saline in places. A key consideration will need to be to not induce further saline intrusion, for instance from dewatering activities or abstractions associated with the Hydrogen Production Plant. This would need to be considered in detail through environmental permitting.

Another, is the connectivity of the superficial deposits (and associated aquifers) with local surface waters. Activities that disturb the Secondary aquifers (for instance, dewatering, excavation for foundations, construction through areas of contamination or storage of pollutants) will need to consider possible impacts to any connected surface waters receptors as they have a close relationship in some areas.

In reference to section 2.5 ‘Environmental Legislation’, there is no mention of the Environmental Permitting Regulations (EPR) 2016, which are fundamental to many aspects of the proposed scheme, with or without the Hydrogen Production Plant.

We welcome the proposal to undertake a Preliminary Risk Assessment. Vulnerable receptors and potential risks from construction, maintenance and decommissioning activities have been identified and will be considered further in the ES.

Cont/d..

We may request that a Requirement for investigating unsuspected contamination is included on the DCO subject to our review of the ES.

Scoping Questions

Do you agree with the characterisation of the existing environment?
Yes.

Have all the geology and ground conditions impacts resulting from the Project been identified in the Scoping Report?
No. The chalk is susceptible to saline intrusion and these proposals could have impacts, particularly where abstraction is required.

Do you agree with the geology and ground conditions impacts that have been scoped in for / out from further consideration within the EIA?
Yes, all scoped in.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach?
Yes, and the appropriate guidance has been cited.

Water Resources & Flood Risk

Water Quality

The Applicant has not specifically discussed their intention to provide a Water Framework Directive (WFD) Compliance Assessment. However, not all water quality impacts have been scoped out and we would normally expect to see provision of such a document, or the equivalent assessment within the ES.

The Applicant must demonstrate that their mitigation measures are robust enough to not degrade the surrounding surface waters, and this is something that a WFD assessment would highlight. It may be appropriate for them to carry out water samples before, during and after construction to ensure that they have not deteriorated the water quality.

The cable route has also not yet been defined, but the crossing of main rivers is likely to be required, and as such consideration of this should be included in a WFD assessment.

This approach is supported by section 5.15 of National Policy Statement EN-1, which states that ‘the ES should in particular describe... any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive’.

Additional data and guidance for the applicant is available at the following links:

- Pollution Prevention Guidance https://www.gov.uk/guidance/pollution-prevention-for-businesses
- Environmental legislation in England by the Water Environment (Water Framework Directive, WFD) (England and Wales) https://www.legislation.gov.uk/uksi/2017/407/made
- Monitoring Data: https://environment.data.gov.uk/water-quality/view/landing

Cont/d..

- Catchment and Status Data: https://environment.data.gov.uk/catchment-planning/

Flood Risk

The open sea locations (Figure 1-1 / Drawing No. PC3991-RHD-ZZ-ZZ-DR-Z-0005) are some distance from the shore, and are therefore unlikely to have any impact on terrestrial flood risk.

A consideration for any assessment is whether there are any in-combination or cumulative effects of similar developments on flood risk or coastal processes, and we are pleased to see that these have been scoped in.

Any infrastructure within the open sea should consider the influence of tides, storm surge and waves, ensuring it is resilient to flood and coastal risk, including (where relevant) accounting for the impacts of climate change.

There are several watercourses identified as 'main rivers' within the study area, and it is likely that some of these will need to be crossed as part of the refined working corridor. These watercourses make up a complex drainage catchment, and The Applicant will need to look at the issues relevant to each location. In some places, the watercourses are embanked (e.g. Parts of Burstwick Drain), and adjacent there are lower lying drainage channels. We request all 'main river' crossings are carried out using trenchless techniques.

All associated construction activities (e.g. reception pits and compounds) should be located at least 20 metres from any 'main river,' or from the nearest toe of any associated flood defences. Where practical, we would advise ensuring all construction activities are located outside the floodplain, but if this is not possible the Applicant should consider the nature of risk and ensure there is suitable mitigation in place.

We ask that the depth of any permanent infrastructure below watercourses is maximised to minimise potential interaction with current, or any planned, infrastructure (e.g., sheet piles). The Applicant will also need to take account of any existing flood risk strategy, or any new emerging strategies. Specifically, we highlight ongoing review of options associated with flood defences within the catchment which could include removal or relocation of flood defences, although no decisions have been taken at this time. We are aware of other environmental requirements, such as groundwater protection and statutory designations (both of which are mentioned in the report), and would encourage ongoing conversations to balance those risks around watercourses.

A number of ordinary watercourses exist within the study area, and we recommend the Applicant also speaks to relevant Internal Drainage Boards and the Lead Local Flood Authority. It would be useful to align expectations around watercourse crossing methodology, and consider the overall impact on flood risk management given the interconnection of drainage and flood risk within the study area.

We expect to see that the watercourse crossing methodology considers the impact of flood risk on the site, and flood risk from the site; ensuring it will not increase flood risk to others. A number of existing crossing points exist, and we would expect to see the number of watercourse crossing locations minimised. Where temporary crossings are required, we would ask for further details ensuring these will not increase flood risk, and are removed without causing damage to watercourses or flood defences. Where crossings are required, the Environment Agency are likely to object to the use of

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culverts, in line with our position on their usage. Many of the 'main rivers' within the study area are unlikely to suitable candidates for culverts. Consideration will also need to be given to access to flood defences and avoiding or minimising potential damage to flood infrastructure (including flood embankments).

The following aspects are likely to be of interest to the Environment Agency around flood risk aspects of the project during construction:

1. Crossing locations around watercourses / flood defences
    1. Current infrastructure
    2. Future infrastructure
2. Working corridor within flood risk areas
3. Need for EPR Flood Risk Activity Permits & Byelaws (plus any other consents, e.g. IDB)
4. EA land ownership
5. Haul roads

Flood Risk Assessment

A Flood Risk Assessment (FRA) will be required for any permanent infrastructure; particularly that associated with substation(s) and hydrogen production. We note that the Applicant proposes to provide a standalone FRA. The Applicant should ensure that the most vulnerable aspects of the development are located in the areas of lowest overall flood risk. It is not clear at this stage what the vulnerability classification of this development will be, but this will determine the policy requirements. The Sequential Test is likely to be required and possibly the Exception Test. Footnotes to Table 2 of the Planning Practice Guidance (PPG) state that 'Essential Infrastructure' located within Flood Zone 3a should be designed and constructed to remain operational and safe in times of flood. Additional requirements are also identified if 'Essential Infrastructure' is required in areas of Flood Zone 3b.

The Applicant should establish as part of a FRA if Flood Zone 3b has been mapped in the area(s). In East Riding of Yorkshire reference should be made to the Level 1 Strategic Flood Risk Assessment (SFRA). Please note that as part of this SFRA there are areas where detailed modelling of Flood Zone 3b is not available.

As part of the FRA, the Applicant should identify if further modelling would be required. The Environment Agency holds a number of detailed models in this area, but there may be gaps depending on the locations of interest. Additional modelling may also be required to ensure the full range of climate change scenarios are incorporated, as per the current guidance at https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances, and accounting for residual sources of flood risk (e.g. breach, pump failure, etc.…).

The project is stated as having an operational lifetime of 35 years (see page 371). Please note that the revised PPG states that non-residential development should include an assessment of at least 75 years. We highlight the need for full justification for the lifetime, and that this may have a bearing on the evidence required and/or need for further modelling. We recommend that a longer lifetime is considered, to ensure that the development would remain safe under a longer lifetime and/or additional climate change impacts. Where relevant, the assessment of future flood risk should incorporate a credible maximum scenario.

The FRA should also consider flood risk from various sources. The Level 1 East Riding of Yorkshire Council SFRA provides a useful starting point for this assessment.

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Specifically, issues relating to surface water and groundwater will need to be considered alongside tidal and fluvial flood risk; and where present artificial sources of risk from sewers or reservoirs may affect the approach taken.

Decommissioning Phase

We would like to better understand the options as part of any subsequent decommissioning phase. Of particular interest will be what happens with infrastructure installed below watercourses and flood defences, and also any watercourse crossings, during the construction phase (which we understand will be temporary).

Scoping Questions

Do you agree with the characterisation of the existing environment?
In terms of flood risk, this is complex within this area. We have recommended a number of additional data sources that will help the Applicant prepare an assessment within the area(s) of interest.
In respect of groundwater, yes. However, we note that there is no reference to the 'Environment Agency's approach to groundwater protection' or our Groundwater Protection Guides:

- Groundwater protection - GOV.UK (www.gov.uk)
- The Environment Agency's approach to groundwater protection (publishing.service.gov.uk).

The latter is a useful document that provides an overview of the activities that are acceptable in Source Protection Zones (SPZs). A groundwater abstraction with an SPZ1 (50m radius) is located with the study area, near Humbleton. When the scheme details get finalised, it will be important to ensure that the proposed activities are compliant with our groundwater protection policies, in particular, in relation to SPZS.

The following document may also be useful when producing the EIA, Protect groundwater and prevent groundwater pollution - GOV.UK (www.gov.uk)

Have all the water resources and flood risk impacts resulting from the Project been identified in the Scoping Report?

Large parts of the scoping area are within low lying land. We recommend that alongside the assessment relating to flood zones the Applicant considers the interaction and influence of tidal, groundwater and surface water. The recently published Level 1 SFRA for East Riding of Yorkshire Council will provide a useful basis for collecting flood risk from all sources. Additionally, in the vicinity of Hedon, a Level 2 SFRA has been completed.

The nature of flood risk within this catchment makes it difficult to delineate Flood Zone 3 and 2 in a meaningful way, as there are many permutations of flood risk, and heavy reliance on artificial (assisted pumping) and other infrastructure. We would advise care is taken to draw conclusions based on the likelihood of flooding when using the flood zones in isolation. Due to the nature of flood risk in the catchment, consideration must also be given to residual flood risks, for example pump failure or breach. As per other parts of our response, the Applicant should also consider the role of existing flood defences. We would recommend a conversation with the Environment Agency once the corridor options have been narrowed to better understand how existing or future flood defences may affect the chosen option(s). This may include, for example, the removal of certain flood defences, or a change to the way flood risk is managed in parts of the

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interest area.

Do you agree with the water resources and flood risk impacts that have been scoped in for / out from further consideration within the EIA?

Generally, yes. However, we would like to see as part of any assessment more information on the potential interaction and impact on flood risk infrastructure. This should include:

- How any option would interact around any existing flood risk infrastructrure, for example cable crossings below flood defences or watercourses.
- Interaction with any surface operations (e.g. ground investigations or construction activities) where this could affect access to inspect, maintain or operate flood risk infrastructure. This should also include more details on the construction technique, e.g. reception pits, compound locations and access requirements. We understand these details would become clearer once a refined corridor is identified.
- Further details within a Construction Environmental Management Plan (or similar) looking at the interests of flood and coastal risk management, ensuring that existing flood infrastructure is not affected by any movement, damage, etc… caused by the construction works or permanent structures associated with the development.

'Supply of contaminants to surface and groundwater' has been scoped out, but it appears to be largely covered in the 'Direct impacts on groundwater quality and groundwater resources from contamination sources and construction methods' which has been scoped in.

Have all the relevant data sources been identified in the Scoping Report?
Open Data on GOV.UK has not been listed, which may provide useful information for the applicant**,** Find open data - data.gov.uk

The following are relevant legislation and/or policy in addition to those identified in Section 2.5 – Table 2-2 ("Environmental Legislation"):

- Environmental Permitting Regulations 2016 (Flood Risk Activity Permits) & Yorkshire Land Drainage Byelaws 1980 *(NB: some sections were moved into EPR in 2016).* 1991 Water Resources Act.
- Please speak to Lead Local Flood Authority and Internal Drainage Boards about consents relating to ordinary watercourses. Consents issues under 1991 Land Drainage Act. Local Land Drainage Byelaws may also apply.
- Lead Coastal Risk Management Authority is East Riding of Yorkshire Council – consents may be required for new infrastructure on the coast, or activities affecting existing coastal infrastructure. Consents would be issued under 1949 Coastal Protection Act.

The following policy and strategy documents are also relevant:

- Emerging East Riding Local Plan, including the section on the Coastal Change Management Area.
- Shoreline Management Plans
- Humber 2100 (Humber Strategy)
- National Flood and Coastal Erosion Risk Management Strategy
- Changes to the National Planning Practice Guidance are expected in the near future. The FRA should remain up to date with the current guidance.
- Relevant strategic flood risk documents, including FRMPs. Local flood risk management strategies also exist, or are in the process of being updated /

reviewed

The following may also provide additional context for the initial assessment:

- East Riding of Yorkshire Council (for most up to date shoreline and coastal erosion data)
- East Riding of Yorkshire Council Strategic Flood Risk Assessments – Level 1 & Level 2 (Hedon). Also speak to the LLFA for any more relevant local sources of data such as surface water and groundwater (both of which are locally significant within the area of interest)

Please contact the Environment Agency at neyorkshire@environment-agency.gov.uk to obtain any relevant flood risk modelling evidence that we hold. Please note that depending on the chosen location(s), there are likely to be gaps relating to the type and content of detailed modelling that may be available. The Applicant may need to commission additional modelling where relevant to the development, for example where a credible maximum climate change scenario is required.

There is also the potential for pollution arising in relation to the landfall aspect of the project, and the crossing of surface waters. The ES should take into account the mitigation of any potential for mobilising elevated levels suspended solids, which can adversely impact downstream water quality and the associated habitat.

Do you agree with the proposed assessment approach?
Yes. In terms of flood risk, it is difficult to address specific aspects given the broad approach to the areas of interest. We highlight that the flood risk within the East Yorkshire catchments is complex, and therefore further discussion would be beneficial with which to be able to guide refined advice.

We would advocate that consideration is given to an iterative and proportionate approach to EIA. We would anticipate being able to discuss this approach as the project progresses and refined details are available for comment.

Onshore Ecology, Ornithology & Nature Conservation

We support the applicant's intention to provide Biodiversity Net Gain, wherever possible, as part of the proposals. New developments should not only protect watercourses and their riparian corridors, but also provide overall net gain for biodiversity. Net gain for biodiversity is defined as delivering more or better habitats for biodiversity and demonstrating this through use of the Defra Biodiversity Metric. It encourages development that delivers biodiversity improvements through habitat creation or enhancement after avoiding or mitigating harm. This approach is supported by section 4.5 of National Policy Statement EN-1 and also paragraphs 174 and 179 of the National Planning Policy Framework (NPPF).

The enhancement of biodiversity in and around development should be led by a local understanding of ecological networks, and should seek to include:

- habitat restoration, re-creation and expansion;
- improved links between existing sites;
- buffering of existing important sites;
- new biodiversity features within development; and
- securing management for long term enhancement

The Environment Act 2021 looks to ensure that the overall impact from development on the environment is positive. The Act includes measures to strengthen local government

powers in relation to net gain and a minimum requirement of 10% biodiversity net gain. Although we recognise that provision of BNG is not yet mandatory for Nationally Significant Infrastructure Project, we encourage the applicant to consider an approach to development that results in measurable net gains in biodiversity, having taken positive and negative impacts into account.

The Planning Practice Guidance (PPG) provides guidance on the application of net gain and Institute of Ecology and Environmental Management, together with CIRIA and the Institute of Environmental Management and Assessment have published guidance on how to deliver net gain in practice. These can be downloaded here.

Scoping Questions

Do you agree with the characterisation of the existing environment?
Yes. However, in reference to paragraph 1162 – were any other non-native species recorded, eg. Giant Hogweed?

Have all the onshore ecology, ornithology and nature conservation impacts resulting from the Project been identified in the Scoping Report?
Yes.

Do you agree with the onshore ecology, ornithology and nature conservation impacts that have been scoped in for / out from further consideration within the EIA.
Yes.

Have all the relevant data sources been identified in the Scoping Report?
Yes.

Do you agree with the proposed assessment approach?
Yes.

Climate Change

Whatever final design or location is chosen the likely life span of the site will mean that it will need to operate within a changing climate. Therefore, a robust design and sensitive final location selection to accommodate future climate change impacts should be pursued. This will need to consider issues such as flood risk, increased heat, and drought, all of which could impact on the efficient running of the site. Climate change impact risk assessment and adaptation measures should include the potential impact of a changing climate for the expected duration of site operations.

Major Accidents & Disasters

Regarding paragraph 1674, it is not clear whether turbidity currents, or any subsea mass movements, including the movement of sand waves, have been considered. Although the area isn't prone to earthquakes etc there may be a potential for subsea hazards, such as turbidity currents, to have a significant impact on the North Sea. Any significant event could have a negative impact on the marine infrastructure and cables. The potential for that hazard to impact the Dogger Bank area should be considered.

In addition to our advice on these topics, we also have the following advice in relation to the Environmental Permitting Regulations (EPR) and waste:

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Environmental Permitting Regulations

Hydrogen Production

As the project is only in the initial stages of development and only high-level details with a range of technologies for hydrogen production are listed in the report, the comments we can make at this stage not site specific and are intended as general principles for project development.

The production of hydrogen via electrolysis of water will need an EPR permit for hydrogen production. Industrial scale production of hydrogen using electrolysis is a relatively unknown process. The Environment Agency is currently reviewing potential best available techniques with the aim of producing guidance to aid the permitting process. This is likely to be available by the time detailed project design takes place.

Storage of hydrogen at an industrial scale is an activity that will fall under the Control of Major Accident Hazards (COMAH) Regulations and given the scale of this project, it is likely to be an upper tier site. COMAH implications will vary according to the exact location and the report recognises the potential for a “domino effect” if near other COMAH sites. For EPR and COMAH the applicant should contact the Environment Agency for pre-application advice if a decision to proceed further with site design / development is taken.

Noise from cooling and compression activities associated with production and transportation of hydrogen could be an issue, so site location/design needs to be considered at an early stage to minimise potential impact.

Production of hydrogen at an industrial scale using electrolysis will require a significant supply of water both for production purposes, but also potentially for cooling. This needs to be considered and addressed during site selection/design to ensure a long term reliable and sustainable water supply is available. The Scoping Report mentions the potential for groundwater supply or reuse of industrial effluents. Given the need for pure water supply for electrolysis there is likely to be an industrial effluent both from raw water clean-up and site operation; again, the treatment and sustainable disposal of this needs to be considered at an early stage.

Flood Risk Activity Permits

Works in, over, under, or close to main rivers or flood risk infrastructure are also likely to require Flood Risk Activity Permits under the EPR 2016. The Applicant will need to determine whether they wish to disapply EPR through the Development Consent Order process and we recommend early discussions with us regarding this. We are likely to request the use of Protective Provisions if we do agree to disapply.

We ask that a buffer of at least 20 metres is maintained around main rivers, and a similar distance where existing flood defences (e.g. outfalls or flood embankments) are present.

The Applicant should also discuss their proposals with other Risk Management Authorities with regard to flood and coastal infrastructure on the coast, for example, hard defences in the vicinity of existing settlements.

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Abstraction / Dewatering

If dewatering is required, it may require an environmental permit if it doesn't meet the exemption in The Water Abstraction and Impounding (Exemptions) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works. Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK (www.gov.uk)

If a full abstraction licence is required the Applicant should be aware that some aquifer units may be closed for new consumptive abstractions in this area. More information can be found here: https://www.gov.uk/government/publications/cams-hull-and-east-riding-abstraction-licensing-strategy

Please note that the typical timescale to process a licence application is 9-12 months. The applicant may wish to consider whether a scheme-wide dewatering application rather than individual applications would be beneficial. We suggest talking to our National Permitting Service early in the project planning.

It is possible that the Hydrogen Production Plant will require an abstraction licence and the Applicant is reminded of the need to ensure that any abstraction does not induce further saline intrusion.

The storage of hydrogen in salt caverns is briefly mentioned in the Scoping Report. At this early stage with limited detail available it is difficult to comment, but it is possible that such storage may require an environmental permit and early consultation is advised.

Groundwater Activities

The applicant may also need to consider discharge of groundwater, especially if it is contaminated.

The use of drilling muds for any directional drilling may require a groundwater activity permit unless the 'de minimis' exemption applies. Early discussion about this is also recommended.

Waste

Movement of Waste Off-Site

The Environmental Protection (Duty of Care) Regulations 1991 for dealing with waste materials are applicable to any off-site movements of wastes.

The code of practice applies to the applicant if they produce, carry, keep, dispose of, treat, import, or have control of waste in England or Wales.

The law requires anyone dealing with waste to keep it safe and make sure it's dealt with responsibly and only given to businesses authorised to take it. The code of practice can be found here:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/506917/waste-duty-care-code-practice-2016.pdf

The developer must apply the waste hierarchy as a priority order of prevention, re-use, recycling before considering other recovery or disposal options. Government guidance on the waste hierarchy in England can be found here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf

Site Waste Management Plans are no longer a legal requirement, however, in terms of meeting the objectives of the waste hierarchy and the Applicant's duty of care, they are a useful tool and considered to be best practice.

In order to meet the applicant's objectives for the waste hierarchy and obligations under the duty of care, it is important that waste is properly classified. Proper classification of the waste both ensures compliance and enables the correct onward handling and treatment to be applied. More information on this can be found here: https://www.gov.uk/how-to-classify-different-types-of-waste

Where a development involves any significant construction or related activities, we recommend using a management and reporting system to minimise and track the fate of construction wastes, such as that set out in PAS402: 2013, or an appropriate equivalent assurance methodology. This should ensure that any waste contractors employed are suitably responsible in ensuring waste only goes to legitimate destinations.

Use of Waste On-Site

If materials that are potentially waste are to be used on-site, the applicant will need to ensure they can comply with the exclusion from the Waste Framework Directive (article 2(1) (c)) https://www.gov.uk/government/publications/environmental-permitting-guidance-the-waste-framework-directive for the use of, 'uncontaminated soil and other naturally occurring material excavated in the course of construction activities, etc…' in order for the material not to be considered as waste. Meeting these criteria will mean waste permitting requirements do not apply. Where the applicant cannot meet the criteria, they will be required to obtain the appropriate waste permit or exemption from us.

A deposit of waste to land will either be a disposal or a recovery activity. The legal test for recovery is set out in Article 3(15) of Waste Framework Directive as:

- any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.
- We have produced guidance on the recovery test which can be viewed at: https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits#how-to-apply-for-an-environmental-permit-to-permanently-deposit-waste-on-land-as-a-recovery-activity.

More information on the definition of waste can be found here: https://www.gov.uk/government/publications/legal-definition-of-waste-guidance

Environment Agency Land

There are some areas of land, specifically around main rivers, which are land owned by the Environment Agency. Due to the large scoping area, it is unclear at this stage whether this land will be affected by the proposals, but we would welcome ongoing

discussions with the applicant about this.

We trust this advice is useful.

Yours faithfully

Miss Lizzie Griffiths
Planning Specialist – National Infrastructure Team

Direct dial [redacted]
Direct e-mail NITeam@environment-agency.gov.uk

End

From:	ESP Utilities Group Ltd
To:	Dogger Bank D
Subject:	Reference: PE176253. Plant Not Affected Notice from ES Pipelines
Date:	11 May 2023 15:15:55

Dogger Bank D
Planning Inspectorate

11 May 2023

Reference: EN010144

Dear Sir/Madam,

Thank you for your recent plant enquiry at:

I can confirm that ESP Utilities Group Ltd has no gas or electricity apparatus in the vicinity of this site address and will not be affected by your proposed works.

ESP Utilities Group Ltd are continually laying new gas and electricity networks and this notification is valid for 90 days from the date of this letter. If your proposed works start after this period of time, please re-submit your enquiry.

Important Notice

Please be advised that any enquiries for ESP Connections Ltd, formerly known as British Gas Connections Ltd, should be sent directly to us at the address shown above or alternatively you can email us at: PlantResponses@espug.com

ESP have provided you with all the information we have to date however, there may be inaccuracies or delays in data collection and digitisation caused by a range of practical and unforeseeable reasons and as such, we recommend the following steps are taken as a minimum before work is commenced that involves the opening of any ground and reference made to HSG47 (Avoiding danger from underground services).
A. Plans are consulted and marked up on site
B. The use of a suitable and sufficient device to locate underground utilities before digging (for example the C.A.T and Genny)
C. Trial holes are dug to expose any marked up or traced utilities in the ground
D. If no utilities are shown on any plans and no trace is received using a suitable and sufficient device, trial holes are dug nonetheless using hand tools at the

location or at regular intervals along the location that the work is being carried out depending on the length of excavation work being undertaken
E. All location work is carried out by individuals with sufficient experience and technical knowledge who may choose to control this activity under a Safe System Of Work

Yours faithfully,

Plant Protection Team
ESP Utilities Group Ltd

Bluebird House
Mole Business Park
Leatherhead
KT22 7BA
☎ [redacted]

http://www.espug.com

Historic England

Ms Emma Cottam
The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Direct Dial: [redacted]

Our ref: PL00792919

22 May 2023

Dear Ms Cottam

Dogger Bank D Offshore Wind Farm.
Environmental Impact Assessment Scoping Report.

Thank you for your communication of 24th April 2023 consulting Historic England about the above EIA Scoping Report.

While Historic England broadly welcomes measures to mitigate and adapt to the effects of climate change, we are aware that such developments have the potential to harm the significance of heritage assets and their settings. With this in mind Historic England has drawn up guidance for planners and developers on climate change and renewable energy technologies, including *Wind Energy and the Historic Environment* available at www.helm.org.uk <http://www.helm.org.uk>.

To assist in the implementation of national planning policy Historic England has produced guidance on managing change within the settings of heritage assets. The guidance offers a framework for the consideration of setting, applicable to designated and non-designated heritage assets, and for assessing the implications of development affecting the setting of a heritage asset. It provides the principal Historic England advice on the issue of setting and should be used in conjunction with other relevant guidance. The *Setting of Heritage Assets* is available at www.english-heritage.org.uk/publications/setting-heritage-assets/ <http://www.english-heritage.org.uk/publications/setting-heritage-assets/>.

Our initial review indicates that the proposed development could, potentially, have an impact upon a number of designated heritage assets and their settings in the area. In line with the National Planning Policy Framework (NPPF, paragraph 194), we would expect the Environmental Statement to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and sufficient to understand the potential impact of the proposal on their significance.

We would draw your, and the applicant's attention, in particular, to the following designated heritage assets:

Scheduled Monuments

Listed Buildings

Registered Parks and Gardens

We recommend that the applicant should contact the local authority Historic Environment Record for further information on designated heritage assets, and including the relevant local authority(s) for the location of conservation areas.

We reiterate that this is **not** an exhaustive list and other heritage assets may also be identified as part of the assessment process which would require appropriate consideration. In particular, we would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed. Methodologies that can help to inform the extent of the study area include a Visual Impact Assessment and the production of a Zone of Theoretical Visibility (ZTV) in line with current guidance. The ZTV of the proposed development should initially be based on topographical data before the impact of existing trees and buildings etc. on lines of sight is assessed.

Given the heights of the structures associated with the proposed development and the surrounding landscape character, this development is likely to be visible across a large area and could, as a result, affect the significance of heritage assets at some distance from this site itself.

We would also expect the Environmental Statement to consider the potential impacts which the proposals might have upon those heritage assets which are not designated. The NPPF defines a heritage asset as “a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest”. This includes designated heritage assets and assets identified by the local planning authority (including local listing). This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk <http://www.heritagegateway.org.uk>) and relevant local authority staff.

We recommend that the applicant involve the Conservation Officers of East Riding of Yorkshire Council and City of Kingston Upon Hull Council and the archaeological staff at Humber Archaeology Partnership, Hull, in the development of this assessment. They are best placed to advise the applicant on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and

opportunities for securing wider benefits for the future conservation and management of heritage assets.

In general terms, Historic England advises that a number of considerations will need to be taken into account when proposals for wind energy are assessed. This includes consideration of the impact of ancillary infrastructure, such as tracks and grid connections, as well as the production facilities and turbines themselves:

- The potential impact upon the historic character of the landscape, including landscape features which positively contribute to character.
- Direct impacts on heritage assets (buildings, monuments, sites, places, areas, landscapes), whether designated or not.
- Impacts on the settings of heritage assets since elements of setting can contribute to the significance of a heritage asset. An assessment of the impact on setting will be proportionate to the significance of the asset and the degree to which the proposed changes enhance or detract from its significance and the ability to appreciate the asset. In the consideration of setting a variety of views may make a contribution to significance to varying degrees. These can include long-distance views as well as the inter-visibility between heritage assets or between heritage assets and natural features. For further advice see *The Setting of Heritage Assets*.
- The potential for archaeological remains.
- Effects on landscape amenity from public and private land.
- The cumulative impacts of the proposal.

It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this.

Consideration should also be given to undertaking a practical exercise with either a crane or balloons erected at the height of the proposed structures so that all parties are to better able to understand the landscape impact of the proposals. We have been engaged in other major developments where this technique has been used and it greatly assisted the identification of the key issues and impacts from which the resulting EIA was able to focus its assessment.

The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.

We have the following comments to make regarding the content of the Scoping

Report:

Options:

There are two development Options (National Grid and Hydrogen). As a consequence it is unlikely that the applicant will decide which is the favoured option until after a consent is granted. Therefore, because there is no clear preferred option at this stage, we would urge the applicant to review the items they consider should be scoped out of the assessments. There should be a minimum of items scoped out of any assessment when there is no clear development option.

Terrestrial archaeology: -

Para 1229 (p.387): Re 'Direct impacts also include hydrological changes which may cause desiccation and drying out of any wetland deposits and associated preserved waterlogged archaeological / geoarchaeological remains. Similarly, should an area become inundated, as a result of the Project, this too can impact heritage assets.

Table 8-20 (p.392): Re '*Archaeological and Geoarchaeological elements to any engineering-led SI / GI work*.', the potential need for bespoke geoarchaeological fieldwork separate to any GI works should also be noted, eg deep alluvium, etc.The applicant does not seem to consider that specific-geoarchaeological survey, and associated palaeoenvironmental assessment, may be required in certain areas. This needs to be rectified.

We consider that the cultural heritage remains associated with World War One and World War Two should be identified as a very specific area of interest, requiring very specific levels of expertise to correctly address its extent and significance.

The visual relationship between the Church of St Augustine, Hedon and Church of St Patrick, Patrington (both Grade I) needs to be carefully assessed. The two churches are known as 'the King and Queen of Holderness', and the visual relationship between the two church towers is a key part of their significance

Table 8-18 Scoping In/Out, page 390. We do not agree that change to the setting of historic landscapes, which could affect their heritage significance, should be scoped out. As discussed above, because there are two possible development options, the categories of data to be scoped out should be as few as possible. Given the possible scale of the interventions, the thorough assessment impact on landscape, setting (both from land and sea) and significance will be crucial to our understanding.

As a means of additional clarification for the Planning Inspectorate and Applicant we have provided responses to the questions posed in 8.7.8, para 12637, page 395.

1. **Do you agree with the characterisation of the existing environment?**

The content of the Scoping Report provides a general and very summarised description of the area in which these developments are proposed, but we feel such detail fall short of being considered to offer a "characterisation". It is our understanding that this would be formulated within the PEIR, incorporating seabed mapping and seabed/sub-seabed investigations - synthesising such data to present an assessment to support an application.

2. **Have all the onshore archaeology and cultural heritage impacts resulting from the Project been identified in the Scoping Report?**

Unfortunately, we are not in a position to agree that the onshore archaeology and cultural heritage impacts resulting from the Project have been identified in the Scoping Report.

3. **Do you agree with the onshore archaeology and cultural heritage impacts that have been scoped in for / out from further consideration within the EIA?**

As we have stated above, the PIER should consider scoping in the full suite of impacts on significance.

4. **Have all the relevant data sources been identified in the Scoping Report?**

Yes, we consider that all the relevant data sources have been identified.

5. **Do you agree with the proposed assessment approach?**

As raised above, we are of the opinion that a full and adequate archaeological assessment of impact needs to be retained within any PEIR submitted.

Marine archaeology: -

Para 767 (p.242): Re '*Buried sediments related to this are likely to contain, not only direct archaeological evidence of the human occupation of the area, but also evidence relating to the palaeoenvironment*.', not just palaeoenvironmental, as buried sediments will help our understanding of the geomorphological development and chronolstratigraphy of the area.

769 (p.242): Re '*Recent geophysical and geoarchaeological investigations have been undertaken for the Dogger Bank Creyke Beck A & B and Teesside A & B projects, now known as Dogger Bank A (DBA), Dogger Bank B (DBB), Dogger Bank C (DBC) and Sofia respectively.*', a mechanism should be put in-place to allow data sharing to facilitate our understanding of Doggerland. This is essentially already happening (hence '*A wider study of the palaeolandscapes of the Dogger Bank projects is currently ongoing, and the DBD Project has the potential to both inform, and be*

informed by, this wider study.'), but it would be useful if the details of how the collaborative work is being undertaken, and what agreements are in-pace between the different projects, were provided (especially regarding commercial sensitivities, etc.).

779 (p.246): Re '*Palaeolandscape features and sub-seabed deposits of palaeoenvironmental interest* …', this should really say 'geoarchaeological and palaeoenvironmental'.

784 (p.247): Re '… *(the surrounding in which the heritage assets is located, experienced and appreciated).*', the potential contribution of those 'surroundings' to the significance of heritage assets should also be highlighted.

811 (p.252): Re '*Geotechnical investigations are scheduled to take place; however, the exact programme is unknown. Allowance will be made for archaeological involvement in the planning of the survey, and the samples will be made available for geoarchaeological assessment by a qualified and experienced archaeological contractor if required.*', robust procedures should must be put in-place to facilitate timely communication between GI contractors and archaeologists. For instance, GI contractors need to be fully briefed on the requirements for luminescence (OSL) dating samples (opaque liners / sleeves and splitting cores in 'dark room' conditions etc.

We understand from the EIA Scoping Report, Table 3-2 'Key Indicative Parameters for the Worst Case Scenario Assessed in the Scoping Report' (pages 27 to 29) has been produced mindful of previous offshore wind developments and future changes in the infrastructure market, such as wind turbine dimensions (paragraph 95). With Table 3-1 'Infrastructure Requirements for Each Development Option' displaying the two development options (National Grid and Hydrogen), which are additionally explained within Plate's 1-1 to 1-3. As such, we recognise the Applicants request for design flexibility - through the design envelope approach - due to technological advances and the developing needs of the UK's energy source. With any precise locations, configuration and the foundations of the array infrastructure unlikely to be determined until after a consent is granted.

On this basis, given the current scale, methods of construction and the ways in which the historic environment is assessed and managed throughout offshore renewable projects we do not wholly agree that impacts from the generation assets should be scoped out (as stated in EIA Scoping Report para. 787, page 247). Although this is less well clarified in Table 12-1 'Summary of Potential Impacts Associated with the Project'.

In part this is formed from our understanding that the Teesside A and B Environmental Assessment did not include detail on how the relationships between archaeological material and the wider environment are crucial to developing a full understanding of such material, or consideration of impacts to the significance of a heritage asset may

also occur if a development changes the setting of the asset (para. 782 to 784). Which may in turn cause significant adverse effects.

In addition, as the full maximum seabed footprint from all the projects possible new infrastructure has yet to be defined in total, or in relation to the exact individual components (in width and depth), understanding where or if significant adverse effects may occur to heritage assets has not been effectively explained. Furthermore, we feel to scope out specific elements creates difficulties when maintaining the delivery of provisions held within the DCO and associated DMLs, for which the proposed approach to project 'commitments' described within an Outline Written Scheme of Investigation, would potentially not provide adequate measurable indicators for the project in its entirety and duration.

With regard to data sources described within the Scoping document at various points (para 31, and 808 to 810) we feel there is a need to explain what geophysical survey data (in terms of techniques, quality and coverage) alongside methods of processing, assessment and reporting is proposed to inform the Preliminary Environmental Information Review (PEIR) and Environmental Statement (ES). This is currently unclear, and we feel it has an important role in demonstrating a characterisation of the seabed (and its composition), and has a bearing on archaeological remains, their significance and state of preservation - for which to address an applications development impact as a whole.

With regard to specific archaeological receptors. The Scoping notes the importance of ancient submerged landscapes, which form part of what is termed 'Doggerland' (in paragraphs 767 to 770, pages 242 onwards). It is also noted that such features, where preserved, can be complex to understand, but which through the work offshore from various development projects is becoming systematically mapped, assessed and analysed for archaeological potential. However, determining how they may be impacted by the proposed development is less clear, and is something that should also be detailed within any PIER and ES for the entire project - with direct reference to the updated North Sea Prehistory Research and Management Framework (<https://researchframeworks.org/nsprmf/>).

It is also apparent that the Applicants are aware (in the Scoping document) that wrecks of aviation or maritime origin are also difficult to address early in the project plans (para. 773). However, the reasons for this are less well explored. In part the techniques and coverage utilised within a geophysical survey to inform an application - whilst very important - can have limitations and will not identify the full character and extent of the historic environment within the study area. Simply due to the variable nature of marine archaeological sites and objects, especially in areas of mobile sediment movement.

By way of an example, significant previously unrecorded features can be discreet,

periodically buried and at the same time rare and well preserved. Furthermore, they can also be widely dispersed through high velocity impacts, such as aircraft crash sites, or through explosive events, with associated wreck material subsequently displaced and re-deposited over large areas.

Similarly, the true extent of known sites (at the time of the application) may also not be completely recorded and captured within prescribed archaeological exclusion zones (AEZs) until a high resolution UXO specification survey has been undertaken, and further corroborated with detailed ground truthing investigations (utilising onboard archaeological expertise), looking at any outlying geophysical anomalies.

It is also worth noting that the positioning and accuracy of the national marine record is testimony to how difficult and complex it has been to tie in accounts of shipping losses to particular locations. Due to the distance from shore, plus the number of marine and aviation movements through the ages, the development area is consequently a likely location for hitherto concealed and unknown shipwrecks and military heritage assets.

It has been outlined that an archaeological desked based assessment (DBA) will include related heritage datasets, within a defined study area. With the DBA expected to go into further detail as to archaeological potential within the Study Area. Furthermore, it may be of use and aid this element of the project to attain further publicly accessible data to enhance their assessment from:
UKHO's Admiralty's seabed mapping datasets: https://www.admiralty.co.uk/access-data/seabed-mapping which may contain bathymetry data of the proposed development location to help characterise the archaeological potential and inform the DBA (and thus the application).
BGS GeoIndex (offshore) https://www.bgs.ac.uk/map-viewers/geoindexoffshore/ can be useful to gather information on the sub-surface seabed stratigraphy and any related archaeological potential.

As part of the archaeological assessment to inform the PEIR, the Applicant should include direct reference to the sections relevant to the Historic Environment/Marine Historic Environment within the draft energy National Policy Statement documents, alongside all relevant guidance. In addition, the DBA should access the methodological approach produced by Historic England for Historic Seascape Characterisation, which supports the UK's implementation of Council of Europe European Landscape Convention 20001:
• https://historicengland.org.uk/research/methods/characterisation/historic-seascapes/
• <https://archaeologydataservice.ac.uk/archives/view/seascape_he_2018/index.cfm>

As a means of additional clarification for the Planning Inspectorate and Applicant we have provided responses to the questions posed in 7.11.9 (para 818, page 254).

1. **Do you agree with the characterisation of the existing environment?**

The content of the Scoping Report provides a general and very summarised description of the area in which these developments are proposed, but we feel such detail fall short of being considered to offer a “characterisation”. It is our understanding that this would be formulated within the PEIR, incorporating seabed mapping and seabed/sub-seabed investigations - synthesising such data to present an assessment to support an application.

We have noted that an emphasis on the submerged prehistoric landscape and palaeoenvironment has been included by the Applicants, alongside the acknowledged high potential for hitherto unknown wrecks, wreck remains and aircraft that could be present within the Offshore Study Area. As such, we expect much of this potential will be better understood during the surveys utilised during post-consent and pre-construction.

2. **Have all the offshore archaeology and cultural heritage impacts resulting from the Project been identified in the Scoping Report?**
Unfortunately, we are not in a position to agree that the offshore archaeology and cultural heritage impacts resulting from the Project have been identified in the Scoping Report. This is because there appears an over reliance towards work undertaken toward the consent of the Teesside A & B projects, without direct referencing and without explaining important design elements of the Dogger Bank D windfarm in which to consider specific impacts.

3. **Do you agree with the offshore archaeology and cultural heritage impacts that have been scoped in for / out from further consideration within the EIA?**
As we have stated above, the PIER should consider scoping in the array element of the project. In doing so this will secure a clearer understanding of the specific Dogger Bank D project impacts, within an appropriate mechanism for consenting provisions held within a DCO and associated Deemed Marine Licence for the full duration of the project.

4. **Have all the relevant data sources been identified in the Scoping Report?**
Similarly, to that of question 3. This is unclear as we feel there is limited information retained explaining the current data, age, coverage, quality and other important aspects for the Dogger Bank D array area. This will need to be explained appropriately prior to any PEIR being submitted for comment to elevate any risk of delay to the project projected timeline.

5. **Do you agree with the proposed assessment approach?**
As raised above, we are of the opinion that a full and adequate archaeological assessment of impact needs to be retained within any PEIR submitted.

Given the number of designated heritage assets within the area, and the complexity of

the terrestrial and maritime archaeological resource, we would welcome and recommend a structured sequence of pre-application discussions with the applicant (following our Enhanced Advisory Service (EAS) procedure), in order to agree the key sites, setting and mitigation issues which will need to be addressed within the EIA.

If you have any queries about any of the above, or would like to discuss anything further, please contact me.

Yours sincerely

Keith Emerick

Yours sincerely,

Keith Emerick
Ancient Monuments Inspector
[redacted]@HistoricEngland.org.uk

cc:

From:	Holmpton Council
To:	Dogger Bank D
Subject:	Doggerbank D Offshore Wind Farm
Date:	20 May 2023 16:37:27

Dear Sirs

As identified as a consultation body prior to the Scoping Opinion of the above project, Holmpton Parish Council would like to make the following requests:

1. Can we have a direct name /telephone number for residents / councillors to use if they experience are problems (due to previous bad experiences from other off shore sites).
2. Concern over erosion which is hitting us hard on this coastline.
3. Any baring to the fishing industry in the area?
4. Are residents likely to experience vibrations in their properties?
5. Details of community funds for the area.

We have not objected to the windfarm, in fact we would like to take the opportunity as offered to meet and discuss further with the local engagement officer as the report is a vast document to read.

Regards

KLH Dawson

Kerri Dawson
Clerk | Holmpton Parish Council

From:	JNCC Offshore Industries Advice
To:	Dogger Bank D
Cc:	JNCC Offshore Industries Advice
Subject:	JNCC RESPONSE: EN010144 – Dogger Bank D –. EIA Scoping Notification and Consultation/Reg 11 Notification
Date:	27 April 2023 09:29:46
Attachments:	image006.jpg image007.jpg image009.gif image010.gif image011.jpg image012.jpg image013.png image014.png image015.png image016.png image017.png image001.jpg

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Good Morning,

Thank you for consulting JNCC regarding the EN010144 – Dogger Bank D –. EIA Scoping Notification and Consultation/Reg 11 Notification, which we received on 24/04/2023.
Natural England is now authorised to exercise the JNCC's functions as a statutory consultee in respect of certain applications for offshore and offshore waters (0-200nm) adjacent to England. Therefore, Natural England should provide a full response. Natural England will contact JNCC directly of any input is requested.
As such JNCC have not reviewed this application and will not be providing further comment.

Please contact me with any questions regarding the above comments.

Kind regards,

Jon Connon
Offshore Industries Advice Officer
Marine Management Team
JNCC, Inverdee House, Baxter Street, Aberdeen, AB11 9QA
Tel: [redacted]
Mobile [redacted]
Email [redacted]@jncc.gov.uk

jncc.gov.uk

JNCC have been monitoring the outbreak of COVID-19 closely and developed a response plan. As a result, the vast majority of our staff are working from home and adhering to the government's advice on social distancing and travel restrictions. Whilst we are taking these actions we are available for business as usual. We will respond to enquiries as promptly as possible. However, there may be some delays due to the current constraints and we ask for

your understanding and patience.

Vaughan Jackson
Maritime and Coastguard Agency
UK Technical Services Navigation
105 Commercial Road
Southampton
SO15 1EG

www.gov.uk/mca
16th May 2023

The Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

By email to: doggerbankD@planninginspectorate.gov.uk

Dear Emma

Application by SSE Renewables and Equinor (the Applicant) for an Order granting Development Consent for the Dogger Bank D Offshore Wind Farm (the Proposed Development).

Scoping Report Consultation.

Thank you for your letter dated 24 April 2023 requesting comments on the scoping report provided by Dogger Bank D Offshore Windfarm. The MCA welcomes the opportunity, and we would like to comment as follows:

The Environmental Impact Report should supply detail on the possible impact on navigational issues for both commercial and recreational craft, specifically:

- Collision Risk
- Navigational Safety
- Visual intrusion and noise
- Risk Management and Emergency response
- Marking and lighting of site and information to mariners
- Effect on small craft navigational and communication equipment
- The risk to drifting recreational craft in adverse weather or tidal conditions
- The likely squeeze of small craft into the routes of larger commercial vessels.

The development area carries a moderate amount of traffic with several important commercial shipping routes to/from UK ports, particularly passenger vessels, oil and gas support vessels and cargo ships including tankers. Attention needs to be paid to routing, particularly heavy weather routeing so that vessels can continue to make safe passage without large-scale deviations. The likely cumulative and in combination effects should be considered going forward. It should take into

account the proximity to other windfarm developments, other infrastructure, and the impact on safe navigable sea room.

We note in chapter 5.6, that a Cumulative Effects Assessment will be carried out. As highlighted in this section, the proximity to other projects, especially other Dogger Bank developments and activities will need to be fully considered, with an appropriate assessment of the distances between OREI boundaries and shipping routes as per MGN 654. We welcome the tiered approach to this assessment as presented in paragraph 199. Attention must be paid to the traffic for ensuring the established shipping routes within the North Sea can continue safely without unacceptable deviations.

It is noted that a Navigational Risk Assessment will be submitted in accordance with MGN 654. This should be accompanied by a detailed MGN 654 Checklist which can be found at: https://www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping

We note that the AIS data used to inform the initial survey for the scoping report was collected in August and November 2022 as presented in table 7-27 and that in table 7-28 a vessel traffic survey will be undertaken to the standard of MGN 654, planned between June and August 2023 and November 2023 and February 2024. Kindly note that for all OREI developments, subject to the planning process, the traffic survey must be undertaken within 24 months prior to submission of the DCO application. If the EIA Report is not submitted within 24 months an additional 14-day continuation survey data may be required for each subsequent 12-month period. Should there be a break in the continuation surveys, a new full traffic survey may be required, and the time period starts from the completion of the initial 28-day survey period.

The turbine layout design will require MCA approval prior to construction to minimise the risks to surface vessels, including rescue boats, and Search and Rescue (SAR) aircraft operating within the site. Any additional navigation safety and/or Search and Rescue requirements, as per MGN 654 Annex 5, will be agreed at the approval stage.

Attention should be paid to cabling routes and where appropriate burial depth, for which a Burial Protection Index study should be completed and subject to the traffic volumes, an anchor penetration study may be necessary. We welcome the plan for a Cable Burial Risk Assessment as stated in 3.4.1.2, paragraph 105, and 3.4.3, paragraph 113 concerning both the array and export cable corridor areas.

If cable protection measures are required e.g. rock bags or concrete mattresses, the MCA would be willing to accept a 5% reduction in surrounding depths referenced to Chart Datum. This will be particularly relevant where depths are decreasing towards shore and potential impacts on navigable water increase, such as at the HDD location.

We note in paragraphs 6 and 168 that 2 options are being considered for the generated electricity use (Option 1 National Grid and Option 2 Hydrogen). In either case Should High Voltage Direct Current (HVDC) transmission infrastructure be used there is a potential impact on ships compasses from the electro-magnetic field generated. A pre-construction compass deviation study will be required on the expected electro-magnetic field, and we would be willing to accept a three-degree deviation for 95% of the cable route. For the remaining 5% of the cable route no more than five-degree deviation will be attained. If this requirement cannot be met, further mitigation measures may be required including a post installation deviation survey of the cable route. This data must then be provided to the MCA and UKHO, as a precautionary notation may be required on the appropriate Admiralty Charts regarding possible magnetic anomalies along the cable route.

Particular consideration will need to be given to the implications of the site size and location on SAR resources and Emergency Response Co-operation Plans (ERCoP). The report must recognise the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm sites and their surrounding areas. A SAR checklist will also need to be completed in consultation with MCA, as per MGN 654 Annex 5 SAR requirements.

MGN 654 Annex 4 requires that hydrographic surveys should fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard, with the final data supplied as a digital full density data set, and survey report to the MCA Hydrography Manager. Failure to report the survey or conduct it to Order 1a might invalidate the Navigational Risk Assessment if it was deemed not fit for purpose.

Chapter 7.9.9, Scoping Questions to Consultees:

• Do you agree with the characterisation of the existing environment?

Yes.

• Have all the shipping and navigation impacts resulting from the Project been identified in the Scoping Report?

At this stage we are content. The full list of risk controls and associated mitigation measures will be identified during the NRA process of consultation with navigation stakeholders and hazard analysis.

• Do you agree with the shipping and navigation impacts that have been scoped in for / out from further consideration within the EIA?

Yes.

• Have all the relevant data sources been identified in the Scoping Report?

Yes.

• Do you agree with the proposed assessment approach?

Yes.

On the understanding that the Shipping and Navigation aspects are undertaken in accordance with MGN 654 and its annexes, along with a completed MGN checklist, MCA is likely to be content with the approach.

Yours faithfully,

Vaughan Jackson
Offshore Renewables Project Lead
UK Technical Services Navigation

From:	NATS Safeguarding
To:	Dogger Bank D
Subject:	RE: EN010144 – Dogger Bank D –. EIA Scoping Notification and Consultation/Reg 11 Notification [SG35242]
Date:	28 April 2023 13:40:01
Attachments:	~WRD0514.jpg image006.png image007.png image008.png image009.png image010.png image011.png image012.png image013.png image014.png image015.png image016.png

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Our Ref: SG35242

Dear Sir/Madam

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully

NATS Safeguarding

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk

Date: 19 May 2023
Our ref: 431185
Your ref: EN010144

Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

BY EMAIL ONLY

Consultations
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by SSE Renewables and Equinor (the Applicant) for an Order granting Development Consent for the Dogger Bank D Offshore Wind Farm (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for your letter dated 24th April 2023 consulting Natural England on the Dogger Bank D Offshore Wind Farm (DBD OWF) Environmental Impact Assessment (EIA) Scoping Report. The following constitutes Natural England's formal statutory response; however, this is without prejudice to any comments we may wish to make in light of further submissions or on the presentation of additional information.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

The advice contained within this letter is provided by Natural England, which is the statutory nature conservation body within English territorial waters (0-12 nautical miles). As the application is located partially outside English territorial waters we have also sought advice from JNCC, the statutory nature conservation body in offshore UK waters (beyond 12 nautical miles), for impacts relating to the Dogger Bank Special Area of Conservation (SAC). It should be noted that pursuant to an authorisation made on the 9th December 2013 by the JNCC under paragraph 17(c) of Schedule 4 to the Natural Environment and Rural Communities Act 2006, Natural England is authorised to exercise the JNCC's functions as a statutory consultee in respect of applications for offshore renewable energy installations in offshore waters (0-200 nm) adjacent to England. This application was included in that authorisation and therefore Natural England will be providing statutory advice in respect of that delegated authority.

Case law[1] and guidance[2] has stressed the need for a scientifically robust set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Annex A to this letter provides Natural England's advice on the scope of the

[1] Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)
[2] *Note on Environmental Impact Assessment Directive for Local Planning* Authorities Office of the Deputy Prime Minister (April 2004) available from http://webarchive.nationalarchives.gov.uk/+/http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/environmentalimpactassessment/noteenvironmental/

Environmental Impact Assessment (EIA) for this development.

Summary of Main Issues

1. Lease arrangements

Clarity is needed on what status the project has, or will have at the time of Application, and whether it will have an agreement for lease. Whilst this area was included in the original Round 3 plan level HRA in 2010, it has not been taken forward into development as part of that Round. Subsequently, it has not been included as part of the Round 4 leasing round (and therefore the associated HRA). Nor does it meet the criteria previously set for extension projects in the extensions leasing round.

We acknowledge from the Section 51 advice on the Planning Inspectorate (PINS) website (meeting note dated 5th August 2022) that the Applicant has confirmed that the site was part of the previous Dogger Bank Zone. However, it is also stated in the Scoping Report that "*DBD is a separate project and a separate commercial entity from any other previous phase of the Dogger Bank Wind Farm, thus a new DCO application will be made*".

We advise that the consideration of this area of seabed/project through multiple plan level assessments is creating confusion as to the necessary leasing, licencing, impact assessment and legislative steps that need to be taken in order for a holistic determination to be made. For example, we acknowledge that in terms of the array area the site is fully within that assessed as part of Round 3, and the National Grid connection transmission option has been identified through the Holistic Network Design process, but the hydrogen transmission option has not been assessed or leased under either.

In addition, due to the age of the data, technological advances and recent decisions regarding seabed habitat loss in SACs, we do not consider the conclusions of the Round 3 plan level HRA, nor those for the consented Dogger Bank Projects, to be applicable to this new plan/project. See Point 4 for further details.

2. Transmission assets

It is proposed in the Scoping Report that the National Grid Option landward of the Offshore Collector Platform would be developed by NGET. This presents a risk to the effective consenting of the project as a whole and it is unclear how the overall environmental impacts will and can be considered holistically to avoid the risk of 'salami slicing' or indeed stranded assets. Furthermore it is unclear, without the Applicant considering the onward route from the onshore collector platform, how an assessment will be achieved in order to demonstrate that the alternative option (the Hydrogen Option) will result in a better overall environmental outcome should this option be selected. Natural England has encountered such issues previously during the separate examinations of the Triton Knoll generation and transmission assets and offers some initial advice on the matter based on these experiences. Please see the attached paper.

We are aware that projects within Round 4 pursuing separate consents for generation and transmission have been issued with a direction under Section 35 of the Planning Act (2008) from the Planning Inspectorate (PINS) on behalf of the Secretary of State for Business, Energy and Industrial Strategy, [that] the Projects are to be '*treated as a development for which development consent is required*'. We seek clarity from PINS/DESNZ on whether the intention is for a similar direction to be issued to NGET. Natural England have not yet been approached by NGET regarding an application for the Dogger Bank D export cable route, and we are concerned that if a separate DCO/NSIP process is to be progressed, the timelines for submitting the generation and transmission assets will not align. We highlight the necessity for EIA/HRA conclusions to be drawn based on the predicted impacts of a project in its entirety, including any ancillary infrastructure, rather than just elements of it. Therefore a staggered approach seems highly likely to cause determination issues, as the project cannot be considered as a whole.

Natural England is supportive in principle of the Hydrogen Option being pursued by the project, but we advise that for any routes proposed for a development which do not align with recommendations in the Holistic Network Design (HND) document, sufficient detail is provided as part of the application process to evidence that environmental outcomes will not be worse as a result of choosing that route. Furthermore we highlight that if the proposed alternative route to the recommended HND route presents worse environmental outcomes, this increases the potential for consenting risks and/or delays at the determination phase. Consideration of alternatives is required under both the EIA regulations and the Habitats Regulations. The EIA regulations require *"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."* If an alternative and/or more environmentally damaging route is proposed by a project, an Applicant should explain why they have not been able to progress the HND proposal as part of the EIA process so that the HND alternative can be considered as part of an Examination.

Clarity is also needed on when, by whom, and on what basis a decision will be made on whether the Hydrogen Option or National Grid option is to be pursued. Supporting two applications through Evidence Plan Process, Application and Examination will require considerable resource from all parties. It would be preferable if a decision could be made on the transmission route prior to one of the options progressing to an advanced stage of application.

Natural England advises against both options (i.e. Hydrogen and National Grid infrastructure up to a collector platform that would fall within Dogger Bank D's remit) being taken through to application within the same project envelope. This could lead to an unrealistic worst case scenario being assessed due to the different levels of infrastructure required for each, and an excessive Rochdale Envelope being consented. We advise that these are considered as separate build out scenarios for EIA and HRA assessment.

As Dogger Bank D is the first project to propose a hydrogen connection, consideration will also need to be given to novel uncertainties associated with this approach during the Evidence Plan and consenting process. It is acknowledged in the Scoping Report that the technology does not currently exist to support production of this scale, and the infrastructure required onshore in terms of production facilities, storage and transport will require the successful consent of several additional planning applications. It would be helpful for the Applicant to outline how their project aligns and interconnects with other hydrogen/low carbon applications in the Yorkshire/Humber region and how in-combination impacts will be undertaken with consents for this project and others.

3. <u>Derogations</u>

Natural England notes that the Crown Estate's plan level Habitat Regulations Assessment (HRA) for Round 4 has now concluded. The plan level HRA could not rule out adverse effects on integrity (AEoI) for the Dogger Bank Special Area of Conservation (SAC) and the Flamborough and Filey Coast Special Protection Area (SPA). The impacts of this project on these sites will be in addition to those considered in the Plan Level HRA and therefore will also need to be fully compensated for. Natural England does not consider that the results of the Round 3 Plan Level HRA are applicable to this new plan/project (see point 4 for further details). We highlight that consented projects requiring compensatory measures for impacts on benthic SACs have found identifying and securing effective compensation extremely difficult, hence the recent development of strategic initiatives to try to address this. The scoping report gives no indication of the Applicant's approach to identifying and securing compensatory measures.

Further, we highlight to PINS that Dogger Bank D is likely to be a material consideration in the in-combination assessments for other Round 4 projects. On its current timeframes (PEIR Q1 2024, DCO Q4 2024/Q1/2025) it is likely that detailed information will be available on the Project's impacts prior to the submission/during examination of the other Round 4 projects' DCOs.

4. Use of Teesside A&B EIA

Since the Round 3 Plan Level HRA and Teesside A&B EIA were conducted (between 8 and 10years ago) technology has advanced, as has our understanding of the status and management of affected designated sites and impacts associated with offshore wind. Construction technologies are available now that were not included in these original assessments and the volume of consented infrastructure to be considered has drastically increased. Furthermore, as Dogger Bank C is not yet operational, the conclusions made in the Teesside A&B EIA have not been validated. We welcome a proportionate approach being taken where appropriate, but have limited confidence in this data being relied upon to draw conclusions for the current project without evidence being provided to demonstrate that it remains relevant. **We therefore would not support impacts being scoped out at this stage for Dogger Bank D based on conclusions made in the Teesside A&B Environmental Statement, and do not consider that the conditions assessed under the Round 3 Plan Level HRA are applicable to this project.**

5. Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards

Natural England has been leading the 'Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards' project, funded by Defra's Offshore Wind Enabling Actions Programme (OWEAP).

The project is providing up-front best practice advice on the way data and evidence is used to support offshore wind farm development and consenting in English waters, focussing on the key ecological receptors which pose a consenting risk for projects, namely seabirds, marine mammals, seafloor habitats and species and fish.

The project aims to facilitate the sustainable development of low impact offshore wind by increasing clarity for industry, regulators and other stakeholders over data and evidence requirements at each stage of offshore wind development, from pre-application through to post-consent.

The advice documents are currently stored on a SharePoint Online site, access to the SharePoint site needs to be requested from neoffshorewindstrategicsolutions@naturalengland.org.uk. Please allow up to three working days for requests to access the site to be granted. Natural England is currently reviewing ways of making the advice more accessible and open access.

The ES should be fully informed by the recommendations in the Best Practice Advice and we will increasingly be appraising ESs with respect to the extent to which the guidance has been followed.

Please see **Annex A** for guidance on EIA requirements and **Annex B** for detailed comments on the Scoping Report.

Further guidance is set out in Planning Practice Guidance on environmental assessment, natural environment and climate change.

In accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again if the proposal is amended in any way which significantly affects its impact on the natural environment.

Please note that Natural England must be consulted on Environmental Statements.

Please send any new consultations or further information on this consultation to consultations@naturalengland.org.uk.

For any queries relating to the specific advice in this letter please contact me using the details below.

Yours faithfully,

Pearl Cousins

Marine Lead Advisor
Yorkshire and North Lincolnshire Team
E-mail: [redacted]@naturalengland.org.uk
Telephone: [redacted]

Annex A – Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2017 / Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (Regulation 10) sets out the necessary information to assess impacts on the natural environment to be included in an Environmental Statement (ES), specifically:

- A description of the development – including physical characteristics and the full marine use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape/seascape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

1.1 Cumulative and in-combination effects

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure and activities should be included within the assessment.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

a. existing completed projects;
b. approved but uncompleted projects;
c. ongoing activities;
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Natural England's advice on the scope and content of the Environmental Statement is given in accordance with the National Infrastructure Planning Advice Notes:
https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

1.2 Environmental data

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at: http://www.naturalengland.org.uk/publications/data/default.aspx.

Detailed information on the natural environment is available at www.magic.gov.uk.

Natural England's Site of Special Scientific Interest (SSSI) Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the Natural England Open Data Geoportal.

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EcIA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EcIA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EcIA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework (NPPF) sets out guidance in paragraphs 174-175 and 179-182 on how to take account of biodiversity interests in planning decisions and the framework that the responsible authority should provide to assist developers. Further guidance is set out in Planning Practice Guidance on the natural environment.

2.2 Internationally Designated Sites

The ES should thoroughly assess the potential for the proposal to affect designated sites. Internationally designated sites (e.g. designated Special Areas of Conservation (SAC) and Special Protection Areas (SPA)) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (as amended). In addition paragraph 181 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites. (NB. sites falling within the scope of regulation 8 of the Conservation of Habitats and Species Regulations 2017 are defined as 'habitats sites' in the NPPF).

The Generation assets of the development are within the following internationally designated nature conservation sites:

- Dogger Bank SAC

The Transmission assets of the development are within the following internationally designated nature conservation sites:

- Greater Wash Special Protection area (SPA)
- Southern North Sea Special Area of Conservation (SAC)
- Humber Estuary SAC, SPA and Ramsar site

The ES should include a full assessment of the direct and indirect effects of the development on the

features of special interest within these sites, and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

Internationally designated site conservation objectives are available on our internet site:
http://publications.naturalengland.org.uk/category/6490068894089216.

2.3 Habitats Regulations Assessment

If the proposal outlined within the scoping document has the potential to significantly affect features of the internationally designated sites and the activity is not directly connected to the management of any designated site it should be assessed under Regulation 63 the Conservation of Species and Habitats Regulations (2017) (as amended) and Regulation 28 of the Conservation of Offshore Species and Habitats regulations (2017) (as amended). Should a Likely Significant Effect on an internationally designated site be identified or be uncertain, the competent authority for the licence/consent (the Marine Management Organisation / Government Department) should undertake an Appropriate Assessment of the implications for the site in view of its conservation objectives, in addition to consideration of impacts through the EIA process. Noting recent case law (People Over Wind[3]) measures intended to avoid and/or reduce the likely harmful effects on an internationally designated sites cannot be taken into account when determining whether or not a plan or project is likely to have a significant effect on a site, therefore consideration is required at Appropriate Assessment. Natural England wishes to be consulted on the scope of the Habitats Regulations Assessment and the information that will be produced to support it and should be formally consulted on any Appropriate Assessment provided for the proposal (Regulation 63).

The consideration of Likely Significant Effects should include any functionally linked habitat outside the designated site. These areas may provide important habitat for mobile species populations that are qualifying features of the site, for example birds and bats. This can also include areas which have a critical function to a habitat feature within a designated site, for example by being linked hydrologically or geomorphologically. Further guidance is set out in Planning Practice Guidance on appropriate assessment here: https://www.gov.uk/guidance/appropriate-assessment.

Further information on the special interest features, their conservation objectives, and any relevant conservation advice packages for designated sites is available on our website https://designatedsites.naturalengland.org.uk/; and the Joint Nature Conservation Committee (JNCC) website About Marine Protected Areas | JNCC - Adviser to Government on Nature Conservation.

2.4 Nationally Designated Sites

Sites of Special Scientific Interest (SSSI) - The Generation assets and Offshore Transmission assets of the Project do not fall within or adjacent to any nationally designated sites.

The Onshore Transmission assets of the development are within/adjacent to the Dimlington Cliff; Humber Estuary; The Lagoons; Kelsey Hill Gravel Pits; and Lambwath Meadows Sites of Special Scientific interest (SSSI).

Further information on the location of SSSIs and their special interest features can be found at www.magic.gov.uk. The ES should include a full assessment of the direct and indirect effects of the development on the features of special interest within all identified sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

Marine Conservation Zones - Marine Conservation Zones are areas that protect a range of nationally important, rare or threatened habitats and species. You can see where MCZs are located and their special interest features on www.magic.gov.uk. Factsheets that establish the purpose of designation and conservation objectives for each of the MCZ's are available at https://www.gov.uk/government/collections/marine-conservation-zone-designations-in-england

[3] People Over Wind and Sweetman vs Coillte Teoranta (ref: C 323/17).

The Offshore Transmission assets of the development are within the following Marine Conservation Zones:

- Holderness Inshore MCZ
- Holderness Offshore MCZ

The ES should consider including information on the impacts of this development on MCZ interest features, to inform the assessment of impacts on habitats and species of principle importance for this location. Further information on MCZs is available via the following link: http://publications.naturalengland.org.uk/category/1723382

Further information on the special interest features, the conservation objectives, and relevant conservation advice packages for designated sites is available on our website https://designatedsites.naturalengland.org.uk/

2.5 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The ES should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust(s), geoconservation group(s) or local sites body in onshore areas of search for further information.

2.6 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended)

The ES should assess the impact of all phases of the proposal on protected species (including, for example, pinnipeds (seals), cetaceans (including dolphins, porpoises whales), fish (including seahorses, sharks and skates), marine turtles, birds, marine invertebrates, bats, etc.). Information on the relevant legislation protecting these species can be reviewed on the following link https://www.gov.uk/government/publications/protected-marine-species. Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, NBN Atlas, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants.

For Land Based Impacts: Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation.

2.7 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is

available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration…in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

For Developments with a Land based element
Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

2.8 Contacts for Local Records
Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

3. Designated Landscapes and Landscape/Seascape Character

3.1 Nationally Designated Landscapes
Consideration should be given to any potential direct or indirect impacts to designated landscapes.

3.2 Landscape/Seascape and visual impacts
Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape/seascape assessment methodologies. We encourage the use of Landscape and Seascape Character Assessment (LCA/SCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA/SCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment. For National Parks and Areas of Outstanding Natural Beauty (AONBs), we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as

set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

In order to foster high quality development that respects, maintains, or enhances, local landscape / seascape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape / Seascape Character Assessment at a local level are also available on the same page.
https://www.gov.uk/government/publications/seascape-assessments-for-north-east-north-west-south-east-south-west-marine-plan-areas-mmo1134

https://data.gov.uk/dataset/3fed3362-2279-4645-8aaf-c6b431c94485/mmo1037-marine-character-areas

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green/blue infrastructure. Relevant aspects of local authority green/blue infrastructure strategies should be incorporated where appropriate.

4.1 England Coast Path

The England Coast Path (ECP) is a new National Trail that will extend around all of England's coast with an associated margin of land predominantly seawards of this, for the public to access and enjoy. Natural England takes great care in considering the interests of both land owners/occupiers and users of the England Coast Path, aiming to strike a fair balance when working to open a new stretch. We follow an approach set out in the approved Coastal Access Scheme and all proposals have to be approved by the Secretary of State. We would encourage any proposed development to include appropriate provision for the England Coast Path to maximise the benefits this can bring to the area. We suggest that the development includes provision for a walking or multi-user route, where practicable and safe. This should not be to the detriment of nature conservation, historic environment, landscape character or affect natural coastal change. Consideration for how best this could be achieved should be made within the Environmental Statement.

As part of the development of the ECP a 'coastal margin' is being identified. The margin includes all land between the trail and the sea. It may also extend inland from the trail if:

- it's a type of coastal land identified in the Countryside and Rights of Way Act 2000 (CROW Act), such as beach, dune or cliff
- there are existing access rights under section 15 of the CROW Act
- Natural England and the landowner agree to follow a clear physical feature landward of the trail

Maps for sections of the ECP and further proposals for adoption are available here:
https://www.gov.uk/government/collections/england-coast-path-improving-public-access-to-the-

coast

4.2 Rights of Way, Access land, Coastal access and National Trails
The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Water Quality
Increases in suspended sediment concentrations (SSC) during construction and operation (e.g. future dredging works) have the potential to smother sensitive habitats. The ES should include information on the sediment quality and potential for any effects on water quality through suspension of contaminated sediments. The EIA should also consider whether increased suspended sediment concentrations resulting are likely to impact upon the interest features and supporting habitats of the designated sites as listed above.

The ES should consider whether there will be an increase in the pollution risk as a result of the construction or operation of the development.

For activities in the marine environment up to 1 nautical mile out at sea, a Water Framework Directive (WFD) assessment is required as part of any application. The ES should draw upon and report on the WFD assessment considering the impact the proposed activity may have on the immediate water body and any linked water bodies. Further guidance on WFD assessments is available here: https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters

6. Air Quality
Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy, Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation
The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 174), which should be demonstrated through the ES.

Further information is available from the Committee on Climate Change's (CCC) Independent Assessment of UK Climate Risk, the National Adaptation Programme (NAP), the Climate Change Impacts Report Cards (biodiversity, infrastructure, water etc.) and the UKCP18 climate projections.

Annex B – Detailed comments on EIA scoping consultation report

General comments

Natural England Best Practice Guidance – Natural England is increasingly utilising the best practice guidance to provide information to developers on the expected methodologies and then to appraise their robustness, rather than give detailed advice on alternative methodologies that a developer/consultant wishes to use instead.

EIA Matrices – Natural England notes that the approach to the EIA assessment proposes to use a matrix approach. This matrix approach has been used throughout ESs to date to support the assessment of the magnitude and significance of impacts. Natural England notes numerous instances where significance has been presented as a range (i.e., slight, or moderate, or large) and it is nearly always the lower value that has been taken forward. Indeed, to date no offshore windfarm has identified ecological impacts that are assessed as significant in EIA terms, either cumulatively or in-combination. In the absence of evidence to support the use of the lower value in a range, Natural England's view is that the higher value should always be assessed in order to ensure that impacts on features are not incorrectly screened out of further assessment. This is in line with the principles of the Rochdale envelope approach.

Embedded mitigation - Natural England advises the provision of a plan is not embedded mitigation and the commitments within the plans will be key. Until plans have been provided, we are unable to advise if impacts have been adequately addressed and therefore the impacts (e.g. invasive non-native species, pollution events) cannot be scoped out. Natural England advises that outline plans including any mitigation measures should be provided at the time of Application. We also advise that accidental spillages and leakages of oils, fuel and other polluting substances which could potentially enter the water environment be scoped in for further assessment with regards to designated sites and potential impacts to their interest features.

Section 1 Introduction

Point No.	Section	Para	Topic	NE comment/Recommendations
1.	1.1, 1.3	5, 31	Use of Teesside A EIA	Natural England acknowledges that the Dogger Bank D array is fully within the area assessed as part of the Teesside A EIA. We welcome a proportionate approach being taken where appropriate but note that there will be limitations to the use of the original assessment. The EIA for Teesside A was conducted over 10 years ago, and in line with our Best Practice Guidance, for data over 5 years old it must be evidenced that it is appropriate for use. Our understanding of affected designated sites, offshore wind (OWF) impacts, construction technologies and the volume of consented infrastructure has evolved since the original assessment was conducted. Dogger Bank C is also not yet operational so the conclusions made in the Teesside A EIA have not been validated. For the above reasons, we would not support impacts being scoped out at this stage for

				Dogger Bank D based on conclusions made in the Teesside A EIA.
2.		10	Offshore Network Transmission Review (ONTR) for a Holistic Network Design (HND)	Proposal of alternative routes to those recommended in the Holistic Network Design (HND) Natural England advises that for any routes proposed for a development which do not align with recommendations in the HND document, sufficient detail is provided as part of the application process to evidence that environmental outcomes will not be worse as a result of choosing that route. Furthermore we highlight that if the proposed alternative route to the recommended HND route presents worse environmental outcomes, this increases the potential for consenting risks or delays at Examination. Consideration of alternatives is required under both the EIA regulations and the Habitats Regulations. The EIA regulations require *"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."* If an alternative and/or more environmentally damaging route is proposed by a project, an Applicant should explain why they have not been able to progress the HND proposal as part of the EIA process so that the HND alternative can be considered as part of an examination. The HND Summary Report states; '*Further consideration will need to be given to cable routing in the Detailed Network Design (DND) stage to minimise environmental and consenting risks. While the environmental mitigation hierarchy should be followed, it is likely that environmental compensation measures will be required, assuming no viable alternatives are identified in the DND stage*.' Natural England encourages Dogger Bank D to carefully apply the mitigation hierarchy to identify whether there is a viable alternative route which has better environmental outcomes. Additionally there are sections of the Draft Energy NPS (EN-5) which refer to the coordinated approaches, these are now a material consideration. The draft National Policy Statements (NPS) seem to provide greater weight to the HND recommended designs. The draft Energy NPS (EN-5) refers specifically to the offshore coordination and section 2.2.5 states that '…*applicants retain control in managing the identification of routing and site selection between the identified initiating and terminating points or within the development zone*' even though new electricity networks infrastructure may not be substantially within the control of the applicant. Furthermore Section 2.13.4 states ' *In the case of infrastructure identified through the HND, applicants should identify any*

				variations to or developments from that work and justify these in accordance with the same objectives or criteria above, i.e. economic and efficient, deliverable and operable, minimise impact on the environment and minimise the impact on the local communities, giving these four criteria equal weight.' There is more emphasis on coordination in sections 2.13.5 to 2.13.8 and an expectation for project level to evidence and demonstrate an appropriate consideration in the assessment of options. National Grid connection point within Lincolnshire We outline some concerns should the National Grid Option be pursued (resulting in an onward connection to a National Grid connection point within Lincolnshire). Lincolnshire Connection Node (LCN) will result in interactions with the Southern North Sea SAC, Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC and the Humber Estuary SAC and potential Inner Dowsing Race Bank and North Ridge SAC, which could limit landfall opportunities. There are other potential obstructions to this landfall location, other developments may need to be navigated around as well as cable and pipeline crossings including Viking Link, the offshore windfarms and the gas pipeline running into Theddlethorpe, which come with their own environmental risks. With proposed cable laying activities across the Greater Wash SPA it is likely there would be a requirement to avoid the sensitive over wintering period for Red Throated Diver. From our experience on existing projects such as Viking Link, Hornsea 1,2,3 etc., there is Annex I geogenic reef in the wider coastal area and the sediment is predominately mixed which is resulting in risks associated with sub-optimally buried cables and then considerable requirements for cable protection which NE is advising against. There are several landfall constraints including geological SSSIs, coastal designated sites, coastal settlements and engineering challenges which may result in a similar situation to Weybourne on North Norfolk Coast i.e. running out of physical space to facilitate on going grid connection/landfall at this location. Therefore should the project decide on the Hydrogen Option, then there will need to be evidence that this route will result in a better environmental outcome to the route recommended in HND document. It is proposed in the Scoping Report that the National Grid Option landward of the Offshore Collector Platform would be developed by NGET. This presents a risk to the consenting process of the project as a whole and it is unclear how the overall environmental impacts will and can be considered. Furthermore it is unclear, without the Applicant considering the onward route from the onshore collector platform, how an

				assessment will be achieved in order to demonstrate that the alternative option (the Hydrogen Option) will result in a better overall environmental outcome should this option be selected.
3		11	Hydrogen option	It is acknowledged in the Scoping Report that the technology for the Hydrogen Option is not yet proven at the scale required for the project. Natural England is supportive of not prematurely dismissing the Hydrogen Option. However further information needs to be provided on the timelines and considerations for it being a viable option.
4		12	Worst Case Scenario	Natural England welcomes that infrastructure related to both transmission options are included in the worst case scenario (WCS) for the Scoping Report. However, we consider that the WCS should be revised down in the Environmental Statement to only include infrastructure for the single option to be implemented, to avoid an unrealistic WCS being assessed and Rochdale Envelope consented.
5	1.4	35	Retainment of both transmission options	As noted above, we consider the final ES assessment should be based on a single transmission approach. If both transmission options are to be retained throughout the application process, we advise that a WCS is presented and assessed for each option to demonstrate the difference in impact level of each, particularly in relation to designated sites.

Section 2 Policy and Legislative Context

Point No.	Section	Para	Topic	Recommendations
6	2.4.3	66 - 68	National Policy Statements	We welcome the consideration of National Policy Statements and their associated revisions. In particular, the Project should be cognisant of policies in the draft NPS around coordination and work of the Offshore Transmission Network Review (OTNR) pathways to 2030 – these will need to be factored into ES development.
7	2.5.1	81	Derogations	Following SoS's consent decision on Hornsea Three, projects are encouraged to submit a derogations case on a without prejudice basis where there is risk of AEoI. In light of the Round 4 Plan Level HRA conclusions, we advise the project begin discussions on compensation options for the Dogger Bank SAC and Flamborough and Filey Coast SPA early in the Evidence Plan Process.

Section 3 Project Description

Point No.	Section	Para	Topic	Recommendations
8	3.3	Table 3-2	Minimum blade clearance	NE advises that draught height should be raised as much as possible above 22m to reduce seabird collision risk.
9		Table 3-2	Wind turbine foundation options	Natural England welcomes that gravity bases have not been included in the project design for wind turbines.
10		Table 3-2	Platform foundation options	We note that gravity bases have been included as a foundation option for offshore platforms. We would welcome discussion during the EPP on the need for this option to remain scoped in.
11	3.4.1.1	97	Wind turbine size	It is stated that the number of turbines installed will depend on their generation capacity, i.e. up to 100 14MW turbines or fewer 27+MW turbines, with the final decision made post-consent. Information should be provided in the ES on the options most likely to occur in the final design and their associated technical details (e.g. turbine diameter) to ensure an accurate WCS is assessed. Differences in the number and size of turbines installed could have impacts for benthic and marine processes receptors.
12	3.4.3	113	Cable installation in separate trenches	Bundling cables could considerably reduce the impact of cable installation activities and requirements for cable protection, particularly where cables will be going through designated sites. We advise that this option is considered in the construction plans.

Section 5 EIA Methodology

Point No.	Section	Para	Topic	Recommendations
13	5.3.2	183	Magnitude and probability of impact occurring	In order to predict the significance of an impact, it is also important to consider: • Temporal scale in terms of permanent or temporary changes in the ecology (and which differs from 'Duration') Whilst careful consideration should be given to: • Duration of the impact relates to the time over which the impact will last as opposed to the duration of the activity. Furthermore, 'short-term to long-term' is also rather broad, and should include 'medium-term', along with some

Point No.	Section	Para	Topic	Recommendations
				14indication of the timescales e.g. > 5 years, 1-5 years, < 1 year etc. • Scale or spatial extent – 'small scale to large scale' is vague, and can be broken down into, for example, transboundary, national, regional, local site-specific etc. The magnitude of change should also consider the different phases of the development. Please consider definitions of temporal scale, duration, and spatial extent carefully. Please also consider the different phases of the development when defining the significance of an impact.
14	5.4	Table 5-1	Evaluation of Significance - Effect Significance Matrix	We note that an effect significance matrix will be used to determine the significance of effects. CIEEM (2022) discourage the use of the matrix approach and encourage the use of alternative approaches. We would encourage the use of an alternative approach for determining the significance of effects. However, if a matrix approach is used, then we advise that a clear distinction should be made between evidence-based and value-based judgements.
15	5.6	199	Cumulative effects	Three tiers are proposed for screening plans and projects for inclusion in the Cumulative Effects Assessment. Please see the seven suggested tiers for undertaking a staged CEA in Natural England's 'Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards' (as referenced in Summary of Main Points section of this consultation).
16	5.6	200	Cumulative effects	It is stated that "*Projects that are sufficiently implemented and are expected to be completed before the commencement of the proposed Project will be considered as part of the baseline for the EIA".* As advised for Sheringham and Dudgeon Extension projects, Natural England does not consider projects to be 'part of the baseline' in terms of cumulative or in-combination effects, unless the data under-pinning the designation of a site (e.g., distribution, population size, survival rate) were all collected subsequent to the construction or operation of projects.

Point No.	Section	Para	Topic	Recommendations
				Consideration should therefore be given to built and operational projects to ensure that those excluded from CEA were operational when the environmental characterisation surveys were undertaken, that residual impacts have had the time to be fed through to and captured in estimates of baseline conditions and that ongoing impacts are as predicted. Where this is not the case, projects may need to be considered through CEA rather than as part of the baseline. Furthermore, any projects with ongoing impacts should be considered as part of the cumulative impact assessment.
17	5.6	200	Use of as built parameters	It is stated that "Where possible, the Applicant will use as-built project parameter information (if available) as opposed to consented parameters to reduce inaccuracies and avoid an overly precautionary CEA approach". If this includes updating CRM estimates from other OWFs with 'as-built' parameters, NE require proof that new collision figures are 'legally secured' I.e., there is no way that any remaining consented capacity could be constructed in the future thus invalidating the modelling. Furthermore, any CRM parameters etc. need to be agreed with NE. Currently there is no legal mechanism for this, although there are ongoing discussions between regulators in order to achieve this. Given the above issues, we therefore recommend that for the offshore ornithology assessments the consented collision predictions should be used for projects included within the cumulative/in-combination collision assessments. We also recommend Dogger Bank D consider our advice regarding as built vs consented scenarios provided during the recent Norfolk Boreas examination[45] and regarding Non-Material

[4] Natural England (2020) Norfolk Boreas Offshore Wind Farm: Deadline 6 –Natural England's comments on Norfolk Boreas approach to as-built vs consented turbine numbers and headroom in cumulative/in-combination collision assessments.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001760-DL6%20-%20NE%20-%20Comments%20on%20Headroom.pdf

[5] Natural England (2020) Norfolk Boreas Offshore Wind Farm: Deadline 7 –Natural England's Updated Ornithology Advice.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001965-DL7%20-%20NE%20-%20Updated%20Ornithology%20advice.pdf

Point No.	Section	Para	Topic	Recommendations
				Changes (NMCs) during the East Anglia One North/East Anglia Two examinations[6].
18	5.7	205 – 207	In-Combination effects	It is unclear if Section 5.7 relates specifically to SACs and SPAs and that therefore the assessment should be to determine the in combination effects at the scale of the site and for the designated features within the site, with the intention of assessing the in combination effects against meeting the conservation objectives. Currently the paragraph refers to environmental topics and receptors. We advise that the requirements of in combination assessments for designated sites should be clearer.

Section 7.2 Marine Physical Processes

Please find below a response to Section 7.7.9 Scoping Questions to Consultees followed by a detailed comments table.

Scoping Questions to Consultees	Response
Do you agree with the characterisation of the existing environment?	We consider that the characterisation of the existing environment is missing some key features – please see comment on section 7.2.2 in the detailed comments below.
Have all the marine physical processes impacts resulting from the Project been identified in the Scoping Report?	We consider that not all marine physical processes have been identified, in particular due to construction. Further detail can be found in the detailed comments below.
Do you agree with the marine physical processes impacts that have been scoped in for / out from further consideration within the EIA?	We do not agree with all of the marine physical processes that have been scoped in for / out from further consideration. This covers topics such as wave and tidal currents, suspended sediment concentration etc. Further detail can be found in the detailed comments below.
Have all the relevant data sources been identified in the Scoping Report?	We consider that other sources of data could be addressed as well as the age of existing datasets that have been referenced – see further detail on Section 7.2.7 in

[6] Natural England (2021) Appendix A22 to the Natural England Deadline 11 Submission Natural England's Representation to East Anglia ONE (EA1) Non-Material Change to DCO Application.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-005285-DL11%20-%20Natural%20England%20EA1N%20Appendix%20A22%20NE%20Representation%20to%20East%20Anglia%20ONE%20Non-Material%20Change%20to%20DCO.pdf

Scoping Questions to Consultees	Response
	the detailed comments below for further information.
Do you agree with the proposed assessment approach?	The proposed assessment approach is lacking rationale and justification for using previous numerical modelling work as well as specific marine physical processes receptors – see further detail on Section 7.2.8 in the detailed comments below for further information.

Point No.	Section	Para	Topic	Recommendations
19	7.2.2	234 onwards	Existing environment	The baseline characterisation does not cover underlying geology, seabed mobility, sediment transport pathways and rates, bedforms, thickness of sediment units, surge water levels and currents. In 1994 an earthquake with a Richter magnitude of 4.4 occurred just south of the Danish part of the Dogger Bank. Whilst in 1931, the Dogger Bank experienced an earthquake with a magnitude of 6.1 on the Richter scale, in the UK part of the bank, which resulted in formation of a small tsunami (source: British Geological Survey). Therefore, seismic activity should be taken into consideration by the Project. We would advise considering the following for the study area: • underlying geology • seabed mobility • sediment transport rates and pathways • thickness of sediment units • surge water levels and currents • seismic activity
20	7.2.2.4	237	Oceanic fronts	The Flamborough Front gives rise to nutrient-rich waters and is considered to play a key role in primary production, the marine ecosystem and biogeochemical cycles. The baseline characterisation will need to consider firstly, the position of the Flamborough Front relative to Dogger Bank D, and secondly, if needed, temperature, salinity, stratification, primary productivity.
21	7.2.3.1	243 onwards	Potential impacts during construction	There are a number of other construction-related impacts to consider in the ES. Impacts due to beach access, and location of temporary construction compounds, and also to sensitive areas of seabed/substratum (and species) in the intertidal and

Point No.	Section	Para	Topic	Recommendations
				supratidal areas at landfall should also be taken into consideration. And any impacts to supporting habitats for mobile species from Designated sites.
22	7.2.3.1.1	244 & Table 7-1	Impacts on wave and tidal currents	'Impacts on Waves and Tidal Currents' during construction have been scoped out of the EIA. However, impacts within the nearshore should remain scoped in. For example, the presence of temporary cofferdams within the nearshore or seabed excavation in shallow/nearshore areas could give rise to changes in waves and/or current flows. We advise that these impacts in the nearshore or shallow water areas should remain scoped in.
23	7.2.3.1.2	245 - 246	Impacts on bedload sediment transport and seabed morphological change (during construction)	This section considers changes to bedload sediment transport and seabed morphology due to seabed preparation for foundation (and scour protection) and cable installation, sediment deposition, sandwave clearance, and also UXO. There are too many impacts considered within one umbrella term here. These impacts need to be thinned out and assessed separately. Moreover, bedload sediment transport could also be affected by the presence of cable protection measures and/or cable crossings in shallow depths during operation.
24	7.2.3.1.3	247	Impacts on suspended sediment concentrations (during construction)	This section includes multiple construction activities and will need to be thinned out for consideration in the ES. The intertidal zone has not been included here either. We would advise that these impacts should be broken down into separate impacts for assessment in the ES. In addition, consider increased suspended sediment loads in the intertidal zone during construction.
25	7.2.3.2.1	251	Impacts on waves and tidal Currents (during construction)	There are multiple impacts to consider under this term which should be considered individually in the ES. Cumulative impacts will also need to be considered and assessed. These impacts need to be thinned out and assessed separately. We also advise considering and assessing cumulative impacts due to the presence of a cluster of OWFs across the Dogger Bank Zone. Furthermore, we advise considering the spatial extent of projected changes to the wave regime downwind of the array and how changes in significant wave height could affect morphological processes across Dogger Bank SAC over the lifetime of the project. Furthermore, we advise considering

Point No.	Section	Para	Topic	Recommendations
				how Dogger Bank D as part of a cluster of OWFs might lead to large-scale hydrodynamic changes.
26	7.2.5	261 & Table 7-1	Potential transboundary effects	It is stated that *"effects on tidal currents do cross into Dutch waters, while the effects on waves cross into all adjacent international waters".* This needs to be fully considered and assessed. The scale of this effect needs to be shown and also how far it would extend beyond the study area. The potential for large-scale hydrodynamic changes due to the cluster of OWFs across Dogger Bank and transboundary effects needs to be considered and fully assessed. We advise that the potential transboundary effect of the Dogger Bank OWF cluster needs to be adequately assessed and quantified. Furthermore, transboundary effects should remain scoped in to the EIA until justification is provided for scoping them out.
27	7.2.5	262 & Table 7-1	Cumulative sediment plumes are predicted to extend 15km into Dutch waters, yet this impact has been scoped out.	This will need to be quantified, including plume extent/footprint, sediment concentration and subsequent sediment deposition thickness. Consequently, we would advise that this impact should be scoped into the EIA for transboundary effects.
28	7.2.5	263	The conservative worst case scenario foundation layout that covered the entire developable area is not a realistic worst case scenario.	We advise that a more realistic worst case scenario should be considered and assessed.
29	7.2.7	265	Approach to data gathering – there are other sources of evidence to consider here.	We are broadly content with the approach to data collection, however, we advise consideration of Shoreline Management Plans (SMPs), Marine Plans, capital programmes for maintaining flood and coastal defences, and beach profile change through the lifetime of the project. We would also refer the Applicant to our comment to section 7.2.2 regarding further baseline data requirements for consideration.
30	7.2.7	Table	Desk-based data	NE best practice advises that, as a general benchmark, care should be taken when

Point No.	Section	Para	Topic	Recommendations
		7-2	sources for marine physical processes include wave data (2001-2008), tidal currents (2008), suspended sediment concentrations (1998-2015), and physical/sedimentary processes for DBA, DBB, DBC and Sofia OWFs (2011-2014). These datasets are all quite old.	considering datasets older than five years (see Natural England's 'Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards' (as referenced in Summary of Main Points section of this consultation). Furthermore, we advise that sufficient accurate field data are needed to adequately describe both present day conditions within the study area, as well as longer-term historical change, in order to develop the conceptual understanding.
31	7.2.8	270	Approach to assessment – previous numerical modelling work.	Rationale and justification should be provided for using the previous numerical modelling work undertaken for the Dogger Bank Zone (DBZ)/other Dogger Bank OWF projects. The Applicant would need to show how the numerical modelling work carried out for the DBZ/other Dogger Bank OWF projects is applicable and relevant to the physical and sedimentary environment at Dogger Bank D.
32	7.2.8	271	Approach to assessment – effects on marine physical processes. No specific Marine Physical Processes receptors have been identified for consideration here.	Marine Physical Processes receptors for consideration in the ES should include: • Holderness Coast • Designated sites within the Zone of Influence • Water column features (e.g. Flamborough Front) • Sandbanks • Geological SSSIs at landfall • Spurn Head
33	General		Designated sites are not discussed within section 7.2 Marine Physical Processes.	We advise that designated sites/features within the marine physical processes study area should be identified and considered in the ES.
34	General		Futureproofing the proposed development	We advise the Applicant to consider the vulnerability of the proposed development options to coastal change, taking account of climate change predictions, during the project's operational life and decommissioning period

Point No.	Section	Para	Topic	Recommendations
35	General		Dogger Bank SAC Conservation Objectives should be considered with regards to Marine Physical Processes.	JNCC advises a restore objective for the Attributes: Extent and Distribution and Structure and Function, and a maintain objective for the Attribute: Supporting Processes (December 2022). The significant number of offshore wind farm wind turbines and associated cabling built, being built, and proposed within this site will continue to change the substratum and hinder recovery of the sandbanks sediment composition and distribution, which will have a long-term impact over the lifetime of these projects. The impacts of the DBD Project on the site's conservation objectives need to be taken into consideration here.

Section 7.4 Benthic and Intertidal Ecology

Natural England notes that the proposed ECC includes designated sites. Of particular concern is potential impacts to Dogger Bank SAC, Holderness Offshore MCZ and Holderness Inshore MCZ. Dogger Bank SAC and Holderness Offshore MCZ are already in unfavourable condition from ongoing anthropogenic activities. In addition, Natural England's position provided for Hornsea Project Three, Norfolk Vanguard and Norfolk Boreas in relation to Adverse Effects on Integrity from the placement of cable protection remains unchanged and therefore cable protection within these sites should be avoided and where that is not possible, every effort should be made to mitigate the impacts. In order to achieve this, we advise that a cable burial risk assessment is undertaken as part of the application process informed by comprehensive geotechnical and geophysical surveys. If cable protection is required, options that have the greatest success of removal with least impact to interest features should be taken forward. A site integrity plan could then be used to determine the risk to the conservation objectives for the site and determine the requirements for any compensation measures

Scoping Questions to Consultees	Response
Do you agree with the characterisation of the existing environment?	Although Dogger Bank SAC is considered an Annex I Sandbank, it should be highlighted that it is a relict sandbank, which increases its sensitivity to activities and pressures as there is no way for it to return into a stable condition once depleted. For Holderness Offshore MCZ, North Sea glacial tunnel valleys is missing from the designating features list. For Holderness Inshore MCZ, Spurn Head (Subtidal) is missing as a designated feature. Otherwise, we agree with the characterisation of the existing environment.
Have all the benthic and intertidal ecology impacts resulting from the Project been identified in the Scoping Report?	We broadly agree with the benthic and intertidal ecology impacts resulting from the Project.

Scoping Questions to Consultees	Response
Do you agree with the benthic and intertidal ecology impacts that have been scoped in for / out from further consideration within the EIA?	We consider that there are some impacts that have been scoped out that need to be scoped in. We note that aspects of the scoping have been based on the conclusions of the Teesside A and B (Dogger Bank C) Environmental Statement, Natural England does not agree with this approach, as detailed in our main summary point. Further detail can be found in the detailed comments below. Please also see comments on paragraph 200 (EIA Methodology) in relation to cumulative effects.
Have all the relevant data sources been identified in the Scoping Report?	Updated formal conservation advice[7] for Dogger Bank SAC was produced in December 2022. This advice should be used to inform the PEIR and ES. We also advise the Applicant to refer Natural England's 'Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards' for other data sources that may be available.
Do you agree with the proposed assessment approach?	We are broadly in agreement with the proposed approach to assessment presented but would expect a more thorough approach to assessment to be outlined within the PEIR/ES.

Point No.	Section	Para	Topic	Recommendations
26	3		Technical details to be included	In conjunction with the information to be gathered on the proposed offshore array and export cable corridor through survey work, the ES should include details on the following technical aspects relating to the construction and operation of the Dogger Bank D Wind Farm: • Footprint of area affected by excavation for and laying of the export cable; • Footprint of area affected by export cable protection; • Footprint of area affected by inter-array electrical cables**;** • Footprint of area affected by inter-array cable protection**;** • Estimation of electromagnetic fields (EMF) potentially arising from cables both at exterior of cables and at surface of seabed above buried cables;

[7] Dogger Bank MPA – Conservation Advice | JNCC Resource Hub

Point No.	Section	Para	Topic	Recommendations
				• Footprint of area affected by installation of Wind Turbine Generator foundations; • Footprint of area affected by installation of platform foundations; • Footprint of area affected by scour protection; • Footprint of area affected by installation vessels; • Duration and rate of cable-laying; • Number and types of vessels to be used in cable-laying operations; • Routes of vessels for cable works. • Areas impacts by UXO clearance and other site preparation works • Whether the use of sandwave levelling and standardise mitigation measures can/should be used to avoid, reduce and mitigate impacts
37	3.4.1.1		Foundations	We appreciate that the projects are still in the early stages and that technical aspects, including number and location of turbines, foundation types and cable routes are still to be decided. We would, however, take this opportunity to highlight that the provision of accurate and meaningful advice is only possible when details of the potential impacts resulting from a project are provided. The SNCBs would like to see the worst-case scenario for each activity, and associated impacts, provided and assessed for the construction, operation and decommissioning stages.
	3.4.1.1	102 – 106, Table 3-4, 115 - 116	Introduction of hard substrate	We acknowledge that the deposition of hard substrate into a mainly sedimentary environment may be required for the purposes of seabed preparation/stabilisation, cable protection, scour prevention, and cable crossings. We note that some of the hard substrate will be deposited in the Dogger Bank SAC which is designated for sandbanks which are slightly covered by seawater all of the time. We encourage the Project to work to minimise the amount of hard substrate material used during the construction, operation and maintenance and decommissioning of the wind farm and that the worst-case quantity be assessed for the lifetime of the project. We note that the long-term effect of the introduction of substratum into a naturally sandy or muddy seabed is not fully understood at present and as such should be carefully considered by both the operator and regulator.

Point No.	Section	Para	Topic	Recommendations
				We advise detailed commentary is provided in the ES on the introduction of hard substrate as part of the proposed developments to allow further understanding of the potential nature conservation impact. This would include: • location of deposit sites; • type / size / grade of rock / mattresses / bags to be used; • tonnage / volume to be used; • contingency tonnage / volume to be used; • method of delivery to the seabed; • footprint of hard substrate introduced; • assessment of the impact (particularly in the Dogger Bank SAC) • Decommissioning potential of any introduced substrate Where protective material cannot be avoided, we recommend using a targeted placement method, e.g., use of a fall pipe vessel rather than using vessel-side discharge methods. We also draw your attention to the recent decisions for Hornsea Project 3, Norfolk Boreas and Norfolk Vanguard where it was concluded that the placement of cable protection within Annex I sandbanks would result in an Adverse Effect on Integrity (AEOI)
38	3.4.1.2	105	Cable burial depth	We note that the inter-array cables will be buried typically to a depth of 1m, but burial depth may range from 0.5 to 3m. Given the potential for some of these activities to occur within the Dogger Bank SAC we would like to emphasise that Dogger Bank is formed by underlying glacial sediments, if these are damaged this is a permanent impact and there is not scope for recovery. The surface sediments across Dogger Bank vary in depth (0.5m - 20m), therefore any proposed activities could have varying impacts to the glacial sediments beneath. We consider a cable burial risk assessment should give consideration to the depth of surface sediment within the cable corridors to determine micro-siting potential to avoid areas where glacial sediment is likely to be impacted.
39	7.4.2		Existing Environment	The high-level characterisation of the existing environment is satisfactory at this

Point No.	Section	Para	Topic	Recommendations
				stage but we would expect to see far more detail as the projects move forward and site/project specific data becomes available. The broadscale habitats and larger habitats of conservation interest appear to be broadly correct. There will be more local data from other projects that could be used to give context to any modelled data presented along with data that will be gathered for this project. Of note, in paragraph 331 it is mentioned that the predicted EUNIS habitats in the study area is predominantly A5.25 circalittoral fine sand. As shown in Figure 7-9, A5.26 circalittoral muddy sand and A5.24 infralittoral muddy sand may also be present. Para 333 summarises predicted sediments as described by EUNIS and listed as A5.13. A5. 14, A5.44, A5.25. To note - A5.26 (circalittoral muddy sand) and A5.24 (infralittoral muddy sand) should also be considered here. There may well be other habitats such as cobble reef, peat and clay exposures and seapens and burrowing megafauna communities that are known in this area but not mapped at this broad scale.
40	7.4.2.3	Table 7-9	Designations	All relevant SACs and MCZs appear to have been identified. For Holderness Offshore MCZ, North Sea glacial tunnel valleys is missing from the designating features list in Table 7-9. For Holderness Inshore MCZ, Table 7-9 is missing Spurn Head (Subtidal) as a designated feature. Although Dogger Bank SAC is considered an Annex I Sandbank, it should be highlighted that it is a relict sandbank, which increases its sensitivity to activities and pressures as there is no way for it to return into a stable condition once depleted.
41	7.4.3.1		Potential Impacts during Construction	We note: • Impacts from deposition of sediment and smothering are not covered for all construction activities. This is important for any material deposited from seabed preparation works, foundation and cable installation and sandwave clearance. • It is not clear in the benthic section how any changes to hydrodynamics and impacts of these on benthic habitats will be taken into account e.g. changes in water flow, wave and tide climate. • Impacts from boulder clearance, both removal and deposition must be taken into

Point No.	Section	Para	Topic	Recommendations
				account. • Impacts from UXO clearance must be taken into account
42	7.4.3.1.2	343	Increased Suspended Sediment Concentrations	We note that it is proposed for this impact to be scoped in for the Hydrogen Production Facility (HPF) and inshore Export Cable Corridor (ECC) only. We advise that the array and offshore ECC should also be scoped in when assessing the impact of increased suspended sediment concentrations during construction, including site preparation works.
43	7.4.3.1.3	344, 345	Remobilisation of Contaminated Sediments	We note that it is proposed for this impact to be scoped in for the HPF and inshore ECC only. We advise that contaminants should also be scoped in for the array area and offshore ECC. It will need to be demonstrated what the local contaminant levels are, and whilst data is available from the Teesside A&B ES, the contamination data as shown in Figure 7-7 of the Scoping Report indicates only one sample was taken from within the proposed Dogger Bank D array area. We defer to Cefas for further advice on this topic.
44	7.4.3.1.4 - 7.4.3.1.5	346-351	Pollution events and embedded mitigation measures/Introduction of Marine Invasive Non-Native Species (INNS) from Vessel Traffic	Natural England advises the provision of a plan is not embedded mitigation and the commitments within the plans will be key. As we have not seen the plans, we are unable to advise if impacts have been adequately addressed. Natural England advises that outline plans including any mitigation measures should be provided at the time of Application. We also advise that accidental spillages and leakages of oils, fuel and other polluting substances which could potentially enter the water environment be scoped in for further assessment with regards to designated sites and potential impacts to their interest features.
45	7.4.3.2		Potential Impacts During Operation	We consider assessment of maintenance activities is underestimated. This is important as whilst impacts may be less than during construction, they are additional to those during construction and can inhibit or slow recovery of impacted habitat. Full consideration should therefore be given to impacts from maintenance activities for these to be permitted. Temperature changes due to heating from cables has not been discussed, therefore it is not clear whether this is scoped in or out.

Point No.	Section	Para	Topic	Recommendations
46	7.4.3.2.1	358	Temporary Physical Disturbance / Physical Disturbance	We advise that temporary physical disturbance to the seabed due to operation and maintenance activities should be scoped into the assessment.
47	7.4.3.2.2	359	Long Term Habitat Loss	Scour protection is not listed here. We advise that long term habitat loss due to the presence of scour protection should also be considered.
48	7.4.3.2.3	360	Increased Suspended Sediment Concentrations	We advise that increased suspended sediment concentrations due to operation and maintenance activities should be scoped into the assessment.
49	7.4.3.2.4		Remobilisation of Contaminated Sediments	We advise that remobilisation of contaminated sediments due to operation and maintenance activities should be scoped into the assessment.
50	7.4.3.2.6		Pollution Events Resulting from the Accidental Release of Pollutants	See comments on 7.4.3.1.4 and 7.4.3.2.
51	7.4.3.2.7	369	Interactions of Electro-Magnetic Field (EMF) (including Potential Cumulative EMF Effects	There is currently a lack of understanding of effects of EMF on benthic habitats. In particular, it is highlighted that Teesside A & B concluded a low magnitude of impact from EMF. This highlights the importance of cumulative effects assessment in particular due to the scale of activity in the Dogger Bank location. We advise that EMF impacts on benthic and intertidal receptors should remain scoped in. It is acknowledged in paragraph 366 that the target burial depth of cables (0.5m) is shallower than required to not have to assess the operation impact of EMF cables as given in the National Policy Statement (EN-3) (1.5m depth required).
52	7.4.3.2.8		Introduction of Marine INNS from Vessel Traffic	See comments on 7.4.3.1.4-7.4.3.1.5.
53	7.4.3.2.9		Colonisation of Introduced Substrate, including INNS	See comments on 7.4.3.1.4-7.4.3.1.5.
54	7.4.3.3	375 - 376	Potential Impacts during Decommissioning	Decommissioning should also continue to consider permanent habitat loss from any infrastructure that remains at the time of decommissioning – this is thus the extension of habitat loss from the operational phase.
55	7.4.7		Approach to Data Gathering	The desk based data sources for benthic and intertidal ecology are broadly suitable. To note - updated formal conservation advice for Dogger Bank SAC was produced in December 2022. This advice should be used to inform the PEIR and ES.

Point No.	Section	Para	Topic	Recommendations
				Table 7-12 outlines the following proposed surveys to be undertaken to inform the EIA in 2023: • Geophysical survey e.g. side-scan sonar, multi-beam echosounder and sub-bottom profiler – array area and offshore export cable corridor • Grab sampling, epibenthic trawls drop-down video – array areas and offshore export cable corridor • Intertidal walkover surveys – (landfall location(s)) We believe that the surveys proposed above are likely to be sufficient in identifying features of nature conservation interest (including Annex I habitats, List of Threatened and/or Declining Species and Habitats and Habitats of Principal Importance) provided surveys are designed and undertaken as a result of the initial geophysical survey data assessment. However, at this high level it is difficult to comment on specific data collection techniques suitable for this project. Please ensure that within the ES, the standards to which the data collection methodologies will be subjected to are included. More information on what is expected can be found in the best practise for EIA surveys. Survey techniques should be appropriate to the habitats being assessed. i.e. If epibenthic trawls are to be conducted, they should only be conducted in environments where the sensitivity to surface abrasion pressure is low. Areas which are to be sampled in this way should be ground truthed first to ensure no sensitive habitats are likely to be damaged. We refer the Applicant to Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards document (Parker et al, 2022) which we would expect them to take account of for further sources of information. Given the extent of the coastline currently being considered in the areas of search for a landfall location, a combination of phase I and phase II survey techniques to provide suitable data biotope classification would enable robust conclusions to be drawn within the EIA on biotope types.
56	7.4.2.2	328	Characterisation	We welcome that site specific benthic surveys will be undertaken to update existing

Point No.	Section	Para	Topic	Recommendations
				data.

Section 7.5 Fish and Shellfish Ecology

Natural England will defer to Cefas' advice on this topic, however we note with concern that entrainment with the intake associated with the Hydrogen Production Facility is not considered in this chapter. We advise that this needs to be scoped into the assessment.

Section 7.6 Marine Mammals

Please find below a response to Section 7.6.9 Scoping Questions to Consultees followed by a detailed comments table.

Scoping Questions to Consultees	Response
Do you agree with the characterisation of the existing environment?	We agree with the information presented here to characterise the existing environment but would expect a more thorough and complete assessment in the PEIR/ES. As the digital aerial surveys are ongoing, we highlight that additional species may need to be taken forward to the assessment once the surveys are complete and results analysed (if necessary). Further detail can be found in the detailed comments below.
Have all the marine mammals impacts resulting from the Project been identified in the Scoping Report?	We are in agreement with the potential impacts identified but advise that some of the impacts that have been scoped out should be scoped in. Further detail can be found in the detailed comments below. We note that seabed disturbance has not been specifically mentioned but note that this is linked to 'Changes in Prey Resource' which is mentioned and will be scoped into the EIA. This is linked strongly to Conservation Objective 3 of the Southern North Sea SAC ("The condition of supporting habitats and processes, and the availability of prey is maintained").
Do you agree with the marine mammals impacts that have been scoped in for / out from further consideration within the EIA	We consider that there are some impacts that have been scoped out that need to be scoped in. Further detail can be found in the detailed comments below.

Scoping Questions to Consultees	Response
Have all the relevant data sources been identified in the Scoping Report?	We are broadly satisfied with the key datasets listed to inform the marine mammal baseline but have provided recommendations for further inclusions. Further detail can be found in the detailed comments below.
Do you agree with the proposed assessment approach?	We are in agreement with the proposed approach to assessment presented but would expect a more thorough approach to assessment to be outlined within the PEIR/ES.

Point No.	Section	Para	Topic	Recommendations
57	7.6.2	466	Natural England advise that bottlenose dolphin are scoped in for the offshore array area not just the ECC and landfall areas.	We advise that bottlenose dolphin should be scoped in for all areas in the assessment.
58	7.6.2	472	Natural England are in broad agreement with the key marine mammal species that will be taken forward for assessment. However, the list of species should be reviewed once the full results of the site-specific surveys have been analysed.	We advise the Applicant to conduct a review of the list of species once the full results of the site-specific surveys have been analysed.
59	7.6.2	472	The text says *"However, it is expected that there would be only six marine mammal species found to be present in the area, and therefore taken forward for assessment".*	There are seven species listed here - to note.

Point No.	Section	Para	Topic	Recommendations
60	7.6.2.1	473 Figure 7-14	Management units	Due to the maximum foraging ranges of grey and harbour seals (Carter et al., 2022) Natural England advise that the seal management units 8 (Northeast England) and 9 (Southeast England) are scoped in for this project.
61	7.6.2.2	477	Designations	All the relevant designated sites (or the proposed method of screening these in) have not been presented in detail in this report. Natural England reserve the right to comment on this further when this information is presented in the HRA screening report.
62	7.6.3.1	478	Potential impacts during construction	We support the decision to apply for an EPS licence for UXO clearance. Weadvise that an EPS license for piling is also applied for. Whilst we appreciate that the number or type of UXO clearance, if any, are not yet known at this stage, we would suggest that this activity is scoped into the assessment owing to the wide Effective Deterrence Ranges (EDR) (EDR, JNCC 2020) of this activity, and the fact that the potential for such explosives within the Southern North Sea SAC is currently unknown. We advise the Applicant to draw upon monitoring conducted for previous UXO campaigns in the Dogger Bank Zone to source empirical information on potential impacts on the SNS SAC.
63	7.6.3.1	478	Potential impacts during construction	With regards to the UXO assessment and what we would expect it to include, please refer to Natural England's Best Practice advice to Offshore Wind (Phase III) (Parker et al., 2022c).
64	7.6.3.1.1.2	485	Behavioural impacts resulting from impact piling, other construction activities and vessel noise	We do not advise the use of TTS range as a proxy for disturbance given that TTS occurs at higher sound exposures, and so will underestimate the risk of disturbance. We advise the Applicant to review the evidence base to determine an appropriate approach to assessing disturbance from construction activities.
65	7.6.3.1.3	490	Changes to prey resource	We agree with change to prey resources being scoped into the EIA, especially considering the potential for impacts within the Southern North Sea SAC due to seabed disturbance from cable laying, which is strongly linked to Conservation Objective 3 of the Southern North Sea SAC.
66	7.6.6	Table 7-16	Summary of scoping proposals	The following should be scoped into the assessment: • Underwater noise: physical and auditory injury resulting from noise associated with other construction and maintenance activities (such as dredging and rock placement) and vessel noise.

Point No.	Section	Para	Topic	Recommendations
				• Natural England note the inclusion of best practice measures for all vessel movements but advise that vessel interaction/collision risk is still scoped into the assessment for all stages of development. Refer to: Benhemma-Le Gall et al. (2019) (Frontiers | Broad-Scale Responses of Harbor Porpoises to Pile-Driving and Vessel Activities During Offshore Windfarm Construction (frontiersin.org)) • Physical barrier effects should be scoped into the assessment and considered further.
	7.6.7	Table 7-17	Desk-based data sources for marine mammals	We are broadly satisfied with the key datasets listed to inform the marine mammal baseline but recommend the following are also included: • Updated Management Units for cetaceans in UK waters (Inter-Agency Marine Mammal Working Group (IAMMWG), 2023) Review of Management Unit boundaries for cetaceans in UK waters (2023) | JNCC Resource Hub • There is a more recent version of SCANS-III that should be used (Hammond et al., 2021). • We also recommend including for cetaceans: - MARINElife surveys from relevant ferry routes (MARINElife, 2021) - UK Cetacean Stranding Investigation Programme (CSIP) - Heinänen, S. & Skov, H 2015. The identification of discrete and persistent areas of relatively high harbour porpoise density in the wider UK marine area, JNCC Report No.544 JNCC, Peterborough. - Joint Cetacean Data Protocol (JCDP) is now available and may also be used as an additional data source. This succeeds the Joint Cetacean Protocol (JCP). • We recommend to include for seals: - Studies using seal telemetry data (e.g. Sharples et al., 2008, 2012; Russel

Point No.	Section	Para	Topic	Recommendations
				and McConnell, 2014; Vincent et al., 2017), - Juvenile telemetry data (Carter et al. 2017)
67	General		Mitigation documents	We advise that the following mitigation documents should be provided at the DCO application stage: • MMMP (Marine Mammal Mitigation Plan) • Draft/In Principle SIP (Site Integrity Plan) if undertaking noisy activities that produce impulsive, high intensity noise within the relevant impact range, known as the Effective Deterrence Range (EDR), of a harbour porpoise SAC. To note: Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs (England, Wales & Northern Ireland) (jncc.gov.uk)

Section 7.7 Intertidal and Offshore Ornithology

Please find below a response to Section 7.7.7 Scoping Questions to Consultees followed by a detailed comments table.

Scoping Questions to Consultees	Response
Do you agree with the methodology by which the existing and baseline environment is characterised?	We are broadly in agreement with the methodology presented, but note that it has not been presented in sufficient detail to be able to provide detailed comments at this stage. We look forward to seeing the methodology presented in detail in the PEIR.
Have all the intertidal and offshore ornithology impacts resulting from the Project been identified in the Scoping Report?	We are broadly in agreement with the impacts identified in the scoping report but note that the definitive list of species to be included in the assessment will depend on the results of the baseline surveys, which are not yet available. We consider disturbance and displacement impacts on ornithological receptors due to O&M activities within the offshore ECC should be scoped into the assessment, and would welcome the development and implementation of a Vessel Management Plan to mitigate these. We welcome the Applicant's stated commitment to include in the impact assessment

Scoping Questions to Consultees	Response
	all seabird and waterbird species recorded within the survey areas during the baseline surveys.
Do you agree with the intertidal and offshore ornithology impacts that have been scoped in for / out from further consideration within the EIA?	See answer to previous question.
Have all the relevant data sources been identified in the Scoping Report?	We are broadly in agreement with the identified data sources listed in Table 7-21, but would welcome consideration of the feasibility of collecting additional project-specific data on flight heights, flight speeds, and nocturnal activity factors to improve the accuracy of collision risk models. We are broadly in agreement with the identified data sources listed in Table 7-21, but would welcome consideration of the feasibility of collecting additional project-specific data on flight heights, flight speeds, and nocturnal activity factors to improve the accuracy of collision risk models. We also note that the results of the last full Seabird census should become available in 2023, and that this should be included as a source of information on seabird population sizes. We also note that in the future there are likely to be sources of data on the impacts of HPAI on seabird populations and colonies that can be included, and recommend that the Applicant engages with Natural England to ascertain how the species and colonies of concern and their densities at sea may have been affected by HPAI and how best to factor these impacts into the assessment. See Annex C Natural England's note '*Highly Pathogenic Avian Influenza (HPAI) outbreak in seabirds and Natural England advice on impact assessment (specifically relating to offshore wind)'* from September 2022. Regarding Saltend mudflats, we recommend contacting the Humber Nature Partnership to determine whether locally-held datasets are available.
Do you agree with the proposed assessment approach?	We are broadly in agreement with the methodology presented but note that it has not been presented in sufficient detail to be able to provide detailed comments at this stage, and look forward to seeing the methodology presented in detail in the PEIR. We note that the appropriate seasonal definitions to use may be informed by the results of the baseline surveys.

Point No.	Section	Para	Topic	Recommendations
68	5.6	200	Cumulative effects	The report states: "*Where possible, the Applicant will use as-built project parameter information (if available) as opposed to consented parameters to reduce inaccuracies and avoid an overly precautionary CEA approach*". If this includes updating CRM estimates from other OWFs with 'as-built' parameters, NE require proof that new collision figures are 'legally secured', and any CRM parameters etc. are agreed with NE. We recommend that for the offshore ornithology assessments the consented collision predictions should be used for projects included within the cumulative/in-combination collision assessments. We recommend that DBD consider our advice regarding as built vs consented scenarios provided during the recent Norfolk Boreas examination[89] and on Non-Material Changes (NMCs) during the East Anglia One North/East Anglia Two examinations[10].
69	7.7.1	542	Existing environment	We welcome the inclusion in the impact assessment of all seabird and waterbird species recorded within the survey areas during baseline surveys, and recognise that the definitive list of species to be included will depend on the results of these surveys.
70	7.7.2.3	548, Table 7-19	Indicated offshore ornithology receptors and their seasonality	We recognise that the definitive list of species to be included will depend on the result of the baseline surveys and that the list presented is indicative only. We also note that existing baseline survey data has not been presented and so comment on this is not possible at this time.

[8] Natural England (2020) Norfolk Boreas Offshore Wind Farm: Deadline 6 –Natural England's comments on Norfolk Boreas approach to as-built vs consented turbine numbers and headroom in cumulative/in-combination collision assessments.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001760-DL6%20-%20NE%20-%20Comments%20on%20Headroom.pdf

[9] Natural England (2020) Norfolk Boreas Offshore Wind Farm: Deadline 7 –Natural England's Updated Ornithology Advice.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001965-DL7%20-%20NE%20-%20Updated%20Ornithology%20advice.pdf

[10] Natural England (2021) Appendix A22 to the Natural England Deadline 11 Submission Natural England's Representation to East Anglia ONE (EA1) Non-Material Change to DCO Application.
Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-005285-DL11%20-%20Natural%20England%20EA1N%20Appendix%20A22%20NE%20Representation%20to%20East%20Anglia%20ONE%20Non-Material%20Change%20to%20DCO.pdf

Point No.	Section	Para	Topic	Recommendations
				We note that the seasonal definitions provided in Table 7-19 are likely to be appropriate for species at a broad population scale such as that assessed for EIA, unless more up-to-date information becomes available that suggests changes are required or the results of the baseline surveys indicate that a change is required. However, we recommend that colony and project-specific data be used to inform the seasons used in the HRA. As such, while the seasons presented in Table 7-19 are likely to be appropriate for the EIA, they are not necessarily appropriate for the HRA, and we would welcome further engagement with the Applicant on the appropriate seasonal definitions once results of baseline surveys are available.
71	7.7.2.3	549	Designated sites	We recognise that the full list of SPAs and Ramsar sites relevant to the project will be presented in the HRA screening report and therefore have no comment to make on these designated sites or their features at this time. This will be covered in HRA screening process.
72	7.7.2.3.	551	Tern and other species	We advise that any tern species identified as present within the survey areas by the baseline surveys are included for assessment in the EIA.
73	7.7.2.3.	553	Indicated intertidal ornithology receptors	Natural England welcomes planned further consultation on survey requirements to evidence whether intertidal birds of conservation concern are foraging in intertidal habitats (and indeed inshore waters) that may be subject to permanent or temporary habitat loss. Consideration will also need to be given to impacts to functionally linked land used by species of conservation concern.
74	7.7.2.3	554	Intertidal ornithology receptors at Saltend	Natural England highlights that the Saltend mudflats are a highly-important resource for Humber Estuary SPA waterbirds, and accordingly habitat loss/change and disturbance/displacement are likely to be key consenting issues were these to arise from the proposed intake/outfall. Depending on the proposal, in order to draw robust conclusions the ES will need to be able to draw on detailed, spatially precise survey data regarding the distribution and abundance of SPA waterbirds that might be affected, including seasonal, tidal and diel variations. Please also see comments in the Onshore Ecology section of this advice regarding likely survey requirements with respect to SPA waterbirds.
75	7.7.3.1.2	558	Disturbance and displacement	We welcome the inclusion of a quantitative assessment of displacement impacts of the array and offshore ECC during construction. We note that the species to be included for displacement assessment will depend on the result of the baseline

Point No.	Section	Para	Topic	Recommendations
				surveys. We note that insufficient detail has been provided here for us to be able to comment on displacement assessment methodology at this time. We look forward to further engagement with the applicant around the appropriate methodology and parameters to use as part of the EPP process and to seeing more detail on methodology presented in the PEIR/ES.
76	7.7.3.1.2	558	Vessel Management Plan	Natural England welcome the Applicant's commitment to the development of a Vessel Management Plan and look forward to further engagement with the Applicant on the development of this plan.
77	7.7.3.2.2	565	Collision risk	We are broadly in agreement with the proposed collision risk methodology presented, but note that insufficient detail has been provided here for us to be able to comment in detail on collision risk methodology and parameters at this time. We look forward to further engagement with the applicant around the appropriate methodology and parameters to use as part of the EPP process and to seeing more detail on methodology presented in the PEIR/ES.
78	7.7.3.2.2	565	Collision risk	We would welcome additional consideration of the evidence gaps surrounding flight heights, flight speeds, and nocturnal activity factors, and the fact that these are likely to be influenced by site, season, and weather conditions. Consideration of the feasibility of collecting additional project-specific data on flight heights, flight speeds, and nocturnal activity factors to improve the accuracy of collision risk models would be welcomed.
79	7.7.3.2.2	565	Bird species	We note that a definitive list of species to be assessed for collision risk will depend on the results of the baseline surveys and that the list presented is therefore indicative only.
80	7.7.3.2.3	567	Disturbance and displacement	We are broadly in agreement with the proposed displacement assessment methodology presented, but note that insufficient detail has been provided here for us to be able to comment in detail on methodology and parameters at this time. We look forward to further engagement with the applicant around the appropriate methodology and parameters to use as part of the EPP process and to seeing more detail on methodology presented in the PEIR.
81	7.7.3.2.3	567	Bird species	We note that a definitive list of species to be assessed for displacement will depend on the results of the baseline surveys and that the list presented is therefore indicative only.

Point No.	Section	Para	Topic	Recommendations
82	7.7.3.2.3	567	Vessel Management Plan	We advise that disturbance and displacement impacts on ornithological receptors due to O&M activities within the offshore ECC should be scoped into the assessment, and would welcome the development and implementation of a Vessel Management Plan to mitigate these.
83	7.7.3.2.7	572	Entrapment and / or entrainment of prey at marine outfall / intake locations for the HPF	We welcome the inclusion of the potential for entrapment and / or entrainment of marine prey of birds during the operation phase. We advise that this impact pathway should also be scoped in for the lamprey features of the Humber Estuary SAC.
84	7.7.4	575 - 576	Potential cumulative effects	See comments on section 5.6 above.
85	7.7.5	578	Potential transboundary effects	We welcome the inclusion of designated sites outwith the UK that are within foraging range of the project area.
86	7.7.7	580	Approach to data gathering	We are broadly in agreement with the proposed method for establishing the offshore ornithological baseline, the inclusion of 24 months of digital aerial survey data and the coverage of the array area plus 4km buffer. However, we note that there is not much detail presented here on the survey methodology and as such we cannot comment at this time as to whether the coverage will be sufficient.
87	7.7.7	580	Approach to data gathering	We note that the baseline surveys began in October 2021, prior to the 2022 outbreak of highly pathogenic avian influenza (HPAI) in seabird populations, but will be completed in September 2023, after the impacts of HPAI in 2022 and 2023. We expect that data collected prior to summer 2022 will be a valid representation of 'typical' seabird distribution and density. However, data collected at sea after summer 2022 will need discussion with Natural England to understand how the species and colonies of concern and their densities at sea may have been affected by HPAI. See Annex C Natural England's note '*Highly Pathogenic Avian Influenza (HPAI) outbreak in seabirds and Natural England advice on impact assessment (specifically relating to offshore wind)'* from September 2022. Further engagement with Natural England will be required on the potential impacts of HPAI on results of baseline surveys.
88	7.7.7.	580	Seasonal definitions	Natural England note that the seasonal definitions provided by Furness (2015) are likely to be appropriate for species at a broad population scale such as that assessed for EIA, unless more up-to-date information becomes available that suggests changes are required or the results of the baseline surveys indicate that a change is required. Natural England would welcome further engagement with the

Point No.	Section	Para	Topic	Recommendations
				Applicant on the appropriate seasonal definitions. Engage with Natural England on appropriate seasonal definitions once results of baseline surveys are available.
89	7.7.7	Table 7-21	Data sources	Natural England are broadly in agreement with the data sources listed in Table 7-21, but refer the Applicant to previous comments above on seasonality and flight heights. Natural England also note that the results of the last full Seabird census should become available in 2023, and that this should be included as a source of information on seabird population sizes. Natural England also note that there are likely to be sources of data on the impacts of HPAI on seabird populations and colonies that can be included, and recommend that the Applicant engages with Natural England to ascertain how the species and colonies of concern and their densities at sea may have been affected by HPAI and how best to factor these impacts into the assessment. See Annex C Natural England's note '*Highly Pathogenic Avian Influenza (HPAI) outbreak in seabirds and Natural England advice on impact assessment (specifically relating to offshore wind)'* from September 2022. Consider inclusion of latest seabird census results, feasibility of collecting site-specific information on flight heights, flight speeds, and nocturnal activity factors, and sources of information on impacts of HPAI on relevant seabird populations.
90	7.7.7	Table 7-22	See comment on paragraph 580 above	Refer to recommendations on para 580 above.
91	7.7.8	585-586	Approach to assessment	Natural England are broadly in agreement with the proposed methodology presented, but note that insufficient detail has been provided here for us to be able to comment in detail on abundance and density estimate methodology at this time. We look forward to further engagement with the applicant around the appropriate methodology and parameters to use as part of the EPP process and to seeing more detail on methodology presented in the PEIR/ES. Please see previous comments on seasons.

Point No.	Section	Para	Topic	Recommendations
				Natural England recognise that the full list of SPAs and Ramsar sites relevant to the project will be presented in the HRA screening report and look forward to further engagement with the Applicant on this.

Section 7.12 Seascape, Landscape and Visual Impact

Natural England confirms agreement that construction and operational effects on seascape from the array as they relate to the effects on either designated (e.g. North York Moors National Park) or defined (e.g. Spurn Head Heritage Coast) landscapes can be ruled out of the ES. We agree that with the proposed separation distance, the array will not be visible from the shore.

Section 8.6 Onshore Ecology, Ornithology and Nature Conservation

Please find below a response to Section 8.6.8 Scoping Questions to Consultees followed by a detailed comments table.

Scoping Questions to Consultees	Response
Do you agree with the characterisation of the existing environment?	We are in broad agreement with the characterisation of the existing environment. We note that not all designated sites have been included in this section (we appreciate they have been considered in other onshore topics) such as Spurn NNR, Humber Estuary SAC, Dimlington Cliffs SSSI and Lambwath Meadows SSSI.
Have all the onshore ecology, ornithology and nature conservation impacts resulting from the Project been identified in the Scoping Report?	We broadly agree with the impacts that have been identified, however it is unclear what works may be undertaken in different areas of the onshore and intertidal scoping area. Further discussion will be needed during the EPP on the locations of specific works to be carried out to determine if all impacts have been appropriately included.
Do you agree with the onshore ecology, ornithology and nature conservation impacts that have been scoped in for / out from further consideration within the EIA?	We note that the direct impacts to the loss of resting/breeding habitat (particularly European Protected Species) are not considered.
Have all the relevant data sources been identified in the Scoping Report?	Please see above comment on designated sites.
Do you agree with the proposed assessment approach?	We are in broad agreement with the assessment approach but have further comment to add for great crested newts (GCN) and intertidal birds (see below).

Point No.	Section	Para	Topic	Recommendations
92	8.6.6	1197	Approach to data gathering	We expect GCN surveys, which may inform a future GCN licence application, to include ponds up to 250m or 500m from development sites. Factors such as scale of the development, habitat connectivity, barriers to dispersal, etc. should be considered when determining the survey area. These factors can also be considered when excluding specific ponds from a survey (e.g. significant barriers to dispersal between a pond and the development site). If ponds are excluded from the survey effort and/or if only ponds within 250m of the development are surveyed, NE would suggest the ecologist retains evidence of their justification for their own records. If there is clear habitat connectivity between ponds within 250m to 500m and the development site, it may be necessary to extend the survey area. In general, surveys of ponds greater than 250m from developments are normally appropriate only when all of the following conditions are met: • maps, aerial photos, walk-over surveys or other data indicate that the pond(s) has potential to support a large great crested newt population • the footprint contains particularly favourable habitat, especially if it constitutes the majority available locally • the development would have a substantial negative effect on that habitat • there is an absence of dispersal barriers
93		Table 8-17	Bird surveys	Due to high sensitivity habitat areas in the Humber scoping area such as Saltend mudflats, and likely use of functional land by waders such as golden plover, lapwing and curlew both in adjacent habitats and in the wider hinterland of the estuary, a high intensity survey programme for SPA waterbirds will need to be discussed and agreed in the EPP. We advise that two years of SPA waterbird surveys will be required that target the overwintering and passage periods. The scope of those surveys should encompass those areas where there are direct or indirect impacts to designated sites or functionally linked land, including disturbance/displacement effects. Nocturnal surveys will also be a likely requirement and should be targeted at key issues, for example for curlew on functionally linked land adjacent to the estuary.

Section 8.10 Landscape and Visual Impact

Point No.	Section	Para	Topic	Recommendations
94	3.3	Table 3-2	Key indicative parameters for the worst case scenario assessed in the scoping report	We note that the estimated footprint of the onshore Hydrogen Production Facility has been provided. We would welcome further indicative parameters such as tower height. We therefore request further opportunity to comment in relation to the extent of the proposed LVIA study area once the maximum parameters are known in terms of height of the tallest elements of the Hydrogen Production Facility. Until this information is provided it will not be possible to determine if the 5km Zone of Theoretical visibility used for screening impacts is appropriate.
95	8.10.5	Table 8-33	Impacts proposed to be scoped in and out for landscape and visual impact	It is proposed that the impact of construction and operation on visual receptors resulting from the landfall and onshore export cables is scoped out. We advise that these are scoped in. The construction corridor (mostly open trench) is a maximum 100m width and although the construction period is considered short term, it may have significant effects on landscape character and views in terms of vegetation removal. At operation a 'permanent corridor width of 50m' is proposed. Mitigation measures which include reinstation of vegetation should be assessed in case vegetation cannot be reinstated (thus leaving behind a sterile corridor to some extent for maintenance) or it should be taken into account that it might take 15 years for said vegetation features to regrow etc.

Annex C

Highly Pathogenic Avian Influenza (HPAI) outbreak in seabirds and Natural England advice on impact assessment (specifically relating to offshore wind)

September 2022

1. We are currently unclear what the short, medium and long-term effects of the 2022 HPAI outbreak will be on seabird colony abundance and vital rates (productivity and survival), though impacts at some English colonies in 2022 were likely substantial (e.g. emerging indications of estimates include adult mortality in ~50% of the UK's only roseate tern colony at Coquet Island SPA, and ~10% of Sandwich terns at the North Norfolk Coast SPA). We do not know the extent of population resilience – for instance, how many non-breeding birds might replace adults dying from HPAI in 2022 in future breeding seasons.

2. We expect HPAI to remain a threat to UK breeding seabirds (and terrestrial species of birds, especially perhaps wintering waterbirds) for the foreseeable future. It will take several years for data to be gathered on abundance, mortality and productivity, so we will need to work with imperfect knowledge in the interim.

3. The species understood to be of greatest relevance for imminent impact assessment of offshore wind farms in England are black-legged kittiwake, Sandwich tern, northern gannet, great black-backed gull, common guillemot and razorbill.

4. We expect seabird data collected prior to summer 2022 (approx. June) to remain a valid representation of 'typical' seabird distribution and density, as this was before mass mortality events began to take place. (At this point, we assume affected colonies will recover in the short or long term, depending on available recruits to colonies, scale of further outbreak, and other factors). Data collected at sea from summer 2022 onwards will need discussion with Natural England, to understand how the species and colonies of concern, and their density at sea at certain times, may have been affected by HPAI. We welcome engagement with developers actively engaged in data collection through the Evidence Plan process.

5. Implications for data collection planned for projects beyond Round 4 will largely be site- and species-specific, and we recommend careful interpretation of results in consultation with Natural England. As the duration and severity of the epidemic is unknown and evidence will continue to accumulate over time, an iterative approach seems likely to be required.

6. Broadly, we expect any changes in abundance at colonies to be reflected proportionately in the at sea data. That is, it is reasonable to assume distribution patterns will remain broadly similar, but densities to change accordingly.

7. This assumption means that the scale of impact is likely to remain in proportion to the size of the colony. For instance, if a population were reduced by 10% then we would expect 10% fewer collisions. However, where a population has been significantly depleted, it should be considered whether an equivalent level of impact would have greater implications for the newly reduced population.

8. This would also reflect the likely need to ensure that the sea areas that support SPA (Special Protection Area) seabird colonies provide suitable conditions to restore populations where HPAI impacts have reduced population sizes, rather than simply maintain them. Natural England will aim to provide conservation advice that reflects any such changes.

9. Given the significant uncertainties about the health and resilience of seabird colonies introduced by HPAI, Natural England is likely to further emphasise the need to continue with a risk-based approach to its advice on additional impacts from development, particularly where

populations have been significantly impacted. This is to ensure that the impacts of HPAI are not compounded by those from development.

9. This approach is also likely to be taken to compensation discussions. We are likely to recommend that the nature, scope and scale of compensatory measures reflect the uncertainties around population trends, recovery and resilience introduced by HPAI.

10. We need much more data, and urgently need all concerned with seabird conservation and related developments to fund monitoring of key variables at important colonies, so that collectively we can make best decisions about impact and its effects in the face of the threat from HPAI.

11. Natural England will shortly publish its advice to Defra underpinning an English Seabird Conservation and Recovery Plan, which includes direct recommendations for seabird recovery, some relating to disease as well as seabird monitoring.

12. We must work collectively to ensure that seabird populations are made more resilient to the type of catastrophic event caused by HPAI. This includes delivering the actions relating to feeding, breeding and survival as outlined in Natural England's recommendations to Defra in the England Seabird Conservation and Recovery Plan.

Natural England initial draft advice in relation to taking into account all aspects of offshore windfarm projects which may be subject to determination across multiple separate NSIPs with different owners for the array ('generation assets'), cable ('transmission assets') or other offshore windfarm NSIP where there are joint/shared infrastructure which may have cumulative impacts to nature conservation features.

Natural England welcomes the potential progression of an 'coordinated' approach to grid connection. In reducing the number of cables required for energy transmission, we recognise the potential for significantly reducing the area of impact created from multiple projects, thereby increasing options available to the projects to avoid, reduce and mitigate impacts to designated site features and the wider marine environment.

However, Natural England notes the potential consenting challenges this new approach is likely to have for offshore windfarms where there is likely to be separate NSIP applicants for the generation assets (offshore windfarm arrays), but also for the transmission asset. Should there be a requirement to sell the cable linking the array to the transmission asset to an Offshore Transmission Owner (OFTO) post-construction, this could present additional complexities. We observe such a scenario could potentially result in up to three Development Consent Orders (DCOs) and five deemed Marine licences being intrinsically linked.

Therefore, we advise that prompt consideration is required by the relevant parties to consider how the National Grid 'Coordinated Approach' can be implemented and robustly consented to ensure that OWF projects impacts can be considered and consented holistically (rather than 'salami sliced'), the risk of stranded assets can be avoided, and that offshore windfarm energy can be delivered in a timely manner.

Drawing from our experiences of the consenting process for both the Triton Knoll offshore windfarm 'array' NSIP and the Triton Knoll Electrical System NSIP, we provide the following advice on a without prejudice basis. This is with a view to identifying and helping to address the challenges that may be faced by offshore windfarm projects where i) multiple NSIPs are required but timeframes are unlikely to align, ii) the merits of the applications are unlikely to be considered by the same examining authority and iii) there are subsequent implications for DCO requirement and marine licence discharge.

Consideration of indirect, secondary and cumulative impacts

Natural England advises that in order for any one of the examining authorities to assess the direct, indirect, secondary and cumulative impacts from multiple NSIPs there will need to be sufficient information submitted on the indirect, secondary and cumulative impacts of the grid connection works. We draw your attention to paragraph 4.9.3 of the overarching National Policy Statement for Energy EN-1 ("EN-1") which provides that Applicants:

> *"must ensure they provide sufficient information to comply with the EIA Directive including the indirect, secondary and cumulative effects, which will encompass information on grid connections. The IPC must be satisfied that there are no obvious reasons why the necessary approvals for the other element are likely to be refused."*

Natural England accepts that EN-1 provides for a scenario where the grid connection and offshore array consents do not come forward in the same consenting process – that is clear from para. 4.9.1. However, it is Natural England's case that EN-1 envisages a situation where the Applicant has a detailed grid connection scheme worked up, but for administrative or other reasons does not join the two consents and progress them through the same process, but instead brings them forward via separate consenting processes.

However, unless the transmission assets consent is progressed in advance of the generation assets, it is anticipated in such cases that the Applicant will have a fully worked up scheme for the grid connection works, with complete assessments of its individual impacts and those cumulative impacts with the offshore array/s. Natural England draws support for this reading of EN-1 from the fact that para. 4.9.1 states that:

> *"it may be the case that the applicant has not received or accepted a formal offer of a grid connection from the relevant network operator at the time of the application, although it is likely to have applied for one and discussed it with them."* (emphasis added).

Nevertheless it remains unclear to Natural England how this would work in practice when the generation asset applicant is not the same as the transmission asset applicant. There is a risk that due to timeframes the coordinated approach may well result in a detailed offshore array scheme, but may not have detailed proposals relating to the transmission assets. This would not comply with EN-1.

Natural England advises that it cannot be reasonably contended that a cumulative assessment does not need to be carried out of a project that is not only intrinsically linked to the proposed development but is necessarily required to come forward for the proposed development to have any meaningful existence, resulting in a stranded asset - be that the generation asset or the transmission asset. This aligns with para. 4.9.3. of EN-1.

Consenting of associated NSIPs

In relation to the second requirement in para. 4.9.3 of EN-1 (where it must be satisfied that there are no obvious reasons why the necessary approvals for the other elements are likely to be refused), we highlight is that it is difficult for stakeholders such as Natural England to advise the ExA whether there were, or were not, any obvious reasons why the necessary approvals would be likely to be refused. This was certainly our experience at Triton Knoll OWF.

For Triton Knoll OWF, Natural England also advised that a condition was required that prevented the offshore works associated with the generation asset commencing until the necessary grid connection consents had been obtained. Such an approach could ensure that any significant indirect, secondary, and cumulative impacts that were identified during the consideration of the grid connections works effectively prevent the authorised development coming forward, as they would result in the necessary grid connection consents being refused.

Natural England considers that without such a condition being included in the relevant DCOs, it is very difficult to see how decision-makers could robustly consent the generation asset applications. This is because the ExA/decision-maker wouldn't have before it sufficient information on the indirect, secondary and cumulative effects of the proposed development with the grid connection works which the ExA is required to have under the EIA Regulations and EN-1. In addition, without the suggested condition, we are concerned it would theoretically allow the offshore works to be built without any means of connecting them to the grid.

Natural England highlights the risk that such a situation may pose to the ExA/decision-maker, as the rationality of the decision could be questioned were it to allow the Applicant to construct an offshore array that had no meaningful existence

because it could not be connected to the national grid. The proposed condition for Triton Knoll therefore ensured that such a perverse situation could not result.

National Grid House
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

Complex Land Rights
Ellie Laycock
Development Liaison Officer
UK Land and Property
[redacted]@nationalgrid.com
Tel: [redacted]

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
doggerbankd@planninginspectorate.gov.uk

22 May 2023

Dear Sir/Madam

APPLICATION BY SSE RENEWABLES AND EQUINOR (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE DOGGER BANK D OFFSHORE WIND FARM (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION RESPONSE

I refer to your letter dated 24th April 2023 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET). Having reviewed the scoping report, I would like to make the following comments regarding NGET infrastructure within or in close proximity to the current red line boundary.

We have reviewed the scoping report and note the reference to NGET. At present, there is no existing infrastructure impacted however please note NGET is continuously developing the network and therefore we would welcome further consultations from the applicant as they refine their design.

Further information on the Holistic Network Design (HND) can be found at https://www.nationalgrideso.com/future-energy/pathway-2030-holistic-network-design/holistic-network-design-offshore-wind

I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided not withstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully

ELaycock

Ellie Laycock
Development Liaison Officer, Complex Land Rights

From:	Before You Dig
To:	Dogger Bank D; Before You Dig
Subject:	RE: EN010144 – Dogger Bank D –. EIA Scoping Notification and Consultation/Reg 11 Notification
Date:	24 April 2023 16:03:17
Attachments:	image006.png image007.png image008.png image009.png image010.png image011.png

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Good afternoon

NGN hmay have a number of gas assets in the vicinity of some of the identified "site development" locations. It is a possibility that some of these sites could be recorded as Major Accident Hazard Pipelines(MAHP), whilst other sites could contain High Pressure gas and as such there are Industry recognised restrictions associated to these installations which would effectively preclude close and certain types of development. The regulations now include "Population Density Restrictions" or limits within certain distances of some of our "HP" assets.

The gas assets mentioned above form part of the Northern Gas Networks "bulk supply" High Pressure Gas Transmission" system and are registered with the HSE as Major Accident Hazard Pipelines.
Any damage or disruption to these assets is likely to give rise to grave safety, environmental and security of supply issues.

NGN would expect you or anyone involved with the site (or any future developer) to take these restrictions into account and apply them as necessary in consultation with ourselves. We would be happy to discuss specific sites further or provide more details at your locations as necessary.

If you give specific site locations, we would be happy to provide gas maps of the area which include the locations of our assets.
(In terms of High Pressure gas pipelines, the routes of our MAHP's have already been lodged with members of the local Council's Planning Department)

Kind regards,

Jennie Adams

Administration Assistant
Before You Dig
Northern Gas Networks
1st Floor, 1 Emperor Way
Doxford Park
Sunderland
SR3 3XR

Before You Dig: 0800 040 7766 (option 3)
www.northerngasnetworks.co.uk

From:	[redacted]
To:	Dogger Bank D
Subject:	RE: EN010144 – Dogger Bank D Offshore Wind Farm - EIA Scoping Notification and Consultation
Date:	22 May 2023 16:11:52
Attachments:	image004.png image002.jpg image003.png image006.jpg image008.png image010.png

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Good afternoon Emma,

With reference to the above consultation, I can advise that Trinity House would expect the following to form part of the Environmental Statement:

Navigation Risk Assessment

Comprehensive vessel traffic analysis in accordance with MGN 654.

The possible cumulative, in-combination and trans-boundary effects on shipping routes and patterns must be adequately assessed.

Risk Mitigation Measures

We consider that this development will need to be marked with marine aids to navigation by the developer/operator in accordance with the general principles outlined in IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Guideline G1162 - The Marking of Offshore Man-Made Structures as a risk mitigation measure. In addition to the marking of the structures themselves, it should be borne in mind that additional aids to navigation such as buoys may be necessary to mitigate the risk posed to the mariner, particularly during the construction phase. All marine navigational marking, which will be required to be provided and thereafter maintained by the developer, will need to be addressed and agreed with Trinity House. This will include the necessity for the aids to navigation to meet the internationally recognised standards of availability and the reporting thereof.

Assessment of impact on existing aids to navigation, to include both offshore and shore based (where any cabling reaches landfall) aids to navigation.

A decommissioning plan, which includes a scenario where on decommissioning and on completion of removal operations an obstruction is left on site (attr butable to the wind farm) which is considered to be a danger to navigation and which it has not proved possible to remove, should be considered. Such an obstruction may require to be marked until such time as it is either removed or no longer considered a danger to navigation, the continuing cost of which would need to be met by the developer/operator.

The possible requirement for navigational marking of the export cables and the vessels laying them. If it is necessary for the cables to be protected by rock armour, concrete mattresses or similar protection which lies clear of the surrounding seabed, the impact on navigation and the requirement for appropriate risk mitigation measures needs to be assessed.

Kind regards,

Stephen Vanstone
Navigation Services Manager | Navigation Directorate | Trinity House
[redacted]@trinityhouse.co.uk | [redacted]
www.trinityhouse.co.uk

UK Health Security Agency

Environmental Hazards and Emergencies Department
Seaton House, City Link
London Road
Nottingham, NG2 4LA

nsipconsultations@ukhsa.gov.uk
www.gov.uk/ukhsa

Your Ref: EN010144
Our Ref: CIRIS 63378

Ms Emma Cottam
Senior EAI Advisor, The Planning Inspectorate
Environmental Services Operations Group
3 Temple Quay House
2 The Square
Bristol
BS1 6PN

22nd May 2023

Dear Emma Cottam,

Nationally Significant Infrastructure Project
Dogger Bank D Offshore Wind Farm. PINS Reference EN010144
Scoping Consultation Stage

Thank you for including the UK Health Security Agency (UKHSA) in the scoping consultation phase of the above application. ***Please note that we request views from the Office for Health Improvement and Disparities (OHID) and the response provided below is sent on behalf of both UKHSA and OHID.*** The response is impartial and independent.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report we wish to make the following specific comments and recommendations:

Environmental Public Health
We recognise the promoter's proposal to include a health section. We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that

public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions, and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. UKHSA and OHID's predecessor organisation Public Health England produced an advice document *Advice on the content of Environmental Statements accompanying an application under the NSIP Regime*', setting out aspects to be addressed within the Environmental Statement[1]. This advice document and its recommendations are still valid and should be considered when preparing an ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

We have assessed the Environmental Impact Assessment Scoping report supplied with the scoping request and can provide the following comments.

Onshore Air Quality and Dust.

We note that some details of the onshore development / process are still to be confirmed but are satisfied that the characterisation of the existing environment is proportionate and that the key air quality and dust impacts have been included in the scope of the EIA. The identified data sources are satisfactory, and the assessment approach follows industry standard practice.

Please note that our position is that pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen are non-threshold; i.e, an exposed population is likely to be subject to potential harm at any level and that reducing public exposure to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure) and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

Water Resources and Flood Risk

Whilst the Environment Agency and Local Authorities are the key consultees in this area UKHSA notes that the characterisation of the existing environment but note that there is little consideration of potential impacts on human health as a result of changes to the water table

[1] https://khub.net/documents/135939561/390856715/Advice+on+the+content+of+environmental+statements+accompanying+an+application+under+the+Nationally+Significant+Infrastructure+Planning+Regime.pdf/a86b5521-46cc-98e4-4cad-f81a6c58f2e2?t=1615998516658

and impacts on water abstraction or private water supplies or contamination of waters used for recreational purposes.

Soil and Land Use

Currently the soils and land use section of the PIER does not explicitly include an assessment of historic land contamination and associated exposure risks that may arise because of the construction works.

UKHSA requests that historic land contamination be included in the PIER and that the potential for impacts on human health be assessed using a source/Pathway/Receptor model.

Human Health

UKHSA is satisfied with the characterisation of the environment, population and the proposed approach to the assessment of impacts on wider public health.

Major Accidents and Disasters

UKHSA notes that the hydrogen production element of the application will fall under the provisions of the COMAH and Environmental Permitting Regulations.
We are satisfied that appropriate major accidents and disasters impacts have been scoped into the assessment and agree with the selected data sources and proposed assessment approach.

In terms of construction impacts we note that this will be covered by a construction and management plane in compliance with the CDM regulations.

For more information on the UKHSA's recommendations for topics to be included in any assessment please see
https://khub.net/documents/135939561/390856715/Advice+on+the+content+of+environmental+statements+accompanying+an+application+under+the+Nationally+Significant+Infrastructure+Planning+Regime.pdf/a86b5521-46cc-98e4-4cad-f81a6c58f2e2?t=1615998516658

Yours sincerely,

On behalf of UK Health Security Agency
nsipconsultations@ukhsa.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.