



# NORTH FALLS

*Offshore Wind Farm*

## Scoping Opinion

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# **SCOPING OPINION:**

## **Proposed North Falls Offshore Wind Farm**

**Case Reference: EN010119**

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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

**August 2021**

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## CONTENTS

<b>1.</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Background .....	1
1.2	The Planning Inspectorate’s Consultation.....	2
<b>2.</b>	<b>THE PROPOSED DEVELOPMENT .....</b>	<b>4</b>
2.1	Introduction .....	4
2.2	Description of the Proposed Development.....	4
2.3	The Planning Inspectorate’s Comments.....	6
<b>3.</b>	<b>ES APPROACH .....</b>	<b>11</b>
3.1	Introduction .....	11
3.2	Relevant National Policy Statements (NPSs).....	11
3.3	Scope of Assessment .....	12
3.4	Coronavirus (COVID-19) Environmental Information and Data Collection	18
3.5	Confidential and Sensitive Information.....	19
<b>4.</b>	<b>ASPECT BASED SCOPING TABLES – OFFSHORE .....</b>	<b>20</b>
4.1	Marine geology, oceanography and physical processes .....	20
4.2	Marine water and sediment quality .....	24
4.3	Offshore air quality .....	26
4.4	Offshore airborne noise .....	27
4.5	Benthic and intertidal ecology .....	28
4.6	Fish and shellfish ecology .....	31
4.7	Marine mammal ecology .....	37
4.8	Offshore ornithology .....	41
4.9	Commercial fisheries.....	44
4.10	Shipping and navigation .....	46
4.11	Offshore archaeology and cultural heritage .....	48
4.12	Aviation and radar .....	50
4.13	Infrastructure and other users .....	52
<b>5.</b>	<b>ASPECT BASED SCOPING TABLES – ONSHORE .....</b>	<b>56</b>
5.1	Ground conditions and contamination .....	56
5.2	Onshore air quality .....	60
5.3	Water resources and flood risk .....	63
5.4	Land use.....	66
5.5	Onshore ecology .....	69
5.6	Onshore ornithology .....	73
5.7	Onshore archaeology and cultural heritage .....	75
5.8	Onshore noise and vibration .....	78



5.9	Traffic and transport .....	81
5.10	Human health .....	85
5.11	Seascape, landscape and visual .....	88
<b>6.</b>	<b>ASPECT BASED SCOPING TABLES – PROJECT WIDE .....</b>	<b>94</b>
6.1	Socio-economics .....	94
6.2	Tourism and recreation .....	97
6.3	Climate change .....	100
6.4	Accidents and disasters .....	103
<b>7.</b>	<b>INFORMATION SOURCES.....</b>	<b>105</b>

**APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED**

**APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES**

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# 1. INTRODUCTION

## 1.1 Background

- 1.1.1 On 16 July 2021, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from North Falls Offshore Wind Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed North Falls Offshore Wind Farm (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion *'as to the scope, and level of detail, of the information to be provided in the environmental statement'*.
- 1.1.3 This document is the Scoping Opinion (the Opinion) provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's report entitled North Falls Offshore Wind Farm Environmental Impact Assessment Scoping Report (the Scoping Report). This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.4 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.5 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
  - (b) *the specific characteristics of the development;*
  - (c) *the likely significant effects of the development on the environment; and*
  - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.6 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.7 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.8 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from



requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.9 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 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.
- 1.1.10 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) *a plan sufficient to identify the land;*
  - (b) *a description of the proposed development, including its location and technical capacity;*
  - (c) *an explanation of the likely significant effects of the development on the environment; and*
  - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.11 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.12 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on '*the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)*'.
- 1.1.13 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 ('the Offshore Marine Regulations'), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This assessment must be co-ordinated with the EIA in accordance with Regulation 26 of the EIA Regulations.

## **1.2 The Planning Inspectorate's Consultation**

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by the Inspectorate is

provided at Appendix 1. The consultation bodies have been notified under Regulation 11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in preparing their ES.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in preparing their ES.

## **2. THE PROPOSED DEVELOPMENT**

### **2.1 Introduction**

- 2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/ resources.

### **2.2 Description of the Proposed Development**

- 2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in sections 1.5 and 1.6 of the Scoping Report.
- 2.2.2 The Proposed Development relates to an extension of the existing Greater Gabbard Offshore Wind Farm (GGOW), to be known as North Falls Offshore Wind Farm (NFOW). The Proposed Development will have an installed capacity of more than 100 megawatts (MW) and will be located approximately 40km off the coast of Essex in the English Channel. The array areas of the Proposed Development are split into two, with one array area immediately to the north west of the existing northern array area of GGOW and the second array area immediately to the west of the southern array area of GGOW. The existing Galloper Offshore Wind Farm (GOWF) is located to the east of GGOW.
- 2.2.3 Location plans for the offshore and onshore areas of the Proposed Development are provided in Figures 1.1 and 1.3 of the Scoping Report respectively.
- 2.2.4 The Proposed Development comprises both onshore and offshore infrastructure components as follows:
- Up to 71 offshore wind turbine generators (WTGs) and associated foundations and array cabling;
  - Up to two offshore substation platforms;
  - Up to four offshore export circuits in a cable corridor, with an interconnector cable between the northern and southern array areas;
  - A 'landfall' site using Horizontal Directional drilling (HDD) installation techniques to bring offshore cables onshore through up to four transition pits, plus a spare HDD to account for HDD failure;
  - Onshore cabling (up to four circuits) with cable construction width of up to 70m, comprising three power cables, three communication cables and one earth cable in each circuit;
  - An onshore transmission substation with a maximum footprint of 200m x 250m; and,
  - Up to three primary onshore construction compounds.

- 2.2.5 Table 1.1 of the Scoping Report sets out the parameters of the offshore components of the Proposed Development (eg array area, offshore cable route length and burial depth, maximum WTG rotor diameter and tip height, minimum separation between WTGs and maximum array cable length) to the extent that they are known at this stage. Electrical cabling will be High Voltage Alternating Current (HVAC). It is stated at paragraph 27 of the Scoping Report that there is a possibility that more than one model of WTG will be used within the Proposed Development. Potential foundation options are described at paragraph 29 of the Scoping Report.
- 2.2.6 The offshore components are located partially within the Southern North Sea Special Area of Conservation (SAC), Outer Thames Estuary Special Protection Area (SPA) and Kentish Knock East Marine Conservation Zone (MCZ). Margate and Long Sands SAC is located immediately to the south of the offshore cable corridor and Essex Estuaries SAC and Blackwater Crouch and Colne Estuaries MCZ are approximately 47km to the west of the southern array area and 5km from the landfall area of search.
- 2.2.7 Table 1.1 of the Scoping Report also sets out parameters for the landfall and onshore components of the Proposed Development, including the connection into the National Grid transmission system, as far as they are known at this stage. The geographic location for these components has not yet been determined.
- 2.2.8 The Applicant has defined a landfall search area of approximately 3km along the coastline between the settlements of Clacton-on-Sea and Frinton-on-Sea in the Tendring peninsula, which will be used to establish a location to bring the export cables onshore. The landfall search area is shown on Figure 1.3. Holland Haven Marshes Site of Special Scientific Interest (SSSI) runs parallel to the west of the landfall search area, and Holland Haven Local Nature Reserve (LNR) is also to the west in the central part of the search area. It is stated that the selection process for the final landfall option will be reported in the ES as part of the DCO submission (paragraph 73 of the Scoping Report).
- 2.2.9 Paragraph 49 of the Scoping Report states that there will be a new National Grid connection point to which the Proposed Development will connect into the electricity transmission network, known as East Anglia Coastal, which will form part of a separate consenting process to be progressed by National Grid. The geographic location of this connection point has not yet been confirmed.
- 2.2.10 A new onshore substation will be required as part of the Proposed Development, together with associated underground cabling, to transform the power from the offshore windfarm to 400 kilovolt (kV) for connection into the East Anglia Coastal transmission substation. The Applicant has not yet identified a location for the onshore substation or the preferred cable routes but has defined an onshore scoping area of approximately 150 square kilometres within the Tendring district of Essex, as described at paragraph 40 of the Scoping Report.

- 2.2.11 The onshore scoping area is shown on Figure 1.4. Dedham Vale and Suffolk Coast and Heaths Areas of Outstanding Natural Beauty (AONB) border the north of the onshore scoping area, and Hamford Water SPA, SAC and Ramsar border the east. Stour Estuary SPA and Ramsar are located approximately 375m to the north and Colne Estuary SPA and Ramsar and Essex Estuaries SAC are located approximately 3km to the south.
- 2.2.12 Paragraph 75 of the Scoping Report states that the onshore scoping area will be refined into distinct options, which will be used as a basis for data gathering to inform the design of the Proposed Development, as well as assessments in the ES and DCO application.
- 2.2.13 The construction of the Proposed Development is expected to take place in two phases, with onshore components commencing in 2026 and offshore components in 2028, becoming operational in 2030 (see paragraph 55 of the Scoping Report).

## **2.3 The Planning Inspectorate's Comments**

### **Description of the Proposed Development**

- 2.3.1 The ES should include the following:
- a description of the Proposed Development comprising at least the information on the site, design, size and other relevant features of the development; and
  - a description of the location of the development and description of the physical characteristics of the whole development, including any requisite demolition works and the land-use requirements during construction and operation phases
- 2.3.2 The Scoping Report presents an indicative construction programme for the Proposed Development at section 1.5.5. This indicates that there is potential for a phased approach to construction, with onshore activity commencing in 2026 prior to offshore activity in 2028. The ES should describe the construction programme, and any phasing in delivery, including the expected duration and overlap of different components to enable an assessment of the effects on the basis of a worst case scenario.
- 2.3.3 The anticipated generating capacity of the Proposed Development is not stated in the Scoping Report, although paragraph 5 explains that the expected capacity is greater than 100 MW. The maximum technical capacity (ie electrical output) of the individual WGTs and of the Proposed Development as a whole should be confirmed within the ES.
- 2.3.4 The Scoping Report provides limited information about the operational and maintenance activities for the operational phase of the Proposed Development. The ES should provide a full description of the nature and scope of these activities, including types of activity, frequency, and how works will be carried out for both offshore and onshore components. This should include

consideration for the potential overlapping of activities with those required for the continuing operation of GGOW and GOWF.

- 2.3.5 Paragraph 90 of the Scoping Report confirms that the ES will consider the potential for impacts during decommissioning of the Proposed Development, but limited information is provided about the physical characteristics associated with this activity. Most of the subsequent aspect sections of the Scoping Report also address decommissioning in respect of the Proposed Development, noting that activities would be similar to those during the construction phase without describing the activities in detail. The ES should include a description of the anticipated decommissioning activities and their likely duration. Where there is uncertainty of impacts during decommissioning, this should be clearly explained along with the implications for the assessment of significant effects (including assumptions and mitigation on which reliance is placed).
- 2.3.6 Section 1.5.4 of the Scoping Report states that port facilities will be required to support the construction and operation of the Proposed Development, and it is likely that the port will be located on the east coast of England. The ES should make effort to identify the location of the port(s), where possible, and assess any likely significant effects associated. In the event that the port(s) have not been confirmed, the ES should make effort to assess the likely significant effects associated with relevant assumptions and a worst case scenario. The worst case parameters applied in relation to port location(s) should be clearly defined and consistently applied across the relevant assessments in the ES.
- 2.3.7 The ES should include a description of the nature and quantity of materials and natural resources used in the Proposed Development, including water, land, soil and biodiversity.

#### *Offshore*

- 2.3.8 The layout of WTGs, including the division of WTGs between the two proposed array areas, has not yet been ascertained and it is stated that this will be determined following site investigation post consent (paragraph 28 of the Scoping Report). Table 1.1 states that there will be a maximum of 71 WTGs. In addition, paragraph 27 of the Scoping Report identifies a possibility that more than one model of WTG may be used. The ES should include a full and detailed description of the potential WTG models and the parameters associated with their design (including distance between WTG), as well as establishing and assessing the layout(s) that result in the worst case adverse effects.
- 2.3.9 Inter-array cabling and offshore export cables are described as having a target minimum cable depth of 0.5m to 3m where buried; indicative maximum diameters and lengths of cabling are noted but it is stated that the final layout will be determined post consent to fit with the final layout of the WTG. The ES should describe the range of burial depths that have been considered as part of the assessment and the degree of confidence in these parameters. It should establish the parameters likely to result in the

maximum adverse effects and include an assessment of these to determine likely significance of effects.

- 2.3.10 The Scoping Report explains that the array cables used to connect the WTGs to the offshore substation will be between 33kV and 132kV but not the process by which the final voltage would be chosen. The ES should describe these options, any differences in the physical infrastructure requirements and provide an assessment of environmental effects that may result from the selected options.
- 2.3.11 Paragraph 29 of the Scoping Report states that the design of foundations for the WTGs and platforms will be informed by site investigation post consent, and that it is possible that more than one type of foundation will be used. The following foundation design options are being considered: monopiles, jackets on pins or suction caissons, and gravity base structures (GBS). Table 1.2 of the Scoping Report sets out indicative dimensions and construction materials for the range of options. The ES should include a full and detailed description of foundation options and any scour protection for which development consent is sought, including the location, maximum diameter and depth, and the maximum diameter of piles should they be used.
- 2.3.12 Paragraph 140 of the Scoping Report identifies a potential need for seabed preparation for installation of cables and foundations, including sandwave clearance and boulder removal. The ES should identify the worst case footprint of seabed disturbance that would arise from offshore construction activities, and the maximum footprints of all permanent components should also be identified. Should seabed preparation involve dredging, the ES should identify the quantities of dredged material and likely location for disposal.

#### *Landfall and Onshore*

- 2.3.13 The Inspectorate notes that the preferred options for landfall location of the export cables, location of the onshore substation and routing of the underground cables will be refined and selected during the assessment process (paragraphs 37 and 51 of the Scoping Report). The Inspectorate understands that the onshore location and routing will in part be determined based on the selected location of the East Anglia Coastal transmission substation, which is the subject of a separate consenting process by National Grid. The ES should describe the preferred options for landfall and onshore components of the Proposed Development, including the location and maximum design parameters of each component (footprint, height, width, depth and volume as relevant). It should explain the relationship between the preferred options and the East Anglia Coastal transmission substation, the status of the separate project, any uncertainty remaining if it is not yet finalised and how that has been addressed in the assessment presented in the ES.
- 2.3.14 As the landfall and onshore components are still subject to areas of search, the Inspectorate notes that it is not yet clear whether any temporary or permanent crossings of watercourses, major roadways and / or railways will be required as part of the Proposed Development, nor is any information

presented as to the proposed methodology that would be used for such crossings. The ES should identify the locations and types of all such crossings. Where reliance is placed in the ES on the use of a specific method as mitigation, the Applicant should ensure that such commitments are appropriately defined and secured.

- 2.3.15 Similarly, the ES should identify where new access routes, either temporary or permanent, are required to facilitate onshore construction and / or maintenance of the onshore substation and underground cable, as well as any requirement for upgraded or additional utilities infrastructure eg sewerage or water supply.

### **Alternatives**

- 2.3.16 The EIA Regulations require that the Applicant provide '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'.
- 2.3.17 The Scoping Report does not state that alternatives will be considered within the ES. The Inspectorate would expect to see a discrete section in the ES that provides details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

### **Flexibility**

- 2.3.18 The Inspectorate notes the Applicant's desire to incorporate flexibility into their draft DCO (dDCO) and its intention to apply a Rochdale Envelope approach for this purpose. Where the details of the Proposed Development cannot be defined precisely, the Applicant will apply a worst case scenario. The Inspectorate welcomes the reference to Planning Inspectorate Advice Note nine 'Using the 'Rochdale Envelope'<sup>1</sup> in this regard.
- 2.3.19 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. It is stated at paragraph 17 at section 1.4 of the Scoping Report that maximum and minimum parameters will be provided in the ES 'where appropriate' to ensure the worst case scenario is quantified and assessed. The development parameters should be clearly defined in the dDCO and in the accompanying ES; the assessment in the ES should establish the parameters, including minimum and maximum, likely to result in the maximum adverse effect (ie the worst case scenario). It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number

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<sup>1</sup> Advice Note nine: Using the Rochdale Envelope. Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>



of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations. In this regard, the Inspectorate expects that the component parameters presented in Table 1.1 of the Scoping Report will be refined and further detailed as part of the ES.

- 2.3.20 It should be noted that if the Proposed Development materially changes prior to submission of the DCO application, the Applicant may wish to consider requesting a new scoping opinion.

## **3. ES APPROACH**

### **3.1 Introduction**

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements'<sup>2</sup> and associated appendices.
- 3.1.2 Aspects / matters (as defined in Advice Note Seven) are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information available at this time. The Inspectorate is content that the receipt of a 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.
- 3.1.4 The Inspectorate has made effort to ensure that this Scoping Opinion is informed through effective consultation with the relevant consultation bodies. The Inspectorate considers that Applicants should make effort to ensure that they engage effectively with consultation bodies and where necessary further develop the scope of the ES to address their concerns and advice. The ES should include information to demonstrate how such further engagement has been undertaken and how it has influenced the scope of the assessments reported in the ES.
- 3.1.5 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through dDCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.

### **3.2 Relevant National Policy Statements (NPSs)**

- 3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs.

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<sup>2</sup> Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.

3.2.2 The designated NPSs relevant to the Proposed Development are the:

- Overarching NPS For Energy (NPS EN-1);
- NPS on Renewable Energy Infrastructure (NPS EN-3); and,
- NPS for Electricity Networks Infrastructure (NPS EN-5).

3.2.3 Paragraph 123 of the Scoping Report notes that the Marine Policy Statement (MPS) provides the policy framework for the preparation of marine plans and establishes how decisions affecting the marine area should be made in order to enable sustainable development.

### **3.3 Scope of Assessment**

#### **General**

3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:

- to demonstrate how the assessment has taken account of this Opinion;
- to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
- to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
- to describe any remedial measures that are identified as being necessary following monitoring; and
- to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of National Site Network sites and their locations, together with any mitigation or compensation measures, that inform the findings of the ES.

3.3.2 Paragraph 86 of the Scoping Report (detailing the overarching assessment methodology for the EIA) states that study areas defined for each receptor are based on the Zone of Influence (ZoI) and relevant characteristics of the receptor (eg mobility / range). However, the Inspectorate notes that for many of the aspect chapters included, study areas and ZoIs have not been stated. Where this detail has been provided, it is not clear how these study areas relate to the extent of the impacts and likely significant effects associated with the Proposed Development, how they have been used to determine a ZoI, and what receptors have been identified within the ZoI. The ES should provide a robust justification as to how study areas have been defined and why the defined study areas are appropriate for assessing potential impacts.

3.3.3 Where aspect chapters and assessments of the ES are separated into onshore and offshore assessments, it is unclear to what extent such assessments

consider the potential for impacts to overlap and interrelate (eg the potential for terrestrial habitat loss to also impact receptors identified within offshore chapters / assessments). Furthermore, there are instances whereby cross-references are made to impacts that have not been addressed in the appropriate aspect(s) of the Scoping Report. For example, the Ground Conditions and Contamination aspect chapter highlights the potential for direct impacts to surface water receptors and associated ecological habitats from contamination, however, this impact is not addressed within Onshore Ecology. There are similar examples of other cross-cutting matters (eg Unexploded Ordnance (UXO) clearance, underwater noise, spread of invasive non-native species (INNS), etc.) that have not been appropriately cross-referenced. The ES should assess impacts that overlap or interrelate between offshore and onshore receptors where there is a likely significant effect, and consider the potential for such impacts to act cumulatively. Where appropriate, study areas should be refined based on the results of updated survey data.

- 3.3.4 The Inspectorate understands that areas of search for the landfall and onshore components of the Proposed Development will be refined during the assessment process to identify preferred options, which would be reported in the ES as part of any DCO submission. The Inspectorate therefore expects that the DCO boundary is likely to change from the boundary used for scoping. The ES should clearly describe changes that have been made to the DCO boundary from the scoping red line boundary, including reduction or increase in extent, and the reasons for such change. Where changes are made, each aspect chapter of the ES should explain the effect of such changes on the approach to assessment, including where this results in additional matters needing to be scoped into the ES.
- 3.3.5 Section 1.8.2.7 of the Scoping Report sets out the Applicant's proposed approach to assessment of cumulative effects within the ES, and the Inspectorate notes that the scope of the assessment will be established on an aspect-by-aspect basis in consultation with relevant consultation bodies. The Applicant should seek to agree the draft list of other large-scale developments or projects that are proposed to be used as the basis for assessment with relevant consultation bodies prior to submission of any DCO application. The Inspectorate considers that, given the scale of the offshore components of the Proposed Development, and potential for significant cumulative effects, that this list should include other NSIPs such as East Anglia ONE, Five Estuaries Wind Farm and Sizewell C. The ES should describe the extent of the study area(s) that have been used for the assessment of cumulative effects, which should be determined based on a consideration of impact pathways for each aspect. The ES should include an assessment of all projects (or aspects within projects) which in cumulation with the Proposed Development are likely to give rise to significant effects.
- 3.3.6 Figures presented in the ES and used to support the assessment should be legible and show all relevant information, including receptors considered in the assessment. The ES should include figures illustrating designated and non-designated ecological sites, including SSSIs and Impact Risk Zones

where relevant, ancient woodland, and receptors used in the assessment of air quality, noise and vibration.

- 3.3.7 The Applicant is reminded that the ES should be clear and accessible to readers.

### **Baseline Scenario**

- 3.3.8 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.
- 3.3.9 Some aspect sections of the Scoping Report have identified specific receptors, whereas others identify broad categories of receptors only. Specific receptors should be identified within the ES, alongside categorisation of their sensitivity and value. Section 1.8.2.1 of the Scoping Report explains the generic approach to defining receptor sensitivity in order to assess the potential impacts upon each receptor. The inspectorate expects a transparent and reasoned approach to be applied to assigning receptor sensitivity to be defined and applied across the aspect chapters.
- 3.3.10 The Inspectorate notes that the onshore scoping area passes through a mineral consultation area (MCA) and a waste consultation area (WCA); the baseline scenario should include relevant information about the features and emissions of any facilities associated with the MCA and WCA, eg noise, dust, odour, traffic, and lighting.
- 3.3.11 If there are a significant number of ongoing developments within the vicinity of the Proposed Development application site, the Applicant should clearly state which developments will be assumed to be under construction or operational as part of the future baseline.

### **Forecasting Methods or Evidence**

- 3.3.12 The ES should contain the timescales upon which the surveys that underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.
- 3.3.13 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.14 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

- 3.3.15 Section 1.8 of the Scoping Report describes the overarching methodology that the Applicant proposes to use within the assessment; it is stated that a matrix approach will be used where appropriate to provide a consistent framework, but this will be tailored for each topic based on latest guidance or best practice. The Inspectorate notes that some aspect sections in the Scoping Report do not present information about proposed tailored methodologies, beyond in some instances making reference to the use of relevant technical guidance, and therefore it has limited the Inspectorate's ability to comment on the aspect specific methodology. The ES should explain the criteria that has been used to categorise receptor sensitivity and magnitude of impact (with definitions), and how this has been combined to conclude the significance of effect; where required, this should be considered on an aspect specific basis. The approach to assessing and interpreting significance levels should be consistent across aspect chapters where possible. Where matrices are used in combining magnitude of impact and sensitivity of receptor they too should be consistent in determining overall significance of effect. Where modelling is used to predict effects, this should be defined with reference to its suitability and how modelling results will be verified. The Inspectorate notes that reference is made to the use of professional judgment in determining these values at paragraph 93 of the Scoping Report; the ES should explain where professional judgment has been applied in assessing significance of effects.
- 3.3.16 Paragraph 87 sets out that there is a considerable existing evidence base in the form of data from the previous assessment carried out for GGOW and GOWF. The Inspectorate welcomes the Applicant's intention that the evidence base will be discussed with relevant consultation bodies to ensure that it remains appropriate. Particular consideration should be given to the methods and the spatial and temporal scope of previous surveys given the time that has elapsed since the GGOW and GOWF applications.
- 3.3.17 Section 1.7.2 and Table 1.4 of the Scoping Report explains that an Evidence Plan Process (EPP) with specialist stakeholders commenced in 2021 to agree the 'detailed methodologies for data collection and undertaking the impact assessments' in respect of certain aspects to be scoped into the ES. This approach to agreeing the finer details of the assessment is welcomed. Other aspects, including fisheries, aviation and radar, and shipping and navigation, would fall outside of the EPP but the Applicant has committed to consultation at an early stage of the assessment process. The Applicant should ensure that any agreements reached during EPP or other consultation process are evidenced within the ES.
- 3.3.18 Section 1.9.3 of the Scoping Report sets out the planning policy and legislation context for the Proposed Development. It would be beneficial for the aspect chapters of the ES to also include reference to aspect specific planning policy and legislation, where this has been used to inform the methodology used for assessment.

## **Residues and Emissions**

- 3.3.19 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.
- 3.3.20 The Inspectorate notes that in a number of instances the potential for impacts to ecological receptors (including offshore ornithology, onshore ecology and onshore ornithology) arising from the use of new lighting during the construction, operational and decommissioning phases of the Proposed Development are identified. The Scoping Report states that in respect of onshore receptors, the risk of disturbance from lighting is low. In addition, the Inspectorate notes that there is potential for night time lighting, which could result in effects to the setting of cultural heritage receptors, as well as seascape, landscape and visual receptors. The ES should include a description of the expected lighting emissions, appropriate visual representations and an assessment of effects, where significant effects are likely to occur. The ES should include details of any measures proposed to mitigate significant effects, including the use of lighting controls, and how this would be secured within the DCO.
- 3.3.21 The Inspectorate notes that the Scoping Report does not make reference to the potential for any emissions in respect of radiation during the construction, operational or decommissioning phases of the Proposed Development. Given the nature of the Proposed Development as an offshore wind farm and associated infrastructure, the Inspectorate considers that significant effects from radiation would not be likely and the ES does not need to reference this matter.
- 3.3.22 The Scoping Report does not contain a specific section about waste; however, the Inspectorate notes that an assessment of the effects of disposal of dredged or drilled material during offshore construction is scoped into the ES (paragraph 141) and that the scope of the traffic and transport assessment will include construction vehicle movements associated with export of material (paragraph 667). The ES should include information regarding the expected quantities and types of all types of waste that will be produced during construction, operation and decommissioning, including arisings from onshore activity in addition to offshore dredging and drilling. The ES should include an assessment of effects relating to waste in relevant aspect chapters where significant effects are likely to occur, including for example in relation to transport effects as a result of movement of waste.

## **Mitigation and Monitoring**

- 3.3.23 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also

address how any mitigation proposed is secured, with reference to specific dDCO requirements or other legally binding agreements.

- 3.3.24 The ES should identify and describe any proposed monitoring of significant adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.
- 3.3.25 The Inspectorate notes that for many of the aspects in the Scoping Report, there is limited or no information about likely measures that will be used to mitigate significant adverse effects. This has therefore constrained the Inspectorate's ability to comment upon the scope of or approach to mitigation.

### **Risks of Major Accidents and/or Disasters**

- 3.3.26 The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to the Inspectorate's Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.
- 3.3.27 Relevant information available and obtained through risk assessments pursuant to national legislation may be used for this purpose. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
- 3.3.28 Section 4.5 of the Scoping Report sets out the Applicant's proposed approach to assessment of major accidents and disasters. It is stated that following a review of potential major accidents and disasters, a number of matters are proposed to be scoped into the ES as part of other aspect chapters, including coastal erosion and flood risk, accidental spills of hazardous materials, vessel collision and exposed cables leading to vessel snagging. The Inspectorate agrees that these matters should be scoped into the ES and can be considered as matters within relevant aspect assessments.
- 3.3.29 Paragraph 818 of the Scoping Report seeks to scope out a standalone assessment of major accidents and disasters from the ES on the basis that there are no other matters that would give rise to likely significant effects. Please refer to the Inspectorate's comments at section 6.4 of this Scoping Opinion in this regard.



### **Climate and Climate Change**

- 3.3.30 The ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.
- 3.3.31 Please note that further comments are made on climate change in section 6.3 of this Scoping Opinion.

### **Transboundary Effects**

- 3.3.32 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Scoping Report states that the Proposed Development is likely to have significant effects on a European Economic Area (EEA) State, including in relation to marine mammals, offshore ornithology, commercial fisheries, shipping and navigation, aviation and radar during all phases, and offshore archaeology and marine heritage during construction.
- 3.3.33 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of an EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.34 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate notes that the Applicant intends to scope in to the ES an assessment of the potential for the Proposed Development to have significant transboundary effects on the aspects listed above at paragraph 3.3.32. The ES should describe the likely significant effects and which EEA States would be affected in respect of each aspect scoped into the ES.

### **A Reference List**

- 3.3.35 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

## **3.4 Coronavirus (COVID-19) Environmental Information and Data Collection**

- 3.4.1 The Inspectorate understands that measures adopted in response to COVID-19 may have consequences for an Applicant's ability to obtain relevant environmental information for the purposes of their ES. For example the ability to conduct specific surveys and obtain representative data may be affected by these measures. The ES should explain any such limitations and

any assumptions made relating to the environmental information on which it relies.

- 3.4.2 Applicants should make effort to agree their approach to the collection and presentation of information with relevant consultation bodies. In turn the Inspectorate expects that consultation bodies will work with Applicants to find suitable approaches and points of reference to allow preparation of applications. The Inspectorate is required to take into account the advice it receives from the consultation bodies and will continue to do so in this regard.
- 3.4.3 The Inspectorate has a duty to ensure that the environmental assessments necessary to inform a robust DCO application are supported by relevant and up to date information. It is anticipated that Applicants will make every effort to overcome any limitations encountered as a result of the COVID-19 situation. However, where this has not been possible, the Inspectorate will seek to adopt an approach which balances the requirement for suitable rigour and scientific certainty in assessments with pragmatism in order to support the preparation and determination of applications in a timely fashion.

### **3.5 Confidential and Sensitive Information**

- 3.5.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to personal information specifying the names and qualifications of those undertaking the assessments and / or the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information.
- 3.5.2 Where documents are intended to remain confidential the Applicant should provide these as separate documents with their confidential nature clearly indicated in the title and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2004.
- 3.5.3 The Inspectorate adheres to the data protection protocols set down by the Information Commissioners Office<sup>3</sup> . Please refer to the Inspectorate's National Infrastructure privacy notice<sup>4</sup> for further information on how personal data is managed during the Planning Act 2008 process.

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<sup>3</sup> <https://ico.org.uk>

<sup>4</sup> <https://www.gov.uk/government/publications/planning-inspectorate-privacy-notice>

## 4. ASPECT BASED SCOPING TABLES – OFFSHORE

### 4.1 Marine geology, oceanography and physical processes

(Scoping Report Aspect 2.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	Paragraph 142 Table 2.3	Effects on hydrodynamic regime (waves and tidal currents) during construction and decommissioning.	<p>The Applicant states that this effect arises as the result of the presence of physical infrastructure (ie large foundations and cable protection on the seabed) which is only applicable to the operation phase of the Proposed Development.</p> <p>On the basis that this matter will be assessed within the operation phase assessment, the Inspectorate is satisfied that this matter can be scoped out for construction and decommissioning.</p>
4.1.2	Paragraph 140 Table 2.3	Effects on seabed level (due to deposition of suspended sediment, and seabed preparation and/or drill arisings) during operation and decommissioning.	<p>The Applicant states that seabed level effects will occur only during the construction phase (ie during installation activities for cables and foundations) and are not applicable to the operation and decommissioning phases.</p> <p>On the basis that this matter will be assessed within the construction phase assessment, the Inspectorate is satisfied that this matter can be scoped out for construction and decommissioning.</p>
4.1.3	Table 2.3	Changes to seabed morphology (due to the presence of foundation structures and cable protection) during construction and decommissioning.	<p>The Applicant states that this effect arises as the result of the presence of physical infrastructure (ie large foundations and any cable protection on the seabed) which is only applicable to the operation phase of the Proposed Development.</p> <p>On the basis that this matter will be assessed within the operation phase assessment, the Inspectorate is satisfied that this matter can be scoped out for construction and decommissioning.</p>

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
4.1.4	Paragraph 140 Table 2.3	Indentations on the seabed due to installation vessels during operation and decommissioning.	On the basis that this matter applies only to construction and will be assessed within the construction phase assessment, the Inspectorate is satisfied that this matter can be scoped out for operation and decommissioning.
4.1.5	Paragraph 145 Table 2.3	Transboundary effects.	Based on the conclusions of the GOWF in 2011, whose ZoI is stated to be similar to that of the Proposed Development, the Applicant proposes to scope transboundary effects in relation to Marine Geology, Oceanography and Physical Processes out of the assessment. The Proposed Development is also 20km from the Economic Exclusion Zone.  The Inspectorate agrees that this matter can be scoped out of the ES.

<b>ID</b>	<b>Ref</b>	<b>Other points</b>	<b>Inspectorate's comments</b>
4.1.6	n/a	Study area and assessment.	The Inspectorate notes that the Scoping Study Area is very large to account for uncertainty surrounding the exact routes of onshore elements of the Proposed Development.  The ES should ensure that it is clear where the ongoing assessment work has refined the options and addressed potentially significant effects through design.
4.1.7	Figure 1.3 Table 2.4	Designated sites.	The Inspectorate notes the presence of Holland on Sea Cliff SSSI within the Scoping Study Area that has been designated for its geological interest.  The ES should therefore identify the location of any other relevant statutory or non-statutory sites protected for their geological interest as part of the baseline studies. The ES should assess any likely

ID	Ref	Other points	Inspectorate's comments
			significant effects on the Holland on Sea Cliff SSSI, alongside any other sites that are identified.
4.1.8	Paragraph 135	Physical processes baseline.	<p>The Scoping Report uses information from the Essex and Suffolk Shoreline Management Plan (2010) to provide a baseline for the Tendring Peninsula and notes that since that document was prepared, repairs have been made to the sea defences in the area. The existing physical coastal defences should be described in the ES.</p> <p>Given the likelihood of changes to sea defences, both through ongoing active maintenance and the deterioration of these types of structures that could be expected over time, the ES should review the available information to ensure that it represents a robust basis for the assessment.</p>
4.1.9	Table 2.1 Table 2.2 Paragraph 139	Existing datasets and surveys.	<p>The ES should explain how the surveys outlined in Table 2.2 will be used to support the desk-based data that has been collected.</p> <p>The ES should be clear on the reasons for the selection of datasets, with reference to, for example, established guidance, consultee feedback or other evidence and by the choice of an appropriate study area</p>
4.1.10	Paragraph 140  Table 2.3	Construction effects.	<p>The ES should assess the potential for significant effects on coastal processes from the onshore elements of the Proposed Development during both construction and operation.</p> <p>The ES should assess the potential for significant effects from seabed scour during construction and decommissioning activities, in addition to wave and tidal currents.</p>
4.1.11	Paragraph 139	Approach to assessment.	The ES should define the aspect specific methodology used to determine significant effects, including defining levels of receptor sensitivity and magnitude of effect. Where modelling is used to

ID	Ref	Other points	Inspectorate's comments
			<p>predict effects, the ES should ensure that explanation is given as to the choice and selection of models, and how the model and outputs have been verified to provide confidence in the results. The assessment should also define where effects are considered to be significant and not significant, referring back to the use of the methodology.</p>

## 4.2 Marine water and sediment quality

(Scoping Report Aspect 2.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.1	Paragraph 163 Table 2.8	Transboundary effects.	Based on the conclusions of the GOWF in 2011, whose Zone of Influence ZoI is stated to be similar to that of the Proposed Development, the Applicant proposes to scope transboundary effects in relation to Marine water and sediment quality out of the assessment. The Proposed Development is also 20km from the Economic Exclusion Zone (EEZ).  The Inspectorate agrees that this matter can be scoped out of the ES.

ID	Ref	Other points	Inspectorate's comments
4.2.2	n/a	Spatial scope.	The ES should set out the spatial scope for the marine water and sediment quality chapter.
4.2.3	Table 2.7	Water quality analysis.	The ES should detail how the proposed site surveys have been used to support existing desk-based information on water quality, and further survey should be carried out, where necessary, to provide a robust baseline and support a sufficiently detailed assessment.
4.2.4	Table 2.8	Assessment of construction effects.	The Inspectorate notes the potential for the use of HDD as a method for cable laying which could affect coastal locations. The ES should consider the potential for contamination of sediments and marine water quality from drilling fluids where significant effects are likely to occur.

ID	Ref	Other points	Inspectorate's comments
4.2.5	Table 2.8	Assessment of discharges.	The ES should consider the potential for significant effects on water quality from construction or operational discharges.
4.2.6	n/a	Mitigation.	The ES should include details of proposed mitigation measures to address effects, including any proposed measures to ensure that sediment and water quality does not deteriorate to the detriment of protected and/ or commercial fish and shellfish species. Cross-reference should be made to relevant assessments of the ES, eg Fish and Shellfish and Commercial Fisheries.



## 4.3 Offshore air quality

(Scoping Report Aspect 2.3)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
4.3.1	Table 2.9	Emissions from vessels on human and ecological receptors	<p>The Scoping Report states that the main source of emissions is likely to be from vessels used during construction, operation and decommissioning emitting nitrogen oxides (NO<sub>x</sub>), particular matter (PM) and sulphur dioxide (SO<sub>2</sub>). It is stated that vessels operating in this area are required to comply with Emission Control Area restrictions in respect of NO<sub>x</sub> and SO<sub>2</sub> limits. It is stated that in the context of existing vessel traffic in the North Sea, the contribution would be small, although no data is presented in terms of the baseline position or likely number of vessel movements as a result of the Proposed Development. It is also stated that vessel movements would be carried out at some distance from the shore and therefore unlikely to impact on land based human and ecological receptors, although no information is presented as to the likely routes of vessel movements.</p> <p>The Inspectorate agrees that this matter may be scoped out of the ES on the basis that the main source of emissions would be exhaust emissions from vessels, and due to the nature and location of the offshore components of the Proposed Development associated vessel movements would only generate a small increase in emissions in all phases, which is unlikely to result in significant effects to land based human and ecological receptors.</p>

## 4.4 Offshore airborne noise

(Scoping Report Aspect 2.4)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
4.4.1	Paragraph 183	Offshore airborne noise during construction, operation and decommissioning	<p>On the basis of the information presented in paragraph 183 about the types of offshore activity, and the distance of these activities from the nearest onshore receptors (at circa 22.5km), the Inspectorate agrees that offshore airborne noise impacts are unlikely to result in significant effects during construction, operation and decommissioning, and can be scoped out of the ES.</p> <p>Impacts that are generated nearer to onshore receptors, ie activity associated with the laying/ removal of nearshore cable, should be scoped into the ES where there is potential to result in likely significant effects. The Inspectorate notes that this matter is proposed to be scoped into the ES as part of the assessment of onshore noise and vibration.</p> <p>The Inspectorate is content that the main impacts from noise to ecological receptors occur from underwater noise, which is to be assessed in other relevant aspects chapters.</p>

## 4.5 Benthic and intertidal ecology

(Scoping Report Aspect 2.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	Section 2.5.3.1 Table 2.13	Potential impacts during construction and decommissioning – habitat loss and introduction of marine invasive non-native species (INNS).	<p>The Scoping Report identifies potential impacts associated with the construction and decommissioning phases of the Proposed Development, including, habitat loss and the potential introduction of marine INNS via colonisation of introduced substrate. Table 2.13 shows that these impacts will be assessed as part of the operation phase assessment and scoped out for the construction and decommissioning phases.</p> <p>The Inspectorate is satisfied with this approach and for these matters to be scoped out of the construction and decommissioning phase assessment.</p>
4.5.2	Paragraph 205 Table 2.13	Interactions of electric and magnetic fields (EMF) – construction and decommissioning	<p>The Scoping Report states that potential impacts EMF from operational cables will be considered as part of the ES. Table 2.13 shows that this matter will be assessed as part of the operation phase assessment and scoped out for the construction and decommissioning phases.</p> <p>The Inspectorate is satisfied with this approach and for EMF impacts to be scoped out of the construction and decommissioning phase assessment.</p>
4.5.3	Paragraph 208	Transboundary effects.	<p>The Applicant proposes to scope transboundary effects out of the assessment on the basis that the likely impacts of the Proposed Development will be localised and small scale and, as such, transboundary impacts on benthic and intertidal ecology are unlikely to occur or are unlikely to be significant.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>The Inspectorate considers the potential for transboundary impacts due to the spread of INNS, including via the dispersal of benthic invertebrate larvae.</p> <p>The Inspectorate is satisfied for transboundary impacts in relation to benthic and intertidal ecology to be scoped out of the assessment provided that any necessary mitigation and / or biosecurity precautions required to prevent and manage the spread of INNS are clearly described in the ES. Any measures relied upon in the ES should be discussed with relevant consultation bodies, including NE and the EA, in effort to agree the approach and should be adequately secured, eg through a Construction Environmental Management Plan (CEMP).</p>

ID	Ref	Other points	Inspectorate's comments
4.5.4	Paragraph 199 Table 2.10	Designated sites and study areas.	<p>Table 2.10 lists the nearest designated sites to the North Falls array areas but does not state the study area(s) that have been applied. The Inspectorate notes that there are several other offshore designated sites within the vicinity of the Proposed Development (as shown on Figure 1.2) and it's not evident in the report as to why impacts on these sites and their qualifying / protected features have been discounted.</p> <p>The ES should clearly define the study area and explain how the assessment has been undertaken, taking into relevant guidance and using an aspect specific methodology where this is relevant.</p>
4.5.5	Paragraph 188	Kentish Knock East Marine Conservation Zone (MCZ).	The Inspectorate notes that part of the Proposed Development is situated within the Kent Knock East Marine MCZ.

ID	Ref	Other points	Inspectorate's comments
			<p>If this area is not to be avoided, the ES will need to precisely quantify the impacts on the protected features of the site to inform an MCZ assessment, including the potential impact of cable crossings / protection.</p>
4.5.6	<p>Paragraph 202 Table 2.13</p>	<p>Invasive non-native species (INNS).</p>	<p>The ES should assess the potential for the introduction of hard substrate and vessel movements to facilitate the spread of INNS (eg through accidents and spillages and via ballast water and colonisation of installed infrastructure) and the potential for impacts upon benthic and intertidal ecology, where significant effects are likely to occur.</p> <p>Where significant effects are likely to occur, the ES should also consider the potential for climate change-related effects to facilitate the spread and exacerbate the impacts of INNS.</p>
4.5.7	<p>Paragraph 207</p>	<p>Cumulative impacts.</p>	<p>The potential impact of INNS should be assessed within the Cumulative Impact Assessment (CIA). Increases in suspended sediments should also be considered in the CIA alongside the direct impacts of disturbance.</p>
4.5.8	<p>n/a</p>	<p>Mitigation.</p>	<p>The Inspectorate notes that the proposed array areas and indicative export cable corridor overlap areas where Annex I reef and Annex I sandbanks have previously been identified (Figure 2.3) and either overlap or run adjacent to designated sites that protect benthic habitats.</p> <p>Depending on the findings of the proposed benthic surveys (and potentially pre-construction surveys), the Inspectorate considers that it may be necessary for mitigation measures to be put in place to prevent or minimise impacts on features of conservation importance, particularly if impacts occur in sites designated to protect benthic and intertidal features.</p>

## 4.6 Fish and shellfish ecology

(Scoping Report Aspect 2.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	Paragraph 225 Table 2.16	Potential impacts during construction and decommissioning – habitat loss.	<p>The Scoping Report states that long term habitat loss will be considered as part of the operation phase assessment and is not considered in the construction and decommissioning phase assessment to avoid duplication. This is reflected in Table 2.16.</p> <p>The Inspectorate is satisfied with this approach and for long-term habitat loss to be scoped out of the construction and decommissioning phase assessment.</p>
4.6.2	Paragraph 227 Table 2.16	Interactions of EMF during construction and decommissioning.	<p>The Scoping Report states that potential impacts from EMFs from operational cables will be considered as part of the ES. Table 2.16 shows that this matter will be assessed as part of the operation phase assessment and scoped out for the construction and decommissioning phases.</p> <p>The Inspectorate is satisfied with this approach and for EMF impacts to be scoped out of the construction and decommissioning phase assessment.</p>
4.6.3	Paragraph 230 Table 2.16	Transboundary effects.	<p>The Scoping Report states that the North Falls impact assessment will be undertaken taking account of the distribution of fish stocks and populations irrespective of national jurisdictions. Therefore, the Applicant considers that a specific assessment of transboundary effects is unnecessary.</p> <p>The Inspectorate agrees that the distribution of fish species is independent of national geographical boundaries and consequently have no objection that a specific assessment of transboundary effects</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>is unnecessary in relation to fish ecology. On this basis and given that transboundary impacts will be assessed in regard to commercial fisheries as part of the construction, operation and decommissioning phases of the Proposed Development, the Inspectorate is satisfied that this matter can be scoped out of the assessment.</p>

ID	Ref	Other points	Inspectorate's comments
4.6.4	Paragraph 214	The Eels Regulations 2009.	<p>The Inspectorate notes that Paragraph 214 references European eel as a protected and migratory fish species that may be present within the offshore project area. However, no reference is made within the Scoping Report to the Eel Regulations 2009 nor Eel Recovery Plans.</p> <p>The ES should include reference to the Eel Regulations and any relevant requirements. The Applicant should agree the approach to meeting the requirements of the Eels Regulations with the EA and other relevant bodies, including any requirements for eel survey and the provision of eel and other fish pass facilities.</p>
4.6.5	Section 2.6.1.3	Rare and protected species.	<p>The Inspectorate considers the potential for protected and migratory fish species to occur within the vicinity of the Proposed Development, including species that move between both freshwater and marine environments (such as European eel and River lamprey) which may be functionally linked to other nearby protected sites.</p> <p>The ES should establish the presence of such species and assess impacts associated with the construction and operation of the Proposed Development, including the potential for the development to impede / create a barrier to fish migration. The ES should also consider the potential of the Proposed Development to have long-</p>

ID	Ref	Other points	Inspectorate's comments
			term impacts on fish stocks, where significant effects are likely to occur.
4.6.6	Paragraph 221	Existing environment and datasets.	<p>The Scoping Report states that given the volume of existing data and the low value of site-specific data collection; no site-specific fish survey is proposed to be undertaken for the Proposed Development.</p> <p>Given that existing site-specific survey data which forms part of the baseline is in excess of 12 years old, the Inspectorate considers that fish distribution may have changed (temporally as well as spatially) within this time period and that the data may not be representative of the current fish community.</p> <p>The Applicant should make efforts to agree the level of survey effort with NE, the MMO and other relevant consultation bodies. If the assessment of the ES is based on less than two years of survey data, a clear justification should be provided to demonstrate the robustness of the assessment in the ES.</p>
4.6.7	n/a	Native oysters and shellfish water protected areas.	<p>The Scoping Report does not provide information regarding the presence and location of shellfish water protected areas, nor does it address the potential of the Proposed Development to impact native oysters / native oyster beds.</p> <p>The Inspectorate considers that there are offshore areas within proximity to the Proposed Development where native oysters may be present and that are designated for native oyster production / protection, including the Blackwater, Crouch, Roach and Colne Estuary MCZ. The ES should establish the presence of any native oysters / native oyster habitat and include an assessment of impacts, where significant effects are likely to occur.</p> <p>The ES should describe the location of relevant shellfish water protected areas and depict their location on a figure(s). Furthermore,</p>



ID	Ref	Other points	Inspectorate's comments
			<p>if the Proposed Development is to be located in proximity to the shellfish protected areas and where likely significant effects are identified, a full assessment should be conducted to determine the resultant effects on the commercial shellfish trade.</p> <p>Where significant effects are likely, the ES should include detailed mitigation measures to address effects on designated sites and shellfish water protected areas, including any proposed measures to ensure that sediment and water quality does not deteriorate to the detriment of protected and/ or commercial fish and shellfish species. Cross-reference should be made to relevant assessments of the ES, eg Marine Water and Sediment Quality and Commercial Fisheries.</p>
4.6.8	n/a	Invasive non-native species (INNS).	<p>The Scoping Report states that there is potential for the introduction and spread of marine INNS via vessel traffic and / or the introduction of hard substrate. The ES should assess the potential for such activities and vessel movements to facilitate the spread of INNS, eg via ballast water and through accidents and spillages.</p> <p>The ES should describe any necessary mitigation and / or biosecurity precautions required to prevent the spread of INNS. Any measures relied upon in the ES should be discussed with relevant consultation bodies, including NE and the EA, in effort to agree the approach. Measures relied upon in the ES should be adequately secured eg through a Construction Environmental Management Plan (CEMP).</p>
4.6.9	n/a	Fish and shellfish mitigation.	<p>Specific mitigation measures to avoid or reduce any potential impacts on fish and shellfish receptors should be described in the ES. When devising mitigation measures, the Applicant should consider any relevant conservation objectives and ongoing management measures associated with those designated sites identified as having potential to be impacted by the Proposed Development. The ES should include</p>

ID	Ref	Other points	Inspectorate's comments
			details of the proposed mitigation measures to be included in the Project Environment Management Plan (PEMP).
4.6.10	n/a	Mitigation - timing of works.	<p>The Scoping Report does not state whether the Applicant intends to control the time of the proposed construction and / or operational activities to avoid key and sensitive periods to species, such as fish spawning seasons and fish migration periods.</p> <p>The ES should assess the duration of impacts in relation to the ecological cycles (eg life cycles, breeding and spawning seasons, etc.) of the receptors being assessed.</p> <p>The ES should also consider the potential of the Proposed Development to disrupt fishing and recreational activities (including restriction of access) during both the construction and operational phases and any likely significant effects should be reported within the relevant assessments of the ES (eg 'Socio-economics' and 'Tourism and recreation').</p>
4.6.11	n/a	Fish feeding grounds and over wintering areas for crustaceans.	The Scoping Report does not address potential impacts on fish feeding grounds or over-wintering areas for crustaceans. The ES should assess these impacts where significant effects are likely to occur.
4.6.12	n/a	Direct disturbance resulting from the Proposed Development (all phases).	The Scoping Report does not address potential impacts from direct damage (eg crushing) and disturbance to mobile demersal and pelagic fish, or sedentary shellfish species, resulting from the Proposed Development. The ES should assess these impacts where significant effects are likely to occur.
4.6.13	n/a	All phases – accidental spillages and leakages of pollutants.	The Scoping Report does not address potential impacts from accidental pollution on shellfish and fish receptors. The ES should

ID	Ref	Other points	Inspectorate's comments
			<p>include information to explain the extent of the likely impact and assess any likely significant effects.</p> <p>The ES should include details of any proposed mitigation measures to be included in the Project Environment Management Plan (PEMP). The ES should also explain how such measures will be secured.</p>

## 4.7 Marine mammal ecology

(Scoping Report Aspect 2.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	Paragraph 241 Table 2.19	Marine mammal species scoped out of assessment.	<p>Paragraph 241 lists the marine mammal species that the Applicant proposes to take forward for assessment. Several cetacean species (including sperm whale and various species of dolphin as listed in Paragraphs 235 to 240) that are expected to be absent or infrequent visitors within the offshore project area are proposed to be scoped out of the ES.</p> <p>Natural England has stated that it is in agreement with the species scoped in to take forward to assessment. However, the Inspectorate notes that uncertainty remains regarding white-beaked dolphin and that additional survey data may be required before this species can be scoped out of the assessment. Therefore, the Inspectorate agrees that all species listed in Paragraph 241 may be scoped out with the exception of white-beaked dolphin. The Applicant should seek to agree with Natural England and other relevant consultation bodies regarding whether impacts to white-beaked dolphin should be assessed making use of the additional survey data.</p>
4.7.2	Table 2.19	Barrier effects from underwater noise during operation and decommissioning.	<p>Barrier effects from underwater noise during the operation and decommissioning phases of the Proposed Development are proposed to be scoped out of the assessment. The Applicant states that this approach is consistent with other recent offshore wind farm projects as there is no evidence of any impact.</p> <p>The Inspectorate considers that barrier effects can arise when the Proposed Development and associated underwater noise producing activities are located in a migratory or known movement routes of marine mammals; limited information regarding this matter has been</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>provided in the Scoping Report. The Inspectorate also considers that the potential for barrier effects is location-specific, and therefore the results of the screening exercise for other projects in different locations are not necessarily applicable.</p> <p>On this basis, the Inspectorate does not consider that there is sufficient information at this stage to agree to scope this matter out of the assessment.</p>
4.7.3	Paragraph 254 Table 2.19	Barrier effects from the physical presence of the wind farm during operation.	<p>The potential for impacts from physical barrier effects during operation are proposed to be scoped out of the assessment. The Applicant states that this approach is consistent with other recent offshore wind farm projects as there is no evidence of any impact.</p> <p>The Inspectorate agrees that significant effects are unlikely to occur, and this matter can be scoped out of the assessment.</p>
4.7.4	Paragraph 254 Table 2.19	Effects from EMFs during operation.	<p>The potential for impacts from EMF during operation are proposed to be scoped out of the assessment. The Applicant states that this approach is consistent with other recent offshore wind farm projects as there is no evidence of any impact.</p> <p>The Inspectorate agrees that significant effects are unlikely to occur, and this matter can be scoped out of the assessment.</p>

ID	Ref	Other points	Inspectorate's comments
4.7.5	Section 2.7.1 Table 2.17	Existing environment.	<p>The Inspectorate considers that the proposed data and information sources listed in Table 2.17 may require updating, and a wider exercise of searching for more recent data should be undertaken to inform the assessment.</p>

ID	Ref	Other points	Inspectorate's comments
4.7.6	Paragraph 244 Figure 2.1	Designated sites and study area.	<p>The aspect chapter does not reference any designated sites other than the Southern North Sea SAC (designated for harbour porpoise), despite several other European designated sites and Marine Protected Areas being present within the vicinity of the Proposed Development (as shown in Figure 2.1). Therefore, the extent to which these offshore designated sites and their qualifying / protected features have been considered within the marine mammal assessment is not clear.</p> <p>No reference is made to a defined study area and / or methodology that will be used to establish the baseline and assess impacts, nor is any criteria presented to identify how significance of effect will be determined. The ES should be clear on how the assessment has been undertaken, taking into relevant guidance and using an aspect specific methodology where this is relevant.</p>
4.7.7	Section 2.7.2	Approach to data collection.	<p>The ES should set out in full the potential risk to European Protected Species (EPS) and confirm if any EPS licences will be required (eg harbour porpoises). The Applicant's attention is drawn to advice from JNCC for the need to acquire EPS license to conduct certain construction activities in the marine environment (eg piling and UXO clearance).</p>
4.7.8	Section 2.7.3.1 Paragraph 390	Approach to assessment – underwater noise modelling.	<p>The Scoping Report states that underwater noise modelling will be undertaken to inform the marine mammal assessment; however, limited information is provided regarding the proposed assessment methodology. It's unclear, for example, which receptors underwater noise modelling will be applied to / undertaken for.</p> <p>The ES should fully describe the methodology applied, including Permanent Threshold Shift (PTS), Temporary Threshold Shift (TTS) and disturbance ranges used, as well as the potential for the disturbance impact footprints to overlap with the boundary of offshore</p>

ID	Ref	Other points	Inspectorate's comments
			<p>designated sites, including the Southern North Sea SAC. If noise modelling indicates an overlap of the disturbance footprint with an offshore designated site, the area and duration of such disturbance will need to be assessed against the conservation objectives of the designated site.</p> <p>The Inspectorate understands that the number, type and size of UXO devices is not known. However, the ES should assess the likely impacts from UXO (including the potential for auditory injury from underwater noise from UXO clearance, as well as other construction activities) and explain the assumptions applied to the assessment as necessary. The ES should also clarify whether UXO are envisaged during the operations and maintenance phased of the Proposed Development.</p>
4.7.9	Paragraph 256	Cumulative impacts.	<p>Cumulative collision risk should be scoped into the ES until justification is provided and agreed that it can be scoped out through the Evidence Plan process. The ES should also assess cumulative disturbance, and not just displacement, for both animals at sea and seal haul-outs.</p>
4.7.10	n/a	Marine mammal mitigation.	<p>The ES should explain the extent to which any proposed marine mammal mitigation has been agreed with relevant consultation bodies, including mitigation to enable the commencement of piling and UXO clearance.</p> <p>Any proposed noise abatement mitigation (where noise modelling estimates PTS impact ranges are large or if the disturbance footprint is anticipated to overlap with an offshore designated site) should be described in the ES.</p>

## 4.8 Offshore ornithology

(Scoping Report Aspect 2.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	Table 2.22	Disturbance / displacement and barrier effects due to presence of turbines and other infrastructure during construction and decommissioning.	No justification for proposing to scope these matters out of the assessment is provided. However, given that disturbance / displacement and barrier effects due to the presence of turbines and other infrastructure are scoped in for, and relevant only to, the operational phase of the Proposed Development, the Inspectorate is satisfied that these impacts can be scoped out of the construction and decommissioning phase assessment.
4.8.2	Paragraph 276 Table 2.22	Collision Risk during construction and decommissioning.	<p>Paragraph 276 states that collision risk from the proposed WTGs and other offshore infrastructure is proposed to be scoped in for the operational phase of the Proposed Development. No justification for proposing to scope this matter out of the construction and decommissioning phase assessment is provided. Furthermore, the potential for collision risk and disturbance associated with vessel movements during the construction and decommissioning phases has not been addressed in the Scoping Report.</p> <p>On this basis, the Inspectorate considers that insufficient evidence has been presented in the Scoping Report to agree to scope this matter out of assessment at this stage; this should be assessed in the ES where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
4.8.3	Section 2.8.1.1	Designated sites and study area.	Three designated sites stated to be of relevance to the offshore ornithology assessment are highlighted in section 2.8.1.1 of the



ID	Ref	Other points	Inspectorate's comments
			<p>Scoping Report. It's stated that a full list of SPAs and Ramsar sites relevant to the Proposed Development will be presented in the HRA screening report.</p> <p>The ES should clearly define the study area that has been applied and list those receptors (including all designated sites and protected / qualifying features) with potential for likely significant effects. The ES should set out the methodology that will be used to establish the baseline, assess impacts, and the criteria used to identify how significance of effect will be determined.</p>
4.8.4	Section 2.8.3	Potential impacts – habitat loss.	<p>Chapter 3.5 (Onshore Ecology) states that the ES will include an assessment of temporary and permanent terrestrial habitat loss. The Inspectorate considers that this assessment should interrelate with, and include appropriate cross-reference to, other relevant assessments of the ES. This should include consideration of the impacts of temporary and long-term terrestrial habitat loss on Offshore Ornithology, including those qualifying / protected features of offshore designations that may rely on terrestrial habitats for breeding, foraging, resting, etc.</p> <p>Where significant effects are likely to occur, the ES should consider not only the direct effects of habitat loss (ie on species mortality and abundance), but also consider the effective areas of habitats subject to disturbance and displacement effects (including from noise / vibration, lighting, and the presence and operation of the WTGs) that may serve to diminish the functional size of sensitive and / or protected habitats.</p>
4.8.5	Section 2.8.4	Approach to assessment - collision risk.	<p>The ES should set out the Band model, avoidance rates, flight height variations and any other relevant information in the ES. The parameters used within the collision risk model should be detailed, justified and account for the flexibility applied for in the DCO. In</p>

ID	Ref	Other points	Inspectorate's comments
			<p>addition, the collision risk assessment should explain the extent to which existing monitoring and modelling data has informed the baseline assessment and assumptions made in this context.</p>
4.8.6	Section 2.8.4	Approach to assessment – disturbance / displacement.	<p>The Applicant should seek to agree the methodology applied to the assessment of disturbance and displacement effects with NE and other relevant bodies, and fully describe the selected methodology in the ES. Where disturbance / displacement effects are anticipated to impact the qualifying features of a European designated site, a full assessment of the impact on all conservation objectives should be undertaken.</p>
4.8.7	n/a	Mitigation.	<p>The ES should describe the level of consideration given to alternative array designs considered (eg the number, size, and configuration of WTGs and buffer distances) and any mitigation measures proposed to be incorporated in the array design (eg raising of turbine draught height).</p>
4.8.8	n/a	Birds of conservation value.	<p>The ES should include a list specifying the birds of conservation value for the assessment. The Applicant should make effort to agree the approach to assigning conservation value to offshore ornithological receptors with relevant consultation bodies.</p>
4.8.9	n/a	Aviation and navigation lighting.	<p>The ES should assess the impacts of aviation and navigation lighting on offshore ornithological receptors in the ES, where significant effects are likely to occur.</p>

## 4.9 Commercial fisheries

(Scoping Report Aspect 2.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	Table 2.23	n/a.	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Inspectorate's comments
4.9.2	n/a	Underwater noise and vibration.	The Inspectorate notes that an assessment of underwater noise and vibration arising from construction activities is proposed to be undertaken for Fish and Shellfish. This will include assessment of disturbance and displacement of fish species and impacts upon spawning and nursery areas, as well as migration patterns. Chapter 2.9 (Commercial Fisheries) should draw upon and cross-reference to the findings of this assessment as appropriate.
4.9.3	Table 2.23	Invasive non-native species (INNS).	The ES should assess the potential for the introduction of hard substrate and vessel movements to facilitate the spread of INNS (eg via ballast water and through accidents and spillages) and the potential for impacts upon commercial fisheries (including native oyster fisheries and shellfish protected areas) where significant effects are likely to occur.  Where significant effects are likely to occur, the ES should also consider the potential for climate change-related effects to facilitate the spread and exacerbate the impacts of INNS.
4.9.4	n/a	Mitigation - timing of works.	The Scoping Report does not state whether the Applicant intends to time any of the proposed construction and / or operational activities as to avoid key periods relating to commercial fishing activities.

ID	Ref	Other points	Inspectorate's comments
			<p>The ES should consider the potential of the Proposed Development to disrupt fishing activities (including restriction of access) during both the construction and operational phases and any likely significant effects should be reported within the relevant assessments of the ES, eg Socio-economics.</p>

## 4.10 Shipping and navigation

(Scoping Report Aspect 2.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	Table 2.25	n/a.	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Inspectorate's comments
4.10.2	Paragraph 306	Study area.	<p>A study area of 10 nautical miles (nm) around the array areas has been considered in order to characterise maritime activity that may potentially be affected by the Proposed Development.</p> <p>The ES should explain the rationale behind the choice of study area and the approach should be discussed with the relevant consultation bodies.</p>
4.10.3	Section 2.10.3 Paragraph 326	Potential impacts.	<p>With reference to the Shipping and Navigation chapter of National Policy Statement for Renewable Energy Infrastructure (EN-3), the ES should demonstrate how the Proposed Development has been designed (eg the location/ extent of the proposed array boundary) and managed (eg navigational management measures, including use of marine navigation marking) to ensure that vessels can continue to make safe passage without significant large-scale deviations.</p> <p>The Applicant should make effort to agree the approach to the assessment of safety with respect to shipping and navigation with relevant consultation bodies, such as the Maritime and Coastguard Agency and Trinity House. The ES should explain how the views of the consultation bodies have informed the assessment including the</p>

ID	Ref	Other points	Inspectorate's comments
			identification of any likely significant effects and any mitigation required.
4.10.4	n/a	Potential impacts.	The Applicant should ensure that any structures, such as met masts, which would be placed outside the array areas are included in the assessment of effects. If cable protection is likely to be required, then the assessment should use a worst-case scenario based on the maximum extent of cable protection expected to be used.
4.10.5	Section 2.10.2.1 Paragraph 323	Data sources.	In addition to the data sources listed, paragraph 323 states that other data, information, and consultation on fishing will be available via the Commercial Fisheries assessment. This should include consideration of, and cross-reference to, up-to-date fishing data.
4.10.6	Section 2.10.3.5	Cumulative impacts.	Cumulative effects on shipping routes and patterns should be adequately assessed in the Navigation Risk Assessment (NRA) and presented in the ES.
4.10.7	n/a	Invasive non-native species (INNS).	This aspect chapter should cross-refer to the relevant assessments of the ES, including assessments that assess the potential for vessel movements and the introduction of new substrate to facilitate the spread of INNS (eg via ballast water and through accidents and spillages).

## 4.11 Offshore archaeology and cultural heritage

(Scoping Report Aspect 2.11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.11.1	Section 2.11.3.5 Paragraph 361	Indirect physical transboundary effects during operation and decommissioning.	<p>The Applicant proposes to scope out indirect effects on marine physical processes (marine geology and oceanography) in the offshore archaeology and cultural heritage chapter on the basis that this was considered to be not significant as a result of the GOWF in 2011, which would be closer to the EEZ boundary than the Proposed Development.</p> <p>The Inspectorate agrees that given the distance from the EEZ boundary it is unlikely that there will be a pathway for likely significant effects and this matter can be scoped out of the ES.</p>

ID	Ref	Other points	Inspectorate's comments
4.11.2	Section 2.11.1 Paragraph 340	Receptors to be assessed.	The Inspectorate considers there is insufficient information in the Scoping Report to establish the extent of the study area and type of receptors that will be assessed in the ES. The ES should demonstrate the rationale behind the choice of receptors with reference to the choice of study area. The Applicant should make effort to agree the approach with the relevant consultation bodies.
4.11.3	Table 2.28 Section 2.11.4	Approach to assessment.	The ES should describe the study area that has been used to determine direct and indirect effects on cultural heritage and archaeological receptors that are assessed. This should be supported by appropriate figures. The reasons for the selection of the study area should be explained.

ID	Ref	Other points	Inspectorate's comments
			Please also see the Inspectorate's comments in section 3.3.2 of this Scoping Opinion.
4.11.4	Section 2.11.4	Approach to assessment.	The ES should describe how aspect – specific likely significant effects have been assessed and determined, with reference to the overarching methodology presented in section 1.8.2 of the Scoping Report. The ES should be clear on how any conclusions of significance have therefore been reached for the offshore cultural heritage and archaeology assessment taking into relevant guidance and an aspect – specific methodology where this is relevant.
4.11.5	Section 2.11.4	Relevant guidance.	The Applicant should have regard to the following additional guidance to consider where further investigation is required to inform the assessment, in discussion with the relevant consultation bodies:  Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects, The Crown Estate, July 2021.



## 4.12 Aviation and radar

(Scoping Report Aspect 2.12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.12.1	Table 2.29	Impacts on military and civil radar due to permanent structures during construction and decommissioning.	The Inspectorate agrees that this matter can be scoped out as permanent structures would only be present during the operational phase and impacts arising from construction activity eg cranes and vessels will be separately assessed.

ID	Ref	Other points	Inspectorate's comments
4.12.2	Section 2.12.2	Potential impacts.	The assessment of the effects on military low flying arising from operation of the Proposed Development in the ES should be undertaken using accurate charting of the WTGs. Where the final layout/ height mix of WTGs has not been decided, the worst case scenario(s) should be assessed.
4.12.3	Paragraph 378	Approach to assessment.	The Scoping Report states that the assessment will be supported by desk based studies in parallel with relevant stakeholder consultation bodies. No reference is made to a defined study area (other than a list of airports with their distance from the scoping boundary) and/ or methodology that will be used to establish the baseline and assess impacts, nor is any criteria presented to identify how significance of effect will be determined. The ES should be clear how the assessment has been undertaken, taking into relevant guidance and aspect specific methodology.
4.12.4	n/a	Inter relationships.	The Scoping Report identifies potential impacts to military and civil aviation, including through physical components of the Proposed Development limiting access and on radar systems. The potential for

ID	Ref	Other points	Inspectorate's comments
			inter relationships with other aspects eg infrastructure and other users, tourism and socioeconomics, should also be assessed in the ES if a significant effect is likely.
4.12.5	n/a	Mitigation – aviation safety lighting.	The Inspectorate considers that there may be a requirement for aviation safety lighting to mitigate potential significant effects to military low flying from the presence of WTGs and other offshore infrastructure. The Applicant should seek to agree the specification of any aviation safety lighting with relevant consultation bodies. Any significant effects associated with the lighting on ecological receptors should also be assessed in the ES.

## 4.13 Infrastructure and other users

(Scoping Report Aspect 2.13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.13.1	Paragraph 397	Potential cumulative impacts during all phases.	The Inspectorate does not agree that this matter can be scoped out as insufficient justification has been provided to support the approach, including an absence of detail of proposed mitigation measures referred to in the Scoping Report (ie development of crossing agreement or similar) and the Inspectorate considers that there is potential for likely significant cumulative effects with other planned wind farm developments, including the extension to GOWF, East Anglia ONE North and East Anglia TWO.

ID	Ref	Other points	Inspectorate's comments
4.13.2	Paragraphs 381 - 383	Oil and gas infrastructure.	The Inspectorate notes that there are no oil and gas pipelines or platforms in proximity to the scoping boundary, and no oil and gas licensed blocks overlap the scoping boundary. It is unclear from Section 2.13 as to whether impacts to these users are scoped into the ES. The Inspectorate considers that this matter can be scoped out of the ES on the basis that there is no oil or gas infrastructure within the scoping boundary and therefore no significant effects are likely to occur.
4.13.3	Paragraphs 387 and 388	Baseline surveys - Disposal sites.	The Inspectorate notes that impacts on disposal sites during construction, operation and decommissioning are scoped into the ES, although limited information is presented about the scope of the assessment. The Inspectorate considers that there is potential for

ID	Ref	Other points	Inspectorate's comments
			contaminants to be present from previous disposal activities. The Proposed Development's construction and decommissioning activities could mobilise these contaminants resulting in likely significant effects and this matter should form part of the assessment. The Applicant should make effort to agree the approach to the assessment with relevant consultation bodies.
4.13.4	Paragraph 389	Ministry of Defence Practice and Exercise Areas (PEXA).	The Inspectorate notes that there is a disused, designated explosives dumping ground within the eastern part of the Gunfleet PEXA. Impacts on this disposal site associated with construction, operation and decommissioning of the Proposed Development, ie laying, maintenance and removal of subsea cables, should be assessed within the ES where significant effects are likely to occur.
4.13.5	Paragraph 390	Baseline surveys - Unexploded Ordnances (UXO).	<p>The Inspectorate notes that there is potential for wartime UXO to be located in the southern North Sea, but in this section of the Scoping Report it is stated that it is not proposed to ascertain the locations and develop any mitigation until after any DCO is granted.</p> <p>The Inspectorate considers that there is potential for UXO to give rise to significant effects if they are present within the scoping boundary, eg in relation to clearance activities there could be impact to offshore archaeology (see section 2.11.3.1) and marine mammal ecology (section 2.7.3.1).</p> <p>The ES should be supported by survey information to identify the potential location of UXO within the DCO boundary and an outline mitigation plan, in order to support an assessment of the worst case scenario associated with UXO clearance.</p>
4.13.6	Paragraph 391	Mineral aggregate production areas.	The Inspectorate notes that there are two mineral aggregate production areas located in close proximity to the offshore array areas for the Proposed Development, including Shipwash 507/6 and

ID	Ref	Other points	Inspectorate's comments
			<p>North Inner Gabbard. It is unclear from Section 2.13 as to whether impacts relating to potential interference with mineral aggregate production areas are scoped into the ES. The Inspectorate considers that where there is potential for likely significant effects to occur, this matter should be scoped into the ES.</p> <p>In addition, the Inspectorate considers that the ES should assess the potential cumulative effects of the construction of the Proposed Development and aggregate extraction activities on the release of suspended sediments into the water column, sediment transport processes and nearby designated sites, eg Kentish Knock East MCZ.</p>
4.13.7	Paragraph 392	Planning dredging area.	<p>The Inspectorate notes that the offshore export cable corridor forming part of the Proposed Development has been provisionally located to minimise overlap with the planned dredging area for Harwich Approach Channel. It is unclear from Section 2.13 as to whether impacts to these users are scoped into the ES. The Inspectorate considers that where there is potential for likely significant effects to occur, this matter should be scoped into the ES. If it is a planning development, it should form part of the assessment of cumulative effects. The location of the planned dredging area should be shown on a figure within the ES.</p>
4.13.8	Section 2.13.3	Receptors.	<p>The Inspectorate notes that there is potential for cables and cable crossing/ protection to be located in the Kentish Knock East MCZ; the MCZ should be scoped into the ES as a receptor.</p>
4.13.9	Paragraph 400	Assessment methodology.	<p>The Scoping Report states that the "EIA will be based on existing data and information gathered through consultation". A study area is not defined and no information is presented about the methodology that will be used to assess impacts, nor is any criteria presented to identify how significance of effect will be determined. The ES should be clear on how the assessment has been undertaken, taking into</p>

ID	Ref	Other points	Inspectorate's comments
			account relevant guidance and using an aspect specific methodology where possible.

## 5. ASPECT BASED SCOPING TABLES – ONSHORE

### 5.1 Ground conditions and contamination

(Scoping Report Aspect 3.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.1.1	Table 3.3	Physical impacts on geological designated sites (SSSIs) during operation.	<p>Limited information is presented in the Scoping Report as a justification for scoping this matter out of the ES. The Inspectorate also notes that the Scoping Report identifies the potential for direct impacts to the Ardleigh Gravel Pit SSSI (designated for its geological interest) from construction activities including cable laying, which it is considered could potentially also result in permanent physical works within the SSSI.</p> <p>In addition, there is no consideration within the Scoping Report as to whether there could be indirect impacts to SSSIs designated for geological interest during operation, eg as a result of altered hydrogeology, for example paragraph 474 of the Scoping Report notes that subsurface flow patterns could be altered.</p> <p>The Inspectorate therefore does not agree to scope this matter out of the ES and considers that impacts to the Ardleigh Gravel Pit SSSI should be scoped into the ES.</p> <p>Section 3.5 of the Scoping Report also identifies a number of other SSSIs designated for the geological interest within proximity to the scoping boundary, including Holland on Sea Cliff (0.3km), Wivenhoe Gravel Pit (1.3km), St Osyth Pit (2.5km), Clacton Cliffs and Foreshore (2.7km) and The Naze (3.6km). These are not referenced as part of the description of the baseline within section 3.1 of the Scoping Report. Where there is potential for likely significant effects to occur</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			during operation at these designated sites, they should also be scoped into the ES.
5.1.2	Table 3.3	Loss, damage or sterilisation of mineral resources during decommissioning.	Limited information is presented in the Scoping Report as a justification for scoping this matter out of the ES and no information is presented about the methods of decommissioning to be used, and whether these would result in any further loss, damage or sterilisation of mineral resources as compared to construction activity, which is scoped into the ES. As such the Inspectorate does not have sufficient information on which to conclude that significant effects are not likely and this matter should be scoped into the ES.

ID	Ref	Other points	Inspectorate's comments
5.1.3	Section 3.1.1	Receptors.	The ES should specify and describe the habitats / receptors that have been considered in the assessment of impacts to groundwater and surface water quality from contamination. The selection of receptors should be based on the potential for contamination pathways and likely significant effects to occur. This should include consideration of receptors beyond the scoping boundary where an impact pathway is identified, for example Hamford Water SPA, Ramsar and SAC and Stour and Orwell Estuaries SPA.
5.1.4	Section 3.1.4	Study Area.	<p>The Scoping Report does not present a defined study area for assessment, but states that it will comprise the area within the DCO application boundary, plus a buffer of 250m for potential sources of contamination and a further 1km buffer for historical maps and groundwater and surface water abstraction points.</p> <p>In line with the Inspectorate's comments at ID 5.1.1 and 5.1.3, the study area used for the purposes of the assessment of this aspect</p>



ID	Ref	Other points	Inspectorate's comments
			<p>should also be informed by an understanding of the likely contamination / impact pathways that exist. The study area should include the nearshore area and be of sufficient extent to enable an assessment of all likely significant effects arising from ground conditions and contamination, including where this extends into the offshore area.</p>
5.1.5	Paragraph 436	Baseline conditions.	<p>The Scoping Report indicates that it is not proposed to undertake any intrusive site investigation to inform the assessment, relying instead on desk based sources. The Inspectorate notes the potential presence of a range of contamination sources within the onshore scoping area and considers that limiting the approach to desk study only may not provide sufficient baseline information to inform the assessment. The Applicant should not rule out intrusive investigation and should instead seek to agree the approach to establishing baseline conditions with relevant consultation bodies, undertaking intrusive site investigation where it is deemed necessary to inform a robust assessment of significant effects.</p>
5.1.6	Section 3.1.4	Assessment Methodology.	<p>The Scoping Report states that guidance listed at paragraph 437 will be used to inform the assessment, together with the outcome of further liaison with stakeholders. No detailed assessment methodology is presented, nor is any criteria presented to identify how significance of effect will be determined in relation to this aspect. No cross reference is made to the generic methodology presented in section 1.8 of the Scoping Report. The ES should be clear on how the assessment has been undertaken, using an aspect specific methodology where this is relevant.</p>
5.1.7	Table 3.3	Mineral resources.	<p>The Inspectorate notes that loss, damage or sterilisation of mineral resources is scoped into the ES; however, limited information is presented as to the scope of the assessment and how effects would</p>

ID	Ref	Other points	Inspectorate's comments
			be determined. The assessment should take into account factors such as; the nature of the mineral resource, the constraints and opportunities that exist for extraction.
5.1.8	n/a	Figures.	The ES should include details regarding the location of groundwater and surface water abstraction points presented on a figure.

## 5.2 Onshore air quality

(Scoping Report Aspect 3.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.2.1	Table 3.5	Dust and particulate matters during operation.	The Inspectorate notes that the onshore components of the Proposed Development are underground cables and a substation; it is not considered that the operation and maintenance of these components would generate levels of dust and particulate matter sufficient to result in significant effects and this matter can be scoped out of out the ES.
5.2.2	Table 3.5	Plant and machinery emissions during operation.	The Inspectorate agrees that impacts associated with plant and machinery emissions during operation of the Proposed Development can be scoped out of the ES on the basis that the substation will not generate any emissions, and that emissions associated with other plant and machinery will be small scale and for limited duration.
5.2.3	Table 3.5	Road traffic emissions during operation.	Given the nature of the onshore components of the Proposed Development, eg underground cables and a substation, and that maintenance activities are not expected to generate a significant increase in road vehicles compared to the baseline conditions as described in section 3.9.1.1 of the Scoping Report, the Inspectorate agrees that it is unlikely that there would be a significant change in vehicle flows and therefore it is also unlikely that significant effects would occur in respect of air quality. However, the ES should explain how the anticipated road vehicle movements, associated with the operational phase including those relating to offshore operational maintenance (see ID 5.9.2 of this Scoping Opinion), these relate to

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK) screening values set out in paragraph 458.

ID	Ref	Other points	Inspectorate's comments
5.24	Paragraph 444	Ecological receptors.	The Inspectorate notes that no reference is made to Riddles Wood SSSI and Stour and Copperas Wood, Ramsey SSSI, which are located to 0.5km south and 3km north west of the scoping boundary respectively, and whether these designated sites would be potentially sensitive to air quality changes including from construction traffic movements once the onshore components of the Proposed Development are refined. This should be confirmed in the ES and where there is potential for likely significant effects, these receptors should be scoped into the assessment.
5.25	Paragraph 445	Approach to data collection	The Scoping Report states that it is not anticipated that primary air quality data will be collected and that it is proposed to use data collected by Tendring District Council as part of its air quality monitoring, although the locations of monitoring sites are not currently known and it is not stated which pollutants are monitored. 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 Council's monitoring.
5.26	n/a	Baseline conditions.	The Scoping Report does not describe whether there are any air quality management areas (AQMAS) within the scoping boundary or

ID	Ref	Other points	Inspectorate's comments
			potential affected road network (ARN), which has not yet been defined, that may be affected by the Proposed Development. The ES should confirm whether there are any relevant AQMAs likely to experience impacts from the Proposed Development and, if so, identify their location on a figure.
5.2.7	Paragraph 457	Emissions from non road mobile machinery (NRMM) and plant during construction and decommissioning.	The Inspectorate considers that the Applicant should seek to agree the approach to assessment of NRMM with relevant consultation bodies. The ES should explain how emissions from NRMM will be managed.
5.2.8	n/a	Figures.	The ES should include a figure / figures to identify the final study area for air quality and the human and ecological receptors that have been considered in the assessment.
5.2.9	n/a	Relationship between air quality assessment and transport assessment.	The air quality assessment should be informed by data from a transport assessment in respect of road vehicle movements on the ARN with regard to defining the study area and the potential impact from vehicle movements during construction and decommissioning.
5.2.10	n/a	Odour.	Section 3.1 of the Scoping Report, relating to ground conditions and contamination, identifies potential impact arising from the Proposed Development in terms of release of vapours / ground gases associated with former landfill sites within the scoping boundary during construction. This matter should be kept under review as the onshore components of the Proposed Development, including location and parameters are refined; where there is potential for likely significant effects to occur in respect of odour, this matter should be scoped into the ES.

## 5.3 Water resources and flood risk

(Scoping Report Aspect 3.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.3.1	Table 3.9	Direct disturbance to surface water bodies during operation.	On the basis that there would be no activities during operation that would directly disturb surface water bodies, and that indirect impacts eg arising from potential accidental release of contaminant to surface water bodies are scoped into the ES, the Inspectorate agrees that this matter is not likely to give rise to significant effects and can be scoped out of the ES.

ID	Ref	Other points	Inspectorate's comments
5.3.2	Table 3.7	Approach to data collection.	<p>The ES should provide information on existing abstractions and discharges within the baseline and assess the effects of the Proposed Development on any identified abstraction sources or discharges, where significant effects are likely to occur.</p> <p>The ES should also refer to the relevant Strategic Flood Risk Assessment(s) (SFRAs) and lead local flood authority (LLFA) Flood Risk Management Strategies.</p>
5.3.3	Paragraph 470 Section 3.3.3	Potential impacts - coastal flooding.	<p>Section 3.3 focusses primarily on inland effects on surface water bodies, with little reference to coastal flooding, coastal flood defence (including the potential for overtopping of flood defences) or flooding from the sea.</p> <p>Given the potential of the Proposed Development to affect coastal locations, the ES should include an assessment of these matters where significant effects are likely to occur, with cross-reference to</p>

ID	Ref	Other points	Inspectorate's comments
			the relevant assessments of the ES eg marine geology, oceanography and physical processes.
5.3.4	Section 3.3.3.1 Table 3.8	Potential impacts - watercourse crossings.	<p>Table 3.8 suggests that crossings of main rivers or other sensitive watercourses may be required as part of the proposed works.</p> <p>The ES should describe the nature of any proposed works within or in proximity of watercourses (ie main rivers and Ordinary watercourses). Information should be provided regarding the location, scale, and dimensions of any proposed watercourse crossings / in-stream structures, as well as the nature of any associated construction works (eg dewatering, trenching, and HDD).</p> <p>The ES should consider the potential of such works to negatively impact the ecological status of watercourses under the WFD and the results of the WFD Assessment should be reported in the ES and / or associated Technical Appendix.</p>
5.3.5	Paragraph 470	Potential impacts – heritage and ecological receptors.	<p>The Inspectorate considers that there is potential for indirect effects to below ground heritage assets arising from flood risk and drainage impacts.</p> <p>The ES should set out the method for defining the sensitivity of both heritage and ecological receptors to flood risk and drainage impacts where significant effects are likely to occur.</p>
5.3.6	Section 3.3.4	Approach to assessment.	The ES should present the results of the most recent Flood Risk Assessment (FRA) and should take into account the latest Environment Agency guidance on climate change, including climate change allowances (currently UKCP18). Effort should be made to agree the relevant baseline with the EA and relevant consultation bodies, including the LLFA.

ID	Ref	Other points	Inspectorate's comments
5.3.7	n/a	Drainage strategy.	<p>Paragraph 501 of Section 3.4 (Land Use) states that permanent infrastructure and hardstanding at the onshore substation, plus the presence of buried cables, has the potential to permanently impact upon land drainage. It states that impacts on drainage are considered further in Section 3.3.3; however, limited further information is provided on this matter.</p> <p>The ES should provide information in relation to the Applicant's proposed drainage strategy, including the details of any proposals to implement Sustainable Drainage Systems (SuDS). The ES should explain how the proposed drainage strategy will interact with any relevant biodiversity and cultural heritage objectives.</p>



## 5.4 Land use

(Scoping Report Aspect 3.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.4.1	Table 3.11	Agricultural productivity during operation.	On the basis that the Scoping Report states that there may be permanent loss of best and most versatile (BMV) land during operation of the Proposed Development, which may result in a loss of agricultural productivity, the Inspectorate considers that there is potential for likely significant effects in respect of this matter and does not agree to scope it out of the ES.
5.4.2	Table 3.11	Impacts to existing utilities during operation.	On the basis that any impacts to existing utilities would be temporary during the laying / removal of underground cable during the construction and decommissioning phases of the Proposed Development, and any utilities requiring permanent diversion would be addressed during construction, the Inspectorate agrees that this matter can be scoped out of the ES.
5.4.3	Table 3.11	Loss of BMV land during construction and decommissioning.	The Scoping Report indicates that there is potential for impacts to BMV land, with a large extent of the onshore scoping area falling within Grades 1 and 2, but at this stage limited information is presented about the location of construction activity and any need for excavation, handling and storage of soil from BMV land. The Inspectorate therefore does not have sufficient information to conclude that there would be no likely significant effects to BMV land as a result of temporary disturbance during construction and this matter should be scoped into the ES.

<b>ID</b>	<b>Ref</b>	<b>Applicant's proposed matters to scope out</b>	<b>Inspectorate's comments</b>
5.4.4	Table 3.11	Soil heating during construction and decommissioning.	On the basis that impacts arising from soil heating would be associated with the operational phase of the Proposed Development, ie relating to buried cable systems, the Inspectorate agrees that this matter can be scoped out of the ES.
5.4.5	Table 3.11	Public health and safety during construction and decommissioning (impacts from electric and magnetic fields (EMF)).	On the basis that impacts arising from EMF would be associated with the operational phase of the Proposed Development, ie the onshore substation, cables and associated infrastructure, the Inspectorate agrees that this matter can be scoped out of the ES.

<b>ID</b>	<b>Ref</b>	<b>Other points</b>	<b>Inspectorate's comments</b>
5.4.6	Section 3.4.2 Table 3.10	Approach to data collection.	The Inspectorate considers that sufficient information should be made available to establish the extent and type of receptors, together with the study area, that will be assessed in the ES with respect to land use. If no surveys are conducted to establish relevant receptors this should be clearly explained and justified in the ES. The Applicant should make effort to agree these matters with relevant consultation bodies.
5.4.7	Section 3.4.3.4	Potential cumulative impacts.	The Scoping Report states that onshore cumulative impacts will be considered as set out in Section 1.8. Potential cumulative impacts related to land use include other nearby development projects interacting with the same utilities or existing land uses with temporal overlaps with the project's construction phase. The ES should clearly explain how the onshore cumulative effects of the Proposed Development and other relevant developments have been assessed so that any conclusions over the significance of cumulative effects can

ID	Ref	Other points	Inspectorate's comments
			be demonstrated. Other relevant projects should be identified in consultation with relevant consultation bodies.
5.4.8	n/a	Approach to the assessment.	The ES should describe how likely significant effects have been assessed and determined with respect to the land use aspect, with reference to the over-arching methodology which has been presented in section 1.8.2 of the Scoping Report or any specific methodology that is used. The ES should be clear on how any conclusions on likely significant effects have been reached for the land use assessment taking into account relevant guidance.
5.4.9	n/a	Mitigation.	The ES should how explain how any mitigation that may be considered necessary to address likely significant effects has been identified and how this mitigation would be secured.
5.4.10	n/a	Consultation.	The ES should explain how consultation with the relevant consultation bodies informed the assessment of land use including the study area, methodology adopted to identify likely significant effects and appropriate mitigation measures as necessary.

## 5.5 Onshore ecology

(Scoping Report Aspect 3.5)

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

ID	Ref	Other points	Inspectorate's comments
5.5.2	n/a	Potential impacts during construction.	<p>The Inspectorate notes that geotechnical survey (including sample boreholes and test pits) is proposed to be undertaken within the onshore scoping area. Given the potential proximity of the Proposed Development to the Stour Estuary and Hamford Water Ramsar sites, the ES should assess the potential for drawdown effects upon wetland habitat and the site's qualifying features, where significant effects are likely to occur.</p> <p>The ES should also fully assess the risks associated with the proposed construction techniques and excavations (including HDD and the potential for bentonite breakout and habitat contamination) on protected/ sensitive habitats and species where significant effects are likely to occur, including impacts upon Local Wildlife Sites.</p>
5.5.3	Section 3.5.3.1.2	Potential impacts - permanent and temporary loss of terrestrial habitats.	Where significant effects are likely to occur, the ES should consider not only the direct effects of habitat loss (ie on species mortality and abundance), but also consider the effective areas of habitats subject to disturbance and displacement effects (including from noise / vibration, lighting, foot-fall and presence of workforce, and the presence and operation of the WTGs) that may serve to diminish the functional size of sensitive and / or protected habitats.

ID	Ref	Other points	Inspectorate's comments
5.5.4	Paragraph 417	Existing environment – Ancient Woodland.	<p>The Scoping Report states that there are 28 areas of ancient woodland located within the onshore scoping area; however, it's not known which woodland inventories have been relied upon to identify ancient and veteran trees.</p> <p>The ES should reference the source(s) of this data. The ES should assess likely significant effects on all relevant ancient woodland receptors, explain the effort made to avoid direct impacts on ancient woodland and veteran trees, and increased fragmentation of these habitats.</p>
5.5.5	n/a	Air quality effects.	<p>Chapter 3.5 does not refer to any potential air quality effects (eg from dust or nitrogen deposition from construction vehicles) on the ecological receptors identified and it's not indicated whether there are any designated sites within proximity of the Proposed Development that would potentially be sensitive to air quality changes.</p> <p>The Inspectorate expects the ES to include an assessment of these effects where significant effects are likely to occur.</p>
5.5.6	Paragraph 523	Impacts to designated sites - functionally-linked habitat.	<p>The ES should assess indirect effects on European designated sites from impacts to functionally linked habitats. The study area for the assessment should be based on the extent of impacts (direct and indirect).</p>
5.5.7	Paragraph 541	Biodiversity Net Gain (BNG).	<p>It's stated that an assessment of BNG will be appended to the Onshore Ecology ES chapter. The ES should clearly differentiate between essential mitigation and enhancement that is proposed as part of the DCO.</p>
5.5.8	Table 3.8	Watercourses and the Water Framework Directive (WFD).	<p>Table 3.8 (Water Resources and Flood Risk) suggests that crossings of main rivers or other sensitive watercourses may be required as part of the proposed works.</p>

ID	Ref	Other points	Inspectorate's comments
			<p>The ES should describe the nature of any proposed works within or in proximity of watercourses and demonstrate that there is sufficient detail regarding the design as to inform a meaningful assessment of likely significant effects on watercourse hydraulics and ecology, including consideration of impacts upon migrating and / or spawning fish.</p> <p>The ES should consider the potential of such works to negatively impact the ecological status of watercourses under the WFD and the results of the WFD Assessment should be reported in the ES and / or associated Technical Appendix.</p>
5.5.9	Paragraph 528	Invasive non-native species (INNS).	<p>The ES should assess the potential for construction and operational activities within proximity of watercourses and / or drainage ditches to facilitate the spread of INNS. Where significant effects are likely to occur, the ES should also consider the potential for climate change-related effects to facilitate the spread and exacerbate the impacts of INNS.</p> <p>The ES should describe any necessary mitigation and / or biosecurity precautions required to prevent the spread of INNS. Any measures relied upon in the ES should be discussed with relevant consultation bodies, including NE and the EA, in effort to agree the approach. Measures relied upon in the ES should be adequately secured eg through a Construction Environmental Management Plan (CEMP).</p>
5.5.10	Paragraph 515 Table 3.14	White-clawed crayfish.	<p>It's stated that white-clawed crayfish are recorded as being present within the onshore scoping area and surveys are planned for 2022.</p> <p>The Inspectorate notes the potential for hydrological / ecological connectivity from the Proposed Development to protected sensitive habitats and species. As part of its assessment of spread of INNS, the Applicant should consider the potential for the Proposed Development</p>

ID	Ref	Other points	Inspectorate's comments
			to facilitate the spread of non-native crayfish and crayfish plague, which could impact native crayfish and their habitats.
5.5.11	n/a	Mitigation measures – timing of works.	The ES should explain the timing of the proposed construction and / or operational activities and any measures to avoid key / sensitive periods for species, such as spawning / breeding and migration periods. The ES should assess the duration of impacts in relation to the ecological cycles (eg life cycles, breeding / spawning seasons, migration periods, etc.) of the receptors being assessed.

## 5.6 Onshore ornithology

(Scoping Report Aspect 3.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.6.1	Section 3.6.3.3 Table 3.18	Temporary and permanent loss of habitat suitable for nesting, roosting and foraging birds – decommissioning.	<p>No clear justification for the exclusion of this matter from the assessment has been presented. Paragraph 554 states that the detail and scope of the decommissioning works will be determined by the relevant legislation and guidance at the time of decommissioning. Paragraph 555 states that decommissioning impacts are anticipated to be similar in nature to those of construction.</p> <p>Noting that this matter is proposed to be scoped in for construction phase assessment and in absence of a clear justification for its exclusion from the decommissioning phase assessment, the Inspectorate considers that this matter should be scoped in.</p>

ID	Ref	Other points	Inspectorate's comments
5.6.2	Section 3.6.3	Potential impacts - habitat loss.	<p>Chapter 3.5 (Onshore Ecology) states that the ES will include an assessment of temporary and permanent terrestrial habitat loss. The Inspectorate considers that this assessment should interrelate with, and include appropriate cross-reference to, other relevant assessments of the ES. This should include consideration of the impacts of temporary and long-term terrestrial habitat loss on Onshore Ornithology, including those qualifying features of onshore designations that may rely on terrestrial habitats for nesting, roosting, breeding, foraging, etc.</p> <p>Where significant effects are likely to occur, the ES should consider not only the direct effects of habitat loss (ie on species mortality and</p>



ID	Ref	Other points	Inspectorate's comments
			abundance), but also consider the effective areas of habitats subject to disturbance and displacement effects (including from noise / vibration, lighting, and the presence and operation of the WTGs) that may serve to diminish the functional size of sensitive and / or protected habitats.
5.6.3	Section 3.6.3.2	Potential impacts during construction.	The ES should assess the risks associated with onshore construction techniques and excavations (including from any proposed boreholes/ trial pits, trenching, and HDD) and the potential for such activities to give rise to significant effects on onshore ornithological receptors, including the potential for habitat contamination (eg via bentonite breakout).

## 5.7 Onshore archaeology and cultural heritage

(Scoping Report Aspect 3.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.7.1	Table 3.21	Direct, physical impacts to designated heritage assets during operation.	On the basis that the Proposed Development will not result in direct physical impacts to onshore designated heritage assets during operation, and that any effects arising from indirect impacts, including permanent change to setting, are scoped into the assessment as a separate matter, the Inspectorate agrees that this matter can be scoped out of the ES.
5.7.2	Table 3.21	Direct physical impacts to non-designated heritage assets during operation.	On the basis that the Proposed Development will not result in direct physical impacts to onshore non-designated heritage assets during operation, and that any effects arising from indirect impacts, including permanent change to setting, are scoped in to the assessment as a separate matter, the Inspectorate agrees that this matter can be scoped out of this aspect of the ES.

ID	Ref	Other points	Inspectorate's comments
5.7.3	Figure 4.12	Study area.	<p>The Scoping Report identifies the designated heritage assets within the onshore scoping area. Figure 3.12 illustrates the location of these assets, which also identifies assets in a wide area beyond the boundary of the onshore scoping area.</p> <p>The ES should provide evidence to justify the choice of any study area (s) used to define the assessment and discussion held with relevant consultation bodies.</p>

ID	Ref	Other points	Inspectorate's comments
5.7.4	Paragraph 569	Field surveys and evaluation.	The Applicant should make effort to agree the need for targeted archaeological evaluation, following completion of the baseline surveys, with the relevant consultation bodies. The rationale supporting the approach for pre-consent and any post-consent evaluation should be described in the ES. The mechanisms for securing any post-consent evaluation should also be described in the ES.
5.7.5	n/a	Geoarchaeological assessment.	The ES should include an assessment of potential effects on geoarchaeological deposits. This should include consideration of the potential effects on the zone between the marine and onshore environments.
5.7.6	Paragraph 574	Inter relationships with other aspect assessments.	The Inspectorate considers that the onshore elements of the Proposed Development have the potential to affect elements of historic landscape character, such as historic hedgerows and protected lanes. Given the stage of the design, the ES should therefore address whether significant effects are likely to occur to these features and therefore ensure cross over between other aspect chapters that could provide relevant information, such as the onshore ecology and landscape and visual aspect chapters.
5.7.7	Paragraph 577	Potential impacts.	In respect of indirect physical impacts, the Inspectorate considers that there is potential for effects to below ground heritage assets arising from changes to groundwater levels and/ or movement of water through deposits, which should be assessed in the ES where significant effects are likely to occur.
5.7.8	Paragraph 592	Technical guidance.	In addition to the documents listed at paragraph 592, the Inspectorate considers that Principals of Cultural Heritage Assessment in the UK. (Institute of Environmental Management and Assessment, Institute of Historic Buildings Conservation, Chartered Institute for

ID	Ref	Other points	Inspectorate's comments
			Archaeologists 2021) should inform the approach to assessment, including in relation to understanding the significance of cultural heritage assets within the study area and evaluating the impact of the Proposed Development upon them.
5.7.9	Paragraph 594	Baseline surveys.	<p>The Applicant should review the potential for paleoenvironmental remains to survive within the study area once the surveys listed at paragraph 594 are complete; where there is potential for such remains, a palaeoenvironmental assessment should also be undertaken to inform the understanding of baseline conditions.</p> <p>The Inspectorate also notes that the onshore scoping area has potential for Pleistocene and Holocene deposits of archaeological significance; a Palaeolithic desk-based assessment should be prepared to inform baseline conditions, as this information may not be fully represented in the Historic Environment Record.</p>

## 5.8 Onshore noise and vibration

(Scoping Report Aspect 3.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.8.1	Paragraph 629	Operational vibration associated with the onshore substation and maintenance traffic.	<p>The Scoping Report states that the onshore substation will be designed to achieve negligible levels of ground borne vibration, including through use of isolation pads / mounts in accordance with industry standards. The Inspectorate acknowledges that it is unlikely that there would be significant effects arising from vibration impacts, however, at this stage the location of the onshore substation has not been confirmed, and it is therefore not possible to confirm the distance to any potentially affected human and ecological receptors. The Scoping Report also notes potential for emergency generators at the onshore substation, and it is unclear whether this would result in vibration impact. This matter should therefore be scoped into the ES where significant effects are likely.</p> <p>On the basis that there will be minimal levels of additional road traffic during the operational phase as described at paragraph 672 of the Scoping Report, the Inspectorate agrees that there are unlikely to be significant effects arising from vibration impacts of maintenance traffic and this matter can be scoped out of the ES. The ES should define the anticipated number of operational road vehicle movements.</p>
5.8.2	Table 3.24	Vibration affecting ecological receptors.	<p>The Inspectorate notes that vibration affecting human receptors is scoped into the construction and decommissioning phases of the Proposed Development, but no reference is made to vibration affecting ecological receptors. As the onshore components of the Proposed Development are still subject to areas of search, and there is potential for activity that would generate vibration impacts to be</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			located in proximity to identified ecological receptors, the Inspectorate does not consider that sufficient information is available to conclude that there would be no likely significant effects and this matter should not be scoped out of the ES.
5.8.3	Table 3.24	Operational road traffic impacts.	On the basis that road traffic associated with operational maintenance of the underground cables and onshore substation would be minimal as described in paragraph 672 of the Scoping Report and would therefore not result in a large increase from the baseline conditions as described in section 3.9.1.1 of the Scoping Report, the Inspectorate agrees that significant effects in respect of road traffic noise are unlikely to occur. However, the ES should clarify the anticipated number and routeing of road vehicle movements during the operational phase, including those associated with operational maintenance of offshore components (see ID 5.9.3 of this Scoping Opinion).
5.8.4	Table 3.24	Operational airborne noise in nearshore locations.	On the basis that the only components of the Proposed Development located in nearshore locations would be buried cable at the landfall site, which would not result in any operational noise, the Inspectorate agrees that this matter would not give rise to likely significant effects and can therefore be scoped out of the ES.

ID	Ref	Other points	Inspectorate's comments
5.8.5	Table 3.22	Identification of receptors.	Table 3.22 identifies broad categories of receptors and their sensitivity value in respect of noise. The ES should also identify receptors and their sensitivity value for the purposes of the assessment of vibration impacts.

ID	Ref	Other points	Inspectorate's comments
5.8.6	Paragraph 609	Baseline vibration conditions.	<p>The Scoping Report states that a baseline noise survey will be undertaken to establish baseline conditions once the onshore scoping area has been refined but does not explain how the baseline vibration conditions will be established. The ES should explain how the baseline vibration conditions have been established which may require completion of a baseline vibration survey or confirmation that the vibration baseline will be assumed as negligible or zero.</p>
5.8.7	Paragraph 643	Offshore airborne noise.	<p>The Inspectorate notes that there is reference to the results of geophysical surveys and grab sampling informing the methodologies required for installing offshore infrastructure and the assessment process for offshore airborne noise. This contradicts the information presented in section 2.1 of the Scoping Report, which states that the impact of offshore airborne noise to onshore receptors is scoped out of the ES on the basis that the distance of activity from receptors (approximately 22.5km) would result in no likely significant effects. The approach should be clarified in the ES, and where there is potential for likely significant effects to onshore receptors from offshore airborne noise this should be assessed in the ES.</p> <p>The Inspectorate notes that the impact of nearshore airborne noise to human and ecological receptors during construction and decommissioning is scoped into the ES.</p>
5.8.8	n/a	Construction vehicles and equipment.	<p>Information should be provided in the ES on the types of vehicles and plant to be used during the construction phase. Where uncertainty exists over the likely vehicles and equipment to be used the assessment should adopt a 'worst case' for receptors, ie that within the application boundary the vehicles and plant are at the closest possible point to a receptor.</p>

## 5.9 Traffic and transport

(Scoping Report Aspect 3.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.9.1	Paragraph 670	Onshore impacts of traffic and transport associated with offshore construction (and decommissioning) activity.	<p>The Scoping Report states that the preferred base port (or ports) for offshore construction is not currently known and would not be determined until after the grant of any DCO. It is also stated that the facilities would be brought into operation by means of a planning application or permitted development rights. On that basis, the Applicant proposes to scope out onshore impacts of traffic and transport associated with offshore construction activity.</p> <p>The Inspectorate notes that paragraph 667 of the Scoping Report states that as a worst case scenario it is assumed that all construction traffic would be via road at this stage, as no information is available regarding intermodal delivery strategies.</p> <p>The Inspectorate considers that there is potential for likely significant effects to occur in relation to traffic and transport during construction and decommissioning in terms of delivery and/ or removal of plant and materials for the offshore component of the Proposed Development, which according to the Applicant are assumed to be via the road network. Therefore, the Inspectorate does not agree to scope these matters out of the ES.</p> <p>Where the final selection of port(s) has not been determined at the time of any DCO submission, the Inspectorate's advice at paragraph 2.3.6 of this Scoping Opinion should be followed and an assessment should be presented in the ES on the basis of parameters that establish the maximum significant adverse effects.</p>



ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.9.2	Paragraph 673	Traffic impacts during the operational phase.	On the basis that road traffic associated with operational maintenance of the underground cables and onshore substation would be minimal as described in paragraph 672 of the Scoping Report and would therefore not result in a large increase from the baseline conditions as described in section 3.9.1.1 of the Scoping Report, the Inspectorate agrees that significant effects are unlikely to occur and assessment of these matters can be scoped out of the ES. However, the ES should clarify the anticipated number and routing of road vehicle movements during the operational phase.
5.9.3	Paragraph 674	Onshore impacts of traffic and transport associated with offshore operational activity.	<p>The Scoping Report states that this matter is proposed to be scoped out for similar reasons as presented in paragraph 670 in respect of onshore impacts of traffic associated with offshore construction.</p> <p>The Inspectorate notes that no information has been presented about the potential requirements for maintenance to offshore components during operation, including frequency and type of road vehicle movements and as such there is insufficient information available to scope this matter out of the ES. The ES should include an assessment of this matter where significant effects are likely to occur.</p>
5.9.4	Paragraph 675	Decommissioning impacts.	<p>The Scoping Report states that traffic and transport impacts associated with the decommissioning phase would be similar or less in nature to those of construction and as such it is proposed to scope these impacts out of the ES.</p> <p>The Inspectorate notes that traffic and transport impacts associated with construction are scoped into the ES as they will potentially give rise to significant effects. As yet, no information has been presented as to the likely measures to be secured to mitigate potential significant effects. The Inspectorate considers that there is also potential for decommissioning impacts to give rise to likely significant</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			effects and this matter should be scoped into the ES. This includes impacts from onshore traffic associated with offshore decommissioning activities.

ID	Ref	Other points	Inspectorate's comments
5.9.5	Paragraphs 659 to 661	Public rights of way (PRoW).	The Inspectorate notes that this matter is scoped into the assessment of impacts relating to human health for the construction and decommissioning phases, and on that basis agrees that it does not need to also be assessed under traffic and transport.
5.9.6	Paragraphs 662 and 663	Rail network.	The Scoping Report states that there is a branch of the East Coast Main Line (ECML) railway within the onshore scoping area, as well as a number of rail stations. No information is presented as to whether the Proposed Development may result in impacts to the operation of the rail network. The ES should include an assessment of the potential impact on the rail network, including the potential impacts of any construction or diversion activities on public transport, where significant effects are likely to occur.
5.9.7	Table 3.30	Abnormal indivisible loads (AIL).	The Inspectorate notes from information in Table 3.30 that an assessment of the suitability of access routes to accommodate abnormal loads will be undertaken. This assessment should consider the worst case number of abnormal loads and types of vehicles required. The outcome of this assessment should be reported in the ES, together with confirmation of any measures required to mitigate significant adverse effects arising from this matter, including consideration of delays to emergency services. If mitigation is required, it should be clear how this will be secured in the DCO.

ID	Ref	Other points	Inspectorate's comments
			The Applicant should also consider whether use of existing river and rail connections for the transport of abnormal loads could represent an environmentally better outcome than road transport.
5.9.8	n/a	Hazardous loads.	The Scoping Report does not present any information about hazardous loads and whether there is potential for these to be required as part of the construction, operation or decommissioning of the Proposed Development. This should be clarified within the ES, 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 accordingly.
5.9.9	n/a	Mitigation.	The Scoping Report does not reference any potential mitigation that might be required to manage traffic and transport impacts during construction, eg a construction traffic management plan (CTMP) or PRoW management plan. The Inspectorate would expect drafts of these documents to be provided within any DCO submission, together with confirmation of how they would be secured through the DCO.

## 5.10 Human health

(Scoping Report Aspect 3.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.10.1	Table 3.31	Interference with users of footpath, cycleway and bridleway during operation.	The Scoping Report does not present definitive information about the potential impact to existing PRowS, cycleways and bridleways during operation, and it is noted that paragraph 786 references potential for permanent closure, although it is stated that the Applicant would seek to avoid placing onshore infrastructure on PRowS. The Inspectorate considers that there is insufficient information from which to scope this matter out of the ES, and an assessment should be included where significant effects are likely to occur.
5.10.2	Table 3.31	Stress/ disturbance associated with construction activities during operation.	Limited information is presented in the Scoping Report about the potential for stress / disturbance from activities associated with operational maintenance of onshore components of the Proposed Development. However, given the nature of these components, eg an unmanned substation and underground cabling, the Inspectorate agrees that there is unlikely to be a level of activity for their maintenance that would generate traffic, noise, vibration or visual impacts of a degree to cause stress or disturbance to human health. The Inspectorate therefore agrees that this matter can be scoped out of the ES.
5.10.3	Table 3.31	Degradation of local air quality during operation.	On the basis that emissions from operational traffic, plant and machinery are expected to be small and limited in duration, the Inspectorate agrees that this matter can be scoped out of the ES.
5.10.4	Table 3.31	Land contamination giving rise to health effects during operation.	The Inspectorate notes that operational impacts to human health from on and off site contamination sources are scoped into the ground conditions and contamination assessment (see section 3.1 of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the Scoping Report), particularly in relation to the potential for leakages of stored materials or spillages of materials. This matter should therefore also be assessed in the ES in respect of the assessment of human health, but this could be through use of cross referencing to avoid duplication.

ID	Ref	Other points	Inspectorate's comments
5.10.5	Sections 3.10.2 and 3.10.3	Vulnerable groups.	The Scoping Report states that baseline health data will be collected in respect of general and vulnerable groups, and for air pollutants the impact assessment will also consider effects to vulnerable groups. For human health matters scoped into the ES, the assessment should include consideration of the potential for vulnerable groups to experience particular effects and identify any mitigation measures accordingly. The Applicant should make effort to agree the relevant vulnerable groups with relevant consultation bodies and the ES should explain how vulnerable groups have been identified.
5.10.6	Section 3.10.2	Approach to data collection.	The Applicant should identify all footpaths, cycleways and bridleway networks that may be affected by the Proposed Development and seek to agree with relevant consultation bodies those that will be included within the assessment. In doing so, the Applicant should refer to Essex County Council's Highway's Information Map, which identifies PRow's and NCNs (see Appendix 2 of this Scoping Opinion).
5.10.7	n/a	Electric and magnetic fields (EMF).	The Scoping Report does not make any reference to the potential for impacts associated with EMF arising from the Proposed Development to human health, including onshore substation, electrical cables and associated infrastructure. The ES should include an assessment of this matter where significant effects are likely to occur, or provide a

ID	Ref	Other points	Inspectorate's comments
			justification for why this matter is not likely to give rise to significant effects.

## 5.11 Seascape, landscape and visual

(Scoping Report Aspect 4.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.11.1	Section 4.1.3.1	Potential impacts during construction to seascape and coastal character, designated landscapes (Suffolk Coast and Heaths AONB) and visual receptors – offshore.	The Scoping Report states that the impacts during the temporary construction phase of the offshore infrastructure will never be greater than the operational effects of the completed wind farm and as such, proposes that offshore construction effects are scoped out of the seascape, landscape and visual impact assessment (SLVIA). Based on the lack of information to support this assertion and given that the construction period is expected to last at least 5 years during which time there is potential for impacts arising from presence of construction activity and partially complete WTGs that could detract from the character of the landscape, the Inspectorate does not agree that construction phase impacts of offshore infrastructure can be scoped out of the assessment.
5.11.2	Section 4.1.3.2	Potential impacts during operation – offshore.	The Scoping Report states that the presence of the offshore wind farm is unlikely to significantly impact the key characteristics of non-coastal landscapes, therefore changes to landscape character in relation to the offshore wind farm will be scoped out of the SLVIA. The Inspectorate considers that the offshore components have potential to impact onshore landscape character, for example features of the Greater Thames Estuary and Northern Thames Basin, which include low-lying coastal landscape where extensive open spaces are dominated by the sky. The Inspectorate does not agree that potential impacts of offshore infrastructure during operation can be scoped out of the assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
5.11.3	Section 4.1.3.2	Potential impacts on designated landscapes (Suffolk Coast and Heaths AONB and Heritage Coast) during operation – onshore.	The Scoping Report states that impacts on designated landscapes (Suffolk Coast and Heaths AONB and Heritage Coast) from onshore infrastructure are unlikely to be significant due to the distance from the AONB and their localised nature, and are proposed to be scoped out, although this will be confirmed once the substation site is known and through analysis of distance and potential visibility. At this stage, the Inspectorate does not have sufficient information about the location and design of the onshore infrastructure to conclude that it would not give rise to likely significant effects on designated landscapes (Suffolk Coast and Heaths AONB and Heritage Coast, and potentially Dedham Vale AONB, which is located on the north west boundary of the scoping area) and therefore this should not be scoped out of the ES.
5.11.4	Section 4.1.3.3	Potential impacts during decommissioning.	The Scoping Report states that the presence of activity and partially dismantled structures during the temporary decommissioning phase has the potential to impact seascape, coastal and landscape character, designated landscapes and visual receptors but impacts will never be greater than during construction or operation phases considered in the SLVIA, and proposes to scope these out. The Inspectorate does not agree that these impacts during decommissioning can be scoped out of the assessment as insufficient evidence has been provided to support the assertion that no significant effects are likely to occur.
5.11.5	Section 4.1.3.4	Potential cumulative seascape, landscape and visual impacts – onshore.	The Scoping Report states that cumulative impacts in relation to the onshore infrastructure, with other similar types of projects such as underground cables and substations, during construction, operation and decommissioning, are not considered likely to be significant as effects are typically more localised. On that basis, the Applicant proposes to be scope these matters out of the SLVIA unless



ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>consultation bodies are aware of any similar proposed projects within a range where cumulative interactions may potentially lead to significant impacts. The Inspectorate does not agree that these impacts can be scoped out of the assessment as insufficient evidence has been provided to support the assertion that no significant effects are likely to occur, for example the location and design of the onshore infrastructure has not yet been ascertained and no information is presented in the Scoping Report about onshore projects that might be included in the cumulative assessment.</p>
5.11.6	Table 4.2	Potential cumulative seascape, landscape and visual impacts during construction and decommissioning – offshore.	<p>The Scoping Report suggests at Table 4.2 that cumulative impacts from offshore construction and decommissioning of the Proposed Development are proposed to be scoped out. No information is presented as a basis for this proposal. On a similar basis as that set out at ID 5.11.1 and 5.11.4 of this Scoping Opinion, the Inspectorate has insufficient evidence to conclude that this matter would not give to significant effects. In addition, the Inspectorate is aware that there are a number of other projects, including NSIPs such as East Anglia ONE North and TWO Wind Farms, Five Estuaries Offshore Wind Farm and Sizewell C, located within the likely study area for the Proposed Development, which have the potential for overlapping construction programmes and possible combined effects. The Inspectorate therefore does not agree to scope this matter out of the ES.</p>

ID	Ref	Other points	Inspectorate's comments
5.11.7	Section 4.1.1 Figure 4.1	Study areas.	<p>The Inspectorate considers that due to the potential maximum height of the WTGs, their proximity to designated seascapes, landscapes (including Suffolk Coast and Heaths, Dedham Vale and Kent Downs AONBs) and other highly graded cultural heritage assets (eg Dengie</p>

ID	Ref	Other points	Inspectorate's comments
	Figure 4.2		Peninsula), the low-lying nature of the coastline, and the presence of existing and proposed offshore wind farms, there is potential for the offshore components of the Proposed Development to give rise to likely significant effects, including cumulative effects, to landscape and visual receptors beyond the proposed study area of 50km radius around the array areas. On that basis, the Inspectorate considers that the study area for impacts from the array areas should be determined relevant to the extent of the impacts and the potential for significant effects. This may result in a study area beyond the 50km specified and the Applicant should make effort to agree this with relevant consultation bodies. The selection of the study area should be informed by the Zone of Theoretical Visibility (ZTV).
5.11.8	Section 4.1.1.1	Seascape character zones.	The 'seascape character zones' (SCZ) identified as being of relevance to the Proposed Development's wind farm and surrounding area should be clearly justified and explained in the ES.
5.11.9	Section 4.1.2	Approach to data collection.	The ES should demonstrate how the consultation with the MMO, the Suffolk Coast and Heaths AONB Board and other relevant consultation bodies has informed the approach taken in researching the data needed for the assessment of seascape, landscape and visual aspects. In addition to the data sources listed at paragraph 722, the Inspectorate considers that the following data sources should be used to inform the description of baseline conditions: Natural Beauty and Special Qualities of the Suffolk Coast and Heaths AONB (2016), Development in the setting of the Suffolk Coast and Heaths AONB (2015), The Designation History of the Suffolk Coast and Heaths AONB and the Landscape Character of the Essex Coast (2002).
5.11.10	Section 4.1.3.2	Initial proposed SLVIA assessment viewpoints.	The Applicant should make effort to consult and agree with consultation bodies over the proposed SLVIA assessment viewpoints including Natural England and the relevant local authorities. In

ID	Ref	Other points	Inspectorate's comments
	Table 4.1		<p>addition to those listed in Table 4.1, the Inspectorate considers that the following locations should also be selected for viewpoints as places that contribute towards the character of the coastal landscape and which attract visual receptors: the end of Southwold pier, Gun Hill in Southwold, Dunwich Coastguard cottages, Sizewell Beach, the cliffs above Thorpeness, Felixstowe seafront gardens, Walton pier and Naze tower. A viewpoint further north at Covehithe should be included to enable an assessment of potential cumulative effects to Suffolk Coast and Heaths AONB from the existing and proposed offshore wind farms. In addition, the Inspectorate considers that there is potential for sequential visual effects to users of the Suffolk / England Coast Path, including in combination with other projects, and these effects should be assessed.</p>
5.11.11	Section 4.1.3.4	Potential cumulative impacts.	<p>The Scoping Report states that potential landscape and visual effects due to interactions with consented and proposed (as yet unbuilt wind farms) will be considered in the cumulative assessment and is likely to include the proposed East Anglia TWO Offshore Wind Farm, approximately 30km to the north of NFOW, and the planned Five Estuaries Offshore Wind Farm to the east. The Inspectorate considers that East Anglia ONE North Wind Farm should also be scoped into the assessment on the basis that the turbine array is likely to be viewed in combination with the Proposed Development from the Suffolk Coast and Heaths AONB. The ES should explain how the cumulative assessment has included all relevant developments that may have cumulative effects on seascape, landscape and visual effects and how these have been assessed.</p>
5.11.12	Section 4.1.4	Impact assessment methodology – visual baseline.	<p>The Scoping Report states that the visual baseline will be recorded in terms of the different groups of people who may experience views of the offshore wind farm and onshore components, the places where they will be affected and the nature of their views and visual amenity.</p>

ID	Ref	Other points	Inspectorate's comments
			The ES should explain in detail how the visual baseline has been established including how the Applicant consulted on this with relevant consultation bodies. The Applicant should give careful consideration to the timing of baseline photography, in terms of the time of day and season, in order to ensure that the ES presents an accurate representation of the likely effects, eg the WTGs are likely to be most visible in the late afternoon/ evening and high visibility days occur in certain periods of the year that coincide with peak visitor period.
5.11.13	Section 4.1.4.1	Impact assessment methodology – viewpoint types.	The Inspectorate considers that, in addition to representative viewpoints, illustrative and specific viewpoints will be required to understand the impacts of the Proposed Development and fully assess its effects.
5.11.14	Section 4.1.4.1	Impact assessment methodology – designated landscapes.	The Inspectorate considers that in addition to the assessment of landscape and visual effects, the SLVIA will need to consider impacts to the Natural Beauty and Special Qualities of the Suffolk Coast and Heaths AONB, as these form part of the purposes of the designation.
5.11.15	n/a	Mitigation.	If mitigation is proposed for any likely significant effects this should be set out in detail in the ES and it should clearly set out how this mitigation will be secured.
5.11.16	n/a	Guidance.	The Technical Guidance Note (TGN) 02-21 'Assessing the Value of Landscapes outside National Designations' has recently been published and should be used within the assessment.

## 6. ASPECT BASED SCOPING TABLES – PROJECT WIDE

### 6.1 Socio-economics

(Scoping Report Aspect 4.2)

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

ID	Ref	Other points	Inspectorate's comments
6.1.2	Section 4.2.1	Existing environment – offshore.	The offshore socio-economic environment is described as being a busy shipping area used by commercial shipping and fishing vessels, recreational yachting and dredging. Impacts to shipping and navigation are considered in section 2.10 and commercial fishing is considered in section 2.9 and impacts on sensitive landscape receptors within 50km of the array areas are considered in section 4.1 of the Scoping Report. The ES should ensure that the baseline environment and any impacts on receptors relating to socio-economic factors are clearly cross referenced to other relevant technical chapters in the socio-economic aspect chapter.
6.1.3	Section 4.2.2	Approach to data collection – consultation.	The ES should demonstrate that data collection has involved consultation with local and regional commercial business interests and other relevant consultees such as the Maritime and Coastguard Agency and North East Essex Clinical Commissioning Group and show how this has informed the onshore and offshore socio-economic assessment.

ID	Ref	Other points	Inspectorate's comments
6.1.4	Section 4.2.3	Potential impacts.	<p>Potential impacts from the Proposed Development during construction, maintenance and decommissioning phases should be clearly set out in the ES. Any likely significant effects should be identified and fully justified in the ES. Mitigation if considered necessary should also be set out in the ES and should demonstrate how this mitigation would be secured through the DCO.</p> <p>Loss of or disruption to onshore and offshore activities which contribute to existing socio-economic characteristics of the study area, such as potential air quality, noise, visual, and traffic impacts on social infrastructure, based on the assessment and conclusions of other relevant ES chapters should be clearly described and cross referenced to relevant aspect chapters and any supporting evidence within the ES.</p>
6.1.5	Section 4.2.3	Potential impacts.	<p>In addition to the potential for impacts in terms of hotel facilities and holiday rental accommodation (addressed within Scoping Report section 4.3 Tourism and Recreation), the ES should include an assessment of impacts to standard rental accommodation during the construction period where significant effects are likely to occur. For example, consideration of potential impacts to availability of affordable housing.</p>
6.1.6	Table 3.3	Potential impacts – mineral resources.	<p>Loss, damage or sterilisation of mineral resources is scoped into the ES as part of the assessment of ground conditions and contamination. The Inspectorate considers that the economic impact and associated effects of this matter should also form part of the socio-economic assessment, where significant effects are likely to occur.</p>
6.1.7	Paragraph 747	Social infrastructure.	<p>In addition to the receptors identified at paragraph 747, the Inspectorate considers that healthcare facilities and emergency</p>

ID	Ref	Other points	Inspectorate's comments
			services within the study area selected for the assessment should be scoped into the ES as social infrastructure receptors.
6.1.8	Section 4.2.3.4	Potential cumulative impacts.	Cumulative impacts are to be considered as set out in section 1.8 of the Scoping Report. This should include socio-economic impacts as part of a cumulative effects assessment. It should be clear how conclusions on effects have been reached in the ES.
6.1.9	Section 4.2.4	Approach to assessment – professional judgement.	The socio-economic assessment will present a qualitative assessment of the anticipated impacts and benefits, their extent and when they are expected to occur. The ES should demonstrate how professional judgement has been used in any qualitative assessment and how conclusions have been reached.
6.1.10	n/a	Study area.	The study area for both the onshore and offshore environment should be clearly set out in the ES and supported through relevant figures and other supporting evidence. The Applicant should make effort to agree the relevant study area with the consultation bodies.

## 6.2 Tourism and recreation

(Scoping Report Aspect 4.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
6.2.1	Table 4.5	Restricted beach access – operation.	On the basis that there would be no requirement to restrict beach access at the landfall areas during operation of the Proposed Development, and that access would be fully restored on completion of construction, the Inspectorate agrees that this matter can be scoped out of the ES.
6.2.2	Table 4.5	Deterioration to bathing water quality – operation.	On the basis that there is potential for impacts to marine water quality in bathing waters located in proximity to the landfall search area, and limited information has been presented about how these impacts would be managed, the Inspectorate does not have sufficient information on which to conclude that significant effects are not likely to occur and this matter cannot therefore be scoped out of the ES.
6.2.3	Table 4.5	Loss of and disturbance to onshore local tourism and recreation assets – operation.	On the basis that no onshore local tourism and recreation assets will be lost as a result of the Proposed Development, and that activities during operation are likely to involve small numbers of transport movements that would not result in a large change to the baseline highway conditions, the Inspectorate agrees that this matter can be scoped out of the ES.
6.2.4	Table 4.5	Disturbance to onshore recreation / tourism from noise, dust and visual impact – operation.	On the basis that activities during operation are likely to be localised and limited in terms of air quality emissions, the Inspectorate agrees that they are not likely to give rise to significant effects to tourism and this matter can be scoped out of the ES.  The Inspectorate notes that the noise and visual impacts during operation of the Proposed Development are scoped into the



ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>respective aspect sections of the ES. The Inspectorate considers that the economic impact and associated effects of these matters should also form part of the assessment, where significant effects are likely to occur.</p>

ID	Ref	Other points	Inspectorate's comments
6.2.5	Section 4.3.1	Existing environment – coastal / marine tourism and recreation / inland tourism and recreation.	<p>Figure 4.3 shows the recreational features and tourism facilities present within the Onshore Scoping Area.</p> <p>The ES should list / present all potential receptors present within the selected on and offshore study areas, including the inshore study area as discussed at paragraph 766.</p>
6.2.6	Section 4.3.2 Table 4.4	Approach to data collection.	<p>The ES should demonstrate that data collection has involved consultation with local and regional commercial tourist and recreation interests and other relevant consultation bodies where necessary and show how this has informed the onshore and offshore assessment. The Applicant should refer to Essex County Council's Highway's Information Map to identify relevant PRow's and NCNs.</p>
6.2.7	Sections 4.3.3.1 to 4.3.3.3	Potential impacts to coastal and marine / inland (onshore) receptors during construction, operation and maintenance, and decommissioning	<p>The Scoping Report states that offshore and landfall construction activities and associated Safety Zones may disrupt marine and coastal recreational activities, and these will need to be identified and assessed. This should be done in consultation with relevant consultation bodies and the ES should demonstrate how any disruption will be managed and what the likely effects are anticipated and whether any of these are likely to be significant. The risk of collision with structures and reduced navigable area as a result of the construction activity will be assessed and is discussed in section 2.10. The assessment of safety with respect to tourism and recreation</p>

ID	Ref	Other points	Inspectorate's comments
			<p>should be consulted on with relevant consultation bodies, such as the Maritime and Coastguard Agency, and the ES should demonstrate how this consultation has informed the assessment including the identification of any likely significant effects and any mitigation required.</p>
6.2.8	Section 4.3.3.4	Potential cumulative impacts.	<p>The ES should include an assessment of cumulative impacts to tourism and recreation receptors that use the onshore, coastal and marine environments, not just the onshore receptors.</p>
6.2.9	Section 4.3.4	Approach to assessment.	<p>The Scoping Report states that there are no specific statutory guidelines which inform the assessment of impacts on tourism and recreation receptors. The assessment will focus on the factors that have the potential to reduce the number of tourists visiting or returning to an area.</p> <p>The ES should demonstrate how professional judgement has been used in any assessment and how conclusions have been reached.</p>

## 6.3 Climate change

(Scoping Report Aspect 4.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
6.3.1	Table 4.7	Vulnerability of infrastructure to climate change during construction and decommissioning.	<p>The Scoping Report states that the vulnerability of the Proposed Development to climate change during the construction phase will not be considered as construction is planned to take place within the next 10 years and climate change impacts are not considered to be likely during that timeframe.</p> <p>The Inspectorate considers that there is potential for climate change impacts to have likely significant effects on the construction phase, for example in respect of increased flood risk that may require mitigation in the planning of construction compounds and temporary drainage strategies.</p> <p>The Scoping Report does not state what the anticipated operational lifetime of the Proposed Development is likely to be; however, the Inspectorate notes that other offshore windfarms have expected lifetimes of approximately 30 years, and on that basis would expect decommissioning to commence in around 2060 at the earliest. The decommissioning phase may be vulnerable to the impacts of climate change, particularly given the timescales involved.</p> <p>The ES should therefore 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, eg marine geology, oceanography and physical processes, water resources and flood risk and major accidents and disasters.</p>
6.3.2	Paragraph 809	Cumulative effects.	The Scoping Report states that a cumulative assessment of greenhouse gas (GHG) emissions with other projects is proposed to

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>be scoped out of the ES as the Proposed Development is responsible for its activities only. The ES should include a description of the likely significant cumulative effects of the Proposed Development with other projects scoped into the assessment, including those in relation to GHG emissions where significant effects are likely to occur.</p> <p>The Inspectorate notes that other cumulative effects, ie those relating to vulnerability of the Proposed Development and other projects to climate change will be scoped into the ES as part of relevant aspects chapter including water resources and flood risk, and coastal erosion.</p>

ID	Ref	Other points	Inspectorate's comments
6.3.3	Section 4.4.4	Assessment methodology.	<p>The Inspectorate notes that a GHG assessment will be prepared to support the assessment of effects during construction, operation and decommissioning of the Proposed Development. It is unclear from the Scoping Report as to which elements or activities will be specifically included within the GHG assessment, eg whether this will road traffic emissions, materials, energy used, any supporting activities or infrastructure, and which gases would be considered, given that there a range of gases that are considered to be GHGs. This should be explained in the ES and justification should be provided for any exclusions.</p> <p>The Inspectorate notes that paragraph 810 refers to the use of UK carbon budgets to frame the GHG assessment in the context of potential transboundary impacts. For avoidance of doubt, the Inspectorate has assumed that this applies to the assessment methodology for GHG emissions scoped into the ES. The Inspectorate notes that the sixth carbon budget as set out in the Carbon Budget Order 2021 is the most recent, but expects that the GHG assessment</p>

ID	Ref	Other points	Inspectorate's comments
			would be carried out by reference to the carbon budget in place at the time of submission of any DCO, reflecting targets for the relevant construction and operational (design) years.
6.3.4	Section 4.4.4	Assessment methodology.	The ES should set out the criteria by which the assessment will determine whether the effects associated with climate change impacts are significant or not significant, and a conclusion on this should be reported in the ES.

## 6.4 Accidents and disasters

(Scoping Report Aspect 4.5)

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
6.4.1	Section 4.5	Major accidents and disasters.	<p>The Scoping Report states that a standalone assessment of major accidents and disasters is proposed to be scoped out of the ES on the basis that likely significant effects arising from this aspect associated with coastal erosion and flood risk, accidental spills of hazardous material, vessel collision and exposed cables leading to vessel snagging will be considered within the relevant aspect chapters.</p> <p>The Applicant states that a review of potential for major accidents and disasters has been undertaken and no other likely significant effects have been identified; however, the outcome of this review is not included within the Scoping Report.</p> <p>The Inspectorate does not consider that sufficient information has been presented within the Scoping Report to conclude that there would be no likely significant effects from other potential major accidents and disasters, both in respect of the vulnerability of the Proposed Development to these or for the Proposed Development to cause them.</p> <p>The results of the review exercise completed by the Applicant should be presented in the ES. This should include a description of the sources of hazards and pathways that have been considered as part of the review process and why these have been discounted. Where likely significant effects are identified, these should be assessed in the ES.</p> <p>In this regard, the Inspectorate notes that there is potential for wartime UXO to be located within the offshore scoping area and no information has been presented about their locations and potential for</p>

ID	Ref	Applicant's proposed aspect to scope out	Inspectorate's comments
			<p>accidental detonation and associated impacts that could lead to a major accident or disaster.</p> <p>In addition, the potential for cumulative effects arising from major accidents and disasters in terms of inter relationships with other aspects of the Proposed Development and other projects should be considered, and where significant effects are likely to occur, these should be assessed within the ES.</p>

## 7. INFORMATION SOURCES

7.1.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:

- Pre-application prospectus<sup>5</sup>
- Planning Inspectorate advice notes<sup>6</sup>:
  - Advice Note Three: EIA Notification and Consultation;
  - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
  - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
  - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
  - Advice Note Nine: Using the 'Rochdale Envelope';
  - Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
  - Advice Note Twelve: Transboundary Impacts;
  - Advice Note Seventeen: Cumulative Effects Assessment; and
  - Advice Note Eighteen: The Water Framework Directive.

7.1.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

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<sup>5</sup> The Planning Inspectorate's pre-application services for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

<sup>6</sup> The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>



## APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

**TABLE A1: PRESCRIBED CONSULTATION BODIES<sup>7</sup>**

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS North East Essex Clinical Commissioning Group
Natural England	Natural England
Natural England (Offshore Wind Farms)	Natural England (Offshore Wind Farms)
The Historic Buildings and Monuments Commission for England	Historic England
The Historic Buildings and Monuments Commission for England (OFFSHORE ONLY)	Historic England
The relevant fire and rescue authority	Essex County Fire and Rescue Service
The relevant police and crime commissioner	Essex Police, Fire and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Thorpe-le-Soken
	Great Oakley
	Great Bentley
	Little Clacton
	Elmstead
	Great Bromley
	Ardleigh
	Mistley

<sup>7</sup> Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
	Lawford
	Tendring
	Beaumont-cum-Moze
	Bradfield
	Wix
	Frating
	Weeley
	Little Bentley
	Little Bromley
	Frinton and Walton
	St. Osyth
The Environment Agency	The Environment Agency
The Joint Nature Conservation Committee	Joint Nature Conservation Committee
The Maritime and Coastguard Agency	Maritime & Coastguard Agency
The Maritime and Coastguard Agency - Regional Office	The Maritime and Coastguard Agency - Colchester
The Marine Management Organisation	Marine Management Organisation (MMO)
The Civil Aviation Authority	Civil Aviation Authority
The relevant strategic highways company	Highways England
Trinity House	Trinity House
Public Health England, an executive agency of the Department of Health	Public Health England
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	The Forestry Commission - East and East Midlands

<b>SCHEDULE 1 DESCRIPTION</b>	<b>ORGANISATION</b>
The Secretary of State for Defence	Ministry of Defence

**TABLE A2: RELEVANT STATUTORY UNDERTAKERS<sup>8</sup>**

<b>STATUTORY UNDERTAKER</b>	<b>ORGANISATION</b>
The relevant Clinical Commissioning Group	NHS North East Essex Clinical Commissioning Group
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	East of England Ambulance Service NHS Trust
Railways	Network Rail Infrastructure Ltd
Railways	Highways England Historical Railways Estate
Lighthouse	Trinity House
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
The relevant water and sewage undertaker	Affinity Water
The relevant water and sewage undertaker	Anglian Water
The relevant public gas transporter	Cadent Gas Limited
	Last Mile Gas Ltd

<sup>8</sup> '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
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited
	Harlaxton Gas Networks Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Leep Gas Networks Limited
	Murphy Gas Networks limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
The relevant electricity generator with CPO Powers	Greater Gabbard Offshore Winds Limited
	Gallopier Wind Farm Limited
	Five Esutaries Offshore Windfarm Limited
The relevant electricity distributor with CPO Powers	Eclipse Power Network Limited
	Last Mile Electricity Ltd
	Energy Assets Networks Limited
	ESP Electricity Limited
	Forbury Assets Limited
	Fulcrum Electricity Assets Limited

STATUTORY UNDERTAKER	ORGANISATION
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Indigo Power Limited
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
	Eastern Power Networks Plc
	UK Power Networks Limited
The relevant electricity transmitter with CPO Powers	Diamond Transmission Partners Galloper Limited
	Greater Gabbard OFTO Plc
	National Grid Electricity Transmission Plc
	TC Gunfleet Sands OFTO Ltd
The relevant electricity interconnector with CPO Powers	BritNed Development Limited
	NeuConnect Britain Ltd

**TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))<sup>9</sup>**

LOCAL AUTHORITY <sup>10</sup>
Tendring District Council
Essex County Council

<sup>9</sup> Sections 43 and 42(B) of the PA2008

<sup>10</sup> As defined in Section 43(3) of the PA2008

<b>LOCAL AUTHORITY<sup>10</sup></b>
Colchester Borough Council
Babergh District Council
Medway Council
Southend-on-Sea Borough Council
Thurrock Council
London Borough of Havering
London Borough of Enfield
London Borough of Waltham Forest
London Borough of Redbridge
Hertfordshire County Council
Suffolk County Council
Cambridgeshire County Council

**TABLE A4: NON-PRESCRIBED CONSULTATION BODIES**

<b>ORGANISATION</b>
Royal National Lifeboat Institution
Maldon District Council
Rochford District Council
East Suffolk District Council

## APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Affinity Water
Anglian Water
Colchester Borough Council
East of England Ambulance Service Trust (submitted as part of a response made by North East Essex Clinical Commissioning Group)
East Suffolk Council
Environment Agency
Essex County Council (joint response with Tendring District Council)
Forestry Commission
Health and Safety Executive
Historic England
Joint Nature Conservation Committee
Little Bromley Parish Council
London Borough of Havering
London Borough of Waltham Forest
Maldon District Council
Marine Management Organisation (comprising two responses)
Maritime and Coastguard Agency
Medway Council
Ministry of Defence
Natural England
NHS England – East of England (submitted as part of a response made by North East Essex Clinical Commissioning Group)

<b>CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:</b>
Network Rail
North East Essex Clinical Commissioning Group
Public Health England
St Osyth Parish Council
Suffolk County Council
Tendring District Council (joint response with Essex County Council)
Trinity House



**Feekins-Bate, Laura**

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**From:** Kenyon, James [REDACTED]  
**Sent:** 29 July 2021 10:26  
**To:** North Falls  
**Subject:** EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation  
**Attachments:** EN010119 - Statutory Consultation Letter.pdf

Dear Sir/Madam,

Thank you for the opportunity to comment on the Planning Inspectorate's Scoping Opinion for the above development.

At this stage in the process, Affinity Water has no comments.

Concerns will only be at the point of landfall and associated development in terms of connections to existing grid infrastructure; in those instances, Affinity Water will want to ensure there are no potential contamination issues.

Please send all future consultation for Affinity Water to [planning@affinitywater.co.uk](mailto:planning@affinitywater.co.uk) and [ASTdata@affinitywater.co.uk](mailto:ASTdata@affinitywater.co.uk).

Yours faithfully,

**James Kenyon**  
Senior Asset Scientist (Planning)  
Environmental Policy and Strategies Team  
Asset Strategy and Capital Delivery Directorate

---

Affinity Water Ltd  
Tamblin Way, Hatfield, Herts, AL10 9EZ  
[REDACTED]

**Affinity Water**

[www.affinitywater.co.uk](http://www.affinitywater.co.uk)



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to save precious  
chalk streams by  
wasting less water.



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**Anglian Water Services**

Thorpe Wood House  
Thorpe Wood  
Peterborough  
PE3 6WT

Laura Feekins-Bate  
EIA Advisor  
Environmental Services  
The Planning Inspectorate

www.anglianwater.co.uk  
Our ref ScpR.NF.NSIP.21.ds

NorthFalls@planninginspectorate.gov.uk

12 August 2021

Dear Laura

### **North Falls Offshore Wind Ltd Scoping consultation**

Thank you for the opportunity to comment on the scoping report for the above project. Anglian Water is the sewerage undertaker for the land identified as the Onshore Scoping Area (page 31) for the grid connection and related development. Anglian Water is also the water supply undertaker for the north west corner of the Onshore Scoping Area immediately to the east of Colchester. The response is submitted on behalf of Anglian Water in its statutory capacity.

#### Engagement, the draft DCO Order and assisting the applicant

Anglian Water would welcome further discussions with North Falls prior to the route and design fix for the onshore infrastructure and to assist the applicant before the submission of the Draft DCO for examination. We would recommend discussion on the following issues:

- The Draft DCO Order including protective provisions specifically to ensure Anglian Water's services are maintained during construction
- Requirement for wastewater services
- Impact of development on Anglian Water's assets and the need for mitigation
- Pre-construction surveys

#### 1 Introduction

There are a significant number of existing Anglian Water assets including rising mains and sewers across the area and Anglian Water mains to the east of Colchester. Anglian Water works with developers including those constructing projects under the 2008 Planning Act to ensure requests for alteration of sewers, wastewater and water supply infrastructure is planned to be undertaken with the minimum of disruption to the project and customers.

Works are conducted in accordance with the Water Industry Act 1991. The location and design of the onshore infrastructure should be refined by the

Registered Office  
Anglian Water Services Ltd  
Lancaster House, Lancaster Way,  
Ermine Business Park,  
Huntingdon,  
Cambridgeshire. PE29 6XU  
Registered in England

applicant and will need to be defined with the assistance of Anglian Water. We welcome that Anglian Water (Table 1.4 ) will be invited to attend relevant Expert Topic Groups and would suggest this would be the Onshore Water Resources and Flood Risk group. We would expect that the Environmental Statement would include reference to existing sewerage infrastructure managed by Anglian Water and, if necessary, water supply infrastructure near Colchester. Maps of Anglian Water's assets are available to view at the following address:

<http://www.digdat.co.uk/>

### 3 Onshore

We note that the Scoping Report identifies the potential impacts from construction (para 424 et al) including excavation activities as well the potential pathways for contamination. At para 491 the Report summaries the position for utilities and that no detailed data has been sought. No reference is made to sewage or water supply data and so we would urge the applicant to consider the impact on utilities early in cable route and design work to minimise impacts and to reduce to a minimum the carbon cost of diversions.

No reference is made to the need for upgraded and additional sewerage infrastructure or water supply for construction or operation. It is recommended that the Environmental Statement should include reference to identified impacts on the sewerage network and sewage treatment.

We note that (Table 3.7) the LLFA and EA datasets will be used for considering flood risk and would recommend that Anglian Water's flood records are also referenced. In the first instance Anglian Water recommends the use of Sustainable Drainage Systems (SuDS) for the onshore works to remove the risks of surface water inundation and pollution arising from surface water connections to the public sewer network. Anglian Water is responsible for management of the risks of flooding from surface water which are directed to foul water or combined water sewer systems. The risk of sewer flooding and any required mitigation within the public sewerage network should form part of a Flood Risk Assessment and Surface Water & Foul drainage strategy.

Yours sincerely,



Darl Sweetland MRTPI  
Spatial Planning Manager



## Feekins-Bate, Laura

---

**From:** Simon Cairns [REDACTED]  
**Sent:** 16 August 2021 12:14  
**To:** North Falls  
**Cc:** Karen Syrett; Catherine Bailey; Adam John; Laura Chase  
**Subject:** Scoping Opinion North Falls Offshore Wind EN010119-000019

Dear Sirs

Thank you for providing Colchester Borough with the opportunity to comment on the scoping opinion for the above DCO NSIP Project. Whilst the project does not relate directly to any land within the administrative area of the Borough, we have some concerns regarding the related grid connection and onshore substation. Part One of our recently adopted Local Plan 2017-2033 makes provision for a new garden community – at policy SP8 Colchester/Tendring Borders Garden Community. The Onshore Scoping Area (Figure 1.4) relates to the area of this planned new community. Whilst we note that the scoping opinion seeks to detach consideration of this related and essential infrastructure from the Project Scoping (Para.24 -1.5.3.20) and refers the grid connection and the onshore substation are a matter for National Grid and outside the scope of the project. Nevertheless, we have concerns to ensure that the deliverability and environmental quality of the planned community are not prejudiced by the delivery of the essential onshore grid connection and substation and consequently seek to ensure that National Grid have regard to this matter in their future search for suitable locations to the grid.

We trust that this matter will be taken into consideration as part of the project design to avoid any future conflict arising.

Yours sincerely

Simon Cairns

**Simon Cairns ~ Development Manager ~ Place & Client Services ~ Colchester Borough Council**

[REDACTED] ~ Textphone users dial 18001 followed by the full number.

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The Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol,  
BS1 6PN

Date: 16 August 2021  
Your Reference: EN010119-000019  
Our Ref: North Falls Scoping Report Response  
Enquiries to: Naomi Gould

Email: [REDACTED]

[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)

Dear Marnie Woods,

**Planning Act 2008 and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 – Regulation 10.**

**Application by North Falls Offshore Wind Ltd (the Applicant) for an Order Granting Development Consent for North Falls Offshore Wind Farm.**

**Response from East Suffolk Council to the Scoping Report submitted to the Secretary of State.**

Thank you for the opportunity to comment on the North Falls Offshore Wind Farm Scoping Report dated 16 July 2021. Although this response is from East Suffolk Council the comments have been drafted in consultation with Suffolk County Council who will be sending a separate response.

East Suffolk Council is not a host authority or a direct neighbouring authority of the onshore scoping area. The offshore array areas will however be visible from the Suffolk coastline and designated Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and therefore we wish to provide comments in relation to the Seascape, Landscape and Visual Impacts of the project.

### **Proposed Methodology**

It is noted that further discussion on viewpoints and methodologies between the Applicant, Natural England and local authorities are proposed at paragraph 738. This is a welcome offer, and we look forward to ongoing engagement.

### **Baseline information**

The baseline information set out in the Scoping Report is not comprehensive particularly in relation to the Suffolk Coast and AONB, therefore the following documents are brought to the attention of both the Applicant and Inspectorate.

- Suffolk Seascape Character Assessment <https://suffolklandscape.org.uk/landscape-typology/seascape-typology/>
- Natural Beauty and Special Qualities of the Suffolk Coast and Heaths AONB <https://www.eastsuffolk.gov.uk/planning/national-infrastructure-and-energy-projects/sizewell-nuclear-power-station/aonb-special-qualities-document/>
- Designation History Series <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010078/EN010078-004113-SCC%20The%20Designation%20History%20of%20the%20Suffolk%20Coast%20and%20Heaths%20AONB%2020221.pdf>
- Development in the setting of the Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) <https://www.suffolkcoastandheaths.org/wp-content/uploads/2021/01/ENDORSED-SCH-AONB-Position-Statement-on-Development-in-Setting-of-AONB-2015.pdf>

### **Viewpoint types required** (Ref: GLIVIA 3 paragraph 6.19)

In addition to representative viewpoints, it is expected that *illustrative viewpoints* will also be required as the purpose of Seascape, Landscape and Visual Impact Assessment (SLVIA) is not only to provide technical analysis of the potential impacts but also to ensure the public and Interested Parties have a proper understanding of those likely effects.

*Specific Viewpoints* may also be required to deal with some locations effectively, such as coastal heritage assets including Landguard Fort and Bawdsey Manor for example, and we would suggest discussions with relevant cultural heritage consultees including Historic England to explore these issues.

### **Proposed viewpoint selection**

Whilst the viewpoints proposed are broadly acceptable it would be appropriate to add to these, with appropriate illustrative and specific viewpoints such as an illustrative viewpoint at the end of Southwold Pier in addition to a representative viewpoint on Gun Hill Southwold for example. Likewise, viewpoints from [Dunwich Coastguard Cottages](#), Sizewell Beach, cliffs above Thorpeness and [Felixstowe seafront gardens](#) are also considered relevant for inclusion. Furthermore, specific viewpoints in relation to both [Bawdsey Manor](#) and [Landguard Fort](#) would also be appropriate given their heritage status, although we defer to Historic England to provide further advice on these matters.



In addition, a representative viewpoint further north at Covehithe should also be considered to understand the potential curtaining effects, and to properly inform consideration of cumulative impacts and their implications for the Suffolk Coast and Heaths AONB.

In addition, we would like to agree:

### **Approach to viewpoint photography including timing**

The Applicant should note that the turbines are likely to be at their most visible in the evening as they will be illuminated by the setting sun in the west, and views will, subject to weather conditions, be widely available from coastal locations both on the shore and from elevated locations back from the beach or cliffs. Therefore, it is requested that baseline photography is taken late in the afternoon where possible, particularly from the most well used resort based public viewpoints, in order to capture these effects.

### **Assessment of sequential impacts on the Suffolk/England Coast Path**

As part of the SLVIA the Applicant should also consider sequential visual effects on users of the Suffolk/England Coast Path. Furthermore, we note that the accumulation of multiple non-significant visual effects along such a route *may* when taken together be of significance. This assessment will also need to consider the cumulative and in-combination sequential visual effects with other projects and proposals.

### **Representation and assessment of Night-time lighting effects**

In the absence of more detailed proposals regarding the mitigation of night-time lighting effects it is suggested that these should be assessed on a reasonable worst-case basis. In addition, the agreed viewpoints should also be photographed at night and likely visual impacts illustrated as has been undertaken for other projects on the Suffolk coast.

### **Approach to consideration of visibility of the turbines**

The seasonality of adverse impacts and the concentration of highest visibility days in certain period of the year, some of which coincide with peak visitor period, should also be a consideration and we refer the Applicant to the following published material, as a guide to carrying out their own research and gathering baseline information.

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-001586-6.3.28.8%20EA2%20ES%20Appendix%2028.8%20Offshore%20Windfarm%20Visibility.pdf>

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-001587->

### **Assessment of the of the proposals on the Natural Beauty and Special Qualities of the AONB**

In addition to the assessment of landscape and visual effects, the SLVIA will need to include additional analysis of the [Natural Beauty and Special Qualities](#) of the AONB, as these are how the purposes of designation, that is, the objective to “Conserve and Enhance Natural Beauty”, are expressed.

### **Consideration of potential risks to the S82 purposes of designation of the AONB**

Given the size and location of the proposed turbines in relation to the Suffolk Coast and Heaths AONB, it is considered that the Statutory Purposes of the designation may be put at risk by this development, both from its impacts alone and cumulatively with other developments. Therefore, it is considered that the effects of the development on statutory purposes are likely to be a key consideration for Statutory Consultees, Interested Parties, and the Secretary of State. Natural England will be able to provide further guidance on this issue as the advisory body to Government on protected landscapes, and we defer to their expertise in this matter. See <https://www.legislation.gov.uk/ukpga/2000/37/section/82>

### **Assessment of cumulative landscape and visual effects, including curtaining**

Particularly in views from the northwest, it is anticipated that the proposal will contribute both alone and in combination with others to a curtaining of the horizon when viewed from the Suffolk Coast and Heaths AONB. The Applicant will need to carefully consider the extent and significance of these effects, and their implications for both the Natural Beauty of the AONB and the purposes of designation. In this respect we are concerned that the East Anglia One North turbine array is proposed to be scoped out of such an assessment. We propose that it should be scoped back in.

### **Scoping out of construction impacts**

Paragraph 723 seeks to scope out the impacts of construction, however whilst the impacts will not exceed the operation effects in terms of magnitude, they will both extend the duration of these effects and potentially interact with constructing projects both offshore and on the coast, (at Sizewell C for example) generating adverse effects that should be understood and evaluated. In this respect the inclusion of two beach landing facilities during the Sizewell C construction phase strongly indicate that the Sizewell C development should be included in cumulative assessments.

### **Study Area**

We consider that the proposed study area should be extended to 60km radius from the array site to allow for the consideration of turbines of up to 398m in height to blade tip.

## **Conclusion**

East Suffolk Council's comments in relation to the seascape, landscape and visual section of the Scoping Report have been outlined above. It is considered that further work is required to address these matters to ensure that the environmental statement associated with the North Falls Development Consent Order is robust.

Yours sincerely,

Naomi Goold  
Principal Energy Projects Officer

Ms. Marnie Woods – Senior EIA and  
Lands Rights Advisor  
Environmental Services  
The Planning Inspectorate

**Our ref:** AE/2021/126345/01  
**Your ref:** EN010119

**Date:** 16 August 2021

Via email only:

[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)

Dear Ms. Woods

**PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING  
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA  
REGULATIONS) – REGULATIONS 10 AND 11 – SCOPING CONSULTATION**

**APPLICATION BY NORTH FALLS OFFSHORE WIND LTD (THE APPLICANT) FOR  
AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE NORTH FALLS  
OFFSHORE WIND FARM (THE PROPOSED DEVELOPMENT)**

Thank you for consulting us on the Environmental Scoping Report associated with this scheme (document reference: 004027770-04; dated 16/07/21). We have reviewed the submitted document and have the following comments to make:

**3.1 Ground Conditions and Contamination**

We are pleased to see that the report has scoped in Ground Conditions and Contamination. We agree with the proposals to establish baseline conditions and undertake a PRA. This will assist in determining the need for intrusive investigation and subsequently, remediation.

**3.3 Water Resources & Flood Risk**

**Water Resources**

Overall we are satisfied that potential impacts in terms of groundwater resources have been properly scoped in, with the exception of the potential for saline intrusion with HDD at the landfall, and of overtly noting the potential for localised changes to groundwater flow in terms of barriers e.g. excavations proximal to shallow groundwater abstractions. We also ask that Local Wildlife Sites are included within the EIA – details of these will be available from Essex Wildlife Trust. Once the cable corridor has been identified we suggest that the applicant should undertake a water features survey to identify all surface and groundwater features and abstractions. The EIA should include indicative cable trench depths.

**East Anglia area (East) - Icen House**

Cobham Road, Ipswich, Suffolk, IP3 9JD

General Enquiries: 08708 506506 Fax: 01473 724205

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Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

Website: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

The scoping report has identified all the WFD surface water and groundwater bodies within the area and has stated that a WFD Compliance Assessment will be completed for all appropriate phases of the project. Therefore, we feel that the scoping report's approach to WFD is acceptable at this stage.

### **Flood Risk**

The Applicant should consider adding our modelled data to the baseline data. There does not appear to be any real consideration of flood risk or assessment of climate change in this document and so more detail regarding this issue is required. The onshore aspects of the report should consider flood risk and the requirement for environmental (flood risk activity) permits. Section 411 confirms multiple main rivers in the site boundary – (Holland Brook, Sixpenny Brook, Weeley Brook, Tendering Brook, Bentley Brook, and Bromley Brook).

Guidance for requirement for Flood risk Permits (EPR) –

<https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>

Fluvial climate change has updated from July 2021, updated guidance

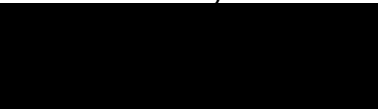
<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

### **3.5 Onshore Ecology**

Generally the issues appear to be adequately addressed but we have concerns regarding the recording of wildlife sites and the use of HDD. Amongst the habitats which require consideration, Local Wildlife Sites stand out as a current omission however, we understand that these are to be considered at the next stage which we look forward to seeing. Horizontal Direct Drilling is referred to: whilst this can help to avoid sensitive surface features, there remains some serious concern about this approach. There have been serious, recent incidents where bentonite breakout from HDD operations have resulted in long term habitat contamination issues on two SSSIs and SPAs in East Anglia. Although inert, bentonite is considered a pollutant due to its ability to smother sensitive receptors such as intertidal feeding areas and such incidents cannot be allowed to happen again. The Environment Agency will seek assurances that method, geology and best practice will all be investigated, evaluated and mitigated at an early stage to ensure that such a pollution event is safeguarded against for this project. We are raising this issue at an early stage to ensure that all potential problems are raised and eliminated. The Environment Agency can provide more information concerning some preferred safeguards in due course.

We trust that this advice is useful.

Yours sincerely



**Barbara Moss-Taylor**  
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16 August 2021

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Dear Marnie Woods

**Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11 Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

Thank you for consulting Essex County Council (ECC) on North Falls Offshore Wind Ltd (The Applicant) request for a Scoping Opinion on this proposal. The Council is happy to be given the opportunity to respond. This response is predicated by the fact that the Council are at this time continuing to deal with the current national pandemic which is resulting in stretched resources and time pressures which makes a response within the as set 4 weeks hugely problematic. It is also correct that the timing of the consultation comes at a time when many are taking their summer holidays, with schools being closed, and staff take the opportunity to take a break with Covid restrictions easing.

Due to this, the response is as comprehensive as possible at this time, but it hasn't been possible to secure engagement with some internal stakeholders, most notably our Health and Wellbeing Team who have other pressing priorities at this time. In future engagement with the applicants such topics will need to be discussed and taken into account as the scheme develops prior to formal DCO submission.

ECC, and its internal stakeholders, have been involved in a series of meetings with the applicant during 2020, with a number of additional meetings programmed moving forwards on a variety of topics. The Council looks forward to future engagement on this complex and challenging project.

It is also correct to note that ECC is working in partnership with Tendring District Council on this project, this response should be considered as the Joint Response on behalf of both Authorities.

The overview of the proposal is set out within the Scoping Report. North Falls Offshore Windfarm (NF) proposes a new offshore windfarm to extend the Greater Gabbard Wind Farm off the Tendring coast, and connect the same to a landfall, somewhere on the Tendring Coast between the towns of Holland on Sea and Frinton, with associated on shore infrastructure including a new substation, compounds etc, as well as a buried connection to the National Grid as a point which is not known at this time.

It is noted that for on shore infrastructure, the development is not fixed at this time and relies on the as quoted “Rochdale Envelope” as set out in Advice Note 9. However, and for the purpose of this Scoping Submission, the area to be covered by this envelope is set at over 150 square kilometres (ref Scoping Report para 43, and figure 1.4). It is firstly questioned as to whether this can correctly be considered as falling within this so-called envelope due to its significant size, and secondly makes the effects of the development hugely difficult to predict in anything other than general terms. ECC is told this will focus down to a proposed landfall and connection point early in 2021 however, and dependant on the same, it may be necessary to re-Scope the development and consider its true impacts relevant to specific proposals again.

Alternatively it is considered reasonable to say that as the impact of the development are not known it is impossible to scope out any topic at this particular time. This is the view of the Joint Councils at this time.

The approach set out in the Environmental Statement is generally satisfactory and we are pleased that it reflects the nature of, and progress in, discussions the Councils have had with the NF Team on the undertaking of assessments to date. It is noted however that a number of key topics, not least as they relate to the statutory function of ECC including Highways and Transportation, and Economy and Skills have not been the subject of prior engagement. For example ECC does not know how many vehicles will be needed to implement the proposal, what routes will be taken across what is essentially a restricted rural highway network to the coast. Hence it has meant it is difficult to consider the true impacts of the scheme across the board and to consider matters which have to be implemented to ensure the scheme can be delivered affectively, and any adverse impact can be mitigated .

In addition, and at this time, we draw particular attention to the following matters:

- Further discussions are required with North Falls (NF) in describing the true magnitude of impacts, in particular the spatial extent and duration of effect that are used to derive the corresponding magnitude. As currently described, the Environmental Statement (ES) is likely to underreport and underestimate

potential localised impacts of significant duration. A better acknowledgement of the longevity, route and impacts of the temporary construction period and the development in general is required.

- ECC is concerned that the details as to the as proposed landfall are vague at this time, as are the details of where the as generated electricity will enter the grid. Both could have a significant impact on the proposals, alternatives cannot be scoped out of the process at an early stage, without a full appreciation of the effects of NF which are considered underdeveloped at this time.
- The ES should clearly articulate the cumulative effects of all individual elements of the project as many receptors will be impacted by the development. This needs to be fully acknowledged. It isn't at this time as the impacts are not precise.
- As the submitted SR indicates, additional studies and data collection remain necessary from a wide variety of topics to inform and supplement the eventual EIA submission and it is anticipated that the development proposals will be refined and change as a result. For example, there is scant detail on the highways implications of this development both on its own and in combination with other proposals which will be taking place at the same time. ECC look forward to engaging with other Authority partners and the applicants on this.

It is noted that the offshore elements of this proposal appear well developed and researched, however concern is raised that the on shore implications are vague and un-proven at this time, as the submission itself does acknowledge.

It is also correct that the submission makes reference to a sperate proposal, this being the Five Estuaries Wind Farm which will similarly extend the Greater Gabbard Wind Farm and is proposed at on or around the same time as the NF proposals. It is noted that the proposals will come forward with some co-operation between the proposing companies. However the NF proposals have to be considered in combination with others, and without these within the current Scoping submission such effects cannot be properly considered.

It is noted that the National Policy Statement (NPS) EN-3 allows for working within a non prescriptive design envelope, but with the Scoping Opinion as submitted is similarly vague as to the nature of the development as will be proposed, hence it is difficult to consider what the true impacts of the DCO will be. Certain impacts may be more or less relevant dependant on specific locations, so what topics are to be scoped and out, are similarly difficult to predict.



It is correct that stakeholder engagement has taken place prior to this submission to introduce the proposal and to set broad parameters for the project which has been welcomed. However, further discussions are necessary on a variety of important topics including, but not limited to, highways and transportation, socio economic impacts, community benefits, health and wellbeing, impacts on tourism and leisure for example. A stakeholder engagement plan is however in place, something which is welcomed by the Joint Council's.

Specific comment is raised on the following topics which are material planning considerations.

## **Contents**

1. Climate Change.....	5
2. Ecology .....	6
3. Landscape.....	9
4. Green Infrastructure .....	11
5. Coastal Processes. ....	14
6. Minerals and Waste.....	16
7. Socio Economics.....	24
8. Flooding, Water Management .....	26
9. Highways and Transportation.....	26
10. Tourism.....	29
11. Archaeology.....	30
12. Built Heritage .....	31
Appendix One. Additional Minerals and Waste Matters .....	33
Appendix Two – Location of Mineral Safeguarding Areas in Relation to the Project Area .....	42
Appendix Three – Schedule of Safeguarding Designations and Safeguarded Minerals and Waste Infrastructure relevant to the Project Area .....	44

## 1. Climate Change

- 1.1** It is noted that updates to the EIA Regs in 2017 state this this important topic requires consideration, within Schedule 4 of the same it states at para 5 that: *A description of the likely significant effects of the development on the environment resulting from, inter alia .... (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change.* It is also backed up by case law which states this is now a consideration for NSIPs.
- 1.2** It is correct that the development of the magnitude as proposed would be subject to a number of factors in relation to climate change going forward, providing post construction a low carbon energy source to fall in with Government guidance to promote the same. It is also considered necessary that the development itself must show how it can achieve zero carbon during its lifetime from construction to implementation and contribute to net carbon gain.
- 1.3** Measures to avoid, prevent, mitigate and to seek to offset carbon impact must be ensured, including the adaption to its effects, such as protecting communities from water shortages, flooding and heatwaves.
- 1.4** The Essex Climate Action Commission was set up and a series of Special Interest Groups (SIG) advise the Council about tackling climate change.
- 1.5** The commission has over 30 members over a wide range of senior professionals, local councillors, academics, business's, people and 2 members of the Young Essex Assembly. The commission will run for 2 years initially and make recommendations about how we can improve the environment and the economy of Essex.
- 1.6** The findings of the commission will not be published until Q3 2020 but the applicant should have knowledge of this initiative, their values and objectives and the implications for the future aspirations of the development.
- 1.7** Mitigation against the climate change impacts of the development will be brought through a range of issues that will need to be considered in the EIA, including, but not limited to transportation (electric vehicles and charging points, use of public transport, car sharing, sustainable low carbon traffic modes etc) the built environment, green infrastructure (planting, Sustainable Urban Drainage, greenhouse gas emissions, air quality etc).

- 1.8** The submitted ES should include a description and assessment (where relevant) of the likely significant effects the Proposed Development has on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project during its construction phase, to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.
- 1.9** It is noted and recognised in part 4.4 of the submission that the applicants propose to include climate change as an important topic in their eventual EA. This is hugely welcomed and will be to the benefit of the scheme and its final consideration. The information and initiatives within this chapter are significant, the joint council's look forward to discussion this topic further with the applicants in the forthcoming schedule of stakeholder engagement.

## 2. Ecology

- 2.1** The Joint Councils have reviewed the onshore ecology and ornithology chapters of the EIA scoping report (SSE/RWE, July 2021) as well as 1.9.4.1.1 HRA in relation to onshore HRA screening scheduled for 2022.
- 2.2** In accordance with Regulation 14 of the EIA Regulations, the ES should provide a statement about the relevant expertise or qualifications of the competent experts involved in its preparation.
- 2.3** In addition to the EIA report, it will be necessary to provide sufficient information on non-significant impacts on protected and Priority species and habitats. This information should be included in the EIA submission as a specific chapter or attached as a separate document. This is necessary in order that the LPAs and the SoS have certainty of all likely impacts, not just significant ones, and can issue a lawful decision with any mitigation and compensation measures needed to make the development acceptable.
- 2.4** As for any proposal, a planning application will need to be supported by adequate ecological surveys and assessments to enable the SoS to determine any application submitted in line with national and local policy and its statutory duties. This will include likely impacts on designated sites (international, national and local), Protected species and Priority habitats and species - not just significant ones.

**2.5** Ecological assessments should take data search records & survey information and use professional judgement to come to reasoned conclusions as to the likelihood of species being present and affected by the proposed development. All surveys must be undertaken by suitably qualified ecologists at the appropriate time of year, using standard methodologies.

**2.6** Effective and robust measures, in line with the mitigation hierarchy, must also be proposed which have a high degree of certainty for their deliverability in the long term. If there are residual impacts, these will need to be compensated for on site or offsite with long term management secured, and appropriate enhancements included to ensure measurable Biodiversity Net Gain from development.

**2.7 Section Specific Comments:**

The following table provides more specific comments by section:

Section	Comment
Tables 3.13 & 3.16	We welcome the addition of Essex Field Club as a data source in Table 3.13 for records of protected, notable and invasive non-native species as recommended at the Onshore Ecology Expert Topic Group meeting on 6 July. However, this data source still needs to be added to Table 3.16 for ornithological datasets.
Table 3.14 and 3.5.3.1.4 Para 527	<p>We note that proposed surveys for Hazel Dormice will still be restricted to <i>“all suitable woodland habitats that may be affected by the project”</i> despite highlighting that a small population of these European Protected Species was found to be present in non-woodland habitat (on the embankment to the south of the existing A120 and the population was considered to be of value at a County level. This is a live application with ECC (CC/TEN/31/21) within the onshore scoping area. We therefore recommend that the details for the Phase 2 ecology surveys scheduled for 2022 are amended to include <b>all suitable habitats</b> that may be affected by the project. The timing for these surveys is also critical as East Anglian Dormice have been found to breed later in the year so optimal survey window is later and this change in methodology is to be published soon (pers comm, Essex &amp; Suffolk Dormouse Group).</p> <p>We welcome the inclusion of Hazel Dormice to the list of species of key concern for the onshore EIA of this NSIP.</p> <p>Please note that any section relating to badgers should be clearly marked on the front cover as confidential due to its sensitive information so that it will not be widely available. If this information is contained within the ES ecology</p>

Section	Comment
	<p>chapter, the above requirements applies so that the sensitive section can be redacted before it goes into the public domain.</p>
<p>3.5.4 paras 539 and 541</p>	<p>We highlight that Defra Biodiversity Metric v 3.0 (2021) is now available so should be used for the Biodiversity Net Gain (BNG) calculations instead of v 2.0.</p> <p>We welcome the statement that BNG assessment will be appended to the Onshore Ecology ES chapter. We recommend that this report demonstrates the baseline assessment and details of losses and compensatory habitat as well as biodiversity enhancements to demonstrate net gain of habitats.</p> <p>As there is no Local Nature Recovery Network for Essex as yet, we would support improving the condition of existing Priority habitat as enhancements particularly in relation to losses from the cable landfall and onshore substation.</p> <p>We also expect this report to include details of enhancements for relevant species on the site and any need for off-site habitat provision and its long term management and monitoring. Full Metric calculations should also be provided.</p> <p>We recommend that the applicant thoroughly explores all reasonable options to deliver additionality for the measurable BNG to restore biodiversity networks &amp; their ecological functionality and also provide enhancements for Priority species affected by the development. We look forward to the BNG report to be submitted which shows how these species will benefit from these new habitats created and enhanced.</p>
<p>Table 3.17</p>	<p>We would welcome early sight of the over-wintering bird surveys to inform the scope of the project level Report to Inform an Appropriate Assessment (Shadow HRA) in relation to any functionally linked land for the coastal SPA &amp; Ramsar sites particularly at Hamford Water.</p>
<p>1.5.2.2 and Table 1.4</p>	<p>Whilst we note that non-statutory designated sites have not been requested at this stage, we highlight that details of Local Geological Sites (LoGS) should be requested from GeoEssex for the onshore geology assessment in addition to onshore ecology chapter needing details of Local Wildlife Sites (LoWS). Please add GeoEssex to the list of stakeholders to be consulted and onshore geology added to the ES scope for assessment.</p>

### 3. Landscape

This report relates to the landscape matters within the EIA Scoping report for the North Falls Offshore Windfarm. It is recommended that the following comments are taken into consideration as the assessment develops:

#### 3.1 Guidance

The Scoping report makes reference to the third edition of "*Guidelines for Landscape and Visual Impact Assessment*" (GLVIA3) and LI Technical Guidance Note 06/19 '*Visual Representation of development proposals*' and draws on these along with Scottish Natural Heritage wind farm guidance.

#### 3.2 Methodology

In principle, we are generally satisfied with the methodology proposed. However, we ask that the detailed methodology is submitted for review as soon as possible. The key terms and values that should be defined include:

- Susceptibility and value – which contribute to sensitivity of the receptor;
- Scale, duration and extent - which contribute to the magnitude of effect; and
- Significance.

There is also an expectation that the assessment takes into consideration the Technical Guidance Note (TGN) 02-21 '*Assessing the Value of Landscapes Outside National Designations*' that has recently been published and builds on the details within GLVIA3 and the assessment of value (GLVIA3 Box 5.1). GLVIA3 recognises that landscape value is not always signified by designation: 'the fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value' (paragraph 5.26). This TGN provides further information on the subject matter and introduces additional factors that should be taken into consideration when assessing value.

The seascape and landscape character baseline should also be informed by the Landscape Character Assessment of the Essex Coast (2002), which is not referred to in *Para 4.1.2 Approach to data collection*.

#### 3.3 Viewpoint visualisation types

In addition to representative viewpoints, it is expected that illustrative viewpoints will also be required as the purpose of LVIA is not only to provide technical analysis of the potential impacts but also to ensure the public and Interested Parties have a proper understanding of those likely effects.

### **3.4 Proposed viewpoint selection**

Table 4.1 '*Initial proposed SLVIA assessment viewpoints*' makes reference to potential viewpoints, including Clacton-on-Sea pier. Whilst the viewpoints proposed are broadly acceptable it would be appropriate to add to these and include representative viewpoints from all settlements within the Tendring District area, as well as specific viewpoints from Walton Pier, Martello Tower and Naze Tower.

### **3.5 Approach to viewpoint photography**

The applicant should note that the turbines are likely to be at their most visible in the evening as the sun will be setting in the west. Views will, subject to weather conditions and the wind farm will be visible from coastal locations both on the shore and from elevated locations on the shoreline. Therefore, it is requested that baseline photography is taken late in the afternoon where possible, particularly from the most well used resort based public viewpoints, to capture these effects.

### **3.6 Assessment of sequential impacts on the England coast path**

The Jaywick to Harwich stretch of the England Coast Path was approved by the Secretary of State on the 7<sup>th</sup> July 2021. Work is now underway to prepare the new stretch of coast path for public use and therefore the LVIA should consider sequential visual effects on users of the England coast path along this stretch.

Furthermore, we draw note that the accumulation of non-significant visual effects along such a route *may* together be of significance. This assessment will also need to consider the cumulative and in-combination sequential visual effects with other projects and proposals.

### **3.7 Representation and assessment of Night-time lighting effects**

In the absence of more detailed proposals regarding the mitigation of night-time lighting effects it is suggested that these should be assessed on a reasonable worst-case basis. In addition, the agreed viewpoints should also be shot at night and likely visual impacts illustrated.

## 4. Green Infrastructure

**4.1.1** ECC currently provides advice on green infrastructure (GI) schemes for major developments. ECC have been a consultee on GI since the 2018. Although there are no statutory requirements for GI, the 25-Year Environment Plan and emerging Environment Bill will place significant importance on protecting and enhancing GI, accessibility and biodiversity net gain.

**4.1.2** In providing advice we look to ensure that adequate provision, protection and improvements of high-quality GI comply with the objectives and planning principles set out in the following documents:

- Tendring's Infrastructure Delivery Plan (2017), Tendring's Open Spaces Strategy (2008) and associated Infrastructure Delivery Plan, as well as Tendring's Local Development Plan policies regarding the Council's approach to green infrastructure provision in the local authority area.
- Essex Green Infrastructure Strategy, 2020 aims to enhance the urban and rural environment, through creating connected multi-functional GI that delivers multiple benefits to people and wildlife. It meets the Council's aspirations to improve GI and green spaces in our towns, cities and villages, especially close to areas of deprivation. This can be viewed here:  
<https://www.placeservices.co.uk/resources/built-environment/essex-gi-strategy/>

### **4.1.3 ECC GI position**

Having reviewed the Environment Impact Assessment Scoping report, we would advise the following recommendations are considered for enhancements to the scheme that would improve the GI network and help achieve net environmental gains.

## **4.2 Onshore GI Landscape Network**

**4.2.1** The Environment Impact Assessment (EIA) and Environment Statement (ES) will need to identify appropriate measures for avoiding or reducing significant adverse effects on the functionality of GI assets. It can also assist in identifying measures for compensating/off-setting unavoidable significant adverse effects on GI assets to protect the overall integrity of the surrounding and wider landscape scale GI network. Existing habitats,



green and blue features should be considered as GI (\*Essex GI Strategy, 2020, Chapter 8.5) and designed and managed correctly to improve the environmental benefits of the wider landscape.

- 4.2.2** It is recommended that the habitat survey mentioned on page 170 includes an audit of existing GI within the site boundary. The audit should include, existing GI assets, areas for improvement and opportunities to meet gaps in provision in response to local need.
- 4.2.3** The Essex and South Suffolk Shoreline Management Plan has noted that Holland Haven Marshes SSSI represents an outstanding example of a freshwater to brackish water transition and includes a number of nationally and locally scarce species. Holland Haven country park, situated on the flood plain of Holland Brook, is important both for conservation and recreational value. The reclaimed Holland Haven marshes are likely to contain well-preserved palaeoenvironmental deposits. Internationally important Palaeolithic remains are known to exist on the Clacton Cliffs and foreshore SSSI. There are also important links to be made between historic freshwater grazing marshes, for example, and the rare plants and animals they support. Finally, the historic environment makes an important economic contribution to the area, through tourism associated with heritage assets and historic landscapes.
- 4.2.4** The report mentions that there will be some habitat fragmentation and impact on local ecology (Section 3.5.3 pages 171-173) through the installation of cables and onshore substations. These impacts need to be minimised by mitigation measures and habitats or vegetation should be reinstated where appropriate. Any habitat enhancements, whether boundary hedgerow, field margin, grassland or wild flower meadow, grass strips, or woodlands all need to be connected to landscape wide GI network to prevent fragmentation and promote biodiversity migration. It is recommended that the Ecological Management Plan incorporates the mitigation measure for habitat/ GI removal, fragmentation and potential impact on protected designated sites (i.e., Holland Haven Marshes and Weeleyhall Wood SSSI's) to be identified in the EIA. There should also be the inclusion of a 'Landscaping and Screening Proposal' for the onshore substation that could result in a beneficial impact.

### **4.3 Onshore: Biodiversity**

- 4.3.1** It is welcomed that the 'EIA will include an assessment of biodiversity net gain, which will be appended to the Onshore Ecology ES chapter' (Para 5.41, Page 174). It is recommended that following the publication of the

EIA that a biodiversity enhancement plan (BEP) is developed. The purpose of the BEP is to lay out the specific objectives for biodiversity and the means by which these objectives will be achieved, including the protection of existing species and habitats (GI), the establishment of specific enhancements (including net gain), their maintenance and monitoring. Biodiversity enhancements should be selected to fit the physical attributes of the site and should tie in with existing habitats and species of value on and around the site. Furthermore, they should be compatible with the primary purpose of the site – to generate wind power (all be it mainly onshore substations and underground cables). If agricultural production is also planned for the site, biodiversity enhancements should aim to dovetail with these goals.

#### **4.4 Long-term GI Stewardship & mitigating measures**

**4.4.1** GI will require sustainable management and maintenance if it is to provide benefits and services in the long term. Documents such as the Construction Environmental Management Plan (CEMP), Landscape and Ecological Management Plan (LEMP) and Biodiversity Enhancement Plan will help ensure appropriate tasks, mitigating measures and methods are in place to:

- Protect the retained trees and hedgerows.
- Develop a schedule of advanced planting to create a landscape structure or evidence is shown that substantive GI is secured as early as possible in subsequent phases.
- Develop a landscape management and maintenance plan and work schedule for a minimum of 10 years including how management company services for the maintenance of GI assets and green spaces shall be funded and managed for the lifetime of the development.
- Address recommendations within the habitat and ecology survey to enhance the ecological value through the proposed development.
- Demonstrate measurable net gains for biodiversity, as outlined under paragraph 8[C], 153, 174[a][d] and 179 of the National Planning Policy Framework updated 2021.

**4.4.2** The inclusion of phased implementation within the CEMP of new GI and protecting of retained vegetation of the development during construction will allow for the GI to mature and it will provide the further benefit of reducing/buffering the aesthetic impact from the construction work. The LEMP will ensure appropriate management and maintenance arrangements and funding mechanisms are put in place to maintain high-quality value and benefits of the GI assets.

**4.4.3** The Biodiversity Enhancement Plan will provide opportunities for biodiversity and environmental net gains through the development, enhancing the current value of the site. This can contribute positively to reversing the long-term decline in biodiversity and enhance quality of life for people. Ultimately, the best Landscape/GI/ biodiversity plans will be those developed through engagement with the local community, the landowner and local and national conservation organisations.

**4.4.4** Although we recommend these are submitted early in the planning process, these documents can be conditioned or submitted at the reserved matters stage.

#### **4.5 End of life and site restoration**

**4.5.1** The EIA Scoping report mentions the potential decommissioning of the site and it should be capable of removal and reversible i.e., at the end of the life of the development, the land can be return to an appropriate after-use. Including removal of all panels, supporting infrastructure and other temporary structures onsite. However, it is important that any benefits created are maintained, this includes any gains in biodiversity, habitat creation, multifunctional green infrastructure assets, sustainable drainage features, improvement in land and soil quality, etc. We would welcome the EIA recommending the development of Restoration plans. These can provide significant opportunities for habitat creation, biodiversity, climate change mitigation, GI and blue infrastructure enhancements and can include elements of public access for recreation. Restoration plans will need to be identified at early stage of planning and regularly updated.

## **5. Coastal Processes.**

**5.1** In section 2.1.1.3 re Coastal Processes (para 150) it is surprising to find such little attention is paid to the Essex and South Suffolk Shoreline Management Plan (SMP). The preferred policy for this section of coast (Policy Development Zone C2 in the SMP) for Epoch 3 (2055 to 2015) is for Hold the Line / Managed Realignment meaning there is no certainty that this section of frontage will continue to be managed in the same way into the future. It should be noted that even for the earlier periods (present day to 2055) where the current preferred policy is for one of 'Hold The Line', this will only be possible if there is sufficient funding available to undertake the required works. The SMP notes that "in the long term, holding the line at this location will be challenging and that funding may have to come from a variety of sources."

**5.2** There is mention that the defences are under pressure and that Tendring District Council has undertaken works, to stabilise the area (para 135), but further detail is not provided. It is believed that the works referred to here, are the significant works which were undertaken in 2014 to afford protection to a 5km length from Clacton on Sea to just west of the Gunfleet Sailing Club. Whilst this is a scheme designed for 100 years of protection, it is reliant on ongoing maintenance at an estimated cost of £1.2million every 10 years, and it should be noted that it might well be challenging to secure this funding. It should also be noted that the eastern end of this significant scheme is where the coast protection responsibilities of Tendring District Council end, with the remaining and substantive length of the frontage being considered for the onshoring in the scoping study falling under the responsibility of the Environment Agency. The way the scoping report is written is misleading as it implies that Tendring District Council has undertaken works along the whole section, which is not the case and yet the whole frontage is under pressure. A more precise location would need to be providing for where the cables will come ashore before it is possible to determine which organisation is responsible for coast protection there.

**5.3** In para 140 (2.1.3.1) the risks of increased suspended sediments and changes to seabed levels are highlighted for during construction. The Paragraph also notes that nearshore cable installation could result in changes to shoreline levels due to deposition or erosion. Para 142 also highlights that effects during operation could occur due to the physical presence of infrastructure (foundations and any cable protection above the seabed) and that these may result in changes to waves / tidal currents which could affect the sediment transport regime and / or seabed morphology. The similar impacts on marine geology and physical processes seen during the construction period are also likely to occur during decommissioning (para 143). With such a significant coast protection scheme having been undertaken in the area in recent years at a total cost of £36 million (including £3 million contribution from Essex County Council) it is vital that any impacts are fully modelled, and results taken into account to ensure that no work is undertaken which could undermine or negatively impact on these previous investments.

**5.4** Para 141 confirms that the EIA will include assessment of the effects of disposal of dredged or drilled material and that a licence application for disposal of dredged material within the wind farm boundary will be included within the DCO application, if required. It is important that the beneficial use options of any dredged material (which can often be used in other coast protection schemes) are fully scoped and where possible, suitable receiving sites identified in a detailed study.

**5.5** In light of the comments above, studies would need to be undertaken to fully evaluate the impacts of any scheme on coastal processes including the effects on foreshore and structures;

## 6. Minerals and Waste

**6.1.1** ECC is the host Minerals and Waste Planning Authority in the two tier administrative area of Essex. The [Essex Minerals Local Plan - Adopted July 2014](#) concerns the administrative area of Essex, and seeks to ensure a local supply of aggregates for the County is retained for as planned growth.

**6.1.2** The [Essex and Southend on Sea Waste Local Plan - Adopted October 2017](#) concerns the administrative area of Essex and Southend on Sea only.

**6.1.3** Both the above are Adopted material planning considerations.

**6.1.4** The onshore 'project area' forms the basis for the minerals and waste safeguarding assessment set out below. It is recognised that the 'project area' takes the form of a large Area of Search within which it is intended to locate onshore equipment associated with the offshore windfarm and that there is no intention to develop anything approaching the full extent of the area.

**6.1.5** This response deals with mineral policy matters and waste policy matters in turn. A spatial representation of the project area and the matters discussed can be found in Appendix One. A list of relevant designations and specific facilities which would potentially be affected are listed, with their most recent planning application reference where relevant, in Appendix Two.

### 6.2 Mineral Matters

#### 6.2.1 Safeguarding Mineral Resources

**6.2.2** Within the Area of Search, there lies approximately 6819.7ha of land which is designated as a Mineral Safeguarding Area (MSA) for sand and gravel. Depending on the final location and land-take of the on-shore element of the proposal, the application may trigger Policy S8 of the Essex Minerals Local Plan 2014 (MLP). The MLP can be viewed on the County Council's website via the following link:  
<https://www.essex.gov.uk/minerals-waste-planning-policy/minerals-local-plan>

**6.2.3** Policy S8 of the MLP requires that a non-mineral proposal located within an MSA which exceeds defined thresholds must be supported by a

Minerals Resource Assessment to establish the existence, or otherwise, of a mineral resource capable of having economic importance. This will ascertain whether there is an opportunity for the prior extraction of that mineral to avoid the sterilisation of the resource, as required by the National Planning Policy Framework (Paragraph 210). The NPPF requires policies that encourage the prior extraction of mineral where it is practical and environmentally feasible.

- 6.2.4 The threshold set out in Policy S8 of the MLP for sand and gravel is 5ha, and the policy therefore applies if the proposed non-mineral development covers 5ha or more of land covered by a MSA designation. Policy S8 states that “... *Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development or Preferred Mineral site allocation shall be opposed.*”
- 6.2.5 Where non-mineral development proposals are made which intersect with 5ha or more of sand and gravel, **a Minerals Resource Assessment (MRA) is required as part of the planning application** to establish the practicality and environmental feasibility of the prior extraction of mineral such that the resource is not sterilised where this can be avoided. If found to be practical and environmentally feasible, prior extraction is expected to take place ahead of sterilisation by non-mineral development.
- 6.2.6 The relationship between the sand and gravel MSA and the project area is shown in Appendix One.
- 6.2.7 The scope and level of detail of a Minerals Resource Assessment will be influenced by the specific characteristics of the site’s location, its geology, and the nature of the development being applied for. However, a number of key requirements can be identified which are likely to satisfy the MWPA that the practicality and environmental feasibility of prior extraction have been suitably assessed in the MRA. The detail to be provided should be in proportion to the nature of the proposed application. The MWPA welcomes early engagement to clarify the requirements of MRA.

MRA Section	Matters to Cover
<b>Site location, relevant boundaries, timescale for development</b>	Application area in relation to MSA/MCA Description of development including layout & phasing Timescale for development Whether there is any previous relevant site history – this could include previous consideration of site or adjacent land in preparation of Minerals

	<p>Local Plan, any previous mineral assessments and market appraisals, boreholes, site investigations, technical reports and applications to the MWPA for extraction.</p>
<p><b>Nature of the existing mineral resource</b></p>	<p>Type of mineral</p> <p>Existing mineral exploration data (e.g. previous boreholes in area)</p> <p>Results of further intrusive investigation if undertaken</p> <p>Extent of mineral – depth &amp; variability</p> <p>Overburden – depth &amp; variability, overburden:mineral ratio. To be expressed as both actual depths and ratio of overburden to deposit, as well as variation across the site.</p> <p>Mineral quality – including silt %/content and how processing may impact on quality. Consideration should give given to the extent to which the material available on site would meet the specifications for construction.</p> <p>An assessment of the amount of material that would be sterilised (whole site area) and could be extracted (following application of any required buffer zones).</p> <p>Estimated economic/market value of resource affected across whole site and that which could be extracted.</p>
<p><b>Constraints impacting on the practicality of mineral extraction (distinct from those that would arise from the primary development)</b></p>	<p>Ecology designations,</p> <p>Landscape character,</p> <p>Heritage designations,</p> <p>Proximity to existing dwellings,</p> <p>Highways infrastructure,</p> <p>Proximal waterbodies,</p> <p>Hydrology,</p> <p>Land stability,</p> <p>Restoration requirements,</p> <p>Effect on viability of non-minerals development including through delays and changes to landform and character,</p> <p>Utilities present etc.</p> <p>Constraints should be assessed in light of the fact that construction of the non-minerals development would be taking place e.g. landscape issues are to be presented in light of the final landscape likely to be permanent built development. It is held that mitigation methods employed as part of the construction of the non-minerals development may also facilitate</p>

	prior extraction at that locality.
<b>Potential opportunities for mineral extraction at location</b>	<p>Ability of site to incorporate temporary mineral processing plant,</p> <p>Proximity to existing mineral sites or processing plant,</p> <p>Context of site and mineral within wider mineral resource area,</p> <p>Proximity to viable transport links for mineral haulage,</p> <p>The potential for indigenous material to be used in the construction of the proposed development, thereby reducing/removing the need for import,</p> <p>Potential benefits through mineral restoration e.g. land reclamation, landscape enhancement,</p> <p>Any opportunities for ancillary extraction as part of the primary development of the site such as foundations, footings, landscaping, sustainable drainage systems,</p> <p>Evidence or otherwise of interested operators/local market demand.</p>
<b>Conclusion (as relevant to the findings)</b>	<p>Whether mineral extraction at the site would be practical, based on conclusions of a competent person,</p> <p>Whether prior extraction is practical at the site in the context of the non-mineral development, taking into account the estimated value of the mineral, restoration and the viability of the proposed development,</p> <p>How the MRA has informed the proposed non-mineral development,</p> <p>If prior extraction is not practical, the justification for sterilising the mineral,</p> <p>If prior extraction is practical, how this will be phased as part of, or preceding, the non-mineral development,</p> <p>Whether prior extraction is environmentally feasible,</p> <p>Whether the site has the potential to be worked for mineral in the future.</p>

**6.2.8** An MRA is expected to be evidence based and informed by quantified information.

**6.2.9** To ensure that a comprehensive assessment of the mineral resource at risk of sterilisation is undertaken, it is recommended that:

- Any questions regarding the scope of an MRA are discussed with the MWPA as early as possible;
- a draft borehole location plan is agreed prior to commencement, and preferably as part of pre-application;
- the borehole depths should be sufficient to prove the depth of the safeguarded deposit;



- borehole analysis must note the depth of the water table;
- a non-stratified sampling technique is applied. An initial spacing of approximately 100m-150m centre to centre should be considered, with additional locations if required to determine the extent of deposits on site; and
- The MRA provides documented evidence confirming any commercial interest in working the resource at risk of sterilisation based on its quality, quantity, and viability of prior extraction.

**6.2.10** The MRA should be prepared using the [Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves \(PERC\) Standard](#), which was revised and published on 23 May 2013.

**6.2.11** Any application, through a MRA or otherwise, is required to be submitted with sufficient information such that the issues raised through Policy S8 of the MLP can be appropriately considered.

### **6.3 Mineral Infrastructure Matters**

**6.3.1** The project area passes through a number of Mineral Consultation Areas as shown in Appendix One and listed in Appendix Two. With regard to Mineral Consultation Areas, Policy S8 of the MLP seeks to ensure that existing and allocated mineral sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability to carry out their allocated function in the future. Policy S8 of the MLP defines Mineral Consultation Areas as extending up to 250m from the boundary of an infrastructure site or allocation for the same.

**6.3.2** Paragraph 187 of the NPPF states that “Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”

**6.3.3** **Due to the proposed project passing through a Mineral Consultation Area, a Mineral Infrastructure Impact Assessment (MIIA) is required as part of the planning application.** The MWPA has designed a generic schedule of information requirements that should be addressed as relevant through an MIIA. The detail to be provided should be in proportion to the nature of the proposed application.

### 6.3.4 Mineral Infrastructure Impact Assessment Components

Minerals Infrastructure Impact Assessment Components	Information requirements & sources
Site location, boundaries and area	<p>Application site area in relation to safeguarded site(s),</p> <p>Description of proposed development,</p> <p>Timescale for proposed development,</p>
Description of infrastructure potentially affected	<p>Type of safeguarded facility e.g. wharf, rail depot, concrete batching plant; asphalt plant; recycled aggregate site,</p> <p>Type of material handled/processed/supplied,</p> <p>Throughput/capacity.</p>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure (with and without mitigation)	<p>Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes,</p> <p>The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility,</p> <p>Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission,</p> <p>Impacts on the proposed development in relation to:</p> <ul style="list-style-type: none"> <li>• Noise</li> <li>• Dust</li> <li>• Odour</li> <li>• Traffic</li> <li>• Visual</li> <li>• Light</li> </ul>
Potential impact of proposed development on the effective working	<p>Loss of capacity – none, partial or total,</p> <p>Potential constraint on operation of facility –</p>

of the safeguarded infrastructure/allocation	none or partial.
Mitigation measures to be included by the proposed development to reduce impact from existing or allocated safeguarded infrastructure	External and internal design & orientation e.g. landscaping; living & sleeping areas facing away from facility,  Fabric and features e.g. acoustic screening & insulation; non-opening windows; active ventilation.
Conclusions	How the MIIA informed the final layout of the proposed development.  Potential sensitivity of proposed development to effects of operation of the safeguarded infrastructure/facility and how these can be mitigated satisfactorily; or If loss of site or capacity, or  constraint on operation, evidence it is not required or can be re-located or provided elsewhere.

**6.3.5** A MIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of an MIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the MIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of MIIA.

## **6.4 Waste Matters**

### **6.4.1 Safeguarding Waste Infrastructure**

**6.4.2** The project area passes through a number of Waste Consultation Areas shown in Appendix One. Its location within these Waste Consultation Areas means that the application is subject to Policy 2 of the Essex and Southend-on-Sea Waste Local Plan 2017 (WLP). The WLP can be viewed on the County Council's website via the following link:  
<https://www.essex.gov.uk/minerals-waste-planning-policy/waste-local-plan>

**6.4.3** Policy 2 of the WLP seeks to ensure that existing and allocated waste sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability to carry out their allocated function in the future. Policy 2 defines

Waste Consultation Areas as extending up to 250m from the boundary of existing or allocated waste infrastructure, unless they are Water Recycling Centres, where the distance increases to 400m.

**6.4.4 Due to the proposed project passing through a Waste Consultation Area, a Waste Infrastructure Impact Assessment (WIIA) is required as part of the planning application.** In order to satisfy the provisions of Policy 2, the MWPA has designed a generic schedule of information requirements that should be addressed as relevant within the supporting evidence of any application which falls within a Waste Consultation Area. The detail to be provided should be in proportion to the nature of the proposed application.

### Waste Infrastructure Assessment Components

Waste Infrastructure Assessment Components	Information requirements & sources
Site location, boundaries and area	<ul style="list-style-type: none"> <li>• Application site area in relation to safeguarded site(s)</li> <li>• Description of proposed development</li> <li>• Timescale for proposed development</li> </ul>
Description of infrastructure potentially affected	<ul style="list-style-type: none"> <li>• Nature of relevant safeguarded facility</li> <li>• Type of material handled/processed/supplied</li> <li>• Throughput/capacity</li> </ul>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure	<ul style="list-style-type: none"> <li>• Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes.</li> <li>• The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility</li> <li>• Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission.</li> <li>• Impacts on the proposed development in relation to:               <ul style="list-style-type: none"> <li>○ Noise</li> <li>○ Dust</li> <li>○ Odour</li> <li>○ Traffic</li> <li>○ Visual</li> <li>○ Light</li> </ul> </li> </ul>

Potential impact of proposed development on safeguarded infrastructure/ allocation	<ul style="list-style-type: none"> <li>• Loss of capacity – none, partial or total</li> <li>• Potential constraint on operation of facility – none, partial or full</li> </ul>
Measures to mitigate potential impacts of operation of infrastructure on proposed development	<ul style="list-style-type: none"> <li>• External and internal design &amp; orientation eg landscaping; living &amp; sleeping areas facing away from facility.</li> <li>• Fabric and features eg acoustic screening &amp; insulation; non-opening windows; active ventilation</li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>• Sensitivity of proposed development to effects of operation of safeguarded infrastructure/facility can be mitigated satisfactorily; or</li> <li>• If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere</li> </ul>

**6.4.5** A WIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of a WIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the WIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of WIIA.

## 7. Socio Economics

Comments from the Joint Council on the socio economic chapter are as set out below.

Section and Page	Comment
1.3 (9)	We'd welcome further clarification on the reference to 'lessons learned from a wide range of previous scoping opinions for offshore wind farms' that this section refers to. This would, from the outset, clarify which skills, employment and economic data cannot be scoped out until further information is known about the project and the existing environment.
1.5 (19)	This is a great diagram, and deployed with other resources, would be a great educational tool. The EIA should narrate how you intend

	to actively engage with local schools and interest groups to educate them about how OWF work and the pathways to careers in the sector.
1.9 (117)	We welcome this referencing of the government’s vision to build a competitive and innovative UK supply chain. Wherever possible, we’d also welcome an explicit reference to potential work with the local supply chain in Essex and adjoining counties.
3.9 (661)	There is an opportunity here to support or complement the work of Active Essex and the ECC cycling scheme (Pedal Power) being promoted with partners in Tendering.
4.2.1 (740)	We welcome the economic receptor identified and the explicit mention of benefits, as well as adverse effects, that people (residents) and businesses could experience from the project and associated developments.
4.2.2 (746)	Data should include reference to some of the Essex specific skills and employment strategies and policy documents which will strengthen the scoping exercise. Data should also include: <ul style="list-style-type: none"> <li>• Current business base. This can be sourced from Tendring District Council and/or Essex County Council.</li> <li>• Anticipated workforce. This should start to inform anticipated employment shortage areas and need for any skills interventions and planning. Workforce planning should also identify how the developers intend to work with relevant local Essex partners to maximise local recruitment across all skills levels, especially high-level jobs; during the construction and post-construction phase.</li> <li>• NEET (Not in Education Employment or Training) data. This can be supplied by Essex County Council.</li> <li>• Construction projections in Essex. The Essex Construction Skills Report 2020-2040 can be sourced from Essex County Council.</li> <li>• Essex’s economic policies: <ul style="list-style-type: none"> <li>○ Essex Productivity and Prosperity Plan</li> <li>○ North Essex Economic Strategy</li> </ul> </li> <li>• Skills – data should also be sourced from Essex Open Data. This is publicly available via ECC’s website.</li> </ul>
4.2.2 (747)	For skills and employment purposes, Essex Open Data should also be used as a source for data.

4.2.3 (751)	The likely recruitment strategies mentioned should also take into account potential recruitment shortages and steps to mitigate against that, preferably via skills intervention and workforce planning. There should also be regard to other NSIPs potentially recruiting at the same time.
4.2.4 (762)	The absolute scale of economic impacts analysis needs to clearly identify which roles (jobs) will be needed and how engagement with local providers can cater for the demand and supply of skills.

## 8. Flooding, Water Management

**8.1** ECC is the Lead Local Flood Authority (LLFA) for the part of the development and as such relevant chapters of the scoping report have been reviewed. The report has addressed the provision of good practices to mitigate significant impacts on land drainage, surface water flood risk, and water quality. The comment as set out below should be addressed within the site Flood Risk Assessment.

- Drainage strategy to manage surface runoff from larger storm events.
- Prevent larger volumes to discharge into watercourse.
- Appropriate measure to prevent flooding from site including dewatering/overflow channels due to which the water speeds up and can increase downstream flooding.

**8.2** All information associated with surface water drainage should be included as part of the forthcoming DCO submission

**8.3** The project details with reference to surface water drainage and any potential drainage elements are yet to be established and therefore we recommend all information associated with surface water drainage should be included as part of any major planning application and it should be in accordance with SUDS Design Guide. However there isn't a need for additional information to be supplied as part of an EIA.

## 9. Highways and Transportation

Comments as received from the Highway and Transportation Team on the Scoping submission are as set out in the table below:

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Ref.	Error/Data Issue/Clarification/Fo rmatting /Comment	Joint Comment	Recommended Actions for SSE Renewables /RWE
Table 3.26	Comment	Road safety (Potential Impact) should also include 'construction traffic using narrow rural roads', this is north a driver delay/capacity issue and a road safety concern.	Amend table 3.26 to include this comment.
Table 3.26	Comment	For the avoidance of doubt Road safety (Potential Impact) should also include construction traffic impact with the public Rights of Way network (cross referencing Section 4.3)	Amend table 3.26 to include this comment.
Table 3.26	Comment	For the avoidance of doubt Severance and Amenity should read ' Increases in traffic impacting upon non-motorised users of the public highway <b>including Public Rights of Way network.</b>	
Table 3.28	Comment	Design Manual for Roads and Bridges DMRB CD 123 is referred to specifically but it is the opinion of the Highway Authority that other DMRB documents would also be relevant e.g. CA 185, CD109, GG 119 and others. Perhaps therefore this should be a generic reference to DMRB.	Amend table 3.28 to make a generic reference to use of DMRB
Table 4.4	Comment	Data Source, Essex County Council should reference Essex Highways <a href="http://www.essex.highways.org/interactive-maps-and-live-travel-information/highways-information-map">www.essex.highways.org/interactive-maps-and-live-travel-information/highways-information-map</a> which shows Public Rights of Way and National Cycle Routes	Add this reference to table 4.4
Para 770.		Protection and Enhancement of the Rights of Way Network- Any Public Rights Of Way (PROW) through or surrounding the site should remain usable, retain their	Please ensure that reference to Public Rights of Way in the EIA scoping incorporates the ECC stance on



		<p>recreational amenity and character, and be integrated as part of the development proposal. Applicants will need to demonstrate to the Highway Authority that all PROW impacted upon by a development will remain accessible by the general public and the public's rights and ease of passage over public footpaths / bridleways / byways should be maintained free and unobstructed at all times to ensure the continued safe passage of the public on the definitive right of way. If a PROW has to be temporarily or permanently diverted then no development should commence on site until an Order securing the diversion of the existing definitive right of way to a route has been agreed and has been confirmed with ECC and the LPA; and the new route has been constructed. Mitigation and enhancement measures such as consequential improvements to the PROW network through improving connectivity or the installation of interpretation boards or visitor facilities that give benefit to users of PROW should be sought by developers of renewable energy schemes- there may also be further opportunities for public engagement and education in renewable energy. The importance of PROW as amenities for local communities to improve their mental and physical health and wellbeing should be recognised, protected and enhanced. (The Essex Green</p>	<p>public rights of way and renewable energy schemes set out in this comment.</p>
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		Infrastructure Strategy refers to PROW throughout).	
Para 666	Comment	As discussed at the <i>Traffic and Transport, Air Quality, Climate Change and Noise and Vibration Expert Topic</i> scoping meeting on 9 <sup>th</sup> July 2021 and recorded in the minutes further discussion will need to take place with the Highway Authority to discuss and agree the scope and content of the Transport Assessment to accompany the Environmental Impact Assessment	Ongoing liaison with the Highway Authority

## 10. Tourism

**10.1** The Scoping submission correctly makes reference to the importance of this within the Tendring region, its key impact on providing jobs, as well as providing a leisure destination for thousands of tourists and day trippers. The coastline is dotted with holiday uses and includes the main town of Clacton as a traditional seaside destination, as well as other leisure based uses. Tourism does, as it is correctly identified, represent a key component of the Tendring area, and there are ample tourism related activities on the Tendring coast and in the hinterland for both indoor and outdoor activities. It also has a significant influence in the visitor economy. Economically tourism accounts for about 15% of economic value and jobs. However, its effects are far wider as it supports visitor attractions, heritage assets, recreational activities, key organised events, and retail, spent in the town centres and villages including restaurants and cafes that rely on the increased and high value trade to survive. Accordingly, any damage to the area's attractiveness for visitors would impact negatively on the food and drink sectors, and the brand and reputation of the District and would be considered an unacceptable risk. Further work is required to identify and assess how any impact on the tourism economy will be managed and mitigated

**10.2** It is acknowledged the actual construction work will have a detrimental impact on tourism, due to the noise and views of the construction site. However, the construction programme will have addition socio economic impacts on tourism. A migrant construction workforce will need to be housed and this could reduce the availability of tourist accommodation. The size if the construction workforce is not yet known, however, with the number of other NISPS in the area such as Sizewell C and the Bramford to Twinstead

National Grid Connexion the effect on the availability of tourist accommodation will be accumulative. The area's visitor offer also relies on the availability of its visitor accommodation offer (eg bed and breakfast, camping, caravan and static sites etc) which is in high demand especially during the peak summer months. Any short-term disruptions to this accommodation supply would have lasting effects on repeat visitor numbers. It is vital that this increased demand on certain types of accommodation during the peak construction period does not negatively impact on the visitor numbers and will need to be managed during the construction and operational phases. The Joint Councils seek the provision of legacy benefits through the provision of new and improved existing accommodation alongside create new, sustainable, quality visitor accommodation.

## 11. Archaeology

- 11.1** The archaeological response for the seaward area will be the responsibility of Historic England.
- 11.2** With regard the onshore archaeology and cultural heritage section 3.7 we have a number of specific points.
- 11.3** Paragraph. 568 needs to include a separate Geoarchaeological Desk Based Assessment to assess the Palaeolithic/Pleistocene potential of the area due to the importance of these deposits within the study area. This should provide details of the scope for assessment of any significant geoarchaeological remains prior to any construction.
- 11.4** Paragraph 568 should also include an Aerial photographic assessment and rectification which also includes an assessment and plotting of any available Lidar data and provides a GIS dataset of all cropmark features within the study area. This would allow more accurate location of any targeted trenches.
- 11.5** Though the addition of the above there would be greater confidence for the identification of areas of high potential for archaeological remains.
- 11.6** Paragraph 569. Once the final route has been determined the length of this would require archaeological investigation prior to the submission of the application, in the first instance this could be through geophysical techniques. This should be followed by a targeted trial trench evaluation which includes features identified through the AP assessment as well as those features identified in the geophysics survey. An assessment of the possible 'blank' areas will also be required. Any other areas where construction would require groundworks or the construction of compounds should also be targeted.

**11.7** For information: Any ground investigation works carried out for engineering purposes would be of use and relevance to the geoarchaeological assessment and it is highly recommended that this be combined with the geoarchaeological assessment if possible. The results of any geotechnical boreholes should be made available to the specialist employed to carry out the assessment.

## 12. Built Heritage

**12.1** The scoping report provided (Environmental Impact Assessment Scoping Report rev-04 16/07/2021) describes the North Falls NSIP development as being at an indicative stage only due to the magnitude and complexity of the project. As such, comments are limited to general terms.

**12.2** The area of scoping in its northern extent appears to be particularly large however it is understood that this accommodates the parameters for the corridor for onshore trenched cabling as set out in Table 1.1. From this table it appears that no pylons are proposed and the indicative maximum height of onshore substation equipment 18m.

**12.3** The proposed methodologies for assessment of built heritage assets including proposed walkover surveys to identify any potential non-designated heritage assets are acceptable. However, the proposed location and timings of these walkover surveys remain unspecified. The documents and acts referenced in informing the standards and methodologies are acceptable.

**12.4** There is potential for military coastal defences to be identified at the indicative area of cable onshoring between Clacton-on-Sea and Frinton-on-Sea that has been scoped in. There is also potential for the project to impact upon the fringes and built heritage assets of Clacton-on-Sea, Frinton-on-Sea, and Holland-on-Sea. The scoping out of these towns in their entirety is a cause for concern, and would benefit from clear justification.

### **12.5 Section Specific Comments:**

The following table provides more specific comments by section:

Section	Comment
3.11	It is recommended that an integrated approach is taken to assessing impacts of the scheme. It is important that this approach is applied to the inter-relationships of built heritage, landscape and visual assessment, and noise and vibration as identified in table 3.32 when assessing the impacts of the scheme on these topics and their relationship with onshore built heritage.

Table 3.21	How will operational and maintenance requirements of the project impact the built heritages assets identified both directly and indirectly through impacts to their setting.
3.73	The potential impacts of water management, of present watercourses and potential floodwaters upon identified heritage assets through temporary works, maintenance works, and decommissioning works should be considered. These works have the potential to result in physical impacts upon heritage assets through ground water level changes, run off and drainage.

Yours sincerely



Graham Thomas  
Head of Planning  
Sustainable Growth Directorate

Enquiries to:  
Mark Woodger, Principal Planner, Growth & Development



## Appendix One. Additional Minerals and Waste Matters

Essex County Councils  
**Minerals & Waste Planning**  
County Hall  
Chelmsford  
Essex CM1 1QH



Your ref N/A  
Our ref: N/A  
Date: 16 August 2021

Dear Sir / Madam

**Nature of Response:** To address minerals and waste safeguarding implications arising through the proposed North Falls Offshore Wind Farm

**Proposal:** Establishment of new off-shore wind farm as an extension to Greater Gabbard Offshore Wind Farm

**Location:** Western extension to Greater Gabbard Offshore Wind Farm

Thank you for your email received 19<sup>th</sup> July 2021 consulting the Mineral and Waste Planning Authority (MWPA) on the above proposals.

The onshore 'project area' forms the basis for the minerals and waste safeguarding assessment set out below. It is recognised that the 'project area' takes the form of a large Area of Search within which it is intended to locate onshore equipment associated with the offshore windfarm and that there is no intention to develop anything approaching the full extent of the area.

This response deals with mineral policy matters and waste policy matters in turn. A spatial representation of the project area and the matters discussed can be found in Appendix One. A list of relevant designations and specific facilities which would potentially be affected are listed, with their most recent planning application reference where relevant, in Appendix Two.

### **Mineral Matters**

#### **Safeguarding Mineral Resources**

Within the Area of Search, there lies approximately 6819.7ha of land which is designated as a Mineral Safeguarding Area (MSA) for sand and gravel. Depending on the final location and land-take of the on-shore element of the proposal, the application may trigger Policy S8 of the Essex Minerals Local

Plan 2014 (MLP). The MLP can be viewed on the County Council's website via the following link:

<https://www.essex.gov.uk/minerals-waste-planning-policy/minerals-local-plan>

Policy S8 of the MLP requires that a non-mineral proposal located within an MSA which exceeds defined thresholds must be supported by a Minerals Resource Assessment to establish the existence, or otherwise, of a mineral resource capable of having economic importance. This will ascertain whether there is an opportunity for the prior extraction of that mineral to avoid the sterilisation of the resource, as required by the National Planning Policy Framework (Paragraph 210). The NPPF requires policies that encourage the prior extraction of mineral where it is practical and environmentally feasible.

The threshold set out in Policy S8 of the MLP for sand and gravel is 5ha, and the policy therefore applies if the proposed non-mineral development covers 5ha or more of land covered by a MSA designation. Policy S8 states that “... *Proposals which would unnecessarily sterilise mineral resources or conflict with the effective workings of permitted minerals development or Preferred Mineral site allocation shall be opposed.*”

Where non-mineral development proposals are made which intersect with 5ha or more of sand and gravel, **a Minerals Resource Assessment (MRA) is required as part of the planning application** to establish the practicality and environmental feasibility of the prior extraction of mineral such that the resource is not sterilised where this can be avoided. If found to be practical and environmentally feasible, prior extraction is expected to take place ahead of sterilisation by non-mineral development.

The relationship between the sand and gravel MSA and the project area is shown in Appendix One.

The scope and level of detail of a Minerals Resource Assessment will be influenced by the specific characteristics of the site's location, its geology, and the nature of the development being applied for. However, a number of key requirements can be identified which are likely to satisfy the MWPA that the practicality and environmental feasibility of prior extraction have been suitably assessed in the MRA. The detail to be provided should be in proportion to the nature of the proposed application. The MWPA welcomes early engagement to clarify the requirements of MRA.

<p><b>Site location, relevant boundaries, timescale for development</b></p>	<p>Application area in relation to MSA/MCA</p> <p>Description of development including layout &amp; phasing</p> <p>Timescale for development</p> <p>Whether there is any previous relevant site history – this could include previous consideration of site or adjacent land in preparation of Minerals Local Plan, any previous mineral assessments and market appraisals, boreholes, site investigations, technical reports and applications to the MWPA for extraction.</p>
<p><b>Nature of the existing mineral resource</b></p>	<p>Type of mineral</p> <p>Existing mineral exploration data (e.g. previous boreholes in area)</p> <p>Results of further intrusive investigation if undertaken</p> <p>Extent of mineral – depth &amp; variability</p> <p>Overburden – depth &amp; variability, overburden:mineral ratio. To be expressed as both actual depths and ratio of overburden to deposit, as well as variation across the site.</p> <p>Mineral quality – including silt %/content and how processing may impact on quality. Consideration should give given to the extent to which the material available on site would meet the specifications for construction.</p> <p>An assessment of the amount of material that would be sterilised (whole site area) and could be extracted (following application of any required buffer zones).</p> <p>Estimated economic/market value of resource affected across whole site and that which could be extracted.</p>
<p><b>Constraints impacting on the practicality of mineral extraction (distinct from those that would arise from the primary development)</b></p>	<p>Ecology designations,</p> <p>Landscape character,</p> <p>Heritage designations,</p> <p>Proximity to existing dwellings,</p> <p>Highways infrastructure,</p> <p>Proximal waterbodies,</p> <p>Hydrology,</p> <p>Land stability,</p> <p>Restoration requirements,</p> <p>Effect on viability of non-minerals development including through delays and changes to landform and character,</p> <p>Utilities present etc.</p> <p>Constraints should be assessed in light of the fact that construction of the non-minerals development would be taking place e.g. landscape issues are to be presented in light of the final landscape</p>



	likely to be permanent built development. It is held that mitigation methods employed as part of the construction of the non-minerals development may also facilitate prior extraction at that locality.
<b>Potential opportunities for mineral extraction at location</b>	<p>Ability of site to incorporate temporary mineral processing plant,</p> <p>Proximity to existing mineral sites or processing plant,</p> <p>Context of site and mineral within wider mineral resource area,</p> <p>Proximity to viable transport links for mineral haulage,</p> <p>The potential for indigenous material to be used in the construction of the proposed development, thereby reducing/removing the need for import,</p> <p>Potential benefits through mineral restoration e.g. land reclamation, landscape enhancement,</p> <p>Any opportunities for ancillary extraction as part of the primary development of the site such as foundations, footings, landscaping, sustainable drainage systems,</p> <p>Evidence or otherwise of interested operators/local market demand.</p>
<b>Conclusion (as relevant to the findings)</b>	<p>Whether mineral extraction at the site would be practical, based on conclusions of a competent person,</p> <p>Whether prior extraction is practical at the site in the context of the non-mineral development, taking into account the estimated value of the mineral, restoration and the viability of the proposed development,</p> <p>How the MRA has informed the proposed non-mineral development,</p> <p>If prior extraction is not practical, the justification for sterilising the mineral,</p> <p>If prior extraction is practical, how this will be phased as part of, or preceding, the non-mineral development,</p> <p>Whether prior extraction is environmentally feasible,</p> <p>Whether the site has the potential to be worked for mineral in the future.</p>

An MRA is expected to be evidence based and informed by quantified information.

To ensure that a comprehensive assessment of the mineral resource at risk of sterilisation is undertaken, it is recommended that:

- Any questions regarding the scope of an MRA are discussed with the MWPA as early as possible;
- a draft borehole location plan is agreed prior to commencement, and preferably as part of pre-application;

- the borehole depths should be sufficient to prove the depth of the safeguarded deposit;
- borehole analysis must note the depth of the water table;
- a non-stratified sampling technique is applied. An initial spacing of approximately 100m-150m centre to centre should be considered, with additional locations if required to determine the extent of deposits on site; and
- The MRA provides documented evidence confirming any commercial interest in working the resource at risk of sterilisation based on its quality, quantity, and viability of prior extraction.

The MRA should be prepared using the [Pan-European Standard for Reporting of Exploration Results, Mineral Resources and Reserves \(PERC\) Standard](#), which was revised and published on 23 May 2013.

Any application, through a MRA or otherwise, is required to be submitted with sufficient information such that the issues raised through Policy S8 of the MLP can be appropriately considered.

### **Mineral Infrastructure Matters**

The project area passes through a number of Mineral Consultation Areas as shown in Appendix One and listed in Appendix Two. With regard to Mineral Consultation Areas, Policy S8 of the MLP seeks to ensure that existing and allocated mineral sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability to carry out their allocated function in the future. Policy S8 of the MLP defines Mineral Consultation Areas as extending up to 250m from the boundary of an infrastructure site or allocation for the same.

Paragraph 187 of the NPPF states that “Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or ‘agent of change’) should be required to provide suitable mitigation before the development has been completed.”

**Due to the proposed project passing through a Mineral Consultation Area, a Mineral Infrastructure Impact Assessment (MIIA) is required as part of the planning application.** The MWPA has designed a generic schedule of information requirements that should be addressed as relevant through an MIIA. The detail to be provided should be in proportion to the nature of the proposed application.

## Mineral Infrastructure Impact Assessment Components

Minerals Infrastructure Impact Assessment Components	Information requirements & sources
Site location, boundaries and area	<p>Application site area in relation to safeguarded site(s),</p> <p>Description of proposed development,</p> <p>Timescale for proposed development,</p>
Description of infrastructure potentially affected	<p>Type of safeguarded facility e.g. wharf, rail depot, concrete batching plant; asphalt plant; recycled aggregate site,</p> <p>Type of material handled/processed/supplied,</p> <p>Throughput/capacity.</p>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure (with and without mitigation)	<p>Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes,</p> <p>The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility,</p> <p>Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission,</p> <p>Impacts on the proposed development in relation to:</p> <ul style="list-style-type: none"> <li>• Noise</li> <li>• Dust</li> <li>• Odour</li> <li>• Traffic</li> <li>• Visual</li> <li>• Light</li> </ul>
Potential impact of proposed development on the effective	<p>Loss of capacity – none, partial or total,</p> <p>Potential constraint on operation of</p>

working of the safeguarded infrastructure/allocation	facility – none or partial.
Mitigation measures to be included by the proposed development to reduce impact from existing or allocated safeguarded infrastructure	External and internal design & orientation e.g. landscaping; living & sleeping areas facing away from facility, Fabric and features e.g. acoustic screening & insulation; non-opening windows; active ventilation.
Conclusions	How the MIIA informed the final layout of the proposed development. Potential sensitivity of proposed development to effects of operation of the safeguarded infrastructure/facility and how these can be mitigated satisfactorily; or If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere.

A MIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of an MIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the MIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of MIIA.

## **Waste Matters**

### **Safeguarding Waste Infrastructure**

The project area passes through a number of Waste Consultation Areas shown in Appendix One. Its location within these Waste Consultation Areas means that the application is subject to Policy 2 of the Essex and Southend-on-Sea Waste Local Plan 2017 (WLP). The WLP can be viewed on the County Council's website via the following link:

<https://www.essex.gov.uk/minerals-waste-planning-policy/waste-local-plan>

Policy 2 of the WLP seeks to ensure that existing and allocated waste sites and infrastructure are protected from inappropriate neighbouring developments that may prejudice their continuing efficient operation or ability

to carry out their allocated function in the future. Policy 2 defines Waste Consultation Areas as extending up to 250m from the boundary of existing or allocated waste infrastructure, unless they are Water Recycling Centres, where the distance increases to 400m.

**Due to the proposed project passing through a Waste Consultation Area, a Waste Infrastructure Impact Assessment (WIIA) is required as part of the planning application.** In order to satisfy the provisions of Policy 2, the MWPA has designed a generic schedule of information requirements that should be addressed as relevant within the supporting evidence of any application which falls within a Waste Consultation Area. The detail to be provided should be in proportion to the nature of the proposed application.

### Waste Infrastructure Assessment Components

<b>Waste Infrastructure Assessment Components</b>	<b>Information requirements &amp; sources</b>
Site location, boundaries and area	<ul style="list-style-type: none"> <li>• Application site area in relation to safeguarded site(s)</li> <li>• Description of proposed development</li> <li>• Timescale for proposed development</li> </ul>
Description of infrastructure potentially affected	<ul style="list-style-type: none"> <li>• Nature of relevant safeguarded facility</li> <li>• Type of material handled/processed/supplied</li> <li>• Throughput/capacity</li> </ul>
Potential sensitivity of proposed development as a result of the operation of existing or allocated safeguarded infrastructure	<ul style="list-style-type: none"> <li>• Distance of the development from the safeguarded site at its closest point, to include the safeguarded facility and any access routes.</li> <li>• The presence of any existing buildings or other features which naturally screen the proposed development from the safeguarded facility</li> <li>• Evidence addressing the ability of vehicle traffic to access, operate within and vacate the safeguarded development in line with extant planning permission.</li> <li>• Impacts on the proposed development in relation to:               <ul style="list-style-type: none"> <li>○ Noise</li> <li>○ Dust</li> <li>○ Odour</li> <li>○ Traffic</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Visual</li> <li>○ Light</li> </ul>
Potential impact of proposed development on safeguarded infrastructure/ allocation	<ul style="list-style-type: none"> <li>● Loss of capacity – none, partial or total</li> <li>● Potential constraint on operation of facility – none, partial or full</li> </ul>
Measures to mitigate potential impacts of operation of infrastructure on proposed development	<ul style="list-style-type: none"> <li>● External and internal design &amp; orientation eg landscaping; living &amp; sleeping areas facing away from facility.</li> <li>● Fabric and features eg acoustic screening &amp; insulation; non-opening windows; active ventilation</li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>● Sensitivity of proposed development to effects of operation of safeguarded infrastructure/facility can be mitigated satisfactorily; or</li> <li>● If loss of site or capacity, or constraint on operation, evidence it is not required or can be re-located or provided elsewhere</li> </ul>

A WIIA is expected to be evidence based and informed by quantified information. It is recognised that the requirements of a WIIA may be addressed through other evidence base documents, such as those addressing transport, odour and noise issues. In these instances, it would be acceptable for the WIIA to signpost to the relevant section of complementary evidence supporting the planning application. The MWPA welcomes early engagement to clarify the requirements of WIIA.

Yours sincerely,

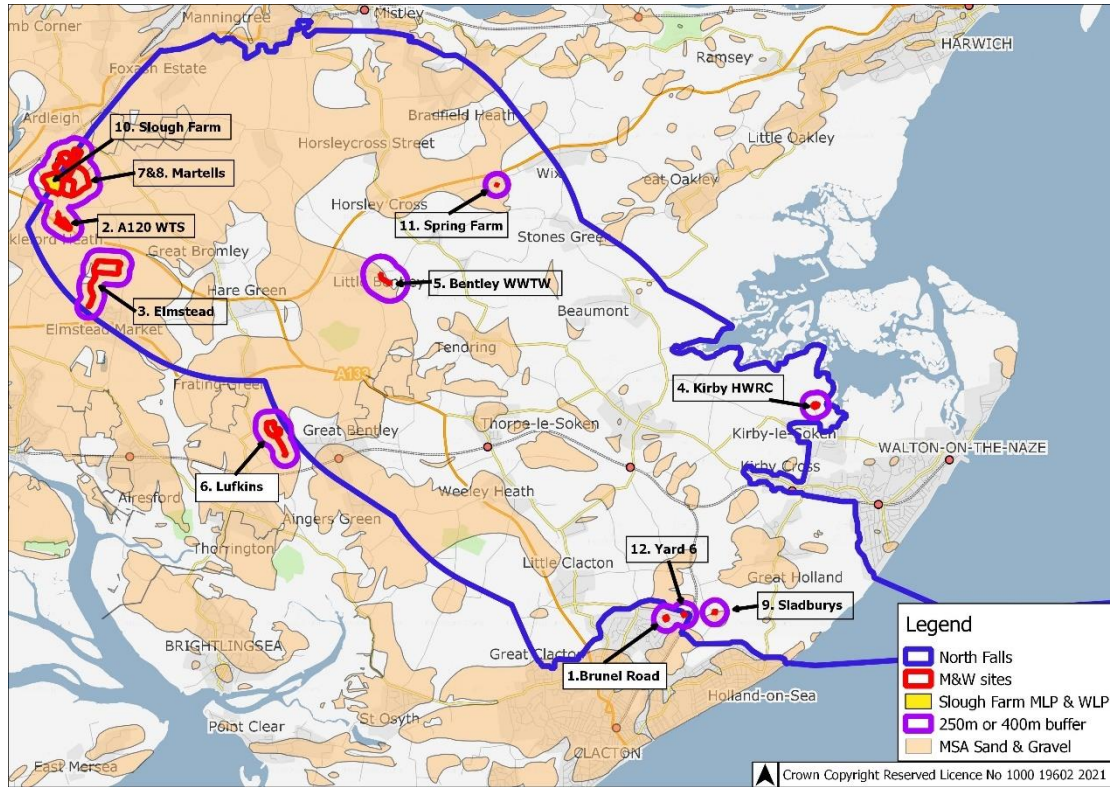


Philip Dash  
Principal Planner

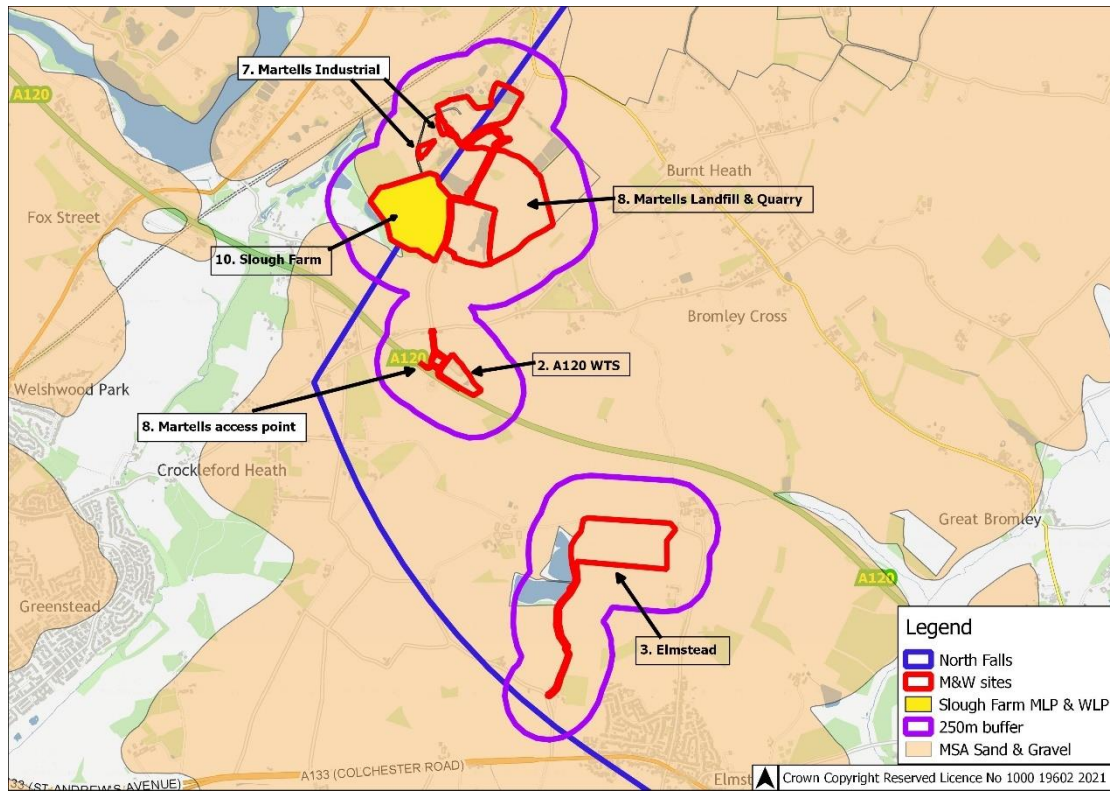


## Appendix Two – Location of Mineral Safeguarding Areas in Relation to the Project Area

### Map 1 – Minerals and Waste Safeguarding Screening – Full Extent of Project Area



## Map 2 – Minerals and Waste Safeguarding Screening – North West of Project Area





## Appendix Three – Schedule of Safeguarding Designations and Safeguarded Minerals and Waste Infrastructure relevant to the Project Area

### Schedule of mineral infrastructure and designations within the project area

Details of planning applications can be viewed on the [ECC website](#), by accepting the disclaimer and then searching on the planning reference

Site type	Site name	Planning application number	Further Details
<p>Mineral Safeguarding Areas</p> <p>Policy implications set out under 'Mineral Matters – Safeguarding Mineral Resources'. Subject to MSA designation – Policy 8 of the Essex Minerals Local Plan 2014</p> <p>Spatial extent shown in Appendix One.</p>	Sand and gravel	N/A	
<p>MLP Allocations or Safeguarded Mineral Development Sites</p> <p>Policy implications set out under 'Mineral Matters – Safeguarding Mineral Infrastructure'. Subject to</p>	Martells Quarry	<p>Extant Permission – ESS/53/17/TEN - Extraction of minerals shall cease south of Slough Lane by 30 December 2026. Restoration shall be completed by 30 June 2033.</p> <p>Current Application(s) –</p>	

<p>MCA designations – Policy 8 of Essex Minerals Local Plan 2014.</p> <p>Spatial extent shown in Appendix One.</p>		ESS/27/20/TEN – Pending determination - continuation of permitted developments until 30 September 2040.	
	Elmstead Hall	Extant Permission – ESS/24/15/TEN – Construction of an irrigation reservoir involving the excavation, processing and removal of sand, gravel and soils, engineering works and ancillary buildings.	Site to be restored in accordance with planning permission not later than 48 months from the date of notification of the commencement of site preparation works.
	Lufkins Farm	<p>ESS/40/15/TEN - Construction of a temporary access onto Great Bently road (Lufkins Lane), internal road and ancillary works to enable the removal of surplus material arising from the construction of an agricultural reservoir.</p> <p>ESS/41/15/TEN - s.73 application of alteration of conditions 2,13,16,19,20,21,23 AND 48 of ESS/10/13/TEN Commenced January 2019 cessation of extraction 14 January 2022.</p>	
	Slough Farm	ESS/29/20/TEN – pending determination - Proposed western extension to Martells Quarry for the extraction, processing, sale and distribution of silica sand and gravel, and subsequent restoration using inert materials along with the creation of a new access.	MLP Allocation Site B1, MLP Policy S7 (silica sand extraction)

### Schedule of waste infrastructure and designations within the project area

Site type	Site name	Planning application number	Further Details
Waste management infrastructure (subject to WCA designations – Policy 2 of Essex and Southend-on-Sea Waste Local Plan)	20 Brunel Road, Clacton-on-sea	ESS/05/13/TEN - Retrospective change of use to enable the recycling of material at the rear of Unit 20 Gorse Lane Industrial Estate, Clacton on Sea.	
	A120 Waste Transfer Station	ESS/16/13/TEN - Proposed development of a new waste management facility, with associated change of use of land. The facility comprises erection of a building for the transfer/bulking of municipal waste, together with ancillary development including dual weighbridge, weighbridge kiosk, office and staff welfare building, fire water holding tank and pumphouse, electricity substation, infiltration basin to manage surface waters and pipework, package sewage treatment plant, vehicle wash system, staff car parking, vehicle hardstanding, fencing, landscaping, formation of accesses to site and associated works.	
	Kirby Le Soken Household Waste Recycling Centre	CC/TEN/10/94 - Civic Amenity & recycling.	
	Little Bentley Waste Water Treatment Works	ESS/27/05/TEN - Construction of sewage pumping station, sewage treatment works, access road and site fencing.	

	Martells Industrial Estate	<p>ESS/08/08/TEN - Reception and decontamination of ferrous and non-ferrous metal goods (Mainly Vehicles). Preparation and processing of metal for export. Erection of new buildings associated with the proposed use. Provision of sealed working floor areas, associated drainage. Provision of weighbridge, parking and fencing.</p> <p>ESS/31/14/TEN - Erection of a storage building for mechanical plant and machinery.</p>	
	Martells Landfill	<p>ESS/30/16/TEN - Application for the continued restoration of former quarry void by means of landfill - site restored by 31st December 2023.</p> <p>ESS/27/20/TEN – Pending determination - continuation of permitted developments until 30 September 2040</p>	
	Sladburys Farm, Sladburys Lane	ESS/30/13/TEN - Retrospective application for use of the site as a storage and distribution facility for waste/reclaim materials and goods. Associated development includes amendments to the existing access, existing loading/unloading areas and the provision of additional signage.	
	Slough Farm	ESS/29/20/TEN – pending determination - Proposed western	Waste Local Plan Allocation L(n)1R

		extension to Martells Quarry for the extraction, processing, sale and distribution of silica sand and gravel, and subsequent restoration using inert materials along with the creation of a new access.	
	Spring Farm	ESS/04/18/TEN - Change of use of building to waste recycling centre (sui generis).	
	Yard 6, Telford Road, Clacton	ESS/16/19/TEN - Proposed construction of a waste transfer station for the sorting of non-putrescible commercial, domestic and construction waste.	

**From:** Meakins, Corinne [REDACTED]  
**Sent:** 10 August 2021 10:24  
**To:** North Falls  
**Subject:** Forestry Commission response to EN010119-000019 - North Falls onshore Wind Farm scoping consultation

**EN010119-000019 Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

**Scoping consultation**

Dear Sir/Madam,

Thank you for consulting the Forestry Commission on this proposal. As the Government's forestry experts we endeavour to provide as much relevant information to enable the project to reduce any impact on irreplaceable habitat such as Ancient/semi natural Woodland as well as other woodland.

The Forestry Commission is particularly concerned about any impact on Ancient Semi Natural Woodland and will expect to see careful consideration of any impact and any weightings which might be applied to any assessments of route options/or site choice.

Ancient woodland is an irreplaceable habitat. As highlighted in the para 175 NPPF, whilst Nationally Significant Infrastructure Projects are not subject to the NPPF it sets out the importance of these irreplaceable habitats.

This applies both to Ancient Semi Natural Woodland (ASNW) and Plantations on Ancient Woodland Sites (PAWS). The scoping document does list a number of Ancient Woodlands and these will be woodlands above 2 ha which is the smallest size currently defines as ancient by Natural England, however this does not mean there are not others. Also we would wish to see all woodland included in any assessment this includes any new planting. Given the Climate change imperatives and the government policy towards tree planting it is imperative that we endeavour to protect what we have.

To see if there are non-ancient woodlands we suggest using the National Forest Inventory data sets. <https://data.gov.uk/dataset/cd748245-e68c-41e4-bb1a-4728bc64163c/national-forest-inventory-woodland-england-2018> (last updated 2020) these go down to 0.5 ha. If the applicants have any problems with such mapping our experts in our mapping team may be able to help.

Whilst this consultation is just on the scoping document clearly mapping so as to avoid is essential and we feel it worth setting out that the Forestry Commission expects the applicants to avoid all irreplaceable habitats, and other woodland wherever possible. One of the most important features of Ancient woodlands is the quality and inherent biodiversity of the soil; being relatively undisturbed physically or chemically it is also a major seed bank. Direct impacts of development that could result in the loss or deterioration of ancient woodland or ancient and veteran trees include:

- damaging or destroying all or part of them (including their soils, ground flora or fungi)

- damaging roots and understorey (all the vegetation under the taller trees)
- damaging or compacting soil around the tree roots
- polluting the ground around them
- changing the water table or drainage of woodland or individual trees
- damaging archaeological features or heritage assets

By thorough mapping and identifying woodland it can be considered appropriately to avoid any of the above impacts. e.g. rerouting pipes, moving temporary stockpiles and balancing ponds. It is also essential that fuels, chemicals, or waste materials such as topsoil, minerals or hard-core are not stored on ancient woodland soils or under the woodland canopy.

We particularly refer you to further technical information set out in Natural England and Forestry Commission's [Standing Advice on Ancient Woodland](#) – plus supporting [Assessment Guide and Case Decisions](#).

In addition to protection of Ancient Semi natural Woodland the UK Forestry Standard (UKFS) sets out the UK government's approach to sustainable forestry and woodland management, including standards and requirements as a basis for regulation, monitoring and reporting requirements. The UKFS has a general presumption against deforestation. Page 23 of the Standard states that: "Areas of woodland are material considerations in the planning process...."

In addition, lowland mixed deciduous woodland is on the Priority Habitat Inventory (England). This recognises that under the UK Biodiversity Action Plan they were recognised as being the most threatened and requiring conservation action. The UK Biodiversity Action Plan has now been superseded by the UK Post-2010 Biodiversity Framework but this priority status remains.

It is expected that there will be a thorough assessment of any loss of all trees and woodlands within the project boundary and the development of mitigation measures to minimise any risk of net deforestation because of the scheme. A scheme that bisects any woodland will not only result in significant loss of woodland cover but will also reduce ecological value and natural heritage impacts due to habitat fragmentation, and a huge negative impact on the ability of the biodiversity (flora and fauna) to respond to the impacts of climate change. Woodland provides habitat for a range of Section 41 Priority Species including all bats.

Where woodland loss is unavoidable, it is expected that there will be significant compensation and the use of buffer zones to enhance the resilience of neighbouring woodlands. These zones could include further tree planting or a mosaic of semi-natural habitats.

For any woodland within the development boundary, land required for temporary use or land where rights are required for the diversion of utilities you must take into consideration the Root Protection Zone. The Root Protection Zone (as specified in British Standard 5837) is there to protect the roots of trees, which often spread out further than the tree canopy. Protection measures include taking care not to cut tree roots (e.g., by trenching) or causing soil compaction around trees (e.g., through vehicle movements or stacking heavy equipment) or contamination from poisons (e.g., site stored fuel or chemicals). Therefore in scoping it is useful to set a buffer area around woodland to enable cable routing to be far enough away.

If it becomes necessary the mitigation hierarchy (set out in [Paragraph 175 of the NPPF](#)) sets out a useful structure for considerations of mitigation and compensation. Whilst the NPPF does not apply to NSIPs this ethos remains the same.

Some of the above will become more relevant once the onshore cable route and infrastructure locations are determined.

Yours sincerely,

Corinne Meakins  
Local Partnership Advisor Forestry Commission East and East Midlands  
[REDACTED]

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CEMHD- Land Use Planning  
NSIP Consultations  
Building 1.2, Redgrave Court  
Merton Road, Bootle  
Merseyside, L20 7HS

Your ref: EN010119-000019  
Our ref: 4.2.1.6871.

HSE email: [NSIP.applications@hse.gov.uk](mailto:NSIP.applications@hse.gov.uk)

FAO: Laura Feekins-Bate  
EIA Advisor  
The Planning Inspectorate  
Temple Quay House  
Bristol, BS1 6PN  
(By email)

Dear Laura Feekins-Bate

4 August 2021

**North Falls Offshore Windfarm  
Proposal by North Falls Offshore Wind Ltd  
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as  
amended) – Regulations 10 and 11**

Thank you for your letter of 19 July 2020 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

**HSE's land use planning advice**

Will the proposed development fall within any of HSE's consultation distances?

According to HSE's records the proposed DCO application boundary for this Nationally Significant Infrastructure Project is not within the consultation zones of any major accident hazard sites or major accident hazard pipelines.

This is based on the current configuration as illustrated in, for example, 'Onshore Scoping Area Drawing Number PB9244-RHD-ZZ-ON-DR-GS-0060' of the document 'North Falls offshore Windfarm Environmental Impact Assessment Scoping Report Document Reference No:004027770-04 Date: 16/07/21 Revision: 04'

HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.

Hazardous Substance Consent

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015 as amended.

HSC would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the controlled quantities set out in Schedule 1 of these Regulations.

Further information on HSC should be sought from the relevant Hazardous Substances Authority.

### Consideration of risk assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 Annex on the Planning Inspectorate's website - [Annex G – The Health and Safety Executive](#). This document includes consideration of risk assessments on page 3.

### Explosives sites

HSE has no comment to make in this regard, as there are no licensed explosive sites showing in the area of the proposed development.

### **Electrical Safety**

No comment, from a planning perspective.

Please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at [nsip.applications@hse.gov.uk](mailto:nsip.applications@hse.gov.uk). We are currently unable to accept hard copies, as our offices are not fully staffed.

Yours sincerely,

*Monica*

CEMHD4

NSIP Team



Ms Marnie Woods  
Senior EIA Advisor, Environmental Services  
The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN



Our ref: PL00752883  
Your ref: EN010119-000019

Date: 12 August 2021

[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)

**BY EMAIL**

Dear Ms Woods

**ENVIRONMENT IMPACT ASSESSMENT (EIA) SCOPING REPORT – JULY 2021**

**Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

Thank you for your letter of 19th July with a formal request for a scoping opinion in relation to the above application. Historic England, as the government's lead advisor on the historic environment, would like to offer comments on this proposal, taking into consideration the information provided by the applicant: North Falls Offshore Wind Farm Environmental Impact Assessment Scoping Report, No:004027770-04 (16 July 2021).

**The Proposed Development**

The overall aim of the proposed development is for an extension located immediately adjacent to the western boundary of the existing Greater Gabbard Offshore Wind (GGOW) array areas, within the Outer Thames Estuary.

The North Falls array area is split into two boundaries to facilitate a shipping route. Within these boundaries, WTGs, array cables and offshore platforms (substations) will be installed. The northern and southern array boundaries cover areas of approximately 6.1nm<sup>2</sup> (20.9km<sup>2</sup>) and 37.5nm<sup>2</sup> (128.6km<sup>2</sup>), respectively. The northern array boundary lies approximately 12.0nm from shore, and the southern boundary approximately 20.3nm from shore.

The project has the potential to consist of up to 71 WTGs. The division of WTGs across the two array boundaries and the overall layout will be informed by site investigation works post consent. It is estimated that the maximum rotor diameter would be 337m, with a maximum rotor tip height of 397m (above MHWS).

The Scoping Report indicates that at this stage foundation design could comprise any of the following:



- monopile;
- jackets on pin piles;
- jackets on suction caissons; and/or
- gravity Base Structure (GBS).

We are aware that a project design Rochdale Envelope approach is being used to provide flexibility in any consent obtained to take account of changes in available electricity generation and transmission technology. We understand that such flexibility should enable the Applicant to use the most up to date, efficient and cost-effective technology and techniques in the construction, operation, maintenance and decommissioning of the proposed wind farm. The adoption of realistic worst-case scenario(s) will enable the Project's stakeholders and the Secretary of State to be confident that the environmental impacts of the Project would be no greater than those identified in the ES.

The electricity will be connected to the shore by export cables which will be located within an offshore export cable corridor which is currently proposed to run from the southern WTG array area and is proposed to make landfall between Clacton-on-Sea and Frinton-on-Sea. The precise landfall location between these two settlements will be subject to further assessment work. The offshore export cable corridor will also include an interconnector cable between the northern and southern array areas. Cables will be installed at the landfall using HDD. Each circuit will require one HDD i.e. up to four in total.

The offshore elements of North Falls are now well defined. The site selection process for the onshore elements of the project is at an early stage, however, with an onshore transmission substation location for North Falls yet to be confirmed by National Grid. To progress with the development of the project, North Falls has defined an onshore geographical broad area (herein the 'onshore scoping area').

The onshore scoping area comprises approximately 150km<sup>2</sup> of land located within the Tendring district, because the onshore transmission substation location has yet to be confirmed. North Falls has applied a series of electrical design parameters and consenting constraints in order to define an onshore scoping area. These principles are:

- All land within 20km of the landfall search area;
- All land within 4km of the existing 132kV electrical transmission line between Ardleigh Road substation and Little Clacton substation;
- Excluding all population centres of over 5,000 inhabitants;
- Excluding all international designated sites for nature conservation (Ramsar sites) and sites on the UK National Sites Network (SAC/SPAs); and
- Excluding all national landscape designations (Areas of Outstanding Natural Beauty (AONB)).



## Historic England Advice

The historic environment is a finite and non-renewable environmental resource which includes designated and non-designated heritage assets, conservation areas, historic landscapes and sites of historic and evidential interest. It is a rich and diverse part of England's cultural heritage and makes a valuable contribution to our cultural, social and economic life.

We confirm that historic environment represents a potentially significant issue in EIA terms, for both onshore and offshore elements, and confirm our view the historic environment should be 'scoped in' to the assessment.

We acknowledge the detail included in Section 1.7 regarding engagement with Historic England and the establishment of consultation groups as listed in Table 1.4.

We welcome the commitment to engage professional, accredited and experienced built heritage and archaeological consultants in the preparation of the ES, so that full consideration can be taken of known and presently unknown heritage assets.

We also understand that North Falls and the nearby proposed Five Estuaries Offshore Wind Farm are two distinct projects with separate ownership/shareholders. However, we appreciate the acknowledgement that co-ordination of stakeholder engagement, construction, infrastructure and operations plans should be explored during the project development phase and opportunities identified and realised. Furthermore, we note that North Falls Offshore Wind (NFOW) is a consortium between Scottish and Southern Energy Renewables (SSER) Ltd and RWE Renewables UK Ltd (RWE).

To assist any further planning of the proposed NFOW project we offer the following link to the Historic England Advice Note 15 *Commercial Renewable Energy Development and the Historic Environment* (2021):

<https://historicengland.org.uk/images-books/publications/commercial-renewable-energy-development-historic-environment-advice-note-15/>

### Comments in relation to the Scoping Report: onshore archaeology and cultural heritage (3.7)

We note Section 3.7 relating to onshore archaeology and cultural heritage that has been submitted in the Scoping Report. We agree that the scoping report has taken into consideration both designated and non-designated heritage assets and that the assessment methodologies are generally appropriate – and we offer the following specific comments below.

We acknowledge that the Planning Inspectorate (2018) Advice Note 9 (Paragraph 4.5), states that “*At the time of the Scoping Request, it may be necessary to leave certain matters open*” (para. 42). We are concerned, however, by the very large size of the onshore scoping area (Figure 1.4), which makes it impossible to offer any specific comments. It limits the response, in terms of onshore works, to only very general comments at this stage.



In our opinion, the submission is premature and the onshore scoping area is simply too large at this stage, covering more than half the Tendring peninsula. No cable corridor has been defined and no substation location has been identified in the Scoping Report. The onshore scoping area contains five Scheduled Monuments, 230 Listed Buildings (including four at Grade I and 13 at Grade II\*), and one Registered Park and Garden (para. 563). Para. 566 acknowledges the region as a whole has high potential for archaeological remains of local, regional and national importance. We note the data for non-designated heritage assets from the Historic Environment Record has not been acquired at this stage (para. 565).

We would expect the scoping area to be narrowed down at an early stage in the project, prior to submission of the Scoping Report. Consequently, we would recommend that the scoping exercise for onshore work is repeated once the grid access has been determined.

We are aware that the location of the proposed substation will not be confirmed by National Grid until January 2022. We are also aware of the key milestones of this project and submission of the PEIR in summer 2022 (para. 55). Consequently, we are concerned to ensure there is adequate time to undertake, in particular, a programme of onshore archaeological assessment that we believe is necessary to support the DCO application (see below).

#### Comments in relation to the Scoping Report: onshore archaeology

We note the sources of information to inform the baseline for the study area (Table 3.19). No results have been presented at this stage, with the exception of Figure 3.12 (designated heritage assets). We note that no preliminary assessment of the value of cultural heritage assets within the study area has been undertaken, presumably because of the very large size of the scoping area. At this stage, no systematic archaeological investigation has been undertaken.

In terms of below-ground heritage assets (Section 3.7), we welcome the investigations that are proposed to assess cultural heritage. We look forward to reviewing the reports, which should be submitted in the ES. The ES should provide a detailed archaeological baseline; only a detailed and comprehensive understanding of the below-ground archaeological resource will allow for impact to heritage to be properly mitigated. There is significant potential for further nationally important sites to be discovered within the scoping area - and along the onshore cable route, in the area of the proposed substation and in the areas of construction compounds and laydown areas. We would, therefore, recommend that the resolution of the baseline information is considered carefully. For example, a resolution of 1m is the basic minimum needed for archaeological assessments, but where greater detail is required, higher resolution is preferable (Historic England, *Using Airborne LIDAR in Archaeological Surveys*, 2018):

<https://historicengland.org.uk/images-books/publications/using-airborne-lidar-in-archaeological-survey/>.



For the ES desk-based assessment, this should also include the dataset from CITiZAN (<https://citizan.org.uk/>). In terms of aerial photographs, all potential archaeological features recorded by aerial photography in the scoping area should be accurately plotted and assessed (para. 593).

We welcome the proposed programme of archaeological evaluation, comprising geophysical survey followed by archaeological trial-trenching. We are pleased to see that further geophysical survey approaches will be considered in addition to magnetometry following the findings of the DBA (Table 3.20). We note, however, the proposal for only targeted geophysical survey and trial-trenched evaluation identified through desk-based baseline collation (Table 3.2).

In our opinion, the geophysical survey should be undertaken across the DCO application area to ensure the nature, extent and survival of subsurface archaeological and geoarchaeological remains are established, and presented in the ES. This will enable an appropriate scheme of mitigation to be prepared. We note that all supporting technical heritage information (full survey reports) is included as appendices to allow the information to be critically assessed (paras. 593-4).

We also recommend trial-trenched evaluation should be carried out in the area of the proposed substation and in the areas of construction compounds, as well as in pinch-point locations along the proposed onshore cable route and to test the results of any significant concentrations of archaeological remains (defined by the other archaeological surveys) (para. 560). We acknowledge a more comprehensive (onshore project wide) approach to trial trenching is anticipated to take place in the post-consent stages (para. 560).

We would also recommend specialist palaeoenvironmental assessment is undertaken where the desk-based assessment, and other surveys, indicate there is potential for the survival of palaeoenvironmental remains. This will enable the nature, extent and survival of subsurface archaeological and geoarchaeological remains to be adequately established, and presented in the ES. This will ensure that a detailed and informed archaeological mitigation strategy can be prepared and agreed. We would recommend that geoarchaeological considerations and requirements are built into any geotechnical investigations that are carried out to ensure that opportunities are maximised where possible. This should include providing the geoarchaeologist with direct access to the core material rather than just to the logs or to extruded samples.

The onshore scoping area also has potential for encountering potential for Pleistocene and Holocene deposits of archaeological significance. Consequently, we recommend that a Palaeolithic desk-based assessment is also prepared. The nature and scope of specialist Palaeolithic survey and assessment should be devised through consultation with the archaeological advisors at Essex Place Services. This information may not be adequately represented in the Essex Historic Environment Record, by shallow geophysics or even by shallow evaluation trenches.

An effective method for identifying the potential depth and character of Palaeolithic archaeology would be to undertake a preliminary deposit model as part of the desk-based assessment. This should be prepared by a geoarchaeologist based on any available stratigraphic information, including archaeological and geotechnical data.



The deposit model will help to illustrate the depth, characteristics and potential of the deposits of archaeological interest and should inform any subsequent evaluation trenching, borehole sampling and/or geophysical survey. The deposit model will also help to guide elements of the proposed mitigation strategy, such as the choice of geophysical techniques that are utilised. For example, techniques that investigate deeper deposits of archaeological interest should be considered, such as electromagnetic induction (EMI) or electrical resistivity (ERT).

It is stated that HDD will be used for the onshore cable works (para. 471). If this technique is to be used, the potential issues associated with bentonite slurry outbreak will need to be considered in terms of the impact (both direct and indirect) that this may have on any buried archaeological remains. This needs to be considered in the ES, and mitigation included in the Written Scheme of Investigation for archaeological mitigation.

It is noted that several sections within the scoping report contain information that may also aid the assessment of the archaeological potential of the development area, for example, information about the geology and hydrology (Section 3.1) and water resources (Section 3.3). In particular, it is important to understand how changes to the groundwater levels, water quality or the movement of water through deposits may impact the historic environment. For example, changes to groundwater levels or the mobilisation of contaminants along different pathways may impact the preservation of archaeological structures, features or remains, including palaeoenvironmental remains. In addition, soil erosion may supply fine sediments into watercourse, which could impact on channel morphology (Section 3.3.3.1). This in turn may alter bed and bank scour patterns within the channel which could potentially expose deposits/remains of archaeological interest (paragraphs 472 & 474).

Additional works are planned to investigate the geology and hydrology/hydrogeology (section 3.1.4) of the development area; we would recommend that the value of this information to inform the assessment of the historic environment should be considered and discussed with the project archaeological team. This will allow any opportunities to be maximised where possible, and it will also hopefully reduce any duplication of effort. For example, any intrusive works such as boreholes that are collected for ground investigation works, and the conceptual model (paras. 436 and 438) will potentially add to the understanding of the historic environment, as well as the likely preservation conditions that may be present on the site. The conceptual model will also add to the understanding of how the proposed development may impact the historic environment. We would therefore recommend that Onshore Archaeology and Cultural Heritage is added into Table 3.32 in the 'Inter-relationships' column for the 'Water Resources and Flood Risk' topic.

The nature and scope of the archaeological evaluation should be devised through consultation with the archaeological advisors at Essex Place Services (para. 591). We would be pleased to provide any further advice, and comment on the proposed methodology, as well as advising on the significance of the results. In our view, this will provide the Examining Authority with the appropriate level of information to determine the application, confident that the historic environment has been adequately assessed and that the proposed mitigation measures will be effective and proportionate to the significance of heritage assets.





Considering the amount of evaluation fieldwork that is likely to be required, we strongly recommend that discussions about this fieldwork commence at the earliest opportunity. We also advise that a timetable is agreed for each stage of the assessment process, especially because onshore transmission substation location for North Falls yet to be confirmed by National Grid.

Some of the work associated with the proposed Project may impact on the groundwater levels or movement of water through deposits. For example, the need for foundations for the substation, compression of deposits through the construction of elements or the movement of vehicles, the reduction in recharge values, or the need to dewater areas during construction. The impact that this work may have on the historic environment needs to be considered as any changes may affect preservation conditions within the area of the proposed Project or in nearby deposits, which in turn may result in the damage and/or loss of archaeological remains (para. 572). For example, the potential impact of dewatering on any well-preserved, waterlogged archaeological and palaeoenvironmental remains needs to be investigated along the onshore cable corridor.

We would recommend that the Historic England document *Preserving Archaeological Remains* (2016) is referred to aid the discussions of the potential impacts to the historic environment as well as the approaches used to investigate them:  
<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>.

The Historic England document *Piling and Archaeology* (2019) should be also referred to as some of the elements of the development will involve piling:  
<https://historicengland.org.uk/images-books/publications/piling-and-archaeology/>

Historic England's Regional Science Advisor will be pleased to provide technical advice and guidance concerning the appropriate techniques for archaeological and palaeoenvironmental assessment.

#### Comments in relation to the Scoping Report: Historic environment settings assessment

We appreciate that attention will be given to assessment of the setting of heritage assets and will be addressed within respective chapters of the ES for onshore and offshore archaeology and cultural heritage.

We note the initial proposed SLVIA assessment (Section 4.1 and Table 4.1, and also paras. 589 and 738) and recommend the SLVIA is supplemented with heritage specific viewpoints (photographs, photomontages and wirelines) that illustrate the ES and support the results of the heritage assessment. If these are to be presented in the seascape, landscape and visual chapter, the assessment needs to be clearly set out and cross-referenced with the heritage chapter. We look forward to constructive engagement with the applicant, at an early stage, to agree the proposed key viewpoints for visualisations to assess the impact of offshore infrastructure on designated heritage assets.



We note the proposed 50km search radius (para. 711 and Figure 4.1) around the array areas. Given the estimated maximum rotor tip height of 397m, which is very high, we would recommend that the search radius for cultural heritage is extended to 70km, and should include highly-graded heritage assets, for example, on the Dengie Peninsula.

We note that para. 713 mentions the seascape character assessment published by the MMO and we add that the MMO seascape data does include Historic Seascape Characterisation (HSC) data as a means to derive a sense of character. However, it is important to add that the effectiveness of HSC as a means to understand how seascape can accommodate change will depend on how the available methodology is used, as mentioned in Table 2.26.

It is likely that the proposed onshore substation will have an impact on the significance of designated and non-designated heritage assets, in terms of the changes to their settings and their relationships to the wider landscape.

A ZTV should be produced in relation to the designated heritage assets, and any significant historic landscape elements, and used to inform the selection of potential viewpoints to assess the impact of the proposed substation on the setting of heritage assets. The assessment should define a study area according to the sensitivity of the receiving environment and the potential impacts of the project.

In terms of the location of the proposed substation, we would be pleased to advise on the area of study for designated heritage assets, and the extent of ZTV, once the scoping area has been narrowed down. We note that a 5km project boundary has been proposed (para. 589) but the zone of theoretical visibility could be considerably larger – and this cannot be agreed until the location of the proposed substation has been published. We also look forward to constructive engagement with the applicant to agree the proposed key viewpoints for visualisations.

The setting of heritage assets is not just restricted to visual impacts and other factors should be considered, in particular noise, vibration, light, odour, traffic assessments, during construction and operation. Where relevant, the cultural heritage chapter should also be cross-referenced to other relevant chapters, and we advise that all supporting technical heritage information is included as appendices.

In terms of the assessment of setting, we consider the analysis of setting (and the impact upon it) as a matter of qualitative and expert judgement which cannot be achieved solely by use of systematic matrices or scoring systems. Historic England, therefore, recommends these should be in an appendix and seen only as material to support a clearly expressed and non-technical narrative argument within the cultural heritage chapter. The EIA should use the ideas of benefit, harm and loss to set out 'what matters and why' why' in terms of the heritage assets' significance and setting, together with the effects of the development upon them.

In addition, the appreciation of the value of the historic environment should not rely solely on an appreciation of the location of designated heritage assets but consider the interactions with the wider landscape.



The assessment should be prepared and submitted following the approach set out in Historic Environment Good Practice Advice in Planning Note 3, *The Setting of Heritage Assets* (2017):

<https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

### Comments in relation to the Scoping Report: Offshore archaeology and cultural heritage (2.11)

Para. 342 acknowledges this discovery of different elements of the historic environment of “potential archaeological interest” associated with Greater Gabbard and Galloper Offshore Wind Farms. It is apparent that as well as potential, these developments have encountered archaeological materials of identifiable interest and significance.

The attention to detail in para. 343 is noted in reference to palaeoenvironmental interest known to exist in the coastal margin. We note the use of Figure 2.14 derived from UKHO wreck records, which we acknowledge provides a degree of historic characterisation. However, in consideration of the location of this development, in the outer Thames estuary, it is to be anticipated that a considerable number of older wrecks, presently unknown, may also exist and not qualified as ‘wreck’ within UKHO data. We add also the legacy of presently unknown aircraft wrecks and highly fragmentary remains will also require attention.

We concur with the approach to data collection (as set out in section 2.11.2). Para. 346 mentions that “...if any geotechnical investigations are completed the samples will be made available for geoarchaeological assessment.” However, it is essential that maximum value is obtained from any such analysis and we must therefore recommend that geo-archaeological considerations and requirements are built into the planning of any geotechnical survey campaign. For example, providing isolated physical “samples” are likely to be of limited use compared with having direct access to geotechnical core material on extraction and at time of cutting and prior to any destructive testing.

Table 2.1 and 2.2 include important details about presently available geophysical and geotechnical data and what survey campaigns are planned in 2021 to inform the planning of NFOW. We would add that knowledge and understanding about the presence of palaeoenvironmental sedimentary sequences and prehistoric landscape features as may occur within or beneath the contemporary seabed can also support interpretation used for cultural heritage assessment exercises. We would also recommend that the line spacings used in the different geophysical campaigns are considered, and so we are pleased to see that it is stated in Section 2.11.2 (paragraph 346) that the survey work will be carried out in accordance with the Historic England document ‘*Marine Geophysics*’ (2013).

We note the detail provided in section 2.11.3 (potential impacts) at all project stages construction, operation and decommission and in consideration of other plans or projects. We, therefore, agree with Table 2.28 (summary of impacts) and the statement made in para. 363 about the effects to be scoped into the EIA for all phases



of the proposed NFOW project. We also agree with the detail provided in section 2.11.4 (approach to assessment).

The identification of inter-relationships is recognised with reference to offshore archaeology and cultural heritage and marine geology (section 2.14, Table 2.32), which should enable the preparation of any PEIR to fully evaluate the physical environment within which archaeological materials may be encountered.

### Comments in relation to the Scoping Report: Cumulative impacts

We note the proposed cumulative impact assessment (paras. 102-10, 580-2, 731 and 736). It is quite possible there will be projects within the onshore substation study area that will need to be considered in terms of cultural heritage once the study area has been narrowed down. This work should not, therefore, be scoped out at this stage (paras. 732 and 737). We look forward to constructive engagement with the applicant, at an early stage, to agree the proposed key viewpoints for visualisations to assess the cumulative impact of the Project on designated heritage assets.

By following planning policy and guidance we would expect the project to be creative in how it might offer opportunities for the enhancement of heritage assets, and how the project might deliver public (heritage) benefit. The ES should aim to make clear public heritage benefits and outreach as part of planned mitigation.

We would advise the ES should put forward proposals for the use, display and interpretation of archaeological evidence that will be revealed by the development and to provide enhancement to heritage assets and secure wide heritage benefits as part of the Project and we would be pleased to provide advice about potential heritage schemes.

### **Conclusion**

We have serious concerns about the proposed strategy for assessment of onshore archaeology in the Scoping Report. In our opinion, this strategy could fail to adequately assess the full extent and significance of archaeological remains within the DCO application area. There is a considerable risk that nationally important heritage assets, in the form of previously unknown buried archaeological deposits, could be missed by the proposed strategy.

We strongly recommend that the geophysical survey should be undertaken across the whole DCO application area, rather than targeted or priority areas. This should be followed by trial-trenched evaluation in the area of the proposed substation and in the areas of construction compounds, as well as in pinch-point locations along the corridor route. Palaeoenvironmental assessment should be undertaken where the desk-based assessment, and other surveys, indicate there is potential for the survival of palaeoenvironmental remains.



We also have serious concerns about the prematurity of the submission in terms of the onshore scoping area, covering more than half the Tendring peninsula. No cable corridor has been defined and no substation location has been identified in the Scoping Report. We have, therefore, been unable to provide any specific comments at this stage. We would recommend that the scoping exercise for onshore work is repeated once the grid access has been determined in January 2022.

We should like to stress that this response is based on the information provided in this consultation. For the avoidance of doubt, this does not affect our obligation to provide further advice and, potentially, to object to specific proposals which may subsequently arise where we consider that the scale, massing and detailed design would have an adverse effect upon the immediate and wider historic environment.

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

Yours sincerely,

**Dr Jess Tipper MCIfA FSA**

Inspector of Ancient Monuments (Essex and Hertfordshire)

[Redacted signature]

## Feekins-Bate, Laura

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**From:** Jon Connon [REDACTED]  
**Sent:** 28 July 2021 10:29  
**To:** North Falls  
**Subject:** RE: EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

Good Morning Laura,

Thank you for consulting JNCC on the EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation, which we received on 19/07/2020.

JNCC's role in relation to offshore renewables has been delegated to Natural England.

Natural England is now authorised to exercise the JNCC's functions as a statutory consultee in respect of certain applications for offshore renewable energy installations in inshore and offshore waters (0-200nm) adjacent to England. Therefore, Natural England/ should provide a full response. As such JNCC have not reviewed this application and will not be providing further comment. In addition we have discussed this matter with Natural England and they have confirmed they do not require JNCC input.

Kind regards,

**Jon Connon**

*OIA Admin Officer*

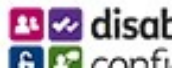
*Marine Management Team*

JNCC, Inverdee House, Baxter Street, Aberdeen, AB11 9QA

[REDACTED]  
[REDACTED]  
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**From:** North Falls <[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)>

**Sent:** 19 July 2021 10:50

**Cc:** North Falls <[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)>

**Subject:** EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

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Please see attached correspondence on the proposed North Falls Offshore Wind Farm project.

Please note the deadline for consultation responses is **16 August 2021**, and is a statutory requirement that cannot be extended.

Kind regards  
Laura

Laura Feekins-Bate  
EIA Advisor  
Environmental Services



Email: [Redacted]

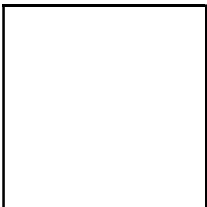
Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)

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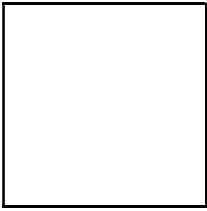


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## Feekins-Bate, Laura

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**From:** [REDACTED]  
**Sent:** 09 August 2021 16:47  
**To:** North Falls  
**Cc:** [REDACTED] council@littlebromley.org.uk;  
littlebromleypc@gmail.com  
**Subject:** Little Bromley Parish Council - North Falls Wind Farm - Response to Request for Information for Environmental Statement  
**Categories:** EO

Dear Sir/ Madam -

Little Bromley Parish Council held an Extra Ordinary Parish Council Meeting attended by a number of the village residents to discuss this request for information.

It was agreed that as the information provided to date does not include a location for the Onshore Transmission Substation, for the East Anglian Coastal Substation, nor for any transmission cable routes either for connection between cable landfall site, the substations and for further connection into the National Grid, that no specific points can be raised.

We note that the current Ardleigh Substation is mentioned. The majority of this Substation site sits within the Little Bromley Parish Boundary.

Little Bromley Parish Council supports the need for Offshore Windfarms as part of the UK overall power mix. We request that there is minimal impact on the Parish for the Onshore part of this development. We are concerned that a requirement has been made for up to 70 metre working width for laying underground cables as this will be very disruptive. We would also like to point out that many of the farms in the Parish rely on crop irrigation systems for which extensive underground pipework is present. These irrigation systems will need to be considered alongside any water mains, gas mains and electric mains in the Parish.

Little Bromley Parish Council would like to continue to be consulted as this project progresses.

Best Regards -

Jonathan Buxton - Chairman Little Bromley Parish Council



**Feekins-Bate, Laura**

---

**From:** planning\_appeals [REDACTED]  
**Sent:** 19 July 2021 15:29  
**To:** North Falls  
**Cc:** planning\_appeals  
**Subject:** EN010119-000019 North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

Afternoon

I confirm that the London Borough of Havering have no representations to make re North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

Regards Claire

**Claire Camp | Business Support Officer  
Development & Building Control**

London Borough of Havering | Development Planning & Building Control  
Mercury House, Main Road, Romford, RM1 3BB

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[https://www.havering.gov.uk/info/20044/council\\_data\\_and\\_spending/139/data\\_protection](https://www.havering.gov.uk/info/20044/council_data_and_spending/139/data_protection), which outlines your rights and how we collect, use, store, delete and protect your personal data.

Waltham Forest Town Hall, Forest Road, London E17 4JF

Marnie Woods - Senior EIA and Land Rights Advisor  
Temple Quay House, 2 The Square  
Bristol  
BS1 6PN

**Date of decision: 11 August 2021**

## **TOWN AND COUNTRY PLANNING ACT 1990**

**Application reference number:** 212368

**Description of work:**

Scoping Opinion consultation - Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)

**Location of work:**

North Falls Offshore Wind Farm

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

**Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

### **1. INTRODUCTION**

The Applicant (North Falls Offshore Wind Ltd) has asked the Planning Inspectorate on behalf of the Secretary of State for its opinion (a Scoping Opinion) as to the information to be provided in an Environmental Statement (ES) relating to the Proposed Development, i.e. the creation of a wind turbine farm (the North Falls Offshore Wind Farm) off the coast of Suffolk, East Anglia, located within the North Sea. PINS have confirmed that in accordance with the requirements of the Infrastructure Planning (Environmental Impact Assessment (EIA)) Regulations 2017 and Section 43 of the Planning Act 2008, LBWF has been identified as a local authority that is required to be notified and consulted prior to the Secretary of State adopting an EIA Scoping Opinion for this Nationally Significant Infrastructure Project (NSIP), as it is a local authority that borders an upper tier county council in which the NSIP is located.

### **2. ASSESSMENT**

The applicants have submitted a EIA Scoping Report which has been reviewed by officers. The report covers a wide breadth of issues proportionate to the status of this application as a NSIP, and include both off-shore physical and geological issues, as well as wider socio-economic and on-shore visual and physical impacts such as air quality and wider climate change. It is not considered that there are any significant issues raised by the scoping report which would directly impact upon LBWF, and therefore no comments are made in relation to the scoping opinion.

### **3. EQUALITIES**

In making its decision the Council has had regard to its public sector equality duty (PSED) under s.149 of the Equalities Act. It is also considered that the decision takes into account issues arising from the Human Rights Act 1998.

#### **4. CONCLUSION**

The Council has no comments to make on the EIA Scoping Opinion.



**Justin Carr**  
**Assistant Director – Development Management and Building Control**  
**London Borough of Waltham Forest**

13<sup>th</sup> August 2021

# MALDON DISTRICT COUNCIL

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[northfalls@planninginspectorate.gov.uk](mailto:northfalls@planninginspectorate.gov.uk)

Dear Sir/Madam

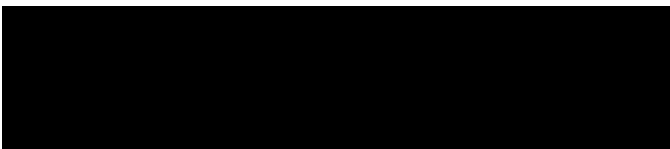
**Application No:** 21/00789/SOR  
**Proposal:** PINS consultation on Scoping Opinion request  
**Location:** North Falls Off Shore Wind Farm, Off Suffolk Coast

I refer to your letter dated 19 July 2021, regarding the above.

The Scoping Report submitted has been reviewed and the Council does not have any comments to make on the information to be provided in an Environmental Statement relating to the above proposed development.

If you have any queries do not hesitate to contact us.

Yours faithfully



Alex Taylor  
Senior Specialist Coordinator - Development Management



# Marine Management Organisation

## **Marine Management Organisation response to Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11 Scoping consultation and notification of the Applicant’s contact details and duty to make available information to the Applicant if requested**

**Title:** North Falls Offshore Array Development

**Applicant:** North Falls Offshore Wind Farm Ltd

**PINS Reference:** EN010119

**MMO Reference:** DCO/2021/00002

### **Contents**

Contents.....	1
1. Proposal.....	2
1.1. Project Background.....	2
2. Scoping Opinion.....	2
2.1. Benthic Ecology .....	3
2.2. Coastal Processes.....	4
2.3. Fish Ecology and Fisheries.....	5
2.4. Shellfish .....	7
2.5. Underwater Noise .....	7
2.6. Dredge and Disposal .....	10
3. Conclusion .....	11



# 1. Proposal

## North Falls Offshore Array Development

### 1.1. Project Background

Greater Gabbard Offshore Wind Farm (GGOW) is located off the coast of Suffolk, England and was commissioned in 2012. In February 2017, The Crown Estate launched an opportunity for existing wind farms to apply for project extensions and North Falls Offshore Wind Ltd (hereafter 'The Applicant' or 'NFOW') applied for a lease to develop an extension located immediately adjacent to the western boundary of the existing GGOW array areas. In August 2019, The Crown Estate consulted on and then concluded a plan-level Habitats Regulations Assessment (HRA) for the proposed extension projects and confirmed that Greater Gabbard Extension, now named North Falls Offshore Wind Farm (hereafter 'North Falls' or 'the project') would be among seven that would be awarded an Agreement for Lease (AfL).

Since award of the AfL, North Falls has been undertaking offshore desktop constraint mapping exercises, offshore aerial bird surveys, onshore ecological surveys, and offshore geophysical and benthic sampling whilst engaging in an offshore cable corridor site selection process regarding the offshore cable corridor to landfall. The offshore elements of North Falls are now well defined. Onshore, North Falls has engaged in consultation with National Grid and separately with key onshore statutory stakeholders. The site selection process for the onshore elements of the project is at an early stage, with an onshore transmission substation location for North Falls yet to be confirmed by National Grid. However, to progress with the development of the project, North Falls has defined an onshore geographical broad area (herein the 'onshore scoping area'), on which North Falls is seeking a scoping opinion.

## 2. Scoping Opinion

### **The MMO's role in Nationally Significant Infrastructure Projects**

The MMO was vested under the Marine and Coastal Access Act, 2009 (the 2009 Act) to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas. The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and Northern Ireland offshore waters by way of a marine licence<sup>1</sup>. Inshore waters include any area which is submerged at mean high water spring (MHWS) tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area.

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<sup>1</sup> Under Part 4 of the 2009 Act

In the case of NSIPs, the 2008 Act enables Development Consent Orders (DCO) for projects which affect the marine environment to include provisions which deem marine licences<sup>2</sup>.

As a statutory consultee under the 2008 Act, the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.

Where a marine licence is deemed within a DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in a deemed marine licence (DML) enable the MMO to fulfil these obligations.

Further information on licensable activities can be found on the MMO's website<sup>3</sup>.

Further information on the interaction between the PINs and the MMO can be found in our joint advice note<sup>4</sup>.

## **MMO comments**

The MMO has reviewed the North Falls Environmental Impact Assessment Scoping Report (16/07/21) in consultation with our scientific advisors at Centre for Environment, Fisheries and Aquaculture Science (Cefas). Please find the MMO's comments provided below. All comments are observations unless stated:

### **2.1. Benthic Ecology**

2.1.1. The proposed general approach to assessing impacts follows best practice and is appropriate (see Section 1.8.2 of the Scoping Report). This is also true of the approach proposed specifically for assessing impacts on benthic ecology receptors (see Section 2.5.4 of the Scoping Report).

2.1.2. The Applicant has identified potential impacts on benthic ecology receptors during the construction, operation, and decommissioning phases of the proposed development (see Section 2.5.3 of the Scoping Report). The MMO agree with the potential impacts that have been screened in (see Table 2.13 of the Scoping Report) and have no recommendations for additional potential impacts that require consideration.

2.1.3. The MMO would like to add that the assessment for '*colonisation of introduced substrate, including non-native species*' must consider the potential for the installed infrastructure to act as steppingstones that facilitate the spread of

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<sup>2</sup> Section 149A of the 2008 Act

<sup>3</sup> <https://www.gov.uk/planning-development/marine-licences>

<sup>4</sup> <http://infrastructure.planningportal.gov.uk/wp-content/uploads/2013/04/Advice-note-11-v2.pdf>

non-native species. As benthic invertebrate larvae can disperse over distances of tens to over a hundred kilometres (Álvarez-Noriega, 2020)<sup>5</sup>, this potential impact will need to be considered in the Cumulative Impact Assessment (CIA).

2.1.4. There are no information gaps that the MMO would expect to be addressed at this stage. Contemporary data on the identification and distribution of benthic ecology features is lacking, but this information gap will be filled by benthic surveys later this year (see Table 2.12 of the Scoping Report).

2.1.5. The MMO note that the Array Areas and indicative Export Cable Corridor overlap areas where Annex I reef and Annex I sandbanks have previously been identified (see Figure 2.3 of the Scoping Report) and either overlap or run adjacent to designated sites that protect benthic habitats (See Table 2.10 of the Scoping Report). This is a concern from a conservation perspective. Depending on the findings of the upcoming benthic surveys (and potentially pre-construction surveys), it may be necessary for mitigation measures to be put in place to prevent or minimise impacts on features of conservation importance, particularly if impacts occur in sites designated to protect these features. The MMO defer to Natural England to comment on whether mitigation measures are required for specific features.

2.1.6. Offshore inter-related impacts are considered in Section 2.14 of the Scoping Report and summarised in Table 2.32 of the Scoping Report. The MMO agree with The Applicant that changes to physical processes and water/sediment quality could have knock-on effects on benthic ecology receptors, and that changes to benthic ecology receptors could have knock-on effects on fish and shellfish ecology. The MMO have no recommendations for additional inter-related impacts that require consideration from a benthic ecology perspective.

2.1.7. Cumulative impacts are briefly considered in Section 2.5.3.4 of the Scoping Report. The MMO agree with The Applicant that impacts will generally be localised, though there may be potential for non-local impacts due to the spread of non-native species. Increases in suspended sediments will also need to be considered alongside the direct impacts of disturbance.

2.1.8. Transboundary impacts are briefly considered in Section 2.5.3.5 of the Scoping Report. The MMO agree with The Applicant that transboundary effects are generally unlikely. However, potential transboundary impacts due to the spread of non-native species must be considered prior to a final decision on scoping in or out, with consideration given to the dispersal potential of benthic invertebrate larvae.

## **2.2. Coastal Processes**

2.2.1. The MMO consider the approach outlined by The Applicant to assess the potential impacts of the project on the physical environment to be sufficient.

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<sup>5</sup> Álvarez-Noriega, M., Burgess, S. C., Byers, J. E., Pringle, J. M., Wares, J. P. & Marshall, D. J. (2020) Global biogeography of marine dispersal potential. *Nature Ecology & Evolution* 1:9 4, 1–8.

2.2.2. The Applicant intends to use bathymetric survey data from 2005. The MMO are unaware of the sediment dynamics in this region, hence it is not possible to comment on the appropriateness of these data. If the region is dynamic, these data could poorly represent the current situation.

2.2.3. The MMO would like to comment that the proposed wave data capture for a relatively short period between November 2004 and March 2005. While these will help characterise modal conditions over the winter period, the short time span will mean they are of limited use when looking at extreme events. This should be considered by The Applicant.

2.2.4. The list of activities that could potentially interact with this project are outline in paragraphs 105 and 106 of the Scoping Report. The MMO consider these capture all industries that are likely to interact with the project.

### 2.3. Fish Ecology and Fisheries

2.3.1. The scoping report provides a high-level fish ecology baseline and correctly identifies that the proposed windfarm array and offshore export cable corridor (ECC) are within or near to spawning grounds for several fish species. The MMO recognise that migratory fish species, European seabass (*Dicentrarchus labrax*) and elasmobranchs (sharks, skates and rays), including thornback ray (*Raja clavata*) have also been discussed and will be further considered within the EIA, which is appropriate.

2.3.2. Relevant impacts on fish receptors and commercial fisheries have been appropriately scoped in. Potential impacts to be considered within the EIA have previously been agreed with The Applicant through the Evidence Plan Process (EPP) Expert Topic Group (ETG) meeting on 5<sup>th</sup> July 2021. Therefore, MMO are content with the fish species and potential impacts scoped in for further assessment.

2.3.3. The MMO are in agreement with The Applicant that the distribution of fish species is independent of national geographical boundaries and consequently have no objection that a specific assessment of transboundary effects is unnecessary in relation to fish ecology. Transboundary impacts will be assessed in regard to commercial fisheries as part of the construction, operation, decommissioning which is appropriate.

2.3.4. As part of the EPP ETG Meeting held on 5<sup>th</sup> July 2021 the MMO recommended the use of the latest data series for the ICES International Herring Larvae Survey (IHLS); to date, up to 2020 data are publicly available through the ICES website. Additionally, it is recommended to access the North Sea International Bottom Trawl Survey (IBTS) data to support the fish characterisation for the project area. The MMO welcome that the approach to data collection proposed to inform the characterisation of fish ecology and fisheries has now incorporated the most relevant and up-to-date data series. This is appropriate.

- 2.3.5. The Applicant may wish to consider that Centre for Environment, Fisheries and Aquaculture (Cefas) also collects herring samples from the greater Thames area and southern North Sea (available here: <https://data.cefas.co.uk/view/5>) which provides some limited data on biological maturity and age data for the Thames / Blackwater herring stock, as well as stock allocation. This data may provide complementary data on herring spawning times for the Downs and Thames sub-stocks.
- 2.3.6. The MMO agree with The Applicant that given the amount of existing data available and the usefulness of sporadic fish surveys undertaken in the area, no site-specific fisheries surveys will be undertaken for North Falls.
- 2.3.7. The Applicant has acknowledged that a Cumulative Impact Assessment (CIA) is required as part of the EIA process (section 1.8.2.7 of the scoping report), which will include other activities such as:
- Other offshore wind farms;
  - Aggregate extraction and dredging;
  - Licence Disposal Sites;
  - Navigation and shipping;
  - Commercial fisheries;
  - Sub-sea cables and pipelines;
  - Potential port and harbour development;
  - Oil and gas Activities; and
  - Unexploded ordnance (UXO) clearance.
- 2.3.8. Although no specific projects have been included at this stage, the MMO agree the methodology to be used is appropriate and fit for purpose.
- 2.3.9. Overall, appropriate fish receptors, potential impacts on fish receptors and commercial fisheries have been identified within the scoping report and will be taken forward for assessment. The MMO welcome that previous comments made during the EPP process have been incorporated into the EIA and the latest data available will be used to inform the fish characterisation for this project.
- 2.3.10. Due to the high importance of the fishing activity in the area (e.g., sole and plaice fisheries) the MMO recommend early engagement with the relevant fisheries associations, such as Kent & Essex Inshore Fisheries and Conservation Authorities (KEIFCA) to address key potential socio-economic impacts such as displacement and loss of fishing grounds resulting for multiple developments co-existing in the same area.
- 2.3.11. The scoping report lists numerous sources for data which will be used to inform the EIA regarding to commercial fisheries, in the main this data comes from relatively recent data sets (up to 2019), however there are several sources listed, especially relating to nursery and spawning ground research, that are older (2010/11). Given the changes that have been seen in fish distribution/quantities in the North Sea, with subsequent changing trends in species landed and the likely impacts on spawning/nursery ground it may be advisable that more recent

studies (if available) be used as the reliability of these older studies may be questionable.

2.3.12. The MMO understands that the local fishing industry has seen a decline in the quantity of fish within the North Sea in recent years, and given that the proposed work is within area known to be spawning and nursery grounds for key commercial species the it is recommended the impacts of the proposed works should carefully consider the long term impact on fish stocks.

## 2.4. Shellfish

2.4.1. The MMO consider that in view of the scope of proposals, the approach provided should be sufficient to fully identify and assess the potential impacts to shellfish populations.

2.4.2. In addition to the impacts identified, the MMO would expect to see the impacts of direct mortality (removals from the fishery) assessed. Direct mortality poses a problem for shellfish as a number of species are sedentary and therefore unable to move to avoid danger.

2.4.3. Site specific data is available for the proposed site however the data collected during Galloper Offshore Wind Farm (GWF) and GGOW is now considered dated and must be used with caution as it may not represent the current species composition of the site. The baseline presented should be comprised primarily of data obtained with the last 5 years.

## 2.5. Underwater Noise

2.5.1. The Applicant has used relevant literature to justify their reasons behind the levels of magnitude, duration, reversibility, and timing (Section 2.5.4 210 of the Scoping Report) applied to each area or species of concern. For example, they will be using the most recent noise thresholds provided by Popper et al. (2014)<sup>6</sup> and NMFS (2018)<sup>7</sup> for fishes and marine mammals, respectively, which are the appropriate criteria for noise assessment. The evidence is also consistent with that submitted for operations of a similar nature.

2.5.2. The Applicant notes that the proposed area is commercially important for crab and lobster species (Section 2.6.1.2 of the Scoping Report) and that the impact

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<sup>6</sup> Popper, A.N., Hawkins, A.D., Fay, R., Mann, D., Bartol, S., Carlson, Th., Coombs, S., Ellison, W.T., Gentry, R., Halvorsen, M.B., Lokkeborg, S., Rogers, P., Southall, B.L., Zeddies, D.G., Tavolga, W.N. (2014). Sound exposure guidelines for fishes and sea turtles: A technical report prepared by ANSI-Accredited standards committee S3/SC1 and registered with ANSI. Springer, ASA Press. ISBN 2196-1212. (eBook ISBN 978-2-219-06659-2).

<sup>7</sup> NMFS (National Marine Fisheries Service) (2018). 2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFSOPR-59, 167 p.

assessment will use noise survey data combined with appropriate guidance to assess the level of potential noise impact upon fish, including shellfish (Section 2.6.4 234 of the scoping report). However, currently, there are no established noise criteria for crustaceans; therefore, The Applicant will need to draw on relevant scientific literature to support the impact assessment, and assessment conclusions.

- 2.5.3. The scoping report provides high level information which will be expanded upon during a programme of consultation with technical stakeholders throughout the EIA process, as such some technical detail about construction, operation and decommission is missing. For example, the timing and duration of works (including construction hours) is not included within the scoping report. The timing and duration of works (such as piling, UXO clearance and service vessel operations) will influence underwater noise exposure levels. Therefore, within the EIA this information should be provided, using a worst-case scenario if details are not finalised.
- 2.5.4. The MMO agree with The Applicant's conclusion to scope in the potential impact of underwater noise during construction, operation and decommission for both fishes (Section 2.6.3 of the Scoping Report) and marine mammals (Section 2.7.3 of the Scoping Report).
- 2.5.5. The Applicant plans to use modelling to assess auditory injury and behavioural impacts of marine mammals (Section 2.7.3 Table 2.19 of the Scoping Report). At this scoping stage, it is important to emphasise that the potential for both temporary threshold shift (TTS) and permanent threshold shift (PTS) should be included with The Applicant's investigation/ definition of auditory injury. Furthermore, modelling of auditory injury should be conducted for fishes following guidelines of noise exposure criteria from Popper et al. (2014)<sup>6</sup>.
- 2.5.6. In section 2.6.3.1 of the Scoping Report, UXO clearance was not mentioned as a potential impact on fish species during construction although it was for marine mammals in section 2.7.3.1. Additionally, in section 2.6.3.2 of the Scoping Report, underwater noise was not mentioned as a potential impact during operation despite ongoing vessel maintenance. The MMO would expect both the potential impacts of underwater noise arising from UXO clearance and increased presence of vessel traffic to be considered for both fish and marine mammal species.
- 2.5.7. In section 2.6.1.1 (para 212) of the Scoping Report, The Applicant lists: sea bass (*Dicentrarchus labrax*) and thornback ray (*Raja clavata*) as using the outer Thames Estuary. In section 2.9.1 (para 286) of the Scoping Report, The Applicant then lists the following fish species: mackerel (*Trachurus trachurus*) and haddock (*Melanogrammus aeglefinus*) as being present, with Twaite shad also recorded during site specific surveys. However, these fishes were not included in Table 2.1.14 of the Scoping Report or the subsequent maps showing spawning/ nursery grounds. The Applicant should clarify why these species were scoped out of this assessment.

- 2.5.8. The MMO suggest The Applicant groups fishes according to their potential auditory sensitivity (refer to Popper et al., 2014)<sup>6</sup> in their underwater noise assessment as well as commercial importance. It is expected that some of the identified fishes, i.e., herring, will have higher sensitivity to sound pressure than others given that the swim bladder is also involved in their hearing mechanisms.
- 2.5.9. Both fish and marine mammals were identified as having the potential to be impacted by underwater noise throughout the wind farm's lifetime (Table 2.18 and 2.19 of the Scoping Report respectively). However, as this scoping report provides a high-level evaluation of the works to be conducted at North Falls, proposed mitigation measures were not described in detail in relation to underwater noise so the MMO cannot comment on the mitigation at this stage.
- 2.5.10. Within the EIA, the MMO would expect to see mitigation measures described in detail, including an appropriate Marine Mammal Mitigation Plan/Protocol (MMMP) for piling and UXO clearance. Typical/standard measures may include soft start procedures during piling, marine mammal observation and/or temporal restrictions (i.e., only operating during daylight hours or avoiding construction coinciding with key spawning events).
- 2.5.11. For both fishes and marine mammals, cumulative and transboundary assessments are planned for the EIA (see sections 2.6.3.4, 2.6.3.5, 2.7.3.4 and 2.7.3.5 of the Scoping Report). The Applicant has highlighted other human activities in the vicinity of the proposed area, particularly other operational and planned wind farms (Greater Gabbard, Galloper and Five Estuaries).
- 2.5.12. At this stage the MMO are unable to comment fully on this aspect as we do not have full awareness of other projects (including the timings of work) that may overlap with the construction, operation and decommission at North Falls. Furthermore, cumulative effects are very difficult to assess, and EIA based CIA led by developers of individual projects have clear shortcomings (when compared to CEAs led by government agencies on a regional or strategic level (Willstead et al. 2017)<sup>8</sup>.
- 2.5.13. The MMO would expect potential barrier effects (in relation to migratory species) resulting from underwater noise to be considered and would recommend consultation with the Environment Agency.
- 2.5.14. A variety of fishes were identified as having potential spawning and/or nursery grounds within the vicinity of the proposed area and have a variety of different hearing sensitivities (see Popper et al., 2014)<sup>9</sup>, therefore it is expected they will have differing responses to underwater noise. During 24 months of aerial

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<sup>8</sup> Willstead, E., Gill, A. B., Birchenough, S. N. R., & Jude, S. (2017). Assessing the cumulative environmental effects of marine renewable energy developments: Establishing common ground. *Science of the Total Environment*, 577, 19–32.

<sup>9</sup> Popper, A.N., Hawkins, A.D., Fay, R., Mann, D., Bartol, S., Carlson, Th., Coombs, S., Ellison, W.T., Gentry, R., Halvorsen, M.B., Lokkeborg, S., Rogers, P., Southall, B.L., Zeddies, D.G., Tavolga, W.N. (2014). Sound exposure guidelines for fishes and sea turtles: A technical report prepared by ANSI-Accredited standards committee S3/SC1 and registered with ANSI. Springer, ASA Press. ISBN 2196-1212. (eBook ISBN 978-2-219-06659-2).



surveys, harbour porpoise were identified as the key marine mammal species present within or in the vicinity of the proposed area, and using the precautionary approach minke whale, grey seal and harbour seal will also be factored into the EIA given their occasional sightings. Overall, the MMO agree with the conclusions of this scoping report, that underwater noise should be scoped in for both fishes and marine mammals during construction, operation and decommission of the North Falls wind farm. The potential impacts on shellfish species should also be considered where relevant, and conclusions should be supported by the peer-reviewed literature.

## 2.6. Dredge and Disposal

2.6.1. All impacts relevant to sediment quality will be scoped in for further assessment, other than transboundary impacts. With regard to my specific remit, The Applicant will scope in “*Remobilisation of existing contaminated sediments*”. The MMO agree with this scoping decision.

2.6.2. To establish a proxy baseline, The Applicant has used contaminant data from similar projects in the surrounding area, notably those which supported the licensing of GGOW. Whilst these data can be useful to inform the history of sediment quality in the area, their use should be informative only. In this regard, more weight should be applied to sediment data which The Applicant intends to generate through sediment sampling.

2.6.3. With regard to The Applicant’s proposed EIA, they state that “*Where concentrations are at, or below, action level 1, no additional assessment is considered necessary as the risk to water quality is considered to be low. Where concentrations fall close to, or above action level 2, then more quantitative assessment might be required*”. The MMO mostly agree with this statement, though defer final assessment until the data are generated and presented for review. However, The Applicant should note that only trace metals, organotins and Total 25 PCBs hold respective action level 2 (AL2) values. Where no appropriate AL2 is available, Cefas will utilise other resources such as Gorham-Test (1999)<sup>10</sup>(for PAHs) and Canadian sediment quality guidelines (for PBDEs).

2.6.4. The MMO have not been able to ascertain what the contaminant sampling will comprise. Whilst The Applicant does not necessarily need to inform the MMO what they intend to sample, they should endeavour to formulate their sampling strategy to be in line with OSPAR guidelines. Notably, the number of samples which will provide adequate spatial representation should adhere to OSPAR guidance, and analyses to be tested for should be relevant for their intended purpose, i.e., for example, testing for all listed 24 polycyclic aromatic hydrocarbon (PAH) analytes, rather than only the US 16 priority PAHs. A full list of analyses tested for can be found in the MMO Results Template<sup>11</sup>.

2.6.5. Any analyses for contaminants must be completed by a laboratory which has

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<sup>10</sup> Gorham-Test, C., Wade, T., Engle, V., Summers, K., & Hornig, E. (1999). Regional Environmental Monitoring and Assessment Program — Galveston Bay 1993. Proceedings, Galveston Bay Estuary Program, State of the Bay Symposium IV, January 28–29, Galveston, TX, 97–109

<sup>11</sup> <https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans>

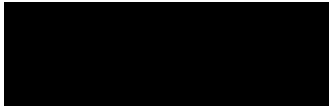
been validated by the MMO, to ensure that methods used are appropriate.

- 2.6.6. The Applicant should note, however, that the OWF Array area and, potentially, the cable route, may need to be designated as disposal sites. The MMO could not locate any detail concerning this in the report provided.
- 2.6.7. Cumulative and in-combination effects are mentioned in the report, but, as this is a scoping report, no formal assessment of the extent of such impacts is presented. This is acceptable.

### 3. Conclusion

The items highlighted in this letter should be considered in the initial scope of the ES, however please note that this letter is not a definitive list of all ES requirements and other subsequent work may prove necessary. The MMO reserves the right to make further comments on the Project throughout the pre-application process and may modify its present advice or opinion in view of any additional information that may subsequently come to our attention.

Daniel Walker



Marine Licensing Case Officer

## **Feekins-Bate, Laura**

---

**From:** SM-MMO-SH - MFA Marine Consents (MMO)  
<marine.consents@marinemangement.org.uk>  
**Sent:** 19 July 2021 14:58  
**To:** North Falls  
**Subject:** FW: EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation  
**Attachments:** EN010119 - Statutory Consultation Letter.pdf

### **Marine Licensing, Wildlife Licences and other permissions**

Dear Sir/Madam,

Please be aware that any works within the Marine area require a licence from the Marine Management Organisation. It is down to the applicant themselves to take the necessary steps to ascertain whether their works will fall below the Mean High Water Springs mark.

### **Response to your consultation**

The Marine Management Organisation (MMO) is a non-departmental public body responsible for the management of England's marine area on behalf of the UK government. The MMO's delivery functions are; marine planning, marine licensing, wildlife licensing and enforcement, marine protected area management, marine emergencies, fisheries management and issuing European grants.

### **Marine Licensing**

#### **Works activities taking place below the mean high water mark may require a marine licence in accordance with the Marine and Coastal Access Act (MCAA) 2009.**

Such activities include the construction, alteration or improvement of any works, dredging, or a deposit or removal of a substance or object below the mean high water springs mark or in any tidal river to the extent of the tidal influence.

Applicants should be directed to the MMO's online portal to register for an application for marine licence

<https://www.gov.uk/guidance/make-a-marine-licence-application>

You can also apply to the MMO for consent under the Electricity Act 1989 (as amended) for offshore generating stations between 1 and 100 megawatts in English waters.

The MMO is also the authority responsible for processing and determining Harbour Orders in England, together with granting consent under various local Acts and orders regarding harbours.

A wildlife licence is also required for activities that that would affect a UK or European protected marine species.

The MMO is a signatory to the [coastal concordat](#) and operates in accordance with its principles. Should the activities subject to planning permission meet the above criteria then the applicant should be directed to the follow pages: [check if you need a marine licence](#) and asked to quote the following information on any resultant marine licence application:

- local planning authority name,
- planning officer name and contact details,
- planning application reference.

Following submission of a marine licence application a case team will be in touch with the relevant planning officer to discuss next steps.

## **Environmental Impact Assessment**

With respect to projects that require a marine licence the EIA Directive (codified in Directive 2011/92/EU) is transposed into UK law by the Marine Works (Environmental Impact Assessment) Regulations 2007 (the MWR), as amended. Before a marine licence can be granted for projects that require EIA, MMO must ensure that applications for a marine licence are compliant with the MWR.

In cases where a project requires both a marine licence and terrestrial planning permission, both the MWR and The Town and Country Planning (Environmental Impact Assessment) Regulations <http://www.legislation.gov.uk/ukxi/2017/571/contents/made> may be applicable.

If this consultation request relates to a project capable of falling within either set of EIA regulations, then it is advised that the applicant submit a request directly to the MMO to ensure any requirements under the MWR are considered adequately at the following link

<https://www.gov.uk/guidance/make-a-marine-licence-application>

## **Marine Planning**

Under the Marine and Coastal Access Act 2009 ch.4, 58, public authorities must make decisions in accordance with marine policy documents and if it takes a decision that is against these policies it must state its reasons. MMO as such are responsible for implementing the relevant Marine Plans for their area, through existing regulatory and decision-making processes.

Marine plans will inform and guide decision makers on development in marine and coastal areas. Proposals should conform with all relevant policies, taking account of economic, environmental and social considerations. Marine plans are a statutory consideration for public authorities with decision making functions.

At its landward extent, a marine plan will apply up to the mean high water springs mark, which includes the tidal extent of any rivers. As marine plan boundaries extend up to the level of the mean high water spring tides mark, there will be an overlap with terrestrial plans which generally extend to the mean low water springs mark.

A [map](#) showing how England's waters have been split into 6 marine plan areas is available on our website. For further information on how to apply the marine plans please visit our [Explore Marine Plans](#) service.

Planning documents for areas with a coastal influence may wish to make reference to the MMO's licensing requirements and any relevant marine plans to ensure that necessary regulations are adhered to. All public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the [Marine and Coastal Access Act](#) and the [UK Marine Policy Statement](#) unless relevant considerations indicate otherwise. Local authorities may also wish to refer to our [online guidance](#) and the [Planning Advisory Service soundness self-assessment checklist](#). If you wish to contact your local marine planning officer you can find their details on our [gov.uk page](#).

## **Minerals and waste plans and local aggregate assessments**

If you are consulting on a mineral/waste plan or local aggregate assessment, the MMO recommend reference to marine aggregates is included and reference to be made to the documents below;

- The Marine Policy Statement (MPS), section 3.5 which highlights the importance of marine aggregates and its supply to England's (and the UK) construction industry.
- The National Planning Policy Framework (NPPF) which sets out policies for national (England) construction minerals supply.
- The Managed Aggregate Supply System (MASS) which includes specific references to the role of marine aggregates in the wider portfolio of supply.
- The National and regional guidelines for aggregates provision in England 2005-2020 predict likely aggregate demand over this period including marine supply.

The NPPF informed MASS guidance requires local mineral planning authorities to prepare Local Aggregate Assessments, these assessments have to consider the opportunities and constraints of all mineral supplies into their planning regions – including marine. This means that even land-locked counties, may have to consider the role that marine sourced supplies (delivered by rail or river) play – particularly where land based resources are becoming increasingly constrained.

If you require further guidance on the Marine Licencing process, please follow the link <https://www.gov.uk/topic/planning-development/marine-licences>

Regards  
Andy

Andy Davis| Administration Officer Business Support Team | Her Majesty's Government – Marine Management Organisation Tel: [REDACTED]

[REDACTED] | Lancaster House, Hampshire Court, Newcastle Business Park, Newcastle upon Tyne, NE4 7YH

[Website](#) | [Twitter](#) | [Facebook](#) | [Linkedin](#) | [Blog](#) | [Instagram](#) | [Flickr](#) | [YouTube](#) | [Google+](#) | [Pinterest](#)

During the current health emergency, the Marine Management Organisation is continuing to provide vital services and support to our customers and stakeholders. We are in the main working remotely, in line with the latest advice from Government, and continue to be contactable by email, phone and on-line. Please keep in touch with us and let us know how we can help you <https://www.gov.uk/mmo>

**Our MMO Values:** Together we are **Accountable**, **Innovative**, **Engaging** and **Inclusive**



---

**From:** North Falls <NorthFalls@planninginspectorate.gov.uk>

**Sent:** 19 July 2021 10:50

**Cc:** North Falls <NorthFalls@planninginspectorate.gov.uk>

**Subject:** EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

Dear Sir/ Madam

Please see attached correspondence on the proposed North Falls Offshore Wind Farm project.

Please note the deadline for consultation responses is **16 August 2021**, and is a statutory requirement that cannot be extended.

Kind regards  
Laura

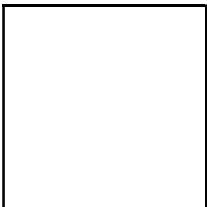
Laura Feekins-Bate  
EIA Advisor  
Environmental Services

Web: <https://infrastructure.planninginspectorate.gov.uk/> (National Infrastructure Planning)  
Web: [www.gov.uk/government/organisations/planning-inspectorate](http://www.gov.uk/government/organisations/planning-inspectorate) (The Planning Inspectorate)

Twitter: [@PINSgov](https://twitter.com/PINSgov)

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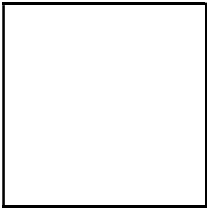


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DPC:76616c646f72



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Maritime &  
Coastguard  
Agency

Nick Salter  
UK Technical Services Navigation  
Directorate of Maritime Services  
**Maritime and Coastguard Agency**

[www.gov.uk/mca](http://www.gov.uk/mca)  
11 August 2021

## **The Planning Inspectorate**

Environmental Services

Central Operations

Temple Quay House

2 The Square

Bristol, BS1 6PN

By email to: [NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)

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 North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

#### **Scoping report consultation**

Thank you for your letter dated 19 July 2021 requesting comments on the North Falls Scoping Opinion. The MCA has reviewed the scoping report provided by North Falls Offshore Wind Ltd for the North Falls offshore wind farm and would comment as follows:

The Environmental Impact Assessment 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.

A Navigational Risk Assessment will need to be submitted in accordance with MGN 654 and Annex 1: *Methodology for Assessing the Marine Navigation Safety & Emergency Response Risks of Offshore Renewable Energy Installations (OREI)*. This NRA 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>

I note in Chapter 2.10.2, that a vessel traffic survey will be undertaken to the standard of MGN 654 i.e. at least 28 days which is to include seasonal data (two x 14-day surveys) collected from a



vessel-based survey using AIS, radar and visual observations to capture all vessels navigating in the study area, supplemented by 12 months of AIS data and other data sources from UKHO, RYA, The Crown Estate and BMAPA. MCA would also suggest collection/obtaining up to date fishing data.

The development area carries a significant amount of through traffic in the Sunk VTS Area and to major ports. Attention needs to be paid to routing for ensuring shipping can continue to make safe passage without significant large scale deviations. We are very concerned over the Potential Impacts highlighted in paragraph 326 and the safety of commercial vessels which were identified in a meeting with the applicant held on 28 April 2021. Interactive boundary guidance within MGN654 and other sources such as PIANC should be addressed to assess safe sea room concerns in the areas where the wind farm boundary is adjacent to the IMO Routing Measures. It is difficult to see at this stage how the wind farm boundary would comply with the Shipping and Navigation chapter of National Policy Statement for Renewable Energy Infrastructure (EN-3), starting at 2.6.147.

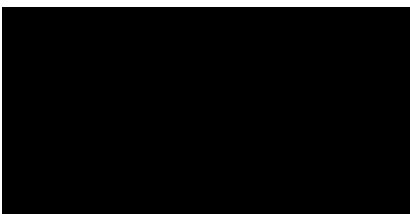
Particular attention should be paid to cabling routes and where appropriate burial depth for which a Burial Protection Index study should be completed and, subject to the traffic volumes, an anchor penetration study may be necessary. If cable protection are required e.g. rock bags, concrete mattresses, 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.

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). Attention should be paid to 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.

MGN 654 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.

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 are likely to be content with the approach.

Yours faithfully



Nick Salter  
Offshore Renewables Lead

## **Decision Notice**

MC/21/2150



Ms Marnie Woods  
Planning Inspectorate  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

Planning Service  
Physical & Cultural Regeneration  
Regeneration, Culture, Environment &  
Transformation  
Gun Wharf  
Dock Road  
Chatham  
Kent  
ME4 4TR

**Applicant Name:**  
Mr Dan Harper

Planning.representations@medway.gov.uk

### **Town and Country Planning Act 1990**

---

**Location:** North Falls Offshore Wind Farm, , , ,

**Proposal:** Consultation from the Planning Inspectorate - Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) - Regulations 10 and 11 for an Order granting Development Consent for the North Falls Offshore Wind Farm

---

I refer to your letter of consultation regarding the above and would inform you that the Council **RAISES NO OBJECTION** to it.

- 1 Medway Council raises no objection to the consultation under The Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA regulations) - Regulations 10 and 11.

#### **Your attention is drawn to the following informative(s) :-**

- 1 This comment is based on the consultation to Medway Council received 19 July 2021.



David Harris  
Head of Planning  
Date of Notice 6 August 2021

**TOWN & COUNTRY PLANNING (APPEALS) (WRITTEN REPRESENTATIONS)  
(ENGLAND) (AMENDMENT) (REGULATIONS 2013)**

**TOWN AND COUNTRY PLANNING ACT 1990**

***Appeals to the Secretary of State***

- If you are aggrieved by the decision of your Local Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal against your Local Planning Authority's decision then you must do so within **12 weeks** from the date of this notice for appeals being decided under the **Commercial Appeals Service** and **6 months** from the date of this notice for all other **minor and major applications**.
  - However, if an enforcement notice has been served for the same or very similar development within the previous 2 years, the time limit is:
    - **28 days** from the date of the LPA decision if the enforcement notice was served before the decision was made yet not longer than 2 years before the application was made.
    - **28 days** from the date the enforcement notice was served if served on or after the date the decision was made (unless this extends the appeal period beyond 6 months).
  - Appeals must be made using a form which you can obtain from the Planning Inspectorate by contacting Customer Support Team on 0303 444 50 00 or to submit electronically via the Planning Portal at

[https://www.planningportal.co.uk/info/200207/appeals/110/making\\_an\\_appeal](https://www.planningportal.co.uk/info/200207/appeals/110/making_an_appeal)

**Commercial Appeals Service**

- This type of appeal proceeds by way of written representations, known as the "Commercial Appeals Service". Third parties will not have the opportunity to make further representations to the Planning Inspectorate on these.

**All other Minor and Major Applications**

- The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to him that the Local Planning Authority could not have granted planning permission for the

proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

- In practice, the Secretary of State does not refuse to consider appeals solely because the Local Planning Authority based on their decision on a direction given by him.

### ***Purchase Notes***

- If either the Local Planning Authority or the Secretary of State refuses permission to development land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a purchase notice on the Council (District Council, London Borough Council or Common Council of the City of London) in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.



# Defence Infrastructure Organisation

DIO Safeguarding  
St George's House  
Defence Infrastructure Organisation Head Office  
DMS Whittington  
Lichfield  
Staffordshire  
WS14 9PY

Your ref: EN010119-000019

Telephone: [REDACTED]

Our ref: 10052359

E-mail: [REDACTED]

Ms M Woods  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

16 August 2021

Dear Ms Woods,

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

**Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls Offshore Wind Farm (the Proposed Development)**

Thank you for consulting the Ministry of Defence (MOD) regarding a Scoping Opinion on the development detailed above. The development described within the Environmental Impact Assessment Scoping Report (Document reference No. 004027770-04 Rev. 04) prepared by the developer is an offshore wind farm comprising of up to 71 wind turbine generators, each with a maximum rotor tip height of 337m above mean high water springs, as well as the associated infrastructure including cable routes and substations.

The submitted Environmental Impact Assessment Scoping Report document identifies some of the principal defence interests and issues that will be relevant in progressing any application for the proposed development. I write to confirm the safeguarding position of the MOD on information that should be included in any Environmental Statement prepared to support an application.

The MOD is identified as a relevant receptor in section 2.12 Aviation and Radar of the Scoping Report. The impact of the proposed development on radar systems and the use of airspace for defence purposes in the vicinity of the proposed development are factors that have been identified.

The scoping report identifies that the turbines have the potential to be detectable to, and to have an effect on, the Air Defence Radar (ADR) at RAF Trimmingham. The MOD agree both with this assessment, and that the applicant will need to address the effect of the development on the radar as part of progressing the scheme toward application.

The potential impact of the development on military low flying, specifically the creation of physical obstructions to aircraft and the associated potential restriction of access to the project area is mentioned within the report at 2.12.2. It is acknowledged that this will be addressed in future

submissions. As a minimum MOD will require that appropriate data is submitted to allow accurate charting of the development and that MOD accredited aviation safety lighting is fitted to wind turbine generators and ancillary offshore infrastructure as may be applicable.

The scoping report notes, at section 2.13, that the project area falls within, passes through, or is close to, parts of five Practice and Exercise Areas (PEXAs), Kentish Knock (X5119), North Galloper (X5121), Outer Gabbard (X5117), South Galloper (X5120), and Gunfleet (X5118). Following an initial assessment of the scheme, we do not anticipate there to be any concerns relating to military maritime activities however, the MOD will review detailed submissions in relation to its maritime interests. Within the same section of the report the potential presence of unexploded ordnance (UXO) is identified as a relevant consideration. The potential presence of UXO and disposal sites should also be a relevant consideration to the installation of cables and other intrusive works that may be undertaken in the maritime environment. The developer should note that there is a disused, designated explosives dumping ground within the eastern part of the Gunfleet PEXA (X5118), this should be considered when cable routes are being designed.

It is appreciated that at this stage aspects of the onshore element of the proposed development have not yet been finalised. The MOD would request to be consulted to allow any impact on MOD assets to be assessed. Maps identifying an indicative cable corridor and landfall are included in the Scoping Report (Drawing nos. PB9244-RHD-ZZ-OF-DR-GS-0008 Rev. 04, PB9244-RHD-ZZ-OF-DR-GS-0011 Rev. 04, and PB9244-RHD-ZZ-LN-DR-GS-0073 Rev.01), MOD request that we are consulted when the cable route and onshore landfall location are finalised.

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours sincerely

James Houghton  
Senior Safeguarding Manager

Date: 16 August 2021  
Our ref: 14432/360449  
Your ref: EN010119-000019



Marnie Woods  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

Guildbourne House  
Chatsworth Road  
Worthing BN11  
1LD

T 0300 060 3900

## **BY EMAIL ONLY**

Dear Ms Woods,

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

#### **Application by North Falls Offshore Wind Ltd (the Applicant) for an Order granting Development Consent for the North Falls 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 19 July 2021 consulting Natural England on the North Falls Offshore Wind Farm Environmental Impact Assessment 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.

#### **Summary of Main Points**

- **Marine Geology, Oceanography and Physical Processes**

Natural England advises that, based on the information provided, there is insufficient information on the baseline conditions, required studies and methodologies, receptors, potential environmental impacts, and approaches to impact assessment. Further information will be needed in the Environmental Statement to form a robust understanding of the worst case design scenario and its impacts during the construction, operation, decommissioning (and repowering) phases of the project.

- **Benthic and Intertidal Ecology**

Due to the insufficient information provided at this time, Natural England can only provide high level advice on the Benthic and Intertidal Ecology aspects of the North Falls Scoping Report.

- **Fish and Shellfish Ecology**

Natural England is concerned that the applicant does not intend to carry out fish ecology surveys to inform the assessment of impacts to fish species. The existing site-specific survey data which forms part of the baseline condition for fish ecology is in excess of 12 years old. Fish distribution changes temporally as well as spatially so this data may not be representative of the current fish community. Therefore, Natural England does not agree with this approach.



- **Marine Mammal Ecology**

Natural England consider that there is insufficient information provided for marine mammals in the scoping report to allow for a meaningful scoping exercise to be undertaken. The proposed data and information sources require updating, and a wider exercise of searching for more recent data should be undertaken to inform the assessment. There was no explanation of the Environmental Impact Assessment (EIA) methodology or how metrics such as magnitude and sensitivity will be assessed, and there was no information provided regarding the cumulative impact assessment, the methodology for undertaking it or how the results will be presented. This information is critical to undertaking a thorough and complete assessment of impacts to marine mammals in the EIA.

- **Kentish Knock East Marine Conservation Zone (MCZ)**

Kentish Knock East MCZ is designated for subtidal sand, subtidal coarse and subtidal mixed sediments, which support an array of animal species. Natural England is, therefore, concerned that part of the proposed North Falls development is situated within this MCZ. If this area is not to be avoided, the ES will need to precisely quantify the impacts on the above features in order to inform an MCZ assessment. Measures of Equivalent Environmental Benefit (MEEB) may need to be presented alongside the ES.

- **Red Throated Diver (RTD)**

Natural England is particularly concerned by the close proximity of the North Falls proposal (2.5km) to the Outer Thames Estuary (OTE) Special Protection Area (SPA), which creates the potential for an Adverse Effect on Integrity (AEol) on the OTE SPA from the project **alone** and also in-combination. The extent of the potential displacement on red throated diver, using a methodology agreed with Natural England, needs to be carried out as soon as possible to enable a full assessment of the impact on all the OTE's conservation objectives. This should be presented in the Environmental Statement/information to inform the Habitats Regulations Assessment. We strongly advise that this is done before the Application is submitted, to allow for any mitigation measures to be incorporated in the array design. In relation to the HRA impacts on OTE SPA, Natural England anticipate the need for significant mitigation, given the close proximity of North Falls to the boundary of the OTE SPA. Should displacement effects on the SPA not be reduced to a level where there is no contribution to in-combination effects, the Applicant will need to present a derogations case and bring forward compensatory measures.

- **Collision Mortality to SPA Lesser Black Backed Gull and Kittiwake (LBBG)**

The North Falls OWF is located within the mean-maximum foraging range of lesser black-backed gull of the Alde-Ore Estuary SPA during the breeding season, and there is the potential for kittiwakes from the Flamborough and Filey Coast (FFC SPA) to interact with North Falls outside of the breeding season (e.g. on migration). Therefore, the North Falls proposal will likely contribute collision mortality to these features of these sites. During the recent Norfolk Vanguard, Norfolk Boreas, East Anglia One North and East Anglia Two offshore wind farm examinations, we advised that an AEol cannot be ruled out in respect of lesser black-backed gull at Alde-Ore Estuary SPA and kittiwake from FFC SPA in-combination with other plans and projects. Therefore, any additional mortality at these SPAs arising from this proposal would be considered adverse.

- **Suffolk Coast and Heaths AONB (SCHAONB)**

Natural England is concerned about the potential for adverse effects on the statutory purpose of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (SCHAONB) which may arise from turbines located in the seascape setting of the designation. Natural England considers that the Seascape Character Area 'East Anglian Waters' forms the outer limits of the seascape setting of the AONB.

We are especially concerned about the North Falls northern development area as this is located closest to the coastline of the SCHAONB. The separation distance to the SCHAONB from this location is less than for the EA2 scheme where the selected technology option specified shorter turbines and where the Seascape, Landscape and Visual Impact Assessment (SLVIA) concluded that significant adverse effects would occur on the statutory purpose of the SCHAONB.

We provide our comments specific to sections of the North Falls Scoping Report in the following annexes to this letter:

**Annex 1 Introduction**

**Annex 2 Offshore**

**Annex 3 Onshore**

**Annex 4 Project-wide Aspects**

Please note that for some of the topics discussed there is a summary highlighting key concerns for that topic and this is followed by the detailed comments.

If you have any questions regarding the above comments or want to discuss further any of the issues we have raised please do not hesitate to contact Natural England using the details provided below.

Yours sincerely,

A large black rectangular redaction box covering the signature area.

Yolanda Foote  
Sussex and Kent Team

Two horizontal black rectangular redaction boxes covering contact information.

## Annex 1 Introduction

Part One – Introduction			
Section	Paragraph/Table	Comment	Recommendations
1.2	Point 3	“North Falls and the nearby Five Estuaries Offshore Wind Farm are currently being developed as two distinct projects...”	It would be helpful for the Environmental Statement (ES) to provide a map showing the location of not only the Five Estuaries OWF project relative to the North Falls Offshore Wind Farm (OWF) project. This map should also show the other operational, under construction, consented and submitted OWFs within 40km of North Falls.
1.5	Point 26	The scoping report notes that the export cable corridor passes through a number of designated sites. However, it is also important to note that both the northern and southern arrays are situated in the Southern North Sea Special Area of Conservation (SAC) and the southern array is partially located within the Kentish Knock East Marine Conservation Zone (MCZ).	The location of the site within these sites should be noted in the ES. It would also be useful to provide a separate overview or section of the statutory protected sites within the study area and/or Zone of Influence that are designated under European Directives and/or implemented through national legislation by a statutory body, thereby having recognised legal protection.
1.5.3		Natural England note the large onshore scoping area and reserve the right to make future detailed comments once the onshore transmission substation location has been confirmed but will endeavour to provide the best advice available with the information currently provided.	For information only.
1.5.3	Points 40-42	At present, there is no confirmed Grid Connection point from National Grid, and no definitive location of any onshore substation. This presents the risk that the onshore search area may change when the connection point is secured and thus, any studies, surveys and baseline understanding of the onshore aspects of the project may need to be revised.	Should the grid connection point be outwith the areas considered within the scoping report it may be necessary to rescope the project. The decision to scope is one the applicant has undertaken at their own risk, and Natural England reserves the right to amend or update our opinion based on the final grid location, once it is known.
1.5.3	Point 42	The list of open matters includes repowering.	Repowering is likely to occur near the end of the project life. As this is likely to be in excess of thirty years from the current scoping we would advise that any repowering should be subject to updated scoping and a full new application.
1.5.3	Figure 1.5	The location of Site of Special Scientific Interest (SSSI) should also be clearly identified within Environment Impact Analysis (EIA) Figures. Consideration should also	Include SSSIs in relevant ES Figures and consider impacts within any EIA.

		be given to Impact Risk Zones for each SSSI as available from Magic.	
1.5.3	Figure 1.5	There may also be a number of Candidate Local Wildlife Site (CLWS) throughout the scoping area and these should be illustrated within Figures and given due consideration in EIA.	Include CLWS in relevant ES figures and consider impacts to these sites within any EIA.
1.5.3	Figure 1.5	There are a number of areas of Ancient Woodland within the scoping area which are not currently identified in the Figure.	Identify and include all areas of Ancient Woodland, including appropriate buffers, in relevant ES figures and provide an assessment within any subsequent EIA.

Section 1.6 – Site Selection			
Section	Paragraph/Table	Comment	Recommendations
1.6.3	Points 70 + 76	Much of the scoping area is being considered for woodland creation and we suggest that the Applicant contact the Forestry Commission for further information regarding this and possible consideration within the EIA.	Contact Forestry Commission to obtain information regarding woodland creation proposals.
1.6.3	Points 70+76	We welcome consideration of Public Rights of Way (PRoW). We would expect consideration for techniques for crossing the Coast Path and PRoW to be included in the EIA.	Further detail on crossing PRoWs including details of suitable techniques to be included in the ES.
1.8.2.7	Point 104	“For...highly mobile or migratory species, the CIA will have a large geographic scale.”	Spatial boundaries should take account of both the relevant spatial scales for individual receptors
Section 1.8 – Environmental Impact Assessment Methodology			
Section	Paragraph/Table	Comment	Recommendations
1.8.2.1	Points 91-93	Assessment of sensitivity of a receptor. This section does not include definitions of high, medium, low and very low value or sensitivity of a receptor.	A table showing these definitions should be included in the ES.
1.8.2.2	Point 94	For each identified change, a qualitative judgement of the scale of potential impact is made, with change determined as being ‘high’, ‘medium’, ‘low’ or ‘very low’ (as shown in Table 1.5). However, there are no definitions for magnitude of change. Furthermore, these judgements need to take account of the extent, duration and frequency of the scale of the potential impact. These impact considerations are not sufficiently specific. For example, ‘Scale’ should be broken down into Transboundary, National, Regional, Local and Site-Specific. Regarding ‘Duration’, is short-term < 1 year, medium-term 1-5 years	Definitions for magnitude of change should be provided in the ES. Specific definitions of ‘Scale’, ‘Duration’ and ‘Frequency’ should also be provided.

		and long-term > 5 years? Regarding 'Frequency', this should be broken down into High (i.e. continuous during construction, operation and/or decommissioning) etc.	
1.8.2.3	Point 95	As with the comment above, this section does not include definitions of high, medium, low and very low magnitudes of change. Where is the definition of magnitude of change?	A table showing these definitions should be included in the ES.
1.8.2.4	Point 98	"Embedded mitigation will be incorporated into the project design..."	This statement could go further. Ideally, most potential impacts could be avoided, or effects reduced at the design stage of the project, through early consideration of ecological constraints, which along with consideration of other environmental features would be used to refine scheme layout, siting and design. Further impacts could also be avoided through micro-siting of infrastructure at the construction stage. We advise that the ES demonstrates that the mitigation hierarchy has been followed wherever appropriate.

## Annex 2 Offshore

### Section 2.1 Marine Geology, Oceanography and Physical Processes

It is vital that the marine and coastal physical processes within, and in the vicinity of, the proposed development are well understood in order to provide robust estimates of the temporal and spatial scale of changes to hydrodynamic and sediment transport regimes and to the subtidal, intertidal and supratidal environments. We recognise that, at this early stage, some of the detailed design parameters, data gathering, and analysis methodologies are still to be finalised. However, Natural England advises that, based on the information provided, there is insufficient information on the baseline conditions, required studies and methodologies, receptors, potential environmental impacts, and approaches to impact assessment, to form a robust understanding of the worst case design scenario and its impacts during the construction, operation, decommissioning (and repowering) phases of the project. We would, therefore, recommend that these evidence and methodology gaps are addressed as detailed in the comments we have provided below.

Section 2.1 – Marine Geology, Oceanography and Physical Processes			
Section	Paragraph/Table	Comment	Recommendations
2.1	General Comment	Design Envelope	Following the review of the existing environment, baseline characteristics and data in this section, the Worst-Case Design Scenario for marine geology, oceanography and physical processes should be presented for the lifespan of the project in the ES. In addition, the range of any mitigation measures captured within the design envelope aimed at minimising environmental effects should be considered.
2.1	General Comment	Section 2.1 considers ‘Marine Geology, Oceanography, and Physical Processes, however, there is little mention of the Marine Geology.	Baseline conditions for marine geology should also be included here, including a broad-scale description of the regional geology, contemporary form of the seabed and adjacent coast, their development in response to the last glaciation and sea level rise. In addition, baseline marine geology information should include the geological make-up and surficial sediment cover of the seabed across the Zone of Influence of the proposed development.
2.1.1		Storm surges	Given that the North Sea is subject to the influence of storm surges, they will need to be considered in the EIA.
2.1.1		Sediment Transport	Description of suspended and bedload sediment transport across the project area should be included, including the source of sediment across the area, sediment transport pathways, partings, sources and sinks. A map showing these features would be useful. A map of seabed mobility would also be useful in the ES.
2.1.1		Climate Change	Consideration of climate change impacts over the

			operational period of North Falls OWF will need to be included in the ES. These impacts will become important if they cause an alteration in the baseline conditions and become detectable above natural inter-annual variations.
2.1.1.1		Figures 2.1 and 2.2 show Offshore Bathymetry and Offshore Sediment Types. There are no maps showing bedrock geology, or bedforms across the project area.	Bedrock geology and seabed morphology mapping should also be included in the ES.
2.1.1.1	Point 133	The Inner Gabbard and The Galloper sandbanks are mentioned in this section, but not identified on Figure 2.2 (or Figure 2.1).	These features should be identified in the relevant ES figures.
2.1.1.1	Point 133	Studies to inform the baseline have been taken from Greater Gabbard OWF (GGOW) from 2005. These studies are now 16 years old.	Whilst the GGOW studies provide useful information on seabed sediments within the GGOW project area, site-specific and more recent information for the North Falls OWF project area will also be required to form the baseline.
2.1.1.2	Point 134	Typical and maximum significant wave heights of 3.6m and 6.2m, respectively, were recorded [at GGOW, 2005]. The larger waves tended to originate from the north-east.	As with the comment above, the GGOW (2005) metocean surveys are now quite old. These surveys pre-date construction of the GGOW and Galloper OWF and thus, more recent and site-specific wave data should also be used to form the baseline for North Falls and in turn, help inform the EIA.
2.1.2	Table 2.1 & Table 2.2	GGOW geophysical surveys were undertaken in 2004/5, and for Galloper Wind Farm (GWF) in 2009. GGOW geotechnical survey was undertaken (array only) in 2004. GGOW benthic survey was undertaken in 2004/5. GWF benthic survey was undertaken in 2009. GGOW metocean survey (array only) was undertaken in 2004/5. GGOW coastal processes assessment (array only) was carried out in 2005. GWF coastal processes assessment (array only) was carried out in 2011. North Falls geophysical survey, grab sampling and particle size analysis are being carried out in 2021, for both the array and offshore export cable corridor (OECC). We welcome the collection of site-specific contemporary geophysical and sediment sample data for the North Falls OWF project area; however, Table 2.2 should state the nature of the geophysical survey (i.e. sub-bottom profiler, side scan sonar, multi beam echo sounder, and magnetometer).	<p>There is no mention of further geotechnical surveys following the survey in 2004 for GGOW, yet it is important to ensure that adequate information is collected during the early geophysical and geotechnical survey campaigns to enable careful selection of the cable route and to aid cable burial. Therefore, we advise that additional geotechnical information will be required for North Falls.</p> <p>Similarly, the metocean and coastal processes data listed in Tables 2.1 &amp; 2.2 are old and pre-date the construction of GWF. There is no mention of suspended sediment concentration data measurements, nearshore sediment transport measurements, sediment transport pathways, or sediment cells. These will need to be considered in the ES along with potential impacts on them due to the proposed development.</p> <p>We also advise that hydrodynamic impacts on the wave and</p>

			<p>current regime will need to be examined through modelling to characterise the wave-current climate across the Zone of Influence and help form an understanding of the potential impacts of the project on receptors. To this end, more up-to-date and site-specific data will be needed to characterise the wave-current regime across the Zone of Influence. In turn, this characterisation should consider a range of spatial (near- and far-field) and temporal scales for the entire lifespan of the proposed development.</p> <p>Furthermore, the cumulative effects of hydrodynamic and sediment transport impacts due to the proposed development in combination with existing adjacent offshore windfarms (i.e. GGOW and GWF) and planned OWFs (i.e. Five Estuaries), will need to be investigated. This investigation will need to consider cumulative impacts on the integrity of coastal and offshore receptors.</p>
2.1.2	Point 139	Wave buoy at West Gabbard. West Gabbard 2 waverider buoy is well located for the North Falls OWF project.	It might also be useful to incorporate data from the South Knock waverider buoy in the ES as this is further inshore and downwind of the existing GGOW and GWF.
2.1.2	Point 139	Other data sources.	We recommend the EIA utilises the following data sources: Regional geology – BGS Holocene evolution – Shennan et al Sand transport pathways map – Kenyon and Cooper Bedforms – BGS SSC data – Cefas, satellite data etc
2.1.3.1		Potential impacts during construction.	Although potential impacts are considered, it is not stated how these potential impacts will be assessed (e.g. seabed morphological change investigations, plume modelling, sediment mobility studies, shoreline profile surveys etc). This information needs to be provided in the ES and should be agreed through the evidence Plan process.
2.1.3.2		Potential impacts during operation and maintenance	As with the comment above, it is not stated how these potential impacts will be assessed (e.g. regional scale hydrodynamic modelling, seabed morphological change and sediment transport process studies, scour prediction modelling, shoreline profile surveys, coastal erosion/accretion analysis.



2.1.3.4		Potential cumulative impacts	There is the potential for North Falls to affect sediment transport pathways and downdrift receptors that are susceptible to sediment transport pathway changes. There is also the potential for the proposed development to create a wave sheltering effect when considered in combination with GGOW, GWF, and the planned Five Estuaries project. These potential cumulative impacts will need to be adequately assessed in the ES. Moreover, coastal erosion/accretion and shoreline management implications will also need to be considered due to the in-combination effects.
2.1.3.6		Summary of potential impacts. "The impact assessments for both GGOW and GWF predicted no significant impacts on the wave, tidal and sediment regimes for all issues with a potential impact. Given the likely similar impacts of the North Falls project, it is assumed that [a] similar conclusion will be reached."	Until a robust baseline of the marine and coastal physical processes and environment across the Zone of Influence is provided, it cannot be assumed that the proposed development will not have a significant impact on the wave, tide and sediment regimes or on sensitive receptors.
2.1.3.6	Table 2.3	Summary of potential impacts on marine geology, oceanography and physical processes. This table is too general and non-specific.	The ES should consider specific potential effects for each phase of the project lifespan and for both near-field and far-field scales. For example, changes to water levels resulting from installation equipment and construction activity for both the near- and far-field etc. Justification for scoping in/out residual impacts should also be included. Potential effects should be broken down more specifically for consideration in the ES (e.g. for hydrodynamic regime, changes to water levels, tidal currents, and wave height should be considered separately). Seabed features (bedforms), sediment regime, coastal processes, coastal frontage/landfall should also be considered.
2.1.4	Point 147	"A conceptual evidence-based assessment will draw from the results of the studies outlined above, including modelling undertaken for the GWF, which overlaps with the southern array of North Falls."	Please see our comment to Point 2.1.2 above. Model results from the GWF, whilst useful, are pre-construction and do not consider the cumulative effects of the GGOW, GWF, North Falls (and Five Estuaries). Therefore, we advise further hydrodynamic modelling is needed to inform the EIA, with particular regard to establishing changes in wave height reduction, and the potential impacts on sensitive receptors of the North Falls project, both alone and cumulatively.

2.1.4	Table 2.1.4	Marine geology, oceanography and physical processes receptors	<p>A source-pathway-receptor map (both for marine and coastal physical processes receptors as well as other dependent environmental receptors) should be provided in the ES.</p> <p>Offshore sandbanks/sandbank systems and other significant bedforms (designated or otherwise) within or in the vicinity of the development area, should be considered as receptors and included in the impact assessment.</p>
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### Section 2.5 Benthic and Intertidal Ecology

Due to insufficient information at this time, Natural England can only provide high level advice on the Benthic and Intertidal Ecology aspects of the North Falls Scoping Report.

Section 2.5 Benthic and Intertidal Ecology			
Section	Paragraph/Table	Comment	Recommendations
2.5.1.1	Point 185	<p>Please be advised that intertidal survey should be undertaken no later than mid-September 2021</p> <p>Natural England has provided the applicant advice through our discretionary advice service regarding the surveys for the intertidal area and will engage with them further through the evidence plan process on the survey requirements</p>	Surveys should be undertaken at appropriate dates.
2.5.1.2	Point 187	<p>Whilst we welcome the export cable route avoiding Margate and Long Sands SAC there still needs to be consideration of potential indirect impacts from site preparation and/or installation activities to the site, and if appropriate suitable mitigation measures need to be adopted.</p>	Further consideration to indirect impacts on the SAC should be given throughout the EIA process.
2.5.1.3	Point 188	<p>As stated in our advice on a similar situation with regard to the Hornsea Project Three OWF NSIP and Markham's Triangle MCZ, Natural England would expect further mitigation measures to be considered by North Falls, whereby all array infrastructure is removed from within Kentish Knock East MCZ. If it not possible to exclude the works from this MCZ then there may be a need to discuss measures of equivalent environmental benefit (MEEB)</p>	Further consideration should be given throughout the EIA process and a consideration of MEEB provided, if required..

		through the evidence plan process.	
2.5.1.5	Point 198	Please see Natural England advice provided during examination for EA1N and EA2 on the Outline <i>Sabellaria spinulosa</i> reef mitigation plan. We would expect to see something similar submitted with the North Falls Application.	Applicant to consider approach taken for EA1N and EA2 and to engage in discussion through the evidence plan process.
2.5.2	Point 200	Table 2.11 Natural England welcomes the undertaking of project specific benthic surveys as those listed within the table are considered to be too old to be relied upon. The details of survey design, analysis and findings should be discussed in more detail during the Evidence Plan process.	Further discussion on surveys through the evidence plan process.
2.5.3.2	Point 204	Please note that we support the view that cable protection is considered to be a persistent impact over the lifetime of the project. As set out in our advice for Hornsea Protect Three, Norfolk Vanguard and Norfolk Boreas OWF NSIPs, deployment for 30+ years is not considered to be temporary.	Applicant should consider the impacts from cable protection as persistent and not temporary.
2.5.3.6	Point 209	Please note that assessment requirements and understanding of the marine environment has evolved since GGOW and GWT therefore any advice provided, analysis and/or conclusions drawn may have also changed.	The ES should be based on up-to-date assessment methodologies rather than assume data requirements and analysis approaches from previous cases are sufficient.

## Section 2.6 Fish and Shellfish Ecology

Section 2.6 Fish and Shellfish Ecology			
Section	Paragraph/Table	Comment	Recommendations
Natural England recognise that CEFAS are best placed to provide technical advice with regards to assessing the impacts on fish species. Natural England intends to confer with Cefas and the MMO in relation to their opinions on this section as part of the Evidence Plan process. However, we would like to make the following comments at this stage:			
2.6.1.1 Fish	Table 2.1.4	The table and accompanying maps of fish spawning areas are useful. Maps are indicative only as the underlying data is now relatively old and spawning locations may change over time.	Maps of spawning areas and nursery should be treated as indicative, and presented and used alongside any caveats in the data as published in the original source (Ellis et al. 2012).
2.6.1.4 Designat		Additional sites for migratory fish may need scoping in – additional advice to follow. Natural England is unable to	

ed sites		provide this advice at the deadline due to ongoing resource constraints caused by the current pandemic. We will provide this additional response to the developer and a copy to PINS for reference, as soon as is reasonably practicable.	
2.6.2 Approach to data collection	Para 221	It is noted that no further survey work is proposed for identification of impacts to fish species. Natural England does not agree with this approach as the existing site specific data is in excess of 12 years old. Fish distribution changes temporally as well as spatially so this data may not be representative of the current fish community.	Further survey work to characterise the fish community should be considered. Natural England will continue to engage with the applicant on this point through the Evidence Plan Process.
2.6.3.5 Transboundary impacts	Para 230	Comment on this issue regarding migratory fish to be provided to the developer and a copy to PINS for reference as soon as is reasonably practicable.	
2.6.3.6 Summary of potential impacts	Table 2.16	Natural England considers the impacts scoped within this table to be appropriate.	

## Section 2.7 Marine Mammal Ecology

Natural England consider that there is insufficient information provided for marine mammals in the scoping report to allow for a meaningful scoping exercise to be undertaken. The proposed data and information sources require updating and a wider exercise of searching for more recent data should be undertaken to inform the assessment. There was no explanation of the EIA methodology or how metrics such as magnitude and sensitivity will be assessed and there was no information provided regarding the cumulative impact assessment, the methodology for undertaking it or how the results will be presented. This information is critical to undertaking a thorough and complete assessment of impacts to marine mammals in the EIA. Further information should be provided across all the areas of the report. Our detailed comments are provided below.

Section 2.7 Marine Mammal Ecology			
Section	Paragraph/Table	Comment	Recommendations
2.7.1	237	The statements in this paragraph should be appropriately referenced. Nevertheless, we agree that sperm whale and long-finned pilot whales can be scoped out.	No action needed.
2.7.1	238	We advise that the applicant also considers the results of Carter <i>et al.</i> (2020) with regards to the at-sea density of seals, alongside Russell <i>et al.</i> (2017). Although Carter <i>et al.</i> (2020) updated Russell <i>et al.</i> (2017), we acknowledge	Contact the authors of Carter <i>et al.</i> (2020) and determine how best to use this evidence in relation to Russell <i>et al.</i> (2017).

		that Carter <i>et al.</i> (2020) provides abundance relative to the current population size and therefore may not be as readily useable as Russell <i>et al.</i> (2017) which provides absolute abundance. We advise that the authors of these papers should be contacted as to how the papers should be used and their relative limitations.	
2.7.1	238	We advise that the more recent references for the Thames seal population, e.g. Cox <i>et al.</i> (2020), SCOS (2020), are used in characterisation of seal presence in the region. Cox <i>et al.</i> (2020) can be found at: <a href="https://www.mammal.org.uk/wp-content/uploads/2020/11/MC2005_Seals-in-the-Thames-Estuary_Final.pdf">https://www.mammal.org.uk/wp-content/uploads/2020/11/MC2005_Seals-in-the-Thames-Estuary_Final.pdf</a>	Use the recommended references in the ES.
2.7.1	240	We welcome the inclusion of data from other windfarms in the area in the baseline characterisation	No action needed.
2.7.1	240	The applicant states that white-beaked dolphin were observed during the Galloper Wind Farm surveys, however the number and frequency of white-beaked dolphin observations have not been included. These survey data should be presented to NE and white-beaked dolphin taken forward to assessment if appropriate.	Seek advice from NE regarding whether white-beaked dolphin require scoping in to the assessment after provision of additional survey data.
2.7.1	241	Natural England is in agreement with the species scoped in to take forward to assessment. Inclusion of white-beaked dolphin should be considered further, however the data is not presented here for Natural England to advise.	Seek advice from NE regarding whether white-beaked dolphin require scoping in to the assessment once further data has been provided.
2.7.1.1	244	We await the HRA Screening Report before commenting on the suitability of designated site screening.	No action needed.
2.7.2	Table 2.17	The description of the datasets should be clarified so that it explicitly states the project and purpose of the survey. Based on Table 2.17, it appears that there were two datasets collected in relation to the Greater Gabbard project, though the results of only one is referenced in paragraph 240. All relevant datasets should be used going forward.	Provide clarity on the data sources in the ES.
2.7.2	247	The Management Units for cetaceans in UK waters have recently been updated in terms of their abundance (available on the JNCC website)	Use the recommended references in the ES.
2.7.2	247	The data and information sources listed here should be	Check and update data list used in the ES.

		<p>revisited and updated with reference to the following;</p> <ul style="list-style-type: none"> <li>• Carter <i>et al.</i> (2020) should be used to infer the at-sea density of seals, alongside Russell <i>et al.</i> (2017) (as per previous comment).</li> <li>• A revised SCANS III report is now available as of June 2021 and should be used.</li> <li>• Zoological Society London (ZSL) should be contacted in order to obtain the most recent information from their seals sightings database. The applicant should also consider the findings of Cox <i>et al.</i> (2020) and Cucknell <i>et al.</i> (2020)</li> </ul> <p>It should be noted that previous SCOS reports can be of use as these may contain the results of surveys that are not done annually e.g. pup counts.</p>	
2.7.3.1	248	The potential for auditory injury from underwater noise from UXO clearance (and other construction activities) should also be considered.	Assess the potential for auditory injury from underwater noise from UXO clearance (and other construction activities).
2.7.3.1	248	We acknowledge and welcome the inclusion of an assessment of barrier effects due to underwater noise during construction.	No action needed.
2.7.3.1	251	We acknowledge that water quality impacts are scoped in at this time and are content with the proposed approach of reviewing this through the EPP following site-specific data collection.	No action needed.
2.7.3.1	252	Could the applicant please confirm that there is no possibility of UXO clearance during operation and maintenance?	Confirm whether UXO are envisaged during the operations and maintenance phase in the Project Design Envelope presented in the ES.
2.7.3.2	254	Natural England agrees that impacts from Electro Magnetic Fields (EMF) can be scoped out. However, Natural England consider that insufficient information has been provided to scope out barrier effects during operation. Barrier effects can arise when the project and associated underwater noise producing activities are located in a migratory or known movement route of marine mammals. The applicant has not provided sufficient information to confirm that the project area is not within any migratory/movement routes. The potential for barrier effects is location-specific, therefore the results of the	Consider information on migratory and movement routes before determining whether barrier effects during operation can be scoped out or not.

		screening exercise for other projects in different locations are not necessarily applicable.	
2.7.3.4	256	We agree with the consideration of cumulative impacts on prey species. We advise that cumulative <u>disturbance</u> should be considered (not just displacement), and that this should be considered for both animals at sea and for seal haul-outs.	The ES should assess cumulative disturbance, not just displacement, for both animals at sea and seal haul-outs.
2.7.3.4	256	The applicant should include cumulative collision risk (or include justification as to why this is can be scoped out).	Cumulative collision risk should be scoped into the ES until justification is provided and agreed that it can be scoped out through the Evidence Plan process.
2.7.3.4	256	No information has been provided on the scale at which the CIA will scope in other plans and projects, how the CIA will be structured (i.e. the use of tiers), what parameters/scenarios will be assessed or which impacts will be assessed cumulatively or scoped out of cumulative assessment and the justification for those decisions. We also advise that the relevant marine mammal management unit (MUs) is used here.	Use the relevant MUs for screening in projects and plans in the CIA. Information should be provided on the scale at which CIA will be considered.
2.7.3.6	Table 2.19	It would be beneficial to separate out the different pathways of underwater noise and state which are being scoped in/out at the different stages, for clarity. Similarly, the different cumulative impacts and their relevant project phase(s) could be delineated further.	Provide more clarity on which pathways are being screened in/out at different stages.
2.7.3.6	Table 2.19	We advise that barrier effects from underwater noise during decommissioning should not be scoped out at this stage due to uncertainty over the activities that will be undertaken during decommissioning. This is in addition to our previous comment regarding the scoping in of barrier effects during construction.	Screen in barrier effects during the decommissioning stage.
2.7.4	259	Could the applicant please specify which activities will be included in the underwater noise modelling?	List what activities will be included in the underwater noise modelling and present to NE for consideration.

### Section 2.8 Offshore Ornithology

On review of the Scoping Report submitted by the Applicant pertaining to North Falls, we note that the information and detail provided is limited and is focussed on the high-level of aims of the EIA. We would welcome further information on the specific methodologies to be adopted for assessment of impacts and for a preliminary assessment of key potential impacts associated with the development and in-combination with other plans/projects. We anticipate discussing this level of detail during the preparation of Evidence Plans for the project and so we welcome that the Applicant has now begun an Evidence Plan process.

Consultation is a key element of the EIA process and consultation with technical consultees will be crucial to the development of the assessments. However, we note that Natural England were not consulted on the survey design for the offshore ornithology digital aerial surveys until we were consulted on the year 1 surveys, at a time when the second year of surveys were nearly complete. As a result, we have raised some queries and concerns to North Falls regarding whether the survey coverage and design will provide an adequate baseline characterisation for the EIA. However, regardless of this, additional survey information on Outer Thames Estuary SPA will be required to undertake aspects of the assessment, and Natural England will make these datasets available to the Applicant.

### **Key Issues/Risks regarding the North Falls proposal**

The highest risk and hence the most significant offshore ornithology issue regarding the North Falls proposal is the close proximity (2.5km) of North Falls to the Outer Thames Estuary (OTE) SPA. Therefore, there is potential for an Adverse Effect on Integrity (AEoI) from North Falls on the OTE SPA from the project **alone** and in-combination. The extent of the potential displacement on red throated diver, using a methodology agreed with Natural England, needs to be carried out as soon as possible to enable a full assessment of the impact on all the OTE's conservation objectives. We strongly advise that this is done before the Application is submitted, to allow for any mitigation measures to be incorporated in the array design.

In relation to the HRA impacts on OTE SPA, Natural England anticipate the need for significant mitigation, given the close proximity of North Falls to the boundary of the OTE SPA. Should displacement effects on the SPA not be reduced to a level where there is no contribution to in-combination effects, the Applicant will need to present a derogations case and bring forward compensatory measures.

The North Falls site is located within the mean-maximum foraging range of lesser black-backed gull (LBBG) of the Alde-Ore Estuary SPA and there is the potential for kittiwakes from the Flamborough and Filey Coast (FFC SPA) to interact with North Falls outside of the breeding season (e.g. on migration). Therefore, the North Falls proposal will likely contribute collision mortality to these features of these sites. During the recent Norfolk Vanguard, Norfolk Boreas, East Anglia One North and East Anglia Two offshore wind farm examinations, we have advised that:

- An AEoI cannot be ruled out in respect of lesser black-backed gull at Alde-Ore Estuary SPA in-combination with other plans and projects. Therefore, any additional mortality arising from this proposal would be considered adverse;
- The in-combination total of collision mortality across consented plans/projects has already exceeded levels which are considered to be of an AEoI to kittiwake at FFC SPA. Therefore, any additional mortality arising from the North Falls proposal to these features of these sites would therefore be considered adverse.
- We have also raised concerns about predicted levels of EIA scale cumulative collision impacts on North Sea seabirds during recent examinations e.g. for EIA scale gannet, kittiwake and great black-backed gull.

These EIA and HRA concerns have intensified given the three further offshore wind farm NSIPs now submitted to PINS (Norfolk Boreas, East Anglia One North, East Anglia Two) and with further projects planned to submit in the future (Hornsea 4, Dudgeon Extension, Sheringham Extension, North Falls and Five Estuaries). Therefore, Natural England considers that without major project-level mitigation being applied to all relevant projects coming forward, there is a significant risk of large-scale impacts on seabird populations. Natural England therefore recommends that for all relevant future projects located in the North Sea, raising turbine draught height should be considered as standard mitigation practice, and that, where appropriate, relevant proposals should include this measure in order to minimise their contributions to the cumulative/in-combination collision totals by as much as is possible. As a result, we strongly advise that North Falls consider at an early stage raising the draught height of their turbines by as



much as possible in order to minimise their contribution to the cumulative/in-combination collision totals by as much as is possible.

We note that in the Secretary of State’s (SoS) decision letter for Vanguard, the SoS stated: *‘that it is important that potential AEoI of designated sites are identified during the pre-application period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies (“SNCBs”) to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination.’*

Therefore, based on the points above, we strongly recommend that NFOW give consideration to this and to development of in principle compensation measures for the Outer Thames Estuary SPA, Alde-Ore Estuary SPA and FFC SPA before submission of their application to the Planning Inspectorate.

Section 2.8 Offshore Ornithology			
Section	Paragraph/Table	Comment	Recommendations
1.7.2	78	<p>We agree with the statement that <i>‘consultation is a key element of the EIA process and consultation with technical consultees will be crucial to the development of the assessments.’</i></p> <p>Whilst the Scoping Report states that <i>‘The detailed methodologies for data collection and undertaking the impact assessments will be agreed with the relevant stakeholders’</i>, we note that Natural England were consulted on the survey design for the offshore ornithology digital aerial surveys. and We were also consulted on the year 1 surveys, however, at a time when the second year of surveys were nearly complete. Furthermore, since our original comments in 2019 our understanding on several issues has further developed. As a result, we have raised some queries and concerns to North Falls regarding whether survey coverage and design would provide an adequate baseline characterisation.</p>	<p>We recommend that North Falls consider our comments raised regarding the survey design and undertake the additional analysis we suggested in our advice on the year 1 survey report in order to provide robust evidence that the surveys provide an adequate baseline characterisation.</p> <p>As stated at the first offshore ornithology expert topic group (ETG) on 19<sup>th</sup> July a key element of providing an adequate baseline characterisation will be assessing impacts on the Outer Thames Estuary SPA, which will require assessing displacement beyond the 4km of the survey buffer.</p>
1.8.2.4	97	<p>With regard to mitigation, in relation to the HRA impacts on OTE SPA, Natural England anticipate the need for significant mitigation, given the close proximity of North Falls to the boundary of the Outer Thames Estuary SPA.</p> <p>Natural England has previously provided regulators with our advice regarding our concerns about predicted levels</p>	<p>We strongly advise that North Falls undertakes a detailed assessment of the full extent of potential impacts of red throated diver displacement on OTE SPA and consider appropriate mitigation before submitting an application.</p> <p>To address the cumulative collision impacts, we strongly advise that North Falls consider at an early stage raising the</p>

		<p>of cumulative collision impacts on North Sea seabirds e.g. EIA scale great black-backed gull at East Anglia 3 and Norfolk Vanguard; Flamborough and Filey Coast SPA kittiwakes at Hornsea 2 and Norfolk Vanguard; Alde-Ore Estuary SPA lesser-black-backed gulls at Norfolk Vanguard. These concerns have intensified given the three further offshore wind farm NSIPs now submitted to PINS (Norfolk Boreas, East Anglia One North, East Anglia Two) and with further projects planned to submit in the future (Hornsea 4, Dudgeon Extension, Sheringham Extension, North Falls and Five Estuaries). Therefore, Natural England considers that without major project-level mitigation being applied to all relevant projects coming forward, there is a significant risk of large-scale impacts on seabird populations. Natural England therefore recommends that for all relevant future projects located in the North Sea, raising turbine draught height should be considered as standard mitigation practice, and that where appropriate relevant proposals should include this measure in order to minimise their contributions to the cumulative/in-combination collision totals by as much as is possible.</p>	<p>draught height of their turbines by as much as possible in order to minimise their contribution to the cumulative/in-combination collision totals by as much as is possible. We would also recommend that North Falls provide evidence/justification (e.g. engineering or technological constraints) for the draught heights they arrive at.</p>
103		<p>We note that the Scoping Report states that <i>'Projects which are sufficiently implemented during the site characterisation for North Falls will be considered as part of the baseline for the EIA'</i>. We agree that as North Falls baseline characterisation surveys didn't start until 2020, any displacement effects from offshore wind farms operating at that time would be picked up in North Falls' survey data, if the effects from the other wind farms cover the North Falls survey area. However, Natural England does not agree that these wind farms should be considered part of the baseline. This is because, although some of the operational wind farms that would be included in the cumulative assessments have been operational for over 10 years, the bird population data that will be used in the impact assessments pre-date the installations. For example, the</p>	<p>We recommend North Falls consider our advice regarding considering operational wind farms as baseline for offshore ornithology cumulative/in-combination assessments and that all projects located within relevant BDMPSs are included within the assessments and presented in the ES/information to inform the HRA.</p>

		<p>data used in Furness 2015 to inform the red-throated Biologically Defined Minimum Population Scales (BDMPS) comes from a variety of sources including O'Brien et al. 2008, which draws on aerial survey data from 2001-06 and Wetland Bird Survey and county bird records from 1995-2005). Therefore, the baseline cannot be assumed to include the effects of these wind farms.</p> <p>The rationale for including many of the windfarms built within the OTE SPA in the assessment, and not considering them as part of the baseline is set out in Appendix A12<sup>1</sup> and A14<sup>2</sup> of Natural England's Deadline 4 Submission during the East Anglia One North/East Anglia Two examinations.</p>	
1.8.2.7	103	<p>The Scoping Report also states that <i>'Where possible NFOW will seek to agree with stakeholders the use of as-built project parameter information (if available) as opposed to consented parameters to reduce over-precaution in the cumulative assessment.'</i></p> <p>We note that Natural England's advice is that the consented figures should be used, unless the as built scenario is legally secured. However, our view is that</p>	<p>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 North Falls consider our advice regarding as built vs consented scenarios provided during the recent Norfolk Boreas examination<sup>3,4</sup> and on Non-Material Changes (NMCs) during the East Anglia One North/East Anglia Two examinations<sup>5</sup>.</p>

<sup>1</sup> Natural England (2020) Appendix A12 to Natural England's Deadline 4 Submission: NE Advice on Red Throated Divers in the Outer Thames Estuary Special Protection Area related to Deadline 3 submissions. Available from: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010077/EN010077-003535-EN010077%20338712%20EA1N%20Appendix%20A12%20-%20NE%20advice%20on%20RTD%20in%20the%20OTE%20SPA%20Deadline%204.pdf>

<sup>2</sup> Natural England (2020) Appendix A14 to Natural England's Deadline 4 Submission: Natural England's Legal Submission Concerning Displacement of Red Throated Divers in the Outer Thames Estuary SPA [REP3-049]. Available from: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010077/EN010077-003536-EN010077%20338712%20EA1N%20Appendix%20A14%20-%20NE%20Legal%20Submission%20on%20RTD%20Displacement%20within%20OTE%20SPA%20REP3-049%20Deadline%204%20.pdf>

<sup>3</sup> 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/uploads/projects/EN010087/EN010087-001760-DL6%20-%20NE%20-%20Comments%20on%20Headroom.pdf>

<sup>4</sup> 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/uploads/projects/EN010087/EN010087-001965-DL7%20-%20NE%20-%20Updated%20Ornithology%20advice.pdf>

<sup>5</sup> 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/uploads/projects/EN010077/EN010077-005285->

		there is currently no agreed mechanism for this.	
2.8.1.1.1	268	<p>It is stated that the array areas are a minimum of 2.5km from the from the OTE SPA at the closest point. Natural England are concerned that given the proximity of the array to the OTE SPA, displacement effects on red-throated diver will result in a long-lasting reduction in the availability of diver habitat in part of the SPA and a change of the distribution of divers within the SPA. In turn, this would result in an AEoI, both alone and in-combination with other plans and projects.</p>	<p>Given the level of concern regarding displacement impacts for the project alone and in-combination for this feature of this SPA, we strongly advise that North Falls assess the full extent of the potential displacement effects on all the site's Conservation Objectives and based on Natural England's advice on assessment to East Anglia One North/East Anglia Two as soon as possible. This work can inform a mitigation strategy based on the removal of some planned turbines to increase the buffer between the proposed array and the SPA boundary.</p> <p>Given that it is likely that any additional impacts arising from the North Falls proposal would be considered adverse, we note that in the Secretary of State's (SoS) decision letter for Vanguard, the SoS stated: <i>'that it is important that potential AEoI of designated sites are identified during the pre-application period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination.'</i></p> <p>Therefore, given the potential for AEoI alone and in-combination for OTE SPA, we strongly recommend that North Falls undertake a detailed assessment assuming displacement effects extend to 12km and to development mitigation measures and consideration of potential in principle compensation measures for this SPA before submission of their application to the Planning Inspectorate.</p>
2.8.1.1.2	270	<p>It is stated that the array areas are located within the mean-maximum foraging range of lesser black-backed</p>	<p>Given the level of concern regarding in-combination collision mortality for this feature of this SPA, as noted</p>

		<p>gull (Woodward et al. 2019) of the Alde-Ore Estuary SPA. Therefore, there is the potential that birds recorded within the proposal site during the breeding season will be breeding birds from this colony. Birds from the colony may also interact with the proposal outside the breeding season (e.g. on migration). During the recent Norfolk Vanguard, Norfolk Boreas, East Anglia One North and East Anglia Two offshore wind farm examinations, we have advised that an AEol cannot be ruled out in respect of lesser black-backed gull at Alde-Ore Estuary SPA in-combination with other plans and projects. Therefore, any additional mortality arising from this proposal would be considered adverse.</p>	<p>above, we strongly advise that North Falls consider at an early stage raising the draught height of their turbines by as much as possible in order to minimise their contribution to the cumulative/in-combination collision totals by as much as is possible and to include this as embedded mitigation within the ES. We would also recommend that North Falls provide evidence/justification (e.g. engineering or technological constraints) for the draught heights they arrive at.</p> <p>Given that it is likely that any additional mortality arising from the North Falls proposal would be considered adverse, we note that in the Secretary of State's (SoS) decision letter for Vanguard, the SoS stated: <i>'that it is important that potential AEol of designated sites are identified during the pre-application period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination.'</i> Therefore, based on the above regarding AEol for Alde-Ore Estuary SPA, we strongly recommend that North Falls give consideration to this and to development of in principle compensation measures for this SPA before submission of their application to the Planning Inspectorate.</p>
2.8.1.1.3	271	<p>Whilst the proposed array areas may be located outside of foraging range of kittiwakes breeding at the Flamborough and Filey Coast (FFC) SPA, there is the potential for birds from this site to interact with the proposal outside of the breeding season (e.g. on migration). We highlight that the in-combination total of collision mortality across consented plans/projects has already exceeded levels which are considered to be of an AEol to kittiwake at FFC SPA, and that any additional mortality arising from the proposal would therefore be considered adverse.</p>	<p>Given the level of concern regarding in-combination collision mortality for this feature of this SPA, as noted above, we strongly advise that North Falls consider at an early stage raising the draught height of their turbines by as much as possible in order to minimise their contribution to the cumulative/in-combination collision totals by as much as is possible, and to include this as embedded mitigation in the ES. We would also recommend that North Falls provide evidence/justification (e.g. engineering or technological constraints) for the draught heights they arrive at.</p>

			<p>Given that any additional mortality arising from the North Falls proposal would be considered adverse, we note that in the Secretary of State's (SoS) decision letter for Vanguard, the SoS stated: <i>'that it is important that potential AEol of designated sites are identified during the pre-application period and full consideration is given to the need for derogation of the Habitat Regulations during the Examination. He expects Applicants and statutory nature conservation bodies ("SNCBs") to engage constructively during the pre-application period and provide all necessary evidence on these matters, including possible compensatory measures, for consideration during the Examination.'</i> Therefore, based on the above regarding AEol for Flamborough and Filey Coast SPA, we strongly recommend that North Falls give consideration to this and to development of in principle compensation measures for this SPA before submission of their application to the Planning Inspectorate.</p>
2.8.2.2	272, Table 2.20	<p>We welcome that two years of offshore digital aerial surveys covering the North Falls array areas plus 4km buffer has been undertaken. However, we note our comments on Section 1.7.2 above.</p> <p>For HRA assessment of red throated divers from the Outer Thames Estuary SPA, Natural England advises that assuming displacement extends only up to 4km is not appropriate where a plan or project is located within 10km of a red throated diver SPA. An update to the 2017 SNCB displacement note, to reflect this updated advice, is in preparation. In the meantime, we advise that the extent of the displacement for red throated diver is assumed to be 12km, based on post consent monitoring at London Array.</p>	<p>We recommend that North Falls consider our comments raised regarding the survey design and undertake the additional analysis we suggested in our advice on the year 1 survey report in order to provide robust evidence for that the surveys provide an adequate baseline characterisation.</p> <p>As there will not be baseline survey data extending out to 10km or more for red-throated diver, we advise that North Falls follow the advice we have recently provided during the East Anglia One North/East Anglia Two examinations. The recommended approach to mitigating and assessing displacement effects on red throated diver at East Anglia One North/East Anglia Two is outlined in our Deadline 1 response during the examination for these projects (Natural England 2020<sup>6</sup>). We recommend that a similar modelling approach is undertaken for North Falls.</p>

<sup>6</sup> Natural England (2020) Appendix A4 to the Natural England Deadline 1 Submission – Natural England's recommended approach to mitigating and assessing displacement effects on red throated diver from Outer Thames Estuary Special Protection Area. Available from: [EN010077-002749-EN010078 330917 EA2 Appendix A4 - NE's Recommended Approach to Assessing Effects on Red-Throated Diver Deadline 1.pdf \(planninginspectorate.gov.uk\)](#)

2.8.2.3		<p>Other data sources that could be considered for informing the EIA and HRA include:</p> <ul style="list-style-type: none"> <li>• Marine Ecosystems Research Programme (MERP) – data can be accessed from: <a href="https://datadryad.org/stash/dataset/doi:10.5061/dryad.mw6m905sz">https://datadryad.org/stash/dataset/doi:10.5061/dryad.mw6m905sz</a></li> <li>• Seabird Mapping and Sensitivity Tool (SeaMaST) – data can be accessed from: <a href="https://data.gov.uk/dataset/96fce7bb-6561-4084-97cb-6ba92d982903/seabird-mapping-sensitivity-tool-seamast">https://data.gov.uk/dataset/96fce7bb-6561-4084-97cb-6ba92d982903/seabird-mapping-sensitivity-tool-seamast</a></li> <li>• Tracking data, e.g. RSPB tracking data of kittiwakes from the FFC SPA, Alde-Ore Estuary lesser black-backed gull tracking data (e.g. Thaxter et al. 2014<sup>7</sup>). There is also more recent tracking data from post construction monitoring at Galloper Offshore Wind Farm.</li> </ul> <p>With regard to relevant documents from marine licence applications for other offshore wind farms in the North Sea and Channel, of particular relevance to North Falls will be Natural England’s advice regarding:</p> <ul style="list-style-type: none"> <li>• red throated diver at the Outer Thames Estuary SPA at East Anglia One North/East Anglia Two;</li> <li>• FFC SPA kittiwakes, Alde-Ore Estuary SPA lesser black-backed gulls at Norfolk Vanguard, Norfolk Boreas, East Anglia One North/East Anglia Two;</li> <li>• Cumulative impacts for gannet, kittiwake, great black-backed gull, guillemot and razorbill at Norfolk Vanguard, Norfolk Boreas, East Anglia One North/East Anglia Two.</li> </ul>	<p>Consideration of our recent advice should be given in respect of the EIA’s alone and cumulative/in-combination assessments for the North Falls project.</p>
2.8.2.3	274	It should be noted that an update to the 2017 SNCB	We will share the updated displacement advice with North

<sup>7</sup> Thaxter, C.B., Ross-Smith, V.H., Clark, N.A., Conway, G.J., Johnston, A., Wade, H.M., Masden, E.A., Bouten, W. & Burton, N.H.K. (2014) Measuring the Interaction Between Marine Features of Special Protection Areas with Offshore Wind Farm Development Sites Through Telemetry: Final Report. BTO Research Report No. 649. BTO, Thetford. Available from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/657524/BTO\\_Research\\_Report\\_649\\_-\\_Interactions\\_between\\_SPA\\_features\\_and\\_offshore\\_windfarms\\_final\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/657524/BTO_Research_Report_649_-_Interactions_between_SPA_features_and_offshore_windfarms_final_report.pdf)

		<p>displacement note, to reflect updated advice regarding red throated diver, is in preparation.</p> <p>The SNCBs are also in the process of updating our advice in relation to collision risk modelling and this will be available shortly. Once this is available, we will share this with North Falls.</p>	<p>Falls as soon as it is available. In the meantime, we advise that the extent of the displacement for red throated diver is assumed to be 12km, and an approach similar to that NE advised for East Anglia One North/East Anglia Two should be undertaken for the assessment.</p> <p>Once the updated SNCB advice in relation to collision risk modelling is available, we will share this with North Falls so that the EIA can be based on the latest advice.</p>
2.8.3.1	275	<p>We welcome that the potential impacts during construction will cover displacement and disturbance of birds due to construction activities and vessel movements and indirect impacts on birds through changes in prey or habitat availability.</p>	<p>The assessment of construction indirect impacts should consider impacts via underwater noise and generation of suspended sediments through activities such as piling and seabed preparation for installation of foundations. Indirect impacts on habitats and prey should also consider such impacts resulting from cable laying activities.</p> <p>Disturbance and displacement from construction lighting should also be considered.</p>
2.8.3.2	276	<p>The potential operational impacts that will be covered are collision risk, displacement and barrier effects from presence of turbines; disturbance and displacement associated with operation and maintenance activity including vessel movement; and indirect impacts on prey and habitats.</p>	<p>Consideration could also be given to direct habitat loss from the turbine locations (not in terms of the whole offshore wind farm footprint); although it is acknowledged that this is likely to be small.</p>
2.8.3.4	278	<p>We agree that operational collision risk and displacement/barrier effects should be assessed. We recommend that consideration is also given to cumulative construction impacts.</p>	<p>Consideration should be given to the potential for cumulative construction impacts from North Falls and Five Estuaries, if both projects were to be in construction at the same time.</p> <p>Additionally, consideration should be given to potential cumulative impacts from construction of North Falls with operational impacts from the existing operational wind farms of Galloper and Greater Gabbard.</p>
2.8.3.6	Table 2.22	<p>We note that whilst there is the possibility of bird collision with vessels during construction and decommissioning, this is likely to be minor, with the main impact from collision being with the operational turbines. So, we agree</p>	<p>No action needed</p>



		that collision during construction/decommissioning has been scoped out.	
2.8.4	281-283	The information provided on the approach to assessment is very brief and high level. No real detail is provided on the approaches that will be taken for the various assessments, other than that collision risk will be undertaken using generic flight height data and site-specific data. There is no information on the collision risk model that will be used, or the approach to be used for displacement assessments (e.g. using the matrix approach) etc.	<p>We would recommend that further information on the specific methodologies to be adopted for assessment of each potential impact is provided during the Evidence Plan process. As stated, the most critical of this is agreeing the methods for assessing red throated diver displacement as soon as possible.</p> <p>We anticipate discussing this level of detail during the Evidence Plan Process for the project and note that this has begun with the first Offshore Ornithology Expert Topic Group Meeting held on 19<sup>th</sup> July where the initial method statement approach was discussed.</p>

Section 2,13 Infrastructure and Other Users			
Section	Paragraph/Table	Comment	Recommendations
2.13.1.4	384	Overlapping sub-sea cables in the southern array area could lead to the placing of cable crossings/protection within the Kentish Knock East MCZ, which partially overlaps with the southern array.	The potential impact of cable crossings/protection in the Kentish Knock MCZ will need to be assessed.
2.13.1.4	386	Proposed cables in the study area	As with above, the potential impact of cable crossings/protection in either Kentish Knock MCZ and/or Margate and Long Sands SAC will need to be carefully assessed.
2.13.1.5	387 & 388	North Falls array areas and export cable corridor overlap closed disposal sites. The interconnector cable overlaps the Inner Gabbard East disposal site. Construction (and decommissioning) activities could potentially release contaminated sediment or sediment that is not the same as the surrounding seabed during construction.	Offshore surveys should be considered for the North Falls OWF site and offshore export cable corridor to determine if any contaminants from previous disposal activities are present.
2.13.1.7	391 & 392	Mineral aggregate extraction areas adjacent to/overlapping the array(s) and/or export cable corridor.	Further consideration of the cumulative effects of North Falls construction and aggregate extraction activities on the release of suspended sediments into the water column, sediment transport processes and nearby designated sites (e.g. Kentish Knock East MCZ) should be presented in the ES.

## Annex 3 Onshore

Section 3.2 Onshore Air Quality			
Section	Paragraph/Table	Comment	Recommendations
3.2		We welcome the consideration of air quality impacts to designated sites and APIS datasets.	

Section 3.4 Land Use			
Section	Paragraph/Table	Comment	Recommendations
3.4.1.2		We welcome consideration of ALC grade areas.	

Section 3.5 Onshore Ecology			
Section	Paragraph/Table	Comment	Recommendations
3.5.3.1.3		We welcome HDD under important hedgerows. Should the creation of any gaps in hedgerows be necessary during construction or operation Natural England would advise that they are as small as possible with hedges either side of gaps allowed to thicken up during construction and operation to facilitate use as feeding and commuting corridors for wildlife.	The ES should commit to this mitigation measure
3.5.1.3		Protected Species Licence- Please contact the Natural England Case Officer and the Licensing team as early in the process as possible regarding information required for a protected species Licence and the possibility of a Letter of No Impediment.	The Applicant to contact Natural England regarding Protected Species Licences at an early stage.
	Point 471	HDD- We would welcome a detailed specification to be included in EIA of the HDD process and protocols to be put in place to prevent break outs or Frack-outs from occurring or minimise impacts should this occur.	Further detail on these matters should be presented in the ES.
3.5.1.1	Point 511	It is not clear why the Applicant has selected a 5km radius as a screening tool for designated sites. The screening area should be based on Impact Risk Zone (IRZ) for designated sites as available on Magic, and the ecology, i.e. foraging areas of designated species of sites in proximity to the proposed development area.	Scoping area to be based on designated sites IRZ rather than an arbitrary 5km.
3.5.4	Point 541	Net Gain- Natural England are delighted that NFOW are	

		keen to ensure biodiversity Net gain is included within the projects design and support this approach.	
Section 3.6 Onshore Ornithology			
<b>Section</b>	<b>Paragraph/Table</b>	<b>Comment</b>	<b>Recommendations</b>
3.6.1	Point 548	Surveys- All surveys should be undertaken during optimum survey periods in line with Natural England species guidance.	The ES should present baseline onshore ornithology information gathered using appropriate methodologies agreed with NE.

## **Annex 4 Project Wide Aspects**

### **Section 4.1 Seascape, Landscape and Visual**

Natural England (NE) welcomes this opportunity to comment on the landscape, seascape, visual assessments, and related sections of the North Falls EIA Scoping Report. Natural England (NE) limits its comments to landscape, seascape and visual receptors associated with the Suffolk Coast and Heaths AONB (SCHAONB) and Suffolk Heritage Coast (SHC). For landscape, visual and seascape effects both within and outside of these designated and defined landscapes, we advise that close attention is paid to the comments and advice provided by the relevant Local Planning Authorities and SCHAONB Partnership. The detailed local knowledge that these parties can provide, particularly in respect of the special qualities of the AONB, will be of a greater depth and detail than that provided by Natural England.

Natural England offers its comments and advice without prejudice. Our comments and advice on the landscape, seascape and visual effects of the scheme may change as further evidence and information emerges from further assessments undertaken by the applicant as a part of the EIA process. We may also receive other relevant information from local authorities, the AONB Partnership and other sources. We will also be collecting our own evidence to inform our comments and advice and may continue to do so until the end of the Examination process.

Our comments are based solely on the documents provided by the applicant and site visits to selected viewpoints undertaken in July 2019 (for the EA2 scheme), combined with our experience of advising on other major offshore renewable energy schemes located within the seascape setting of nationally designated landscapes.

### **General Comments**

Natural England notes that there remain issues with securing an onshore grid connection and that within the current area of search for landfall, onshore cable route and substation there are likely to be significant nature conservation and landscape challenges. Therefore, we strongly advise that the project seriously considers utilising National Grid Ventures Nautilus Interconnector as means to address these issues.

Natural England is concerned about the potential for adverse effects on the statutory purpose of the SCHAONB which may arise from turbines located in the seascape setting of the designation. As concluded in the EA2 Environmental Statement, Natural England considers that the Seascape Character Area 'East Anglian Waters' forms the outer limits of the seascape setting of the AONB.

We are especially concerned about the North Falls northern development area which is located closest to the coastline of the SCHAONB. The separation distance to the SCHAONB from this location is less than for the EA2 scheme, where the selected technology option specified shorter turbines and where the SLVIA concluded that significant adverse effects would occur on the statutory purpose of the SCHAONB.

As a consequence of these factors the applicant may wish to consider the merit of undertaking separate assessments for each of the 2 North Falls (NFOW) development areas. In so doing it may be possible reach agreement or even scope out the southern development area should it be agreed that significant adverse effects on the statutory purpose of the SCHAONB are unlikely to arise from turbines located in this area.

## 1. Landscape and Seascape Visual Impact Assessments

### i) Height and location of turbines

In July 2018 we provided the following advice to the Crown Estate on the extension round projects:

*Although the existing Greater Gabbard OWF (northern portion) is visible from the Suffolk Coast and Heath Area of Outstanding Natural Beauty (AONB) (at approximately 23km) it does not result in a detrimental effect on the statutory purposes of this nationally designated landscape. We understand that the height of these turbines is 131m to the top of the blade tip. However should taller turbines (potential maximum height of 300m) be installed in the portion of the seascape, located to the west of the northern portion of the existing Greater Gabbard OWF, there is likely to be an adverse effect on the statutory purposes of this AONB.*

*Larger structures would be located closer to the coast line and although they would account for a relatively small portion of the total seascape their location off the least developed and most remote portion of the AONB coastline (Orford Ness) would in all likelihood result in a significant detrimental effect on the special qualities of the designation.*

*In addition, there is the potential for an in-combination effect with the proposed EA2 and EA1N OWFs. This may result in an extensive 'curtaining effect' on the entirety of the Suffolk Coast and Heaths AONB seascape setting. Natural England has concerns for the northern portion of the extension site of:*

- the erection of large turbines (likely maximum height 300m) closer to the coastline of the AONB and in front of the existing Greater Gabbard OWF; and*
- the potential for the creation a curtaining effect when viewed in conjunction with the EA1N and EA2 OWF proposals.*

*NE advises that to prevent these visual effects any future OWF proposed within this extension site should not be located within the northern portion of the extension site and further development is directed towards the southern portion.*

While the advice to the Crown Estate still stands; we note that that the impacts from the proposed 400m high turbines are more likely to have significant impacts on a wider field of receptors (and potentially designated landscapes) and not just from turbines located to the west of the northern proportion. **Therefore, we do not support the continued used of the 50km Zone of Theoretical Influence (ZTI) ZTI for 400m turbines and advise that this is extended to a minimum of 60km.**

### ii) Recent SLVIA/LVIA advice on OWF NSIPs

Natural England refers the Applicant to the advice Natural England provided as part of the EA1N and EA2 relevant and written representations (Appendix E) and at Deadlines 1, 3, 6 and 8 of examination, which can be found on the PINS website.

### iii) Cumulative impacts

Natural England believes that it is currently too soon to scope out cumulative impacts when full details of the proposals are not yet known.

### iv) LVIA

In addition, as with terrestrial ecology concerns, until the landfall and cable corridor are known we are unable to provide further LVIA advice.

Section 4.1 Seascape, Landscape and Visual																							
Section	Paragraph/Table	Comment	Recommendations																				
4.1.1	Point 711	“The offshore existing environment is described for a study area of 50km radius around the array areas, including parts of the outer Thames estuary, Suffolk, Essex and Kent...”	Due to the height of the turbines used to inform the worst-case scenario Natural England advises that the study be extended to a <b>60km radius</b> .																				
4.1.2	Point 722	Natural England agrees with the listing of key data sources which will be used to inform the ES	No action needed																				
4.1.3	Point 723	We disagree with the proposal to omit the constructive phase of the scheme from the ES’s consideration of seascape impacts. The construction phase is likely to last in excess of 5 years during which time presence of construction assets and partially complete turbines will be a feature of the seascape setting of the SCHAONB. Although we welcome construction impacts remaining scoped in for landscape concerns (724)	We wish, therefore, for the construction phases to be included in the EIA of landscape, seascape and visual receptors as they relate to the SCHAONB.																				
4.1.3.2	Point 727	Presently Natural England is unable to support the scoping out of the onshore substation noting that the area of search is currently adjacent to two AONBs and the location is unknown. We will revisit this once greater clarity emerges.																					
4.1.3.2	Table 4.1	In addition to the viewpoints listed in Table 4.1 Natural England wishes to see the following locations included as either specific or representative viewpoints in the ES. Visual effects from these locations were assessed for EA2 scheme and NE considers it would be of value to use these locations again for NFOW. We note from the grid references shown in Table 4.1 that the locations listed were used for viewpoints in the EA2 ES.																					
		<table border="1"> <thead> <tr> <th>Location</th> <th>Easting</th> <th>Northing</th> <th>Reason for Selection</th> </tr> </thead> <tbody> <tr> <td>Pulmahite Cliffs (Bawdsey Manor)</td> <td>633723</td> <td>237868</td> <td>Prominent local tourist feature at the mouth of the Deben</td> </tr> <tr> <td>Shingle Street</td> <td>636947</td> <td>242943</td> <td>Characteristic of southern end of Orford Ness</td> </tr> <tr> <td>Thorpeness</td> <td>647287</td> <td>259490</td> <td>Settlement in AONB</td> </tr> <tr> <td>Coastal Path Between Thorpeness and Sizewell</td> <td>647624</td> <td>260987</td> <td>Characteristic of the rural coastline between Aldborough and Sizewell</td> </tr> </tbody> </table>	Location	Easting	Northing	Reason for Selection	Pulmahite Cliffs (Bawdsey Manor)	633723	237868	Prominent local tourist feature at the mouth of the Deben	Shingle Street	636947	242943	Characteristic of southern end of Orford Ness	Thorpeness	647287	259490	Settlement in AONB	Coastal Path Between Thorpeness and Sizewell	647624	260987	Characteristic of the rural coastline between Aldborough and Sizewell	
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		Dunwich Heath and Beach (Coastguard cottages)	647700	267801	Well known tourist location with slightly evaluated views out to sea	
4.1.3.3	Point 729	Natural England offers no comment on the decommissioning phase of the scheme.				
4.1.3.4	Point 730	Whilst existing windfarms will be part of the baseline for this project, they do continue to have ongoing impacts on the special qualities of the Suffolk Coast and Heaths AONB. Therefore, this will need to be taken into consideration in the assessment.			We would recommend the applicant review our advice on the EA1N and EA2 applications. Existing windfarms should be considered within the CIA.	
4.1.3.4	Point 731	We welcome the commitment to include the EA2 scheme in the cumulative seascape, landscape and visual effects assessment as these relate to the SCHAONB and SHC.			No action needed.	
4.1.3.6	Table 4-2	Construction and Operation of onshore infrastructure may impact on designated landscapes depending on locations, but currently this remains unknown as the cable corridor not yet determined. Neither is any mitigation.			Natural England advises that this requires further consideration during the pre-application phase, and that the ES brings forward appropriate mitigation for the construction phase where needed.	
4.1.4.1	Point 738	NE notes the comment in the 7 <sup>th</sup> bullet point and welcome this.			Natural England wishes to see an assessment of the scheme's potential impact on the special qualities of the SCHAONB and special character of the SHC. The evidence for such an assessment should be drawn from the landscape, seascape and visual assessments as this relates to landscape and visual receptors located within the designation and its seascape setting. Natural England can advise as to how such an assessment can be undertaken.	



Seana Heaney  
Network Rail - Planning,  
1 Stratford Place,  
London, E15 1AZ

Planning Department

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By email only

09/08/2021

## **Network Rail Consultation Response**

### **North Falls Offshore Wind Farm**

Thank you for consulting Network Rail on North Falls Offshore Wind Farm.

Upon review of the information provided at this stage, Network Rail would like to inform you that any pylons to be installed will require Wayleaves from Network Rail. Interactions between the development and level crossings, where possible, must be avoided.

I trust the above clearly sets out Network Rail's position on the planning application. Should you require any more information from Network Rail, please do not hesitate to contact me.

Kind regards,

**Seana Heaney**

Town Planning Technician

Network Rail | Property | Anglia Region

1 Stratford Place | London | E15 1AZ

[Redacted]

[Redacted]

[www.networkrail.co.uk/property](http://www.networkrail.co.uk/property)



North East Essex Clinical Commissioning Group  
Aspen House  
Stephenson Road  
Colchester  
CO4 9QR

  
[www.neessexccg.nhs.uk](http://www.neessexccg.nhs.uk)

11<sup>th</sup> August 2021

**Your Ref: EN010119-000019 – North Falls Offshore Windfarm – Scoping Report Response**

By Email Only: [NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)

Thank you for acknowledging Health as a consultation body in relation to the application of a Development Consent Order (DCO) by North Falls Offshore Wind Ltd.

The North East Essex Clinical Commissioning Group has consulted the following Health system Partners as part of its preparation for this response and confirm that all future responses in relation to the DCO process will be made in partnership with;

East Suffolk North East Foundation Trust (ESNEFT)  
Essex Partnership University Trust (EPUT)  
East of England Ambulance Service Trust (EEAST)  
NHS England – East of England Region (NHSE)

Collectively known as the Trusts for purposes of reference.

The CCG acknowledges the references to a Health Impact Assessment to be undertaken, as well as the impact on Human Health and safety, the CCG requests that the Health Impact Assessment also looks at the disruption of access to healthcare facilities and emergency services of the local road network during construction including an understanding of any temporary additional residents should the development require a workforce to be temporarily located for a period of time. This will enable the impact on Primary Care, Acute Care, Mental Health and Emergency services to be ascertained and appropriate mitigation sought from the applicant.

The CCG also acknowledges that the scoping report clearly indicates the opportunities for improvement to human health including job opportunities and the CCG asks that the applicant considers these opportunities with the North East Essex Health and Wellbeing Alliance partners (which includes Tendring District Council, Essex County Council, the named trusts within this response and voluntary sector organisations) to seek opportunities to improve the wider determinants of health of the local population where it is evidenced that the source of employment would benefit the local community.

The CCG will work with colleagues at Essex County Council and PHE in review of the human health impacts following the EA and will look to work with the applicant on any negative impacts that may be identified.

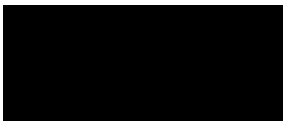
The CCG requested the Trusts to provide individual comment should they feel any specific immediate measures or concerns at this stage should be highlighted. To this end the CCG details below the response from EEAST;

At the moment EEAST do not have any comments to add. Obviously further down the process, our concerns would be to address:

- 1) Emergency service liaison and site access in relation on-shore development during all phases eg construction, site active and decommissioning
- 2) Any emergency services transport delays due to increased traffic and movement of AILS during construction and decommissioning
- 3) Any patient transport service delays due to increased traffic and movement of AILS (where we are commissioned to provide PTS)
- 4) Any impact on emergency services as a result of construction worker housing accommodation.

This concludes our expectations for the EIA and the CCG will continue to manage future responses on behalf of Health partners as the Development Consent Order continues through the planning process.

Yours faithfully



Jane Taylor (Mrs)  
Senior Estates Development Manager  
North East Essex Clinical Commissioning Group

cc. Zoe May, EEAST  
Paul Fenton MBE, ESNEFT  
Peter Mitchell EPUT  
Richard Taylor, NHSE



Public Health  
England

Environmental Hazards and  
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Centre for Radiation, Chemical and  
Environmental Hazards (CRCE)  
Seaton House  
City Link  
London Road  
Nottingham  
NG2 4LA

[nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

[www.gov.uk/phe](http://www.gov.uk/phe)

Your Ref: EN010119-000019

Our Ref: 57768

Ms Marnie Woods  
Senior EIA and Land Rights Advisor  
The Planning Inspectorate  
Temple Quay House,  
2 The Square,  
Bristol BS1 6PN.

13<sup>th</sup> August 2021

Dear Ms Woods

**Nationally Significant Infrastructure Project  
North Falls Offshore Wind Farm. PINs reference: EN010119-000019  
Scoping Consultation Stage**

Thank you for including Public Health England (PHE) in the scoping consultation phase of the above application. Advice offered by PHE is impartial and independent.

PHE exists to protect and improve the nation's health and wellbeing and reduce health inequalities; these two organisational aims are reflected in the way we review and respond to Nationally Significant Infrastructure Project (NSIP) applications.

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 welcome 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.

V1.0 March 2021

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 Environmental Statement (ES), we recognise that the differing nature of projects is such that their impacts will vary. The attached appendix summarises PHE's requirements and recommendations regarding the content of and methodology used in preparing the 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.

### **Recommendation**

It is noted that the proposed development includes provision for onshore electrical cables and associated infrastructure, so the developer will need to assess the potential public health impact of the electric and magnetic fields produced by this equipment. (see further guidance in the annex to this letter).

### **Human Health and Wellbeing**

This section of PHE's response, identifies the wider determinants of health and wellbeing we expect the ES to address, to demonstrate whether they are likely to give rise to significant effects. PHE has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements. The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

Having considered the submitted PEI report PHE wish to make the following specific comments and recommendations:

### **Methodology**

#### **Vulnerable populations**

An approach to the identification of vulnerable populations has been provided but does not make links to the list of protected characteristics within an Equality Impact Assessment (EqIA). The impacts on health and wellbeing and health inequalities of the scheme may have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. The ES and any Equalities Impact Assessment should not be completely separated.

The identification of vulnerable populations should reference the list provided by the Welsh Health Impact Assessment Support Unit<sup>1</sup>

### **Recommendation**

The identification of vulnerable populations should be influenced by WHISU guidance and the findings of any Equalities Impact Assessment (EqIA). Findings from the EqIA should be cross referenced to ensure the comprehensive assessment of potential impacts for health and inequalities and where resulting mitigation measures are mutually supportive.

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<sup>1</sup> [WHIASU \(2020\). Health Impact Assessment – A Practical Guide](#)

### **Housing affordability and availability**

The presence of significant numbers of workers could foreseeably have an impact on the local availability of affordable housing, particularly that of short term tenancies and affordable homes for certain communities. The cumulative impact assessment will need to consider this across the wider study area but also identify the potential for any local (ward-level) effects that may affect the capacity of sectors to respond to change, and where there could be knock-on effects on access to accommodation for residents with the least capacity to respond to change (for example, where there may be an overlap between construction workers seeking accommodation in the private rented sector, and people in receipt of housing benefit seeking the same lower-cost accommodation).

The scoping report does not identify the peak number of construction workers.

### **Recommendation**

The peak numbers of construction workers and non home-based workers should be established and a proportionate assessment undertaken on the impacts for housing availability and affordability and impacts on any local services.

Any cumulative impact assessment should consider the impact on demand for housing by construction workers and the likely numbers of non home-based workers required across all schemes.

Yours sincerely

For and on behalf of Public Health England  
[nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

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

## Appendix: PHE recommendations regarding the scoping document

### Introduction

The Planning Inspectorate's Advice Note 11: Working with Public Bodies covers many of the generic points of interaction relevant to the Planning Inspectorate and Public Health England (PHE). The purpose of this Annex is to help applicants understand the issues that PHE expect to see addressed by applicants preparing an Environmental Statement (ES) as part of their Nationally Significant Infrastructure Planning (NSIP) submission.

We have included a comprehensive outline of the type of issues we would expect to be considered as part of an NSIP which falls under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations). PHE encourages applicants to contact us as early in the process as possible if they wish to discuss or clarify any matters relating to chemical, poison, radiation or wider public health.

### General Information on Public Health England

PHE was established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service. We are an executive agency of the Department of Health and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the National Health Service (NHS) in a professionally independent manner.

We work closely with public health professionals in Wales, Scotland and Northern Ireland, and internationally.<sup>2</sup> We have specialist teams advising on specific issues and the potential impacts arising from environmental public health including chemicals, noise, air quality, ionising and non-ionising radiation.

### PHE's NSIP roles and responsibilities

PHE is a statutory consultee in the NSIP process for any *applications likely to involve chemicals, poisons or radiation which could potentially cause harm to people and are likely to affect significantly public health*.<sup>3</sup> PHE will consider potential significant effects (direct and indirect) of a proposed development on population and human health and the impacts from chemicals, radiation and environmental hazards. We also consider other factors which may have an impact on public health, such as the wider determinants of health, health improvement and health inequalities (where PHE has a legal duty specified in the Health and Social Care Act 2012)<sup>4</sup>.

Under certain circumstances PHE may provide comments on radiation on behalf of the Scottish Government. If a proposer is submitting a planning application in Scotland which may require advice on radiation you are recommended to contact the appropriate Scottish Planning Authority for advice on how to proceed.

In the case of applications in Wales, PHE remains a statutory consultee but the regime applies to a more limited range of development types. For NSIP applications likely to affect land in Wales, an applicant should still consult PHE but, additionally will be required to consult the Welsh Government.

### Environmental Impact Assessments – PHE Responsibilities

PHE has a statutory role as a consultation body under the EIA Regulations. Where an applicant has requested a scoping opinion from the Planning Inspectorate<sup>5</sup>, PHE will be consulted regarding the

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<sup>2</sup> <https://www.gov.uk/government/organisations/public-health-england/about#priorities>

<sup>3</sup> The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015

<sup>4</sup> <http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>

<sup>5</sup> The scoping process is administered and undertaken by the Planning Inspectorate on behalf of the Secretary of State

scope, and level of detail, of the information to be provided in the ES. PHE has a duty to make information available to the applicant.

PHE provides advice relating to EIA within this document and during the NSIP consultation stages. PHE encourages applicants to discuss the scope of the ES with us at an early stage to explore, for example, whether careful site selection or other design issues could minimise or eliminate public health impacts or to outline the requirement for, scope and methodology of any assessments related to public health. PHE's standard recommendations in response to EIA scoping consultations are below.

## **PHE's recommendations to applicants regarding Environmental Impact Assessments**

### **General approach**

PHE provides advice relating to EIA within this document and during the NSIP consultation stages. It is the role of the applicant to prepare the ES.

When preparing an ES the applicant should give consideration to best practice guidance such as the Government's Handbook for scoping projects: environmental impact assessment<sup>6</sup>, and Guidance: on Environmental Impact Assessment<sup>7</sup>

The [Planning Inspectorate's Advice Note Seven](#): Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements also provide guidance to applicants and other persons with interest in the EIA process as it relates to NSIPs. It is important that the submitted ES identifies and assesses the potential public health impacts of the activities at, and emissions from, the development.

**Applicants are reminded that Section 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 specifically includes a requirement that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on population and human health.**

PHE is of the opinion that this requirement encompasses the wider determinants of public health, as well as chemicals, poisons and radiation. Further information on PHE's recommendations and requirements is included below.

PHE understands that there may be separate sections of the ES covering the assessment of impacts on air, land, water and so on, but expects an ES to include a specific section summarising potential impacts on population and health. This section should bring together and interpret the information from other assessments as necessary. The health, wellbeing and population impacts section should address the following steps.

1. Screening: Identify any significant effects.
  - a. Summarise the methodologies used to identify health impacts, assess significance and sources of information
  - b. Evaluate any reference standards used in carrying out the assessment and in evaluating health impacts (e.g., environmental quality standards)

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<sup>6</sup> <https://www.gov.uk/government/publications/handbook-for-scoping-projects-environmental-impact-assessment>

<sup>7</sup> <https://www.gov.uk/guidance/environmental-impact-assessment#the-purpose-of-environmental-impact-assessment>

- c. Where the applicant proposes the ‘scoping out’ of any effects a clear rationale and justification should be provided along with any supporting evidence.
2. Baseline Survey:
    - a. Identify information needed and available, evaluate quality and applicability of available information
    - b. Undertake assessment
  3. Alternatives:
    - a. Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, the EIA process should start at the stage of site selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES<sup>8</sup>.
  4. Design and assess possible mitigation
    - a. Consider and propose suitable corrective actions should mitigation measures not perform as effectively predicted.
  5. Impact Prediction: Quantify and Assess Impacts:
    - a. Evaluate and assess the extent of any positive and negative effects of the development. Effects should be assessed in terms of likely health outcomes, including those relating to the wider determinants of health such as socio-economic outcomes, in addition to health outcomes resulting from exposure to environmental hazards. Mental health effects should be included and given equivalent weighting to physical effects.
    - b. Clearly identify any omissions, uncertainties and dependencies (e.g., air quality assessments being dependant on the accuracy of traffic predictions)
    - c. Evaluate short-term impacts associated with the construction and development phase
    - d. Evaluate long-term impacts associated with the operation of the development
    - e. Evaluate any impacts associated with decommissioning of the development
    - f. Evaluate any potential cumulative impacts as a result of the development, currently approved developments which have yet to be constructed, and proposed developments which do not currently have development consent
  6. Monitoring and Audit
    - a. Identify key modelling predictions and mitigation impacts and consider implementing monitoring and audit to assess their accuracy / effectiveness.

Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made, the applicant should fully explain and justify their rationale in the submitted documentation.

### **Human and environmental receptors**

The applicant should clearly identify the development’s location and the distance of the development to off-site receptors that may be affected by emissions from, or activities at, the development. Off-site receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land.

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<sup>8</sup> DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>



Identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities, as well as other vulnerable population groups such as those who are young, older, with disabilities or long-term conditions, or on low incomes) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

### **Impacts arising from construction and decommissioning**

Any assessment of impacts arising from emissions or activities due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the applicant to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential negative impact on health from emissions (point source, fugitive and traffic-related) and activities. An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The applicant should ensure that there are robust mechanisms in place to respond to any complaints made during construction, operation, and decommissioning of the facility.

### **Emissions to air and water**

PHE has a number of comments regarding the assessment of emissions from any type of development in order that the ES provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these should:

- include an evaluation of the public health benefits of development options which reduce air pollution – even below limit values – as pollutants such as nitrogen dioxide and particulate matter show no threshold below which health effects do not occur;<sup>9, 10</sup>
- consider the construction, operational, and decommissioning phases;
- consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts;
- fully account for fugitive emissions;
- include appropriate estimates of background levels (i.e., when assessing the human health risk of a chemical emitted from a facility or operation, background exposure to the chemical from other sources should be taken into account);
- encompass the combined impacts of all pollutants which may be emitted by the development with all pollutants arising from associated development and transport, considered in a single holistic assessment (i.e., of overall impacts);
- identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions. This should include consideration of any new receptors arising from future development;
- identify cumulative and incremental impacts (i.e., assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed

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<sup>9</sup> <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>

<sup>10</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/795185/Review\\_of\\_interventions\\_to\\_improve\\_air\\_quality.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf)

development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e., rail, sea, and air);

- compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium. Where available, the most recent UK standards for the appropriate media (i.e., air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants;
- where UK standards or guideline values are not available, or other reputable International bodies e.g. European Union or OECD:
  - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (e.g., a Tolerable Daily Intake or equivalent);
  - This should consider all applicable routes of exposure (e.g., include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion).
- include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary;
- include Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES;
- include consideration of local authority, Environment Agency, Natural Resources Wales, Defra national network, and any other local site-specific sources of monitoring data;
- when quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants, PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the Committee on Carcinogenicity of Chemicals approach<sup>11</sup> is used.

Whilst screening of impacts using qualitative methodologies is common practice (eg, for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the applicant should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure. Further to assessments of compliance with limit values, for non-threshold pollutants (ie, those that have no threshold below which health effects do not occur) the **benefits** of development options which reduce population exposure should be evaluated.

#### *Additional points specific to emissions to air*

When considering baseline conditions (of existing air quality) and the assessment and future monitoring of impacts, these should include:

- consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs) or Clean Air Zones (CAZ). The applicant should demonstrate close working/consultation with the appropriate local authorities
- modelling using appropriate meteorological data (i.e. from the nearest suitable meteorological station and include a range of years and worst-case conditions)
- modelling taking into account local topography, congestion and acceleration

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<sup>11</sup> <https://www.gov.uk/government/publications/cancer-risk-characterisation-methods>

### *Additional points specific to emissions to water*

When considering baseline conditions (of existing water quality) and the assessment and future monitoring of impacts, these should:

- include assessment of potential impacts on human health and not focus solely on ecological impacts
- identify and consider all routes by which emissions may lead to population exposure (e.g., surface watercourses, recreational waters, sewers, geological routes etc.)
- assess the potential off-site effects of emissions to groundwater (eg, on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- include consideration of potential impacts on recreational users (eg, from fishing, canoeing etc.) alongside assessment of potential exposure via drinking water

### **Land quality**

We would expect the applicant to provide details of any hazardous contamination present on site (including ground gas) as part of a site condition report and associated risk assessment.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, during construction and once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed in accordance with the Environment Agency publication Land Contamination: risk management<sup>12</sup> and the potential impact on nearby receptors; control and mitigation measures should be outlined.

### **Waste**

The applicant should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the development the ES should assess:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

If the development includes wastes delivered to the installation:

- Consider issues associated with waste delivery and acceptance procedures (including delivery of prohibited wastes) and should assess potential off-site impacts and describe their mitigation

### **Other aspects**

Within the ES, PHE would expect to see information about how the applicant would respond to accidents with potential off-site emissions (e.g., flooding or fires, spills, leaks or releases off-site). Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

PHE would expect the applicant to consider the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations: both in terms of their applicability to the development itself, and the development's potential to impact on, or be impacted by, any nearby installations themselves subject to these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report<sup>13</sup>, jointly published by Liverpool John Moores University and the

<sup>12</sup> Available from <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>

<sup>13</sup> Available from: [http://allcatsrgrey.org.uk/wp/download/public\\_health/Health-Risk-Perception-Env-Probs.pdf](http://allcatsrgrey.org.uk/wp/download/public_health/Health-Risk-Perception-Env-Probs.pdf)

Health Protection Agency (HPA), examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: “*Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible.*” PHE supports the inclusion of this information within ES’ as good practice.

### **Electromagnetic fields (EMF)**

This advice relates to electrical installations such as substations and connecting underground cables or overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available on the Gov.UK website.<sup>14</sup>

There is a potential health impact associated with the electric and magnetic fields around substations, overhead power lines and underground cables. The field strengths tend to reduce with distance from such equipment.

The following information provides a framework for considering the health impact associated with the electric and magnetic fields produced by the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

#### **Policy Measures for the Electricity Industry**

A voluntary code of practice is published which sets out key principles for complying with the ICNIRP guidelines.<sup>15</sup> Companion codes of practice dealing with optimum phasing of high voltage power lines and aspects of the guidelines that relate to indirect effects are also available.<sup>16, 17</sup>

#### **Exposure Guidelines**

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect, based on an accompanying comprehensive review of the scientific evidence, was published in 2004 by the National Radiological Protection Board (NRPB), one of PHE’s predecessor organisations<sup>18</sup>

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, Government policy is that the ICNIRP guidelines are implemented as expressed in the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):<sup>19</sup>

#### **Static magnetic fields**

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing

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<sup>14</sup> <https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

<sup>15</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf)

<sup>16</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf)

<sup>17</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/224766/powerlines\\_vcop\\_microshocks.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf)

<sup>18</sup>

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

<sup>19</sup> [http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthprotection/DH\\_4089500](http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthprotection/DH_4089500)

ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

### **Power frequency electric and magnetic fields**

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to electric fields. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m<sup>-1</sup> (kilovolts per metre) and 100 µT (microtesla). The reference level for magnetic fields changes to 200 µT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with underlying basic restrictions and reducing the risk of indirect effects.

### **Long term effects**

There is concern about the possible effects of long-term exposure to extremely low frequency electric and magnetic fields, from power lines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia in relation to power frequency magnetic fields, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

### **The Stakeholder Advisory Group on ELF EMFs (SAGE)**

SAGE was set up to explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), which include power frequency fields, and to make practical recommendations to Government:<sup>20</sup>

Relevant here is SAGE's 2007 First Interim Assessment, which makes several recommendations concerning high voltage power lines. In responding, Government supported the implementation of low cost options such as optimal phasing to reduce exposure; however it did not support the option of creating corridors around power lines in which development would be restricted on health grounds, which was considered to be a disproportionate measure given the evidence base on the potential long term health risks arising from exposure. The Government response to SAGE's First Interim Assessment is available on the national archive website.<sup>21</sup>

The Government also supported calls for providing more information on power frequency electric and magnetic fields, which is available on the PHE web pages.

### **Ionising radiation**

Particular considerations apply when an application involves the possibility of exposure to ionising radiation. In such cases it is important that the basic principles of radiation protection recommended by the International Commission on Radiological Protection<sup>22</sup> (ICRP) are followed. PHE provides advice on the application of these recommendations in the UK. The ICRP recommendations are

<sup>20</sup> <http://www.emfs.info/policy/sage/>

<sup>21</sup>

[http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_107124](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124)

<sup>22</sup> These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at <http://www.icrp.org/>

implemented in the Euratom Basic Safety Standards<sup>23</sup> (BSS) and these form the basis for UK legislation, including the Ionising Radiation Regulations 1999, the Radioactive Substances Act 1993, and the Environmental Permitting Regulations 2016.

As part of the EIA process PHE expects applicants to carry out the necessary radiological impact assessments to demonstrate compliance with UK legislation and the principles of radiation protection. This should be set out clearly in a separate section or report and should not require any further analysis by PHE. In particular, the important principles of justification, optimisation and radiation dose limitation should be addressed. In addition compliance with the Euratom BSS and UK legislation should be clear.

When considering the radiological impact of routine discharges of radionuclides to the environment PHE would, as part of the EIA process, expect to see a full radiation dose assessment considering both individual and collective (population) doses for the public and, where necessary, workers. For individual doses, consideration should be given to those members of the public who are likely to receive the highest exposures (referred to as the representative person, which is equivalent to the previous term, critical group).

Different age groups should be considered as appropriate and should normally include adults, 1 year old and 10 year old children. In particular situations doses to the fetus should also be calculated<sup>24</sup>.

The estimated doses to the representative person should be compared to the appropriate radiation dose criteria (dose constraints and dose limits), taking account of other releases of radionuclides from nearby locations as appropriate. Collective doses should also be considered for the UK, European and world populations where appropriate.

The methods for assessing individual and collective radiation doses should follow the guidance given in 'Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012'<sup>25</sup>

It is important that the methods used in any radiological dose assessment are clear and that key parameter values and assumptions are given (for example, the location of the representative persons, habit data and models used in the assessment).

Any radiological impact assessment, undertaken as part of the EIA, should also consider the possibility of short-term planned releases and the potential for accidental releases of radionuclides to the environment. This can be done by referring to compliance with the Ionising Radiation Regulations and other relevant legislation and guidance.

The radiological impact of any solid waste storage and disposal should also be addressed in the assessment to ensure that this complies with UK practice and legislation; information should be provided on the category of waste involved (e.g. very low level waste, VLLW). It is also important that the radiological impact associated with the decommissioning of the site is addressed.

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<sup>23</sup> Council Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.

<sup>24</sup> HPA (2008) Guidance on the application of dose coefficients for the embryo, fetus and breastfed infant in dose assessments for members of the public. Doc HPA, RCE-5, 1-78, available at <https://www.gov.uk/government/publications/embryo-fetus-and-breastfed-infant-application-of-dose-coefficients>

<sup>25</sup> The Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, Health Protection Agency and the Food Standards Agency (FSA).

Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/296390/geho1202bklh-e-e.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf)

Of relevance here is PHE advice on radiological criteria and assessments for land-based solid waste disposal facilities<sup>26</sup>. PHE advises that assessments of radiological impact during the operational phase should be performed in the same way as for any site authorised to discharge radioactive waste. PHE also advises that assessments of radiological impact during the post operational phase of the facility should consider long timescales (possibly in excess of 10,000 years) that are appropriate to the long-lived nature of the radionuclides in the waste, some of which may have half-lives of millions of years.

The radiological assessment should consider exposure of members of hypothetical representative groups for a number of scenarios including the expected migration of radionuclides from the facility, and inadvertent intrusion into the facility once institutional control has ceased.

For scenarios where the probability of occurrence can be estimated, both doses and health risks should be presented, where the health risk is the product of the probability that the scenario occurs, the dose if the scenario occurs and the health risk corresponding to unit dose.

For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered.

The level of detail and sophistication in the modelling should also reflect the level of hazard presented by the waste. The uncertainty due to the long timescales means that the concept of collective dose has very limited use, although estimates of collective dose from the 'expected' migration scenario can be used to compare the relatively early impacts from some disposal options if required.

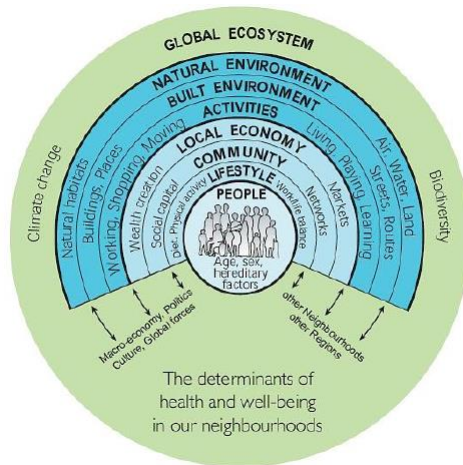
### **Wider Determinants of Health**

The World Health Organization (WHO's) defines health as "a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity" (WHO, 1948).

The health and wellbeing 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.

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<sup>26</sup> HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009



Barton and Grant<sup>27</sup>

PHE recognises that evaluating an NSIP’s impacts on health through the wider determinants is more complex than assessing a project’s direct impacts against clearly defined regulatory protections. The 2017 EIA Regulations clarify that the likely significant effects of a development proposal on population and human health must be assessed.

PHE’s expectations are that the proponent of an NSIP will conduct a proportionate and evidence-based assessment of the anticipated direct and indirect effects on health and wellbeing in line with the relevant regulatory and policy requirements. Consideration should be given to impacts during the construction, operation and decommissioning phase of NSIPs. Consideration should be given to the avoidance or mitigation of any negative impacts, as well as to how the NSIP could be designed to maximise potential positive benefits.

We accept that the relevance of wider determinants and associated impacts will vary depending on the nature of the proposed development. PHE has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements.

The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

PHE has developed a list of 21 determinants of health and wellbeing under these four broad themes. These determinants should be considered within any scoping report and if the applicant proposes to scope any areas out of the assessment, they should provide clear evidence-based reasoning and justification. Appendix 2 provides greater detail on the nature of each determinant.

### Methodology

PHE will expect assessments to set out the methodology used to assess impacts on each determinant included in the scope of the assessment. In some instances, the methodologies described may be established and refer to existing standards and/or guidance. In other instances, there may be no pre-defined methodology, which can often be the case for the wider determinants of health; as such there should be an application of a logical evidence based impact assessment method that:

- identifies the temporal and geographic scope of assessment

<sup>27</sup> Barton H, Grant M. A health map for the local human habitat. The Journal of the Royal Society for the Promotion of Health 2006; 126(6): 252-3.



- identifies affected sensitive receptors (general population and vulnerable populations) to impacts from the relevant determinant
- establishes the current baseline situation
- identifies the NSIP's potential direct and indirect impacts on each population
- if impacts are identified, evaluates whether the potential effect is likely to be significant in relation to the affected population
- identifies appropriate mitigation to eliminate or minimise impacts or the subsequent effects on health and inequalities
- identifies opportunities to achieve benefits from the scheme for health and inequalities
- considers any in combination or cumulative effects
- identifies appropriate monitoring programmes

Currently there is no standard methodology for assessing the population and human health effects of infrastructure projects, but a number of guides exist, including:

- Institute of Environmental Management and Assessment, 2017: Health in Environmental Assessment, a primer for a proportionate approach;<sup>28</sup>
- NHS London Healthy Urban Development Unit (HUDU), 2015. Healthy Urban Planning Checklist and Rapid Health Impact Assessment Tool;<sup>29</sup>
- Wales Health Impact Assessment Unit, 2012: HIA a practical guide;<sup>30</sup>
- National Mental Wellbeing Impact Assessment Development Unit 2011: Mental Wellbeing Impact Assessment Toolkit;<sup>31</sup>

PHE expects assessments to follow best practice from these guides and from methodologies adopted within other successful health/environmental impacts assessments.

### **Determining significant effects**

Neither the EIA regulations nor the National Policy Statements provide a definition of what constitutes a 'significant' effect, and so PHE have derived a list of factors which it will take into consideration in the assessment of significance of effects, as outlined below. These list of factors should be read in conjunction with guidance from the above guides.

#### **1. Sensitivity:**

Is the population exposed to the NSIP at particular risk from effects on this determinant due to pre-existing vulnerabilities or inequalities (for example, are there high numbers in the local population of people who are young, older, with disabilities or long-term conditions, or on a low income)? Will the NSIP widen existing inequalities or introduce new inequalities in relation to this determinant?

#### **2. Magnitude:**

How likely is the impact on this determinant to occur? If likely, will the impact affect a large number of people / Will the impact affect a large geographic extent? Will the effects be frequent or continuous? Will the effects be temporary or permanent and irreversible?

#### **3. Cumulative effects:**

Will the NSIP's impacts on this determinant combine with effects from other existing or proposed NSIPs or large-scale developments in the area, resulting in an overall cumulative effect different to that of the project alone?

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[https://www.researchgate.net/publication/316968065\\_Health\\_in\\_Environmental\\_Impact\\_Assessment\\_a\\_primer\\_for\\_a\\_proportionate\\_approach](https://www.researchgate.net/publication/316968065_Health_in_Environmental_Impact_Assessment_a_primer_for_a_proportionate_approach)

29 <https://www.healthyrbandevelopment.nhs.uk/our-services/delivering-healthy-urban-development/health-impact-assessment/>

30 [https://whiasu.publichealthnetwork.cymru/files/1415/0710/5107/HIA\\_Tool\\_Kit\\_V2\\_WEB.pdf](https://whiasu.publichealthnetwork.cymru/files/1415/0710/5107/HIA_Tool_Kit_V2_WEB.pdf)

31 <https://q.health.org.uk/document/mental-wellbeing-impact-assessment-a-toolkit-for-wellbeing/>

What are the cumulative effects of the impacts of the scheme on communities or populations. Individual impacts individually may not be significant but in combination may produce an overall significant effect.

**4. Importance:**

Is there evidence for the NSIP's effect on this determinant on health? Is the impact on this determinant important in the context of national, regional or local policy?

**5. Acceptability:**

What is the local community's level of acceptance of the NSIP in relation to this determinant? Do the local community have confidence that the applicants will promote positive health impacts and mitigate against negative health effects?

**6. Opportunity for mitigation:**

If this determinant is included in the scope for the EIA is there an opportunity to enhance any positive health impacts and/or mitigate any negative health impacts?

**Vulnerable groups**

Certain parts of the population may experience disproportionate negative health effects as a result of a development. Vulnerable populations can be identified through research literature, local population health data or from the identification of pre-existing health conditions that increase vulnerability.

The effects on health and wellbeing and health inequalities of the scheme will have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. Some protected groups are more likely to have elevated vulnerability associated with social and economic disadvantages. Consideration should be given to language or lifestyles that influence how certain populations are affected by impacts of the proposal, for example non-English speakers may face barriers to accessing information about the works or expressing their concerns.

Equality Impact Assessments (EqIA) are used to identify disproportionate effects on Protected Groups (defined by the Equality Act, 2010), including health effects. The assessments and findings of the Environmental Statement and the EqIA should be cross referenced between the two documents, particularly to ensure the assessment of potential impacts for health and inequalities and that resulting mitigation measures are mutually supportive.

The Wales Health Impact Assessment Support Unit (WHIASU), provides a suggested guide to vulnerable groups

*Age related groups*

- Children and young people
- Older people

*Income related groups*

- People on low income
- Economically inactive
- Unemployed/workless
- People who are unable to work due to ill health

*Groups who suffer discrimination or other social disadvantage*

- People with physical or learning disabilities/difficulties
- Refugee groups
- People seeking asylum
- Travellers
- Single parent families
- Lesbian, gay or transgender people

- Black and minority ethnic groups
- Religious groups

#### *Geographical groups*

- People living in areas known to exhibit poor economic and/or health indicators
- People living in isolated/over-populated areas
- People unable to access services and facilities

#### **Mental health**

PHE supports the use of the broad definition of health proposed by the World Health Organisation (WHO). Mental well-being is fundamental to achieving a healthy, resilient and thriving population. It underpins healthy lifestyles, physical health, educational attainment, employment and productivity, relationships, community safety and cohesion and quality of life. NSIP schemes can be of such scale and nature that they will impact on the over-arching protective factors, which are:

- Enhancing control
- Increasing resilience and community assets
- Facilitating participation and promoting inclusion.

There should be parity between mental and physical health, and any assessment of health impact should include the appreciation of both. A systematic approach to the assessment of the impacts on mental health, including suicide, is required. The Mental Well-being Impact Assessment (MWIA) could be used as a methodology. The assessment should identify vulnerable populations and provide clear mitigation strategies that are adequately linked to any local services or assets

Perceptions about the proposed scheme may increase the risk of anxiety or health effects by perceived effects. “Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard.

#### **Evidence base and baseline data**

Baseline population / community health data (quantitative and qualitative) should be sufficient to represent current health status and identify areas or groups with poor health or inequalities. This should provide sufficient information on the physical and mental health and wellbeing and social determinants of health for the affected populations and any vulnerable groups identified.

A baseline health assessment could include:

- General population data (including size, density, age, gender, income and employment, socio-economic status, crime and disorder etc, health status.)
- Environmental information (housing, transport, access to services, provision and access to green space, tranquillity or sound environment)
- Data on behaviour, such as levels of physical activity, smoking, car usage, walking and cycling
- Surveys of local conditions
- Local concerns and anxieties (where documented)
- Secondary analysis of existing local data
- Resident surveys or consultations
- Health status, particularly of the population groups already identified as vulnerable and likely to benefit or be harmed by the proposal. This should include mental health and suicide.
- Quality of life indicators (if available / relevant)
- Local people’s views of the area and of the services provided (community engagement exercises)

There will be a range of publicly available health data including:

- National datasets such as those from the Office of National Statistics,
- PHE, including the fingertips data sets,
- Non-governmental organisations,

- Local public health reports, such as the Joint Strategic Needs Assessment and Health and Wellbeing Strategies;
- Consultation with local authorities, including public health teams
- Information received through public consultations, including community engagement exercises

There should be a narrative which interprets the data collected in the context of the project. A list of tables and data is not sufficient, so the report should consider:

- Are particular groups or vulnerable groups likely to be impacted more than others and is this clearly described and explained?
- What indicators within the current health baseline that are worse than England average/ local ward or LSOA levels?
- What are the levels of inequality in the study area?  
What are the potential inequalities in the distribution of impacts?

### **Mitigation**

If the assessment has identified that significant negative effects are likely to occur with respect to the wider determinants of health, the assessment should include a description of planned mitigation measures the applicant will implement to avoid or prevent effects on the population.

Mitigation and/or monitoring proposals should be logical, feasible and have a clear governance and accountability framework indicating who will be responsible for implementation and how this will be secured during the construction and/or operation of the NSIP.

Any proposed mitigation should have sufficient detail to allow for an assessment of the adequacy of the proposed mitigation measures.

### **Positive benefits from the scheme**

The scale of many NSIP developments will generate the potential for positive impacts on health and wellbeing; however, delivering such positive health outcomes often requires specific enabling or enhancement measures. For example, the construction of a new road network to access an NSIP site may provide an opportunity to improve the active transport infrastructure for the local community. PHE expects developments to consider and report on the opportunity and feasibility of positive impacts. These may be stand alone or be considered as part of the mitigation measures.

### **Replacement publicly accessible space or community assets**

The replacement of community assets provides opportunity for positive impacts and the design, location and operation of the replacement asset should be considered in consultation with user, the local community and agencies.

Any replacement recreational land, open space or other community assets should be located and designed to:

- Not unreasonably extend journey times or increase transport costs, or result in too many people being prevented from travelling sustainably due to unsuitable walking or cycling routes.
- Ensure that accessibility planning has been properly taken into account and that the proposal will not adversely impact on disadvantaged groups.
- Meet identified community needs which may go beyond direct replacement but can be reasonably incorporated
- Provide acceptable recreational amenity, including noise environment, for outdoor spaces associated with the individual community facilities
- The design of the sites should be carried out in consultation with the local community. It should incorporate features and designs to enable access and use across the life course.
- The PEIR should contain sufficient detail regarding the location and design in order to determine the acceptability of the replacement facilities.

- Quality, quantity and accessibility should be determined against defined criteria agreed with stakeholders. The following evidence based assessment tools should be considered:

The quality of the provision of replacement green space should be assessed, for example by the use of:

[Building with Nature](#) - There are 6 wellbeing standards, which are:

- Accessible
- Inclusive
- Seasonal enjoyment
- Locally relevant
- Socially sustainable
- Distinctive

The [ANGSt standards](#) address amount, access and quality

The [ORVaL tool](#) - This tool works on areas that are currently publicly accessible and looks at welfare values for this area. The site functionality allows users to investigate how altering the land cover, features or the area of existing recreation sites will change usage and welfare values. This allows a comparison between existing and the proposed sites. Contact should be made with the ORVaL team to establish the functionality of the tool relevant to the DCO and interpretation of the findings<sup>32</sup>.

[Green Flag Award](#)- a robust framework for assessing the quality of public green spaces of all types and sizes.

## **Employment**

NSIP schemes have the potential to negatively impact through the relocation or loss of local businesses. Equally they can offer an opportunity for new business activity and employment both at the construction stage and operation of the development approved by the DCO.

There is clear evidence that good work improves health and wellbeing across people's lives and protects against social exclusion. Conversely, unemployment is bad for health and wellbeing, as it is associated with an increased risk of mortality and morbidity. For many individuals, in particular those with long-term conditions such as mental health problems, musculoskeletal (MSK) conditions and disabilities, health issues can be a barrier to gaining and retaining employment. Employment rates are lowest among disabled people, with only 51.3% in work, meaning there is a substantial employment rate gap in the UK between disabled and non-disabled people (81.4% in employment). Among these working age disabled people in the UK, 54% have a mental health or MSK condition as their main health condition<sup>33</sup>. Enabling people with health issues to obtain or retain work, and be productive within the workplace, is a crucial part of the economic success and wellbeing of every community and industry.

It is important that people are supported to gain employment and maintain economic independence for themselves and their families, especially as they age. This is of particular importance for individuals with long-term conditions and disabilities, due to the barriers they face in gaining employment and retaining a job.

Where relevant any assessments should include:

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<sup>32</sup> [https://www.leep.exeter.ac.uk/orval/pdf-reports/ORVal2\\_User\\_Guide.pdf](https://www.leep.exeter.ac.uk/orval/pdf-reports/ORVal2_User_Guide.pdf)

<sup>33</sup> [PHE \(Jan 2019\). Guidance - Health matters: health and work \(https://publichealthmatters.blog.gov.uk/2019/01/31/health-matters-health-and-work/\)](https://publichealthmatters.blog.gov.uk/2019/01/31/health-matters-health-and-work/)

- The impact of business relocation in order to identify the likely level of job losses within the study area
- The proposed support mechanisms to be established for business owners and employees
- A clear strategy and action plan that addresses barriers to employment within the local population and those that cease employment due to the DCO.

### **Compulsory purchase**

NSIP schemes can involve the compulsory acquisition of property from land take. Mitigation will involve supporting home-owners and tenants in understanding and utilising the compensation and support offered through the compensation policies.

The impacts from compulsory acquisition of land and property can affect health and wellbeing, including mental health, for example from home, school and employment relocation and loss of employment. This will be particularly relevant to sensitive receptors within communities, many of which will form part of the private rented sector.

Compensation and support can be an important element of mitigation, but developers should consider opportunities to work through partners and local Voluntary, Community and Social Enterprise (VCSE) organisations. These organisations offer the potential for engagement with vulnerable groups and may gain greater acceptance by the wider community.

Any compulsory purchase support schemes should ensure sufficient competency in public health, including public mental health, in order to help support local communities. The aim would be to establish a workforce that is confident, competent and committed to:

- promote good physical and mental health across the population
- prevent mental illness and suicide
- improve the quality and length of life of people living within affected communities

The Public mental health leadership and workforce development framework<sup>34</sup> published by PHE offers a skills framework for the wider public health workforce. As well as the competences in this framework. Health Education England (HEE) have published a course content guide entitled Public Mental Health Content Guide For introductory courses or professional development in mental health and wellbeing<sup>35</sup>.

### **Monitoring**

PHE expects an assessment to include consideration of the need for monitoring and the ES should clearly state the principles on which the monitoring strategy has been established, including monitoring in response to unforeseen impacts or effects.

It may be appropriate to undertake monitoring where:

- Critical assumptions have been made in the absence of supporting evidence or data
- There is uncertainty about whether significant negative effects are likely to occur and it would be appropriate to include planned monitoring measures to track their presence, scale and nature.
- There is uncertainty about the potential success of mitigation measures
- It is necessary to track the nature of the impact or effect and provide useful and timely feedback that would allow action to be taken should negative effects occur

The monitoring strategy should set out:

- Monitoring methodologies

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<sup>34</sup> [Public mental health leadership and workforce development framework - Confidence, competence, commitment. PHE \(2015\)](#)

<sup>35</sup> [Public Mental Health Content Guide for introductory courses or professional development in mental health and wellbeing. Health education England](#)

- Data sources, particularly if being obtained from third parties or open access data
- Assessment methods
- Publication methodology
- Reporting frequency
- Temporal and geographic scope

For very large controversial schemes it may be worth considering the need to have an independent organisation undertake / report on the monitoring and the need for academic robustness.

### **Community based reports**

Large complex schemes that involve significant effects on communities or significant cumulative effects can benefit from identifying impacts and reporting at an individual community level. This assists in the identification of the overall potential effects across a range of impacts. These community level reports will also aid local communities to engage with consultations by providing relevant and accessible information.

### **How to contact PHE**

If you wish to contact us regarding an existing or potential NSIP application please email: [nsipconsultations@phe.gov.uk](mailto:nsipconsultations@phe.gov.uk)

## Appendix 2

Table 1 – Wider determinants of health and wellbeing

Health and wellbeing themes			
Access	Traffic and Transport	Socioeconomic	Land Use
<b>Wider determinants of health and wellbeing</b>			
<p>Access to :</p> <ul style="list-style-type: none"> <li>• local public and key services and facilities.</li> <li>• Good quality affordable housing.</li> <li>• Healthy affordable food.</li> <li>• The natural environment.</li> <li>• The natural environment within the urban environment.</li> <li>• Leisure, recreation and physical activities within the urban and natural environments.</li> </ul>	<ul style="list-style-type: none"> <li>• Accessibility.</li> <li>• Access to/by public transport.</li> <li>• Opportunities for access by cycling and walking.</li> <li>• Links between communities.</li> <li>• Community severance.</li> <li>• Connections to jobs.</li> <li>• Connections to services, facilities and leisure opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Employment opportunities, including training opportunities.</li> <li>• Local business activity.</li> <li>• Regeneration.</li> <li>• Tourism and leisure industries.</li> <li>• Community/social cohesions and access to social networks.</li> <li>• Community engagement.</li> </ul>	<ul style="list-style-type: none"> <li>• Land use in urban and/or /rural settings.</li> <li>• Quality of Urban and natural environments</li> </ul>

### 1) Access

- a. **Access to local, public and key services and facilities**  
 Access to local facilities can increase mobility and social participation. Body mass index is significantly associated with access to facilities, including factors such as the mix and density of facilities in the area. The distance to facilities has no or only a small effect on walking and other physical activities. Access to recreational facilities can increase physical activity, especially walking for recreation, reduce body weight, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions.

Local services include health and social care, education, employment, and leisure and recreation. Local facilities include community centres, shops, banks/credit unions and Post Offices. Services and facilities can be operated by the public, private and/or voluntary sectors. Access to services and facilities is important to both physical and mental health and wellbeing. Access is affected by factors such as availability, proximity to people's place of residence, existence of transport services or active travel infrastructure to the location of services and facilities, and the quality of services and facilities.

The construction or operation of an NSIP can affect access adversely: it may increase demand and therefore reduce availability for the existing community; during



construction, physical accessibility may be reduced due to increased traffic and/or the blockage of or changes to certain travel routes. It is also possible that some local services and facilities are lost due to the land-take needed for the NSIP.

Conversely if new routes are built or new services or facilities provided the NSIP may increase access. NSIPs relating to utilities such as energy and water can maintain, secure or increase access to those utilities, and thereby support health and wellbeing.

b. Access to good-quality affordable housing

Housing refurbishment can lead to an improvement in general health and reduce health inequalities. Housing improvements may also benefit mental health. The provision of diverse forms and types of housing is associated with increased physical activity. The provision of affordable housing is strongly associated with improved safety perceptions in the neighbourhood, particularly among people from low-income groups. For vulnerable groups, the provision of affordable housing can lead to improvements in social, behavioural and health related outcomes. For some people with long term conditions, the provision of secure and affordable housing can increase engagement with healthcare services, which can lead to improved health-related outcomes. The provision of secure and affordable housing can also reduce engagement in risky health-related behaviours. For people who are homeless, the provision of affordable housing increases engagement with healthcare services, improves quality of life and increases employment, and contributes to improving mental health.

Access to housing meets a basic human need, although housing of itself is not necessarily sufficient to support health and wellbeing: it is also important that the housing is of good quality and affordable. Factors affecting the quality of housing include energy efficiency (eg effective heating, insulation), sanitation and hygiene (eg toilet and bathroom), indoor air quality including ventilation and the presence of damp and/or mould, resilience to climate change, and overcrowding. The affordability of housing is important because for many people, especially people on a low income, housing will be the largest monthly expense; if the cost of housing is high, people may not be able to meet other needs such as the need for heating in winter or food. Some proposals for NSIPs include the provision of housing, which could be beneficial for the health and wellbeing of the local population. It is also possible that some housing will be subject to a compulsory purchase order due to the land-take needed for an NSIP.

c. Access to affordable healthy food

Access to healthy food is related to the provision of public and active transport infrastructure and the location and proximity of outlets selling healthier food such as fruit and vegetables. For the general population, increased access to healthy, affordable food through a variety of outlets (shops, supermarkets, farmers' markets and community gardens) is associated with improved dietary behaviours, including attitudes towards healthy eating and food purchasing behaviour, and improved adult weight. Increased access to unhealthier food retail outlets is associated with increased weight in the general population and increased obesity and unhealthy eating behaviours among children living in low-income areas. Urban agriculture can improve attitudes towards healthier food and increase fruit and vegetable consumption.

Factors affecting access to healthy affordable food include whether it is readily available from local shops, supermarkets, markets or delivery schemes and/or there are opportunities to grow food in local allotments or community gardens. People in environments where there is a high proportion of fast food outlets may not have easy access to healthy affordable food.

d. Access to the natural environment

Availability of and access to safe open green space is associated with increased physical activity across a variety of behaviours, social connectedness, childhood development, reduced risk of overweight and obesity and improved physical and mental health outcomes. While the quantity of green space in a neighbourhood helps to promote physical activity and is beneficial to physical health, eg lower rates of mortality from cardiovascular disease and respiratory disease in men, the availability of green environments is likely to contribute more to mental health than to physical health: the prevalence of some disease clusters, particularly anxiety and depression, is lower in living environments which have more green space within a 1-km radius.

The proximity, size, type, quality, distribution, density and context of green space are also important factors. Quality of green space may be a better predictor of health than quantity, and any type of green space in a neighbourhood does not necessarily act as a venue for, or will encourage, physical activity. 'Walkable' green environments are important for better health, and streetscape greenery is as strongly related to self-reported health as green areas. Residents in deprived areas are more likely to perceive access to green space as difficult, to report poorer safety, to visit the green space less frequently and to have lower levels of physical activity. The benefits to health and wellbeing of blue space include lower psychological distress.

The natural environment includes the landscape, waterscape and seascape. Factors affecting access include the proximity of the natural environment to people's place of residence, the existence of public transport services or active travel infrastructure to the natural environment, the quality of the natural environment and feelings of safety in the natural environment. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local area. It is also possible that green or blue infrastructure will be lost due to the land-take needed for the NSIP.

e. Access to the natural environment within the urban environment

Public open spaces are key elements of the built environment. Ecosystem services through the provision of green infrastructure are as important as other types of urban infrastructure. It supports physical, psychological and social health, although the quality, perceptions of safety and accessibility of green space affects its use. Safe parks may be particularly important for promoting physical activity among urban adolescents. Proximity to urban green space and an increased proportion of green space are associated with decreased treatment of anxiety/mood disorders, the benefits deriving from both participation in usable green space near to home and observable green space in the neighbourhood. Urban agriculture may increase opportunities for physical activity and social connections.

A view of 'greenery' or of the sea moderates the annoyance response to noise. Water is associated with positive perceptive experiences in urban environments, with benefits for health such as enhanced contemplation, emotional bonding, participation and physical activity. Increasing biodiversity in urban environments, however, may promote the introduction of vector or host organisms for infectious pathogens, eg green connectivity may potentiate the role of rats and ticks in the spread of disease, and bodies of water may provide habitats for mosquitoes.

The natural environment within the urban environment includes the provision of green and blue space in towns and cities. Factors involved in access include the proximity of the green and/or blue space to people's place of residence, the existence of transport services or active travel infrastructure to the green and/or blue space, the quality of the green and/or blue space and feelings of safety when using the green and/or blue space. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local urban environment. It is also possible that green or blue

infrastructure in the urban environment will be lost due to the land-take needed for the NSIP.

- f. Access to leisure, recreation and physical activity opportunities within the urban and natural environments.

Access to recreational opportunities, facilities and services is associated with risk factors for long-term disease; it can increase physical activity, especially walking for recreation, reduce body mass index and overweight and obesity, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. It can also enhance social connectedness. Children tend to play on light-traffic streets, whereas outdoor activities are less common on high-traffic streets. A perception of air pollution can be a barrier to participating in outdoor physical activity<sup>36</sup>. However, the health co-benefits from physical activity outweigh the adverse effects of air pollution. There is a positive association between urban agriculture and increased opportunities for physical activity and social connectivity. Gardening in an allotment setting can result in many positive physical and mental health-related outcomes. Exercising in the natural environment can have a positive effect on mental wellbeing when compared with exercising indoors.

Leisure and recreation opportunities include opportunities that are both formal, such as belonging to a sports club, and informal, such as walking in the local park or wood. Physical activity opportunities include routine activity as part of daily life, such as walking or cycling to work, and activity as part of leisure or recreation, such as playing football. The construction of an NSIP may enhance the opportunities available for leisure and recreation and physical activity through the provision of new or improved travel routes, community infrastructure and/or green or blue space. Conversely, construction may reduce access through the disruption of travel routes to leisure, recreation and physical activity opportunities.

## 2) **Traffic and Transport**

- a. Accessibility

Walkability, regional accessibility, pavements and bike facilities are positively associated with physical activity and negatively related to body weight and high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. Body mass index is associated with street network accessibility and slope variability.

Accessibility in relation to transport and travel has several aspects including whether potential users can gain physical access to the infrastructure and access to the services the infrastructure provides. The design and operation of transport infrastructure and the associated services should take account of the travel needs of all potential users including people with limited mobility. People whose specific needs should be considered include pregnant women, older people, children and young people and people with a disability. Other aspects of transport infrastructure affecting accessibility include safety and affordability, both of which will affect people's ability to travel to places of employment and/or key local services and facilities and/or access their social networks.

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<sup>36</sup> Annear, M., Keeling, S., Wilkinson, T., Cushman, G., Gidlow, B., & Hopkins, H. (2014). Environmental influences on healthy and active ageing: A systematic review. *Ageing & Society*, 34 (4), 590-622. Available at [https://www.academia.edu/34314864/Environmental\\_influences\\_on\\_healthy\\_and\\_active\\_ageing\\_a\\_systematic\\_review](https://www.academia.edu/34314864/Environmental_influences_on_healthy_and_active_ageing_a_systematic_review)

b. Access to / by public transport

Provision of high-quality public transport is associated with higher levels of active travel among children and among people commuting to work, with a decrease in the use of private cars. Combining public transport with other forms of active travel can improve cardiovascular fitness. Innovative or new public transport interventions may need to be marketed and promoted differently to different groups of transport users, eg by emphasising novelty to car users while ensuring that the new system is seen by existing users as coherently integrated with existing services.

Transport facilitates access to other services, facilities and amenities important to health and wellbeing. Public transport is any transport open to members of the public including bus, rail and taxi services operated by the public, private or community sectors. For people who do not have access to private transport, access to public transport is important as the main agency of travel especially for journeys >1 mile. Access to public transport is not sufficient, however, and access by public transport needs to be taken into account: public transport services should link places where people live with the destinations they need or want to visit such as places of employment, education and healthcare, shops, banks and leisure facilities. Other aspects of access to public transport include affordability, safety, frequency and reliability of services.

c. Opportunities for / access by cycling & walking

Walking and cycling infrastructure can enhance street connectivity, helping to reduce perceptions of long-distance trips and providing alternative routes for active travel. Awareness of air pollution could be a barrier to participating in active travel, however those that choose to walk or cycle often experience lower exposure to pollution, and create less pollution than those in vehicles<sup>37</sup>. Prioritising pedestrians and cyclists through changes in physical infrastructure can have positive behavioural and health outcomes, such as physical activity, mobility and cardiovascular outcomes. The provision and proximity of active transport infrastructure is also related to other long-term disease risk factors, such as access to healthy food, social connectedness and air quality.

Perceived or objective danger may also have an adverse effect on cycling and walking, both of which activities decrease with increasing traffic volume and speed, and cycling for leisure decreases as local traffic density increases. Health gains from active travel policies outweigh the adverse effects of road traffic incidents. New infrastructure to promote cycling, walking and the use of public transport can increase the time spent cycling on the commute to work, and the overall time spent commuting among the least-active people. Active travel to work or school can be associated with body mass index and weight, and may reduce cardiovascular risk factors and improve cardiovascular outcomes. The distance of services from cycle paths can have an adverse effect on cycling behaviour, whereas mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking.

d. Links between communities

Social connectedness can be enhanced by the provision of public and active transport infrastructure and the location of employment, amenities, facilities and services.

e. Community severance

In neighbourhoods with high volumes of traffic, the likelihood of people knowing and trusting neighbours is reduced.

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<sup>37</sup> Defra 2019, Clean Air Strategy 2019. Available at <https://www.gov.uk/government/publications/clean-air-strategy-2019>

- f. Connections to jobs  
The location of employment opportunities and the provision of public and active transportation infrastructure are associated with risk factors for long-term disease such as physical activity. Good pedestrian and cycling infrastructure can promote commuting physical activity. Improved transport infrastructure has the potential to shift the population distribution of physical activity in relation to commuting, although a prerequisite may be a supportive social environment. Mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking.

The ease of access to employment, shops and services including the provision of public and active transport are important considerations and schemes should take any opportunity to improve infrastructure to promote cycling, walking and the use of public transport

- g. Connections to services, facilities and leisure opportunities  
Mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking. Access to recreational opportunities and the location of shops and services are associated with risk factors for long-term disease such as physical activity, access to healthy food and social connectedness. Increased distance of services from cycle paths can have an adverse effect on cycling behaviour.

### 3) **Socio Economic**

- a. Employment opportunities including training opportunities  
Employment is generally good for physical and mental health and well-being, and worklessness is associated with poorer physical and mental health and well-being. Work can be therapeutic and can reverse the adverse health effects of unemployment for healthy people of working age, many disabled people, most people with common health problems and social security beneficiaries. Account must be taken of the nature and quality of work and its social context and jobs should be safe and accommodating. Overall, the beneficial effects of work outweigh the risks of work and are greater than the harmful effects of long-term unemployment or prolonged sickness absence. Employment has a protective effect on depression and general mental health.

Transitions from unemployment to paid employment can reduce the risk of distress and improve mental health, whereas transitions into unemployment are psychologically distressing and detrimental to mental health. The mental health benefits of becoming employed are also dependent on the psychosocial quality of the job, including level of control, demands, complexity, job insecurity and level of pay: transition from unemployment to a high-quality job is good for mental health, whereas transition from unemployment to a low-quality job is worse for mental health than being unemployed. For people receiving social benefits, entry into paid employment can improve quality of life and self-rated health (physical, mental, social) within a short time-frame. For people receiving disability benefits, transition into employment can improve mental and physical health. For people with mental health needs, entry into employment reduces the use of mental health services.

For vocational rehabilitation of people with severe mental illness (SMI), Supported Employment is more effective than Pre-vocational Training in helping clients obtain competitive employment; moreover, clients in Supported Employment earn more and work more hours per month than those in Pre-vocational Training.

- b. Local Business Activity  
It is important to demonstrate how a proposed development will contribute to ensuring

the vitality of town centres. Schemes should consider the impact on local employment, promote beneficial competition within and between town centres, and create attractive, diverse places where people want to live, visit and work

In rural areas the applicant should assess the impact of the proposals on a prosperous rural economy, demonstrate how they will support the sustainable growth and expansion of all types of business and enterprise in rural areas, promoting the development and diversification of agricultural and other land based rural businesses.

c. Regeneration

Following rebuilding and housing improvements in deprived neighbourhoods, better housing conditions are associated with better health behaviours; allowing people to remain in their neighbourhood during demolition and rebuilding is more likely to stimulate life-changing improvements in health behaviour than in people who are relocated. The partial demolition of neighbourhoods does not appear to affect residents' physical or mental health. Mega-events, such as the Olympic Games, often promoted on the basis of their potential legacy for regeneration, appear to have only a short-term impact on mental health.

d. Tourism and Leisure Industries

The applicant should assess the impact of the proposed development on retail, leisure, commercial, office, tourism, cultural, community and residential development needed in town centres. In rural locations assessment and evaluation of potential impacts on sustainable rural tourism and leisure developments that benefit businesses in rural areas, communities and visitors should be undertaken.

e. Community / social cohesion and access to social networks

The location of employment, shops and services, provision of public and active transport infrastructure and access to open space and recreational opportunities are associated with social connectedness. Access to local amenities can increase social participation. Neighbourhoods that are more walkable can increase social capital. Urban agriculture can increase opportunities for social connectivity. Infrastructure developments, however, can affect the quality of life of communities living in the vicinity, mediated by substantial community change, including feelings of threat and anxiety, which can lead to psychosocial stress and intra-community conflict.

f. Community engagement

Public participation can improve environmental impact assessments, thereby increasing the total welfare of different interest groups in the community. Infrastructure development may be more acceptable to communities if it involves substantial public participation.

4) **Land Use**

a. Land use in urban and / or rural settings

Land-use mix including infrastructure:

Land use affects health not only by shaping the built environment, but also through the balance of various types of infrastructure including transport. Vulnerable groups in the population are disproportionately affected by decisions about land use, transport and the built environment. Land use and transport policies can result in negative health impacts due to low physical activity levels, sedentary behaviours, road traffic incidents, social isolation, air pollution, noise and heat. Mixed land use can increase both active travel and physical activity. Transportation walking is related to land-use mix, density and distance to non-residential destinations; recreational walking is related to density and mixed use. Using modelling, if land-use density and diversity are increased, there is a shift from motorised transport to cycling, walking and the use

of public transport with consequent health gain from a reduction in long-term conditions including diabetes, cardiovascular disease and respiratory disease.

b. Quality of urban and natural environments

Long-term conditions such as cardiovascular disease, diabetes, obesity, asthma and depression can be moderated by the built environment. People in neighbourhoods characterised by high 'walkability' walk more than people in neighbourhoods with low 'walkability' irrespective of the land-use mix. In neighbourhoods associated with high 'walkability' there is an increase in physical activity and social capital, a reduction in overweight and blood pressure, and fewer reports of depression and of alcohol abuse. The presence of walkable land uses, rather than their equal mixture, relates to a healthy weight. Transportation walking is at its highest levels in neighbourhoods where the land-use mix includes residential, retail, office, health, welfare and community, and entertainment, culture and recreation land uses; recreational walking is at its highest levels when the land-use mix includes public open space, sporting infrastructure and primary and rural land uses. Reduced levels of pollution and street connectivity increase participation in physical activity.

Good-quality street lighting and traffic calming can increase pedestrian activity, while traffic calming reduces the risk of pedestrian injury. 20-mph zones and limits are effective at reducing the incidence of road traffic incidents and injuries, while good-quality street lighting may prevent them. Public open spaces within neighbourhoods encourage physical activity, although the physical activity is dependent on different aspects of open space, such as proximity, size and quality. Improving the quality of urban green spaces and parks can increase visitation and physical activity levels.

Living in a neighbourhood overlooking public areas can improve mental health, and residential greenness can reduce the risk of cardiovascular mortality. Crime and safety issues in a neighbourhood affect both health status and mental health. Despite the complexity of the relationship, the presence of green space has a positive effect on crime, and general environmental improvements may reduce the fear of crime. Trees can have a cooling effect on the environment – an urban park is cooler than a non-green site. Linking road infrastructure planning and green infrastructure planning can produce improved outcomes for both, including meeting local communities' landscape sustainability objectives.

## Feekins-Bate, Laura


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**From:** Clerk | St Osyth Parish Council <clerk@stosyth.gov.uk>  
**Sent:** 16 August 2021 15:11  
**To:** North Falls  
**Cc:** Feekins-Bate, Laura  
**Subject:** EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

Dear Sir or Madam,

Please accept this email as confirmation that St Osyth Parish Council does not have any comments with regards to the North Falls Offshore Wind Farm Project.

Kind regards,

  
Clerk to the Council  
St Osyth Parish Council  
The Village Hall, Clacton Road, St Osyth, Essex, CO16 8PE

 Email: [clerk@stosyth.gov.uk](mailto:clerk@stosyth.gov.uk) [Web: <http://www.stosyth.gov.uk>]

For information such as Environment Agency flood alerts & MoD activity notifications follow us:



The Council's Privacy Notice is available on its website: [Privacy Policy | St Osyth Parish Council](#)

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Our Ref: SCC/CON/3322/21

Date: 16 August 2021

Enquiries to: Andy Rutter

Tel: [REDACTED]

Email: [REDACTED]

Marnie Woods  
Senior EIA and Land Rights Advisor  
Environmental Services  
Central Operations  
Temple Quay House  
2 The Square  
Bristol  
BS1 6PN

**By email only:** [northfalls@planninginspectorate.gov.uk](mailto:northfalls@planninginspectorate.gov.uk)

Dear Marnie,

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

**Application by North Falls Offshore Wind Ltd (the applicant) for an Order Granting Development Consent for the North Falls 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 consulting Suffolk County Council.

The information provided below are the views of Suffolk County Council Landscape and have also been agreed in consultation with East Suffolk Council.

### **Proposed Methodology**

It is noted that further discussion on viewpoints and methodologies between the applicant Natural England and Local Authorities are proposed at para 738. This is a welcome offer, and we look forward to ongoing engagement.

### **Baseline information**

The baseline information set out in the scoping report is not comprehensive particularly in relation to the Suffolk Coast and AONB, therefore the following documents are brought to the attention of both the applicant and Inspectorate.

- Suffolk Seascape Character Assessment <https://suffolklandscape.org.uk/landscape-typology/seascape-typology/>
- Natural Beauty and Special Qualities of the Suffolk Coast and Heaths AONB <https://www.eastsuffolk.gov.uk/planning/national-infrastructure-and-energy-projects/sizewell-nuclear-power-station/aonb-special-qualities-document/>
- Designation History Series <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010078/EN010078-004113-SCC%20The%20Designation%20History%20of%20the%20Suffolk%20Coast%20and%20Heaths%20AONB%20220221.pdf>

- Development in the setting of the Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) <https://www.suffolkcoastandheaths.org/wp-content/uploads/2021/01/ENDORSED-SCH-AONB-Position-Statement-on-Development-in-Setting-of-AONB-2015.pdf>

### **Viewpoint types required (Ref: GLIVIA 3 para 6.19)**

In addition to representative viewpoints, it is expected that *illustrative viewpoints* will also be required as the purpose of LVIA is not only to provide technical analysis of the potential impacts but also to ensure the public and Interested Parties have a proper understanding of those likely effects.

*Specific Viewpoints* may also be required to deal with some locations effectively such as coastal heritage assets including Landguard Fort and Bawdsey Manor for example, and we would suggest discussions with relevant cultural heritage consultees including Historic England to explore these issues.

### **Proposed viewpoint selection**

Whilst the viewpoints proposed are broadly acceptable it would be appropriate to add to these, with appropriate illustrative and specific viewpoints such as an illustrative viewpoint at the end of Southwold Pier in addition to a representative viewpoint on Gun Hill Southwold for example. Likewise, Viewpoints from [Dunwich Coastguard Cottages](#), Sizewell Beach, cliffs above Thorpeness and [Felixstowe seafront gardens](#) are also considered relevant for inclusion. Furthermore, specific viewpoints in relation to both [Bawdsey Manor](#) and [Landguard Fort](#), would also be appropriate given their heritage status, although we defer to Historic England to provide further advice on these matters.

In addition, a representative viewpoint further north at Covehithe should also be considered to understand the potential curtaining effects, and to properly inform consideration of cumulative impacts, and their implications for the Suffolk Coast and Heaths AONB.

In addition, the Local Authorities would like to agree:

### **Approach to viewpoint photography including timing**

The applicant should note that the turbines are likely to be at their most visible in the evening as they will be illuminated by the setting sun in the west, and views will, subject to weather conditions, be widely available from coastal locations both on the shore and from elevated locations back from the beach or cliffs. Therefore, it is requested that baseline photography is taken late in the afternoon where possible, particularly from the most well used resort based public viewpoints, in order to capture these effects.

### **Assessment of sequential impacts on the Suffolk/ England coast path**

As part of the LVIA the applicant should also consider sequential visual effects on users of the Suffolk/ England coast path. Furthermore, we note that the accumulation of non-significant visual effects along such a route *may* together be of significance. This assessment will also need to consider the cumulative and in-combination sequential visual effects with other projects and proposals.

### **Representation and assessment of Night-time lighting effects**

In the absence of more detailed proposals regarding the mitigation of night-time lighting effects it is suggested that these should be assessed on a reasonable worst-case basis. In addition, the

agreed viewpoints should also be photographed at night and likely visual impacts illustrated as has been done for other projects on the Suffolk coast.

### **Approach to consideration of visibility of the turbines**

The seasonality of adverse impacts and the concentration of highest visibility days in certain period of the year, some of which coincide with peak visitor period, should also be a consideration and we refer the applicant to the following published material, as a guide to carrying out their own research and gathering baseline information

<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010078/EN010078-001586-6.3.28.8%20EA2%20ES%20Appendix%2028.8%20Offshore%20Windfarm%20Visibility.pdf>

<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010078/EN010078-001587-6.3.28.9%20EA2%20ES%20Appendix%2028.9%20Met%20Office%20Vessel%20Visibility%20Data%20Study.pdf>

### **Assessment of the of the proposals on the Natural Beauty and Special Qualities of the AONB**

In addition to the assessment of landscape and visual effects, the LVIA will need to include additional analysis of the [Natural Beauty and Special Qualities](#) of the AONB, as these are how the purposes of designation, that is, the objective to “Conserve and Enhance Natural Beauty”, are expressed.

### **Consideration of potential risks to the S82 purposes of designation of the AONB**

Given the size and location of the proposed turbines in relation to the Suffolk Coast and Heaths AONB, it is considered that the Statutory Purposes of the designation may be put at risk by this development, both from its impacts alone and cumulatively with other developments. Therefore, it is considered that the effects of the development on statutory purposes are likely to be a key consideration for Statutory Consultees, Interested Parties, and the Secretary of State. Natural England will be able to provide further guidance on this issue as the advisory body to Government on protected landscapes, and the Councils defer to their expertise in this matter. See <https://www.legislation.gov.uk/ukpga/2000/37/section/82>

### **Assessment of cumulative landscape and visual effects, including curtaining**

Particularly in views from the northwest, it is anticipated that the proposal will contribute both alone and in combination with others to a curtaining of the horizon when viewed from the Suffolk Coast and Heaths AONB. The applicant will need to carefully consider the extent and significance of these effects, and their implications for both the Natural Beauty of the AONB and the purposes of designation. In this respect the Local Authorities are concerned that the East Anglia 1 North turbine array is proposed to be scoped out of such an assessment. We propose that it should be scoped back in.

### **Scoping out of construction impacts**

Paragraph 723 seeks to scope out the impacts of construction, however whilst the impacts will not exceed the operation effects in terms of magnitude, they will both extend the duration of these effects and potentially interact with constructing projects both offshore and on the coast, (at Sizewell C for example) generating adverse effects, that should be understood and evaluated. In this respect the inclusion of two beach landing facilities during the Sizewell C construction phase strongly indicate that the Sizewell C development should be included in cumulative assessments.

### **Study Area**

The Local Authorities consider that the proposed study area should be extended to 60km radius from the array site to allow for the consideration of turbines of up to 398m. to blade tip. This would place this assessment on parity with the Five Estuaries EIA.

### **Other Matters**

Suffolk County Council will forward further responses in respect of Skills, Tourism and Highways in due course once officers have returned from annual leave and illness.

Yours sincerely,

A solid black rectangular box used to redact the signature of the sender.

**Andy Rutter**  
**Planning Officer**  
Growth, Highways & Infrastructure

## Feekins-Bate, Laura

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**From:** Stephen Vanstone [REDACTED]  
**Sent:** 30 July 2021 13:47  
**To:** North Falls  
**Subject:** RE: EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation  
**Attachments:** EN010119 - Statutory Consultation Letter.pdf

Good afternoon Marnie,

With reference to the attached, 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 and in-combination effects on shipping routes and patterns should be adequately assessed.
- Proposed layouts should conform to MGN 654 and significant consideration should be given to the layout of the current Greater Gabbard Offshore Wind Farm in this regard. The North Falls project layout should align with the current operational site.

### 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) Recommendation O-139 on the Marking of Man-Made Offshore 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.
- A decommissioning plan, which includes a scenario where on decommissioning and on completion of removal operations an obstruction is left on site (attributable 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 Officer | Navigation Directorate | Trinity House

[REDACTED]  
[www.trinityhouse.co.uk](http://www.trinityhouse.co.uk)



TRINITY HOUSE

**From:** North Falls <[NorthFalls@planninginspectorate.gov.uk](mailto:NorthFalls@planninginspectorate.gov.uk)>  
**Date:** 19 July 2021 at 11:22:51 BST  
**To:** Navigation <[navigation@trinityhouse.co.uk](mailto:navigation@trinityhouse.co.uk)>  
**Cc:** Thomas Arculus [REDACTED]  
**Subject:** EN010119 - North Falls Offshore Wind Farm Project - EIA Scoping Notification and Consultation

FAO Steve Vanstone Navigation Services

Please see attached correspondence on the proposed North Falls Offshore Wind Farm project.

Please note the deadline for consultation responses is **16 August 2021**, and is a statutory requirement that cannot be extended.  
Kind regards,

Marnie Woods  
Senior EIA and Land Rights Advisor  
Major Casework Directorate  
The Planning Inspectorate, Temple Quay House, Temple Quay, Bristol BS1 6PN  
[REDACTED]  
Helpline: 0303 444 5000  
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**NORTH FALLS**

*Offshore Wind Farm*



**RWE**

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*North Falls Offshore Wind Farm Limited*

*A joint venture company owned equally by SSE Renewables and RWE.*

*To contact please email [contact@northfallsoffshore.com](mailto:contact@northfallsoffshore.com)*

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