



UK Government

Habitats Regulations Assessment for an Application Under the Planning Act 2008

Outer Dowsing Offshore Wind Farm

Regulations 63, 64, and 68 of the Conservation of
Habitats and Species Regulations 2017

Regulations 28, 29, and 36 of the Conservation of
Offshore Marine Habitats and Species Regulations 2017



February 2026

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List of abbreviations

Term	Abbreviation
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Area of Search	AoS
Artificial Nesting Site	ANS
British Trust of Ornithology	BTO
Cable Burial Risk Assessment	CBRA
Central Impact Value	CIV
Climate Change Act 2008	CCA 2008
Collaboration in Offshore Wind Strategic Compensation	COWSC
Collision Risk Modelling	CRM
Committee on Climate Change	CCC
Crown Estate Scotland	CES
Deemed Marine Licence	DML
Development Consent Order	DCO
Ecological Clerk of Works	ECoW
Electro Magnetic Field	EMF
Environmental Impact Assessment	EIA
Environmental Statement	ES
European Economic Area	EEA
Examining Authority	ExA
Exclusive Economic Zone	EEZ
Export Cable Corridor	ECC
Flamborough and Filey Coast SPA	FFC SPA
Gigawatts	GW
Greenhouse Gas	GHG
Habitat Regulations Assessment	HRA
High Voltage Alternating Current	HVAC
High Voltage Direct Current	HVDC
Highly Pathogenic Avian Influenza	HPAI

Term	Abbreviation
Horizontal Directional Drilling	HDD
Hornsea 4 Offshore Wind Farm	H4
Imperative Reasons of Overriding Public Interest	IROPI
Inner Dowsing Race Bank and North Ridge SAC	IDRBNR SAC
Interested Parties	IPs
Interim Population Consequences of Disturbance	iPCoD
Invasive Non Native Species	INNS
Joint Nature Conservation Committee	JNCC
Kittiwake Compensation Implementation and Monitoring Plan	KCIMP
Kittiwake Strategic Compensation Plan	KSCP
Likely Significant Effect	LSE
Marine Evidence-based Sensitivity Assessment	MarESA
Marine Mammals Mitigations Protocols	MMMPs
Marine Management Organisation	MMO
Marine Protected Areas	MPAs
Marine Recovery Fund	MRF
Maximum Design Scenario	MDS
Megawatt	MW
Minimum Sea Level	MSL
National Grid Electricity Transmission	NGET
National Policy Statements	NPSs
National Site Network	NSN
Nationally Significant Infrastructure Project	NSIP
Natural England	NE
Nautical mile	nm
Noise Abatement Systems	NAS
Offshore In-Principle Monitoring Plan	IPMP
Offshore Reactive Compensation Platforms	ORCP
Outline Cable Specification and Installation Plan	CSIP
Outline Landscape and Ecological Management Strategy	OLEMS

Term	Abbreviation
Outline Scour Protection and Cable Protection Management Plan	SPCPMP
Planning Inspectorate	PINS
Population Viability Analysis	PVA
Report on the Implications for European Sites	RIES
Report to Inform Appropriate Assessment	RIAA
Royal Society for the Protection of Birds	RSPB
Sixth Carbon Budget	CB6
Special Areas of Conservation	SACs
Special Protection Areas	SPAs
Statement of Common Ground	SoCG
Statutory Nature Conservation Body	SNCB
Supplementary Advice on Conservation Objectives	SACO
Suspended Sediment Concentrations	SSC
The Crown Estate	TCE
Torbay Coast & Countryside Trust	TCCT
Unexploded Ordnance	UXO
Upper Confidence Level	UCL
Wind Turbine Generator	WTG
Written Ministerial Statement	WMS

1 Introduction

1.1 Background

This is a record of the Habitats Regulations Assessment (“HRA”) that the Secretary of State for Energy Security and Net Zero (“the Secretary of State”) has undertaken under the Conservation of Habitats and Species Regulations 2017¹ (“the Habitats Regulations”) and the Conservation of Offshore Marine Habitats and Species Regulations 2017² (“the Offshore Habitats Regulations”) in respect of the Development Consent Order (“DCO”) and Deemed Marine Licences (“DMLs”) for the Outer Dowsing Offshore Wind Farm and its associated infrastructure (the “Project”), which was submitted by GT R4 Ltd (trading as Outer Dowsing Offshore Wind) (the “Applicant”). The Examining Authority (“ExA”) defines this as the “Proposed Development”. It is defined as the “Project” within this HRA for consistency with the terminology of the Habitats Regulations. For the purposes of these Regulations, the Secretary of State is the competent authority (under the Habitats Regulations and the Offshore Habitats Regulations).

The Project comprises the construction and operation of up to 100 wind turbine generators (“WTGs”), accompanied by a network of subsea cables linking the WTGs to up to four offshore substations. The Project will have a generating capacity of up to 1.5 Gigawatts (“GW”).

The onshore works would consist of cabling to a new onshore substation at Surfleet Marsh, and further onshore cabling connecting the Surfleet Marsh substation to a proposed National Grid Electricity Transmission (“NGET”) substation near Bicker Fen. The Project is described in more detail in Section 2.

The Project constitutes a nationally significant infrastructure project (“NSIP”) as defined by s.14(1)(a) and 15(3) of the Planning Act 2008 (the “2008 Act”) as it is for an offshore generating station with a capacity over 100 megawatts (“MW”).

The Project was accepted by the Planning Inspectorate (“PINS”) on 16 April 2024, and five Inspectors were appointed as the ExA for the application. The Examination of the Project began on 10 October 2024 and concluded on 10 April 2025. The ExA submitted its recommendation (“the ExA’s Report”) to the Secretary of State on 10 July 2025. Numbered references to the ExA’s Report are presented in the format “[ER *.*.*]”. Other documents which were submitted during Examination are referenced using the reference numbers published in PINS’ Examination Library³.

This HRA also contains a consideration of the potential effects of the Project upon protected sites in European Economic Area (“EEA”) States (“transboundary sites”). This is described in more detail in Section 10.

¹ <https://www.legislation.gov.uk/ukxi/2017/1012/contents>

² <https://www.legislation.gov.uk/ukxi/2017/1013/contents>

³ [Documents | Outer Dowsing Offshore Wind \(Generating Station\)](#)

1.2 Habitats Regulations Assessment

The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. In the UK, the Habitats Regulations apply as far as the 12 nautical miles limit of territorial waters. The Offshore Habitats Regulations apply seaward of 12 nautical miles. Subsequent references to regulations are to the Habitats Regulations, but the equivalent regulations of the Offshore Habitats Regulations also apply.

The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation (“SACs”). The Regulations also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas (“SPAs”). SACs and SPAs together, referred to as European sites in legislation, form part of the UK’s National Site Network (“NSN”).

The Convention on Wetlands of International Importance 1972 (“the Ramsar Convention”) provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the UK the same protection as sites within the NSN (collectively referred to in this HRA as “protected sites”).

Regulation 63 of the Habitats Regulations provides that:

...before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, [the competent authority] must make an appropriate assessment of the implications of the plan or project for that site in view of that site’s conservation objectives.

And that:

In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

This Project is not directly connected with, or necessary to, the management of a protected site. The Habitats Regulations require that, where the Project is likely to have a significant effect (“LSE”) on any such site, alone or in-combination with other plans and projects, an appropriate assessment (“AA”) is carried out to determine whether or not the Project will have an adverse effect on the integrity (“AEol”) of the site in view of that site’s conservation objectives. In this document, the following stages are collectively referred to as the HRA:

- Stage 1: Assessment of LSE;
- Stage 2: AA to determine whether there is an AEol of a protected site;
- Stage 3: Assessment of Alternative Solutions;
- Stage 4: Imperative Reasons of Overriding Public Interest (“IROPI”); and
- Stage 5: Proposed Compensatory Measures.

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The Secretary of State has had regard to relevant guidance on the application of the HRA including the PINS (updated 25 March 2025) advice pages⁴, European Commission guidance⁵, as well as joint guidance by DEFRA, Natural England (“NE”), the Welsh Government, and Natural Resources Wales (updated 6 December 2023) on ‘Habitats Regulations Assessment: protecting a European site’⁶ (“2021 Joint Guidance”).

1.3 Site conservation objectives

Where an AA is required in respect of a protected site, Regulation 63(1) of the Habitats Regulations requires that it be an AA of the implications of the plan or project for the site in view of its conservation objectives. Government guidance also recommends that in carrying out the LSE screening, applicants must check if the proposal could have a significant effect on a protected site that could affect its conservation objectives.

DEFRA guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its conservation objectives⁷. It states that *“the integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated”*.

Conservation objectives have been established by NE. When met, each site will contribute to the overall favourable conservation status of the species or habitat feature across its natural range. Conservation objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a ‘favourable condition’. An AEoI is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact.

NE has issued generic conservation objectives, which should be applied to each interest feature of the site. Supplementary advice on conservation objectives (“SACOs”) for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature. SACOs are subject to availability and are currently being updated on a rolling basis.

⁴<https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-habitats-regulations-assessments>

⁵ [REDACTED]

⁶ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

⁷ <https://www.gov.uk/guidance/appropriate-assessment>

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Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic objectives⁸ and apply them to the site-specific situation. For SPAs, the overarching objective is to avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Habitats Regulations. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the populations of the qualifying features; and
- the distribution of the qualifying features within the site.

For SACs, the overarching objective is to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable conservation status of each of the qualifying features. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

The conservation objectives and, where available, SACOs, have been used by the Secretary of State to consider whether the Project has the potential to have an AEoI of sites, either alone or in-combination with other plans or projects.

1.4 The Report on the Implications for European Sites and statutory consultation

Under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations the competent authority must consult the appropriate Statutory Nature Conservation Body (“SNCB”) and have regard to any representation made by that body within such reasonable time as the authority specifies.

NE is the SNCB for England and for English waters within the 12 nautical mile (“nm”) limit. The Joint Nature Conservation Committee (“JNCC”) is the SNCB beyond 12 nm, but this duty has been discharged by NE following the 2013 Triennial Review of both organisations. However, JNCC retains responsibility as the statutory advisor for protected sites that are located outside

⁸ <http://publications.naturalengland.org.uk/publication/6734992977690624?cache=1656417868.31>

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the territorial sea and UK internal waters (i.e. more than 12 nm offshore) and as such continues to provide advice to NE on the significance of any potential effects on interest features of such sites.

The ExA, with the support of the PINS Environmental Services Team, produced a Report on the Implications for European Sites (“the RIES”) [PD-022]. The purpose of the RIES was to compile, document, and signpost information submitted by the Applicant and Interested Parties (“IPs”) during Examination up to Deadline 4. It was issued to ensure that IPs, including NE as the SNCB under Regulation 5 of the Habitats Regulations, had been formally consulted on Habitats Regulations matters in respect of the application for the Project during the Examination.

The RIES was published on the PINS website and the ExA notified IPs that it had been published. Consultation on the RIES was undertaken between 17 February 2025 and 13 March 2025. The Applicant [REP5-149], the Royal Society for the Protection of Birds (“RSPB”) [REP5-160], the Marine Management Organisation (“MMO”) [REP5-174], and NE [REP5-172] provided comments on the RIES. The Applicant submitted responses [REP6-111] to these comments on the RIES at Deadline 6.

Several Examination submissions at Deadline 5 and Deadline 6 included HRA relevant information. NE [REP5-172] noted that the RIES did not take account of this information and advised that it did not consider consultation on the RIES adequately discharges the statutory requirements to consult NE on AAs, as the RIES drew no AEoI conclusions. Noting the PINS Advice Page on HRAs⁹, PINS decided not to revise the RIES following consultation but stated that their assessment of HRA issues took into account all submissions made by IPs during the Examination [ER C.1.12]. However, in [ER C.1.13] PINS advised that the Secretary of State may wish to undertake further consultation on HRA matters to enable the Secretary of State to fulfil his duties under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

For the avoidance of doubt, the Secretary of State considers all representations made by all IPs on HRA matters throughout the entirety of the Examination process. The Secretary of State does not rely solely on consultation on the RIES to inform his conclusions on matters relevant to the HRA, but he does consider that the RIES can formally support his duties to consult on AAs. The Secretary of State considers that the extensive consultation undertaken during the Examination has adequately fulfilled his duties to consult on the AA under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

⁹ <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-habitats-regulations-assessments>

1.5 Documents referred to in this HRA

This HRA has taken account of, and should be read in conjunction with, the documents produced as part of the application and Examination, which are available on the PINS NSIP website¹⁰. In particular, but not limited to:

- the ExA's Report;
- the RIES [PD-022];
- the Habitats Regulations Assessment Screening Report [REP4-037];
- Report to Inform Appropriate Assessment ("RIAA") [REP6-028];
- Report to Inform Appropriate Assessment Appendix 1: Screening Matrices [REP4-039];
- Report to Inform Appropriate Assessment Integrity Matrices [REP4-041];
- Derogation Case [REP6-037];
- Kittiwake Compensation Plan [C3-004];
- Without Prejudice Guillemot Compensation Plan [C3-006];
- Offshore Artificial Nesting Structures Evidence Base and Roadmap [C3-010];
- Without Prejudice Predator Control Evidence Base and Roadmap [C1-039];
- Without Prejudice Additional Measures for Compensation of Guillemot and Razorbill [C3-013];
- Responses to the Secretary of State's first consultation letter¹¹;
- Responses to the Secretary of State's second consultation letter (Part A and Part B)¹²;
- Responses to the Secretary of State's third consultation letter¹³;
- Responses to the Secretary of State's 'All Interested Parties' Letters; and
- The final draft Statements of Common Ground ("SoCG") with NE [REP6-086] to [REP6-095], the RSPB [REP6-099] and the MMO [REP6-097].

Plus, all other information submitted during the Examination and during the Secretary of State's consideration of the application.

The final SoCG's between the Applicant and NE were only in draft form and were not signed at the end of Examination.

Any references to documents in this HRA Report are to the most up-to-date versions, unless otherwise stated.

¹⁰ [Outer Dowsing Offshore Wind \(Generating Station\) - Project information](#)

¹¹ [Documents | Outer Dowsing Offshore Wind \(Generating Station\)](#)

¹² [Documents | Outer Dowsing Offshore Wind \(Generating Station\)](#)

¹³ [Documents | Outer Dowsing Offshore Wind \(Generating Station\)](#)

2 Project description

A detailed description of the Project is presented in Chapter 3 of the Environmental Statement (“ES”) [REP5-009] and the Non-Technical Summary of the ES [REP5-007].

The Project comprises the following offshore components:

- Up to 100 offshore WTG’s and associated foundations;
- High voltage alternating current (“HVAC”) transmission technology;
- Inter-array cables connecting the WTGs to the offshore substations;
- Up to 4 undersea export cabling to connect the WTG’s to the offshore substation(s) and from there to the landfall area at Wolla Bank; and
- Up to 2 Offshore Reactive Compensation Platforms (“ORCPs”) to reduce the reactive power generated by the capacitance of the offshore export cable to maximise the amount of power delivered to the National Grid electricity transmission system.

The Project also comprises the following onshore components and enabling works:

- The construction of onshore cabling from Wolla Bank to Surfleet Marsh;
- The construction of an onshore substation on land at Surfleet Marsh; and
- The construction of further onshore cabling from the onshore substation to a proposed NGET substation to be located close to the Project, in an area defined by the Applicant as the ‘connection area’.

The Project’s wind farm array area is approximately 436 km² and is located 54km east of the Lincolnshire coast at its closest point. A maximum of 100 WTGs are proposed, with a maximum rotor blade diameter of 340 m.

Electricity generated from the Outer Dowsing array area will be transmitted to the UK National Grid using a HVAC, with a voltage up to 400kV. The offshore export cables would make landfall at Wolla Bank, to the south of Anderby Creek, where cables will be installed using trenchless techniques to pass under the intertidal area, the sand dunes and the coastal Lincolnshire Wildlife Trust site (Anderby Marsh), to connect into the landfall compound which is located on agricultural land to the west of Roman Bank Road. From the landfall compound, the cables will run underground to the Project’s onshore substation located at Surfleet Marsh. From there the cables would run underground between the onshore substation and the NGET substation.

The onshore Order limits lie within East Lindsey District, South Holland District and Boston Borough administrative areas, within Lincolnshire and are wholly in England.

The final design for the Project may not be confirmed until after consent has been granted. Consequently, the Applicant has presented a Rochdale envelope approach whereby the maximum design scenarios are presented and assessed. The Rochdale envelope and the presented maximum design scenarios provide sufficiently flexibility in the finalisation of the design whilst ensuring that the environmental effects of the Project eventually constructed have been properly assessed. The realistic worst-case maximum design scenario is assessed and

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outlined by the Applicant in its RIAA [REP6-028]. The Secretary of State's HRA is based upon the realistic worst-case maximum design scenario of the Project, in accordance with PINS Advice Note 9¹⁴.

2.1 Changes to the application during Examination

During the Examination, the Applicant submitted multiple changes to their application, including changes to the Order limits, and matters which would have the potential to have Environmental Impact Assessment ("EIA") and HRA implications. The ExA felt that the manner in which the Applicant submitted changes (i.e. submitting information which may be subject to a change request alongside revisions to current application documents and new information in response to comments from IPs) introduced an unwelcome level of complexity [ER1.6.9]. The ExA requested that the Applicant provided all of the information that related to any changes that it wished to make, collated and summarised within a change notification.

In order to make the scope and level of changes clear, the Applicant produced a document (Appendix 1 of [AS-025]) which summarised the changes made by the Applicant during the Examination.

Following the publication of [AS-025], further changes to the application were submitted by the Applicant. A summary of these further changes can be found in [ER.1.6.16]-[ER.1.6.20] of the ExA's Report, and further details of which can be found in the Guide to the application document submitted at Deadline 6 [REP6-002]. This provides a guide to the documents submitted as part of the application and was updated at each Deadline, when new or revised documents were submitted. It provides a record of all documentation submitted into the Examination by the Applicant.

¹⁴ [Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope - GOV.UK](#)

3 Stage 1: Screening for Likely Significant Effects

Under Regulation 63 of the Habitats Regulations and Regulation 28 of the Offshore Habitats Regulations, the Secretary of State must consider whether the Project will have a Likely Significant Effect (“LSE”) on European sites, either alone or in-combination with other plans or projects. The purpose of this section is to identify any LSEs on protected sites that may result from the Project and to record the Secretary of State’s conclusions on the need for an AA.

The protected sites and qualifying features that were considered in the Applicant’s assessment of LSE are presented in Section 5 of the Applicant’s HRA Screening Report [REP4-037]. Section 4 of the HRA Screening Report [REP4-037] presents the broad approach undertaken in the screening for LSE and the selection process to identify relevant protected sites and qualifying features.

The spatial relationship between the Order limits of the Project and protected sites is shown in Figures 1 to 5 of this HRA, and in sections 5.1-5.5 of the HRA Screening Report [REP4-037].

The Secretary of State notes that there were a number of cases where the Applicants’ conclusions for potential LSE on the protected sites and their qualifying features were disputed by IPs during the Examination [ER C.2.6 to C.2.10]. He also notes that these matters were all resolved during the Examination [ER C.2.20]. NE agreed with the Applicant’s conclusions in relation to the sites for which LSE could be excluded [RR-045], and no other representations were made by any other IPs [ERC.2.14]. The ExA was satisfied that the correct sites and impact-pathways have been considered by the Applicant in its screening for LSE [ER.C.2.22]. The Secretary of State is content that all relevant sites have been considered.

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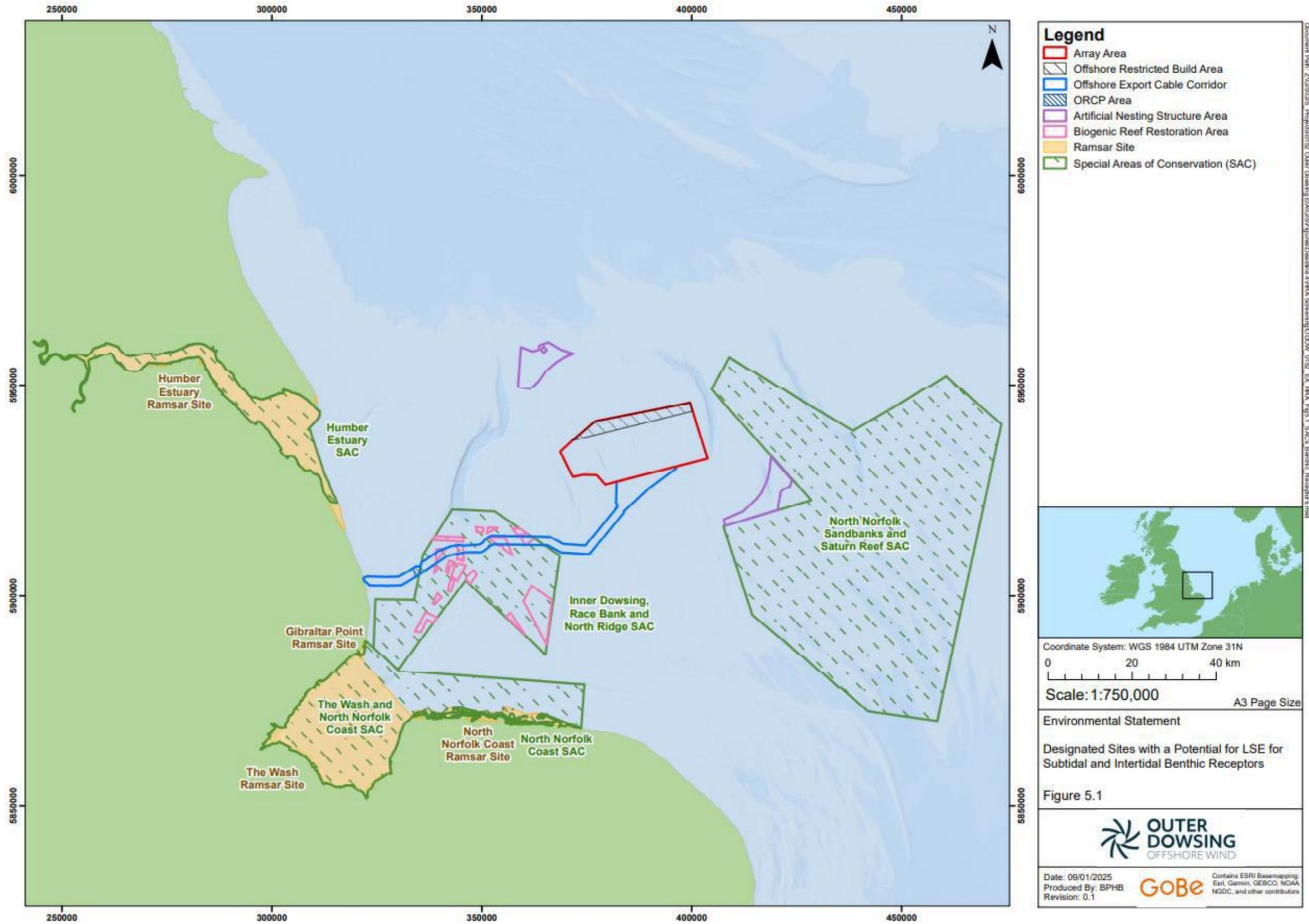


Figure 1 - Order limits and Designated Sites with a Potential for LSE for Subtidal and Intertidal Benthic Receptors (Figure 5.1 - HRA Screening Report [REP4-037])

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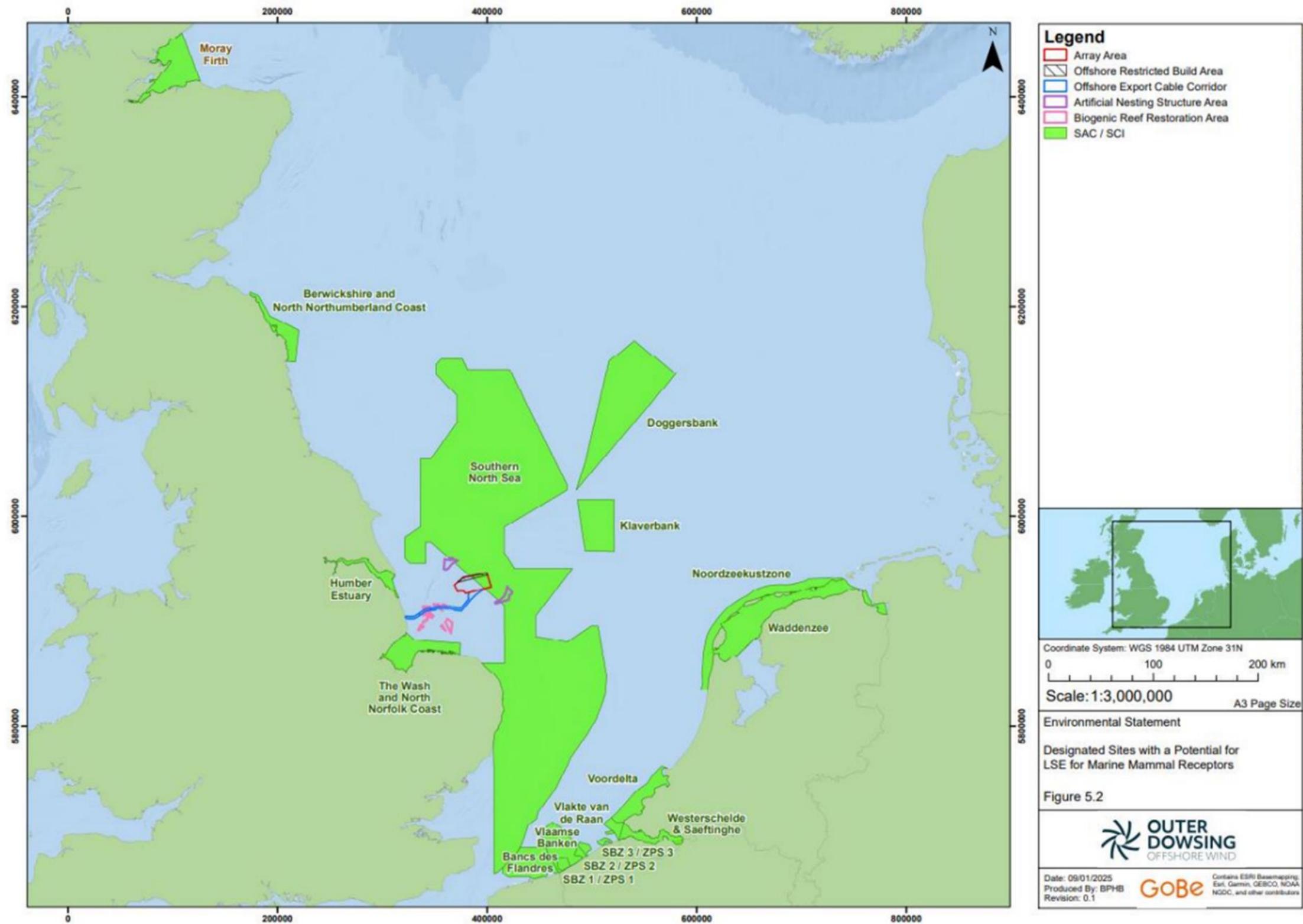


Figure 2 - Order limits and Designated Sites with a Potential for LSE for Marine Mammal Receptors (Figure 5.2 - HRA Screening Report [REP4-037])

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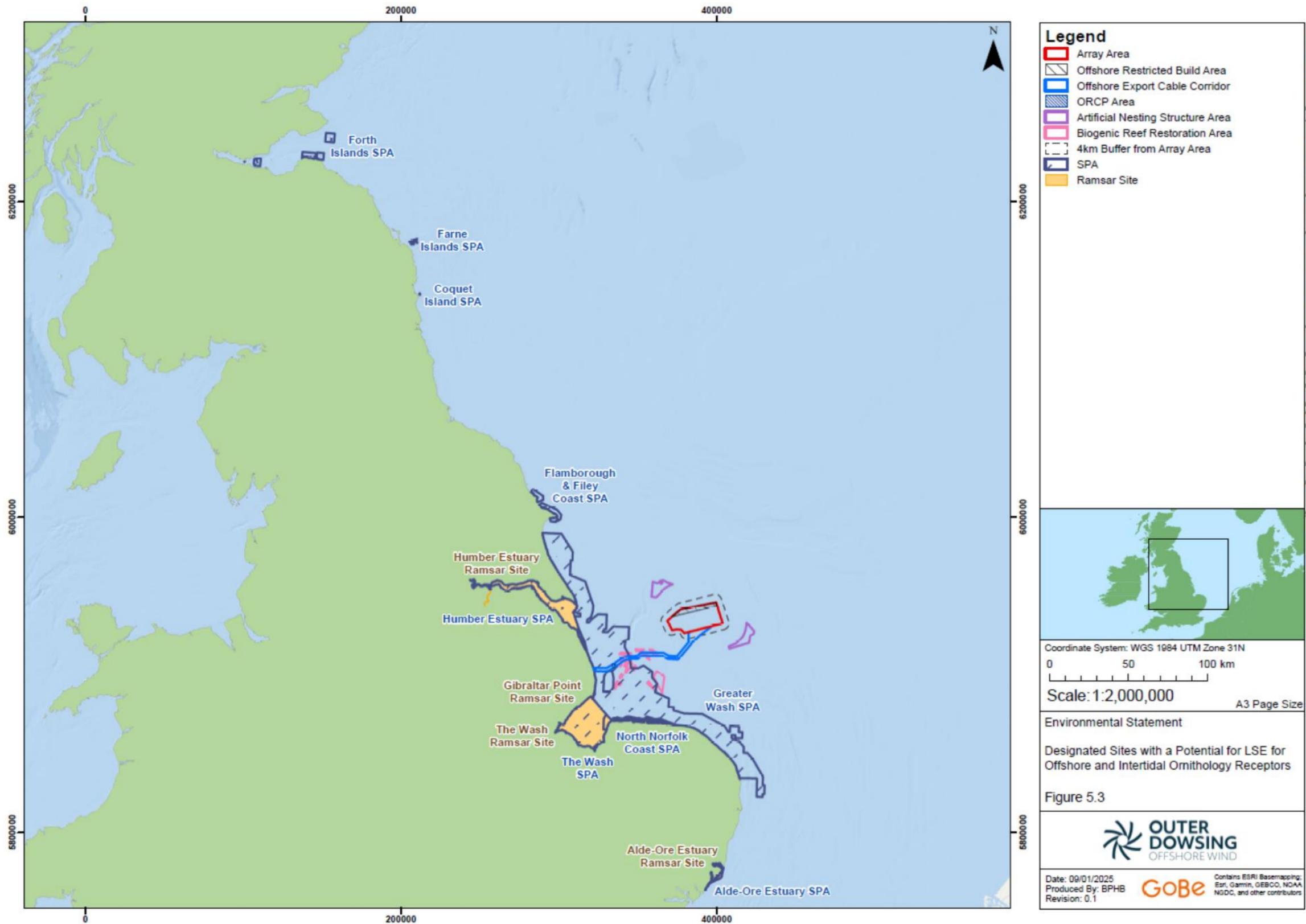


Figure 3 - Order limits and Designated sites with a Potential for LSE for Offshore and Intertidal Ornithology Receptors (Figure 5.3 - HRA Screening Report [REP3-037])

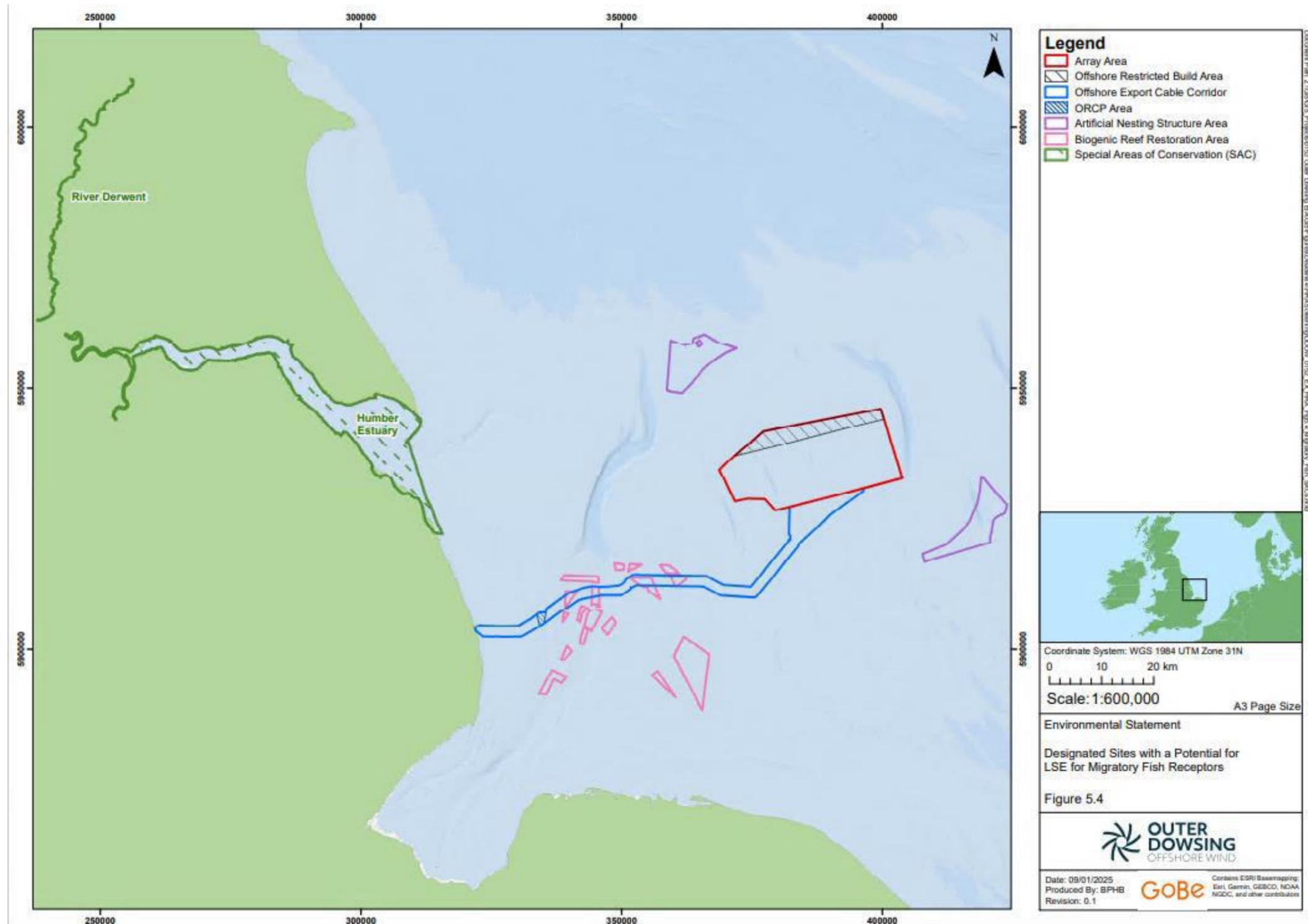


Figure 4: Order limits and Designated sites with a Potential for LSE for Migratory Fish Receptors (Figure 5.4 - HRA Screening Report [REP4-037])

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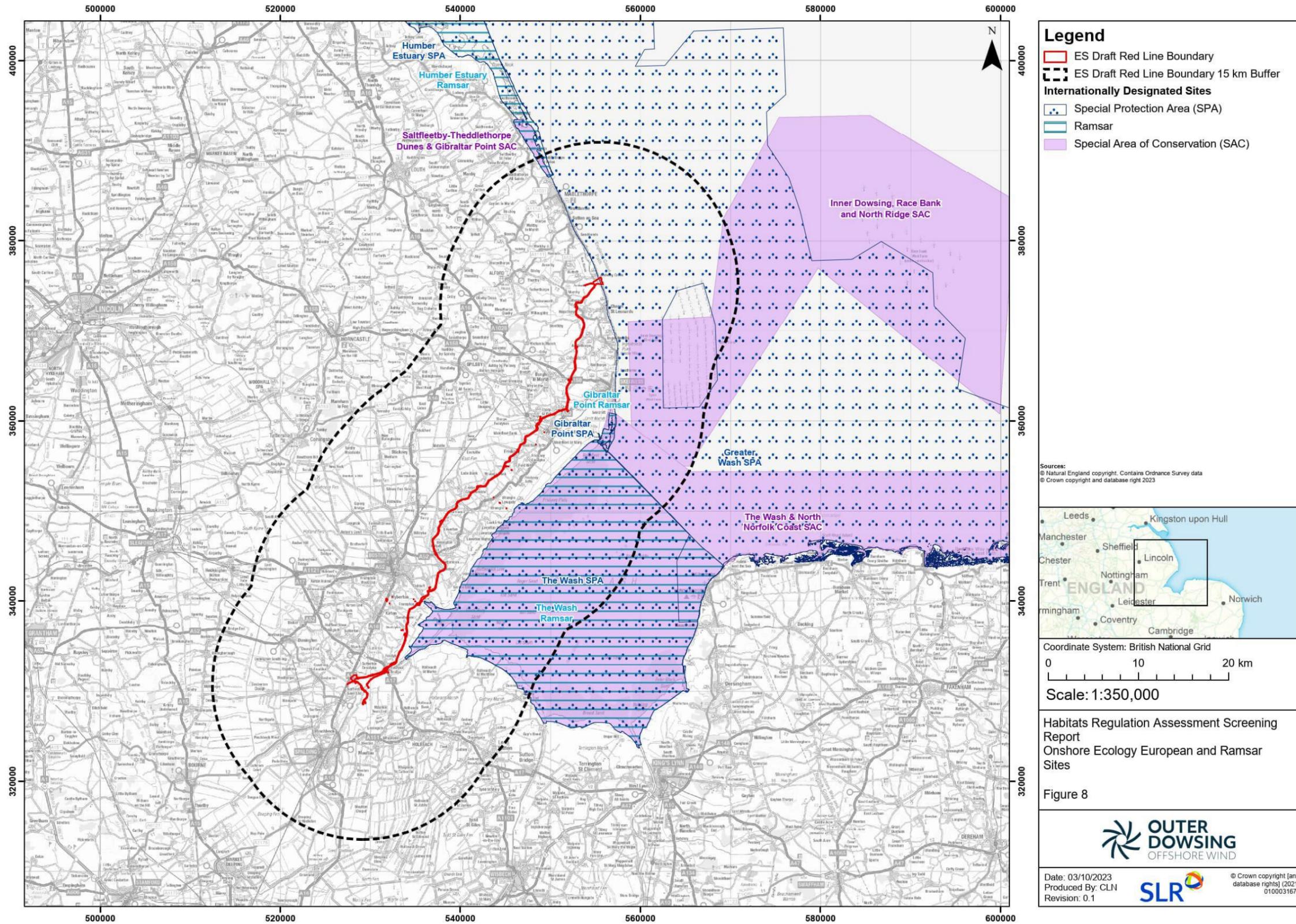


Figure 5: Onshore Order limits and Designated Sites with a Potential for LSE for Onshore Ecology (Figure 5.5 - HRA Screening Report [REP4-037])

3.1 Likely Significant Effects alone and in-combination

3.1.1 Project Alone

The Applicant identified the impacts, considered to have the potential to result in LSEs, from the Project alone in Section 5 of the HRA Screening Report [REP4-037]. The potential for impact pathways to effect sites and features was assessed by receptor group in the following tables of that report:

- Table 5.2: Subtidal and Intertidal Benthic Ecology (offshore and coastal) (7 sites);
- Table 5.4: Annex II marine mammals (17 sites);
- Table 5.6: Offshore and intertidal ornithological qualifying features (167 sites);
- Table 5.8: Annex II migratory fish species (1 site); and
- Table 5.10: Onshore ecology (10 sites).

A number of matters were raised during the Examination in relation to the screening of LSE including concerns raised by NE in [RR-045] about the adequate consideration of disturbance and displacement, and barrier effects from the ORCP. Following clarification from the Applicant, all matters were resolved during the Examination process and NE confirmed in [REP5-172] that it was satisfied the queried impact-pathways were included in the assessment.

A number of updates were made to the Applicant's original HRA Screening Report [APP-239]. This included amendments requested by NE to include representation of the Offshore Restricted Build Area and removal of the Northern cable corridor; and other updates in relation to assessment information and approaches as outlined in Section 1.2 of HRA Screening Report [REP4-037].

The Secretary of State notes the Applicant is confident this did not change the conclusion of the HRA screening and also that no additional impact-pathways were identified for inclusion in the assessment during the Examination [ER C.2.5]. He further notes that NE agreed with the Applicant's conclusions in relation to the sites for which LSE could be excluded [RR-045]. The ExA report [ER.C.2.14] states that no representations were made by any other IPs on the conclusions of no LSE for those sites screened out for all qualifying features identified in Tables 7.1 to 7.5 of the HRA Screening Report [REP4-037]. The Secretary of State is therefore content that the correct sites, qualifying features and impact pathways have been captured for assessment.

The protected sites affected and the potential impact pathways from the Project alone, are provided in Table 7.1 of the RIAA [REP6-028]. The following impact pathways were considered by the Applicant to have the potential to result in LSEs on the identified receptor groups of various protected sites during the construction, operation & maintenance and decommissioning phases of the Project:

Benthic subtidal and intertidal ecology receptor group:

- Physical habitat loss (all phases)
- Suspended sediment/deposition (all phases)
- Indirect pollution (all phases)

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- Accidental pollution (all phases)
- Invasive Non-Native Species (“INNS”) (all phases)
- Changes to physical processes (all phases)
- Electro-magnetic fields (“EMF”) (all phases)

Marine mammal receptor group:

- Underwater noise (all phases)
- Vessel disturbance (all phases)
- Changes to prey (all phases)
- Vessel collision risk (all phases)
- Disturbance at haul out sites (all phases)

Migratory fish receptor group:

- Underwater noise (all phases)

Onshore ecology and ornithology receptor group:

- Loss or damage to Annex I habitats (construction and decommissioning phases)
- Pollution from site run-off affecting habitat quality (construction and decommissioning phases)
- Damage to habitats from operation and maintenance activities (operation & maintenance phase)
- Loss of estuary habitats (dune systems and dune slacks) (construction phase)
- Disturbance to species (construction phase)
- Reduction of habitat quality (construction and decommissioning phases)
- Pollution from site run-off (construction and decommissioning phases)
- Loss of foraging, roosting and nesting habitat within the site and surrounding area (construction phase)
- Disturbance of birds within and outside the site (construction and decommissioning phases)
- Pollution from site run-off affecting habitat quality and resources (construction and decommissioning phases)
- Damage to habitats and disturbance/ displacement from vehicles and workers (operation & maintenance phase)
- Loss of foraging, roosting and nesting habitat for birds (construction phase)
- Disturbance/displacement of birds inside and outside sites (construction and decommissioning phases)
- Pollution from site run-off affecting habitat quality and resources (construction and decommissioning phases)
- Disturbance/displacement of birds arising from vehicles and workers accessing onshore structures for maintenance (operation & maintenance phase)
- Loss of or decline in populations of scarce invertebrates and plants (construction phase)
- Indirect effects through effects on habitats and prey species (construction and decommissioning phases)
- Direct disturbance and displacement in the array area +4km buffer due to presence of turbines (operation & maintenance phase)
- Loss of foraging and nesting habitat inside and outside the SPA (construction phase)
- Barrier and collision risk (migratory bird species (construction phase)

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Offshore and intertidal ornithology receptor group:

- Collision risk due to presence of turbines (operation & maintenance phase)
- Disturbance and displacement (all phases)
- Direct disturbance and displacement due to work activity and vessel movements in both the offshore and intertidal zones (construction and decommissioning phases)

3.1.2 Project In-Combination

The Applicant also assessed the impacts considered to have the potential to result in LSEs from the Project, in-combination with other plans or projects. The approach is detailed in Section 6 of the HRA Screening Report [REP4-037] and summarised in Section 7.2 of the RIAA [REP4-030]. In summary, where a potential LSE has been identified for the Project alone, then it has also been screened in for in-combination effects. Consideration has also been given to the potential for an LSE in-combination effect, even where the Project alone was insufficient to trigger the threshold for potential LSE.

The Applicant applied a 'tiered' approach to the in-combination assessment to reflect the different levels of uncertainty associated with the project design and timeframes for the projects screened into the assessment [REP6-115]. The allocated 'tiers' reflect the current stage of relevant projects within the planning and development process. This allowed the in-combination impact assessment to consider several future development scenarios, each with a differing potential for being built out. The tier structuring varied by receptor group and is outlined for each group in Tables 7-2 to 7-4 of the RIAA [REP4-030].

The plans and projects considered for the in-combination assessment are set out by receptor group in Tables 7-5 to 7-9 of the RIAA [REP4-030].

No matters were raised during Examination in relation to this approach [ER C2.16].

3.2 Likely Significant Effects conclusion

During Examination several representations were raised by IPs in relation to the Applicant's conclusions of LSE; these are discussed in Appendix C of the ExA's Report [ER C.2.6-10]. The ExA considered that all these matters were resolved during Examination [ER C.2.20].

The sites, features and impact pathways for which the Applicant concluded LSE could not be excluded, either alone or in-combination, are presented in Section 7 of the HRA Screening Report [REP4-037]. NE agreed with the applicant's conclusions in relation to the sites for which LSE could be excluded [RR-045].

The Secretary of State has carefully considered the information presented during Examination and the potential for the Project (both alone and in-combination) to have LSE on the qualifying features of protected sites. The Secretary of State considers that sufficient information has been provided to support this and agrees with the conclusions of the ExA that:

1. the correct sites and impact-pathways have been considered by the Applicant in its screening for LSEs [ER C.2.22]; and

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2. the Project is likely to have a significant effect (either alone or in-combination) on the qualifying features of protected sites [ER C.2.23] as detailed in Section 7 of the HRA Screening Report [REP4-037].

An AA of the potential impacts of the Project is therefore required against these LSEs. The following protected sites are carried forward to AA stage, due to the potential for the Project (alone or in-combination) to result in LSE on some or all [of] their qualifying features:

- North Norfolk Sandbanks and Saturn Reef SAC;
- Inner Dowsing, Race Bank, and North Ridge SAC;
- The Wash and North Norfolk Coast SAC;
- Southern North Sea SAC;
- Berwickshire and North Northumberland Coast SAC;
- Moray Firth SAC;
- Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC;
- The Wash SPA;
- The Wash Ramsar;
- Greater Wash SPA;
- North Norfolk Coast SPA;
- North Norfolk Coast Ramsar;
- Gibraltar Point SPA;
- Gibraltar Point Ramsar;
- Humber Estuary SAC;
- Humber Estuary SPA;
- Humber Estuary Ramsar;
- Flamborough and Filey Coast SPA;
- Alde-Ore Estuary SPA & Ramsar;
- Coquet Island SPA;
- Farne Islands SPA;
- Scottish SPAs (Fowlsheugh; Buchan Ness to Collieston Coast; Troup, Pennan and Lion's Head; East Caithness Cliffs; North Caithness Cliffs; Copinsay; Hoy; Calf of Eday; Rousay; Marwick Head; Fair Isle; West Westray; Sumburgh Head; Noss; Foula; Hermaness, Saxa Vord and Valla Field); and
- Transboundary sites (Bancs des Flandres SAC; Doggersbank (Netherlands) SAC; Klaverbank SCI; Noordzeekustone SCI; SBZ 1 SCI; SBZ 2 SCI; SBZ 3 SCI; Vlaamse Banken SCI; Vlake van de Raan SCI; Voordelta SCI; Waddenzee SCI; and Westerschelde & Saeftinghe SCI).

4 Appropriate Assessment methodology

The requirement to undertake an AA is triggered when a competent authority, in this case the Secretary of State, determines that a plan or project is likely to have a significant effect on a protected site either alone or in-combination with other plans or projects. Guidance issued by DEFRA¹⁵ states that the purpose of an AA is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in-combination with other plans and projects, and that the conclusions should enable the competent authority to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus is therefore specifically on the species and/or habitats for which the protected site is designated.

In line with the requirements of Regulation 63 of the Habitats Regulations and Regulation 28 of the Offshore Habitats Regulations:

“In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.”

The purpose of this AA is to determine whether an AEol on the features of the protected sites identified in Annex A of this HRA, as a result of the Project alone or in-combination with other plans or projects, can be excluded in view of the specific site's conservation objectives and using the best scientific evidence available.

In accordance with the precautionary principle embedded in AA and established through case law¹⁶, the Secretary of State as the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the protected site, and this must be demonstrated beyond all reasonable scientific doubt. If the Secretary of State cannot exclude AEol of the affected protected sites beyond all reasonable scientific doubt, then he can only agree to a plan or project if it complies with the requirements of Regulation 64 of the Habitats Regulations. Regulation 64 provides that the Secretary of State may agree to the plan or project only if satisfied that there are no alternative solutions, and that the plan or project must be carried out for imperative reasons of overriding public interest (“IROPI”). Where a plan or project is agreed to under Regulation 64, Regulation 68 of the Habitats Regulations requires compensatory measures to be secured which maintain the overall coherence of the NSN.

¹⁵ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

¹⁶ Case C-127/02 Waddenzee ECLI:EU:C:2004:482

5 Stage 2: Appropriate Assessment

5.1 Introduction

The Secretary of State has undertaken an objective scientific assessment of the implications of the Project on the qualifying features of the protected sites identified in his screening assessment, using the best scientific evidence available. The assessment has been made considering each site's conservation objectives, as detailed in Annex A of this HRA.

The Applicant's RIAA [REP6-028] concluded that AEoI can be excluded on all protected sites considered in their assessment from the Project alone, or in-combination with other plans and projects, with the exception that the Project would result in an AEoI to the kittiwake qualifying feature of the Flamborough and Filey Coast SPA ("FFC SPA") due to collision risk during the operation and maintenance phase, in-combination with other plans or projects.

The Secretary of State has summarised his final conclusions on his Appropriate Assessment in Table 1 below. Where a matter requires further discussion, he has provided further reasoning behind his conclusions in Sections 5.3 and 5.4 below.

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5.2 Secretary of State’s Summary of the Appropriate Assessment

Table 1 - Table showing the Secretary of State's conclusions on AEoI from the Project, alone and in-combination

Protected Site	Qualifying Feature	Secretary of State conclusion on AEoI	Justification
Inner Dowsing, Race Bank and North Ridge SAC	<ul style="list-style-type: none"> • Reefs • Sandbanks which are slightly covered by sea water all the time 	<p>AEoI cannot be excluded from either feature due to physical habitat loss</p> <p>AEoI can be excluded from both features due to physical disturbance, suspended sediment/deposition, changes to physical processes, indirect pollution, accidental pollution, INNS and EMF.</p>	<p>AEoI cannot be excluded due to <u>physical habitat loss</u>.</p> <p>The Secretary of State agrees with the ExA [ER.C.4.275] and NE [REP6-155] that an AEoI cannot be excluded from for this site, alone and in-combination with other plans or projects, from <i>physical habitat loss</i>. Further reasoning is provided for sandbanks in section 5.4.1.5 and for reefs in section 5.4.1.10 of this HRA.</p> <p>AEoI can be excluded due to <u>other impact pathways</u>.</p> <p><u>Physical disturbance</u>: As set out in section 5.4.1.1, the Secretary of State notes advice from NE [REP5-172] that physical habitat loss and physical disturbance should be assessed separately. He has assessed the impacts from physical disturbance on sandbanks in section 5.4.1.2 and on reefs in section 5.4.1.7 of this</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>HRA. He concludes that an AEol can be excluded for these features of this site, alone and in-combination with other plans or projects.</p> <p><u>Changes in physical processes and suspended sediment/deposition:</u> Based on advice from NE, the ExA conclude in its report that AEol could not be excluded due to <i>changes in physical processes</i> [ER C.4.280] and <i>suspended sediment/deposition</i> [ER C.4.277], and that further consultation may be required on these matters. The Secretary of State requested further information in the first information request; in response to which the Applicant committed to additional mitigation and adaptive management measures [C1-049] based on further advice from NE. The Secretary of State is content these measures are secured and agrees with NEs updated position [C1-007] that AEol can be excluded at this site, alone and in-combination with other plans or projects for these pathways. Further reasoning is provided for sandbanks in section 5.4.1.3 and reefs in section 5.4.1.8 of this HRA.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p><u>Other impact pathways:</u> In line with the rationale presented in the Applicant’s RIAA, NE [REP5-172] and the ExA [ER.C.4.3], the Secretary of State agrees that an AEol can be excluded for these features of this site, alone and in-combination with other plans or projects, from the following pathways:</p> <ul style="list-style-type: none"> • <i>Indirect pollution</i> • <i>Accidental Pollution</i> • <i>INNS</i> • <i>EMF</i>
<p>North Norfolk Sandbanks and Saturn Reef SAC</p>	<ul style="list-style-type: none"> • Reefs • Sandbanks which are slightly covered by sea water all the time 	<p>No AEol</p>	<p>The Secretary of State agrees with the ExA [ER.C.4.281] and NE [REP6-155] that an AEol can be excluded for these features of this site, alone and in-combination with other plans or projects.</p>
<p>The Wash and North Norfolk Coast SAC</p>	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide • Large shallow inlets and bays • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 	<p>No AEol</p>	<p>The Secretary of State agrees with the ExA [ER.C.4.3; C.4.359 and C.4.363] and NE [REP6-155] that an AEol can be excluded for these features of this site, alone and in-combination with other plans or projects.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
	<ul style="list-style-type: none"> • Mediterranean and thermos-Atlantic halophilous scrubs (<i>Sarcocornetea fruticose</i>) • Otter 		
The Wash and North Norfolk Coast SAC (cont.)	<ul style="list-style-type: none"> • Reefs • Sandbanks which are slightly covered by sea water all the time 	No AEol	<p>In accordance with the rationale presented in the Applicant's RIAA and NE's comments [REP6-155] the Secretary of State agrees that an AEol can be excluded for this feature of this site, alone and in-combination with other plans or projects, from the following pathways:</p> <ul style="list-style-type: none"> • <i>Suspended sediment/deposition</i> • <i>Indirect pollution</i> • <i>Accidental Pollution</i> • <i>INNS</i> <p>The SoS has considered the position of NE [REP6-155 and REP-5-172] that without a secured maximum design scenario (MDS) for nearshore cable protection, an AEol could not be excluded for this feature due to <i>changes in physical processes</i> (in-combination with other plans and projects). He also notes and agrees with the ExA's position that agreed parameters of nearshore cable protection were not secured through control documents at the close of Examination [ER C.4.305] and considered the ExA position that, provided the agreed maximum design scenario is</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>adequately secured, then NE's concerns will be addressed [ER C.4.311-312], but that this issue may require further consultation with NE [ER C.4.312].</p> <p>The Secretary of State requested clarification on the MDS for nearshore cable protection in the first information request; in response the Applicant submitted updated control documents [C1-063] and [C1-074] that secure the maximum design scenario of nearshore cable protection. The Applicant also made new commitments to monitor for <i>changes in physical processes</i> and implement remedial adaptive management measures should this be observed. With these parameters and measures adequately secured, the SoS agrees with and the ExA and NE's updated position [C1-007] that AEol can be excluded for <i>changes in physical processes</i> for these features at this site, alone and in-combination with other plans or projects. This issue is addressed in section 5.4.2 of this HRA.</p>
The Wash and North Norfolk Coast SAC (cont.)	<ul style="list-style-type: none"> Harbour Seal 	No AEol	At the end of Examination, numerous issues remained regarding marine mammals, including Harbour Seals.

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>At D6, NE commented that it was unable to rule out an AEol to the Harbour Seal qualifying feature of this site due to the level of underwater noise disturbance from piling and Unexploded Ordnance (“UXO”) clearance from the Project, both alone and in-combination with other activities [REP6-148]. NE noted that the implementation of noise abatement/noise reduction technology would assuage their concerns.</p> <p>Additionally, on the issue of population modelling, NE [RR-045] had requested that while acknowledging its limitations, the Applicant needed to produce Interim Population Consequences of Disturbance (“iPCoD”) modelling in order for NE to be able to exclude an AEol. The Applicant provided the modelling for the Project alone [PD-013], but not for the Project in-combination with others plans and projects. In response to further requests from NE, at the end of Examination (Deadline 6) the Applicant produced the in-combination iPCoD modelling [REP6-026], but NE did not comment on it due to the Examination concluding.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>In his first request for information, the Secretary of State invited NE to comment on the in-combination iPCoD modelling [REP6-026]. In response, NE confirmed that they had reviewed the updated assessment and were satisfied with its results. NE confirmed that the modelling showed that the cumulative impacts from offshore wind construction will not have a long-term detrimental effect on the harbour seal qualifying feature, and that with appropriate mitigation, an AEol can be excluded.</p> <p>To secure the appropriate mitigation, the Secretary of State’s first information request included a request for the Applicant to amend Chapter 11 of the ES (Marine Mammals) [REP6-020], the Outline Marine Mammal Mitigation Protocols (“MMMPs”) [REP6-064] & [REP6-066], and the In-Principle Southern North Sea SAC Integrity Plan [REP6-068] to include a commitment to a specific package of Noise Abatement Systems (“NAS”). The Applicant responded [C1-049] that following discussions with NE since the close of Examination, it had agreed to updated wording for Condition 13(1)(f) of Part 2 of Schedules 10 and 11 and Condition 11(1)(e) of Part 2 of</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>Schedules 12-15 to the DCO. The Applicant also updated the other relevant documents. This dDCO wording committed to the principle of using NAS, but did not commit to using a specific type of NAS to allow flexibility in this rapidly evolving area.</p> <p>The Secretary of State is content that the Applicant does not need to commit to a specific package of NAS presently. Consequently, as NAS has also been adequately secured in the MMMPs [C1-071], the Secretary of State, in line with NE advice [C1-007] and the ExA [ER.C.4.335] can conclude that there will not be an AEol on the Harbour Seal qualifying feature of the Wash and North Norfolk Coast SAC, alone or in-combination with other plans or projects.</p>
<p>Humber Estuary SAC</p>	<ul style="list-style-type: none"> • Estuaries • Sandbanks which are slightly covered by sea water all the time • Mudflats and sandflats not covered by seawater at low tide • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 	<p>No AEol</p>	<p>The Secretary of State agrees with the ExA [ER.C.4.3] and NE [REP5-172] that an AEol can be excluded for these features of this site, alone and in-combination with other plans or projects.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
Humber Estuary SAC (cont.)	Grey Seal	No AEol	<p>As discussed above regarding the Harbour Seal qualifying feature of the Wash and North Norfolk Coast SAC, NE had outstanding concerns in relation to marine mammal mitigation at the end of Examination.</p> <p>For the Grey Seal qualifying feature of this site, NE commented that the Applicant's updated iPCoD modelling [REP6-026], assuaged their concerns, and confirmed that the modelling showed that the cumulative impacts from offshore wind construction will not have a long-term detrimental effect on the Grey Seal qualifying feature, and that with appropriate mitigation, an AEol can be excluded.</p> <p>As described above, the Secretary of State is content that appropriate mitigation in the form of NAS has been secured.</p> <p>The Secretary of State agrees with NE and the Applicant [REP4-030] and concludes that an AEol on the Grey Seal feature of the Humber Estuary SAC can be excluded alone and in-combination with other plans or projects.</p>
Humber Estuary SAC (cont.) & Ramsar	<ul style="list-style-type: none"> • Sea Lamprey • River Lamprey 	No AEol	<p>The Secretary of State agrees with the ExA [ER.C.4.357] and NE [REP5-172] that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
Humber Estuary Ramsar site	<ul style="list-style-type: none"> • Criterion 1: Estuary • Criterion 5: Waterbird assemblage • Criterion 6: Bar-tailed godwit; black-tailed godwit; dunlin; golden plover; knot; redshank; shelduck 	No AEol	The Secretary of State agrees with the ExA [ER.C.4.3] and NE [REP5-172] that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Humber Estuary Ramsar site (cont.)	<ul style="list-style-type: none"> • Criterion 3: Grey Seal 	No AEol	<p>As discussed above regarding the Harbour Seal qualifying feature of the Wash and North Norfolk Coast SAC, and the Grey Seal qualifying feature of the Humber Estuary SAC, NE had outstanding concerns in relation to marine mammal mitigation at the end of Examination. These concerns were assuaged by the Applicant’s production of in-combination iPCoD modelling showing limited harm on the species from underwater activities, including UXO clearance, and a commitment from the Applicant to use NAS.</p> <p>As described above, the Secretary of State is content that appropriate mitigation (NAS) has been secured and therefore is in agreement with NE and the Applicant [REP4-030] to conclude that an AEol on the Grey Seal qualifying feature of the Humber Estuary Ramsar site can be excluded alone and in-combination with other plans or projects.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
Humber Estuary Ramsar site (cont.)	<ul style="list-style-type: none"> • Sea Lamprey • River Lamprey 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.357], the Secretary of State agrees that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Humber Estuary SPA	<ul style="list-style-type: none"> • Bittern • Shelduck • Marsh harrier • Hen harrier • Avocet • Golden plover • Knot • Dunlin • Ruff • Black-tailed godwit • Bar-tailed godwit • Redshank • Little tern • Waterbird assemblage • 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.359; C.4.363], the Secretary of State agrees that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Alde-Ore Estuary SPA & Ramsar	<ul style="list-style-type: none"> • Lesser black-backed gull 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.359; C.4.363], the Secretary of State agrees that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC	<ul style="list-style-type: none"> • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') • Fixed coastal dunes with herbaceous vegetation ('grey dunes') • Dunes with <i>Hippophae rhamnoides</i> • Humid dune slacks 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.3], the Secretary of State agrees that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Gibraltar Point SPA	<ul style="list-style-type: none"> • Grey plover (Non-breeding) • Sanderling (Non-breeding) • Bar-tailed godwit (Non-breeding) • Little tern (Breeding) 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.3], the Secretary of State is content that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Gibraltar Point Ramsar	<ul style="list-style-type: none"> • Criterion 1: Coastal habitats – estuarine mudflats, sandbanks, and saltmarsh • Criterion 2: assemblage of wetland invertebrates; notable plant species • Criterion 5: Waterfowl • Criterion 6: Grey plover, sanderling, bar-tailed godwit, dark-bellied brent goose 	No AEol	In agreement with NE [REP5-172] and the ExA [ER.C.4.3], the Secretary of State agrees that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
North Norfolk Coast SPA	<ul style="list-style-type: none"> • Sandwich tern • Pink-footed goose • Dark-bellied brent goose • Widgeon • Marsh harrier • Avocet • Knot 	No AEol	At the end of Examination, NE had outstanding concerns regarding the Applicant's additional mitigation measures for Pink Footed Geese ([REP4a-086] & [REP4a-144]). Following the Applicant's updates to the Outline Landscape and Ecological Management Strategy ("OLEMS") at D6 [REP6-070], NE confirmed

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
	<ul style="list-style-type: none"> • Common tern • Little tern • Bittern 		<p>[C1-007] in their response to the Secretary of State's first information request that an AEol for the Pink-Footed Goose, Sandwich Tern and Dark-Bellied Brent Goose qualifying features can be excluded.</p> <p>In agreement with NE and the ExA [ER.C.4.87], the Secretary of State concludes that an AEol for the qualifying features of the North Norfolk Coast SPA can be excluded alone and in-combination with other plans or projects.</p>
North Norfolk Coast Ramsar site	<ul style="list-style-type: none"> • Pink-footed goose • Dark-bellied brent goose 	No AEol	<p>As discussed for the North Norfolk SPA, following the Applicant's updates to the OLEMS, NE confirmed that an AEol on the Pink-Footed Goose and Dark-Bellied Brent Goose qualifying features can be excluded.</p> <p>In agreement with NE and the ExA [ER.C.4.87], the Secretary of State concludes that an AEol for the qualifying features of the North Norfolk Ramsar site can be excluded alone and in-combination with other plans or projects.</p>
The Wash SPA	<ul style="list-style-type: none"> • Pintail • Widgeon • Gadwall 	No AEol	<p>In agreement with NE [REP5-172] and the ExA [ER.C.4.3], the Secretary of State concludes that an AEol can be excluded for the features</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
	<ul style="list-style-type: none"> • Turnstone • Goldeneye • Red knot • Bewick’s swan • Oystercatcher • Bar-tailed godwit • Black-tailed godwit • Dunlin • Sanderling • Grey plover • Common scoter • Little tern • Shelduck • Common tern • Redshank • 		<p>of this site alone and in-combination with other plans or projects.</p>
<p>The Wash SPA (cont.)</p>	<ul style="list-style-type: none"> • Curlew • Waterbird assemblage (Golden Plover and Lapwing) 	<p>No AEol</p>	<p>At the end of Examination, NE had outstanding concerns regarding the Applicant’s original OLEMS [REP4-070], and its ability to mitigate impacts on the Curlew, Golden Plover and Lapwing qualifying features. Since the close of Examination, the Applicant has made updates to their OLEMS [REP6-070] to satisfy NE’s concerns, including a commitment to consider the necessity for visual screening in the seasonally restricted area, and removing any screening in the event</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>of red weather warnings. Additionally, a commitment to have an Ecological Clerk of Works (“ECoW”) advise on impacts to birds from soft start works, which was added to the Applicant’s Schedule of Mitigation [REP6-074]. In his first request for information, the Secretary of State requested NE to comment on these amendments. NE responded that the Applicant’s updates had satisfied all of NE’s outstanding concerns.</p> <p>In agreement with NE and the ExA [ER.C.4.52], the Secretary of State considers that an AEol can be excluded for the curlew and waterbird assemblage features of the Wash SPA, alone and in-combination with other plans or projects.</p>
The Wash SPA (cont.)	<ul style="list-style-type: none"> • Pink-footed goose • Dark-Bellied brent goose 	No AEol	<p>As discussed above for the North Norfolk Coast SPA and North Norfolk Coast Ramsar site, following the Applicant’s amendments to the OLEMS, NE confirmed that an AEol on the Pink-Footed Goose and Dark-Bellied Brent goose qualifying features can be excluded.</p> <p>In agreement with NE, the Applicant and the ExA [ER.C.4.52], the Secretary of State concludes AEol can be excluded for the Pink-Footed Goose and Dark-Bellied Brent Goose features of the Wash SPA, alone and in-combination with other plans or projects.</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
The Wash Ramsar site	<ul style="list-style-type: none"> • Criterion 1: Estuaries with saltmarsh, intertidal banks of mud and sand, shallow water and deep channels • Criterion 5: Waterbird assemblage • Criterion 6: Bar-tailed godwit; Curlew; Dark-bellied brent goose; Dunlin; Knot; Oystercatcher; Pink-footed goose; Pintail; Redshank; Sanderling; Shelduck; Turnstone 	No AEol	The Secretary of State agrees with the ExA [ER.C.4.3], that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Greater Wash SPA	<ul style="list-style-type: none"> • Common tern • Sandwich tern • Little gull • Common scoter 	No AEol	The Secretary of State agrees with the ExA [ER.C.4.3] and NE that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Greater Wash SPA (cont.)	<ul style="list-style-type: none"> • Red-throated diver 	No AEol	In Table 1 of NE's response to the Secretary of State's first request for information [C1-007], NE confirmed that if the Schedule of Mitigation [REP6-074] and DCO/DML were updated to include a commitment for a 2km buffer surrounding the Greater Wash SPA, that it could rule out an AEol for Red-Throated Diver. In his first request for information, the Secretary of State requested that the Applicant updated the Schedule of Mitigation [REP6-074] to include the commitment to a 2km buffer. The Applicant consequently amended

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>their Schedule of Mitigation document to confirm the following: no offshore cable installation works or works associated with the installation of the ORCP's seaward of mean high water springs, can take place within 2km of the Greater Wash SPA between 1 November and 31 March.</p> <p>The Greater Wash SPA restriction area is secured by condition 25 of Part 2 of Schedule 11 to the DCO. The Secretary of State concludes, in agreement with NE and the ExA [ER.C.4.71], that an AEol can be excluded for the red throated diver feature of the Greater Wash SPA, alone and in-combination with other plans or projects.</p>
Flamborough and Filey Coast SPA	<ul style="list-style-type: none"> Herring gull Gannet 	No AEol	In agreement with NE ([REP5-172] & [REP6-149]) and the ExA [ER.C.4.3] the Secretary of State agrees that an AEol can be excluded for the Herring Gull and Gannet features of this site, alone and in-combination with other plans or projects.
Flamborough and Filey Coast SPA (cont.)	<ul style="list-style-type: none"> Kittiwake 	AEol cannot be excluded for collision risk	In agreement with NE [REP6-149], the Applicant [REP4-030], and the ExA [ER.C.4.168], the Secretary of State agrees that an AEol cannot be excluded for the Kittiwake feature of this site when considered

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			in-combination with other plans or projects. Further reasoning can be found in section 5.3.1.1 of this HRA.
Flamborough and Filey Coast SPA (cont.)	<ul style="list-style-type: none"> Guillemot 	AEol cannot be excluded for disturbance and displacement	In agreement with NE [REP6-149] and the ExA [ER.C.4.168], the Secretary of State agrees that an AEol cannot be excluded for the Guillemot feature of this site when considered in-combination with other plans or projects. Further reasoning can be found in section 5.3.1.2 of this HRA.
Flamborough and Filey Coast SPA (cont.)	<ul style="list-style-type: none"> Razorbill 	No AEol	NE advises [REP6-149] and the ExA agree [ER.C.4.168] that an AEol cannot be excluded for the Razorbill feature of this site. The Secretary of State disagrees with this conclusion. He considers that an AEol can be excluded for Razorbill feature of this site when considered in-combination with other plans or projects. Further reasoning can be found in section 5.3.1.3 of this HRA.
Flamborough and Filey Coast SPA (cont.)	<ul style="list-style-type: none"> Seabird Assemblage 	AEol cannot be excluded	The Secretary of State agrees with NE [REP6-149] and the ExA [ER.C.4.168] that an AEol cannot be excluded for the Seabird Assemblage feature of this site when considered in-combination with other plans or projects. This is due to the in-combination

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			impacts to the Kittiwake and Guillemot components of this feature. Further reasoning can be found in section 5.3.1.4 of this HRA.
Farne Islands SPA	<ul style="list-style-type: none"> • Kittiwake • Sandwich tern (non-breeding) • Seabird assemblage 	No AEol	The Secretary of State agrees with NE [REP6-149] and the ExA [ER.C.4.3] that an AEol can be excluded for the Kittiwake, Seabird Assemblage, and Sandwich Tern features of this site when considered alone and in-combination with other plans or projects.
Farne Islands SPA (cont.)	<ul style="list-style-type: none"> • Guillemot 	AEol cannot be excluded disturbance and displacement	The Secretary of State agrees with NE [REP6-149] and the ExA [ER.C.4.362] that an AEol cannot be excluded for the Guillemot feature of this site when considered in-combination with other plans or projects. Further reasoning can be found in section 5.3.2.1 of this HRA.
Coquet Island SPA	<ul style="list-style-type: none"> • Sandwich tern • Common tern • Puffin 	No AEol	The Secretary of State agrees with NE [REP5-172] and the ExA [ER.C.4.3] that an AEol can be excluded for the features of this site, alone and in-combination with other plans or projects.
Berwickshire and North	<ul style="list-style-type: none"> • Grey Seal 	No AEol	As discussed above in the section regarding the Harbour Seal qualifying feature of the Wash and North Norfolk Coast SAC, and the

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
Northumberland Coast SAC			<p>Grey Seal qualifying feature of the Humber Estuary SAC, following the Applicant's publication of the in-combination iPCoD modelling [REP6-026], NE confirmed it was satisfied that the cumulative impact of offshore wind farm construction will not have a long-term detrimental impact on the Grey Seal population.</p> <p>The Secretary of State requested NE to specifically comment on the Grey Seal feature of the Berwickshire and North Northumberland Coast SAC in his first information request. He notes that in its response NE did not specifically reference this SAC. However, he also notes that it stated its conclusion was for the species populations as a whole. He also notes that in Table 1 of [C1-007] NE conclude no AEol for this feature.</p> <p>In agreement with NE [C1-007] and the ExA [ER.C.4.352], the Secretary of State concludes an AEol can be excluded for the Grey Seal feature of the Berwickshire and North Northumberland Coast SAC, alone, or in-combination with other plans or projects.</p>
Southern North Sea SAC	<ul style="list-style-type: none"> Harbour porpoise 	No AEol	As described above in the section regarding the Harbour Seal qualifying feature of the Wash and North Norfolk Coast SAC, and the

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>Grey Seal qualifying feature of the Humber Estuary SAC and Ramsar site, at the end of Examination the Applicant provided evidence in the form of updated iPCoD modelling and commitments to NAS to assuage NE's concerns about impacts on marine mammals. With regards to the Harbour Porpoise feature of the Southern North Sea SAC, NE commented [C1-007] in their response to the Secretary of State's first request for information that it welcomes the additional evidence that has been provided in the Applicant's in-combination iPCoD modelling [REP6-026]. This modelling predicts that the impacted porpoise population could be 98.8% of the size of the unimpacted population, 18 years after piling finishes. This represents a 1.2% decline. NE advice is that anything over a 1% decrease can lead to a significant impact to the population. NE also note that the modelling does not take into account other impacting factors e.g. bycatch, shipping and prey availability which may further harm populations.</p> <p>However, NE commented that the modelling does show periods of population recovery over the same time period, indicating the population would recover to non-disturbed levels in time,</p>

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			<p>and that there are high levels of conservatism in the assessment that arise from combining multiple conservative assessments from multiple projects. Additionally, the modelling does not take into account for noise mitigation measures the applicant has committed to. NE concluded that on balance and with NAS secured, it could agree to no AEol for Harbour Porpoise from underwater noise disturbance. The Secretary of State agrees with the conclusions of the Applicants RIAA [REP6-028] and welcomes the provision of cumulative iPCoD modelling. The Secretary of State is content that the Applicant does not need to commit to a specific package of NAS presently. As the requirement for NAS to be agreed and implemented post-consent has been adequately secured in the MMMP [C1-071], the Secretary of State, in line with NE advice, and the ExA [ER.C.4.347] can conclude that there will not be an AEol on the Harbour Porpoise feature of the Southern North Sea SAC, alone or in-combination with other plans or projects.</p>
Moray Firth SAC	<ul style="list-style-type: none"> Bottlenose dolphin 	No AEol	The Secretary of State agrees with the ExA [ER.C.4.3] that an AEol can be excluded for the features of this site, alone and in-

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Protected Site	Qualifying Feature	Secretary of State conclusion on AEol	Justification
			combination with other plans or projects. NatureScot did not raise any matters in relation to this site during Examination.
Scottish SPAs and Ramsar sites	<ul style="list-style-type: none"> All screened in qualifying sites/features (see Annex A). 	N/A	The Secretary of State agrees with the ExA [ER.C.4.3] that an AEol can be excluded for these sites, alone and in-combination with other plans or projects. NatureScot did not raise any matters in relation to these sites during Examination.

5.3 Offshore Ornithology

5.3.1 Flamborough and Filey Coast SPA

5.3.1.1 Kittiwake – In-Combination Collision Risk During Operation and Maintenance

The Applicant and NE [RR-045] agree that an AEoI can be ruled out alone. The Applicant predicted [REP6-028] that the total number of kittiwake subject to collision mortality per annum for Project alone collision risk would be 16 birds (15.5).

The RIAA [REP6-028] concluded that the Project would result in an AEoI on the FFC SPA Kittiwake qualifying feature due to collision risk during the operation and maintenance phase when considered in-combination with other plans and projects.

Regarding in-combination effects, the Applicant [REP6-028] provided two figures for its in-combination kittiwake collision mortalities, a 'worst case' and 'realistic case'. A 'worst-case' figure of 618.9 birds per annum was based on a worst-case scenario incorporating the mortality estimates for all relevant projects, including those identified by NE. This included consented projects and Tier 1d 'compensated projects' (such as Hornsea Three, Norfolk Boreas, Norfolk Vanguard, East Anglia One North, East Anglia Two, Hornsea Four and Sheringham Shoal and Dudgeon Extension Projects) and assumed the NE scenario for the Dogger Bank South Project which was still under examination. This modelling showed a predicted increase to the baseline mortality for the population of 4.761% across all bio-seasons per annum, when using a more recent 2017 colony count.

The Applicant's position is that the alternative scenario (the 'realistic case') excludes the mortalities attributed to consented and Tier 1d projects subject to compensation. This scenario predicted a combined mortality of 434.4 birds, which would lead to a 3.337% increase in baseline mortality, using more recent 2017 colony count.

As the increase in baseline mortality is above 1% for both the 'realistic case' and the 'worst-case' scenarios, the Applicant carried out further PVA analysis. This analysis is presented in the RIAA [REP6-028], which showed this increase in mortality would lead to a median counterfactual of the population size after 35 years as 0.993 for the Project alone, and 0.743 when considering all consented projects and the Tier 1d compensated projects, indicating that the population could decline from current levels. However, in the RIAA, the Applicant states that as these impacts will be compensated for, it considers they are no longer ecologically relevant to include in the in-combination total. Therefore, the Secretary of State understands that the worst-case scenario is the in-combination total including these projects, which represents a 0.8% reduction in annual population growth rate, as compared to 0.6% when excluding the compensated projects. The Secretary of State considers it may be appropriate to exclude the contributions of projects subject to compensation, if those projects' measures are proving successful in fully compensating for their predicted impacts. These two methods are for assessing in-combination effects and do not affect the predicted 15.5 bird mortalities from the Project alone.

NE [REP6-149] advises that an AEoI cannot be excluded in-combination for kittiwake. The ExA agrees with the Applicant's conclusions that an in-combination AEoI cannot be excluded on the

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Kittiwake qualifying feature. The Secretary of State acknowledges that the kittiwake population at the FFC SPA has shown a decline between 2017 and 2022, and that the current conservation objective of the site for kittiwake is to restore the size of the breeding population at a level which is above 83,700 breeding pairs, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent. Given the in-combination impacts that are predicted, the Secretary of State considers the Project could hinder the ability to meet the conservation objective of the site, and consequently an AEol cannot be excluded beyond reasonable scientific doubt when the Project is considered alongside other plans and projects. Whilst the Secretary of State recognises the individual contribution of the Project to the overall in-combination is modest, the current overall in-combination impact from the Project with other plans and projects is already over the threshold considered to be an AEol on the Kittiwake feature of the FFC SPA, which the impacts from the Project will contribute to. The Secretary of State concludes the impact on kittiwake which must be compensated for is 15.5 adult kittiwake per annum.

5.3.1.2 Guillemot – In-Combination Disturbance and Displacement During Operation and Maintenance

The Applicant's [REP6-028] predicted displacement consequent mortality alone, based on 50% displacement and 1% mortality, is 18.2 individuals per annum. This is the equivalent of a 0.358% increase of baseline mortality when considering the citation population or an increase of 0.199% when considering the recent colony count. This would be indistinguishable from natural fluctuations in the baseline mortality.

NE's preferred methodology includes the addition of a bespoke post-breeding bio-season and apportioning, and an assessment based on displacement of 70% and mortality of 2% [RR-045, REP66-149]. The Secretary of State, in line with SNCB and ExA advice and as adopted in previous consenting decisions for offshore wind farms, considers that displacement and mortality rates of 70% displacement and 2% mortality present an appropriate level of precaution in the assessment. The Secretary of State notes that this does not preclude the acceptance of alternative parameters in future decisions.

Using these parameters, the predicted alone impact is 248.69 guillemot per annum [REP6-028] [REP6-149] [C3-022], representing an increase of baseline mortality of 4.899% when considering the citation population or an increase of 2.718% when considering the recent colony count. As this exceeds 1%, additional PVA was undertaken. Using 70% displacement and 2% mortality rates, the Applicant calculated a reduction in annual population growth rate of 0.1%. NE calculate the same figure as 0.2%. The Applicant considers this to be indistinguishable from natural fluctuations in the population. Both NE [REP6-149] and the Applicant conclude that AEol alone can be excluded.

For in-combination impacts, using the Applicant's approach [REP6-028 paragraph 1766 - 1790], the number of guillemots predicted to be displaced from all relevant offshore wind farms, including the Project, is 69,522 individuals per annum across all bio-seasons. The predicted displacement mortality in-combination is 348 guillemot per annum, representing a 6.851% to 3.801% increase in baseline mortality of the citation population and most recent colony count respectively. The Applicant carried out further PVA, which predicts a reduction in annual population growth rate of 0.2%. The Applicant considers this to be indistinguishable against natural fluctuations in the population and that AEol can be excluded in-combination.

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NE advised that the Applicant use a 5% mortality rate when considering the impact from the Hornsea 4 offshore wind farm (“H4”), to account for the particularly high number of guillemot recorded in the H4 array area, and the proximity of the H4 array area to FFC SPA. The Applicant’s approach includes apportioning 50% of birds to FFC SPA, apportioning 57% as adults, using the bio-seasons described in Furness (2015)¹⁷, and makes an assessment based upon 50% displacement and 1% mortality. Using NE’s preferred approach, in the RIAA [REP6-028] the Applicant predicted that 112,954 individuals are at risk of displacement across all projects. At a displacement rate of 70% and a mortality rate of 2% for all projects and 5% for H4 this would lead to a potential mortality of 2,260 adults per annum. This level of impact results in an increase in baseline mortality of 44.52% relative to the citation population and 24.7% relative to the recent population count. The Applicant carried out further PVA, which predicts a reduction in annual population growth rate of 1.7%. At a displacement rate of 70% and mortality rate of 2% for all projects including H4, the predicted mortality is 1,580 per annum, with a reduction in population growth rate of 1.2%.

To ensure the site’s conservation objective of “maintain”, this would mean the colony would need to maintain a growth rate of 1.2% to 1.7% or higher over the next 35 years to avoid the population declining. NE stated that whilst the current growth rate is 4.5%, the long-term productivity trend is declining. NE also highlighted uncertainties with the level of Highly Pathogenic Avian Influenza (“HPAI”) to be experienced in the future and when considering the current and likely future growth rates and evidence in declines in productivity, an AEol could not be ruled out for this Project in-combination with other plans and projects.

The Applicant concluded [REP6-028] that even assuming the worst-case annual reduction of 1.7%, population growth would be slowed but would not cause the colony to go into decline and would be indistinguishable from natural fluctuations in population. The Applicant therefore concluded that there would be no AEol. It is the Applicant’s view [REP6-102] that the compounding effect of the addition of many levels of precaution, some of which address the same issue, will result in an over-precautionary position, and goes beyond the requirements of the Habitats Regulations.

The Secretary of State agrees with the ExA [ER C.4.168] and NE that an AEol for the Guillemot feature of the FFC SPA cannot be excluded beyond reasonable scientific doubt when the Project is considered in combination with other plans and projects. Whilst the Secretary of State recognises the individual contribution of the Project to the overall in-combination impact is highly variable depending on the methodology used, he considers the current overall in-combination impact from the Project with other plans and projects is beyond the threshold considered to result in an AEol on the Guillemot feature of the FFC SPA, which the impacts from the Project will contribute to. The Secretary of State concludes the impact on guillemot of the FFC SPA which must be compensated is 248.7 adult guillemot per annum.

¹⁷ Furness, R.W. (2015), 'Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS) Natural England Commissioned Reports, Number 164

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5.3.1.3 Razorbill – In-Combination disturbance and displacement effects during Operation and Maintenance

The Applicant provided an assessment which addressed the potential for AEol to the Guillemot qualifying feature resulting from disturbance and displacement during all phases of the Project [REP6-028]. Mortality was calculated using the Applicant's approach, and both NE's standard and bespoke approaches. The relevant conservation objective is to maintain the population size recorded in the 2022 census data.

For the operation and maintenance phase impacts, using the Applicant's methodology concluded an annual displacement mortality of 10.5 birds, representing an increase of 0.472% against the citation population and 0.163% against the most recent colony count [REP6-028].

Using NE's approach, the total predicted consequent mortality is calculated by the Applicant to be 35 using NE's preferred approach. The Applicant concluded an increase in baseline mortality of 0.535% for construction and decommissioning effects. For the operation and maintenance phase, using NE's approach, the Applicant concluded a total increase in baseline mortality of 3.106% (citation population) or 1.070% (recent colony count). This took account of NE's preferred approach [REP6-149] of apportioning 100% of identified adult birds to the FFC SPA.

Regarding in-combination effects, the Applicant calculated a total of 18,949 birds would be displaced from all OWF with a displacement mortality of 94.7 individuals [REP6-028]. This represented a 4.268% increase in baseline mortality of which the Project would contribute 10.5 mortalities. This annual in-combination increase of baseline mortality would be 0.163% against the more recent colony count. Based on these outputs, the Applicant concluded that the level of impact would be indistinguishable from natural population fluctuations and therefore, the Applicant concluded that an in-combination AEol could be excluded on razorbill.

Using NE's preferred methodology (including the higher rate assigned to H4 requested in [REP5-166]) and including Tier 1D projects required to compensate for their impact on razorbill, the Applicant and NE concluded an increase of 426.5 individual bird mortalities, or 19.214% increase in baseline mortality (citation population) or 6.621% (recent colony count).

The Secretary of State, in line with SNCB and ExA advice, and as adopted in previous consenting decisions for offshore wind farms, considers that displacement and mortality rates of 70% displacement and 2% mortality present an appropriate level of precaution in the assessment. The Secretary of State notes that this does not preclude the acceptance of alternative parameters in future decisions.

NE's final submitted conclusions for razorbill were based on its own recalculations and its own re-run PVA is set out in Table 7 [REP6-149]. This concluded a reduction in growth rate of 0.7% or 0.8% depending on the approach taken, with NE considering that the colony of razorbill at the FFC SPA would need to maintain a growth rate of 0.7% to 0.8% over the next 35 years in order to avoid the population declining. NE also noted that while the current growth rate was 6%, population trends at other razorbill colonies considered a population growth range of between 1 and 8% annually, noting other uncertainties such as the impact of HPAI and that productivity at colonies over the past 3 years had been the lowest on record since 2009.

The Secretary of State notes that the current growth rate is approximately 6% per annum [REP6-149] but understands NE's concerns that there is no certainty in how this may change in the next

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35 years in light of external pressures. As part of the H4 examination, NE reviewed population trends at other razorbill colonies in England and Scotland, concluding a range of plausible future growth rate scenarios for FFC SPA of between 1% and 8% per annum. Furthermore, NE interpreted that the research showed that there have also been indications of declines in productivity, with productivity over the last three years being the lowest recorded since monitoring began in 2009 [REP6-149].

NE [REP6-149] also referenced their advice given in the examinations for H4 and Sheringham and Dudgeon Offshore Wind Farm Extension about the sensitivity of razorbill to external factors. In the H4 examination, NE argued that razorbill are likely to be sensitive to climate change, extreme weather events, reductions in prey availability, and fishing pressure (mortality through bycatch). In relation to climate change and extreme weather events, NE pointed out that ‘wrecks’ (large numbers of dead birds on the shore) of auks, generally in the autumn and winter, have been recorded. This would suggest that weather is possibly inhibiting feeding or a lack of prey, which could be responsible for starvation. NE also noted that extreme weather conditions are forecast to become more frequent and, if occurring regularly year-on-year, breeding populations are likely to suffer.

In the Project Examination, NE [REP6-159] also advise that recent HPAI outbreaks have added further uncertainty to the potential long-term population status for razorbill at the FFC SPA. The Secretary of State notes that the 2022 FFC SPA Seabird Colony Count and Population Trends report¹⁸ states that during the count, it became apparent that small numbers of birds were demonstrating the symptoms of, and dying from, HPAI, but that the impacts were most evident in other species, such as Northern Gannet. The 2023 report¹⁹ suggested that limited mortality was observed in auks, and of the auks, most impacts were on guillemots as opposed to razorbill.

The ExA concluded that taking into account the discussions surrounding the approach to the methodology, and noting agreement with NE and the RSPB, it believed that an AEoI for razorbill in-combination could not be excluded beyond reasonable scientific doubt [ER.C.4.168].

While the Secretary of State acknowledges the conclusions of NE and the ExA that the in-combination impacts on the FFC SPA razorbill population have reached a level where an AEoI cannot be ruled out, he also notes the consistent positive population growth rate from both historic and recent colony counts (average of 6% annually), and the recent 2023 Seabird Count (Burnell *et al.*, 2023²⁰) which showed UK-wide razorbill numbers have increased by 18% since the last population count in 2000. He also notes that while the condition assessment of the features of the FFC SPA are marked as ‘Not Assessed’, the attribute ‘Breeding Population: Abundance’ has a target of ‘Maintain the size of the breeding population at a level which is above 10,570 breeding pairs whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent’. He considers that the long-term trends in population growth suggest that this target is being met.

¹⁸ [Birds and Wave & Tidal Stream Energy](#)

¹⁹ [Flamborough and Filey Coast SPA Seabird Monitoring Programme](#)

²⁰ Burnell, D., Perkins, A.J., Newton, S.F., Bolton, M., Tierney, T.D. & Dunn, T.E., 2023. *Seabirds Count: a census of breeding seabirds in Britain and Ireland (2015-2021)*. Lynx Nature Books, Barcelona.

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The Secretary of State considers that, based upon a 70% displacement rate and 2% mortality rate, the annual reduction in population growth rate would equate to 0.7-0.8%, which is a highly precautionary estimate and would not reverse the observed recent growth rates of the population. Using NE's [REP6-149] worst case future colony growth rate scenario of 1%, combined with the worst case 0.8% reduction in population growth rate potentially caused by this project in-combination with others, the Secretary of State considers that this would still not lead the overall population size to decrease below baseline levels.

The Secretary of State acknowledges the uncertainty surrounding the impact of future climatic, anthropogenic and disease pressures on UK seabird populations, but considers that concluding AEoI on this basis and without substantive evidence of longer-term implications of such pressures on the population in question, would be unreasonable.

Similarly, but to the contrary, there remains uncertainty surrounding the future beneficial impact of the removal of anthropogenic pressures, mainly the 2024 ban on commercial sand eel fishing in UK waters. Such uncertain and unquantified future impacts on population growth rates are considered by the Secretary of State in making his integrity judgement, but as no substantive evidence is provided in relation to the razorbill population in question, the Secretary of State does not consider that the level of in-combination disturbance/displacement mortality currently predicted would hinder the achievement of the conservation objectives for the Razorbill feature of the FFC SPA.

The Secretary of State, therefore, disagrees with NE and the ExA and concludes that an AEoI on the Razorbill feature of the FFC SPA from the Project, in-combination with other plans or projects, can be ruled out beyond reasonable scientific doubt. The Secretary of State notes that this is consistent with his conclusions on other recently consented offshore wind farms. In doing so, however, he notes that this decision does not preclude him from adopting an alternative conclusion in future decisions should new or different evidence be presented.

For the avoidance of doubt, the Secretary of State acknowledges the decision reached by the Scottish Government in the Berwick Bank offshore wind farm in relation to the Razorbill feature of the FFC SPA. However, he notes that this decision was reached based upon different assessment parameters to those he considers appropriate for the purposes of this particular HRA.

5.3.1.4 Seabird Assemblage

NE [REP5-172] advised that it is unable to rule out an AEoI regarding the seabird assemblage based on conclusions reached for individual species components of the assemblage (namely kittiwake, guillemot and razorbill) and in line with the conclusions reached for the H4 and Sheringham & Dudgeon Extension Projects Offshore Wind Farms.

However, NE also noted that it considered the in-combination impacts predicted by the Applicant would not result in any one species being lost to the assemblage, nor its diversity diminished. It further noted that species specific compensation for the relevant component species, once fully agreed, would also meet the required compensation for the seabird assemblage as a whole and no stand-alone compensation proposal is required [REP6-149].

The RSPB have stated that an AEoI cannot be ruled out for in-combination impacts to the Seabird Assemblage feature for the Project in-combination due to the estimated impacts to

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kittiwake, guillemot and razorbill that are also component species of the SPA on their own. The RSPB [REP5-160] also noted that with the declining population growth of puffin at the FFC SPA and the impact of other offshore wind farms, it could not rule out an in-combination AEol on the Seabird Assemblage feature.

NE [REP6-149] noted specifically that it considered that while the proposed development would “exert a degree of pressure” on the puffin population, the effect was not enough to trigger an adverse effect on the seabird assemblage as a whole. The Secretary of State agrees with NE on this matter.

The ExA concluded that as an in-combination AEol has been concluded for species which are also components of the seabird assemblage, it follows that an AEol cannot be ruled out for the Seabird Assemblage feature of the FFC SPA [ER C.4.168]. The Secretary of State agrees and concludes that an AEol cannot be excluded for impacts to the seabird assemblage of the FFC SPA. As this is specific to the kittiwake and guillemot components of the assemblage, he is content that no further compensation beyond what is agreed for these features is required.

5.3.2 Farne Islands SPA

5.3.2.1 Guillemot – Disturbance and Displacement

The Applicant concluded [REP6-028] that there would be no AEol on the Guillemot qualifying feature of the Farne Islands SPA and Seabird Assemblage qualifying feature (of which guillemot is a part). NE [REP5-172] agreed that an AEol from the Project alone at the site can be excluded. The RSPB agreed with NE that an AEol could not be excluded, however it believed this was due to the Project’s effect on the population growth rate [REP5-160]. The RSPB also stated disagreements on the methodology used to calculate the impact.

The Applicant presented both its own and NE’s preferred methodology in its RIAA [REP6-028]. Using the Applicant’s approach, based on a citation population of 65,751 breeding adults and an annual background mortality of 4,011 breeding adults per annum, the addition of less than 1 (0.8) predicted adult mortalities per annum would represent an increase in baseline mortality of 0.021%.

NE concluded [REP6-149] that using its bespoke methodology, the alone impact is predicted to be 2.23 mortalities per annum. NE agree that for all scenarios, the increase in baseline mortality does not exceed 1% and an AEol alone can be excluded.

As the population of guillemot has changed since the citation population count, the potential impact on the population is more reasonably assessed against the latest population count undertaken in 2023, consisting of 46,332 individuals and an annual background mortality of 2,826.3 individuals. On this basis, the level of predicted effect using the Applicant’s methodology would represent a 0.030% increase in baseline mortality in the non-breeding bio-season. Using the NE methodology [REP6-149], the predicted impact would result in a 0.08% increase in the baseline mortality. This level of impact is considered to make no material contribution to any changes in population or mortality as it would be indistinguishable from natural fluctuations in the population.

Regarding in-combination effects, the Applicant calculated a total of 15,418 birds would be displaced from all relevant OWFs with a displacement mortality of 77 birds [REP6-028]. This

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would represent an increase in baseline mortality of 1.92% against the citation population and a 2.73% increase against the more recent colony count. Using NE's preferred methodology [REP6-028] [REP6-149] based upon 70% displacement and 2% mortality, displacement mortality is 213 (213.4) birds per annum. This would represent an increase on baseline mortality of 5.319 % on the citation population and 7.549 % on the most recent 2023 colony count.

The Applicant undertook further PVA, which predict a reduction in population growth rate of 0.2% using its own methodology and 0.5% using NE's methodology.

NE [REP6-155] stated that although the contribution to in-combination impacts on the Farne Islands SPA from the Project is predicted to be small, it was not possible to rule out an AEol in-combination given the predicted effects of the Berwick Bank offshore wind farm and consideration of other offshore wind projects having an impact on the Farne Islands SPA as well, citing Rampion 2, Five Estuaries, North Falls and Dogger Bank South. NE have advised regulators that it cannot rule out an in-combination AEol on guillemot at the Farne Islands SPA due to the substantial impacts of the Berwick Bank offshore wind farm both alone and in-combination with other plans and projects. Furthermore, NE did not agree with the impact assessment carried out for Berwick Bank offshore wind farm and considered the estimated mortality from that project likely be an underestimate (meaning that the total in-combination mortality predicted for this Project of 213.4 mortalities per year would also be an underestimate). At the end of Examination, the Applicant maintained their position that an AEol could be excluded, stating that it considered the development's contribution to an in-combination effect "can be seen as immaterial" [REP6-115].

On this matter the ExA concluded that an AEol could be excluded for the Project alone, but that in light of NE's position in relation to the Berwick Bank offshore wind farm, an in-combination AEol cannot be excluded on the Guillemot qualifying feature of the Farne Islands SPA. The Secretary of State agrees with the ExA and NE that an AEol for the Guillemot feature of the Farne Islands SPA cannot be excluded beyond reasonable scientific doubt when the Project is considered alongside other plans and projects. The Secretary of State concludes the impact on guillemot of the Farne Islands SPA which must be compensated is 2.2 adult guillemot per annum.

The Secretary of State notes that, although the in-combination predicted reduction in annual growth rate of 0.5% is modest, over the last 20 years the Farne Islands SPA has shown an overall slight increase in population numbers, although a decrease in the last five years is evident and the population has shown fluctuations in numbers over the time period. He therefore considers the conservation objective to maintain the size of the breeding population at a level which is above 32,875 breeding pairs (65,750 breeding adults), whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent is at risk of being hindered.

5.4 Benthic Habitats

5.4.1 Inner Dowsing Race Bank and North Ridge SAC (“IDRBNR SAC”)

5.4.1.1 Cable installation, cable protection and the Secretary of State’s approach to the AA

The Project includes the installation of 4 x 390mm (external diameter) offshore export cables laid within the export cable corridor (“ECC”). The ECC will pass through the IDRBNR SAC (as shown on Figure) and will overlap with the Reefs feature. Specifically with the sub-feature subtidal biogenic reef: *Sabellaria spinulosa* (“*S. spinulosa* reef”) and supporting habitat for this sub-feature. It will also overlap with the Sandbanks Which are Slightly Covered by Seawater All the Time feature (“Sandbanks”). To protect the cables from damage due to threats such as fishing gear and anchor strike, cable protection measures are required. The Applicant’s preferred approach to cable protection, where practicable, is to bury the cables to a target depth of at least 1m. However, in some locations this may not be possible. For example, where the seabed comprises a thin layer of sediment over hard substrates/rock. In those instances, cable protection will be laid on the seabed. Where the ECC crosses existing active cables or pipelines, cable protection is normally required as burial cannot be achieved however, the ECC route through the IDRBNR SAC has been chosen to avoid other cables and to therefore mitigate cable protection requirements within the SAC.

The Applicant commissioned a cable burial risk assessment (“CBRA”) [APP-142] which includes a Burial Assessment Study to inform the likelihood of achieving cable burial and the worst-case scenario for cable protection requirements. Based on this assessment, the Applicant contends that burial is likely throughout the ECC, however, the Project also allows for the installation of cable protection as a contingency (i.e. if cable burial is not possible in certain locations). Within the IDRBNR SAC this includes cable protection for up to 5% and 20% of the cable length, across areas of sandbanks and supporting habitat for *S. spinulosa* reef respectively.

In areas of sandbanks, the Applicant has proposed using sandwave levelling to prepare the seabed for cable installation. NE contend [REP4-136] there is no evidence that this approach will ensure cables remain buried in areas of Sandbanks and that it does not negate the need for cable protection. NE also disputed [REP6-147; C1-007] the findings of the CBRA [APP-142] and the cable protection allowance in areas of supporting habitat for *S. spinulosa* reef. NE contend that the requirement could be much greater than the 20% allowed for by the Project. It highlights that no project-specific geotechnical data has been presented by the Applicant to inform the CBRA references similar projects (Norfolk Vanguard, Norfolk Boreas and Hornsea Project Three Offshore Wind Farms) which it considers offered a realistic worst-case scenario at the point of consent [C3-029]. NE confirmed that the purpose of its advice on this matter was also to highlight projects (e.g. Viking Link Interconnector and Triton Knoll Offshore Wind Farm) where developers had experienced challenges in cable installation that required additional cable protection. This was with the aim that the Applicant would further investigate cable burial risk and provide more evidence to support its conclusions on need for cable protection [C3-029].

The Secretary of State has reviewed the CBRA and notes that the Burial Assessment Study (“BAS”) includes the following limitations:

- The BAS has not taken into account seabed features, existing infrastructure, items of debris, or boulders which could affect burial operations and ultimately burial feasibility.

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- The BAS has not assessed the bearing capacity of soils along the routes for sufficient capacity to support burial tools. Some tools may not be feasible if sections of route have insufficient bearing capacity and appropriate mitigation measures cannot be implemented.
- The BAS has not reviewed seabed slopes along the routes in detail to determine the implications for burial tool stability. In sections where seabed slopes exceed tool tolerances burial may be unfeasible.
- The BAS is based on a target trench depth which has not been derived based on the RSBL, but instead based on the estimated mean crest height of mobile features. Therefore, the total lengths of route requiring seabed preparation, the minimum depths of seabed preparation, and the burial tool feasibility results are all subject to change following definition of the RSBL.

As such, he does not consider the CBRA can be relied on to support the Applicants conclusion that the target burial depth will be achieved throughout the ECC. The Secretary of State concludes that the Project could need to install cable protection within the ECC. In the second information request, he requested the Applicant explain its approach to calculating the 20% figure allowed for within the application. The Applicant explained that the worst-case scenario for cable protection on *s. spinulosa* reef was calculated using the following steps:

- Ground model units were delineated along the entire proposed cable route within the IDRBNR SAC;
- Each unit was assigned a percentage likelihood of requiring remedial protection measures, based on geotechnical conditions;
- Cables were then routed along the optimal corridor, as determined at the time of assessment;
- Cable lengths were mapped at a metre-scale to the corresponding ground model units. For each unit, the assigned worst-case likelihood percentage was applied to the total length of cable within that unit;
- The resulting values were aggregated to produce the total estimated length of cable requiring intervention, which formed the basis of the submission for examination.

The Secretary of State considers that whilst it would have been preferable for the worst-case scenario figures to be based on project-specific geotechnical data, the outlined steps do give some consideration to geotechnical conditions. Neither NE nor the Applicant provide specific detailed figures from other offshore or wind farm or cable installation examples in support of their respective positions.

The Secretary of State further recognises that, condition 21 of Part 2 of Schedule 11 to the Order requires that cable protection can only be laid within the IDRBNR SAC during the construction phase of the Project. Furthermore, if additional cable protection is required during construction (beyond that provided for in the DCO and relevant control documents) or during operation and maintenance, the Applicant will need to seek a variation or a separate marine licence to undertake those works. This would be subject to a separate HRA and as such there would be no regulatory gap. NE accepts this position is correct [C3-029]. The MMO states that its preference remains that the 20% figure is reviewed so that it is appropriate for the lifetime of the Project, however, it also accepts that if additional cable protection is required beyond the assessed WCS, this will need to be addressed through a deemed marine licence variation or a new licence application, supported by an updated HRA [C5-003].

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The Secretary of State concludes that, on the basis that any cable protection requirements above those set out in the application, would be subject to a new or amended marine licence application along with associated HRA (where applicable) he is content to accept the Applicants proposed figures. He notes that it is in the Applicants interest to present a realistic worst-case scenario as any subsequent applicant is subject to its own decision-making process and may or may not be granted. As such the Secretary of State agrees with the conclusions of the ExA [ER C.4.201] that the cable protection allowed for by the Project, within the IDRBNR SAC (i.e. 5% for Sandbanks and 20% for supporting habitat for *S. spinulosa* reef), offers a worst-case scenario against which he can undertake an AA of the impacts of the Project.

The Applicant has committed to the use of removable cable protection over features and supporting habitat of the IDRBNR SAC (secured within the Outline Scour Protection and Cable Protection Management Plan [C3-032] (“SPCPMP”) and the Outline Cable Specification and Installation Plan [C3-016] (“CSIP”). In the RIAA [REP6-028], the Applicant considers that any resulting loss of habitat will be temporary, assuming the cable protection will eventually be removed. However, the Project is long-term in nature (35 years operation and maintenance phase) and NE advise [RR-045] that, should certain benthic communities colonise the cable protection, removal at the decommissioning stage may be more damaging to benthic communities than retention in-situ. The Secretary of State therefore concludes it is appropriate, for the purposes of this assessment, to treat the placement of hard cable protection on sediment and biogenic reef habitats (i.e. *S. spinulosa* reef) as physical habitat loss through a change to a different seabed type.

The Secretary of State also notes that the information provided by the Applicant in the RIAA considers the impact of habitat loss and physical disturbance together for both *S. spinulosa* reef and sandbanks. NE advice in [REP5-172] is that “*the assessment of physical habitat loss needs to be considered separately from physical disturbance in considering LSE/AEoI on Annex I sandbanks as the receptors have different levels of sensitivity to each of these pressures*”. The Secretary has therefore considered the impacts of habitat loss and physical disturbance separately within his AA for sandbanks. For consistency he has also applied the same approach to *S. spinulosa* reef.

5.4.1.2 Sandbanks which are slightly covered by seawater all the time – physical disturbance

In advance of cable installation, the Project will undertake preparatory sandwave levelling/clearance across areas of Sandbanks. Boulder clearance will also be undertaken ahead of cable laying. Boulders will be moved from the cable route and placed elsewhere on the seabed. This will result in disturbance of the seabed where boulders are removed and deposited. However, there will be no net loss of benthic sediment habitat, as the loss at the deposit site will be offset by benthic habitat exposed at the boulders source. Disturbance from cable burial will fall within the combined footprint of boulder clearance and sandwave levelling activities.

These activities will result in abrasion and penetration of the seabed sediments from levelling and dredging, boulder clearance and replacement and burial using potential methods such as trenching, ploughing or jetting. Cable installation within the ECC is anticipated to take up to 24 months. The RIAA [REP6-028] sets out that within the IDRBNR SAC the maximum total area of sandbanks to be impacted is 4.63km² (1.2% of the feature).

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The benthic communities present within the Sandbanks feature are expected to be affected by this disturbance. However, based on the Marine Evidence-based Sensitivity Assessment ("MarESA"), the likely biotopes present across the Sandbanks feature are considered of low or medium sensitivity to this kind of disturbance (ES Chapter 9 [REP6-018]) with medium-high recoverability [REP6-028]. These biotopes are typical of high energy environments and are therefore naturally subject to, and tolerant of, high levels of physical disturbance. The recoverability of such communities is likely to occur through a combination of recruitment from surrounding, unaffected areas and larval dispersal.

Recovery is expected between one to ten years after disturbance (based on MarESA). Monitoring and evidence from the aggregates industry and other offshore wind farm projects indicate that effects are localised and recovery times of typical North Sea sandy sediment communities following extractive aggregates dredging are two to three years (ES Chapter 9 [REP6-018]).

Given the localised (confined to the final construction area within the ECC) and temporary (confined to the ECC construction period up to 24 months) nature of the disturbance, alongside the medium-high recoverability of benthic communities, the Secretary of State concludes that an AEoI of the site can be excluded for this feature and impact pathway, both alone and in combination with other plans and projects.

5.4.1.3 Sandbanks which are slightly covered by seawater all the time – changes to physical processes

Cable installation and protection

The RIAA explains that the process of sediment removal activities, including dredging and disposal, could theoretically introduce changes to local hydrodynamic and wave regimes, resulting in changes to the sediment transport pathways and associated effects on benthic ecology. However, for this Project sandwave levelling is not expected to create a barrier to sediment transport, with little to no anticipated impact on wave regimes.

Sandwave levelling and cable installation could lead to changes in physical process and result in indirect effects on Sandbanks e.g. lasting change to sandwave bedforms. However, the Applicant contends that Sandbanks will make a full recovery from sandwave levelling and to support recovery, dredged sediments will be returned to the SAC using precise disposal methods [C3-018 & C3-020].

The RIAA references a paper by Larsen *et al.*, (2019)²¹ which reported that monitoring of sandwave recovery following levelling at Race Bank Offshore Wind Farm demonstrated a 65% recovery in sandwave height after 303 days, and predicted a full recovery after three years. NE agree [RR-045] with the findings and advised that this study provides "*useful evidence from the Race Bank Offshore Windfarm (OWF) to indicate that complete natural regeneration of different types of dynamic sandbanks may be achieved within 3 years after levelling.*" NE further advise that "*Natural England's experience suggests that complete regeneration is likely to occur on*

²¹ Full reference not provided in either RIAA or [RR-045]

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dynamic sandbank systems... Therefore, we believe that there is a low risk of adverse effects arising due to the proposed sandwave levelling/sweeping by the ODOW projects”.

Despite the risk being low, NE also explains in [RR-045] that as no further monitoring was conducted beyond 303 days, there remains some uncertainty over the realised timeframes for full recovery. This position was reiterated throughout the Examination. For example, in [REP4-136] NE advised *“whilst we agree that theoretically larger morphological processes should enable the sandbank to recover, the impact is none the less significant and timescales for recovery remain unclear”* and provided advice on what it considered appropriate pre- and post-construction monitoring to address these uncertainties.

Due to the inherent uncertainties in recovery of bedforms and sediment transport, the ExA, in its report, was unable to rule out an AEoI of the Sandbanks feature of the IDRBNR SAC due to changes in physical processes, both alone and in-combination with other plans and projects [ER C.4.280].

To address this matter, the Secretary of State requested an updated monitoring commitment within the Offshore In-Principle Monitoring Plan (“IPMP”) in his first information request (paragraph 6). The Applicant incorporated this request, along with additional commitments to monitoring sandwave and sandbank recovery and undertaking adaptive management (if necessary), that it explains [C1-049] were based on further advice it had received directly from NE since the end of Examination. The updated IPMP [C6-009] commits to the following measures:

Pre-construction:

- Full seabed coverage swath-bathymetric and a side scan sonar survey to establish a baseline of the presence and characteristics of sandwaves within the area(s) within the Order limits in which it is proposed to carry out construction works;

Post- construction:

- Full seabed coverage swath-bathymetric and a side scan sonar survey to establish the change to/recovery of a representative sample of bedforms following sandwave clearance and cable installation activity;
- Further surveys at a frequency to be agreed with the MMO if data from the first post-construction survey does not indicate full recovery of bedforms following sandwave clearance and cable installation; and
- In the event that post-construction monitoring indicates that the installation of Project infrastructure results in a significant, long-term change to the distribution and extent of bedforms within the survey area the Applicant will develop and implement an adaptive management plan, approved by the MMO in consultation with NE, to reduce the effects to within those predicted within the ES and this HRA.

The additional monitoring commitments provide for longer-term monitoring of sandbanks if full recovery is not observed within the first year, and adaptive management if necessary. The Secretary of State considers that these measures are appropriately secured through condition 17 and 19 of Part 2 of Schedule 11 to the Order. As such, he considers, that this will sufficiently mitigate NE concerns regarding the residual uncertainty in sandbank recovery. He is content that when these measures are considered alongside the temporary nature of the impact and the expected recoverability of sandbanks, an AEoI of the site due to cable installation and protection

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can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects.

Offshore Reactive Compensation Platforms (“ORCPs”)

The ORCP area is located adjacent to IDRBNR SAC and at its closest point is approximately 500m from the Inner Dowsing Sandbank (the closest Sandbank of the IDRBNR SAC). There is evidence that the Sandbank is migrating westward toward the ORCP area at a rate of 100-490m to 170-840m over the initial (25 years) to extended (35 years) operation periods respectively.

Throughout examination there was ongoing disagreement regarding the potential impacts of the ORCPs on sandbanks within the IDRBNR SAC due to changes in physical processes (see [ER C.4.227-229]). At the close of examination NE advice [REP6-159] was that modelling data is required for the ORCP and IDRBNR SAC area to understand the scale and extent of the potential changes to the wave, tidal current and sediment transport regimes. Without this, NE could not rule out an AEol of the IDRBNR SAC (See [ER C.4.231]). In line with this, the ExA were unable to rule out an AEol of the IDRBNR SAC [ER C.4.270].

Following the first information request, the Applicant introduced additional mitigation to the Project by including an ORCP restriction area which creates a 500m buffer between the IDRBNR SAC boundary and the ORCP build area [C1-055]. This results in a separation of approximately 1000m between the Inner Dowsing Sandbank and the ORCP area, thereby mitigating the risk of interaction even at the highest predicted rate of movement (840m). The Applicant presents their detailed rationale for why an AEol of the IDRBNR SAC from impacts of the ORCP can be excluded in [C1-046]. In the IPMP [C6-009], the Applicant has also committed to monitoring the location of the western flank of the Inner Dowsing Sandbank and implementing adaptive management if a significant interaction is observed between the sandbank and the ORCPs.

NE advised [C1-007] that provided the above measures are secured, then an AEol of the site due to operation and maintenance of the ORCPs can be excluded for this feature and impact pathway. The Secretary of State is content these measures are secured by inclusion within the ORCP Design Principles Statement [C1-055] and through condition 13(1)(a)(ii) of Part 2 of Schedule 11 to the Order; and by inclusion within the IPMP [C6-009] and through condition 13(1)(c) of Part 2 of Schedule 11 to the Order. The Secretary of State therefore agrees with NE.

Overall conclusions

Based on the rationale set out above, the Secretary of State concludes that an AEol of the site can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects. This conclusion is in accordance with NE’s advice [C1-007] in response to the first information request.

5.4.1.4 Sandbanks which are slightly covered by seawater all the time – suspended sediment/deposition

Export cable preparation and installation is expected to result in temporary increases in suspended sediment concentrations (“SSC”) leading to increased deposition. This is expected from activities including seabed preparation, sediment disposal and the cable installation works. Temporary, intermittent and localised increases in SSC could potentially affect the benthic communities e.g. through lower light levels and increased siltation rates potentially leading to smothering.

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Seabed levelling, sandwave clearance and use of mass flow excavators can produce highly elevated SSC, however these concentrations will be spatially restricted (localised) and short-lived (temporary). The wider sediment plumes can travel up to 20km, however these will be low in SSC. It is expected that elevated SSC will subside and be indistinguishable from background levels within a day from the start of activities. Impacts will not be uniform and can be divided into three main zones of effect based on distance from the activity: 0-50m, 50-500m and 500m-tidal excursion buffer distance. Sediment deposition of up to 50mm is expected in the immediate vicinity of mass flow excavator activities with deposition rates declining with distance. Deposited sediments are expected to be distributed by tidal currents and integrated into the sediment transport regime.

The sandbanks are supplied by existing sediment transport from the north and benthic communities are expected to be relatively tolerant of temporary increases in sediment concentrations/deposition being considered of low vulnerability and medium to high recoverability [REP6-028]. Furthermore, deposited sediments will be of a type local to the impacted communities and are therefore not expected to result in any changes to the seabed type.

The Applicant concludes in the RIAA that based on this rationale, an AEoI of the site can be excluded for this feature and impact pathway. At the close of Examination, there was an outstanding disagreement between NE and the Applicant as the latter would not commit to the use of a fall pipe for sediment disposal. NE [REP6-155] noted this to be an outstanding HRA matter. Based on this outstanding matter the ExA concluded it was unable to exclude an AEoI of the IDRBNR SAC [C.4.277].

NE further advised [C1-007] that without the use of a fallpipe, or other precise method for disposal of dredged sediment, the Applicant's assessments may not have appropriately considered the duration of any sediment deposition, spatial extent and therefore significance, of likely impacts on the Sandbanks feature. NE also advised that securing mitigation measures would resolve its concerns and therefore an AEoI of the IDRBNR SAC could be excluded.

The Applicant included the following mitigation commitments as advised by NE [C1-007] in the CSIP [C3-016], Outline Biogenic Reef Mitigation Plan [C3-020] and Schedule of Mitigation[C3-018]:

- Any material dredged from within the IDRBNR SAC will be deposited back within the IDRBNR SAC; and
- If any dredging of sediment for sandwave clearance is required within the IDRBNR SAC, the material removed from the SAC will be placed within the offshore ECC, within the IDRBNR SAC via a sediment return methodology suitable to ensure that material is returned within the same sediment cell, upstream of the original dredge location, using a precise disposal method via discharge pipe(s), downpipe(s) or equivalent.

The Secretary of State is content that these mitigation measures will reduce the potential SSC and deposition associated with the disposal of dredged sediments whilst maintaining them in the sediment system, thereby reducing potential impacts on Sandbanks. He is also content that these measures are appropriately secured through the above control documents and condition 13(1)(e) and (j) of Part 2 of Schedule 11 to the Order. Subsequently, when the Secretary of State considers the evidence presented by the Applicant, including likely recoverability of benthic

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communities and that the secured mitigation will reduce the significance of these impacts, he considers that NE's concerns have been addressed in line with their advice in [C1-007]. As such, the Secretary of State concludes that an AEoI of the site can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects.

5.4.1.5 Sandbanks which are slightly covered by seawater all the time - physical habitat loss

As discussed in section 5.4.1, the Project allows for the installation of cable protection along 5% of the export cable length over Sandbanks in the IDRBNR SAC. This equates to a worst-case scenario of 5,760m² of cable protection (calculated based on 5% of the cable length crossing the feature and including a 20% allowance for installation accuracy) on sandbanks.

Cable protection over sandbanks within the SAC will be removable however, as also discussed in section 5.4.1, the Secretary of State considers that this should nonetheless be treated as permanent habitat loss. The feature condition is '*unfavourable/not assessed*' and habitat loss will contradict the target to '*restore*' the attribute '*extent and distribution*' of this feature. The Secretary of State therefore concludes that the Project is expected to hinder the conservation objectives of the site and agrees with ExA [ER C.4.275] and NE [C1-007] that an AEoI of IDRBNR SAC cannot be excluded alone due to habitat loss of sandbanks which are slightly cover by sea water all the time.

5.4.1.6 Reefs (Subtidal biogenic reef: *Sabellaria spinulosa*)

The Reefs feature of the site comprises the sub feature *S. spinulosa* reef. The Ross worm (*S. spinulosa*) builds tubes from sediment particles. Under favourable conditions *S. spinulosa* can aggregate to form reef. *S. spinulosa* reef is ephemeral in nature and suitable conditions have been recorded for most of the Outer Wash area. The feature condition has been assessed as unfavourable, with offshore wind farm developments and bottom towed fishing gears cited as key pressures.

S. spinulosa populations can be found in a variety of growth forms and 'reef' formation is not an obligate growth form. *S. spinulosa* populations are often present in numbers which are not sufficient to develop reef [REP3-067]. Gubbay (2007)²² presents parameters which can be used to help determine whether a growth form should be considered as reef.

The RIAA states that site specific ground-truthing surveys identified that encrusting *S. spinulosa* populations and patchy occurrences of potential *S. spinulosa* reef were prevalent across the array and offshore ECC areas. However, an analysis commissioned by the Applicant [APP-158] concluded that the *S. spinulosa* within the ECC within the IDRBNR SAC was 'not reef'. The Secretary of State notes repeated concerns, relating to aspects of the methodology and conclusions, were raised by both NE [ER C.4.170] and the MMO [ER C.4.174] during Examination. These concerns were largely resolved before the close of Examination in [ER C.4.172] and [ER C.4.174] respectively.

In addition to the potential for direct impacts to areas of *S. spinulosa* reef, NE advice during Examination was that any assessment should also consider impacts to supporting habitat for *S.*

²² Gubbay, S. (2007) Defining and managing Sabellaria spinulosa reefs: Report of an inter-agency workshop 1–2 May 2007. JNCC Report No. 405. Peterborough: Joint Nature Conservation Committee

spinulosa reef i.e. habitat within the IDRBNR SAC that is suitable for reef formation. This may include *S. spinulosa* communities that are not considered to form reefs (e.g. sparse/very patchy communities or those forming thin crusts) or areas of seabed with the potential to support *S. spinulosa* communities. The Applicant [REP5-145] and NE [REP6-153] agree the area of supporting habitat for *S. spinulosa* reef within the ECC within the IDRBNR SAC is 31.23km².

The Secretary of State recognises there was some disagreement over the approach to identification of *S. spinulosa* reef. He also notes that in line with CSIP [C3-018], outline Biogenic Reef Mitigation Plan [C3-020] and the outline Offshore In-Principle Monitoring Plan [C6-009], the Applicant will undertake detailed post-consent/pre-construction surveys to identify any occurrences of Annex 1 *S. spinulosa* reef within the ECC within IDRBNR SAC. Survey findings will be used to micro-site the cable route to avoid any areas of *S. spinulosa* reef. Subsequently, in agreement with the ExA [ER C.4.175], the Secretary of State considers the information provided to be sufficient to inform this AA.

5.4.1.7 Reefs – physical disturbance

Preparatory sandwave clearance/levelling activities will not be required on areas of *S. spinulosa* reef or supporting habitat and are therefore not considered within this section of this assessment. Boulder clearance and cable burial activities will overlap with supporting habitat for *S. spinulosa* reef, resulting in abrasion or penetration of the seabed. In the worst-case scenario this could affect an area of 853,344m² [C6-011].

Based on parameters in Gubbay (2007), *S. spinulosa* reef can be as little as 2cm thick. Surface abrasion can severely damage and/or remove a reef and whilst recoverability is expected to be high, where *S. spinulosa* occurs in high densities, a precautionary sensitivity assessment of high has been attributed to *S. spinulosa* reef by the Applicant in the RIAA. As discussed in section 5.4.1.6, the Applicant will undertake detailed post-consent/pre-construction surveys to identify *S. spinulosa* reef. Findings of these surveys will be used to micro-site boulder clearance and cable burial activities to avoid *S. spinulosa* reef and mitigate any potential direct impacts to this feature.

Disturbance from boulder clearance and cable burial is expected to lead to mortality of *S. spinulosa* in supporting habitat for *S. spinulosa* reef, which is directly impacted by abrasion and penetration. However, this supporting habitat is considered less sensitive to disturbance compared to *S. spinulosa* reef itself. For example, the biotope '*S. spinulosa* on stable circalittoral mixed sediment' is described as having a medium sensitivity to a disturbance of this nature. Areas of supporting habitat are also expected to have high recoverability. For example, *S. spinulosa* naturally occurs in high densities on subtidal gravels that would be expected to be disturbed every year or perhaps once every few years due to storms. Further, areas where *S. spinulosa* had been lost due to winter storms appeared to recolonize up to a maximum thickness of 2.4cm during the following summer. Further detail and supporting evidence is presented in paragraphs 141-142 of the RIAA.

These examples address natural disturbance events. High recoverability of *S. spinulosa* communities can also be expected following anthropogenic disturbance such as following

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aggregate dredging (Cooper *et al.*, 2007)²³. In addition, Foster-Smith and White (2001)²⁴ found *S. spinulosa* reef in areas of ground damaged by dredging action and hypothesise that exposed sediments are more suitable for colonisation by *S. spinulosa*.

Given that direct disturbance to areas of Annex 1 *S. spinulosa* reef will be avoided, the localised (confined to the construction area) and temporary (confined to the construction period) nature of the disturbance on supporting habitat, and the high recoverability of *S. spinulosa* communities, the Secretary of State concludes an AEol of the site can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects.

5.4.1.8 Reefs – changes to physical processes

In the RIAA, the Applicant concludes that AEol can be ruled out from this impact pathway for all features of the IDRBNR SAC. The ExA Report concludes that an AEol due to changes to changes in physical processes cannot be excluded for either sandbanks or reefs [C.4.280] however, the rationale for this conclusion [C.4.278-280] relates to impacts on sandbanks. NE's final deadline risk and issues log [REP6-154] indicates its advice on AEol from physical processes is in relation to sandbanks. In response to the Secretary of State's information requests the Applicant has made commitments to additional mitigation, monitoring and adaptive management related to potential impacts on physical processes. These are set out in Section 5.4.1.3 above. NE advised that provided the commitments are secured, "*Natural England would be content, should the decision maker choose to conclude, that the risk of an AEol on the IDRBNR SAC due to changes in physical processes be excluded*" [C1-007]. The Secretary of State considers these commitments are secured as set out in Section 5.4.1.3. In agreement with the Applicant and the latter advice from NE, he is content that an AEol of the site can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects.

5.4.1.9 Reefs – suspended sediment/deposition

The ExA concluded in its report that it was unable to exclude an AEol on reefs of the IDRBNR SAC and notes disagreement between the Applicant and NE in relation to the use of a fall pipe for sediment disposal within the IDRBNR SAC. The ExA also advised the Secretary of State that he may wish to clarify these matters [ER C.4.277].

The Secretary of State sought further information on this matter in the first information request. In response, the Applicant committed to additional mitigation measures within the IDRBNR SAC to reduce potential impacts to *S. spinulosa* reef. These measures are in line with advice from NE in [C1-007] (and then further updated in line with NE's further advice in response to the third information request [C3-002]). They are set out in the CSIP [C3-016], outline Biogenic Reef Mitigation Plan [C3-020] and Schedule of Mitigation [C3-018]. Measures are secured through condition 13(1)(d) and (j) of Part 2 of Schedule 11 to the Order. Relevant mitigation includes:

²³ Cooper, K., Boyd, S., Eggleton, J., Limpenny, D., Rees, H., Vanstaen, K. (2007). Recovery of the seabed following marine aggregate dredging on the Hastings Shingle Bank off the southeast coast of England. *Estuarine, Coastal and Shelf Science*. 75. 547-558. 10.1016/j.ecss.2007.06.004

²⁴ Foster-Smith, R.L, White, W.H. (2001) 'Sabellaria spinulosa reef in the Wash and North Norfolk Coast cSAC and its approaches: Part I, mapping techniques and ecological assessment'. A report for the Eastern Sea Fisheries Joint Committee and English Nature, 545: 52

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- As part of the routeing design, a working separation distance (50m buffer) will be maintained from Annex I *Sabellaria spinulosa* Reef features to limit the potential for impacts to arise from direct damage/ sediment deposition; and
- If any dredging of sediment for sandwave clearance is required within the IDRBNR SAC, the material removed from the IDRBNR SAC will be placed within the offshore ECC, within the IDRBNR SAC via a sediment return methodology suitable to ensure that material is returned within the same sediment cell, upstream of the original dredge location, using a precise disposal method via discharge pipe(s), downpipe(s) or equivalent.

The expected risks and impacts related to increased SSC and deposition are set out in section 5.4.1.4. In particular, the greatest increases in SSC and deposition are expected within 50m of cable preparation and installation activities. This will be a temporary disturbance as the time of construction. The use of a 50m working separation distance and targeted sediment disposal will mitigate the worst of the potential impacts to *S. spinulosa* reef. Beyond those impacts, *S. spinulosa* are often found in turbid conditions, are tolerant to high SSC and deposition and have high recoverability from burial events. Further detail and supporting evidence is presented in paragraphs 1583-1584 of the RIAA. This tolerance for SSC and recoverability from deposition, along with the temporary nature of construction works, suggest that impacts on *S. spinulosa* reef will be temporary. Deposition impacts to wider supporting habitats will also be temporary. Deposited sediments are expected to comprise similar sediment types to the underlying seabed. Subsequently, no lasting changes are expected to the sediments comprising these supporting habitats.

In agreement with NE [C1-007] the Secretary of State therefore concludes that with the secured mitigation measures, an AEol of the site can be excluded for this feature and impact pathway, both alone and in-combination with other plans and projects.

5.4.1.10 Reefs - Physical habitat loss

As discussed in section 5.4.1.6, the cable route will be designed to avoid areas of *S. spinulosa* reef based on post-consent surveys. Subsequently no cable protection will be required on areas of *S. spinulosa* reef and therefore the Project will not result in direct loss of *S. spinulosa* reef within the IDRBNR SAC.

Routing will however pass through supporting habitat for *S. spinulosa* reef within the IDRBNR SAC. The Project allows for the installation of cable protection along 20% of the cable route through supporting habitat within the IDRBNR SAC. This equates to a worst-case scenario of 95,407.2m² of cable protection (as presented in the CSIP [C3-016]).

Cable protection over supporting habitat for *S. spinulosa* reef within the SAC will be removable, however, as discussed in section 5.4.1, the Secretary of State considers that this should nonetheless be treated as permanent habitat loss. The feature condition is assessed as 'unfavourable' with a target to 'restore the total extent, spatial distribution and types of reef (and each of its sub-features)' for the attribute 'extent and distribution' of this feature. The Secretary of State therefore considers the Project could hinder the conservation objectives of the site and agrees with the ExA [ER C.4.275] and NE [C3-002], that an AEol of IDRBNR SAC alone cannot be excluded due to loss of supporting habitat for *S. spinulosa* reef.

5.4.2 The Wash and North Norfolk Coast SAC

5.4.2.1 Reefs and Sandbanks which are slightly covered by seawater all the time – Changes to physical processes

The offshore export cables will make landfall at Wolla Bank Beach. Landfall will be achieved through Horizontal Directional Drilling (“HDD”). The HDD receiver offshore submarine exit pits will be located at least 500m seaward of mean low water springs. Cable protection may be required at the exit pits or seaward of this point. At the landfall site, there is a southward direction of sediment transport in the nearshore environment.

Section 7.13 of ES Chapter 7 [REP4a-142] sets out other projects, which include landfall works near to Wolla Bank, and explores the potential for cumulative impacts on physical process. NE advised [REP5-172] that, in-combination with other plans and projects, cable protection in shallow nearshore water could alter the nearshore hydrodynamic regime or sediment transport pathways which, in turn, could affect Annex I benthic and/or coastal ecological receptors of the Lincolnshire Coast designated sites and The Wash.

To mitigate this potential issue the Applicant has committed to the use of removable concrete mattresses, not exceeding 0.35m in height, for nearshore cable protection. This is secured through the SPCPMP [C3-033] and the CSIP [C3-016]. In addition, the IPMP [C6-009] states that the Applicant will also monitor for impacts to coastal processes and will implement adaptive management measures, if required.

NE advised [C1-007] that with these mitigation measure in place, an AEoI of the site can be excluded for these features and this impact pathway, alone and in-combination with other plans or projects. The Secretary of State is content these measures are secured and agrees with this conclusion.

5.5 Appropriate Assessment conclusion

As the competent authority under the Habitats Regulations for this application under the Planning Act 2008, the Secretary of State has undertaken an AA in respect of the conservation objectives of fifty one protected sites to determine whether the Project, either alone or in-combination with other plans or projects, will result in an AEoI.

The Secretary of State has carefully considered all the information available to him, including the recommendations of the ExA, the advice of NE as the SNCB, the views of all other IPs, and the Applicant’s case. The full consideration of his reasoning can be found in Table 5.2 of this HRA.

The Secretary of State is satisfied that, given the relative scale and magnitude of the identified effects on the qualifying features of the protected sites and, where relevant, the measures secured in the DCO and DMLs to avoid or reduce potential adverse effects, there would not be any implications for the achievement of site conservation objectives and therefore adverse effects on the integrity of the following protected sites can be excluded:

- Alde-Ore Estuary Ramsar;
- Alde-Ore Estuary SPA;

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- Berwickshire and North Northumberland Coast SAC;
- Coquet Island SPA;
- Gibraltar Point Ramsar;
- Gibraltar Point SPA;
- Greater Wash SPA;
- Humber Estuary Ramsar;
- Humber Estuary SAC;
- Humber Estuary SPA;
- Moray Firth SAC;
- North Norfolk Coast Ramsar;
- North Norfolk Coast SPA;
- North Norfolk Sandbanks and Saturn Reed SAC;
- Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC;
- Scottish SPAs;
- South North Sea SAC;
- The Wash and North Norfolk Coast SAC;
- The Wash Ramsar; and
- The Wash SPA.

For the reasons given above in Section 5.3.1.3 of this HRA, the Secretary of State disagrees with NE and the ExA on their conclusions for the Razorbill feature of the Flamborough and Filey Coast SPA. For this feature he concludes that an AEol for in-combination displacement and disturbance effects can be excluded beyond reasonable scientific doubt.

The Secretary of State agrees with the ExA [ER.C.4.362] and NE [REP6-147] [REP6-149] that an AEol cannot be excluded beyond reasonable scientific doubt for the following protected sites and features:

- Inner Dowsing Race Bank and North Ridge SAC – Sandbanks that are slightly covered by seawater all the time;
- Inner Dowsing Race Bank and North Ridge SAC – Reefs;
- Flamborough and Filey Coast SPA - Guillemot (and as a component of the seabird assemblage qualifying feature); and
- Farne Islands SPA – Guillemot (and as a component of the Seabird Assemblage qualifying feature).

Additionally, the Secretary of State agrees with the Applicant [APP-250], ExA [ER.C.4.168], and NE [REP6-149] that an AEol cannot be excluded beyond reasonable scientific doubt for:

- Kittiwake at the Flamborough and Filey Coast SPA for collision mortality (and as a component of the Seabird Assemblage qualifying feature).

The Secretary of State has not identified any further mitigation measures that could reasonably be imposed which would avoid or mitigate the potential AEol identified and has therefore

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proceeded to consider the derogation provisions of the Habitats Regulations, as presented in Sections 6 to 9 below.

6 Consideration of case for derogation

Based on the AA, the Secretary of State cannot conclude, beyond all reasonable scientific doubt, the absence of an adverse effect from the Project in-combination with other plans or projects on the integrity of the IDRBNR SAC, FFC SPA and the Farne Islands SPA.. The Secretary of State has therefore decided to review the Project in the context of Regulations 64 and 68 of the Habitats Regulations and Regulations 29 and 36 of the Offshore Habitats Regulations to determine whether the Project can be consented. A reference to Regulation 64 and 68 of the Habitats Regulations is a reference to Regulations 29 and 36 of the Offshore Habitats Regulations, unless expressly provided to the contrary

Regulation 64 allows for the consenting of a project that is required for imperative reasons of overriding public interest (“IROPI”), even though it would cause a AEoI of a protected site. Consent may only be given where no alternative solutions to the Project are available which are less damaging to the affected protected site and where Regulation 68 is satisfied. Regulation 68 requires the appropriate authority to secure any necessary compensatory measures to ensure that the overall coherence of the NSN is protected. The Secretary of State’s consideration of information provided to inform these further tests is presented in subsequent sections of this HRA alongside his conclusions.

This part of the HRA has followed a sequential process whereby:

- alternative solutions to the Project have been considered;
- consideration has been given to whether there are IROPI for the Project to proceed; and
- compensatory measures proposed by the Applicant for ensuring that the overall coherence of the NSN is protected have been assessed.

7 Consideration of alternative solutions

The Applicant [REP6-036] identified the following primary objectives of the Project:

- To generate low carbon electricity from an offshore wind farm to support the urgent need for decarbonisation of the UK electricity supply; and
- To export electricity to the UK National Grid to support UK urgent commitments for offshore wind generation and security of supply.

The Applicant [REP6-036] also set out seven specific objectives of the Project: which are copied below:

- **Urgent decarbonisation** - The Project seeks to develop a large-scale offshore wind farm to generate around 1.5 GW of low carbon electricity to support decarbonisation of the UK electricity supply.
- **Energy security** - The Project will assist in meeting the UK's energy security needs by bringing around 1.5 GW of low carbon electricity online, thus reducing dependence on imported oil and gas.
- **Exporting offshore wind-generated electricity to the national grid** - The Project will harness offshore wind to export electricity to the UK National Grid, supporting UK commitments for offshore wind generation and security of supply.
- **Harness grid connection opportunity to meet 2030 targets** - The Project will take advantage of an early Grid connection to make a significant contribution to the volume of electricity required to meet the UK Government's 2030 offshore wind capacity target.
- **Optimisation** - The Project will optimise generation and export capacity within the constraints of available sites and onshore transmission infrastructure.
- **Consumer costs** - Provide low-cost energy to UK consumers.
- **Local benefit** - Help create a positive legacy for Lincolnshire, facilitating socio-economic enhancement, including encouraging locals and businesses to realise the benefits of the investment associated with the Project."

The Applicant provided an assessment of any feasible alternative solutions to the Project [REP6-036, Section 3.5]. In the assessment, the Applicant stated that it was prepared in accordance with a range of guidance published by Defra and the European Commission.

The Secretary of State has considered the two primary objectives and seven specific objectives set out by the Project and has considered whether these objectives could be met by any feasible alternative solutions with a lesser impact on protected sites. In his consideration of alternatives, the Secretary of State has not constrained himself solely to those alternatives that could be delivered by the Applicant. Nevertheless, the Secretary of State acknowledges that any alternative must be economically feasible for the developer and allow the developer to fulfil the terms of its lease with The Crown Estate ("TCE"). Alternatives to the Project considered by the Secretary of State are limited either to 'do nothing' or to alternative types of offshore wind farm projects.

Alternative types of offshore wind farm projects considered are:

- Offshore wind farms not in the UK Exclusive Economic Zone ("EEZ");

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- Offshore wind farms within the UK EEZ that do not include the Project; and
- Feasible alternative design parameters of the Project.

7.1 'Do Nothing'

The 'do nothing' option is dismissed by the Applicant on the basis that this approach would not deliver any of the objectives of the Project or meet any of the identified needs.

Not developing the Project would result in approximately 1.5 GW of low carbon electricity being lost from the current pipeline of UK projects contrary to the requirement of urgent deployment of offshore wind and delivery of decarbonisation and energy security. Not developing the Project would be contrary to each of its objectives and to the UK Government policy underpinning them which includes:

- The urgent need for deployment of offshore wind (NPSs EN-1 and EN-3);
- The requirement for energy security outlined in the British Energy Security Strategy²⁵, Powering Up Britain²⁶ and CES; and
- Meeting the UK's Climate Act 2008 Net Zero target²⁷ and the 2030 ambition for 43-50 GW of offshore wind²⁸.

There is the possibility that alternatives to new electricity infrastructure, such as reduction of total demand through efficiency measures, could make the "do nothing" option more feasible. However, as set out in NPS EN-1, the UK Government has considered the possible alternatives to the need for new large-scale electricity infrastructure and believes that it "is prudent to plan on a conservative basis to ensure that there is sufficient supply of electricity to meet demand across a wide range of future scenarios" (paragraph 3.3.10). The UK Government therefore considers that reduction in demand is not a possible alternative to new electricity infrastructure.

The Secretary of State agrees that a compelling need in the public interest for the Project is clearly established and the 'do nothing' option is not a feasible alternative solution as it would fail to meet any of the aims and objectives of the Project in meeting such compelling need.

7.2 Offshore wind farms within the UK

Within the UK, all offshore wind farms are required to secure an Agreement for Lease from TCE or Crown Estate Scotland ("CES"). TCE / CES identify suitable locations for offshore wind through leasing rounds informed by HRA and Strategic Environmental Assessment. The

²⁵ [British energy security strategy - GOV.UK](#)

²⁶ [Powering Up Britain - Joint Overview](#)

²⁷ [Climate Change Act 2008](#)

²⁸ [Clean Power 2030: Action Plan: A new era of clean electricity](#)

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Applicant considers that this precludes the use of sites which have not been identified through the leasing rounds.

The Secretary of State agrees that sites not within the areas identified by TCE and CES leasing process or outside of that which the Applicant has secured are not legally available and therefore do not represent alternative locations.

The specific location of the protected sites and features may mean that an alternative leasing round site could present less potential for impacts. However, other offshore wind projects within TCE and CES leasing rounds do not provide feasible alternatives to the Project because:

- sites outside of what the Applicant has secured are not legally available and hence are not considered alternatives; and
- the Project is considered Critical National Priority infrastructure under national policy. The need for urgent deployment of significant amounts of such infrastructure is established, with no limits placed on the number of consents which may be granted. In these circumstances it is not considered that potential plans or projects in different locations could be treated as alternative solutions to the Project, especially given the inherent uncertainty in the offshore wind pipeline.

The Applicant predicts that even if all of the current energy infrastructure (i) with Contracts for Difference awarded / in construction; or (ii) with consent are brought forward and become operational before or during 2030, this still leaves a capacity gap of between 5 – 12 GW to meet the 43 – 50 GW target that is set out in the Clean Power 2030 Action Plan²⁹. As set out above, the Applicant's grid connection and Project timeline enables it to be online in the course of 2030, likely making it one of the last projects to contribute towards the Clean Energy 2030 Action Plan target (relevant to Objective 4). On that basis, all projects capable of contributing to the policy targets and which meet statutory requirements require to be brought forward. There is no certainty that unconsented projects within the above pipeline will result in extra capacity being added to the current operational offshore wind capacity, within the same timeframe as the Project given the uncertainty related to the planning process, grid connection, and delivery timelines, as set out in Clean Power 2030 Action Plan.

Moreover, the consideration of alternatives is premised on the possibility that the alternative would lead to less harm to the integrity of the NSN. The scale of offshore wind deployment and the nature of the TCE and CES lease areas is such that it cannot be assumed that alternatives within leasing rounds would result in less harm to protected sites.

The Secretary of State agrees that the use of alternative locations does not present an alternative solution as all available projects are required in order to meet UK 2030 targets for renewable energy and would fail to meet the aims and objectives of this Project.

²⁹ [Clean Power 2030 Action Plan: A new era of clean electricity – main report - GOV.UK](#)

7.3 Offshore wind farms not in UK EEZ

The Secretary of State considers that offshore wind farm projects which are located outside of UK territorial waters are not an alternative to the Project, as they would not meet the objective to support decarbonisation and security of the UK's energy supply.

Although the UK is party to international treaties and conventions in relation to climate change and renewable energy, according to the principle of subsidiarity and its legally binding commitments under those treaties and conventions, the UK has its own specific legal obligations and targets in relation to carbon emission reductions and renewable energy generation. International and EU countries similarly have their own (different) binding targets and sites outside of the UK EEZ are therefore required for other countries to achieve their own respective targets in respect of climate change and renewable energy.

7.4 Alternative designs

Other potential alternative solutions reviewed by the Applicant relate to the design and operation of the Project.

The Applicant [REP6-036] considered design, route, scale, method and timing alternatives. Alternatives relating to potential effects on the FFC SPA and the Farne Islands SPA considered were:

- reducing the numbers of WTGs;
- reducing the 'air gap' between the minimum sea level and low tip blade height;
- more condensed site layout of WTGs; and
- seasonal or timing restrictions on WTG operation.

Alternatives design measures for IDRBNR SAC considered:

- alternative cable corridors between the array area and grid connection point;
- proceeding without cable protection, reducing cable infrastructure and High Voltage Direct Current ("HVDC") use;
- alternative forms of cable protection; and
- alternative timing.

Alterations to the Project to reduce the risk of AEol of relevant protected sites have been a consideration through the Project's iterative design process. Reduction of the risk and/or magnitude of AEol will continue to be an important factor in the Applicant's approach in future project stages such as when discharging marine licence conditions and DCO requirements. The Applicant [REP6-036] describes each alternative and concludes that each of the alternatives are not feasible or do not meet the Project's objectives and therefore do not constitute alternative solutions as defined by relevant legislation and guidance.

For example, the most obvious way to alter the scale and design of the Project would be to reduce the number of WTGs, currently at a maximum of 100. A lesser number of WTGs would decrease collision risk for the Kittiwake feature of the FCC SPA and may decrease displacement

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risk for relevant auk species in the FFC SPA and Farne Islands SPA. The Project has considered the number of WTGs during the design process. Following a supply chain review, and to ensure the Project remains deliverable, the maximum number of WTGs was increased from 93 to 100 so that the maximum design scenario incorporates the size and scale of WTGs expected to be available to the Project.

To fulfil the Project's objectives (specifically Objective 6 which seeks to reduce consumer cost) a maximum design scenario including a 100-turbine option is required to be included to ensure deliverability of the Project at the target capacity, and to allow procurement involving the maximum number of suppliers to stimulate competition and the most competitive procurement process. The result of which the Project believes will be a reduced price for consumers.

Committing to a reduction in WTGs and hence removing the 100-turbine "smaller" WTG option, may require delay to allow supply chain certainty that higher capacity WTGs would be available (which at present is not clear). Doing so would risk delivery of the Project's Objective 4 relating to delivery to meet 2030 targets and would delay and / or undermine the ability to contribute towards Objectives 1, 2, 3, 5, and 6. Should higher capacity WTGs be available in the future, a "larger" WTG option featuring only 50 WTGs may be used instead. However, the maximum design scenario requires to include a "smaller" WTG option based on the current market.

Another key alternative considered is increasing the "air gap" between sea level and the minimum tip height of the WTGs which could reduce the scope for bird collisions, thus potentially decreasing the potential AEol on the Kittiwake feature of the FFC SPA. The air gap between minimum sea level ("MSL") and the lower tip blade height is required to be at least 22m in accordance with the Maritime and Coastguard Agency's Marine Guidance Note 654³⁰. The Project made an early commitment to a minimum air gap of 40m, beyond the minimum requirement, to balance potential AEol on ornithology features and achieving technical feasibility. Doing so results in the rotor area occupying space with lower densities of sea birds thus reducing collision risk. Increasing the minimum air gap any further is reliant on the availability of a small number of vessels capable of installing at the hub heights which would result from a greater minimum tip height. The current minimum tip height is therefore considered the maximum technically feasible in the circumstances.

Though the offshore wind industry and the associated technology is rapidly growing and developing, the Applicant is of the view that there is not a sufficient certainty of a supply chain to support a commitment to the design parameters associated with an air gap of greater than 40m MSL (supply chain constraints and uncertainties include tower suppliers and WTG installation vessels capable of lifting blades to the heights required). In order to ensure the ability to complete its objectives – including Objective 4 which relates to the contribution towards ambitious 2030 targets and Objective 1 which relates to contributing towards urgent decarbonisation – the Project must be confident that the supply chain can provide such vessels, operating safely, to carry out the work in a timeline which meets the Project's own timelines and therefore, objectives. Because there is no guarantee of an increased availability of the required vessels, to adopt this alternative would require the Project to risk the deliverability in line with the 2030 targets and

³⁰https://assets.publishing.service.gov.uk/media/60b0c1138fa8f54895ddc52b/MGN_654_Annex_6_MGN_Checklist.docx

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resultant objectives. The current supply chain is such that the Applicant does not believe that committing to greater tip height would be technically feasible.

Table 3-12 of [REP6-032] summarises all other alternatives considered and reasons they do not constitute feasible alternative solutions. The Secretary of State agrees that none of the alternative designs, which have not already been adopted to reduce effects on protected sites, would constitute feasible alternative solutions as they would fail to meet the aims and objectives of this Project.

7.5 Conclusion

The ExA [ER C.5.21] concludes that a compelling need for the project has been established and that the 'do nothing' option is not a feasible alternative. The ExA is satisfied that no alternative locations or sites exist for the Project that would present a feasible alternative solution. The ExA is satisfied that no alternative design parameters are known to be implementable that would present a feasible alternative solution. The ExA considers that the alternatives assessed would not constitute an alternative solution to the meet the objectives of the Project. The ExA is satisfied that no alternative solutions exist which would deliver appreciable benefits in terms of limiting adverse effects on protected sites.

Following a review of the information submitted by the Applicant, the recommendation of the ExA, and having identified the objectives of the Project and considered all alternative solutions to fulfil these objectives, the Secretary of State is satisfied that there are no feasible alternative solutions to meeting the Project objectives with an appreciable reduction in predicted impacts on protected sites.

The Secretary of State has considered alternative forms of energy generation in the context of the alternative solutions test and is satisfied that, in line with the 2021 joint guidance³¹, alternative forms of electricity generation would not meet the objectives of the Project. Furthermore, other offshore wind farm proposals do not present an alternative solution, as all available offshore wind projects are required to meet UK targets for renewable energy. In his consideration of alternatives, the Secretary of State has not constrained himself solely to those alternatives that could be delivered by the Applicant. Nevertheless, the Secretary of State acknowledges that any alternative must be economically feasible for the developer and allow the developer to fulfil the terms of its lease with TCE.

The Secretary of State notes that this conclusion does not preclude further design refinements being made following the completion of further site investigations in the post-decision stage.

³¹ [Habitats regulations assessments: protecting a European site - GOV.UK](#)

8 Imperative Reasons of Overriding Public Interest

Regulation 64 of the HRA derogation provisions provide that a project having an AEol on a protected site may proceed (subject to a positive conclusion on alternatives and the provision of any necessary compensation) if there are IROPI. This section of the HRA determines whether there are IROPI for the Project to proceed.

The parameters of IROPI are explored in relevant guidance, including the 2021 joint guidance³² and the European Commission guidance (2018), which identify the following principles:

- **Imperative** – urgent and important. There would usually be urgency to the objective(s), and it must be considered “indispensable” or “essential”. In practical items, this can be evidenced where the objective falls within a framework for one or more of the following:
 - (i) actions or policies aiming to protect fundamental values for citizens’ life (health, safety, environment);
 - (ii) fundamental policies for the State and the Society; or
 - (iii) activities of an economic or social nature, fulfilling specific obligations of public service.
- **Public Interest:** The interest must be a public rather than a solely private interest (although a private interest can coincide with delivery of a public objective).
- **Long-Term:** The interest would generally be long-term; short-term interests are unlikely to be regarded as overriding because the conservation objectives of protected sites are long-term interests.
- **Overriding:** The imperative need in the public interest of the development must outweigh the harm, or risk of harm, to the integrity of the protected site which is predicted by the AA.

The HRA derogations identify certain in-principle grounds of IROPI that may be advanced in favour of such a project. Where the site concerned hosts a priority natural habitat or a priority species, grounds for IROPI should include human health, public safety, or beneficial consequences of primary importance to the environment but otherwise may also be of a social or economic nature, in accordance with Defra’s guidance. The Applicant’s derogation case [REP6-036, Section 4] confirms that the identified affected features are not priority features and therefore the case presented for IROPI includes consideration of social and economic benefits.

The Applicant’s case for the imperative and overriding need for the Project is presented in [REP6-036, Section 4] and premised on the following points (in summary):

- **Imperative:**
 - The Project would directly contribute to the imperative and urgent need to decarbonise electricity generation and protect fundamental values for citizens’ life. Government policy reflects the urgency required to address the ‘climate emergency’, namely the NPSs (see Section 8.1). Reducing greenhouse gas emissions and

³² [Habitats regulations assessments: protecting a European site - GOV.UK](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/94444/Habitats_regulations_assessments_protecting_a_European_site_-_GOV.UK.pdf)

limiting climate change is fundamental to the protection of the environment, including the changes affecting terrestrial and marine ecosystems, coastal process and climate, water resources and flood risk, and food security. Such effects are also directly and indirectly linked to human health and safety.

- The Project would be a key component of achieving fundamental policy and legally binding commitments of the UK. It would contribute an estimated 1.5 GW of renewable energy capacity to the UK's efforts against climate change.
- The Project is an economic activity which would fulfil specific objectives of public service by assisting in addressing the issue of energy security for UK consumers, highlighted by the UK Government as a key driver for the need for the growth of renewable energy. The Clean Power 2030 Action Plan states that, among other things, increasing offshore wind capacity to 43 – 50GW by 2030 is necessary to “build [...] an energy system that is affordable for the long term”. It highlights that “since Russia's invasion of Ukraine, Britain has experienced a devastating cost of living crisis caused by our exposure to volatile fossil fuel markets” where “every family and business in the country has paid the price”. It makes clear that the “[energy] transition is the only way to protect businesses and families for good from increased energy bills resulting from volatile global gas markets”. Among its aims is a long-term reduction in energy bills for the consumer – a key public service obligation which the Project would help to deliver by contributing towards meeting UK Government offshore wind and net zero targets.

- **Long term public interest:**

- The Project is a major project which will contribute to tackling a key domestic and international policy challenge and responding to key UK Government targets and obligations on tackling climate challenge.
- The Project would respond to the combined drivers of the need to increase energy security, reduce Greenhouse Gas (“GHG”) emissions and, consequently, increase offshore wind capacity. In this respect, the Project is contributing towards Government-pursued objectives of increased electricity supply in the public interest.
- The Project is expected to have socioeconomic benefits, including generating 1,200 UK jobs at its peak.
- The Project would generate electricity for approximately 35 years.
- Relevant policy context (see Sections 8.1 and 8.2).

- **Overriding:**

- By contributing to the reduction of GHG emissions and addressing climate change, the Project will be aiding the conservation of the FFC and Farne Islands SPAs and the IDRBNR SAC because of the wide-ranging ecological effects of climate change which, if unaddressed, will themselves cause adverse impacts on protected sites such as these.
- In relation to ornithological features, the EU Strategic Environmental Assessment North Seas Energy (SEANSE) project (Rijkswaterstaat Zee & Delta 2020)³³ identified climate change as the strongest influence on future seabird population

³³ Rijkswaterstaat Zee & Delta, 2020, EU Strategic Environmental Assessment North Seas Energy (SEANSE) project. Available online: [REDACTED]

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trends. In relation to marine ecosystems, the UK's Fourth Report by the United Kingdom under Article 17 of the Habitats and Birds Directive (UK Government, 2019) makes clear (quoting Birchenough *et al.*, 2013) that "*Climate change is likely to impact the benthos in future. The changes documented in soft sediment communities are expected to continue, and probably escalate, in response to the cumulative effects of seawater warming and ocean acidification*".

- The Projects contribution to tackling climate change is in the direct interest of reducing harm to the ornithological and benthic features.

Overall, the Applicant contends that the Project, and its objectives, would make a significant contribution to limiting the extent of climate change in accordance with the objectives of the Paris Agreement, UK Government policy, and imperative, long-term, public interest goals. The Applicant states that the consequences of not achieving such objectives would be severely detrimental to societies in the UK and around the world and to citizens' health, social and economic interests and environment. It further argued that there is a compelling case that the Project must be carried out for IROPI, and that the Project's benefits override the potential AEol of the FFC SPA, the Farne Islands SPA, and the IDRBNR SAC.

The Applicant notes that its conclusion is in accordance with the Plan-level HRA for NPSs EN1-5, which concluded that, subject to Project-specific assessment:

*"there is IROPI in designating this policy which permits new energy infrastructure because security of supply is essential for the maintenance of human health and public safety, and because combating climate change (which is one of the factors creating the demand for new generating capacity) will have beneficial consequences of primary importance for the environment. The Government is certain that we need new energy infrastructure; we need a system of development consents and a set of criteria against which they will be determined. The Government is therefore satisfied that there are IROPI in adopting EN-1 to EN-5"*³⁴.

8.1 The National Policy Statements ("NPSs")

The 2024 Energy NPSs were established against obligations made as part of the Climate Change Act 2008. The overarching NPS for Energy (NPS EN-1) sets out national policy for energy infrastructure in Great Britain. It has effect, in-combination with the relevant technology-specific NPS, on recommendations made by PINS to the Secretary of State on applications for energy developments that fall within the scope of the NPSs. These provide the primary basis for decisions by the Secretary of State on National Energy Infrastructure.

The NPSs set out a case for the need and urgency for new energy infrastructure to be consented and built with the objective of supporting the Government's policies on sustainable development, in particular by:

³⁴ [National Policy Statements for energy \(applies to EN-2 to EN-4\): habitats regulations assessment \(accessible webpage\) - GOV.UK](#)

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- mitigating and adapting to climate change; and
- contributing to a secure, diverse, and affordable energy supply.

The 2024 NPS for renewable energy infrastructure covers those technologies which are technically viable at generation capacities of over 50 MW onshore and 100 MW offshore. This includes offshore wind and as such the need for this technology is fully covered by the NPSs.

The Secretary of State notes that, in accordance with the transitional provisions set out in section 1.6 of EN-1, the 2024 NPSs had effect for the ExA's consideration of this Project. On 24 April 2025, a consultation on the draft revisions of NPS EN-1 and EN-3 was launched and revised NPSs were laid in Parliament on 13 November 2025, which came into effect on 6 January 2026 (the "2025 NPSs"). Whilst the 2025 NPSs do not have effect for this Application, they are capable of being important and relevant considerations in the Secretary of State's decision-making process. The Secretary of State is content that nothing in the 2025 NPS's changes his consideration of the Project with regards to the derogation provisions of the Habitats Regulations.

The Secretary of State is of the view that the NPSs clearly set out the specific planning policies which the Government believes can facilitate the consenting of energy infrastructure that respects the principles of sustainable development. He considers this policy sets out that this can be done whilst consenting energy infrastructure on the scale and of the kinds necessary to help us maintain, safe, secure, affordable, and low-carbon supplies of energy.

The 2024 NPSs set out the national case and establish the need for certain types of infrastructure, as well as identifying potential key issues that should be considered by the decision maker. Section 104 of the 2008 Act makes clear that where an NPS exists relating to the development type applied for, the Secretary of State must have regard to it. The NPSs provide specific policy in relation to offshore wind development, and the policies set out in NPS EN-1, EN-3, and EN-5 therefore apply.

This national need relates both to the decarbonisation of the electricity supply within the required timeframe and to the risk the decarbonisation programme could pose to the security of electricity supply as more traditional generating stations are decommissioned. With regard to the latter, the Secretary of State notes the ruling in Case C-411/17 "*Inter-Environnement Wallonie and Bond Beter Leefmilieu Vlaanderen*" (ECLI:EU:2019;622) that the objective of ensuring the security of the electricity supply constitutes an IROPI.

The energy NPSs are intended to speed up the transition to a low-carbon economy and help the UK to realise its climate change commitments sooner than a continuation under an alternative planning system. The energy NPSs recognise that moving to a secure, low-carbon energy system to enable the UK to meet its legally binding target³⁵ to cut GHG emissions by at least 100% by 2050, compared to 1990 levels, is challenging, but achievable. This would require major investment in new technologies to electrify heating, industry, transport, and cleaner power generation. Under some 2050 pathways, electricity generation would need to be virtually emission-free, as emissions from other sectors were expected to persist. Consequentially, the

³⁵ The Climate Change Act 2008 (2050 Target Amendment) Order 2019

need to electrify large parts of the industrial, heating, and transportation sectors could double electricity demand by 2050.

The energy NPSs conclude that the UK needs sufficient electricity capacity from a diverse mix of technologies and fuels, and therefore the UK also needs all forms of energy infrastructure covered by the NPSs to achieve energy security at the same time as dramatically reducing greenhouse gas emissions. Thus, all applications for development consent for the forms of energy infrastructure covered by the energy NPSs should be assessed on the basis that the Government has demonstrated that there is a need for those forms of infrastructure and that the scale and urgency of that need is as described within EN-1 Part 3. Substantial weight should therefore be given to the contribution which projects would make towards satisfying this need for a secure, low carbon, electricity supply when considering applications for development consent under the 2008 Act.

To achieve the target of UK commitments to largely decarbonise electricity generation by 2030, the NPSs conclude that it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent. The NPSs expect offshore wind farms to make up a significant proportion of the UK's renewable energy generating capacity towards 2050.

8.2 The United Kingdom's legal commitment to decarbonise

This section sets out the obligations of the Climate Change Act 2008 ("CCA 2008"), against which the 2024 NPSs were established. It then outlines the UK's 2019 legally binding commitment to achieving 'Net Zero' carbon emissions by 2050, against which the need for future electricity generation developments should be assessed, as well as updated ambitions in the Clean Power Action Plan 2030 (2024).

8.2.1 Climate Change Act 2008

The Government through the CCA 2008, set legally binding carbon targets for the UK, aiming to cut emissions (relevant to the 1990 baseline) by 34% by 2020 and at least 80% by 2050, through investment in energy efficiency and clean energy technologies such as renewables, nuclear, and carbon capture and storage.

The CCA 2008 is underpinned by further legislation and policy measures. Many of these have been consolidated in the UK Low Carbon Transition Plan LCTP, and UK Clean Growth Strategy. A statutory body, the Committee on Climate Change ("CCC"), was also created by the 2008 Act, to advise the UK and devolved Governments and Parliaments on tackling and preparing for climate change, and to advise on setting carbon budgets. The CCC reports regularly to the Parliaments and Assemblies on the progress made in reducing greenhouse gas emissions. The UK Government has set five-yearly carbon budgets which currently run until 2032.

8.2.2 Enhancements of existing UK Government Policy: Net-Zero

In October 2018, following the adoption by the UN Framework Convention on Climate Change of the Paris Agreement, the Intergovernmental Panel on Climate Change published a 'Special Report' on the impacts of global warming of 1.5 degrees Celsius above pre-industrial levels. This

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report concluded that human-induced warming had already reached approximately 1 degrees Celsius above pre-industrial levels, and that without a significant and rapid decline in emissions across all sectors, global warming would not likely be contained, and therefore more urgent international action is required.

In response, in May 2019, the CCC published their report titled: 'Net-Zero: The UK's Contribution to Stopping Global Warming'³⁶. This report recommended that the UK Government extend the ambition of the 2008 Act, going further than the initial aim of reducing UK net GHG emissions by 80% compared to 1990 levels, by 2050. The CCC recommended that "the UK should set and vigorously pursue an ambitious target to reduce GHG emissions to 'Net-Zero' by 2050, ending the UK's contribution to global warming within 30 years." Importantly, the CCC recommendation identified a need for low-carbon infrastructure development which is consistent with the need case set out in NPS EN-1, but points to an increased urgency for action.

Since the implementation of the CCA 2008, the UK Government has set five-yearly carbon budgets. The latest of which is the sixth carbon budget ("CB6") which was laid in legislation in April 2021 and commits to cutting greenhouse gas emissions by 78% by 2035, compared to the 1990 level, in line with the CCC's recommendation. The CB6 spans from 2033-2037.

In October 2021, the UK Government published 'The Net Zero Strategy: Build Back Greener'. (the "Net Zero Strategy")³⁷. It is a cross-economy strategy which set out the measures to keep the UK on a path to achieving Net Zero, including action to keep on track for meeting carbon budgets and the UK's 2030 Nationally Determined Contribution. The Net Zero Strategy was set to meet the level of decarbonisation that CB6 requires and simultaneously cater to a 40-60% increase in electricity demand. This presents a substantial challenge and could require having to build out all currently known low-carbon technologies in the power sector at or close to their maximum technical limits by 2035.

In March 2019 the Government announced its ambition to deliver at least 30GW of offshore wind by 2030, as part of the Offshore Wind Sector Deal (the "Sector Deal"). The Sector Deal reinforced the aims of the UK's Industrial Strategy and Clean Growth Strategy, which seeks to maximise the advantages for UK industry from the global shift to clean growth, and in particular: "The deal will drive the transformation of offshore wind generation, making it an integral part of a low-cost, low-carbon, flexible grid system." Within supplementary documents to the Queen's Speech, December 2019³⁸, the Government committed to increase their ambition on offshore wind to 40GW by 2030. In June 2019, the Government amended the CCA 2008 to implement the CCC's recommendation. This made the UK the first major economy to pass laws requiring it to end its contribution to global warming by 2050.

In December 2024, the Government published the Clean Power 2030 Action Plan, updating the ambition to rapidly deploy new renewable energy capacity across the whole of the UK. The Plan outlines that, by 2030, the power system must see clean energy sources produce at least as much power as Great Britain consumes in total over the whole year, and at least 95% of Great

■ [REDACTED]
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³⁷ [net-zero-strategy-beis.pdf](#)

³⁸ [queen's_speech_december_2019_background_briefing_notes](#)

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Britain's generation. This entails between 43-50 GW of offshore wind generating capacity to be installed, emphasising the urgent need for significant numbers of renewable energy projects to progress to construction.

The inclusion of a project on a 'future project timeline' does not indicate that the project will go ahead, or if it does, at a particular generation capacity. It is therefore not the case that government policy will certainly be met by those projects currently under consideration. Within this context, the importance of all offshore wind projects currently under development, to the achievement of government policy and pledges, is clear. Without the Project, it is possible that the delivery of UK Government ambitions will fall short.

8.3 Conclusion

The ExA [ER C.6.5] was content that IROPI for the Project could be established considering the information surrounding the need for the Project, the public interests presented, and that the interests are overriding when measured against the adverse effects.

The Secretary of State agrees with the ExA and the Applicant and considers that IROPI for the Project to proceed are clearly established, especially the contribution that the Project would make towards renewable electricity generation and ensuring the security of electricity supply from a domestically generated source. The Secretary of State also considers that such need in the public interest for the Project outweighs the predicted harm to the integrity of the IDRBNR SAC, FFC SPA and Farne Islands SPA.

9 Compensatory measures

Having determined that there are no feasible alternative solutions and that the Project must be carried out for IROPI, the Secretary of State has proceeded to consider below the requirements of Regulation 68; to provide that any necessary compensatory measures are secured to ensure that the overall coherence of the NSN is maintained.

The Applicant submitted, on a without prejudice basis, a proposed package of compensatory measures for the following protected sites and qualifying features:

- Kittiwake feature of the FFC SPA;
- Guillemot feature of the FFC SPA;
- Razorbill feature of the FFC SPA;
- Guillemot feature of the Farne Islands SPA;
- Sandbanks that are slightly covered by seawater all the time feature of the IDRBNR SAC; and
- Reefs feature of the IDRBNR SAC.

As the Secretary of State concluded that an AEol can be ruled out in relation to displacement and disturbance of razorbill of the FFC SPA, the Secretary of State has not considered compensatory measures for this feature.

9.1 Kittiwake – FFC SPA

9.1.1 Compensation requirement

As described in Section 5.3.1.1 of this HRA, the Secretary of State cannot exclude an in-combination AEol for the Kittiwake feature of the FFC SPA beyond reasonable scientific doubt.

The ExA considered that at the close of Examination, there remained a degree of debate over the quantum of compensation for kittiwake that should be provided [ER.C.7.166]. Much of the debate during Examination was in relation to the most appropriate method of scaling the quanta of kittiwake compensation.

The two main methods are the Applicant's preferred method [C3-025] [REP6-024], described as the 'Hornsea 4 method' and the method favoured by NE [REP5-167] and the ExA [ER.C.7.188]. described as the 'Hornsea 3 Part 2' and

During Examination, the Applicant [REP6-042] carried out its analysis of the requirement to compensate for the predicted impact of 15.5 kittiwake per annum using the Central Impact Value ("CIV"), whereas NE recommended the use of the 95% Upper Confidence Limit ("UCL") [REP6-151]. The ExA agreed with NE's position of using the UCL [ER.C.7.187]. The Applicant also preferred the 'Hornsea 4 method' for calculating the breeding pair requirement, whereas NE preferred the 'Hornsea 3 Part 2 method' as more ecologically complete for compensatory measures where it is necessary to calculate the number of breeding pairs required. Taken

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together, this resulted in a calculated compensation requirement of 41.8 breeding pairs by the Applicant and 270.9 breeding pairs by NE.

In [REP6-151] NE commented that it had commissioned a report by the British Trust of Ornithology (“BTO”) on behalf of the Collaboration on Offshore Wind Strategic Compensation, to critically review current compensation techniques. Since the close of Examination, Rhoades *et al.*, (2025)³⁹ published “*Review of methods used to calculate scale of artificial nesting structures proposed as a compensation measure for Kittiwake mortality at offshore wind farms*” in a BTO Research Report (“the BTO methodology”).

In his first information request, the Secretary of State asked NE to confirm if the Rhoades *et al.*, (2025) paper was the one referred to in [REP6-151]. NE [C1-007] confirmed that Rhoades *et al.*, (2025) is the report in question and commented that the report contained a new approach that NE considered more ecologically robust than previously used methods/formulae, such as the Hornsea 4 and Hornsea 3 Part 2 methods. NE continued, stating that it would support the Applicant to update their figures if the Secretary of State required the Applicant to update their calculation using the BTO methodology as outlined in Rhoades *et al.* NE [C1-007] also commented that a higher degree of confidence in the compensation requirement as a result of the application of a more robust method that considers all relevant demographic features, like the BTO methodology, may justify the use of a less precautionary compensation ratio. Particularly in the case where the other uncertainties under consideration are taken into account in the calculations used by an Applicant e.g. via the use of the UCL.

The Secretary of State asked the Applicant to work with NE to apply the BTO methodology to their calculations for kittiwake compensation. The Applicant responded [C3-025] that it had discussed the application of the BTO methodology with NE, and updated the ‘Kittiwake Compensation Plan’ [C3-004] and the ‘Offshore Artificial Nesting Structure Evidence Base and Roadmap’ [C3-010] with the updated BTO methodology numbers, however the Applicant commented that it considered the BTO methodology to be overly conservative and that its position remained that the Hornsea 4 approach remained appropriate and deliverable. The Applicant argued that the BTO methodology contained assumptions that were biologically unrealistic and used overly pessimistic productivity rates. The Applicant continued that using the BTO methodology, alongside a 3:1 ratio, would be excessively precautionary, particularly given the inherent conservatism already embedded within the BTO methodology and pointed to NE’s comments [C1-007] which acknowledged a lower ratio may be justified given the comprehensiveness of the methodology.

The Applicant [C3-025] referred to a meeting it held with NE on 23rd October 2025 where NE stated that if the Applicant were to commit to using the UCL (alongside the BTO methodology) rather than the CIV, it would be comfortable with a 2:1 ratio. NE [C3-029] confirmed that it had been working with the Applicant on applying the BTO methodology and that the updated numbers submitted by the Applicant in [C3-025] reflected their discussions, and that the BTO methodology had been applied correctly to their predicted impacts. Further to this, in [C5-004] NE confirmed again that when using the BTO methodology, it would be comfortable with a 2:1 ratio in this specific instance, provided this is based on use of the UCL impact value. NE

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concluded that the UCL was needed to give sufficient assurance should the Secretary of State accept the Applicant's position regarding lead-in times and only require that the ANS measure is in place at least two breeding seasons prior to impacts occurring.

The ExA concluded that given evidence from bespoke onshore structures and other offshore structures where kittiwake nest, the ANS measure had a good likelihood of success. The ExA concluded that using the UCL and a 2:1 ratio was preferable, striking an appropriate level of precaution [ER.C.7.187], however the Secretary of State considers the information provided post-Examination has advanced the situation since the ExA's consideration of the matter.

In this case, the Secretary of State considers that the Applicant's assessments have already taken into account sufficiently precautionary input parameters into their Collision Risk Modelling ("CRM") and PVA. The Applicant outlines these precautionary input parameters in the 'Levels of precaution in the assessment and compensation calculations for offshore ornithology' document [REP2-057]. These include examples such as using precautionary avoidance rates, flight speeds and colony growth rate (doubling for four years and then 15% after the first four years of growth). As such, the Secretary of State concludes that the Applicant's assessment has inherently included an acceptable and reasonable level of precaution. On that basis he considers that the CIV is appropriate, and he has used this parameter to determine the impact and success criteria required to be compensated. The Secretary of State notes the Applicant and NE's comments made during the decision stage and the agreement reached between the Applicant and NE that the BTO methodology and a 2:1 ratio, alongside the UCL, should be used when determining the number of kittiwake ANS spaces to be provided. Although the BTO methodology was not available at the end of Examination, the use of a 2:1 ratio and the UCL was also the final position of the ExA.

The Secretary of State considers it is important that his decision is made in light of the best available scientific knowledge and that it is necessary to use the most scientifically and ecologically robust methodology available to him at the time of decision. Considering the advice of NE, he considers the BTO methodology to be the most appropriate method for calculating the quanta of kittiwake compensation. However, he does not agree that the UCL should be used in addition to a 2:1 ratio. In particular he agrees with the Applicant [C3-025] that the BTO methodology is inherently conservative and that requiring the use of the UCL and a 2:1 ratio would be excessively, and unreasonably, precautionary.

On the basis of the information available to him, the Secretary of State is content that a compensation requirement calculated using the CIV and a 2:1 ratio is a proportionate minimum requirement against which to scale the compensation requirement in this instance. The Secretary of State concludes that the measures must provide for **at least 278** spaces (breeding pairs) as a minimum; calculated using the BTO methodology and a 2:1 ratio to compensate for the CIV. However, he notes this should be considered a minimum requirement and encourages the Applicant to deliver as close to the 720 spaces as possible, as advocated for by NE and agreed to by the Applicant in the Kittiwake Compensation Document [C3-004].

9.1.2 ANS for Kittiwake

The Secretary of State has considered the theoretical merit of using offshore artificial nesting sites ("ANS") for kittiwake compensation, as well as considering the design, location, implementation and monitoring of the ANS. He has set out his conclusions on each of these

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topics below, taking account of the quantum of compensation required to be provided by the Applicant.

9.1.3 Theoretical Merit

In its kittiwake compensation plan [C3-005], the Applicant identifies there is considerable evidence that kittiwake do not exhibit a preference between natural or artificial nesting structures⁴⁰. The Applicant noted that there are now more than 26 offshore artificial structures with a confirmed breeding kittiwake population in northwest Europe⁴¹, often on offshore oil rigs⁴².

NE confirmed in its 'End of Examination Position on Offshore Ornithology Compensation' [REP6-151] that it believed offshore ANS have the potential to increase the number of kittiwake recruits into the wider population, although it also noted that the scale of benefit to the impacted site and NSN will be indirect and is likely to be unquantifiable. The matter of 'Theoretical Merit to Deliver Compensation' was marked 'green' by NE in their final position on ornithological compensation [REP6-151], indicating broad confidence in the measure.

The Secretary of State also notes that offshore ANS for kittiwake are one of the measures included in the Marine Recovery Fund ("MRF") library of strategic compensation measures⁴³ and have been an accepted form of compensation on previously consented offshore windfarms, and it is the preferred option by TCE's KSCP.

Taking these points into consideration, the Secretary of State is satisfied that offshore ANS is an appropriate compensation measure for the Project's impacts to kittiwake at the FFC SPA.

9.1.4 Design

At the end of Examination [REP6-151] NE retained concerns that whilst the Applicant's overview of design requirements appeared broadly suitable, its confidence in the technical feasibility of the measure was somewhat limited due to the lack of designs (concept or detailed). In the first information request, the Secretary of State requested that the Applicant produced design concept sketches for the proposed ANS.

In Appendix H of its response [C1-049], the Applicant provided concept sketches, including Figure 6 below.

⁴⁰ Coulson, J. C. (2011), 'The kittiwake', T. & A. D. (eds.), (London, UK: Poyser).

⁴¹ Ørsted. (2021a), 'Compensation measures for FFC SPA Offshore Artificial Nesting Ecological Evidence', Planning Inspectorate.

⁴² Christensen-Dalsgaard, S., Langset, M. and Anker-Nilssen, T. (2019), 'Offshore oil rigs—a breeding refuge for Norwegian Black-legged Kittiwakes *Rissa tridactyla?*', *Seabird*, 32: 20-.

⁴³ [Strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance - GOV.UK](#)

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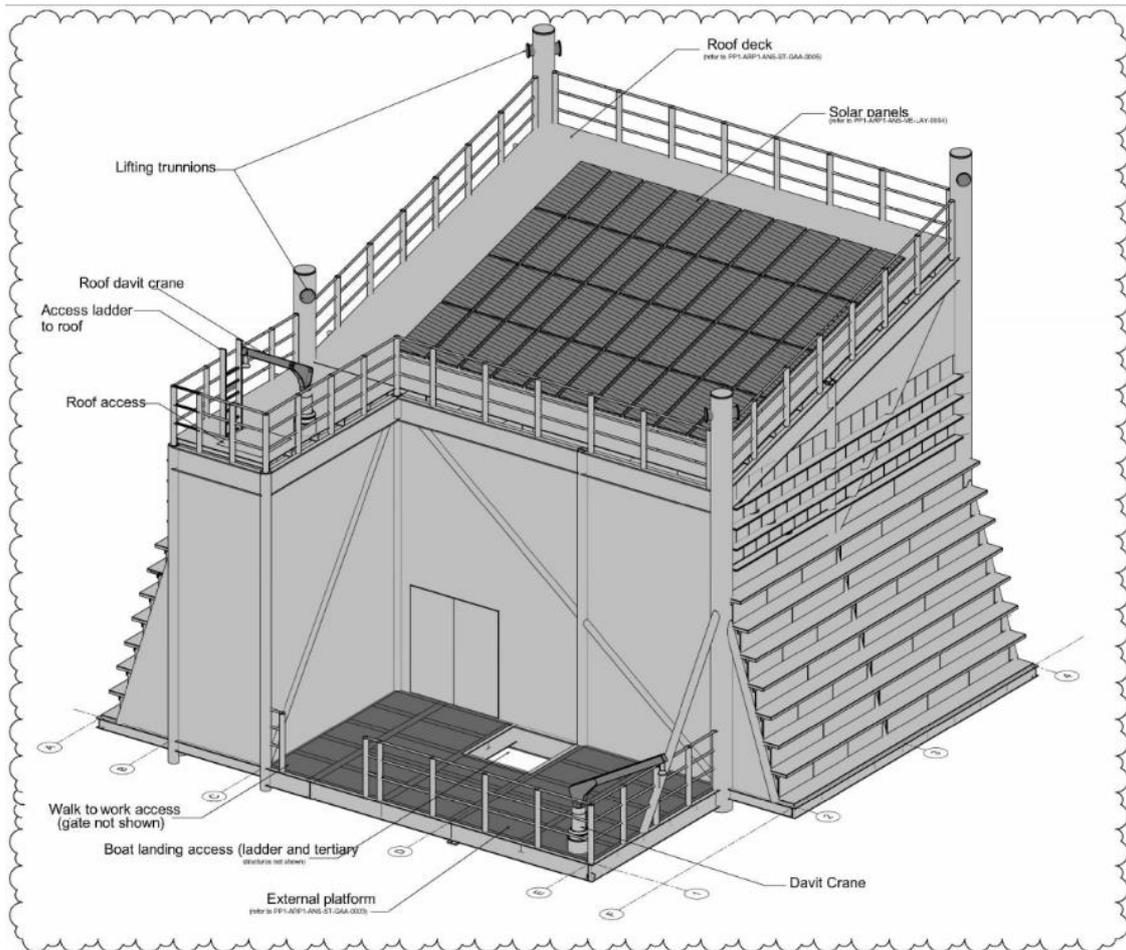


Figure 6 - Isometric view showing general layout of concept ANS design, taken from [C1-049]

The Applicant [C1-049] noted that due to the potentially challenging programme for ANS delivery, it was necessary for it to begin procurement for the ANS in advance of the DCO being awarded. As such, the Applicant worked with the TCE's KSCP steering group to decide on the key functional requirements of the ANS and associated parameters. Whilst the Applicant could not commit to a specific design, the parameters were set out in Appendix K of its response to the Secretary of State's first request for information [C1-049], which contained the KSCP consent design approval log. The KSCP consent design approval log includes specific details on the design of the ANS for kittiwake and auks. It shows where all elements, where relevant, have been agreed with NE, TCE and the JNCC.

The KSCP consent design approval log detailed key parameters of the proposed ANS. These include details on the size of ledge (400mm wide x 200mm deep x 400mm high), and diagrams to show some of the key features of the ANS. Figure 7 below (taken from [C1-049]) shows an illustration of the proposed 5 degrees offset in the nesting spaces:

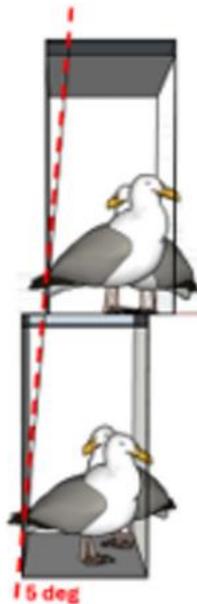


Figure 7 - Illustration showing the 5 degree offset in nesting spaces, taken from [C1-049]

The KSCP consent design approval log also noted that the ANS is designed to stand above the reach of wave action at the highest astronomical tide and has had regard to the projected impacts climate change will have on sea level, ensuring it will still remain above the wave level at predicted 2050 sea levels.

The ANS is designed to be as inaccessible to avian predators as possible, including a roof pitch of above 25 degrees to deter nesting predators e.g. large gulls. The roof is also proposed to have an overhang of 1.5m to provide weather and predation protection.

Furthermore, the kittiwake ANS nest unit will have a sandpaper-like floor to stop kittiwake eggs rolling away. Decoys will also be used to provide both visual and olfactory attractants to the ANS.

The Secretary of State is satisfied that sufficient consideration has been given to the design of the ANS, to be optimal for the attraction and retention of breeding kittiwake. He considers NE's concerns about the lack of concept designs to have been addressed and is confident that the final details can be confirmed post consent in the detailed design stage before the Secretary of State receives the Kittiwake Compensation Implementation and Monitoring Plan ("KCIMP") post-consent.

9.1.5 Long Term Implementation, Management and Monitoring

The Secretary of State understands that further details on the implementation and monitoring of the ANS are still to be confirmed. He takes comfort that these further details will be provided post consent as the Applicant is required to prepare and submit an updated KCIMP for approval by the Secretary of State and which is to be in accordance with the outline KCIMP [C1-030] (which is referred to as the kittiwake compensation plan in Schedule 22, Part 1 of the DCO). The DCO secures the establishment of a steering group comprising the SNCB, the MMO and/or the Local Planning Authority. The steering group must be consulted by the Secretary of State before approving the KCIMP.

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DCO Schedule 22 Part 1 secures that the KCIMP must include details of the proposed ongoing monitoring and reporting on the effectiveness of the measures, including: survey methods; success criteria; adaptive management measures; timescales for the monitoring and monitoring reports to be delivered; and details of the mechanism to determine the need for any alternative compensation measures and/ or adaptive management measures. Monitoring must include annual monitoring of the number of birds colonising the site including nesting attempts and nest productivity.

Monitoring will likely include annual surveys of occupancy and productivity, supplemented by remote cameras and fledgling counts. Adaptive management measures that the Applicant will likely be required to carry out, if monitoring indicates the ANS is not performing as predicted, include measures such as structural modifications, the use of decoys, or supplementary feeding. Annual monitoring reports will be submitted to the Secretary of State which will include details of the use of any ANSs by breeding kittiwakes, identify barriers to success, and to target any adaptive management measures in consultation with the KCSG.

Following a request from the Secretary of State in his first request for information, the outline KCIMP [C1-030] includes commitments from the Applicant to regularly submit all relevant pre-implementation and operational survey and monitoring data to the Marine Data Exchange and the relevant Local Environmental Records Centres.

The Secretary of State has also reviewed the Applicant's compensation funding and governance documents and is satisfied that the Applicant will be able to construct and maintain the structure(s) for, and potentially beyond, the operational lifetime of the Project.

As described in sections 3.5 and 3.6 of the kittiwake compensation plan [C3-005], the Applicant expects to deliver the kittiwake compensation measures collaboratively with RWE's Dogger Bank South Offshore Wind Farm, however the Applicant has confirmed that it is able to carry out the compensation on an individual project level if necessary.

In conclusion, the Secretary of State is satisfied that the final details for long term implementation, management and monitoring, can be adequately dealt with post consent in the detailed design stage, and that the Applicant's ANS will be adequately managed and monitored over the lifetime of the Project.

9.1.6 Lead-In Times

In its change notification dated 27 November 2024 [REP2-064], the Applicant requested a reduction in the lead-in time for the ANS to be delivered from three full kittiwake breeding seasons to two. This change was formally submitted at Deadline 4 [REP4-124].

The Applicant's justification, set out in [REP2-051] and supported by the technical note [REP2-060], argues that the compensation measure should be assessed over the lifetime of the Project rather than being front-loaded. The Applicant assessed that the cumulative output of adult kittiwakes from an ANS over the 35-year project lifespan will exceed the compensation requirement, even with the shorter lead-in period. The Applicant highlighted rapid early colony growth typically displayed by kittiwakes and that the ANS will remain in place beyond the operation of the Project (Secured in Paragraph 10 of Part 1 of Schedule 22 of the DCO), if the ANS are colonised as further justification.

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The Applicant also referred to similar reductions in lead-in time approved for Hornsea Three and H4 Offshore Wind Farms, both of which had higher predicted impacts on kittiwake.

Throughout the Examination NE maintained its position that a lead-in period of four full breeding seasons is ecologically justified, based on kittiwake breeding ecology and the time required for successful colonisation and productivity. NE expressed concern that a shortened lead-in period could result in a significant compensation debt and increased risk of non-delivery, particularly given the absence of detailed design information and the potential for slow or failed colonisation [REP6-150].

The RSPB also objected to the proposed reduction, citing the species' breeding ecology, with the first breeding from fledged young typically occurring four years after colonisation. It argued that shortening the lead-in period would delay the onset of ecological benefit and increase the length of time the kittiwakes would be exposed to project-related adverse impacts [REP2-081]. The RSPB pointed out that the Secretary of State's decision to reduce the lead-in time to 2 years on H4 was due to post-consent delivery problems, as opposed to ecologically based reasons.

The Applicant's Offshore Artificial Nesting Structures Evidence Base and Roadmap [C3-010] only set out an indicative implementation timeline for a 2-year lead-in period. In his first request for information, the Secretary of State requested that the Applicant provide an indicative timeline for a 3-year lead in time.

In [C1-049] the Applicant responded with a timeline which demonstrated that ANS implementation, with a three-breeding season requirement, was compatible with project delivery by the end of 2030. However, the Applicant [C1-049] argued that while it is feasible, it leaves very little flexibility or allowance for slippage in programme due to the requirement to carry out works over the winter period, and therefore *“runs the risks of delaying the delivery of Critical National Priority renewable energy infrastructure which contributes to significant government policy”*. The Applicant concluded that it had demonstrated that a reduction in lead-in time was both ecologically justified and is required to mitigate against the risk of delay to project delivery.

The Secretary of State notes the Applicant's argument that a 3-year lead in risks delaying the Project, however the Applicant has not presented an argument that a longer lead in time would make the Project unviable, financially or otherwise. Instead, a 3-year lead in time leaves little allowance for slippage. The Secretary of State does not consider this reason is compelling enough to further reduce the lead-in time and considers a 3-year lead-in time is reasonable and important to ensure the compensation measure has the best chance of recruiting kittiwakes into the NSN prior to harm occurring.

In light of the above and considering the precautionary principle and the need to ensure timely ecological benefit, it is the opinion of the Secretary of State that a minimum lead-in period of three full kittiwake breeding seasons is required for the ANS, prior to the operation of the turbines. This is necessary to ensure the effectiveness of the compensation measure and to minimise the risk of ecological debt. This is in agreement with the ExA [ER C.7.194], and the Secretary of State considers this position balances the Applicant's delivery programme with the ecological requirements of the species and the integrity of the FFC SPA.

9.1.7 Multi-Species ANS

The ANS is proposed to be used to compensate for both guillemot and kittiwake. The use of offshore ANS to host multiple species is discussed further in sections 9.2.2 to 9.2.6 of this HRA.

9.1.8 Location

A detailed account of the Applicant's site selection process is outlined in [APP-250]. The Applicant has selected two potential areas for the ANS, referred to as Areas of Search ("AoS"), one broadly to the north-west and the other at the south-east of the array area. These two AoS have been included within the Project's Order limits and assessed within the Project's ES and RIAA, with the intention that construction of up to two ANS within these areas would therefore be consented under the DCO.

Sites were selected based on the following:

- their proximity to existing breeding colonies (so that ANS could be sited in areas where breeding birds would be unlikely to encounter significant competition from other breeding birds);
- proximity to other existing or consented offshore wind farms (to avoid creating a colony at high risk from collisions and/or the impacts of displacement or barrier effects);
- overlap with areas with high densities of core forage fish such as sandeels; and
- within prospecting range of the recruitment pool of first-time breeders and dispersing adult breeders.

In his first request for information⁴⁴ the Secretary of State noted that in the selection process, some engineering constraints were excluded from the AoS selection criteria, and requested the Applicant provided an indicative shortlist of possible ANS locations, as well as confirmation that the locations were technically deliverable.

The Applicant responded [C1-049], that it had carried out further work to shortlist final locations for the ANS within the two AoS, but that it did not see it appropriate to select arbitrary indicative locations within those wider areas. However, the Applicant did confirm that following "*extensive geophysical and geotechnical surveys and subsequent technical analysis*" that it could confirm there were sufficient areas that would be technically feasible and provided Figures 8 and 9 which showed the areas of lowest constraint within the two AoS, which do not overlap with other relevant constraints. This area of potential is marked in orange in Figures 8 and 9 below.

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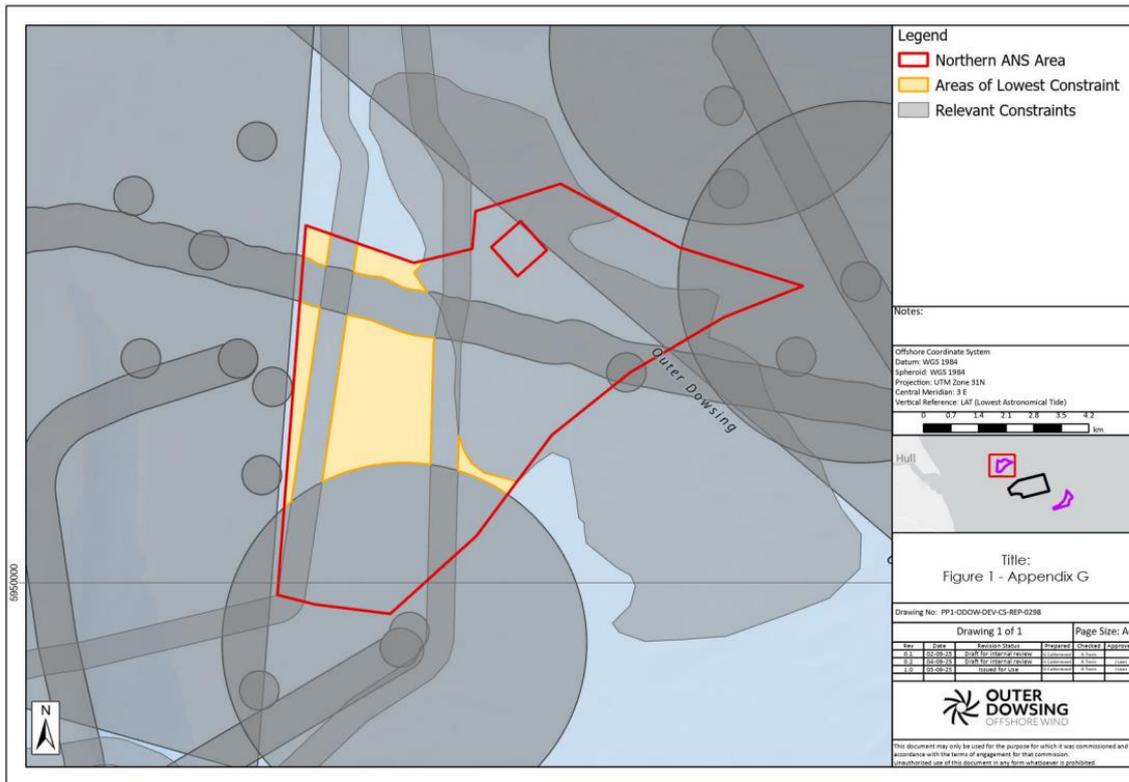


Figure 8 - Figure showing the Applicant's Artificial Nesting Site Constraint Mapping for the North-West Area of Search

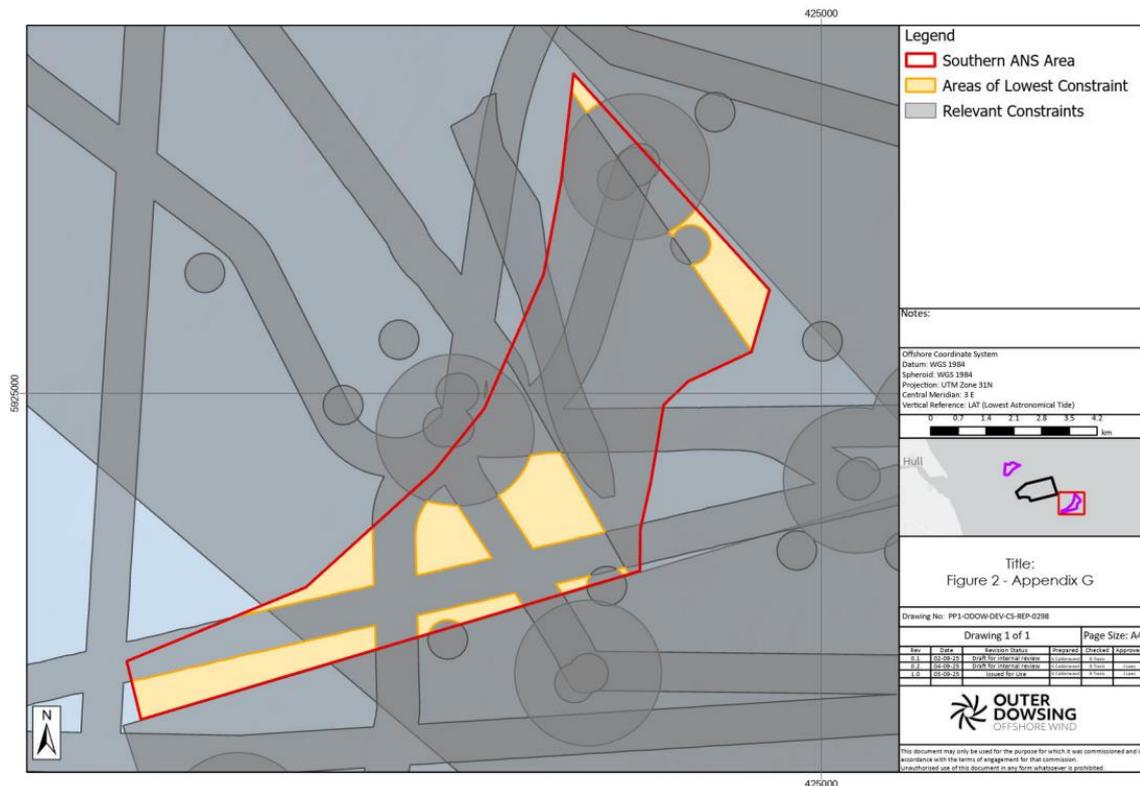


Figure 9 - Figure showing the Applicant's Artificial Nesting Site Constraint Mapping for the South-East Area of Search

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In his first request for information, the Secretary of State noted that the north-west AoS overlapped with the H4 AoS [REP6-049], but that avoiding overlapping colonies was a key consideration to minimise competition between colonies. He requested the Applicant provide evidence that the proximity of the two AoS would not affect the success of the potential ANS.

The Applicant stated that the H4 project was now unlikely to go ahead due to Ørsted discontinuing the project in its current form [C1-049]⁴⁵. The Applicant also stated that in the event that H4 does go ahead in the future, the Secretary of State approved an onshore kittiwake ANS rather than an offshore ANS in March 2025⁴⁶, and therefore there would be no overlap. The Applicant further argued that even if the H4 project was to proceed with an offshore ANS in a location which overlapped with the Applicant's ANS, there would still be no material impact on the potential success of the ANS due to the scale and diversity of the available foraging grounds, combined with evidence of existing offshore breeding populations.

On the matter of location, the Secretary of State considers the Applicant has had sufficient regard to choosing a suitable location and has shown that there are a sufficient number of suitable locations for the ANS.

He is satisfied that the final location of the ANS is to be approved as part of the Kittiwake CIMP approval, as outlined under DCO Schedule 22, Part 1, paragraph 6(a)(i) and under the respective deemed marine licences contained within Schedules 12, 13, 14 and 15 of the DCO.

9.1.9 Conclusion

The ExA recommended [ER C.7.197] that the overall package of proposed compensation measures is feasible, appropriate, deliverable and has been adequately secured in the rDCO and would ultimately ensure the overall coherence of the NSN.

Having reviewed all the information before him, the Secretary of State is satisfied that the level and scale of compensation required as identified are appropriate, and appropriate monitoring and adaptive management is secured to ensure the long-term success of the measure.

The Secretary of State, in agreement with NE and the ExA [ER C.7.194 et seq.], considers the use of offshore ANS for kittiwake to be suitable as the sole compensatory measure for kittiwake. He is confident that the Applicant will be able to provide enough ANS spaces to adequately compensate for the harm to the Kittiwake qualifying feature of the FFC SPA, and that this can be provided via up to two ANS, as secured via Schedule 14 and Schedule 15 of the DCO. He believes there is provision for the Applicant carrying out the measure alone, or in collaboration with another project. He also considers that there will be sufficient space within the ANS, even if it is shared with guillemot. The use of ANS to compensate for the Guillemot feature of the FFC SPA and Farne Islands SPA is covered in detail in Section 9.2.2 of this HRA. In agreement with the ExA, [ER.C.7.170], the Secretary of State has concluded that a 3-year lead in period is appropriate for the ANS structure(s).

⁴⁶ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010098-002413-Hornsea%20Four%20-%20KCIMP%20Approval%20Letter%20R%20-%2019%20March%202025.pdf>

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The Secretary of State is satisfied that the necessary compensatory measures can be secured and delivered to protect the coherence of the NSN for kittiwake as required by Regulations 29 and 36 of the Offshore Habitats Regulations and Regulations 64 and 68 of the Habitats Regulations. He considers that Schedule 22 adequately secures the further work required to progress the proposed compensation measures, including a contribution to the MRF or the approval of a final KCIMP.

9.2 Guillemot – FFC SPA and Farne Islands SPA

9.2.1 Compensation requirement

As described in Section 5 of this HRA, the Secretary of State concludes that he cannot exclude an AEol for the Guillemot features of the FFC SPA and the Farne Islands SPA beyond reasonable scientific doubt.

By the close of the examination agreement had been reached between the Applicant and NE over the use of the Hornsea 4 method for the calculation of compensation [ER.C.7.188], but the ExA [ER.C.7.190] considered there remained a substantial variation between the quanta of Guillemot compensation determined by the Applicant and NE's respective preferred approaches.

The Applicant [C3-022] maintained throughout the Examination that a 1:1 ratio for Guillemot compensation was appropriate given the precaution already incorporated into the impact assessment, especially if the Secretary of State was minded to use the UCL. Using the Applicant's preferred parameters: 50% displacement; 1% mortality; the CIV; and a 1:1 ratio, results in a compensation requirement of 127 breeding pairs [C3-022].

NE [REP6-151] state that the application of a ratio to address the uncertainty of success should be set on a case-by-case basis, considering the level of impact, the feasibility of the measure, and its potential effectiveness. It highlighted that the ratio should be applied to scale the implementation of a measure, for example by delivering at multiple distinct sites, each capable of addressing the impact alone. NE [REP6-151] state that given the uncertainties associated with all three proposed measures, considers it appropriate to scale the measures at a ratio of 3:1, and that the design criteria for the compensation measures should be informed using the UCL impacts. Using these figures, and 70% displacement, 2% mortality rates, the number of breeding pairs recommended by NE for the design criteria is 4,974 [C3-022].

When considering the appropriate compensation ratio, the Secretary of State agrees with NE that the ratio should be used to address the uncertainty of the success of a measure. He considers that the Applicant's suite of measures all have theoretical merit to compensate for the impact to Guillemot, but that each has remaining elements of uncertainty, as discussed below and in Section . He concludes, in agreement with NE [REP6-151], that a 3:1 ratio should be used to inform the design of the measures. However, he agrees with the Applicant that it would be unreasonably overly precautionary to also require the use of the UCL when determining the scale of compensation required in this instance.

Philopatry

During the decision stage, the Secretary of State noted that the Applicant's without prejudice compensation package for impacts to Guillemot included 'additional compensation measures in the South-West' that may be carried out in collaboration with other wind farm developers, including Five Estuaries and North Falls. The Secretary of State also noted that since the close of the Project's Examination, NE provided advice (NE reference: 27347/519205)⁴⁷ in response to Part 2 of the Secretary of State's first request for information for the Five Estuaries Offshore Windfarm, which stated Five Estuaries was recommended to adopt the North Falls approach to calculating compensation quanta (i.e. considering philopatry^{48,53}) to ensure calculation consistency across projects which may share compensation. As this advice had not been received by the Secretary of State in regard to this Project, the Secretary of State invited NE to comment whether it would be appropriate for the Applicant to provide the same calculations (i.e. using the H4 method, but presented to show the proportion likely to disperse into the NSN, using a 0.17 natal dispersal rate for razorbill from Lavers *et al.* (2007)⁴⁹ and the 0.58 rate for guillemot from Horswill and Robinson (2015)⁵².

NE responded [C3-029] that the need to incorporate philopatry when calculating compensation quanta should be considered on a case-by-case basis. It continued, stating that as the Applicant was proposing a varied package of measures, each with some scope for adaptive management to help increase the chances of sufficient benefit arising, that on balance, it would be disproportionate to seek an additional step factoring philopatry into the Applicant's auk calculations. The Secretary of State agrees with NE and did not consider it necessary request the Applicant to update their calculations.

Methodology for the Additional Measures in the South West

In [REP6-151], NE outlined concerns with the Applicant's methodology used to calculate the compensation for the Additional Measures in the South West. The methodology proposed by the Applicant was to calculate the potential number of additional breeding pairs based on the 'current' productivity rate (using the 2024 survey data) and an expected future productivity rate (where a range was considered, the highest being the regional average from Horswill & Robinson, 2015⁵²).

Following a meeting between NE and the Applicant on 23rd October, the Applicant agreed to revise these estimates to also present an estimate based only on colony growth to the historic maxima without an assumed increase in productivity for the existing breeding population. The Applicant has presented this within [C3-012], whereby the number of extra breeding pairs is calculated from the historic maxima minus the current population, then the number of fledglings they will produce is calculated using the regional productivity rates from Horswill & Robinson,

⁴⁷ [https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010115-001863-C1-020 - response from Natural England.pdf](https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010115-001863-C1-020-response-from-Natural-England.pdf)

⁴⁸ Horswill, C., and Robinson R. A. (2015), 'Review of seabird demographic rates and density dependence', JNCC Report No. 552.

⁴⁹ Lavers, L. J., Jones, I. L. and Diamond, A. W., (2007). Natal and breeding dispersal of Razorbills (*Alca torda*) in eastern North America. *Waterbirds*, 30; 588-594

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2015⁵², which is 0.82 for Guillemot. Lastly, the number of breeding pairs is then calculated by applying the national productivity rate.

NE [C3-029] welcomed the additional material, but restated their position outlined in [REP6-151] that these regional productivity rates are derived from much larger, generally stable, colonies, and the likelihood of the colonies in the South West achieving these rates could be argued to be low. Therefore, NE requested that in line with the approach taken by the Applicant for their predator reduction measure at Plémont, and other approaches taken by previous projects such as H4, the Applicant provide a more measured prediction of the potential of these sites. NE requested that this be based purely on an increase in the number of breeding pairs (historic maxima – current population).

The Applicant updated their compensation documents [C3-022] [C3-006] [C3-012] in line with this advice. NE [C5-004] noted the updates to these documents. The Secretary of State has used these updated numbers in his consideration of compensation quanta.

Confirmation of the Contribution of Each Site to the Overall Total

In line with the request in NE's response to the first information request, the Secretary of State requested that the Applicant amended Tables 8 and 9 of the "Guillemot and Razorbill: Compensation Quanta" document to include the values for the predicted contribution of each site in the South West to the total of 1900 pairs for guillemot and 255 pairs for razorbill presented by the Applicant. He also requested confirmation of which sites are still under consideration and whether any revised calculations of potential for each site provided in response to the above request are based on data from both the 2024 and 2025 surveys or the 2024 surveys only.

The Applicant [C3-022] recalculated each site's estimated contribution to the overall total, using a methodology agreed with NE on 23 October 2025. The calculation methodologies used estimated a realistic potential range of benefits from the proposed measures. The Applicant stated [C3-025] that these updates showed the potential for a substantial increase in the total contribution of the measure, expressed as additional breeding pairs. Furthermore, the Applicant carried out additional analysis of the 2025 monitoring data and recalculated the benefits based on those results.

Due to the low productivity observed in the 2024 and 2025 monitoring data, NE were hesitant to place significant weight on benefits derived from potential productivity increases. Nevertheless, the Secretary of State remains confident that the measure can provide the required level of compensation, even if productivity rates remain at the lower level.

On the 8th August 2025, during the decision phase, NE provided feedback to the Applicant in which it requested that the Guillemot and Razorbill Compensation Quanta [REP6-102] be updated. Following this representation, on the 10th October 2025, the Secretary of State requested that, for clarity, the Applicant updated its compensation quanta documents to set out the compensation numbers for guillemot, using its updated numbers and clearly set out the figures using the two displacement : mortality rates (70:2, and 50:1), as well as using the mean and the UCL value. The Applicant provided the range of potential impact and compensation figures in Tables 3 of [C3-022]. The Secretary of State has used these updated numbers in his consideration of compensation quanta.

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Conclusion

The ExA recommended [ER C.7.191 et seq.] that to account for a suitable degree of precaution in the assessment, NE's approach to the calculation of the compensation requirement is preferred. However, as that represents a precautionary approach the ExA also considers that the application of a 1:1 compensation ratio would be appropriate. The ExA therefore concludes that the compensation requirements for guillemot of the FFC SPA (and as part of the seabird assemblage) and guillemot of the Farne Islands SPA should be 1,605.8 guillemot pairs as set out in [REP6-102].

Given the uncertainties associated with all three measures within the package (described below and in Section 9.2.22), the Secretary of State concludes that the Applicant must design the compensation measures to provide for a 3:1 ratio.

The Secretary of State concludes that the suite of measures must be designed to provide for at least 3326.4 breeding pairs of Guillemot; calculated using 70% displacement and 2% mortality rates, the H4 method, and a 3:1 ratio to compensate for the CIV [C3-022].

9.2.2 ANS for Guillemot

In the Applicant's Offshore Artificial Nesting Structures Evidence Base and Roadmap [APP-256] the Applicant considered that the offshore ANS, that have been proposed for kittiwake, could also support breeding guillemot. The Applicant [C3-010] noted that available evidence on guillemot breeding habitat requirements suggests a strong preference for near horizontal ledges, typically on natural sea cliffs, but the use of artificial structures has also been documented⁵⁰, such as the artificial breeding site on the island of Stora Karlsö island⁵¹. The Applicant provided evidence for this, including photos of guillemot breeding on offshore structures in the southern North Sea (Figure 10 below). The Secretary of State has considered the approach of using offshore ANS for guillemot compensation below.

⁵⁰ Orsted. (2021a), 'Compensation measures for FFC SPA Offshore Artificial Nesting Ecological Evidence',

⁵¹ Hentati-Sundberg, J., Österblom, H., Kadin, M., Jansson, Å. and Olsson, O. (2012), 'The Karlsö Murre Lab Methodology Can Stimulate Innovative Seabird Research', *Marine Ornithology*, 40: 11-16.



Figure 10: Guillemots attending eggs on an offshore installation in the southern North Sea in 2023. Taken from Offshore Artificial Nesting Structures Evidence [C3-010]

9.2.3 Theoretical Merit

In NE's final position on ornithology compensation [REP6-151] it recognised that offshore ANS designed specifically for guillemot could contribute new recruits into the FFC SPA population or the NSN but also noted that the viability of the measure was largely untested for guillemot in comparison to kittiwake.

NE specifically pointed to knowledge gaps regarding the optimal design of an ANS for guillemot, as well as the productivity of auks using offshore structures.

However, given the Applicant's evidence that guillemot were found to nest on offshore oil and gas infrastructure, alongside anecdotal evidence, NE concluded that there was merit in including the measure as part of a wider package of compensation. However, it noted that the proposed lead in time of three years (potentially reducing to two at that point in time) prior to turbine operation were highly unlikely to be sufficient to enable the measure to be in place prior to the onset of impacts to guillemot.

9.2.4 Lead-In Times

As described in further detail in Section 9.1, there were disagreements over the lead-in times for the ANS for kittiwake. In relation to the provision of auk ANS, NE noted [RR-045] that the Applicant had not specified the lead-in time for the provision of ANS for auk species. It recommended that for auks, the compensation should be in place prior to construction commencing and a longer lead-in time is required, due to the uncertainties with how long the measures may take to demonstrate benefits. NE reiterated this concern in its responses at deadline 4 [REP4-140], setting out why it considered a 4-year lead in time was necessary.

The Applicant argued that a 2-year lead-in period was sufficient to allow sufficient time for birds raised on the platform to recruit to the intended colonies and begin breeding there, and that if not, any compensation debt accrued will be offset over the lifespan of the Project.

On the matter of lead-in times, the Secretary of State has decided, in agreement with the ExA [ER C.7.194], that a 3-year lead-in period for ANS is appropriate. He considers this a pragmatic

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solution, and the 3-year lead-in period gives a better chance that guillemot establish on the ANS prior to the operation of the arrays. He considers the increased compensation ratio to be delivered will ensure that any compensation debt that may accrue would be fully compensated before the end of the Project's lifetime.

9.2.5 Technical Feasibility

A discussion of the technical feasibility of an overall offshore ANS was described above in section 9.1 of this HRA, as well as the topic of ANS locations. The following section discusses the technical feasibility of the specific guillemot aspects of the ANS.

The Applicant provided an overview of guillemot-specific design requirements with regards to ledge width, ledge surface, wall angle and overhangs, and nest site orientation in their Offshore Artificial Nesting Structures Evidence Base and Roadmap [C3-010], as well as details as to how these differ between guillemot and kittiwakes due to nest site preferences.

During Examination, NE [REP6-151] agreed that providing a range of different sized and shaped ledges as described by the Applicant would provide resilience and also has the potential to provide value in the form of testing the effectiveness of different designs in order to inform the application of ANS for this species as a whole in future projects. It did however note that without having seen any designs (concept or detailed), that their confidence in the technical feasibility of the measure is somewhat limited.

In his first request for information, the Secretary of State asked the Applicant to produce design concept sketches for the ANS (one for kittiwake, and one for a mixed species ANS). In Appendix H of their response [C1-049], the Applicant provided concept sketches. Figure 11 below is taken from page 64 of [C1-049], and shows a sketch which includes the species stratification of a multispecies ANS.

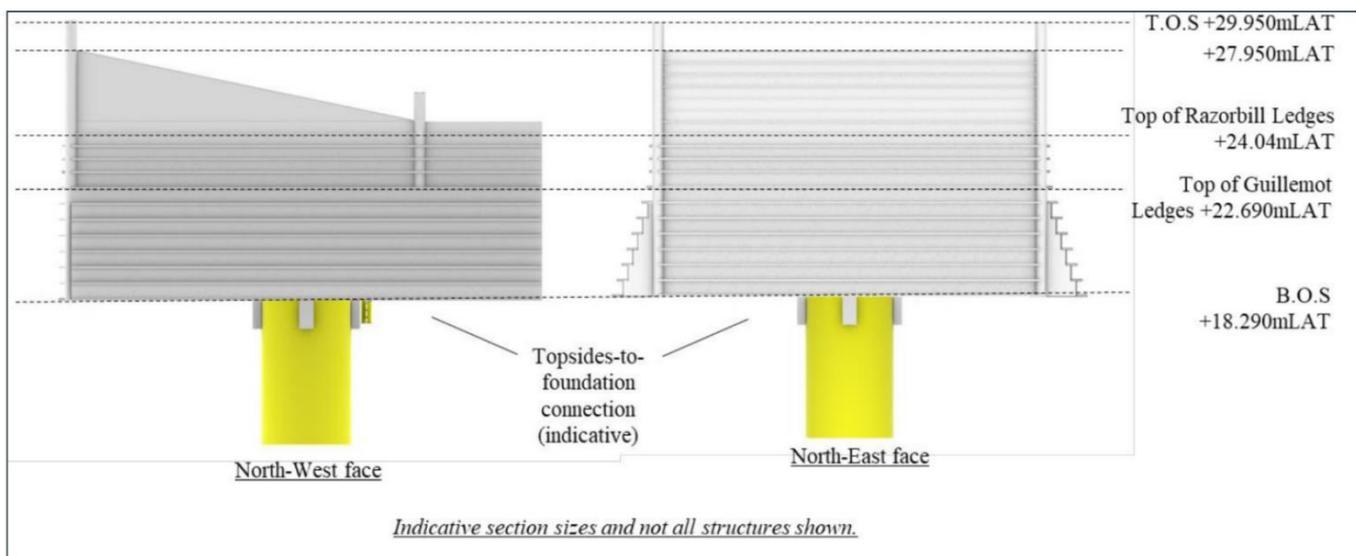


Figure 11 - Figure showing an indicative sketch showing a multispecies ANS. Taken from the Applicants response to the Secretary of States first request for information [C1-049].

The Applicant also noted that due to the potentially challenging programme for ANS delivery, it was necessary for the Applicant to begin procurement of the ANS in advance of the DCO being awarded. Consequently, the Applicant worked with the TCE's KSCP steering group to decide on

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the key functional requirements of the ANS, and associated parameters. Whilst the Applicant could not commit to a specific design, the parameters the ANS will be constrained by were set out in the KSCP consent design approval log, which was included in Appendix K of their response to the Secretary of State's first request for information [C1-049]. The Applicant sets out how agreeing these parameters early would ensure a quicker agreement of the final design details post consent. The KSCP consent design approval log in Appendix K of [C1-049] includes specific details on the way the ANS has been designed for both kittiwake and guillemot. It shows how all elements, where relevant, have been agreed with NE, TCE and the JNCC.

The ANS design has been tailored for guillemot to include the addition of guillemot decoys, and a rugged flat surface dressed with a 10mm thick limestone type material, with the surface profile scabbed to replicate the natural ledges of the colony. Furthermore, the ledges for guillemot have a 500mm back wall height, and partitions slotted every 3000mm. These longer ledges are designed to replicate the guillemots natural nesting sites, where there are typically open ledges, no overhanging ceilings or side walls, and allow them to breed in dense gatherings (Mitchel *et al.*, 2004).

Additionally, the ANS ledges for guillemots will have to be flexible, with a variable ledge length and depth, as well as partitioning flexibility so that it can be changed after observing the real colony nesting densities.

NE [REP6-151] noted that there were discrepancies in relation to the nesting density used to calculate the number of pairs of guillemot per nesting unit (20 per nesting unit of 1m x 1m [PD1-071] vs. 20 pairs per nesting unit of 1m x 30cm Table 4.1 in [REP4-062]). In his first request for information, the Secretary of State also asked the Applicant to confirm the correct values, and to amend all relevant documents with the correct numbers. The Applicant confirmed that unlike kittiwake, the guillemot ledges have been designed with a density of 20 pairs per metre squared and updated all relevant documents.

The Secretary of State considers that the Applicant has sufficiently evidenced the design of an ANS, that could theoretically be used by guillemot. He considers the indicative sketches addresses some of NE's earlier concerns and he is content that the work carried out by TCE's KSCP ensures that final details can be agreed upon promptly post consent, in agreement with all relevant stakeholders, before being approved by the Secretary of State.

9.2.6 Conclusion

The ExA concluded [ER.C.7.174] that the Applicant had provided a "*clearly reasoned and detailed argument in support of its proposed compensation measures for guillemot*". The ExA recognised that at the present time the overall success of the compensation measures, either individually or as a package, cannot be predicted with absolute certainty due to relatively few similar measures having been undertaken so far. Furthermore, the ExA noted that until the measures have been fully implemented and appropriately monitored then their success cannot be ascertained and that this is an inevitable situation for any new or novel compensation measures that are developed.

The ExA did note that unlike ANS for kittiwake, ANS for guillemot is not included in the interim guidance for strategic compensation [ER.C.7.176].

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The Secretary of State concludes that while unproven, there is merit in including ANS spaces for guillemot, and he considers there is sufficient evidence that offshore ANS have the potential to deliver guillemot compensation and that there is adequate provision within the DCO for adaptive management if the method does not provide the necessary levels of compensation.

He is cognisant of the fact that unlike the other guillemot compensation measures proposed and discussed in sections 9.2.7 and 9.2.14 of this HRA, guillemot ANS were not included as a measure in the interim guidance for strategic compensation, but nevertheless, he considers it is important to further research in the area of ornithological compensation given both the UK Government's ambitions to increase offshore wind and the potential associated impacts on the NSN.

The Secretary of State considers that the results from the compensation monitoring associated with this measure can be used by future offshore windfarms, and the designs employed by Outer Dowsing may inform the design of future ANS for auks, if it is shown to be successful. He considers the results that will be provided by this monitoring to be an additional benefit from the compensation, beyond providing the required quantum of compensation.

He agrees with NE's position set out in [RR-045] that due to the uncertainties associated with this compensation measure, the Secretary of State concludes that the Applicant should include ANS for guillemot in its compensation package, but that it should not be relied upon as a sole measure.

9.2.7 Predator Eradication in Plémont, Jersey

This measure comprises predator exclusion and control at Plémont, Jersey. The scheme is designed to remove or prevent access by invasive mammalian predators (principally rats *Rattus spp.* and ferrets *Mustela furo*, with associated cat and hedgehog management) to coastal breeding habitat via the installation of a fence. The fence installation will be complemented with habitat management and biosecurity measures to minimise predator reinvasion until the end of the Project, as outlined in Annex 3 of [C1-038].

Whilst guillemot are not currently thought to be breeding at the site, historical records show that the species were found there approximately 20-30 years ago and bred in significant numbers prior to the 1950s. Theoretically, the removal of predators from the site should improve productivity and facilitate the recolonisation of guillemot.

Location

The compensation measure is located on the north coast of Jersey, Channel Islands, centred on the Plémont headland and the adjacent cliff systems. The two-mile stretch of coast between the Plémont and La Rocquerelle Headlands in northern Jersey, where the fence will be erected, comprises cliffs, promontories, bays and rocky shores. The coastline is backed by steep bracken and gorse covered slopes, bordering onto agricultural land with some small settlements.

Four species of non-native invasive predators have been identified in the site (Brown rat *Rattus norvegicus*, European hedgehog *Erinaceus europaeus*, feral ferret *Mustela furo* and feral cat *Felis catus*).

The reasons for guillemot nesting decline at the Plémont site are not known with certainty but the Applicant [C1-039] contends that the implementation of predator control measures will

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improve productivity at the site and the potential for population establishment and possible consequent growth. The Applicant [C1-039] references predator control measures which have successfully increased population growth at other seabird colonies (e.g. Lundy Island). It also notes that once predators are controlled, the site has sufficient available suitable habitat, and has previously supported large populations of guillemot prior to the 1950s.

On the matter of location, NE maintained some concerns at the end of Examination. These are outlined in [REP6-151] and are primarily regarding the erection of a peninsula style fence, as opposed to an island-wide eradication or an enclosed fence, and the associated risks of re-incursions. NE also shared concerns regarding the site's ability to recruit birds back into the NSN, given the site's location outside the UK. NE provided a response [C5-004] to an All Interested Parties consultation⁵² on the 17th December 2025, in which it stated "*The predator control measure at Plémont may result in guillemots and razorbills dispersing to and recruiting into the NSN, but the current evidence base does not allow this to be reliably quantified.*" Its response continued to state "*[n]onetheless, the other two measures within the Applicant's package of measures, being implemented within the UK, provide greater assurance of direct recruitment into the NSN. Ringing of auks at each of the three locations, where feasible, has the potential to generate valuable data to improve our understanding in this area.*"

The Secretary of State has reviewed the Applicant's process for site selection and considers it has followed an appropriate process for selecting an adequate site, given constraints such as land rights, and a general lack of available sites in the wider NSN. Whilst there are concerns over the site's ability to provide breeding spaces for guillemot which will recruit into the NSN, he considers there is a reasonable chance that some of the birds at the site will be recruited into the NSN.

In line with NE's recommendation, the Secretary of State urges the Applicant to include a commitment to ring auks at each site across their suite of compensation measures, where feasible, to fill knowledge gaps in this area. This should be documented within the Guillemot Compensation Implementation and Monitoring Plan [C1-029], which will be subject to Secretary of State's consideration and approval post consent.

9.2.9 Theoretical Merit

NE raised concerns in [REP6-151] regarding the uncertainty around why nesting guillemot previously abandoned the site and therefore requested further evidence of the potential nesting habitat for guillemot that was currently accessible to rats and other predators.

In the Applicant's response [C1-049] to the Secretary of State's first request for information on 12th August 2025, the Applicant reiterated arguments it had previously made, including that predator control measures have been successful at other sites e.g Lundy Island.

In this response [C1-049] it also provided Appendix F, which contained a report from Wildlife Management International Ltd who the Applicant describes as 'experts in predator eradication'.

⁵² <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010130-002551-ALL%20IPs%20consultation%20November%202025.pdf>

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The report concludes that the current nest sites in the area are accessible to rats and ferrets and that the easy access to predators is a likely contributing factor to reduced breeding success.

Whilst there are currently no guillemots recorded at the site, the Applicant pointed to historical populations at the site and work funded by the Applicant that is planned to encourage colonisation of the site, including the playing of guillemot calls, decoys, and vegetation clearance.

Additionally, the Applicant's response [C1-049] to question 19 of the first information request stated that "*predator control in the Plémont area has been listed as likely to succeed in the draft Collaboration in Offshore wind Strategic Compensation ("COWSC") Predator Reduction Implementation and Monitoring Plan. As such, COWSC group ... consider that predator control is likely to be effective at Plémont,*". Consequently, the Secretary of State invited Defra to confirm this⁵³. Defra responded [C3-003] confirming that the draft COWSC Implementation and Monitoring Plan concludes that predator control in Plémont Bay, Jersey, is likely to succeed. It caveated this by noting the plan is informed by a desk-based study which does not take into account whether achieving the predator management in a given location is practically feasible, nor the delivery plans proposed by individual developers. The Secretary of State notes that he has not seen the COWSC plan, in draft form or otherwise.

In conclusion, the Secretary of State acknowledges NE's concerns about the merit of this measure to deliver compensation for guillemot but considers throughout the decision period and multiple rounds of requests for information, the Applicant has provided the Secretary of State with sufficient information to conclude that the measure has the potential to be successful at this site in Jersey. Whilst there are further details to be decided upon post consent, he is content that there is a reasonable chance that predator eradication at the site is possible, and that if the predators are successfully removed (and if the predator free status is maintained), the measure could lead to guillemot returning to the site.

9.2.10 Extent of the Measure

One of NE's main concerns with the measure was its scale. NE [REP6-151] considered the reduction of the fenced area to 3.34ha from the 32.3ha outlined in the feasibility study to be a key limiting factor in the potential of the measure. In his first request for information, the Secretary of State requested the Applicant to provide justification for reduction in the size of the Plémont scheme. The Applicant responded [C1-049] that the reason for the reduction was due to a change in position of one local landowner and therefore out of their control. It countered that this was not relevant to the potential of the measure, as the areas to be protected within the fenced areas are the key areas projected for success (the headlands of Creux Gros and Creux Gabourel), and which are the locations of the historical records of the guillemot population in Jersey.

Further to this, the Applicant noted [C3-025] in their response to the Secretary of State's second request for information on 10th October 2025 that through further discussions with National Trust Jersey, the Applicant has now determined that there is a 28ha area where the Applicant can carry out habitat management and biosecurity measures, in addition to the 3.34ha fenced area. These additional areas overlap well with areas of confirmed mammal presence.

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On the matter of scale, the Secretary of State acknowledges NE's concerns about the reduction in scale and is similarly disappointed in the size of the enclosure when compared to that initially set out in the feasibility study. However, he is satisfied that the fenced area has sufficient space to provide the required 200 nesting spaces. He also understands the matter is outside of the Applicant's control due to issues with the neighbouring landowner. He considers the additional 28ha of area where habitat management and biosecurity protocols can be carried out goes some way to address NE's concerns about scale, and notes that the fenced area includes the key areas which will have the greatest likelihood of success. Consequently, he considers the scale is proportionate and will be sufficient to provide up to 200 breeding spaces.

9.2.11 Technical Feasibility

In [REP6-151] NE outlined numerous concerns regarding the technical viability of the predator eradication measure. These related primarily to the ability of the proposal to exclude predators from the fenced areas - the proposed fence was a 'peninsula-style' fence rather than an enclosed one, and NE considered the Applicant's maintenance strategy to be potentially insufficient.

Throughout the decision period, the Secretary of State requested more information from the Applicant regarding the management of the site, and the technical feasibility of excluding predators from the fenced area on an ongoing basis. The Applicant was requested to update its Predator Control Evidence Base and Roadmap Document [REP6-050] to include:

- wider predator control measures to reduce predator numbers across the coastline adjacent to the whole Seabird Protection Zone, with particular focus on inhabited areas within an inland 'buffer zone' alongside the fence;
- predator control in areas adjacent to the rest of the stretch of cliffs that will not be subject to fencing; and
- further information regarding the locations of the ends of the fences, and how these have been selected with regard to topography of the cliffs and intertidal area.

The Applicant provided these updates, including a commitment to carry out predator control measures in a large buffer zone outside the fenced area, and photographs showing examples of fence ends which could be used by the Applicant, and how it will contain smooth tubing to prevent access to predators (climbing over or around the fence end would be impossible for a relatively small mammalian predator).

With these additions, the Secretary of State considers the measure is technically feasible.

It should be noted that a planning application for Plémont Seabird Sanctuary was made by Birds on the Edge Partnership in November 2024 (P/2024/1198)⁵⁴. The Birds On The Edge partnership is a joint initiative between the National Trust for Jersey, the Government of Jersey Natural Environment Department, and Durrell Wildlife Conservation Trust, which aims to restore Jersey's coastal lands and habitats, in order to enhance local populations of rare or endangered birds and submitted the application on behalf of the Applicant [C1-039]. This application included further detail on the design, management and monitoring of the fence, and a design statement which presents the technical specifications of the predator proof fence. Planning permission for

⁵⁴ Planning application documents (Ref: P/2024/1198) available here:



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this fence was granted in May 2025, providing further reassurance that the measure could be technically feasible. However, through correspondence from an IP⁵⁵, it was brought to the Secretary of State's attention that a planning appeal against the decision to grant planning permission for this fence has been lodged⁵⁶. On consideration, he believes there is sufficient flexibility within the drafting of the DCO which will allow the Applicant to reach its compensation requirements under alternative measures in the event the predator eradication scheme becomes unviable due to circumstances outside the Applicant's control.

9.2.12 Management and Monitoring

The Applicant has entered into an exclusivity agreement with the National Trust Jersey with regard to the funding of the proposed Plémont Seabird Reserve project and with the intention to enable full establishment of the Reserve, should compensation for guillemot be required. The Applicant is currently funding a full time Project Officer role at National Trust Jersey who is progressing the planning of the project. [C1-038].

The Applicant sets out their long-term management and monitoring strategy in its 'Without Prejudice Predator Control Evidence Base and Roadmap' document [REP6-050]. The plan outlines pre-construction work to be done, including baseline monitoring, as well as the methods that are to be used to ensure predators are kept out of the fenced areas.

These measures are to be carried out within the fenced area, but predator management and habitat management will also be carried out on the 28ha area surrounding the fenced area.

The risk of reinvasion from the intertidal areas will be mitigated both through design but also through the biosecurity protocol set out in Annex 3 of the 'Plémont Seabird Sanctuary: Management Plan' document [C1-038]. The site will have predator surveillance in the form of cameras and chew cards/tracking tunnels to minimise the chance of reinvasion.

Monitoring of the site will be undertaken and could include the number of breeding and fledging pairs. Monitoring will include predator surveillance in the form of cameras and chew cards/tracking tunnels to minimise the chance of reinvasion. Annual reporting of these findings will be sent to the Secretary of State for review. The finalised Outline Guillemot Compensation Implementation and Monitoring Plan [C1-029] will identify the monitoring and adaptive management principles and processes that have been agreed with the Guillemot Compensation Steering Group, including the scenarios under which adaptive management measures are required. Additional adaptive measures could include increased fence length/height or skirt enhancements, intensified control at the perimeter; targeted deterrents for cats, and supplementary actions (e.g. ledge access improvements) subject to ecological advice, until compensation targets are met.

Whilst not all details are finalised, the Secretary of State considers there is sufficient detail to give him confidence that the fence will be adequately monitored and maintained over its lifetime to minimise the chance of predator reinvasion and maximise the chance of guillemot recolonising

⁵⁵ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010130-002542-C2-010%20Richard%20Le%20Sueur.pdf>

⁵⁶ [REDACTED]

the area. He is satisfied that further details surrounding management, monitoring and potential adaptive management can be agreed at the detailed design stage post-consent.

9.2.13 Conclusion

The Plémont predator eradication/exclusion scheme may have certain limitations, in terms of its scale, and ability to return breeding birds to the NSN, however the Secretary of State agrees with NE that the measure has theoretical merit to create spaces for breeding guillemots. This in turn has the potential to increase the number of recruits into the NSN. He considers if the site is appropriately managed and monitored, it should form a part of the Applicant's suite of guillemot compensation measures.

9.2.14 Additional Measures at the 'south-west' sites

In addition to the predator eradication measure and ANS spaces discussed above, the Applicant proposed measures [C3-012] at sites in the south-west of England, on the Devon and Cornwall coast. This suite of measures in the south-west of England intend to reduce the amount of anthropogenic disturbance experienced by guillemot at the sites, and includes potential vessel restrictions, education and outreach programmes, habitat management and avian disturbance management.

9.2.15 Theoretical Merit

Recreational activities can disturb guillemot both in the marine environment (where the species forage), and on their breeding sites. Recreational disturbance in the form of walking, litter, rock climbing, coastering, birdwatching, watercraft, and aircraft can impact guillemot by two main pathways. Firstly, the birds can show escalating behavioural responses, including looking at the source of disturbance, alarm calling, pacing, freezing, or other species-specific behaviour like bobbing⁵⁷. Secondly, if levels of stress, the guillemot will 'flush', where birds leave their nests temporarily or permanently^{58,59}. Flushing results in an increased energetic cost for guillemot, as birds must expend additional energy leaving their nest more often⁶⁰. Flushing can also result in direct mortality, as the absence of adult birds at nest sites leaves eggs and young exposed to predation⁶¹ and the elements, which has implications for hatching success/chick mortality⁶².

⁵⁷ Buckley, R. (2004), 'Impacts of Ecotourism on Birds', In Environmental Impacts of Ecotourism (R. Buckley, Editor), CABI Publishing, Wallingford, 187-210.

⁵⁸ Carney, K.M. and Sydeman, W.J. (1999), 'A Review of Human Disturbance Effects on Nesting Colonial Waterbirds', *Waterbirds: The International Journal of Waterbird Biology* 22: 68-79

⁵⁹ Devney, C.A. and Congdon, B.C. (2009), 'Testing the efficacy of a boundary fence at an important tropical seabird breeding colony and key tourist destination', *Wildlife Research* 36: 353-360.

⁶⁰ Buckley, R. (2004), 'Impacts of Ecotourism on Birds', In Environmental Impacts of Ecotourism (R. Buckley, Editor), CABI Publishing, Wallingford, 187-210.

⁶¹ Buckley, R. (2004), 'Impacts of Ecotourism on Birds', In Environmental Impacts of Ecotourism (R. Buckley, Editor), CABI Publishing, Wallingford, 187-210.

⁶² Carney, K.M. and Sydeman, W.J. (1999), 'A Review of Human Disturbance Effects on Nesting Colonial Waterbirds', *Waterbirds: The International Journal of Waterbird Biology* 22: 68-79

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Repeated recreational disturbance events can have colony-level consequences for guillemot, causing them to alter their nest site selection⁶³ reducing colony productivity, including reducing reproductive success.

The Applicant's compensation measure intends to reduce recreational disturbance in sites in the south-west of England, with the aim of improving productivity and increasing breeding populations at the sites, therefore theoretically increasing the number of birds recruiting to sites within the NSN.

The Applicant identified eight potential sites and monitored these sites through the 2024 and 2025 guillemot breeding to learn how the sites are used by guillemot, and the potential sources of pressure on the sites. Potential pressures monitored included anthropogenic disturbance, predators, and incidences of habitat loss through vegetation encroachment. Productivity data was also recorded.

In summary, disturbance events at each site were narrowed down to two broad categories; disturbance from avian predators (or species perceived to be predators) and disturbance from watercraft. Consequently, the Applicant has designed their compensation measure to use the most suitable disturbance reduction measures which could be implemented at each of these colonies and to also quantify the likely benefits, in terms of increases in nest spaces and/or productivity (number of young fledged by each breeding pair), from the proposed measures.

The RSPB noted that disturbance at breeding sites can occur from recreational use but raised issues regarding the evidence base used to support this measure, including the lack of site surveys and evidence of recreational use causing impacts at these sites and a lack of specific measures in the Applicant's original submission.

In its 'End of Examination Position on Offshore Ornithology Compensation' [REP6-151], NE commented that it considered there was a reasonable prospect of the measures described making a meaningful contribution to the required compensation, particularly if the measure was carried out as part of a suite of measures instead of as a sole measure.

NE continued, stating that the measures have theoretical merit to benefit guillemot, but also highlighted that it would be difficult to directly evidence that these measures benefited the species and therefore it was important that robust surveys and monitoring of the baseline of the pressures should be carried out, so that a reduction in pressures can be accurately monitored.

The Secretary of State has considered the Applicant's case, as well as the views of the RSPB and NE, and considers the measure has merit to form part of a suite of compensation measures for guillemot. He also notes that the measure has been recently accepted as part of a suite of measures for the Five Estuaries Offshore Wind Farm.

9.2.16 Location

Eight sites were shortlisted, using the criteria that they have a declining population of guillemot, are close to built-up areas and/or existing tourist attractions, or are likely to experience higher

⁶³ Huddart, D. and Stott, T. (2019), 'Outdoor Recreation: Environmental Impacts and Management', Palgrave Macmillan

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human presence than other sites, as well as considering other factors such as colony health. The shortlisted sites can be seen below in Figure 12.

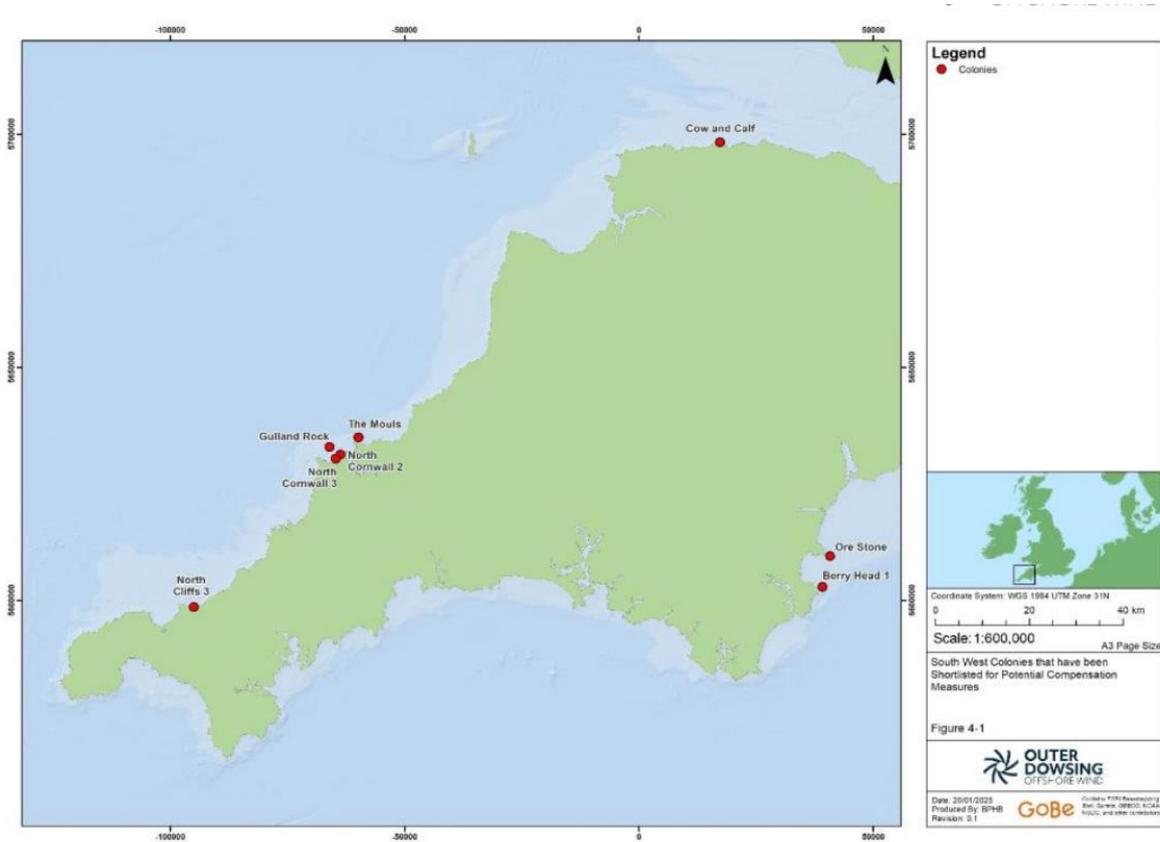


Figure 12 Locations of the eight south-west colonies that have been shortlisted for potential sites by the Applicant. Taken from ‘Additional Measures for Compensation of Guillemot and Razorbill’ [C3-012]

Monitoring was carried out across the eight sites and key pressures were identified at each site (as shown in Table 2 below).

Table 2 – Sites included within the eight south-west colonies and the associated pressures (taken from the ‘Additional Measures for Compensation of Guillemot and Razorbill’ document [C3-012])

Site	Pressure
The Mouls	Vessel proximity (tourist, private and fishing boats)
Ore Stone	Vessel proximity (tourist and private boats)
North Cornwall 3 VP2	Avian predation or perceived threat (gulls (<i>Larinae spp.</i>) and corvids)
North Cornwall 2	Vessel proximity (tourist and private boats, kayaks)

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Site	Pressure
North Cliffs 3	Avian predation or perceived threat (gulls and corvids)
Gulland Rock	Vessel proximity (tourist, private, fishing boats and kayaks) and Avian predation or perceived threat (gulls and corvids)
Cow and Calf	Avian predation or perceived threat (gulls and corvids)
Berry Head	Vessel proximity (kayak, stand up paddleboards, jet ski, private boats) and Avian predation or perceived threat (gulls and corvids)

Overall, the report [C3-012] stated anthropogenic disturbance accounted for 46% of disturbance events, and 54% from avian predation/perceived threat of avian predation. Other than Berry Head, none of the sites currently have specific conservation measures in place for guillemot beyond a general desire to conserve the environment.

NE [REP6-151] stated that the Applicant had carried out a considerable amount of additional work into these measures since application, but that due to a lack of good vantage points from which to undertake surveys, there were some limitations with their 2024 surveys. The Applicant was urged to carry out other methods of monitoring e.g. drones or boat surveys when doing their 2025 surveys, so that adaptive management and the list of sites shortlisted expanded if logistical constraints are identified.

The Secretary of State considers the Applicant has done sufficient work creating a shortlist of sites to carry out the programme of disturbance reduction. He is further comforted by the exclusivity agreement with the Torbay Coast & Countryside Trust ("TCCT") to implement disturbance measures at the Berry Head site should the measure be deemed necessary by the Secretary of State.

9.2.17 Delivery

The Applicant intends to carry out this measure strategically with other projects. In [REP6-151], NE confirmed that it considered the Applicant's preferred approach of delivering this measure in partnership with local/regional groups or bodies as the correct approach. It noted that while it does not have the details of the discussions between the Applicant and these local/regional groups, it appears that the appropriate stakeholders are being consulted.

Further to this, in the Applicant's response to the Secretary of State's first request for information, the Applicant stated that it have entered an exclusivity agreement with the TCCT to implement disturbance measures at the Berry Head site should the measure be deemed necessary by the Secretary of State. The Applicant noted that it is providing early funding to TCCT for the purchase of buoyage to deploy a physical barrier in the water which will reduce disturbance to the colony, and that work on the measure is progressing as planned.

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The Secretary of State considers that the Applicant has appropriately considered the manner in which this measure can be carried out. He considers due to the potential scale, the measure will be most appropriate if carried out strategically with other developers but believes there are sufficient mechanisms in place that mean the measure can be carried out by the Project alone if necessary. Alternatively, if the measure is carried out collaboratively, he considers the Applicant has put sufficient plans in place that mean there will be sufficient spaces available to the Applicant to meet the requirements of Schedule 22 of the DCO.

9.2.18 Extent of the Measure

In the Applicant's response [C3-013] to the Secretary of State's request for information, the Applicant confirmed the sites it had taken forward for consideration, as well as presenting the value for each site's potential contribution to the compensation quanta.

At the end of Examination [REP6-151] NE considered that it would be difficult to quantitatively measure the success of this measure based on the production of additional recruits, and that success will likely need to be measured via a reduction in disturbance at the colonies. For this reason, NE judges that it is important to be ambitious with the scaling of this measure, if it is to be relied upon to contribute in a meaningful way to the overall package of compensation measures. The Secretary of State has acknowledged this and reflected upon it when deciding on the compensation quanta.

Notwithstanding the above, the Applicant has stated that, although a number of sites (six to eight) have been short-listed for project-lead delivery, the scale and location of this measure is anticipated to be expanded via a collaborative approach facilitated by a local delivery partner, and that this will likely mean that the measures are expanded to other sites.

The Secretary of State considers the Applicant has been sufficiently ambitious in the scale of the design of this measure.

9.2.19 Management and Monitoring

In terms of defining the success criteria which the monitoring and management will aim to achieve, NE [REP6-151] considered it unlikely that the Applicant would be able to evidence a direct causal link between the reduction in identified pressures, and any subsequent increase in abundance/productivity, due to both the difficulty in surveying the sites and the presence of confounding variables. Therefore, NE concluded that a reduction of relevant pressures may need to be used as a proxy for success, and for that reason it was critical to establish a baseline of the pressure. NE considered the baseline monitoring from 2024 to be useful, but incomplete. The Applicant has since completed its 2025 monitoring and submitted this to the Secretary of State [C3-013].

The Applicant appears to agree with NE on the matter of monitoring outcomes. Appendix J of the Applicant's response to the Secretary of State's first information request [C1-049] [C3-025] sets out a summary of correspondence with the University of Exeter, which included general advice about the best ways of measuring the measures' success. The response concluded there were three main areas of monitoring which could be carried out. These focussed on concluding if the amount of disturbance was actually reduced, monitoring if there is a reduction on disturbance behaviours e.g. flushing, and finally monitoring if there is an effect on a wider population scale, potentially through measuring breeding abundance. The correspondence

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continued with the caveat that while the Secretary of State should want to know whether breeding success and abundance increase (as it is the main aim of the measure), it should not be used as the main criteria for success as there may be other variables that influence population responses (food, predation, overwinter survival, etc.) that the measure cannot address.

On the matter of defining the success criteria, the Secretary of State agrees with NE and the Applicant that measuring the reduction in disturbance events is the fairest criteria upon which to assess the success of the compensation measure. However, he does believe that even if population impacts, such as breeding success, are not to be used as a success criteria for the measure, it is still essential that the Applicant includes monitoring for these topics within its final implementation and monitoring plan that will be sent to the Secretary of State for consideration and approval post consent.

In [REP6-151] NE commented that notwithstanding the issue regarding measuring the success of the measure, it considers there to be a good chance that the disturbance reduction measure can be successfully implemented long-term if it is delivered with the full support of local delivery partners and statutory bodies, and particularly if delivered collaboratively with other developers in a joined-up way. NE also note that the measure has the potential to benefit more widely than just guillemot, with elements such as the proposed engagement and education programme potentially benefiting other seabirds and marine life.

The Secretary of State considers the Applicant has sufficiently considered the long-term implementation of the measure and he considers the management and monitoring of the sites to be an issue that will be appropriately finalised post consent before being sent to the Secretary of State for consideration and approval.

9.2.20 Conclusion

The Secretary of State considers that the implementation of the disturbance reduction measures in the south-west of England has theoretical merit to increase the number of guillemot in the NSN and considers it should be included in the Applicant's suite of compensation measures.

9.2.21 Marine Recovery Fund for Ornithology Compensation

The Marine Recovery Fund Regulations 2025⁶⁴ came into force whilst the Project was in the determination phase (17 December 2025). The regulations give the Secretary of State for Environment, Food and Rural Affairs powers to establish Marine Recovery Funds ("MRF") which offer a strategic route to deliver compensation for adverse environmental effects associated with offshore wind electricity generation. At the point of decision, the MRF was not yet operational. Interim guidance⁶⁵ on the MRF advises that for ornithology features, ahead to the fund being operational, applicants should rely on project-led delivery of compensation measures. The same guidance states that "*when preparing their draft DCO, applicants may also wish to include a provision allowing for a contribution to be made into the MRF in substitution for delivering the ANS or predator control compensation measure(s) themselves*".

⁶⁴ [The Marine Recovery Funds Regulations 2025](#)

⁶⁵ [Strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance - GOV.UK](#)

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The Applicant included these provisions within its draft DCO. The Secretary of State is content that Project led measures are secured for impacts to Kittiwake and Guillemot. However, in line with the interim guidance, the Secretary of State has retained Schedule 22 Part 1 and Part 2 to allow strategic delivery of ornithology compensation measures if they become available to the Project at the requisite time.

These Requirements provide an opportunity for the undertaker to elect to make a MRF payment as an alternative to submitting the Kittiwake CIMP and/or the Guillemot CIMP to the Secretary of State. This can only occur in the circumstance that the undertaker has received confirmation from Defra (or the MRF operator) that suitable measures are available. On the date of the publication of this decision, strategic compensation measures for ornithological measures were not yet available for delivery via the MRF⁶⁶.

9.2.22 Overall conclusion on Guillemot Compensation

The ExA concludes [ER C.7.197] that the overall package of proposed compensation measures is feasible, appropriate, deliverable and has been adequately secured in the rDCO and would ultimately ensure the overall coherence of the UK NSN.

Given the uncertainties associated with all three measures within the compensation package, the Secretary of State concludes that the Applicant must design the compensation at a 3:1 ratio. This is in agreement with NE [REP6-151]. However, he does not agree with the use of the UCL impact value in addition to a 3:1 ratio to scale the compensation requirement as he considers this would be over precautionary and unnecessary in this instance, in agreement with the Applicant [C3-022] (see Section 9.2.1). In conclusion the Applicant must deliver additional nesting spaces for 3326.4 pairs of guillemot to compensate for the impacts to the FFC SPA and Farne Islands SPA of 250.9 adult birds per annum in accordance with the impact and compensation scaling parameters adopted by the Secretary of State. In particular, the Secretary of State considers that, whilst each measure has theoretical merit, some remain untested at scale with few empirical examples of their long-term success. Furthermore, some proposed measures are distant to the impacted protected site and the UK NSN and it is noted that evidencing their benefit, in terms of recruitment of adult guillemot into to the UK NSN quantitatively, could prove challenging or unfeasible. In this instance, these factors combined result in the Secretary of State applying a 3:1 ratio to ensure the compensation measures include sufficient over-delivery of nest spaces to mitigate any shortfall that may arise. Based on the information currently available, the Applicant should not provide all spaces from one compensation measure and instead should provide the compensation quota from across all three measures, unless otherwise agreed with the Secretary of State, as is secured in Schedule 22 of the DCO.

Having sought further information, the Secretary of State agrees with that ExA, that there is sufficient information to establish that appropriate compensatory measures can be implemented, in order to fulfil the Secretary of State's duty under the requirements of the Habitats Regulations. The overall package of proposed compensation measures is feasible, appropriate, deliverable

⁶⁶ [Offshore wind development: library of strategic compensatory measures - GOV.UK](https://www.gov.uk/government/collections/offshore-wind-development-library-of-strategic-compensatory-measures)

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and has been adequately secured in Schedule 22 of the DCO and would ultimately ensure the overall coherence of the UK NSN.

9.3 Sandbanks that are slightly covered by seawater all the time and Reefs - IDRBNR SAC

9.3.1 Compensation requirements

The level of compensation required for these features was not discussed in detail during the Examination because the MDS and therefore the worst-case scenario for impact remained an area of disagreement at the close of Examination [ER C.7.55]. Specifically, this related to the amount of cable protection required [ER C.7.57]. The area of sandbanks and supporting habitat for *S. spinulosa* reef that will be impacted by the Project was not agreed at the close of Examination and therefore nor was a compensation quantum [ER C.7.58 and C.7.69]. The ExA does not provide a recommended compensation quantum for these features within its report.

The issue of cable protection requirements is discussed in section 5.4.1 where the Secretary of State presents his rationale on this matter. He concludes that the cable protection requirements included within the Project are appropriate for his assessment. Having undertaken an AA, the Secretary of State concludes compensation is required for the loss of 5,760m² of sandbanks habitat and 95,407.2m² of supporting habitat for *S. spinulosa* reef due to the placement of cable protection.

9.3.2 Proposed compensation measures

The Applicant's proposed list of potential compensatory measures for the IDRBNR SAC was amended during Examination. The final measures proposed by the Applicant in [REP6-040] comprise i) strategic measures via the MRF; and ii) project-led measures. These are considered in relation to both Sandbanks and *S. spinulosa* reef in the following sections.

The compensatory measures proposed by the Applicant for Sandbanks and *S. spinulosa* reef are provided in the following documents:

- Without Prejudice Benthic Compensation Strategy [REP4-045];
- Without Prejudice Sandbank Compensation Plan [REP5-015];
- Without Prejudice Biogenic Reef Compensation Plan [REP6-038]; and
- Without Prejudice Benthic Compensation Evidence Base and Roadmap [REP6-040].

The outline Sandbank Compensation Implementation and Monitoring Plan [APP-245] and Biogenic Reef Compensation and Implementation Monitoring Plan [APP-245] were submitted as part of the application. The Secretary of State notes that those application documents [APP-245 and APP-247] contain project-led measures, which have since been removed from the final versions of the Without Prejudice Sandbank Compensation Plan [REP5-015], Without Prejudice Biogenic Reef Compensation Plan [REP6-038] and Without Prejudice Benthic Compensation Evidence Base and Roadmap [REP6-040]. He also notes NE advice [REP4a-136] that due to the availability of the strategic measures discussed in the following section, there was not merit in the Applicant progressing project specific implementation and monitoring plans for benthic

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compensation. The Secretary of State is content compensation can be secured without updated versions of the implementation and monitoring plans.

9.3.3 Strategic compensation measures

The following strategic compensation measures were proposed by the Applicant:

- A contribution to the MRF to access Marine Protected Areas (“MPAs”) designation/extension (as compensation for Sandbanks and *S. spinulosa* reef).

In [REP5-015, REP6-038 and REP6-040] the Applicant presents options for extending existing SACs to include additional Sandbanks and *S. spinulosa* reef habitat and thereby demonstrates the feasibility of this measure. However, it acknowledges that such extensions would need to be implemented strategically and that this is a measure which must be led by Defra and SNCBs [REP6-040 and ER C.7.15].

In Written Ministerial Statement HCWS394⁶⁷ (“WMS”; dated 29th January 2025) and interim guidance for the MRF⁶⁸, Defra committed to designating new MPAs and/or extending existing MPAs to deliver strategic compensation for benthic impacts of offshore wind development.

The Marine Recovery Funds Regulations 2025 came into force on 17 December 2025. These regulations provide the legal framework for the establishment, and procedure for the operation, maintenance and delivery of the fund (or funds). The MRF was launched by the Secretary of State for Environment, Food and Rural Affairs on the same day⁶⁹. The library of strategic compensation measures sets out which measures can be delivered through the MRF. This list is managed and updated by the Marine Recovery Fund Operator, a role which currently sits with Defra. “MPA designation and/or extension” is included in the library of strategic compensation measures⁷⁰ and is listed as “currently available for delivery through the MRF”.

Ahead of the launch of the MRF, the Secretary of State asked Defra (in the first information request) to confirm whether the MRF could provide strategic compensation for the Project by the MPA measure (i.e. the extension of an existing or designation of a new MPA). Defra’s response [C1-010] confirmed that the Project “would appear to meet eligibility requirements needed for future applications to the MRF for this measure.”

NE [REP4a-136] advised that benthic compensation can only be delivered with confidence through this strategic measure; and that SNCBs believe this is the measure with the greatest likelihood of maintaining the coherence of the NSN. NE also advise that there is sufficient habitat available within the MPA designation and/or extension measure, to compensate for impacts to both Annex 1 Reef and Annex 1 Sandbank [C1-007]. The Secretary of State also notes this is the Applicant’s preferred measure for delivering compensation for Sandbanks [REP5-015] and *S. spinulosa* reef [REP6-038].

⁶⁷ [Written statements - Written questions, answers and statements - UK Parliament](#)

⁶⁸ Strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance - GOV.UK

⁶⁹ [Building clean energy while our seas flourish: introducing the Marine Recovery Fund – Environment](#)

⁷⁰ [Offshore wind development: library of strategic compensatory measures - GOV.UK](#)

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9.3.4 Project-led compensation measures

The Applicant has also proposed the following project-led measures on a without prejudice basis:

- Creation of biogenic reef (as compensation for Sandbanks and *S. spinulosa* reef); and
- Anthropogenic pressure removal (as compensation for Sandbanks):
 - Redundant infrastructure removal; and
 - Aggregate pressure removal.

Details on these proposed measures are presented in [REP5-015], [REP6-038] and [REP6-040] and they are considered in [ER C.7.26-38] and [C.7.49-52]. NE noted some support in relation to the removal of redundant infrastructure and aggregate pressure removal but, also advised that there was uncertainty about whether it would benefit the feature or be secured in an appropriate timeframe [RR-045]. Ultimately, NE advised [REP4a-136; REP6-153] that it did not see merit in project-led measures considering the option for strategic measures which, as set out above, NE believes to be the most effective option.

The Secretary of State also notes the WMS⁷¹ which states that “*there are currently no ecologically effective options that developers can deliver themselves to compensate for their unavoidable impacts on seabed habitats within Special Areas of Conservation and Marine Conservation Zones.*”

9.3.5 Conclusion

The Secretary of State agrees with NE that the extension/designation of MPAs, as a strategic compensation measure, provides the greatest likelihood of maintaining the coherence of the NSN. Noting the Applicant's preference for this measure, the Secretary of State has removed project-led compensation from the relevant parts of Schedule 22 to the Order. The amended Part 3 of Schedule 22 solely secures compensation for the sandbanks which are slightly covered by seawater all the time feature, through a contribution (or series of contributions) by the Applicant to the MRF (or other strategic compensation fund). The amended Part 4 of Schedule 22 solely secures compensation for the Reefs feature, through a contribution (or series of contributions) by the Applicant to the MRF (or other strategic compensation fund).

Through these provisions, the Applicant is required to provide payment to the MRF (or other strategic compensation fund) as compensation for the Project's impacts to 5,760m² of sandbanks habitat and 95,407.2m² of supporting habitat for reefs]

Having reviewed the information before him, the Secretary of State is satisfied that the scale of compensation as identified is appropriate, and that the necessary strategic compensation measures can be secured and delivered to protect the coherence of the NSN for Annex I Sandbanks habitat and Annex 1 Reefs habitat as required by Regulations 29 and 36 of the Offshore Habitats Regulations and Regulations 64 and 68 of the Habitats Regulations.

⁷¹ [REDACTED]

10 Transboundary assessment

The Secretary of State considers that it is important to consider the potential impacts on protected sites in other European Economic Area (“EEA”) states, known as transboundary sites. The ExA also considered the implications for transboundary sites. The conclusions of the ExA’s considerations and the Secretary of State’s own views on this matter are presented below.

On 31 January 2023 (corrected 13 July 2023), following the Applicant’s request for an EIA scoping opinion, PINS undertook a transboundary screening and consultation on behalf of the Secretary of State pursuant to Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the United Nations Environment Programme Convention on Biological Diversity 1992. A second and final screening was undertaken on 20 May 2024 following submission of the application documents. PINS considered that the Project was likely to have a significant effect either alone or in-combination on the environment in EEA states. Notification of transboundary issues were required under Regulation 32 of the 2017 EIA Regulations and issued to France, Germany, Denmark, Sweden, Belgium, Norway, Iceland and the Netherlands [OD-002].

No representations were made by the governments of France, Germany, Denmark, Sweden, Belgium, Norway, Iceland or the Netherlands. The ExA was satisfied, based on the information in relation to transboundary matters, that no LSE will arise as a result of the Project [ER. 2.8.5].

However, the Secretary of State notes that potential for LSE on transboundary sites was identified in the Applicant’s HRA Screening Report [REP4-037] and by PINS in [OD-002]. Noting that the screening for LSEs is intended to act as a coarse filter and rule out only aspects of the Project that have no potential (or only insignificant) impacts on European sites, he agrees with the Applicant and PINS that the Project could result in LSE to transboundary sites.

The Applicant considered non-UK protected sites in its RIAA [REP6-030] and concluded that there would be no AEol from the Project alone and in-combination on any transboundary sites. The Secretary of State has not been presented with any substantive evidence to demonstrate that transboundary impacts would have an AEol on any protected site in an EEA state. As such, the Secretary of State agrees with the Applicant and is satisfied that the Project, either alone or in-combination with other plans or projects, would not have an AEol on any transboundary protected site. The Secretary of State is satisfied that further stages of a transboundary assessment are therefore not required.

11 Conclusion

The Secretary of State has carefully considered all information presented within the application, during the Examination, and the representations made by NE and all IPs, along with the ExA's Recommendation Report. The Secretary of State concludes that an AEoI cannot be ruled out for the following:

- Kittiwake feature of the Flamborough and Filey Coast SPA;
- Guillemot feature of the Flamborough and Filey Coast SPA and Farne Islands SPA;
- The Seabird Assemblage (due to collision mortality of the kittiwake component and displacement and disturbance of the guillemot component) of the Flamborough and Filey Coast SPA;
- Sandbanks which are slightly covered by seawater all the time feature of the Inner Dowsing, Race Bank and North Ridge SAC; and
- Reef feature of the Inner Dowsing, Race Bank and North Ridge SAC.

He has considered the derogation provisions to determine whether the Project can be consented. The Secretary of State is satisfied that there are no feasible alternative solutions to fulfilling the objectives of the Project which would remove or reduce the risk of an AEoI of the protected sites. The Secretary of State is also satisfied that there are clearly imperative reasons in the public interest for the Project to proceed, and that these reasons clearly outweigh the impacts to the protected sites. The Secretary of State is also satisfied that a package of compensatory measures to ensure that the overall coherence of the NSN is maintained, is secured through Schedule 22 to the Order, and can be delivered.

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Annex A: Protected sites and qualifying features where LSE have been identified

Table 3 - Protected sites and qualifying features where LSE have been identified

Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
North Norfolk Sandbanks and Saturn Reef SAC	Reefs Sandbanks which are slightly covered by sea water all the time	See footnote ^{72 73}	Increased suspended sediment/deposition (C, O, D) Indirect pollution (C, O, D) Accidental Pollution (C, O, D) INNS (C, O, D) Changes to physical processes (C, O, D)	Alone and in-combination
Inner Dowsing, Race Bank and North Ridge SAC	Reefs Sandbanks which are slightly covered by sea water all the time	See footnote ⁷⁴	Physical habitat loss (C, O, D) Physical disturbance (C, O, D) Increased suspended sediment concentration/deposition (C, O, D)	Alone and in-combination

⁷² [North Norfolk Sandbanks and Saturn Reef MPA | Advisor to Government on Nature Conservation | JNCC](#)

⁷³ [North Norfolk Sandbanks and Saturn Reef SAC Supplementary Advice on Conservation Objectives](#)

⁷⁴ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030370&SiteName=inner%20dowsing&SiteNameDisplay=Inner%20Dowsing,%20Race%20Bank%20and%20North%20Ridge%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Inner%20Dowsing,%20Race%20Bank%20and%20North%20Ridge%20SAC>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
			Indirect pollution (C, O, D) Accidental Pollution (C, O, D) INNS (C, O, D) Changes to physical processes (C, O, D) EMF (O)	
The Wash and North Norfolk Coast SAC	Reefs Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) Mediterranean and thermos Atlantic halophilous scrubs Sandbanks which are slightly covered by sea water all the time	See footnote ⁷⁵	Increased suspended sediment/deposition (C, O, D) Indirect pollution (C, O, D) Accidental Pollution (C, O, D) INNS (C, O, D) Changes to physical processes (C, O, D)	Alone and in-combination

⁷⁵<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0017075&SiteName=the%20wash%20and%20north&SiteNameDisplay=The%20Wash%20and%20North%20Norfolk%20Coast%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Harbour seal		Underwater noise (C, O, D) Vessel disturbance (C, O, D) Changes to prey (C, O, D) Vessel collision risk (C, O, D)	Alone and in-combination
	Otter		Physical habitat loss (C,D) Disturbance and disruption (C) Changes in Water Quality (C)	Alone and in-combination
Southern North Norfolk Coast SAC	Harbour porpoise	See footnote ⁷⁶	Underwater noise (C, O, D) Vessel disturbance (C, O, D) Collision risk (C, O, D) Indirect pollution (C, O, D) Habitat loss (C, O, D) Changes to prey (C, O, D)	Alone and in-combination

⁷⁶<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0017075&SiteName=north%20norfolk&SiteNameDisplay=The%20Wash%20and%20North%20Norfolk%20Coast%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
Berwickshire and North Northumberland Coast SAC	Grey seal	See footnote ⁷⁷	Underwater noise (C, O, D) Vessel disturbance (C, O, D) Changes to prey (C, O, D) Vessel collision risk (C, O, D)	Alone and in-combination
Moray Firth SAC	Bottlenose dolphin	See footnote ⁷⁸	Underwater noise (C, O, D) Vessel disturbance (C, O, D) Changes to prey (C, O, D) Vessel collision risk (C, O, D)	Alone and in-combination
Saltfleetby-Theddlethorpe Dunes & Gibraltar Point SAC	Embryonic shifting dunes Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') Fixed coastal dunes with herbaceous vegetation ('grey dunes')	See footnote ⁷⁹	Physical habitat loss (C, D) Physical disturbance (C, O, D) Indirect pollution (C, D)	Alone and in-combination

⁷⁷<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0017072&SiteName=berwickshire&SiteNameDisplay=Berwickshire%20and%20North%20Northumberland%20Coast%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=1&NumMarineSeasonality=1&SiteNameDisplay=Berwickshire%20and%20North%20Northumberland%20Coast%20SAC>

⁷⁸ [REDACTED]

⁷⁹ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030270&SiteName=saltfleetby&SiteNameDisplay=SaltfleetbyTheddlethorpe%20Dunes%20&%20Gibraltar%20Point%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Dunes with Hippophae rhamnoides Humid dune slacks			
The Wash SPA	Pintail Widgeon Gadwall Turnstone Goldeneye Red knot Bewick's swan Oystercatcher Bar-tailed godwit Black-tailed godwit Dunlin Sanderling Grey plover Common scoter Little tern Shelduck Common tern Redshank Curlew Pink-footed goose Dark-bellied brent goose	See footnote ⁸⁰	Physical habitat loss (C) Changes to water quality (C, D) Disturbance and displacement (C, O, D)	Alone and in-combination

⁸⁰ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9008021&SiteName=The%20Wash&SiteNameDisplay=The%20Wash%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Waterbird assemblage			
The Wash Ramsar	<p>Criterion 1: Estuaries with saltmarsh, intertidal banks of mud and sand, shallow water and deep channels</p> <p>Criterion 5: Waterbird assemblage</p> <p>Criterion 6: Bar-tailed godwit Curlew Dark-bellied brent goose Dunlin Knot Oystercatcher Pink-footed goose Pintail Redshank Sanderling Shelduck Turnstone</p>	N/A	<p>Physical habitat loss (C)</p> <p>Changes to water quality (C, D)</p> <p>Disturbance and displacement (C, O, D)</p>	Alone and in-combination
Greater Wash SPA	<p>Common tern Sandwich tern Little gull Common scoter Red-throated diver</p>	See footnote ⁸¹	<p>Physical habitat loss (C)</p> <p>Changes to water quality (C, D)</p> <p>Disturbance and displacement (C, O, D)</p>	Alone and in-combination

⁸¹ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9020329&SiteName=greater%20wash&SiteNameDisplay=Greater%20Wash%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
			Barrier to species movement (C)	
North Norfolk Coast SPA	Sandwich tern Pink-footed goose Dark-bellied brent goose Wigeon Marsh harrier Avocet Knot Little tern Common tern Little tern Bittern	See footnote ⁸²	Collision risk (O) Physical habitat loss (C) Disturbance and displacement (C, O, D)	Alone and in-combination
North Norfolk Coast Ramsar	Pink-footed goose Dark-bellied brent goose	N/A	Physical habitat loss (C) Disturbance and displacement (C, O, D) Barrier to species movement (C)	Alone and in-combination
Gibraltar Point SPA	Grey plover Sanderling Bar-tailed godwit Little tern	See footnote ⁸³	Physical habitat loss (C) Changes to water quality (C, D)	Alone and in-combination

⁸²<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9009031&SiteName=north%20norfolk%20coast&SiteNameDisplay=North%20Norfolk%20Coast%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

⁸³<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9008022&SiteName=Gibraltar%20point&SiteNameDisplay=Gibraltar%20Point%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
			Disturbance and displacement (C, O, D) Barrier to species movement (C) Indirect pollution (C, D)	
Gibraltar Point Ramsar	<p>Criterion 1: Coastal habitats – estuarine mudflats, sandbanks, and saltmarsh</p> <p>Criterion 2: Assemblage of wetland invertebrates Notable plant species</p> <p>Criterion 5: Waterfowl</p> <p>Criterion 6: Grey plover sanderling bar-tailed godwit dark-bellied brent goose</p>	N/A	Physical habitat loss (C) Physical disturbance (C, O, D) Changes to water quality (C, D) Disturbance and displacement (C, O, D) Barrier to species movement (C)	Alone and in-combination
Humber Estuary SAC	Estuaries Sandbanks which are slightly covered by sea water all the time	See footnote ⁸⁴	Physical habitat loss (C) Physical disturbance (O)	

⁸⁴ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030170&SiteName=Humber%20Estuary&SiteNameDisplay=Humber%20Estuary%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Mudflats and sandflats not covered by seawater at low tide Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>)		Indirect pollution (C, O, D) Accidental Pollution (C, O, D) INNS (C, O, D) Increased suspended sediment/deposition (C, O, D) Changes to physical processes (C, O, D)	
	Sea Lamprey River Lamprey		Changes to water quality (C, D) Disturbance on Functionally Linked Land (C&D)	In-combination only
	Grey Seal		Underwater noise (C, O, D) Vessel disturbance (C, O, D) Changes to prey (C, O, D) Disturbance at haul out; and (C, O, D) Vessel collision risk (C, O, D)	
Humber Estuary SPA	Bittern Shelduck	See footnote ⁸⁵	Collision risk (O)	Alone and in-combination

⁸⁵ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9006111&SiteName=Humber%20Estuary&SiteNameDisplay=Humber%20Estuary%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAAArea=>

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Marsh harrier Hen harrier Avocet Golden plover Knot Dunlin Ruff Black-tailed godwit Bar-tailed godwit Redshank Little tern Waterbird assemblage		Physical habitat loss (C) Disturbance and displacement (C, O, D) Pollution (C, D)	
Humber Estuary Ramsar	Criterion 1: Estuary	N/A	Increased suspended sediment/deposition (C, O, D) Indirect pollution (C, O, D) Accidental Pollution (C, O, D) INNS (C, O, D) Changes to physical processes (C, O, D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	<p>Criterion 5: Waterbird assemblage Criterion 6: Bar-tailed godwit black-tailed godwit dunlin golden plover knot redshank shelduck</p>		Collision risk (O)	Alone and in-combination
	Criterion 3: Grey Seal		Underwater noise (C, O, D) Vessel disturbance (C, O, D) Changes to prey (C, O, D) Disturbance at haul out; and (C, O, D) Vessel collision risk (C, O, D)	Alone and in-combination
	Criterion 8: Sea Lamprey River Lamprey		Changes to water quality (C, D) Disturbance on Functionally Linked Land (C&D)	Alone and in-combination
Flamborough and Filey Coast SPA	Herring gull Gannet Kittiwake		Collision risk (O)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Guillemot Razorbill Seabird Assemblage (incl. Puffin)-	See footnote ⁸⁶	Disturbance and displacement (C, O, D)	Alone and in-combination
Alde-Ore Estuary SPA and Ramsar	Lesser black-backed gull	See footnote ⁸⁷	Collision risk (O)	Alone and in-combination
Coquet Island SPA	Sandwich tern Common tern	See footnote ⁸⁸	Collision risk (O)	Alone and in-combination
	Puffin		Disturbance and displacement (C, O, D)	Alone and in-combination
Farne Islands SPA	Kittiwake Sandwich tern	See footnote ⁸⁹	Collision risk (O)	Alone and in-combination
	Guillemot Seabird assemblage		Disturbance and displacement (C, O, D)	Alone and in-combination

⁸⁶ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9006101&SiteName=flamborough&SiteNameDisplay=Flamborough%20and%20Filey%20Coast%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

⁸⁷ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9009112&SiteName=alde&SiteNameDisplay=Alde-Ore%20Estuary%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

⁸⁸ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9006031&SiteName=coquet&SiteNameDisplay=Coquet%20Island%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

⁸⁹ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9006021&SiteName=farne&SiteNameDisplay=Farne%20Islands%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCArea=>

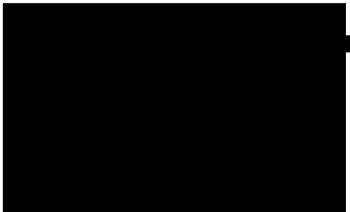
Outer Dowsing Offshore Wind Farm Habitats Regulations Assessment

Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
Fowlsheugh SPA	Guillemot Razorbill Kittiwake	See footnote ⁹⁰	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Buchan Ness to Collieston Coast SPA	Guillemot Kittiwake	See footnote ⁹¹	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Troup, Pennan and Lion's Head SPA	Kittiwake Guillemot Razorbill	See footnote ⁹²	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
East Caithness Cliffs SPA	Kittiwake Guillemot Razorbill	See footnote ⁹³	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
North Caithness Cliffs SPA	Kittiwake Guillemot Razorbill Puffin	See footnote ⁹⁴	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Copinsay SPA	Kittiwake Guillemot	See footnote ⁹⁵	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Hoy SPA	Kittiwake Guillemot Puffin	See footnote ⁹⁶	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Calf of Eday SPA	Kittiwake Guillemot	See footnote ⁹⁷	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination



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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
Rousay SPA	Kittiwake Guillemot	See footnote ⁹⁸	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Marwick Head SPA	Kittiwake Guillemot	See footnote ⁹⁹	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Fair Isle SPA	Kittiwake Guillemot Razorbill Puffin Gannet	See footnote ¹⁰⁰	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
West Westray SPA	Kittiwake Guillemot Razorbill	See footnote ¹⁰¹	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
Sumburgh Head SPA	Kittiwake Guillemot	See footnote ¹⁰²	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Noss SPA	Kittiwake Guillemot Puffin Gannet	See footnote ¹⁰³	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Foula SPA	Kittiwake Guillemot Razorbill Puffin	See footnote ¹⁰⁴	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination
Hermaness Saxa Vord and Valla Field SPA	Kittiwake Guillemot Gannet	See footnote ¹⁰⁵	Collision risk (O) Disturbance and displacement (C, O, D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
	Puffin			
Transboundary Sites				
Bancs des Flandres 3SAC	Harbour Seal Grey Seal	See footnote ¹⁰⁶	Changes to prey (C, O&M and D)	Alone and in-combination
Doggersbank SAC	Grey Seal Harbour Seal	See footnote ¹⁰⁷	Changes to prey (C, O&M and D)	Alone and in-combination
Klaverbank SAC	Grey Seal Harbour Seal	See footnote ¹⁰⁸	Changes to prey (C, O&M and D)	Alone and in-combination
Noordzeekustzone SAC	Grey Seal	See footnote ¹⁰⁹	Changes to prey (C, O&M and D)	Alone and in-combination
SBZ 1/ ZPS 1 SPA	Grey Seal	See footnote ¹¹⁰	Changes to prey (C, O&M and D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
SBZ 2/ ZPS 2 SCI	Grey Seal	See footnote ¹¹¹	Changes to prey (C, O&M and D)	Alone and in-combination
SBZ 3 / ZPS 3 SCI	Grey Seal	See footnote ¹¹²	Changes to prey (C, O&M and D)	Alone and in-combination
Vlaamse Banken SAC	Harbour Seal Grey Seal	See footnote ¹¹³	Changes to prey (C, O&M and D)	Alone and in-combination
Vlakte van de Raan 3SCI	Harbour Seal Grey Seal	See footnote ¹¹⁴	Changes to prey (C, O&M and D)	Alone and in-combination
Voordelta SCI	Harbour Seal Grey Seal	See footnote ¹¹⁵	Changes to prey (C, O&M and D)	Alone and in-combination
Waddenzee SCI	Harbour Seal Grey Seal	See footnote ¹¹⁶	Changes to prey (C, O&M and D)	Alone and in-combination

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Protected Site	Qualifying Feature(s)	SACOs	LSE Identified from Construction (C), Operation and Maintenance (O&M) and/or Decommissioning (D):	LSE alone and/or in-combination
Westerschelde and Saeftinghe SCI	Harbour Seal Grey Seal	See footnote ¹¹⁷	Changes to prey (C, O&M and D)	Alone and in-combination

¹¹⁷ [REDACTED]

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Date: February 2026