



UK Government

Habitats Regulations Assessment for an Application Under the Planning Act 2008

Morgan and Morecambe Offshore Wind Farms Transmission Assets

Regulation 63 of the Conservation of Habitats and
Species Regulations 2017

Regulation 28 of the Conservation of Offshore Marine
Habitats and Species Regulations 2017

[This page is intentionally left blank]

Contents

1	Introduction	1
1.1	Background	1
1.2	Habitats Regulations Assessment	2
1.3	Site conservation objectives	3
1.4	The Report on the Implications for European Sites and statutory consultation	4
1.5	Documents referred to in this HRA	6
2	Project description	7
2.1	Changes to the application during Examination	8
3	Stage 1: Screening for Likely Significant Effects	10
3.1	Likely Significant Effects alone and in-combination	16
3.1.1	Project Alone	16
3.1.2	Project In-Combination	18
3.2	Likely Significant Effects conclusion	19
4	Appropriate Assessment methodology	21
5	Stage 2: Appropriate Assessment	22
5.1	Introduction	22
5.2	Summary of the Secretary of State's Appropriate Assessment	23
5.3	Onshore Ornithology	38
5.3.1	Ribble and Alt Estuary Special Protection Area	38
5.4	Appropriate Assessment conclusion	42
6	Transboundary assessment	44
Annex A: Protected sites and qualifying features where LSE have been identified		46

List of abbreviations

Term	Abbreviation
Habitat Regulations Assessment	HRA
Likely Significant Effect	LSE
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Commitment	COT
Deemed Marine Licence	DML
Department for Environment, Food & Rural Affairs	Defra
Development Consent Order	DCO
Electro Magnetic Field	EMF
Environmental Impact Assessment	EIA
Environmental Statement	ES
European Economic Area	EEA
Examining Authority	ExA
Information to Support Appropriate Assessment	ISAA
Interested Parties	IPs
Invasive Non Native Species	INNS
Joint Nature Conservation Committee	JNCC
Marine Mammals Mitigations Protocols	MMMPs
Marine Management Organisation	MMO
National Policy Statements	NPSs
National Site Network	NSN
Nationally Significant Infrastructure Project	NSIP
Natural England	NE
Outline Ecological Management Plan	OEMP
Outline Soil Management Plan	OSMP
Outline Wildlife Hazard Management Plan	OWHMP
Planning Inspectorate	PINS
Report on the Implications for European Sites	RIES
Ribble and Alt Estuaries Special Protection Area	RAE SPA

Term	Abbreviation
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
Transition Joint Bays	TJBs
Unexploded Ordnance	UXO

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 Morgan and Morecambe Wind Farms Transmission Assets (the “Project”), which was submitted by Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (the “Applicants”). 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 transmission assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm including offshore export cables, onshore landfall infrastructure, onshore export cables, onshore substations, onshore grid connection cables and circuit breaker compounds, and other related onshore infrastructure. Following a request from the Applicants, on 4 October 2022, the Secretary of State issued a direction under Section 35 of the Planning Act 2008 (the “2008 Act”) confirming that the Transmission Assets are to be treated as development for which development consent is required.

The Project was accepted by the Planning Inspectorate (“PINS”) on 18 November 2024, and four Inspectors were appointed as the ExA for the application. The Examination of the Project began on 29 April 2025 and concluded on 29 October 2025. The ExA submitted its recommendation (“the ExA’s Report”) to the Secretary of State on 29 January 2026. Numbered references to the ExA’s Report are presented in the format “[ER *.*]”. Appendix C to the ExA’s Report provides further detail relevant to this HRA; to avoid confusion with references in the main report, numbered references to the appendix are presented in the format “[ER C.*.*]”. Other documents that 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 on protected sites in European Economic Area (“EEA”) States (“transboundary sites”). This is set out in Section 6.

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

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

³ [Documents | Morgan and Morecambe Offshore Wind Farms Transmission Assets](#)

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;

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

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

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

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

constitute an adverse effect on a site interest feature. SACOs are subject to availability and are currently being updated on a rolling basis.

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 AEol 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

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

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 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-015]. The purpose of the RIES was to compile, document, and signpost information submitted by the Applicants and Interested Parties (“IPs”) during Examination up to Deadline 5. 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 1 October 2025 and 22 October 2025. The Applicants [REP6-175], and NE [REP6-194] provided comments on the RIES at Deadline 6.

Various Examination submissions at Deadline 7 included HRA-relevant information. NE [PDA-043] noted that the RIES only included comments up to D5 and requested the RIES be updated before submission of the ExA’s Report to the SoS to enable all matters pertaining to HRA to be considered in one place. NE also advised [REP6-194] that it did not consider consultation on the RIES to adequately discharge the statutory requirements to consult NE on AAs, as the RIES drew no AEoI conclusions. Noting the PINS Advice Page on HRAs⁹, ExA decided not to revise the RIES following consultation but stated that Appendix C considers all HRA representations made by IPs during the Examination, including those made after consultation on the RIES [ER C.1.1.28]. However, given the amount of HRA information submitted following the publication of the RIES the ExA [ER C.1.1.29] advised the Secretary of State to undertake further consultation on HRA matters to enable the Secretary of State to fulfil her 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 her conclusions on matters relevant to the HRA, but she does consider that the RIES can formally support her duties to consult on AAs. The Secretary of State has undertaken further consultation during the determination period and considers that these consultations, in addition to the extensive consultation undertaken during

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

the Examination have adequately fulfilled her duties to consult on the AA under Regulation 63(3) of the Habitats Regulations and Regulation 28(4) of the Offshore Habitats Regulations.

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. This includes, in particular, but is not limited to:

- the ExA's Report;
- the RIES [PD-015];
- the Habitats Regulations Assessment Screening Report [REP6-026];
- Information to Support Appropriate Assessment Part One: Introduction ("ISAA Part 1") [REP6-022];
- Information to Support Appropriate Assessment Part Two: Special Areas of Conservation (SACs) Assessment ("ISAA Part 2") [APP-016];
- Information to Support Appropriate Assessment Part Three: Special Protection Areas (SPA) and Ramsar Site Assessments ("ISAA Part 3") [REP6-024];
- Outline Soil Management Plan ("OSMP") [C1-029.6]
- Outline Ecological Management Plan ("OEMP") [C3-008.4]
- Outline Wildlife Hazard Management Plan ("OWHMP") [C3.008.9]
- Alternative Ornithology Mitigation Note – Permanent [C1-029.28]
- Alternative Ornithology Mitigation Note – Temporary [C1-029.29]
- The Secretary of State's Request for Information dated 12 March 2026 ("first information request")
- The Secretary of State's Request for Information dated 20 May 2026 ("second information request")
- The Secretary of State's Request for Information dated 8 July 2026 ("third information request")

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

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

¹⁰ [Documents | Morgan and Morecambe Offshore Wind Farms Transmission Assets](#)

2 Project description

A detailed description of the Project is presented in Volume 1 Chapter 3 of the Environmental Statement (“ES”) [REP6-038] and the Non-Technical Summary of the ES [AS-056].

The Project comprises the following offshore components:

- Site preparation activities including:
 - Unexploded Ordnance (“UXO”) clearance via low order techniques;
 - Boulder removal/placement and out-of-service cable removal;
 - Sandwave clearance and removal; and
 - Pre-lay grapnel run (PLGR).
- Offshore export cable construction and installation including:
 - Cable protection.

The Project comprises the following landfall and intertidal (area from Mean Low Water Springs (MLWS) to the Transition Joint Bays (TJBs)) components:

- Site preparation activities:
 - temporary compounds to facilitate intertidal construction activities; and
 - temporary compounds to facilitate construction activities related to the TJBs.
- Construction of the TJBs.
- Direct pipe trenchless technique installation between TJBs and exit pits.
- Construction works between the direct pipe exit pits on the beach to MLWS including:
 - pull in of offshore export cables; and
 - offshore export cable burial between the direct pipe exit pits and MLWS.
- Temporary construction access.

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

- Onshore export cables: installation of cables connecting to the offshore export cables at the landfall transition joint bays, transmitting electricity from the offshore wind farms to the onshore substations;
- Onshore substations: construction of two electrically separate substations housing equipment to transform the incoming power to 400kV;
- 400kV grid connection cables: cables transmitting electricity from the onshore substations to the existing National Grid substation at Penwortham;
- Environmental mitigation areas: temporary and/or permanent areas, including access routes, provided solely for environmental mitigation purposes;
- Biodiversity benefit areas: temporary and/or permanent areas, including access routes, designated solely to deliver biodiversity enhancements.

The Applicants' design approach is for the transmission infrastructure for each wind farm to remain electrically independent (i.e. each wind farm to have its own set of cabling and substation infrastructure). The application therefore comprises a range of possible construction scenarios which include:

1. Scenario 1: In isolation construction scenario:
 - a. Scenario 1a: Construction of the Morgan Offshore Wind Project: Transmission Assets only (i.e. where the Morecambe Offshore Windfarm does not proceed to construction)
 - b. Scenario 1b: Construction of the Morecambe Offshore Windfarm: Transmission Assets only (i.e. where the Morgan Offshore Wind Project does not proceed to construction).
2. Scenario 2: Concurrent construction scenario: Construction of the Morgan Offshore Wind Project: Transmission Assets and the Morecambe Offshore Windfarm: Transmission Assets at the same time.
3. Scenario 3: Sequential construction scenario: Where Morgan Offshore Wind Project: Transmission Assets are constructed first and the Morecambe Offshore Windfarm: Transmission Assets are constructed second, or vice versa. This may include:
 - a. Scenario 3a: Immediate sequential construction of the transmission assets with no gap between the completion of construction of the transmission assets for the first project and the commencement of construction for the second project.
 - b. Scenario 3b: Sequential construction with a gap of up to a maximum of four years between completion of construction of the transmission assets for the first project and commencement of construction for the second project.

Construction durations are detailed in Table 3.4 of the ES Chapter 3 and indicative construction programmes in Plates 3.1 to 3.3 (pages 44–46) of the same document. The final design for the Project may not be confirmed until after consent has been granted. Consequently, the Applicants 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 sufficient 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 outlined by the Applicants in ISAA Parts 1-3. 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 9¹¹.

2.1 Changes to the application during Examination

During the Examination, the Applicants submitted multiple changes to their application, including changes to the relocation of accesses, provision of additional construction accesses, operational access alignment, removal of operational access and reductions to the order limits and a

¹¹ [Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope - GOV.UK](#)

corresponding reduction in the powers sought over extent of the order land. The Change Request Report [CR1-005] details the proposed changes in full. The ExA advised that a targeted, non-statutory consultation would be appropriate for the proposed changes which the Applicants carried out and issued the Change Request Consultation Report [REP5-154].

In a procedural decision [PD-014], the ExA agreed with the Applicants that none of the proposed changes were of such significance as to constitute a materially different project. The ExA was also satisfied that parties who may be affected by the proposed changes were given an appropriate opportunity to engage, and that sufficient time remained within the Examination to allow for their full and proper consideration.

Accordingly, the ExA accepted the Applicant's changes into the Examination and varied the Examination timetable to accommodate them. This included the introduction of a new Deadline 5a for the submission of updated documents by the Applicants, and an amendment to Deadline 6 to provide an opportunity for written submissions on the change application.

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 protected sites, either alone or in-combination with other plans or projects.

Sites and features considered in the assessment of LSE

The protected sites and qualifying features that were considered in the Applicants’ assessment of LSE are presented in Section 1.4 of the Applicant’s HRA Screening Report. Section 1.5 of the HRA Screening Report 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 Section 1.4 of the HRA Screening Report.

Several matters were raised during the Examination in relation to the screening of LSE including concerns regarding the inclusion of the Sefton Coast SAC and Morecambe Bay SAC as references in the ES (Volume 3, Chapter 3) [APP-075], despite their omission from the HRA Screening [APP-016]. Following clarification from the Applicants that both sites lay outside the zone of influence [APP-018], and confirmation from NE that there were no potential impact pathways for either SAC [REP3-095], the ExA was satisfied that these sites could be scoped out of further LSE assessment, both alone and in combination [ER C.1.2.5].

The ExA also considered matters relating to the Pembrokeshire Marine SAC, where earlier consultation evidence indicated that NE had not previously agreed with the Applicant’s approach in respect of allis and twaite shad. NE subsequently confirmed, following consideration of representations, that it agreed with the Applicants’ conclusions [REP5-184]. The ExA was satisfied that this matter had been resolved and concluded that there would be no LSE on allis and twaite shad from the Project at any site in the region [ER C.1.2.8].

In addition, the ExA noted that the Applicant’s assessment of the Ribble and Alt Estuaries (“RAE”) Ramsar site did not originally include Ramsar Criterion 2 (natterjack toad), which could be subject to direct impacts. An updated HRA Screening was submitted by the Applicants [REP6-026], confirming that there was no potential for LSE on this feature. NE agreed with this conclusion [REP3-095], and the ExA was therefore satisfied that there would be no LSE on the natterjack toad feature of the RAE Ramsar site, either alone or in combination [ER C.1.2.12].

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

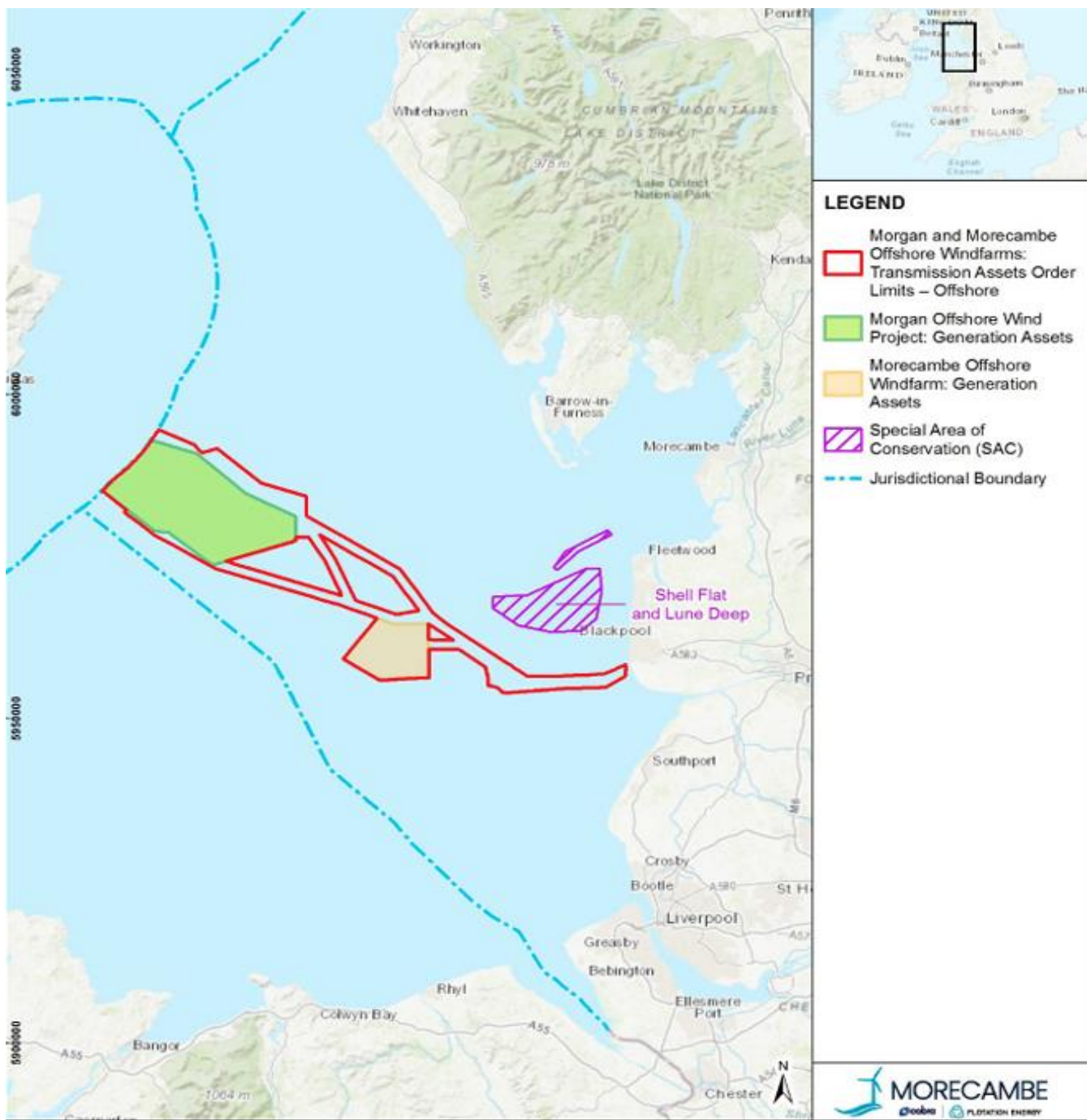


Figure 1 - Location of European sites designated for Annex I Habitats (offshore and coastal) to be taken forward for determination of LSE (Figure 1.3 HRA Screening Report [REP6-026])

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

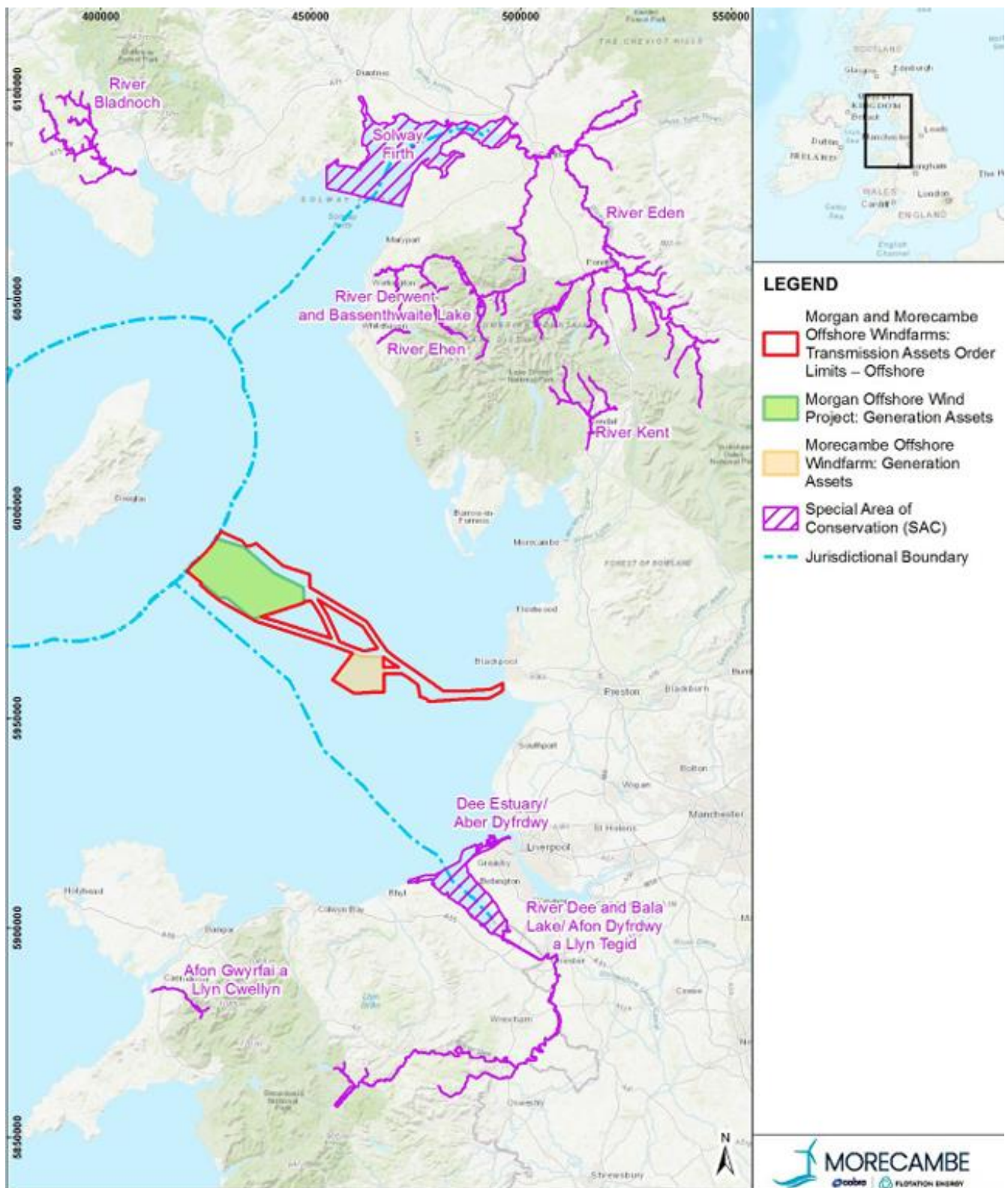


Figure 2 - Location of European sites designated for Annex II diadromous fish species to be taken forward for determination of LSE (Figure 1.5 HRA Screening Report [REP6-026])

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

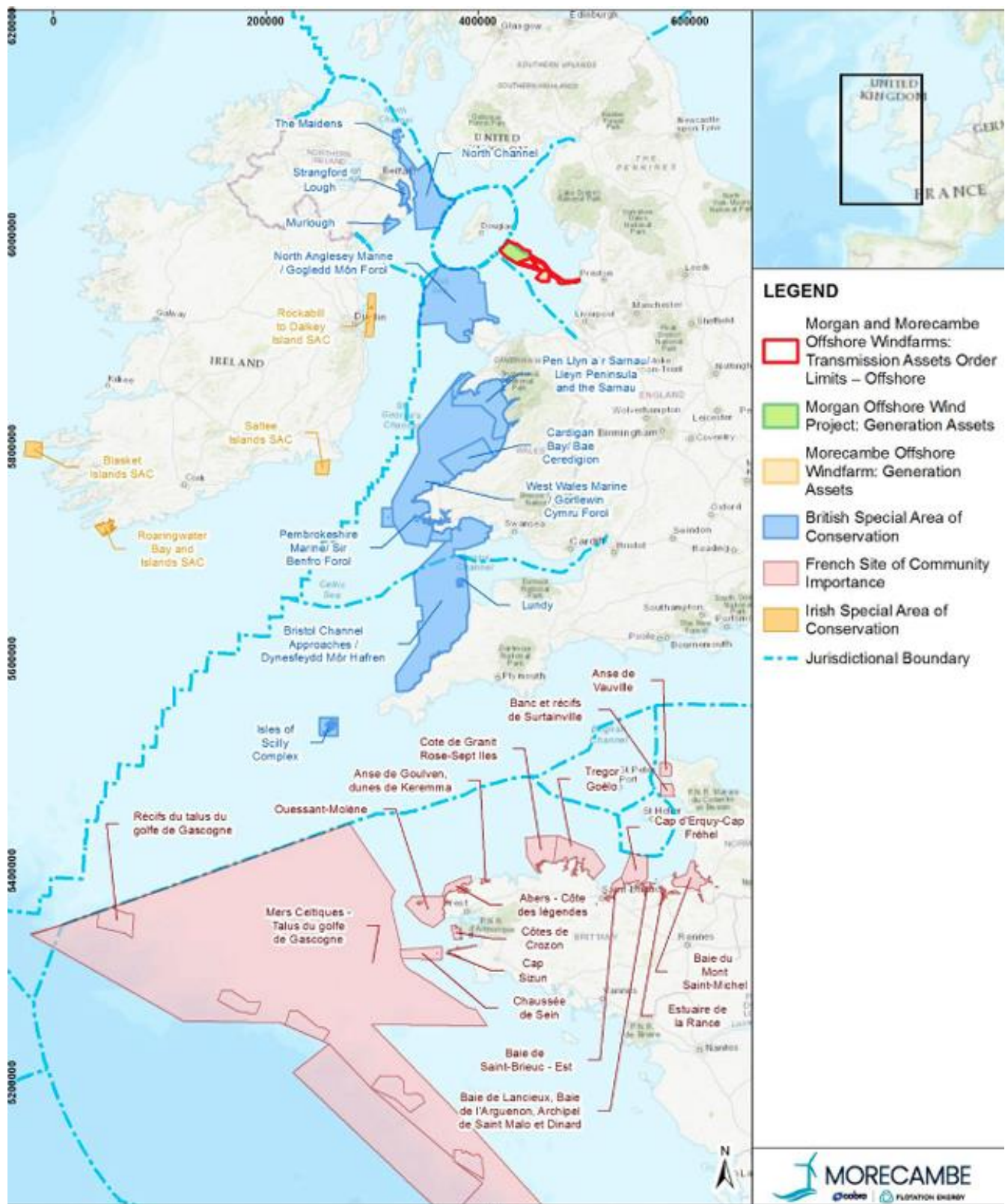


Figure 3 - Location of European sites designated for Annex II marine mammal species to be taken forward for determination of LSE (Figure 1.6 HRA Screening Report [REP6-026])

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

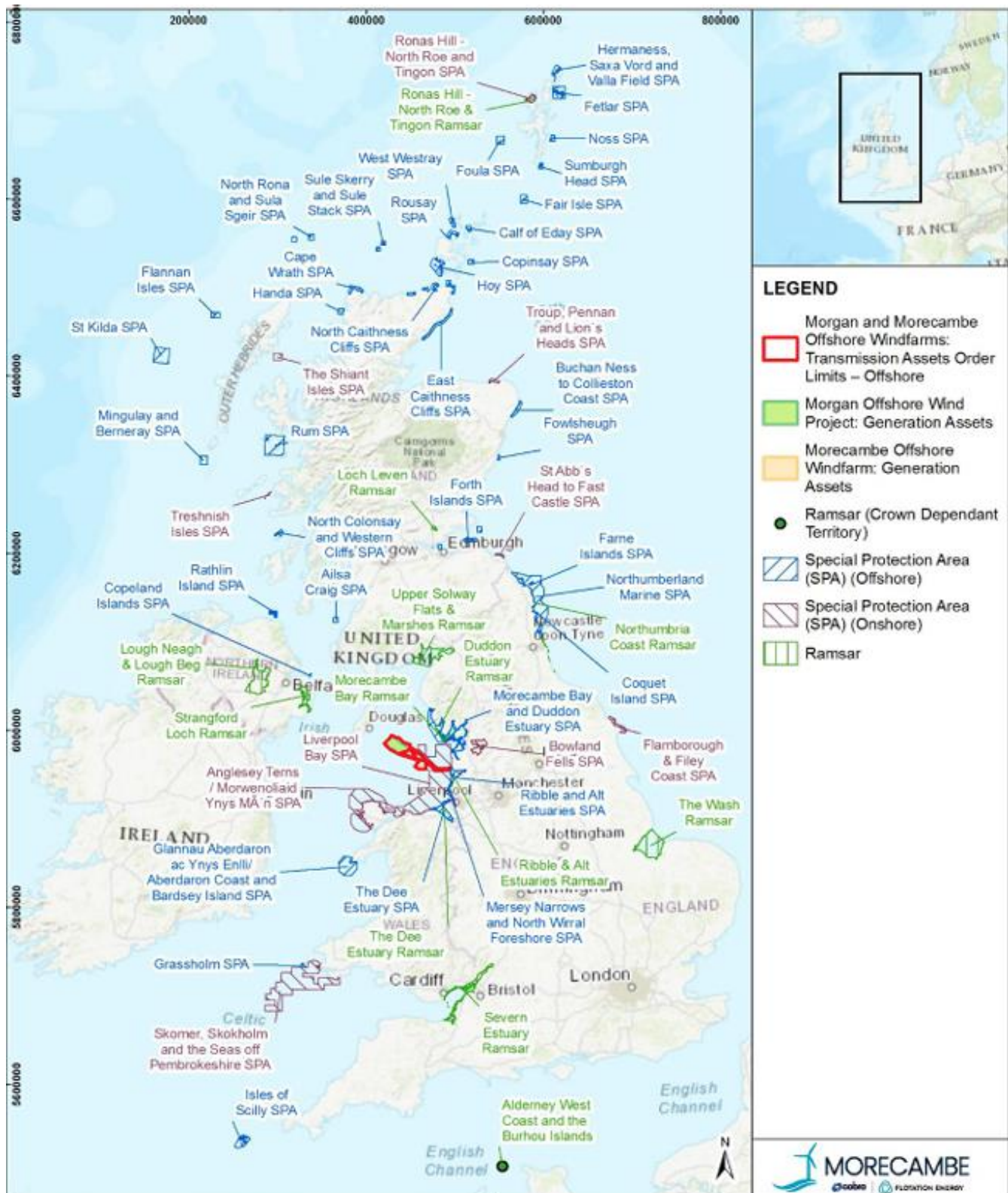


Figure 4 - Location of European sites designated for marine ornithological features to be taken forward for determination of LSE (Figure 1.7 HRA Screening Report [REP6-026])

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

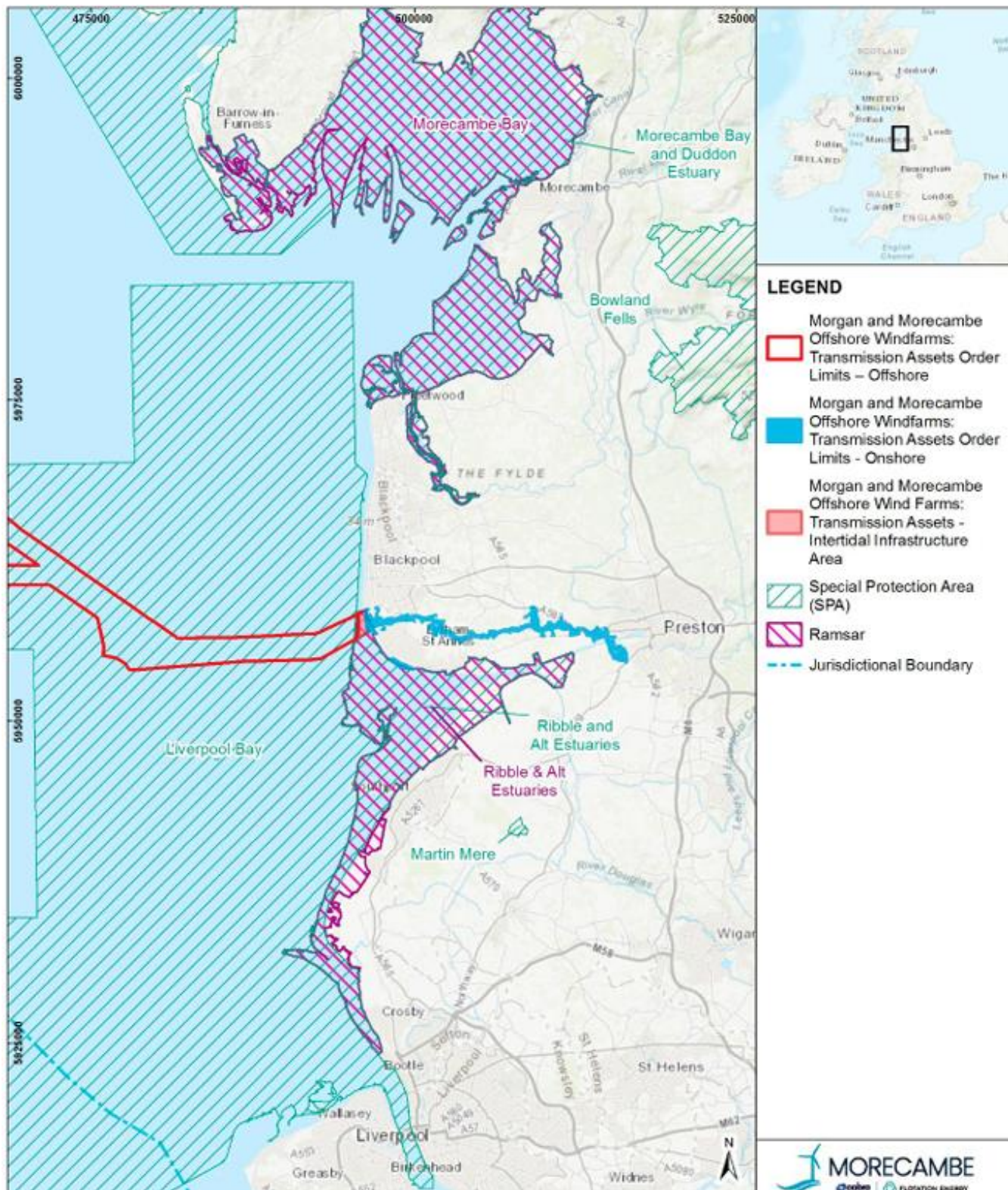


Figure 5 - Location of European sites designated for onshore and intertidal ornithological features to be taken forward for determination of LSE (Figure 1.8 HRA Screening Report [REP6-026])

Additional impact pathways raised during Examination

Finally, the ExA highlight that, following advice from NE the Applicants updated ISAA Part 3 to include assessment of long-term habitat loss, due to scour/cable protection, on features of the Liverpool Bay SPA. However, the HRA Screening Report and screening matrix were not updated to include LSE from long-term habitat loss. The ExA therefore note that there is potential for LSE from long-term loss of supporting habitat due to scour/ cable protection to the Liverpool Bay SPA red-throated diver, cormorant, common scoter, and red-breasted merganser qualifying features [ER C.1.2.48-49].

The ExA report [ER C.1.2.16] 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 1.3 to 1.9 of the HRA Screening Report [REP6-026]. The Secretary of State is therefore content that the correct sites, qualifying features and impact pathways have been identified for assessment.

3.1 Likely Significant Effects alone and in-combination

3.1.1 Project Alone

The Applicants identified the impacts considered to have the potential to result in LSEs from the Project alone in Section 1.4 of the HRA Screening Report. The potential for impact pathways to affect sites and features was assessed by receptor group in the following tables of that report:

- Table 1.3: Annex I habitats (subtidal and coastal) (1 site);
- Table 1.4: Annex II diadromous fish species (9 sites);
- Table 1.5: Annex II marine mammals (33 sites);
- Table 1.7: Marine ornithological features with potential connectivity to the Transmission Assets Order Limits (61 sites);
- Table 1.8: Onshore and intertidal ornithology features and screened out based on lack of connectivity (8 sites); and
- Table 1.9: Passage and wintering waterbird features with potential connectivity to the Onshore Order Limits and Intertidal Infrastructure Area (7 sites).

The protected sites affected and the potential impact pathways from the Project alone, are provided in Table 1.4 of the ISAA Parts 2 and 3. The following impact pathways were considered by the Applicants 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:

Annex I habitats (offshore and coastal)

- Suspended sediment/deposition (all phases)
- Temporary habitat loss/disturbance (all phases)
- Long term habitat loss (all phases)
- Invasive Non-Native Species ("INNS") (all phases)
- Colonisation of hard substrate (construction and operation)

- Change in physical processes (operation)
- Removal of hard substrates (decommissioning)
- Disturbance/remobilisation of sediment bound contaminants (all phases)
- Impacts to benthic invertebrates due to electromagnetic fields (operation)
- Heat from subsea electrical cables (operation)

Annex II marine mammals

- Underwater noise disturbance and injury (construction)
- Pre-construction surveys disturbance to marine mammals (construction)
- Vessel disturbance (all phases)
- Vessel collision risk (all phases)
- Changes to prey (all phases)

Annex II diadromous fish

- Temporary habitat loss/disturbance (all phases)
- Underwater noise disturbance from UXO (construction)
- Underwater noise from other activities (all phases)
- Suspended sediment concentration/deposition (all phases)
- Long term habitat loss (all phases)
- EMF from subsea cabling (operation)
- Hard substrata introduction (all phases)
- Sediment bound contaminants disturbance / remobilisation (all phases)

Offshore ornithology

- Disturbance and displacement from airborne sound, underwater sound and vessels (all phases)
- Indirect impacts from underwater sound affecting prey (construction and decommissioning)
- Temporary loss of habitat, disturbance and increases suspended sediment concentrations (all phases)
- Accidental pollution (all phases)

Onshore and intertidal ornithology

- Permanent loss of supporting habitats (construction)
- Temporary loss of support habitats and/or resource availability (all phases)
- Disturbance and displacement from all phases and maintenance (all phases)
- Pollution by accidental spills and/or contaminant release (no specific phase considered)
- Spreading Invasive Non-Native Species ("INNS") (no specific phase considered)
- Habitat fragmentation and species isolation (no specific phase considered)

As set out earlier the ExA also concluded it was necessary to assess the impact pathway long-term loss of supporting habitat due to scour/cable protection on offshore ornithological features of Liverpool Bay SPA.

3.1.2 Project In-Combination

The Applicants 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 1.6 of the HRA Screening Report [REP6-026] and summarised in ISAA Part 2 and Part 3. The Applicants set out in Section 1.5.5 ISAA Part 2 that a specialised process was developed to assess in-combination effects of the Project. The Project was assessed in combination with:

- Scenario 1: Morecambe Offshore Windfarm Generation Assets
- Scenario 2: Morgan Offshore Windfarm Generation Assets
- Scenario 3: Morecambe Offshore Windfarm Generation Assets and Morgan Offshore Windfarm Generation Assets
- Scenario 4: Scenario 3 together with tier 1, 2 and 3 projects (subdivided into scenario 4, 4b and 4c).

The Applicants' approach to the in-combination assessment is set out in Section 1.5.5 ISAA Part 2 and 1.4.5 ISAA Part 3. The plans and projects considered are illustrated on Figures 1.2, 1.5 and 1.7 ISAA Part 2 and Figures 1.5 and 1.6 ISAA Part 3. The in-combination assessments are presented in tabular form within sections 1.6.4–1.8.4 ISAA Part 2 and Sections 1.5.4 and 1.6.4 ISAA Part 3, and are grouped by project type and tier according to the level of available information.

Barrow Offshore Wind Farm ("OWF") submitted a relevant representation [RR-0218] stating that the Applicants had assumed the wind farm would no longer be operational from 2029, which Ørsted, as operator, considered to be incorrect and that it should therefore be included in the cumulative effects assessment. The Applicants justified its position using available evidence [PDA-007] [REP2-031]. Ørsted subsequently reiterated and further supported its position [REP1-188]; however, Barrow OWF later withdrew its objection to the Project [AS-075].

Following acceptance of the application, the Applicant submitted a number of updates to the cumulative effects assessment for EIA purposes ([REP1-020] [REP1-035] [REP1-037] [REP2-043] [REP5-029] [REP5-090] [REP5-099] [REP6-044] [REP6-136]). The ExA considers that there are no implications on the HRA as a result of updated documentation in relation to ornithology and the ES having been provided. The ExA was satisfied that no other plans or projects need be taken into account.

No in-combination LSE have been identified for the sites and qualifying features where LSE were excluded from the Project alone. Where LSE could not be ruled out, the Applicants addressed in-combination effects within the information to inform appropriate assessment (and did not conclude on any in-combination LSEs). This approach as far as it has a bearing on the screening for LSE was not a matter for discussion in the Examination and was not disputed by IPs. The ExA confirmed agreement with the conclusions of LSE from the Project in-combination with other plans and projects [ER C.1.3.18].

3.2 Likely Significant Effects conclusion

The Applicants' HRA Screening Report concluded potential LSE from the Project alone on the qualifying features of one UK site designated for offshore and coastal Annex I habitats, nine UK sites for designated for Annex II diadromous fish, seven UK sites designated for Annex II marine mammals, five UK sites designated for offshore ornithology, eight UK sites for onshore and intertidal ornithology and no UK sites for onshore Annex I habitats or Annex II species. LSE were also found for two sites designated for marine mammals in the Republic of Ireland. No IPs raised any concerns with the Applicants' conclusions of LSE and the ExA agrees with the conclusions of LSE to these sites and qualifying features [ER C.1.3.6].

The ExA also reviewed the scope of impact pathways considered in the Applicants' assessment of LSE and concluded that there was LSE from long-term loss of supporting habitat due to scour/cable protection on offshore ornithological features of Liverpool Bay SPA [ER C 1.11.4]. The Secretary of State notes this is assessed by the Applicants in ISAA Part 3.

The Secretary of State has 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 Applicants in its screening for LSEs [ER C.1.3.19]; and
2. the Project is likely to have a significant effect (either alone or in-combination) on the qualifying features of protected sites [ER C.1.3.20] as detailed in Section 1.5 of the HRA Screening Report [REP6-026].

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 the qualifying features:

- Shell flat and Lune Deep SAC
- Dee Estuary / Aber Dyfrdwy SAC
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC
- River Ehen SAC
- River Kent SAC
- River Derwent and Bassenthwaite Lake SAC
- Afon Gwyrfai a Llyn Cwellyn SAC
- Solway Firth SAC
- River Bladnoch SAC
- River Eden SAC
- North Anglesey Marine/ Gogledd Môn Forol SAC
- North Channel SAC
- Cardigan Bay/ Bae Ceredigion SAC
- Pen Llŷn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC
- West Wales Marine/ Gorllewin Cymru Forol SAC
- Pembrokeshire Marine/ Sir Benfro Forol SAC
- Bristol Channel Approaches/ Dynesfeydd Môr Hafren SAC

- Rockabill to Dalkey Islands SAC (Ireland)
- Saltee Islands SAC (Ireland)
- Liverpool Bay/ Bae Lerpwl SPA
- RAE Ramsar site
- RAE SPA
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay Ramsar site
- Liverpool Bay/ Bae Lerpwl SPA
- Martin Mere SPA
- Martin Mere Ramsar site
- Bowland Fells SPA

The full list of features and impact pathways carried forward to Appropriate Assessment is presented in Annex A of this document.

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 Defra¹² 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 AEoI 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 law¹³, 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.

¹² <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

¹³ 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 assessment of the implications of the Project on the qualifying features of the protected sites identified in her 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 Applicants' ISAA Parts 2 and 3 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.

The conclusions of the Secretary of State's Appropriate Assessment are summarised in Table 1 below. Further reasoning is presented in Section 5.3 where necessary.

5.2 Summary of the Secretary of State's 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(s)	LSE pathway	SoS conclusion on AEoI	Justification
Shell flat and Lune Deep SAC	Sandbanks which are slightly covered by sea water all the time	Increased suspended sediment/deposition (C, O, D)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for this site, feature and impact pathways alone and in-combination.
Dee Estuary / Aber Dyfrdwy SAC	Sea lamprey River Lamprey	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for these sites, features and impact pathways alone and in-combination.
River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC	Sea lamprey Atlantic Salmon River Lamprey			
River Ehen SAC	Atlantic Salmon Freshwater Pearl Mussel			
River Kent SAC	Freshwater Pearl Mussel			
River Derwent and Bassenthwaite Lake SAC	Sea lamprey Atlantic Salmon River Lamprey			

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
Afon Gwyrfaï a Llyn Cwellyn SAC	Atlantic Salmon			
Solway Firth SAC	Sea lamprey River Lamprey			
River Bladnoch SAC	Atlantic Salmon			
River Eden SAC	Sea lamprey Atlantic Salmon River Lamprey			
North Anglesey Marine/ Gogledd Môn Forol SAC	Harbour porpoise	Injury and disturbance from underwater sound generation from UXO clearance (C)	No AEol	The Project includes clearance of up to 25 low order unexploded ordnance ("UXO"). 22 under Schedule 14 to the Order - Marine Licence 1: Morgan Offshore Wind Project Transmission Assets; three under Schedule 15 to the Order - Marine Licence 2: Morecambe Offshore Windfarm Transmission Assets. UXO clearance has the potential to impact marine mammals through injury and disturbance from underwater sound generation. It does not cover high order UXO clearance. To mitigate potential risk the Applicants will develop detailed Marine Mammal Mitigation Protocols ("MMMPs") (CoT64; secured by Requirement 20(1)(b) of Part 2 of Schedule 14 and Schedule 15 to the Order). These will be in accordance with the outline Marine Mammal Mitigation Protocol, the intention of which is to prevent injury to marine mammals, following current best practice as advised by the relevant statutory nature conservation body (SNCB). They will be approved by the MMO in consultation with the relevant SNCB.
North Channel SAC	Harbour porpoise			
Cardigan Bay/ Bae Ceredigion SAC	Grey seal	Injury and disturbance from underwater sound generation from UXO clearance (C)		
Pen Llŷn a'r Sarnau/ Lleyn Peninsula and the Sarnau SAC	Grey seal			
West Wales Marine/ Gorllewin Cymru Forol SAC	Harbour porpoise			
Pembrokeshire Marine/ Sir Benfro Forol SAC	Grey seal			

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEoI	Justification
Bristol Channel Approaches/ Dynesfeydd Môr Hafren SAC	Harbour porpoise			If high order UXO clearance is required, this will be covered by and assessed under a separate licence which will consider additional secondary mitigation measures such as Noise Abatement Systems. With this mitigation in place the Secretary of State agrees with the MMO that provisions within the dDMLs (Schedule 14 and Schedule 15) are suitable and agrees with the ExA, NE, Natural Resources Wales and the Department of Agriculture, Environment and Rural Affairs (DAERA) of Northern Ireland, that an AEoI can be ruled out for these sites, features and impact pathway both alone and in-combination [ER C.1.8.8-18].
Rockabill to Dalkey Islands SAC (Ireland)	Harbour porpoise	Injury and disturbance from underwater sound generation from UXO clearance (C)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for this site, feature and impact pathway alone and in-combination.
Saltee Islands SAC (Ireland)	Grey Seal	Injury and disturbance from underwater sound generation from UXO clearance (C)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for this site, feature and impact pathway alone and in-combination.
Liverpool Bay/ Bae Lerpwl SPA	Red-throated diver Common scoter Common tern	<u>From Onshore Works</u> Temporary loss of supporting habitats and/or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for these sites, features and impact pathways from Onshore Works alone and in-combination.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
	Red-throated diver Common scoter	<u>From Offshore Works</u> Indirect impacts from underwater sound affecting prey species (C,D)	No AEol	The Secretary of State agrees with ExA and the Applicants that an AEol can be excluded for these features and impact pathways alone or in-combination [ER C.1.9.12] and notes that NE raised no concerns in relation to the conclusion for the impact pathway [ER C.1.9.5].
		<u>From Offshore Works</u> Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D)	No AEol	The Secretary of State notes disagreement over the effect of this pressure on the site during Examination [ER C.1.9.6]. She is content that the mitigation in COT 130 (seasonal restrictions prohibiting UXO clearance between November and March) and COT 135 (including the Applicants' commitment not to undertake routine O&M activities within the original Liverpool Bay SPA, together with a 2km buffer between November and March) are agreed and appropriate. These measures are secured via Condition 18(1)(f) of Part 2 of Schedule 14 and Schedule 15 to the Order (COT 130) and Condition 11 of Part 2 of Schedule 14 and Schedule 15 to the Order (COT 135). The Secretary of State agrees with the ExA, NE and the Applicants that with this mitigation in place an AEol can be excluded for these features and impact pathways of this site alone and in-combination [ER C.1.9.12].
		<u>From Offshore Works</u> Temporary habitat loss / disturbance and increased SSCs (C, O, D)	No AEol	The Applicants assess this impact pathway in Table 1.36 and Table 1.61-1.66 of ISAA Part 3 and conclude no AEol. The Secretary of State agrees with this rationale and concludes that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Concerns raised by NE in relation to supporting habitat loss are addressed below under 'long-term loss of supporting habitat'.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
	Red-throated diver Common scoter Cormorant Red-breasted merganser	<u>From Offshore Works</u> Long-term loss of supporting habitat (C)	No AEol	The Secretary of State notes NE advice to include assessment of long-term loss of supporting habitat due to scour/cable protection as a potential pathway of effect during Examination and additional information was sought [ER C.1.9.8]. She agrees with the Applicants (ISAA Part 3 paragraphs 1.5.3.171-173), ExA [ER C.1.9.11-12] and NE (REP6-193, Point RI-F2) that the predicted habitat loss from scour and cable protection will not result in an AEol on these features alone or in-combination.
	Cormorant Red-breasted merganser	<u>From Offshore Works</u> Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	No AEol	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEol can be excluded for this site, features and impact pathway alone and in-combination.
RAE Ramsar site	Red-throated diver Cormorant Common scoter	<u>From Offshore Works</u> Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D)	No AEol	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEol can be excluded for this site, features and impact pathway alone and in-combination.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
		Indirect impacts from underwater sound affecting prey species (C,D)		
	Ringed plover (spring/ autumn) Grey plover (spring/ autumn) Dunlin (spring/ autumn) Oystercatcher (winter) Bar-tailed godwit (winter) Knot (spring/ autumn)	<u>From intertidal works</u> Temporary loss of supporting habitats and/ or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEol	The Applicants have committed to mitigation measures at the landfall works including seasonal restrictions (CoT110 and CoT129) and construction mitigation set out in the OEMP. The Applicants also propose further measures at the Fairhaven Saltmarsh mitigation area to reduce recreational disturbance on roosting waders to mitigate residual effects and provide enhancement to other wader species. With mitigation measures in place the Applicants (Table 1.118 of ISAA Part 3), the ExA [ER.C.1.10.71; 101; Table C.7; Table C.8] and NE [C3-005] conclude an AEol can be ruled out for this site, features and impact pathways alone and in-combination. The Secretary of State agrees with this conclusion. Further justification is presented in section 5.3.1.2 below.
	Lesser black-backed gull (breeding and spring/ autumn) Sanderling (spring/ autumn) Black-tailed godwit (spring/ autumn) Redshank (spring/ autumn)	<u>Onshore Works</u> Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	No AEol	At the close of Examination, the Applicants argued (ISAA Part 3) that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT107) and Newton-with-Scales (COT120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA conclude that the measures could not be relied upon and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER.C.1.11.10].

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
	Whooper swan (winter) Pink-footed goose (winter) Shelduck (winter) Wigeon (winter) Teal (winter) Non-breeding waterbird assemblage			The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in section 5.3.1.3 below.
RAE SPA	Components of the Waterbird Assemblage (non-breeding): Common scoter Cormorant Scaup	<u>From Offshore Works</u> Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	No AEol	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEol can be excluded for this site, features and impact pathways alone and in-combination.
	Oystercatcher (non-breeding) Ringed plover (non-breeding and passage)	<u>From intertidal works</u> Temporary loss of supporting habitats and/ or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEol	The Applicants have committed to mitigation measures at the landfall works including seasonal restrictions (CoT 110 and CoT 129) and construction mitigation set out in the OEMP. Measures at the Fairhaven Saltmarsh mitigation area will reduce any residual effects and provide enhancement to other wader species.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
	Grey plover (non-breeding) Knot (non-breeding) Sanderling (non-breeding and passage) Dunlin (non-breeding) Bar-tailed godwit (non-breeding) Redshank (non-breeding and on passage)			With mitigation measures in place the Applicants (Table 1.118 of ISAA Part 3) the ExA [ER C.1.10.71; 101; Table C.7; Table C.8] and NE [C3-005] conclude an AEol can be ruled out for this site, features and impact pathways alone and in-combination. The Secretary of State agrees with this conclusion. Further justification is presented in section 5.3.1.2 below.
	Lesser black-backed gull (breeding) Common tern (breeding) Ruff (breeding) Breeding seabird assemblage	<u>From intertidal works</u> Temporary loss of supporting habitats and/ or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEol	The Secretary of State agrees with the Applicants and ExA (Tables C.7 and C.8 of Appendix C to the ExA Report) that an AEol can be excluded for this site, features and impact pathways and notes that NE raised no objections to this conclusion.
	Whooper swan (non-breeding) Pink-footed goose (non-breeding) Shelduck (non-breeding) Wigeon (non-breeding)	<u>From onshore works</u> Temporary loss of supporting habitats and/ or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEol	At the close of Examination, the Applicants argued (ISAA Part 3) that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA conclude that the measures could not be relied upon and an AEol could not be excluded for this site

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
	Teal (non-breeding) Golden plover (non-breeding) Black-tailed godwit (non-breeding) Non-breeding waterbird assemblage			from temporary habitat loss or disturbance [ER.C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 below.
	Golden plover (non-breeding)	Permanent loss of supporting habitats (C)	No AEol	At the close of Examination, there was disagreement over the impact of the loss of potentially functionally linked land at the substation sites, in relation to Golden plover. The ExA could not rule out an AEol alone or in-combination (ER C.5.3.14-15). Additional information was submitted by both NE and the Applicants in response to the second and third information requests. Based on this information the Secretary of State agrees with the Applicants and NE agree that an AEol can now be excluded for this feature and impact pathway of this site both alone in-combination. Further detail and reasoning for this conclusion can be found in section 5.3.1.4.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
Morecambe Bay and Duddon Estuary SPA	Cormorant Eider Red-breasted merganser	Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	No AEol	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEol can be excluded for this site, features and impact pathway alone and in-combination.
	Pink-footed goose (non-breeding) Golden plover (non-breeding) Curlew (non-breeding)	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	No AEol	At the close of Examination, the Applicants argued (ISAA Part 3) that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA concluded that the measures could not be relied upon and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
				Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 for RAE SPA and also applies to this site.
	Lesser black-backed gull (breeding and non-breeding) Herring gull (breeding) Sandwich tern (breeding)	Temporary loss of supporting habitats and/ or resource availability (C, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, D)	No AEol	At the close of Examination, the Applicants argued (ISAA Part 3) that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA concluded that the measures could not be relied upon and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 for RAE SPA and also applies to this site.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
Morecambe Bay Ramsar site	Cormorant Eider Red-breasted merganser	Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	No AEol	At the close of Examination, the Applicants argued (ISAA Part 3) that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA conclude that the measures could not be relied upon and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 for RAE SPA and also applies to this site.
Morecambe Bay Ramsar site	Pink-footed goose (winter) Golden plover (winter) Curlew (non-breeding)	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	No AEol	At the close of Examination, the Applicants argued that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA conclude that the measures could not be relied upon

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
				and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that an AEol can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 for RAE SPA and also applies to this site.
Morecambe Bay Ramsar site	Lesser black-backed gull (breeding and non-breeding) Herring gull (breeding) Sandwich tern (breeding)	Temporary loss of supporting habitats and/ or resource availability (C, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, D)	No AEol	The Applicants and ExA (Table C.9 of Appendix C to the ExA Report) agree that an AEol can be excluded for this site, feature and impact pathway, alone and in-combination. No IPs raised any specific queries or concerns regarding the assessment of effects and conclusions for this site, feature and impact pathway [ER C.1.10.124]. This conclusion does not rely on mitigation at Newton-with-Scales or Lytham Moss and is therefore not affected by questions over the viability of those measures. The Secretary of State agrees with the conclusions of the Applicants and the ExA.

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEol	Justification
Martin Mere SPA and Ramsar	Pink-footed goose (non-breeding)	Permanent loss of supporting habitats (C)	No AEol	The Applicants and ExA (Table C.9 of Appendix C to the ExA Report) agree that an AEol can be excluded for this site, feature and impact pathway, alone and in-combination. No IPs raised any specific queries or concerns regarding the assessment of effects and conclusions for this site, feature and impact pathway [ER.C.1.10.124]. This conclusion does not rely on mitigation at Newton-with-Scales or Lytham Moss and is therefore not affected by questions over the viability of those measures. The Secretary of State agrees with the conclusions of the Applicants and the ExA.
		Temporary loss of supporting habitats and/ or resource availability (C, O, D) Disturbance and displacement (C, O, D)	No AEol	At the close of Examination, the Applicants argued that an AEol can be excluded due to the proposed mitigation measures at Lytham Moss (COT 107) and Newton-with-Scales (COT 120). However, due to uncertainty regarding the risk of bird-strike to aviation and therefore the deliverability of these mitigation areas, the ExA conclude that the measures could not be relied upon and an AEol could not be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10]. The Secretary of State sought further information regarding alternative mitigation measures which have been secured through the updated OEMP and via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers that these alternative measures can be relied upon and agrees with NE that

Protected Site	Qualifying Feature(s)	LSE pathway	SoS conclusion on AEoI	Justification
				an AEoI can be excluded for these features and impact pathways of this site alone and in-combination. Further detail on the Secretary of State's justification is provided in Section 5.3.1.3 for RAE SPA and also applies to this site.
Bowlands Fells SPA	Lesser black-backed gull (breeding)	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	No AEoI	The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for this site, feature and impact pathways, alone and in-combination.

5.3 Onshore and Intertidal Ornithology

5.3.1 Ribble and Alt Estuary Special Protection Area and Ramsar

5.3.1.1 Mitigation areas

Tables 1.71 (for permanent habitat loss), 1.78 (for temporary habitat loss) and 1.94 (temporary disturbance and displacement) of ISAA Part 3 set out the Applicants' mitigation proposals at the close of Examination. These included proposed temporary and permanent mitigation areas intended to reduce/offset potential impacts as follows [ER C.1.10.8]:

1. Fairhaven Saltmarsh mitigation area (CoT 113) would provide measures e.g. wardening, signage and soft-fencing at the high tide roost site at Fairhaven Saltmarsh, to reduce public disturbance on roosting wader features of the Ribble and Alt Estuaries SPA. This will be utilised when works are undertaken in the intertidal infrastructure area.
2. Lytham Moss mitigation area (CoT 107) was intended to provide supplementary feeding for pink-footed goose and whooper swan alongside habitat enhancement for terrestrial waders on a patch of arable farmland.
3. Newton-with-Scales mitigation area (CoT 120) would provide habitat enhancement for waders and farmland birds. This is primarily intended to mitigate for permanent habitat loss at the substation site however will also provide benefits for species impacted by temporary habitat loss and disturbance/displacement.

5.3.1.2 Intertidal ornithology - temporary disturbance and temporary habitat loss

The suitability of the area at Fairhaven Saltmarsh as mitigation, rather than compensation, was questioned by NE, considered during the Examination and is discussed in [ER C.1.10.23-26]. The ExA considered that as the Fairhaven Saltmarsh scheme is designed to reduce the effects of recreational disturbance from pedestrians and dog walkers, as opposed to impacts of the Project itself, the case for considering the initiative as a compensation measure is a persuasive one. However, the ExA also acknowledged that the Applicants' surveys indicate that the birds observed at landfall were likely to have been displaced from Fairhaven by recreational disturbance. The Secretary of State concludes that as the measures intend to reduce the initial disturbance and displacement of waders from Fairhaven Saltmarsh area, to the landfall area, it is likely to reduce the number of birds at the landfall area during construction and maintenance activities and, as such, reduce the number disturbed by the landfall works. She therefore concludes it is appropriate to consider the measure as mitigation.

The need for the measure was considered by the ExA in [ER C.1.10.23-26]. NE and the Applicants agree that the Fairhaven Saltmarsh mitigation area should be considered a 'necessary alleviation measure'. In [REP5-183] NE advise that, based on construction mitigation seasonal restrictions, the risk of AEoI is low but NE also highlight that the Project has potential for residual impacts which can be addressed by Fairhaven Saltmarsh mitigation area. With the addition of the new mitigation commitments at the landfall works NE [REP6-194] agreed these

were now sufficient to rule out an AEol, and that Fairhaven Saltmarsh mitigation area can be retained to reduce the residual impacts, albeit such residual impacts do not result in an AEol of the protected site.

The ExA concluded that with seasonal restrictions and construction mitigation measures (not including the Fairhaven Saltmarsh mitigation area) it was able to exclude an AEol from construction and decommissioning impacts to oystercatcher, ringed plover, grey plover, knot, dunlin, bar-tailed godwit and redshank and sanderling alone and in-combination. The ExA reached the same conclusion for operation and maintenance impacts in the intertidal area due to small scale and temporary nature of any impacts. [ER.C.1.10.71; Table C.7; C.1.10.91; C.1.10.94; C.1.10.101; Table C.8; C.1.10.117-118]

The Secretary of State notes that NE [C3-005] includes the Fairhaven Saltmarsh mitigation area in Table 1 as a measure required to conclude no AEol on the RAE SPA and Ramsar. However, the wording of this measure continues to advise that it is a measure for residual impacts. Noting that the purpose is still to address residual impacts, the Secretary of State therefore concludes NEs earlier advice still applies and agrees with the ExA that an AEol can be excluded for all intertidal features alone and in-combination without the Fairhaven Saltmarsh mitigation area. However, she agrees with the ExA, NE and the Applicants that the proposed mitigation area has the potential to further reduce residual impacts to waders and she therefore concludes that it should be progressed alongside other mitigation measures.

5.3.1.3 Onshore ornithology - temporary disturbance and temporary habitat loss

ISAA Part 3 presents that during construction, up to 193,413m² of mapped functionally linked land at Lytham Moss is expected to be subject to disturbance and therefore unavailable to birds for up to 66 months. Within the onshore infrastructure areas there will be temporary habitat loss of up to 122,500m² throughout enabling, construction and testing/commissioning works, for up to 85 months (paragraphs 1.6.3.56-57 of ISAA Part 3). The maximum design scenario ("MDS") and associated worst case scenario impact is set out in Table 1.76 of ISAA Part 3.

Construction activities may temporarily disturb SPA and Ramsar waterbirds. Temporary disturbance and displacement may reduce foraging opportunities and increase energetic expenditure with detrimental impacts on bird survival and productivity (ISA Part 3 1.6.3.197). During construction the MDS for onshore works is presented in Table 1.92 and assumes all works occur simultaneously (ISAA Part 3 1.6.3.200). No additional disturbance is expected during operation and maintenance (ISAA Part 3 1.6.3.201)

The Applicants proposed multiple mitigation measures related to the potential impacts from onshore works. These are set out in Tables 1.78 (for temporary habitat loss) and 1.94 (temporary disturbance and displacement) of ISAA Part 3 and included the Lytham Moss and Newton-with-Scales mitigation areas. The Applicants considered that with all proposed mitigation measures in place, an AEol could be excluded for all sites and features (ISAA Part 3). At the close of Examination NE agreed with this conclusion and, from an ecological perspective, the ExA were also content that the mitigation was appropriate [ER C.1.10.20-21].

However, interested parties raised concerns that these mitigation areas could affect aviation safety due to an increased risk of bird strike to aircraft using the Warton Aerodrome. This matter is considered in detail in section 4.3 of the ExA Report and the ExA ultimately concluded that

the proposals at Lytham Moss and Newton-with-Scales would amount to an unacceptable risk to the operations of BAE Systems at Warton Aerodrome [ER 4.3.95]. This in turn created uncertainty regarding the deliverability of these mitigation areas and the ExA therefore concluded that the Lytham Moss and Newton-with-Scales mitigation areas could not be relied upon and, as a result, an AEoI cannot be excluded for this site from temporary habitat loss or disturbance [ER C.1.11.10].

During Examination, Natural England advised that spatial scheduling should be explored as alternative avoidance and mitigation as this would reduce the need for mitigation areas, and at D6 the Applicants proposed alternative measures comprising visual screening and seasonal working. NE advised, however, that the proposals were insufficiently developed for NE to provide substantive advice [ER C.1.10.34-6; REP7-049]. The ExA subsequently concluded [ER 5.3.11] that, in principle, such alternative measures were preferable over the originally proposed measures but that insufficient detail was provided during Examination to rely on those alternative measures.

In the first information request the Secretary of State requested further information from the Applicants and NE regarding alternative mitigation measures, including spatial scheduling and avoidance, in accordance with the mitigation hierarchy, and potential alternative mitigation areas. In response, the Applicants proposed alternative temporary mitigation measures (Scenario 3: seasonal working practices (i.e., no working between October and March) at Lytham Moss and land south of Newton-with-Scales and the screening of works bordering these areas and at Lea Marsh) in Alternative Ornithology Mitigation Note – Temporary [C1-029.29]. NE [C1-016] advised that the proposed Scenario 3 represents a more appropriate use of the mitigation hierarchy and with these measures in place an AEoI could be excluded for all sites / features and impact pathways (except golden plover of the RAE SPA due to the loss of functionally linked land as discussed below) and reiterated in [C3-005] that this remained NEs preferred approach.

The Secretary of State agrees that, as the proposed measures under Scenario 3 intend to avoid and reduce harm, this is preferable to the use of mitigation areas which intend to offset harm. Subsequently in the third information request the Secretary of State asked the Applicants to update the OEMP to remove temporary mitigation scenarios that rely on measures at Lytham Moss and land south of Newton-with-Scales to provide mitigation for temporary disturbance and temporary habitat loss impacts to ornithology species. In response the Applicants submitted an updated OEMP [C3-008.3] which relies on seasonal working and screening to provide mitigation for temporary habitat loss and disturbance.

The alternative measures now contained in the OEMP are secured via Requirement 12 of Schedule 2A and Schedule 2B to the Order. The Secretary of State considers sufficient detail has now been provided on these alternative measures such that they can be relied on. She therefore concludes that an AEoI can be excluded for these features and impact pathways of this site both alone and in-combination.

5.3.1.4 Golden Plover – Permanent habitat loss of functionally linked land at the substation sites

Development of the substation sites (including the attenuation pond and landscaping) will occur on land outside the SPA boundary. It will result in the loss of up 223,500 m² of habitat, mostly

pasture and some arable. During Examination the Applicants reported that baseline surveys identified golden plover using the area around the substation site in significant numbers (104 individuals; >2% of the SPA population) during one of 14 survey visits (paragraph 1.6.3.17 of ISAA Part 3).

Through Examination and the determination period there has been disagreement between NE and the Applicants over the relationship between substation land and the SPA, i.e. whether the substation sites are functionally linked land. The Applicants argued that due to infrequent use of the site by golden plover it does not represent functionally linked land (paragraph 1.6.3.17 of ISAA Part 3). NE acknowledge that the data indicates irregular use however it argued that *“the numbers present did exceed 1% of the SPA population which implies the area is actively selected by the species. Therefore, there is the potential that the area subject to permanent loss is preferential to golden plover. More generally, it should be recognised that monthly surveys are inevitably ‘snapshots’ of usage of areas by foraging waterbirds, which may be influenced by a range of factors including time of day, weather conditions, tidal cycle etc”* [REP7-049].

At the close of Examination, the ExA concluded, on a precautionary basis, that the substation site should be considered important to golden plover because the numbers of birds observed using the site exceeded the standard thresholds for determining functional linkage [ER C. 5.3.14].

During Examination the Applicants proposed the Newton-with-Scales mitigation area to offset the loss of FLL at the substation site. NE agreed that with this mitigation in place, an AEoI could be excluded [REP7-049].

However, as discussed in section 5.3.1.3, interested parties raised concerns during Examination that the proposed mitigation areas could affect aviation safety which created uncertainty regarding the deliverability of the Newton-with-Scales mitigation area. The ExA concluded this could not be relied upon and therefore the ExA could not exclude an AEoI to wintering golden plover of the RAE SPA and Ramsar due to permanent habitat loss from the Project alone or in combination [ER 5.3.14-15; ER C.1.10.51].

To resolve this issue, the ExA advised the Secretary of State to seek further information from the Applicants and NE regarding alternative solutions, IRoPI and compensatory measures. Having reviewed the Applicants' documents, including ISAA Part 3, the Secretary of State concluded that the approach to ruling out AEoI was heavily reliant on proposals at the Newton-with-Scales mitigation area instead of accurately assessing the predicted impact on habitat availability for golden plover.

The Secretary of State sought substantial further information in relation to alternative mitigation areas, possible compensation options, bird strike risk and potential functional linkage of the substation site for golden plover in the first and second information requests. In response to the second information request [C2-029.2] the Applicants provided further detail on the surveys including, dates, times, tidal state and exact location of the golden plover sightings in relation to the substation sites. They highlighted availability of similar habitats in proximity to the proposed substation sites and compared usage of the site to existing definitions of functionally linked land to argue that the site is not functionally linked.

The Secretary of State consulted NE on this information in the third information request. In its response, NE [C3-005] confirmed its conclusion that, based on the additional information

provided by the Applicants, the substation site does not represent high confidence FLL, there is sufficient suitable alternative habitat for golden plover in close proximity and an AEol can therefore be excluded without the need for any permanent mitigation areas.

Based on this additional information, the Secretary of State is content that the Newton-with-Scales mitigation area is not required to exclude an AEol and any previous concerns related to deliverability of the Newton-with-Scales mitigation area are no longer relevant to the conclusion of this Appropriate Assessment. The Secretary of State concludes, in agreement with the Applicants and NE, that an AEol can be excluded beyond reasonable scientific doubt for this feature and impact pathway of this site, both alone and in-combination.

5.4 Appropriate Assessment conclusion

The Secretary of State has carefully considered all the information available to her, including the recommendations of the ExA, the advice of NE as the SNCB, the views of all other IPs, and the Applicants' case. The full consideration of her 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:

- Shell flat and Lune Deep SAC
- Dee Estuary / Aber Dyfrdwy SAC
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC
- River Ehen SAC
- River Kent SAC
- River Derwent and Bassenthwaite Lake SAC
- Afon Gwyrfaï a Llyn Cwellyn SAC
- Solway Firth SAC
- River Bladnoch SAC
- River Eden SAC
- North Anglesey Marine/ Gogledd Môn Forol SAC
- North Channel SAC
- Cardigan Bay/ Bae Ceredigion SAC
- Pen Llŷn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC
- West Wales Marine/ Gorllewin Cymru Forol SAC
- Pembrokeshire Marine/ Sir Benfro Forol SAC
- Bristol Channel Approaches/ Dynesfeydd Môr Hafren SAC
- Rockabill to Dalkey Islands SAC (Ireland)
- Saltee Islands SAC (Ireland)
- Liverpool Bay/ Bae Lerpwl SPA
- Ribble and Alt Estuaries Ramsar site
- Ribble and Alt Estuaries SPA
- Morecambe Bay and Duddon Estuary SPA

- Morecambe Bay Ramsar site
- Liverpool Bay/ Bae Lerpwl SPA
- Martin Mere SPA
- Martin Mere Ramsar site
- Bowland Fells SPA

6 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 20 September 2023, following the Applicants’ 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 15 January 2025 following acceptance of the application [OD-006]. 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 the Republic of Ireland and Belgium.

A response was received from Belgium [OD-010], specifically from the Agency of Agriculture and Fisheries, which raised matters relating to commercial fisheries. Additionally, responses received from the Republic of Ireland were provided via a public consultation and were published by PINS [OD-012]. The Republic of Ireland advised that responses on behalf of the State would be submitted through the public consultation process [OD-009]. The responses received and published by PINS [OD-012] raised matters relating to benthic ecology, seascape and landscape effects, marine mammals, ornithological receptors, commercial fisheries, shipping and navigation, security and safety, and the potential for cumulative effects. Particular concerns related to the adequacy of baseline information, project-alone and cumulative effects on marine mammals, connectivity between Irish and UK breeding bird populations, and impacts on commercial fisheries [OD-012].

Likely Significant Effects (LSE) were identified for two Irish Sites (Rockabill to Dalkey Island SAC and Saltee Islands SAC), for which the Applicants concluded no AEoI [ER C.1.1.19]. The Secretary of State agrees with all parties (Table C.4 of Appendix C to the ExA Report) that an AEoI can be excluded for these sites, features and impact pathways alone and in-combination.

During the Examination, submissions relating to the transboundary consultation process were made by Ms Attracta Uí Bhroin, both in a personal capacity and on behalf of Environmental Law Ireland at An Taisce and An Cláomh Glas, and by Mr Byrne on behalf of An Cláomh Glas [EV3-004]. The concerns raised related principally to procedural matters regarding the fairness of the transboundary consultation process. In its Rule 8 letter, the ExA confirmed that these parties could participate as “other persons” in the Examination and encouraged them to make submissions on matters of concern, with any accepted submissions to be addressed by the Applicants in the same manner as those from interested parties [PD-007].

The Applicants responded to matters raised through the transboundary consultation process at Deadline 1 [REP1-062]. The ExA considered the issues raised by Belgium and the Republic of

Ireland, together with the Applicants' responses, as part of its assessment of the Environmental Impact Assessment and Habitats Regulations Assessment. The ExA reported on these matters in the relevant sections of its Report and did not receive any further substantive responses on transboundary matters from the parties identified above, including in response to specific questions directed to Ms Uí Bhroin [PD-008].

The ExA noted that the duty under Regulation 32 is an ongoing one and therefore considered whether any information submitted during the Examination altered the conclusions of the transboundary screening. Having reviewed the evidence available up to the close of the Examination, the Examining Authority was satisfied that no new information had arisen that would require the transboundary screening conclusions to be revised [OD-006].

The Secretary of State is satisfied that further stages of a transboundary assessment are therefore not required.

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

Table 2 - Protected sites and qualifying features where LSE have been identified

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
Shell flat and Lune Deep SAC	Sandbanks which are slightly covered by sea water all the time	See footnote ¹⁴	Increased suspended sediment/deposition (C, O, D)	Alone and in- combination
Dee Estuary / Aber Dyfrdwy SAC	Sea lamprey River Lamprey	See footnote ¹⁵	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in- combination

¹⁴<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030376&SiteName=shell%20flat%20and%20lune%20deep&SiteNameDisplay=Shell%20Flat%20and%20Lune%20Deep%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Shell%20Flat%20and%20Lune%20Deep%20SAC>

¹⁵<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030131&SiteName=dee%20estuary&SiteNameDisplay=Dee%20Estuary/%20Aber%20Dyfrdwy%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=0&NumMarineSeasonality=7&SiteNameDisplay=Dee%20Estuary/%20Aber%20Dyfrdwy%20SAC>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC	Sea lamprey Atlantic Salmon River Lamprey	See footnote ¹⁶	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in-combination
River Ehen SAC	Atlantic Salmon Freshwater Pearl Mussel	See footnote ¹⁷	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in-combination
River Kent SAC	Freshwater Pearl Mussel	See footnote ¹⁸	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in-combination

¹⁶<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030252&SiteName=river%20dee&SiteNameDisplay=River%20Dee%20and%20Bala%20Lake%20/%20Afon%20Dyfrdwy%20a%20Llyn%20Tegid%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=River%20Dee%20and%20Bala%20Lake%20/%20Afon%20Dyfrdwy%20a%20Llyn%20Tegid%20SAC>

¹⁷<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030057&SiteName=river%20ehen&SiteNameDisplay=River%20Ehen%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=River%20Ehen%20SAC>

¹⁸<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030256&SiteName=river%20kent&SiteNameDisplay=River%20Kent%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=River%20Kent%20SAC>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
River Derwent and Bassenthwaite Lake SAC	Sea lamprey Atlantic Salmon River Lamprey	See footnote ¹⁹	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in- combination
Afon Gwyrfaï a Llyn Cwellyn SAC	Atlantic Salmon	See footnote ²⁰	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in- combination
Solway Firth SAC	Sea lamprey River Lamprey	See footnote ²¹	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in- combination

¹⁹<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030032&SiteName=river%20derwent&SiteNameDisplay=River%20Derwent%20%20Bassenthwaite%20Lake%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=River%20Derwent%20%20Bassenthwaite%20Lake%20SAC>

²⁰

²¹<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0013025&SiteName=solway%20firth&SiteNameDisplay=Solway%20Firth%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=0&NumMarineSeasonality=7&SiteNameDisplay=Solway%20Firth%20SAC>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
River Bladnoch SAC	Atlantic Salmon	See footnote ²²	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in-combination
River Eden SAC	Sea lamprey Atlantic Salmon River Lamprey	See footnote ²³	Underwater sound from UXO impacting fish and shellfish receptors (C) EMF from subsea electrical cabling (O)	Alone and in-combination
North Anglesey Marine/ Gogledd Môn Forol SAC	Harbour porpoise	See footnote ²⁴	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in-combination
North Channel SAC	Harbour porpoise	See footnote ²⁵	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in-combination

²² [SiteLink - River Bladnoch SAC](#)

²³ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0012643&SiteName=River%20eden&SiteNameDisplay=River%20Eden%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=River%20Eden%20SAC>

²⁴ <https://data.jncc.gov.uk/data/f4c19257-2341-46b3-8e29-49665cd8f3d2/NorthAnglesey-Conservation-Advice.pdf>

²⁵ <https://data.jncc.gov.uk/data/be0492aa-f1d6-4197-be22-e9a695227bdb/NorthChannel-conservation-advice.pdf>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
Cardigan Bay/ Bae Ceredigion SAC	Grey seal	See footnote ²⁶	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in- combination
Pen Llŷn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC	Grey seal	See footnote ²⁷	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in- combination
West Wales Marine/ Gorllewin Cymru Forol SAC	Harbour porpoise	See footnote ²⁸	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in- combination
Pembrokeshire Marine/ Sir Benfro Forol SAC	Grey seal	See footnote ²⁹	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in- combination

²⁸ <https://jncc.gov.uk/our-work/west-wales-marine-mpa/>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
Bristol Channel Approaches/ Dynesfeydd Môr Hafren SAC	Harbour porpoise	See footnote ³⁰	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in-combination
Rockabill to Dalkey Islands SAC (Ireland)	Harbour porpoise	See footnote ³¹	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in-combination
Saltee Islands SAC (Ireland)	Grey Seal	See footnote ³²	Injury and disturbance from underwater sound generation from UXO clearance (C)	Alone and in-combination
Liverpool Bay/ Bae Lerpwl SPA	Red-throated diver Cormorant Common scoter Red-breasted merganser Common tern (breeding)	See footnote ³³	<u>Offshore Works</u> Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D)	Alone and in-combination

³⁰ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0030396&SiteName=Bristol%20channel%20&SiteNameDisplay=Bristol%20Channel%20Approaches%20/%20Dynesfeydd%20M%C3%B4r%20Hafren%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=0&NumMarineSeasonality=0&SiteNameDisplay=Bristol%20Channel%20Approaches%20/%20Dynesfeydd%20M%C3%B4r%20Hafren%20SAC>

³³ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9020294&SiteName=liverpool%20bay&SiteNameDisplay=Liverpool%20Bay%20/%20Bae%20Lerpwl%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAAarea=&HasCA=0&NumMarineSeasonality=5&SiteNameDisplay=Liverpool%20Bay%20/%20Bae%20Lerpwl%20SPA>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
			Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Long-term loss of supporting habitat (C) Indirect impacts from underwater sound affecting prey species (C,D) Indirect impacts from long-term loss of supporting habitat due to scour/ cable protection affecting prey species (O) <u>Onshore and Intertidal Works</u> Temporary loss of supporting habitats and/or resource availability (C, O, D) Disturbance and displacement (C, O, D)	
RAE Ramsar site	Red-throated diver Cormorant Common scoter		Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D)	

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
	Ringed plover (spring/ autumn) Grey plover (spring/ autumn) Lesser black-backed gull (breeding and spring/ autumn) Knot (spring/ autumn) Sanderling (spring/ autumn) Dunlin (spring/ autumn) Black-tailed godwit (spring/ autumn) Redshank (spring/ autumn) Whooper swan (winter) Pink-footed goose (winter) Shelduck (winter) Wigeon (winter) Teal (winter) Oystercatcher (winter) Bar-tailed godwit (winter) Non-breeding waterbird assemblage	See footnote ³⁴	Indirect impacts from underwater sound affecting prey species (C,D) Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	

³⁴ <https://publications.naturalengland.org.uk/publication/4868920422957056>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
RAE SPA	Components of the Waterbird Assemblage (non-breeding): Common scoter Cormorant Scaup	See footnote ³⁵	Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	Alone and in-combination
	Common tern (breeding) Whooper swan (non-breeding) Pink-footed goose (non-breeding) Shelduck (non-breeding) Wigeon (non-breeding) Teal (non-breeding) Oystercatcher (non-breeding) Ringed plover (non-breeding and passage) Golden plover (non-breeding) Grey plover (non-breeding) Knot (non-breeding) Sanderling (non-breeding and passage)		Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	

³⁵<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9005103&SiteName=ribble&SiteNameDisplay=Ribble%20and%20Alt%20Estuaries%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=20&SiteNameDisplay=Ribble%20and%20Alt%20Estuaries%20SPA>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
	Dunlin (non-breeding) Ruff (breeding) Black-tailed godwit (non-breeding) Bar-tailed godwit (non-breeding) Redshank (non-breeding and on passage) Lesser black-backed gull (breeding) Non-breeding waterbird assemblage Breeding seabird assemblage			
Morecambe Bay and Duddon Estuary SPA	Cormorant Eider Red-breasted merganser		Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	Alone and in-combination

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
	Pink-footed goose (non-breeding) Golden plover (non-breeding) Curlew (non-breeding) Lesser black-backed gull (breeding and non-breeding) Herring gull (breeding) Sandwich tern (breeding)	See footnote ³⁶	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	
Morecambe Bay Ramsar site	Cormorant Eider Red-breasted merganser	See footnote ³⁷	Disturbance and displacement from airborne sound, underwater sound, and presence of vessels and infrastructure (C,O,D) Temporary habitat loss/ disturbance and increased SSCs (C,O,D) Indirect impacts from underwater sound affecting prey species (C,D)	Alone and in- combination

³⁶ <https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9020326&SiteName=morecambe%20bay&SiteNameDisplay=Morecambe%20Bay%20and%20Duddon%20Estuary%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=25&SiteNameDisplay=Morecambe%20Bay%20and%20Duddon%20Estuary%20SPA>

³⁷ <https://publications.naturalengland.org.uk/publication/5314736417669120>

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
	Pink footed goose (winter) Golden plover (winter) Curlew (non-breeding)		Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	
Morecombe Bay Ramsar Site	Lesser black-backed gull (breeding and non-breeding) Herring gull (breeding) Sandwich tern (breeding)		Temporary loss of supporting habitats and/ or resource availability (C, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, D)	

Protected Site	Qualifying Feature(s)	Conservation Advice	LSE Identified from: Construction (C); Operation and Maintenance (O&M); and/or Decommissioning (D)	LSE alone and/or in- combination
Martin Mere SPA and Ramsar	Pink-footed goose (non- breeding)	See footnote ³⁸	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	Alone and in- combination
Bowland Fells SPA	Lesser black-backed gull (breeding)	See footnote ³⁹	Temporary loss of supporting habitats and/ or resource availability (C, O, D) Permanent loss of supporting habitats (C) Disturbance and displacement (C, O, D)	Alone and in- combination

³⁸<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9005111&SiteName=martin%20mere&SiteNameDisplay=Martin%20Mere%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=6&SiteNameDisplay=Martin%20Mere%20SPA>

³⁹<https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK9005151&SiteName=bowland&SiteNameDisplay=Bowland%20Fells%20SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=2&SiteNameDisplay=Bowland%20Fells%20SPA>

Morgan and Morecambe Offshore Wind Farms Transmission Assets Habitats Regulations Assessment

Author: Energy Infrastructure Planning, Department for Energy Security and Net Zero

Date: September 2026