



# MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Comments on the Report on the Implications for European Sites (RIES)



Deadline: Deadline 6  
Application Reference: EN020028

Document Numbers:  
MRCNS-J3303-JVW-19242  
MOR001-FLO-CON-ENV-NOT-0083

Document Reference: S\_D6\_5

October 2025  
F01

Document status					
Version	Purpose of document	Approved by	Date	Approved by	Date
F01	Submission at Deadline 6	GL	October 2025	IM	October 2025

Prepared by:

Morgan Offshore Wind Limited,  
Morecambe Offshore Windfarm Ltd

Prepared for:

Morgan Offshore Wind Limited,  
Morecambe Offshore Windfarm Ltd

---

## Contents

<b>1</b>	<b>COMMENTS ON THE REPORT ON THE IMPLICATIONS OF EUROPEAN SITES (RIES) .....</b>	<b>1</b>
1.1	Introduction .....	1
<b>2</b>	<b>COMMENTS ON THE REPORT ON THE IMPLICATIONS OF EUROPEAN SITES (RIES) .....</b>	<b>2</b>
2.1	Likely Significant Effects .....	2
2.2	Adverse Effects on Integrity .....	11
2.3	Concluding Remarks.....	28

## Tables

Table 2-1: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' screening of LSEs .....	2
Table 2-2: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Examination matters .....	11
Table 2-3: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Annex I habitats (offshore and coastal).....	12
Table 2-4: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Onshore and Intertidal Ornithology .....	14
Table 2-5: Confirmation whether the ExA's understanding of screening and adverse effects conclusions at point of RIES publication (tables A1.1 – A1.6 in annex 1) is correct .....	28

## Glossary

Term	Meaning
400 kV grid connection cables	Cables that will connect the proposed onshore substations to the existing National Grid Penwortham substation.
400 kV grid connection cable corridor	The corridor within which the 400 kV grid connection cables will be located.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Biodiversity benefit	<p>An approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers are encouraged to provide an increase in appropriate natural habitat and ecological features over and above that being affected.</p> <p>For the Transmission Assets, biodiversity benefit will be delivered within identified biodiversity benefit areas within the Onshore Order Limits. Further qualitative benefits to biodiversity are proposed via potential collaboration with stakeholders and local groups, contributing to existing plans and programmes, both within and outside the Order Limits.</p>
Code of Construction Practice	A document detailing the overarching principles of construction, contractor protocols, construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes.
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in the ES.
Construction Traffic Management Plan	A document detailing the construction traffic routes for heavy goods vehicles and personnel travel, protocols for delivery of Abnormal Indivisible Loads to site, measures for road cleaning and sustainable site travel measures.
Design envelope	A description of the range of possible elements and parameters that make up the Transmission Assets options under consideration, as set out in detail in Volume 1, Chapter 3: Project Description. This envelope is used to define the Transmission Assets for EIA purposes when the exact engineering parameters are not yet known. This is also referred to as the Maximum Design Scenario or Rochdale Envelope approach.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Direct pipe	A cable installation technique which involves the use of a mini (or micro) tunnel boring machine and a hydraulic (or other) thruster rig to directly install a steel pipe between two points.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.

Term	Meaning
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Evidence Plan Process	A voluntary consultation process with specialist stakeholders to agree the approach to, and information to support, the EIA and Habitats Regulations Assessment processes for certain topics.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
Intertidal area	The area between Mean High Water Springs and Mean Low Water Springs.
Intertidal Infrastructure Area	The temporary and permanent areas between MLWS and MHWS.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bay inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils.
Local Highway Authority	A body responsible for the public highways in a particular area of England and Wales, as defined in the Highways Act 1980.
Main rivers	The term used to describe a watercourse designated as a Main River under the Water Resources Act 1991 and shown on the Main River Map. These are usually larger rivers or streams and are managed by the Environment Agency.
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for 'deemed marine licences' in English waters as part of the development consent process
Maximum design scenario	The realistic worst case scenario, selected on a topic-specific and impact specific basis, from a range of potential parameters for the Transmission Assets.
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Micro-tunnel / micro-tunnelling	A tunnelling technique involving the use of a hydraulic (or other) jacking rig and a mini (or micro) tunnel boring machine to install a concrete tunnel between two points.
Mitigation measures	This term is used interchangeably with Commitments. The purpose of such measures is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects.
Morecambe Offshore Windfarm: Generation Assets	The offshore generation assets and associated activities for the Morecambe Offshore Windfarm.

Term	Meaning
Morecambe Offshore Windfarm: Transmission Assets	The offshore export cables, landfall, and onshore infrastructure required to connect the Morecambe Offshore Windfarm to the National Grid.
Morecambe OWL	Morecambe Offshore Windfarm Limited is owned by Copenhagen Infrastructure Partners' (CIP) fifth flagship fund, Copenhagen Infrastructure V (CI V).
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	<p>The offshore export cables, landfall, and onshore infrastructure for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds.</p> <p>Also referred to in this report as the Transmission Assets, for ease of reading.</p>
Morgan Offshore Wind Project: Generation Assets	The offshore generation assets and associated activities for the Morgan Offshore Wind Project.
Morgan Offshore Wind Project: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morgan Offshore Wind Project to the National Grid.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between JERA Nex bp (JNbp) and Energie Baden-Württemberg AG (EnBW).
National Grid Penwortham substation	The existing National Grid substation at Penwortham, Lancashire.
National Policy Statement(s)	The current national policy statements published by the Department for Energy and Net Zero in 2023 and adopted in 2024.
Offshore booster station	A fixed structure located along the offshore export cable route, containing electrical equipment to ensure bulk wind farm capacity can be fully transmitted to the onshore substations.
Offshore substation platform(s)	A fixed structure located within the wind farm sites, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which would bring electricity from the Generation Assets to the landfall.
Offshore export cable corridor	The corridor within which the offshore export cables will be located.
Offshore Permanent Infrastructure Area	The area within the Transmission Assets Offshore Order Limits (up to MLWS) where the permanent offshore electrical infrastructure (i.e. offshore export cables) will be located.
Offshore Order Limits	See Transmission Assets Order Limits: Offshore (below).
Offshore substation platform(s)	A fixed structure located within the wind farm sites, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
Onshore export cables	The cables which would bring electricity from the landfall to the onshore substations.
Onshore export cable corridor	The corridor within which the onshore export cables will be located.
Onshore Infrastructure Area	The area within the Transmission Assets Order Limits landward of MHWS. Comprising the offshore export cable corridor from MHWS to



Term	Meaning
	the transition joint bay, onshore export cable corridor, onshore substations and 400 kV grid connection cable corridor, and associated temporary and permanent infrastructure including temporary and permanent compound areas and accesses. Those parts of the Transmission Assets Order Limits proposed only for ecological mitigation and/or biodiversity benefit are excluded from this area.
Onshore Order Limits	See Transmission Assets Order Limits: Onshore (below).
Onshore substations	The onshore substations will include a substation for the Morgan Offshore Wind Project: Transmission Assets and a substation for the Morecambe Offshore Windfarm: Transmission Assets. These will each comprise a compound containing the electrical components for transforming the power supplied from the generation assets to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project, and which helps to inform consultation responses.
Renewable energy	Energy from a source that is not depleted when used, such as wind or solar power.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations due to the flow of water.
Substation	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of electrical transformers.
The Secretary of State for Energy Security and Net Zero	The decision maker with regards to the application for development consent for the Transmission Assets.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits	The area within which all components of the Transmission Assets will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds).
Transmission Assets Order Limits: Offshore	<p>The area within which all components of the Transmission Assets seaward of Mean Low Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning.</p> <p>Also referred to in this report as the Offshore Order Limits, for ease of reading.</p>
Transmission Assets Order Limits: Onshore	<p>The area within which all components of the Transmission Assets landward of Mean High Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds).</p> <p>Also referred to in this report as the Onshore Order Limits, for ease of reading.</p>

## Acronyms

Acronym	Meaning
AIS	Air Insulated Switchgear
AOD	Above Ordnance Datum
BCA	Bilateral Grid Connection Agreement
CoCP	Code of Construction Practice
CoT	Project Commitment
CBRA	Cable Burial Risk Assessment
CfD	Contracts for Difference
CMS	Construction Method Statement
CSIP	Cable Specification and Installation Plan
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security & Net Zero
dML	Deemed Marine Licence
EnBW	Energie Baden-Württemberg AG
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPP	Evidence Plan Process
ES	Environmental Statement
EWG	Expert Working Group
GIS	Gas Insulated Switchgear
HDD	Horizontal Directional Drilling
HGV	Heavy goods vehicle
HNDR	Holistic Network Design Review
HVAC	High Voltage Alternating Current
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IAQM	Institute of Air Quality Management
LAT	Lowest Astronomical Tide
MCA	Maritime and Coastguard Agency
MCZ	Marine Conservation Zone
MDS	Maximum Design Scenario



Acronym	Meaning
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MPS	Marine Policy Statement
MTBM	Mini (or micro) tunnel boring machine
NGESO	National Grid Electricity System Operator
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
O&M	Operation and Maintenance
OSP	Offshore Substation Platform
OTNR	Offshore Transmission Network Review
PDE	Project Design Envelope
PEIR	Preliminary Environmental Information Report
PPP	Pollution Prevention Plan
PRoW	Public rights of way
SAC	Special Areas of Conservation
SAR	Search and Rescue
SPA	Special Protection Area
SNCBs	Statutory Nature Conservation Bodies
SSSI	Sit of Special Scientific Interest
SWMP	Site Waste Management Plan
TEP	Technical Engagement Plan
TJB	Transition Joint Bay
UK	United Kingdom
UXO	Unexploded Ordnance
WSI	Written scheme of investigation

## Units

Unit	Description
%	Percentage
dB	Decibels
Kg	Kilogram
kHz	Kilohertz

Unit	Description
KJ	Kilojoules
km	Kilometres
km <sup>2</sup>	Kilometres squared
kV	Kilovolt
m	Metres
m <sup>2</sup>	Metres squared
m <sup>3</sup>	Metres cubed
nm	Nautical mile
μPa	micropascal

---

# **1           Comments on the report on the implications of European sites (RIES)**

## **1.1           Introduction**

1.1.1.1       The Report on the Implications for European Sites (RIES) (PD-015) was published by the Examining Authority on 01 October 2025. This document has been prepared in order to provide comments from the Applicants and responses to the questions in the RIES. The Applicants' comments on this document are provided below.

## 2 Comments on the report on the implications of European sites (RIES)

### 2.1 Likely Significant Effects

**Table 2-1: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' screening of LSEs (alone and in-combination)**

Reference	Issue and ExA Observation/ Question	Applicants' response
<b>Non-UK sites</b>		
2.1.12	The applicants' HRA Screening Report [APP-018] identified 21 non-UK European sites for inclusion within the assessment, however the ExA notes that the applicants have listed the Lambay Island SAC as a UK site whereas it is under the jurisdiction of the Republic of Ireland.	The Applicants note this comment and have updated the HRA Stage 1 Screening Report to correct this error (see Table 1.5 and Table 1.16 of E3/F02).
2.2.3	<p><b>Issue:</b> Impacts from the use of scare charges as a mitigation for underwater noise during piling</p> <p><b>Details of Issue:</b> NE raised concerns (E4, E28, E34 [RR-1601], RI_E4 from DL1 onwards) that the use of high order UXO clearance would also require the use of scare or soft start charges as a mitigation measure, which NE did not support and which did not appear to be referenced as an impact pathway in the applicants' HRA Screening Report.</p> <p>The applicants confirmed that they proposed to remove high order UXO clearance from the dDCO and associated mitigation documents [PDA-019]. Additional information to support the applicants' position was provided in [REP2-034] [REP3-055].</p> <p>NE [REP1-093] [REP2-063] [REP3-094] [REP4-139] [REP5-177] stated that its understanding was that scare or soft start charges would only be required for high order UXO clearance, and therefore if reference to these were removed from the Marine Mammals Mitigation Protocol (MMMP), the issue would be resolved.</p>	<p>The Applicants highlight that the Outline MMMP was updated at Deadline 2 (REP2-026) to remove reference to high order UXO clearance and the associated use of 'scare-charges' as a mitigation to address comments by Natural England and to reflect the removal of high-order UXO clearance from the draft DCO at Deadline 1 (REP1-008). The Outline MMMP was further updated at Deadline 4 (REP4-070), primarily to address comments by the MMO on the legislation and policy section.</p> <p>The MMO (Section 6 of REP5-175) and Natural England (Annex 1 of REP5-178) confirmed no further comments on the Outline MMMP at Deadline 5. Therefore, the Applicants consider that the updated Outline MMMP submitted at Deadline 4 (REP4-070) is the final Outline MMMP and no further revisions are required, as all relevant updates agreed throughout the examination are currently included.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p><b>ExA Observation/question:</b> Whilst this matter is currently unresolved as an “amber” category issue on the NE risk and issues log, the ExA understands it is likely to be resolved when an amended MMMP is provided which includes the amendments requested by NE. However, the ExA notes that the most recent revision to the MMMP is [REP4-070] and the issue is still outstanding as of DL5.</p> <p><b>Q1 – To the applicants: Please provide a revised MMMP to include all relevant updates agreed throughout the examination.</b></p>	
2.2.6	<p><b>Issue:</b> Various pathways, sites and features</p> <p><b>Details of Issue:</b> The ExA queried several inconsistencies within the HRA Screening Report and requested clarification (see Q9.2.4, Q9.2.5, Q9.2.6 and Q9.2.8 [PD-008]). In response [REP3-056], the applicants confirmed that:</p> <ul style="list-style-type: none"> <li>the lesser black-backed gull feature of both the Morecambe Bay and Duddon Estuary SPA and Morecambe Bay Ramsar Site is screened out of the assessment of impacts (temporary loss of supporting habitats and/ or resource availability and disturbance and displacement from construction, decommissioning, and operation and maintenance activities) for the operation and maintenance phase. The justification for screening out impacts is based on the species' large foraging range and tolerance to human activities. Table 1.3 of ISAA Part 3 was not corrected at DL5.</li> <li>Permanent loss of supporting habitat (R&amp;AE SPA and Ramsar sites, Morecambe Bay and Duddon Estuary SPA, Morecambe Bay Ramsar site, Martin Mere SPA and Bowland Fells SPA) should be screened in for the construction phase only (and not in the decommissioning phase). A revised HRA Screening Report (Table 1.24) has not been submitted.</li> </ul>	<p>Table 1.3 of Habitats Regulations Assessment Stage 2 ISAA Part 3 (see E2.3/F03) was revised at Deadline 6 as requested by the ExA to exclude the lesser black-backed gull from the assessment of impacts for the operation and maintenance phase.</p> <p>Table 1.24 of the HRA Stage 1 Screening Report (See E3/F02) and subsequent sections have been updated to remove decommissioning from the phases of the project screened in for permanent loss of supporting habitat. This has also been updated in Table 1.3 and section 1.6.4.2 of the Habitats Regulations Assessment Stage 2 ISAA Part 3 (see E2.3/F03).</p> <p>The updates cited as being required for certain features of the Morecambe Bay and Duddon Estuary SPA (lesser black-backed gull, herring gull and Sandwich tern), Morecambe Bay Ramsar site (herring gull and Sandwich tern), and Martin Mere SPA and Ramsar site (pink-footed goose) have been incorporated into Table 1.25 of the HRA Stage 1 Screening Report (see E3/F02).</p> <p>Table 1.23 and section 1.5.6 have been updated within the HRA Stage 1 Screening Report (See E3/F02) to list the pink footed goose feature as it has been taken forward into the assessment.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<ul style="list-style-type: none"> <li>For certain features of the Morecambe Bay and Duddon Estuary SPA (lesser black-backed gull, herring gull and Sandwich tern), Morecambe Bay Ramsar site (herring gull and Sandwich tern), and Martin Mere SPA and Ramsar site (pink-footed goose), the temporary loss of supporting habitats and/ or resource availability, and disturbance and displacement impacts during the operation and maintenance phase are taken forward to the assessment of adverse effects (despite an error in the Screening Report suggesting otherwise). Again, a revised HRA Screening Report (Table 1.25) has not been submitted to rectify this.</li> <li>The pink-footed goose feature of the Martin Mere Ramsar site is taken forward to the assessment of adverse effects for several effect pathways and should therefore be listed in table 1.23 and in the determination of LSE in section 1.5.6. As above, a revised HRA Screening Report (Table 1.23) has not been submitted.</li> </ul> <p><b>ExA Observation/question:</b></p> <p><b>Q2 - To the applicants: submit a revised Screening Report and ISAA Part 3 to correct the identified errors and inconsistencies.</b></p>	
2.2.8	<p><b>Issue:</b> Air quality impacts to habitats</p> <p><b>Detail of Issue:</b> NE stated ([RR-1601] G27 (RI_G20 from DL1 onwards), G41 (RI_G30 from DL1 onwards), [AS-066] G57 (RI_G43 from DL1 onwards), and G58 (RI_G44 from DL1 onwards)) that the HRA Screening Report did not consider air quality impacts from dust and plant/ vehicle emissions, with a specific reference to the R&amp;AE Ramsar site due to its location within the order limits.</p> <p>The applicants' position [PDA-021] [PDA-022] was that air quality impacts had been considered, but had been scoped out as no European sites met screening criterion 3 (sites located within the potential ZOI of impacts associated with the Transmission Assets, and/ or qualifying interest features of</p>	<p>The Applicants note that this question is directed at Natural England but the Applicants' position remains as previously stated on this matter. As there are no listed habitat features of the Ribble and Alt Estuaries SPA and Ramsar that would be sensitive to changes in air quality as a result of dust and plant/ vehicle emissions within the Zone of Influence (as set out in section 1.4.5 of the HRA Stage 1 Screening Report; APP-018) there are therefore no pathways by which changes in air quality during construction could affect the Ribble and Alt Estuaries SPA and Ramsar.</p> <p>One SSSI (Red Scar and Tun Brook SSSI) was scoped into the air quality impact assessment, which is provided in Volume 3, Annex 9.1: Air quality impacts on ecologically designated sites (APP-122); however, this is not a European</p>



Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>European sites or Ramsar sites whose foraging ranges overlap with the predicted ZOI of impacts).</p> <p>NE maintained its position of disagreement [REP1-093] with particular reference to omissions from table 1.24 of the HRA Screening Report [APP-018], and discrepancies between the HRA report and the accompanying ES chapters for onshore ecology [APP-075] and air quality [APP-121].</p> <p>No change to the position or further information was provided by the applicants [REP2-034] [REP3-055] [REP4-100] [REP5-124] with the exception of further signposting of where they consider the assessment to be presented.</p> <p>NE's position has not changed up to and including DL5 [REP2-063] [REP3-094] [REP4-139] [REP5-177] [REP5-181].</p> <p><b>ExA Observation/question:</b></p> <p><b>Q3 - To NE: The ExA notes from the R&amp;AE Ramsar site citation that the site does not appear to have any criterion related to sand dune or other habitat types.</b></p> <p>a) <b>Can NE confirm which qualifying features or criterion you consider to be subject to potential LSE or AEol from air quality impacts?</b></p> <p>b) <b>What would the applicants need to provide to demonstrate no LSE (or AEol) to such features?</b></p>	<p>designated site and therefore does not fall within the remit of the Habitats Regulations Assessment and the RIES.</p>
2.2.9	<p><b>Issue:</b> Impacts arising from the failure of using the proposed 'direct pipe' drilling technique on foreshore habitats</p> <p><b>Details of Issue:</b> NE stated that whilst it welcomed the approach of using a "direct pipe" technique under the foreshore habitats associated with the R&amp;AE Ramsar site and SPA (G4, G12, G16, G38, [RR-1601], RI_G4 from DL1 onwards), it considered that a worst case scenario considering the need to use another drilling method in the event that direct pipe fails had not been adequately</p>	<p>The Applicants note that this question is directed at Natural England but the Applicants' position remains as previously stated on this matter. As the dunes that will be crossed using the direct pipe technique are not within the Ribble and Alt Estuaries SPA and Ramsar, nor are sand dune habitats listed as a feature of these European sites, there are no onshore Annex I habitat features of any European sites within the zone of influence of the Transmission Assets and therefore no potential for likely significant effects. This is set out in section 1.4.5 of the HRA Stage 1 Screening Report (APP-018).</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>assessed within the environmental statement. The ExA sought clarity from the applicants and NE in relation to the potential implications for the HRA Report (Q9.3.1 [PD-008]).</p> <p>NE confirmed [REP3-094] [REP3-095] that its concerns were also applicable to the HRA, and it could not comment on the implications for conclusions of the HRA report as no alternative installation methodologies had been included in the application. Therefore, rather than an updated assessment, it advised that the use of trenchless activities only is secured in the dDCO/ dDMLs and should this fail, then any other method would be subject to a separate marine licence.</p> <p>The applicants ([PDA-021], with reference to [PDA-016] B8) referred to examples where the direct pipe technique had been successful in similar environments and referred to the commitments proposed within the Outline Bentonite Breakout Plan [APP-206], and ongoing discussion with NE around contingency plans. The applicants confirmed [REP3-056] that both direct pipe and micro-tunnelling techniques had been fully assessed, and that alternative trenchless methods such as Horizontal Directional Drilling (HDD) would only be deployed if the technique remains within the assessed Maximum Design Scenario (MDS) of the HRA ISAA part 2.</p> <p>The ExA (Q9.1.3, [PD-008]) also sought clarity on the parameters for onshore cabling used within the HRA Screening Report and ISAA part 2 which stated 16km as a maximum design scenario, whereas the ES [REP2-008] stated 17km. The applicants responded [REP3-056] to acknowledge the discrepancy and to state that this specific parameter did not have an impact on the screening or assessment approach. The applicants considered that no further information could be submitted in respect of the trenchless crossing of the dunes [REP4- 100], however later provided some additional updates [AS-081] [REP5-116] in the form of an Outline Landfall Construction Method Statement (as detailed in 2.2.10 below).</p>	<p>Potential effects on the Lytham St Annes Dunes SSSI as a result of the trenchless crossing (including potential noise and vibration, bentonite breakout and effects on shallow groundwater) have been assessed; however, this is not a European designated site and therefore does not fall within the remit of the RIES.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>No change to the position was provided by NE at DL4 or DL5 [REP4-139] [REP5-177] or the applicants [REP5-124].</p> <p><b>Observation/Question:</b></p> <p><b>Q4 - To NE: The ExA notes from the R&amp;AE Ramsar site citation that the site does not appear to have any criterion related to sand dune or other habitat types.</b></p> <p><b>a) Can NE confirm which qualifying features or criterion you consider to be subject to potential LSE (or AEol) from direct impacts associated with failure of the direct pipe method?</b></p> <p><b>b) What would the applicants need to provide to demonstrate no LSE (or AEol) to such features?</b></p>	
2.2.10	<p><b>Issue:</b> Potential for bentonite breakout during cable installation and implications for impacts to habitats</p> <p><b>Details of Issue:</b> In response to the Outline Bentonite Breakout Plan [APP-206], NE (G35, [RR-1601], RI_G26 from DL1 onwards) raised concerns over the potential for bentonite breakout on the R&amp;AE SPA and Ramsar site foreshore habitats. NE requested additional ground investigation works to inform the design of the landfall and reduce subsequent bentonite breakout risks, and in the event of any breakouts, to be informed in order to agree a required remediation approach.</p> <p>Risks from bentonite breakout have not been assessed in the HRA Report.</p> <p><b>Observation/Question:</b></p> <p><b>Q5 - To NE:</b>  <b>The ExA notes from the R&amp;AE Ramsar site citation that the site does not appear to have any criterion related to sand dune or other habitat types.</b></p> <p><b>A) Can NE confirm which qualifying features or criterion you consider to be subject to potential LSE or AEol from bentonite breakout?</b></p>	<p>Q6: The Applicants have considered the potential for effects on the Ribble and Alt Estuaries SPA and Ramsar sites from pollution caused by accidental spills and/or contaminant release, which includes bentonite breakout. This was considered in Table 1.24 of HRA Stage 1 Screening Report (APP-018) with the conclusion that there is no likely significant effect due to the low risk of a pollution event occurring and implementation of appropriate and standard industry management plans, with any potential incidents of accidental release of pollutants quickly contained and managed.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p><b>B) What would the applicants need to provide to demonstrate no LSE (or AEOL) to such features?</b></p> <p><b>Q6 - To the applicants: Have the applicants considered the potential for LSE to arise on the R&amp;AE SPA and Ramsar site from the risk of bentonite breakout? If not, why not? If so, signpost to where this is located in the HRA Report.</b></p>	
2.2.11	<p><b>Issue:</b> Additional impact pathways from construction works following review of the Outline Landfall Construction Method Statement [AS- 081]</p> <p><b>Details of Issue:</b> At DL5, NE ([REP5-177] RI_G48 and REP5-182), in response to the applicants' Outline Landfall Construction Method Statement [AS- 081], raised two additional concerns in relation to construction at the cable landfall point within or adjacent to the R&amp;AE SPA and Ramsar sites.</p> <ul style="list-style-type: none"> <li>• The construction of exit pits within the R&amp;AE SPA and Ramsar sites</li> <li>• The encroachment of gravel haul roads within the R&amp;AE SPA and Ramsar sites</li> </ul> <p><b>Observation/Question:</b></p> <p><b>Q7 – To NE:</b></p> <p><b>A) Do you consider the exit pits and the encroachment of gravel haul roads to comprise new unassessed impact pathways with the potential for LSE on the R&amp;AE SPA and Ramsar sites?</b></p> <p><b>B) If so, can you confirm which qualifying features or criterion you consider to be subject to potential LSE or AEOL from?</b></p> <p><b>c) What would the applicants need to provide to demonstrate no LSE (or AEOL) to such features?</b></p> <p><b>Q8 - To the applicants:</b></p>	<p><b>Q8:</b> The Applicants note that the size of the exit pits are outlined within the maximum design scenario table (see Table 1.76 in E2.3 Habitats Regulations Assessment Stage 2 Information to Support an Appropriate Assessment Part Three – Special Protection Areas (SPA) and Ramsar Site assessments (APP-017)). Therefore, this impact has been fully assessed under temporary habitat loss in the ISAA (APP-017) with a conclusion that this would not lead to an adverse effect on integrity on this European site.</p> <p>There is no impact pathway for gravel haul roads to impact the Ribble and Alt Estuaries SPA and Ramsar, as this activity will not occur within the boundary of these European sites. This is now clarified in the Landfall Construction Method Statement (S_D4_22/F03) by removing CoT85 from Table 1 and providing further clarification in Section 1.12 Site Set Up.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	Have the applicants considered the potential for LSE to arise on the R&AE SPA and Ramsar site from the direct impacts of the exit pits and the encroachment of gravel haul roads? If not, why not? If so, signpost to where this is located in the HRA Report.	
2.2.12	<p><b>Issue:</b> Construction impacts (fence building) on saltmarsh habitats at Fairhaven Saltmarsh mitigation area</p> <p><b>Details of Issue:</b> The ExA notes that works are proposed to construct fencing within the Fairhaven saltmarsh habitat. However, it is not clear whether the HRA report provided considers this as a potential impact pathway with potential for LSE on the R&amp;AE SPA and Ramsar sites.</p> <p><b>Observation/Question</b></p> <p><b>Q9 - To NE:</b> a) Do you consider the construction of fencing at Fairhaven Saltmarsh to comprise a new unassessed impact pathway with the potential for LSE on the R&amp;AE SPA and Ramsar sites?</p> <p>b) If so, can NE confirm which qualifying features or criterion you consider to be subject to potential LSE or AEol from?</p> <p>c) What would the applicants need to provide to demonstrate no LSE (or AEol) to such features?</p> <p><b>Q10 – to the applicants:</b> Have the applicants considered the potential for LSE to arise on the R&amp;AE SPA and Ramsar site from the direct impacts of fence construction at Fairhaven Saltmarsh? If not, why not? If so, signpost to where this is located in the HRA Report.</p>	<p>Q10: The Applicants would note that any fencing in this area is proposed to provide long lasting benefits to the SPA and Ramsar, as agreed with Natural England.</p> <p>As outlined in Section B.2 of the OEMP (document reference J6), the proposed fencing at Fairhaven Saltmarsh is small-scale with a simple post and rope design and will sit outside of the SPA and Ramsar adjacent to a well used path. Therefore, no SPA/Ramsar site habitats will be disturbed during the installation of the fencing . As the area where the fence is proposed is already heavily used by the public, the potential minor disturbance created whilst installing the fencing is not considered to be of a magnitude great enough to represent a potential likely significant effect on the designated features of these European sites.</p>
2.2.13	<p><b>Issue:</b> Impacts to natterjack toad</p> <p><b>Details of Issue:</b> The ExA noted that the assessment of impacts to the R&amp;AE Ramsar site omitted Ramsar citation criterion 2 (natterjack toads), which may be subject to direct impacts due to cable installation. The ExA sought clarity from NE and the applicants (Q9.2.11 [PD-008]).</p>	<p>The Applicants have now updated the HRA Stage 1 Screening Report to include specific consideration of natterjack toad, as requested (see paragraph 1.4.6.10 of E3/F02).</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>The applicants acknowledged [REP3-056] that natterjack toads had been omitted. However, that relevant surveys indicate that natterjack toads are not present within the order limits or surrounding areas, as the feature had only been encountered in an area of the Ramsar site that would not be impacted by the proposed development. NE [REP3-095] confirmed that it was in agreement that there would be no LSE to natterjack toad.</p> <p><b>Observation/Question:</b></p> <p><b>Q11 – To the applicants: Can you provide an updated screening assessment to include justification for screening out LSE to natterjack toads.</b></p>	
Table 2.1	<p><b>Inclusion of accidental pollution as a pathway for LSE</b></p>	<p>In Table 1.20 of the HRA Stage 1 Screening Report (APP-018), accidental pollution as an impact occurring in the construction, operations and maintenance and decommissioning phases of the Transmission Assets is discounted from further consideration as there is considered to be no potential for an LSE to occur on any qualifying feature of any SPA and therefore this impact pathway was not considered for qualifying features of any SPA in Habitats Regulations Assessment Stage 2 Information to Support an Appropriate Assessment Part Three – Special Protection Areas (SPA) and Ramsar Site assessments (APP-017). Justification for this conclusion is also provided in Table 1.20 of HRA Stage 1 Screening Report (APP-018).</p>



## 2.2 Adverse Effects on Integrity

**Table 2-2: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Examination matters**

Reference	Issue and ExA Observation/ Question	Applicants' response
<b>Examination matters</b>		
3.3.6	<p>Following acceptance of the examination, the applicants have provided a series of updates in relation to the assessment of cumulative effects [REP1- 020], [REP1-035] [REP1-037] [REP2-043] [REP5-029] [REP5-090] [REP5-099], which makes reference to offshore ornithology only in relation to the HRA report. No amendments have been made to the HRA Screening Report and ISAA parts 2 and 3 in-combination assessments.</p> <p><b>Q12 – To the applicants: Can you confirm if any of the additional cumulative assessments alter the findings of the HRA in-combination assessments presented in [APP-016] – [APP-018] and [REP5-021]?</b></p>	<p>The Applicants confirm that the additional cumulative assessments conducted during the Examination phase do not change the conclusions of the ES, or the HRA in-combination assessments, for any receptors.</p> <p>With regards to the in-combination assessment for offshore ornithology, as set out in paragraph 1.7.1.7 of the updated Habitats Regulations Assessment Stage 2 Information to Support an Appropriate Assessment: Part Three (REP5-020) submitted at Deadline 5, the updates to a number of project commitments (CoT111, CoT130 and CoT135) has resulted in a removal of effects on qualifying offshore ornithological features of several SPAs and Ramsar sites. The new commitments made during the Examination mean that the project will no longer contribute to any existing cumulative and in-combination impacts on red-throated diver or common scoter and this conclusion remains true regardless of how many additional projects are added to the cumulative and in-combination assessments.</p> <p>As a result, any projects added to the cumulative assessment in [REP1- 020], [REP1-035] [REP1-037] [REP2-043] [REP5-029] [REP5-090] [REP5-099] have no effect on the conclusion of the in-combination assessments for offshore ornithology (REP5-020) or on any other ecological receptors for the same reasons set out in the relevant document referred to above.</p>

**Table 2-3: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Annex I habitats (offshore and coastal)**

Reference	Issue and ExA Observation/ Question	Applicants' response
<b>Annex I – Offshore and coastal habitats</b>		
<b>Shell Flats and Lune Deep SAC</b>		
3.1.1	<p>Maximum design scenario and subsequent assessment of impacts to Annex I habitats</p> <p>NE (C2, C10 [RR-1601], RI_C2 from DL1 onwards) raised a series of comments in relation to its concerns that the MDS parameters of the transmission assets had not been fully justified or presented consistently, in relation to volumes of cable protection and ongoing replenishment during operation. Consequently, the design and implementation of any mitigation measures may need to be reassessed.</p> <p>The ExA sought clarity on whether the applicants would undertake any further assessments of the MDS (Q7.1.2, [PD-008]). Whilst the applicants [REP3- 056] did not propose any further assessments, relevant amendments agreed to date had been included within the updated Outline Offshore Cable Specification and Installation Plan (CSIP) [REP2-022].</p> <p>The ExA also requested NE to confirm which specific parameters or assessments were the subject of its concerns (Q7.1.4 and Q7.1.6, [PD-008]). NE confirmed [REP3-092] [REP3-095] this included scour and cable protection requirements and mitigation measures, in particular at the direct pipe exit and entry locations and in the intertidal area. In response, and as part of ISH2 [REP4-104], the applicants [REP4-100] stated that their position was the same in relation to the robustness of the assessments and mitigation proposed, however provided a detailed response in relation to each of NE's outstanding concerns.</p> <p>At DL4, the applicants [REP4-100] and NE [REP4-139] stated that the issues had progressed due to additional commitments included or proposed to be included in the CSIP [REP2-022]</p>	<p>The Applicants note that this question is directed at Natural England but would clarify that the issues raised by Natural England during examination, which remained outstanding at Deadline 5, predominantly relate to scour and cable protection requirements and mitigation measures, in particular at the direct pipe exit and entry locations in the intertidal area. The habitat loss/disturbance and changes to physical processes associated with these elements of the Transmission Assets are spatially restricted to the Order Limits and as concluded in the HRA Stage 1 Screening Report (APP-018), there is no potential pathway to impact on the features of the Shell Flats and Lune Deep SAC as the site does not overlap with the Order Limits. The Applicants note that Natural England confirmed in their responses to the Examining Authority's first Written Questions (REP3-095) that they do not have any concerns regarding the conclusion of the HRA screening, due to the nature of the features present and the proximity of the SAC from the Order Limits, and therefore the likely insignificance of secondary pathways of effect in ecological terms.</p> <p>The queries raised by Natural England with respect to scour and cable protection have no bearing on the assessment of increased SSCs and associated deposition on the Shell Flats and Lune Deep SAC, as presented in the HRA Stage 2 ISA Part Two – Part Two: Special Areas of Conservation (SACs) Assessment (APP-016). Neither does it have an implication on the conclusions of the HRA Stage 2 ISA Part Two – Part Two: Special Areas of Conservation (SACs) Assessment (APP-016) for the Shell Flats and Lune Deep SAC. The Applicants are confident that the maximum design scenario has been correctly identified and adequately assessed and that there is no risk of adverse effects on the integrity of the Shell Flat and Lune Deep SAC from the Transmission Assets alone, or in combination with other plans/projects.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>updated as [REP5-077], dDCO, outline Offshore Operations and Maintenance Plan (OOMP) [REP4-072] and Offshore In Principle Monitoring Plan [REP4-074], updated as [REP5-079].</p> <p>This was particularly in relation to restrictions on the replenishment of cable protection and monitoring of the temporal and spatial coverage of benthic communities. However, the matters are not yet considered resolved as comments from NE are awaited on the amended mitigation plans submitted at DL5.</p> <p><b>Q13 - To NE: Can you confirm whether your concerns over the assessments undertaken to date by the applicants in relation to the AEOI</b></p>	

**Table 2-4: Issues raised in the examination to date by the ExA and IPs in relation to the applicants' assessment of effects on integrity (alone and in-combination) – Onshore and Intertidal Ornithology**

Reference	Issue and ExA Observation/ Question	Applicants' response
<b>Onshore and Intertidal Ornithology</b>		
3.3.10 – 3.3.28	<p><b>Q14 - To the applicants (a) and NE (b):</b></p> <p><b>(a) In the absence of final, robust bird strike risk assessments to demonstrate the proposed HRA mitigation areas would not increase bird strike risk at Blackpool Airport and Warton Aerodrome, the certainty and feasibility of delivering the proposed mitigation areas remains to be under question. The applicants are requested to provide a without- prejudice derogations case should the SoS conclude it is unable to rely upon the proposed mitigation measures to reach a conclusion of no adverse effects on the integrity of the R&amp;AE SPA and Ramsar sites (features listed above).</b></p> <p><b>(b) NE are invited to comment.</b></p>	<p>As set out by the Applicants during ISH 4 (S_D6_13), the Applicants have been working collaboratively to produce specific robust bird strike risk assessments with Warton Aerodrome and Blackpool Airport to demonstrate that all mitigation areas (whether for Habitats Regulations or EIA requirements or biodiversity net gain purposes) can be delivered safely and without an unacceptable increase to risk of bird strike. This agreement has now been achieved with Blackpool Airport for all mitigation and biodiversity benefit areas, and the Applicants are confident that a similar agreement (demonstrated by the Wildlife Attractants Risk Assessment) can be achieved with Warton Aerodrome. Further, as set out in paragraph 3.3.27 of the RIES, Natural England have confirmed that they do not anticipate any conflict from an ecological perspective between the Wildlife Hazard Management Plan (WHMP) and the overall mitigation strategy (REP5-184).</p> <p>As such, the Applicants' position is that a 'without prejudice' Habitats Regulations Derogation case is not required as Natural England considers that there is no conflict between the mitigation required in respect of the Ribble and Alt Estuaries SPA and Ramsar and the WHMPs that will ensure no increase to the bird strike risk for Blackpool Airport and Warton Aerodrome. Given the attention Natural England have given to the mitigation of potential impacts on the qualifying features of the Ribble and Alt Estuaries SPA and Ramsar sites, had this been of concern, the Applicants are confident it would have been highlighted in response to the ExA's specific question 2.6.1.2 (see REP 5-104).</p> <p><b><u>Mitigations required to conclude no Adverse Effect on Integrity</u></b></p> <p>In order to aid the ExA's understanding of the relationship between the mitigation areas in terms of the requirements for EIA and HRA, the Applicants have updated the Onshore Terrestrial Waterbird Note at Deadline 6 to clarify which mitigation areas are required from an HRA perspective to conclude no Adverse Effect on</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
		<p>Integrity. These are further summarised below for temporary construction impacts and impacts during the operation and maintenance phases (i.e. permanent impacts).</p> <p>For the avoidance of doubt the proposals at Lea Marsh is to deliver biodiversity net gain and is therefore not discussed below. Similarly, the Fairhaven saltmarsh is also not discussed below, as although this is an alleviation measure which will help to remove any residual risk of adverse effects on integrity, there is no risk of bird strike at either Blackpool airport or Warton aerodrome as a result of the measures proposed at Fairhaven.</p> <p><b><u>Construction/ temporary impacts</u></b></p> <p>The Applicants and Natural England have discussed and agreed that the Lytham Moss and south of Newton-with-Scales mitigation areas are required to support the conclusion of no adverse effects on integrity on the Ribble and Alt Estuaries SPA and Ramsar associated with construction operations (i.e. temporary loss of supporting habitats and/or resource availability and disturbance and displacement of SPA/Ramsar features).</p> <p>As set out above, the Applicants are confident that agreement will be reached with Warton Aerodrome with regard to the Bird Strike Risk Assessment and that with the commitment to monitoring and additional control measures (as set out in the Outline Wildlife Hazard Management Plan; REP5-016), all mitigation areas can be delivered whilst maintaining aviation safety. National Policy Statement EN-1 considers the circumstances in which a 'without prejudice' derogation case may need to be provided (see paragraphs 5.4.26 and 5.4.27). As set out above, no derogation case is required, as Natural England as the relevant SNCB has not identified an AEoI, and in response to a direct question from the ExA has confirmed that there is no identified AEoI.</p> <p>The Applicants would note that an HRA derogation should be the last resort in terms of the HRA process, where all alternative solutions which would represent a lesser effect on European sites, have been exhausted, and as set out above</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
		<p>where the relevant SNCB is unable to agree with the conclusion of no AEoI. The Applicants would note that (as set out below) there are further alternative mitigation measures which could also be relied upon as part of the Appropriate Assessment undertaken by the Competent Authority to conclude no adverse effect on integrity in the unlikely event that agreement with Warton Aerodrome is not possible on the delivery of the Lytham Moss and south of Newton-with-Scales mitigation areas.</p> <p>While these alternative mitigation measures are less preferable (both from an overall ecological perspective and for efficient project construction) than the current mitigation areas, these are standard, recognised measures which will ensure avoidance of any adverse effect on integrity (i.e. they will remove impacts at source on SPA features). These additional measures would need to be discussed and agreed with Natural England post consent, and have been included in section 1.3.2 of the OEMP updated at Deadline 6 (J6/F06), they include:</p> <ul style="list-style-type: none"> <li>• Further screening 'at source' of construction works in the vicinity of sensitive areas (such as Lytham Moss) during sensitive periods to reduce visual and noise disturbance effects to acceptable levels.</li> <li>• Scheduling of works to reduce/avoid working in certain areas (e.g. Lytham Moss) during periods of particular sensitivity for SPA species.</li> </ul> <p>The Applicants would note that these are recognised and effective alternative mitigations which would also support a continued conclusion of no adverse effect on integrity by altogether avoiding impacts on SPA species during key sensitive periods (i.e. in a similar manner to the seasonal restriction avoiding working during the overwintering period at the landfall).</p> <p><b><u>Operation and maintenance phase (permanent impacts)</u></b></p> <p>The mitigation area at Newton with Scales has been identified to provide EIA mitigation only for the effects of permanent habitat loss from the construction of the substations, however this is not an HRA consideration. As set out in response to RIES Q21 below, the substation sites are not located within the Ribble and Alt Estuaries SPA and Ramsar and do not represent Functionally Linked Land connected to the Ribble and Alt Estuaries SPA and Ramsar (or any other</p>



Reference	Issue and ExA Observation/ Question	Applicants' response
		<p>European site). Further explanation of the definition of Functionally Linked Land is set out in section 2.2 of the Onshore Terrestrial Waterbird Note at Deadline 6 (J6/F06), which demonstrates that to be considered Functionally Linked Land the birds must be present at high numbers (e.g. exceeding 1% of the SPA population) and be present regularly (e.g. in two thirds of the season for which data are available).</p> <p>As set out in section 1.6.3.5 <i>et seq.</i> of the ISAA (REP5-020), only five SPA species were recorded at the substation site, with all but two recorded at well below 1% of the relevant SPA citations (see Table 69 of the ISAA; REP5-020) and therefore the substation site does not represent Functionally Linked Land for these species. Lesser black-backed gull were recorded at the substation at abundances of &gt;1% of the SPA populations but this is a wide ranging species and therefore the substation sites do not represent Functionally Linked Land for this species (this is not disputed by Natural England and mitigation areas have not considered lesser black-backed gull). Therefore, an adverse effect on integrity can be ruled out on these species without mitigation.</p> <p>The only species that remained a consideration for this SPA in the ISAA was golden plover. The conclusion that the substations do not represent Functionally Linked Land for golden plover is based on the relatively small number of birds recorded during site specific surveys and the irregularity of usage of the substation sites (i.e. this species was recorded in only one of 14 surveys; or no golden plover were recorded in ~93% of surveys), therefore indicating sporadic or incidental use rather than regular or consistent use required to be FLL. This conclusion is supported by mapping of Functionally Linked Land in northwest England (Bowland Ecology, 2021; see section 2.2 of the Onshore Terrestrial Waterbird Note at Deadline 6; J6/F06). As such, the habitat lost at the substations cannot be considered to constitute Functionally Linked Land for golden plover and therefore the permanent loss of this habitat is not an HRA consideration. While it is accepted that this species will benefit from the mitigation being proposed at Newton-with-Scales, this is not HRA mitigation that is required to conclude no adverse effect on integrity on the Ribble and Alt Estuaries SPA and Ramsar.</p> <p><b>Conclusion</b></p>

Reference	Issue and ExA Observation/ Question	Applicants' response
		<p>The Applicants' position is that the proposed mitigation areas at Lytham Moss and south of Newton-with-Scales will provide the necessary HRA mitigations to avoid adverse effects on integrity from temporary construction related impacts by providing alternative habitat for the relevant species during the construction phase. A derogation case is not required as Natural England has not identified an AEol, and in response to a direct question from the ExA has confirmed that there is no identified AEol. The Applicants are confident the agreement can be reached with Warton in the same manner as agreements have been reached with Blackpool Airport. However, in the unlikely scenario that this is not possible and should the Secretary of State at the point of his decision on the Transmission Assets DCO conclude that the certainty and feasibility of delivering the mitigation areas remains under question, the Applicants consider that the additional measures to deal with the temporary impacts during construction, set out above could be implemented. These additional measures have been included in the OEMP updated at Deadline 6 (J6/F06) as adaptive management measures should agreement on the mitigation areas not be possible. If these mitigations were applied, they would remove any construction related impacts on SPA species, allowing the Secretary of State to confidently conclude no potential for adverse effect on integrity.</p>
<b>Ribble and Alt Estuaries (R&amp;AE) SPA and Ramsar site</b>		
3.4.1	<p>Impacts of temporary loss of supporting habitats and/ or resource availability at the landfall on intertidal waterbirds NE (H3, H31 [RR-1601]/ RI_H3 and RI_H25) contested the applicants' approach to characterising temporary habitat loss as the area of physical ground disturbance arising from the proposal and considered that it should also include a buffer for visual or acoustic disturbance. NE requested that the MDS be revised and updated accordingly.</p> <p>The applicants (H31 [PDA-023] and Q2:9.1.5 [REP5-130]) argued that the area of works plus the species-specific disturbance buffer area have been assessed separately under the impact of disturbance and displacement (ISAA part 3 table 1.93). NE maintains its position (Q2:9.1.5 [REP5- 184]).</p>	<p>The Applicants note that this question is directed at Natural England but would note that the following have been fully assessed:</p> <ul style="list-style-type: none"> <li>• Permanent habitat loss as the area of actual habitat that will be permanently lost (i.e., the substations).</li> <li>• Temporary habitat loss as the area of actual habitat that will be temporarily lost during construction.</li> <li>• Displacement from disturbance as the area of construction plus the appropriate species buffer (i.e., 50m for sanderling, 300m for dunlin, 500m for pink-footed goose).</li> </ul> <p>Therefore, all scenarios have been assessed, and it would be incorrect to say that habitat loss covers a greater area than it actually does.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>In addition, NE (H3, H31 [RR-1601]) argued that the applicants should provide further information on the recovery time of disturbed sediments, as there is minimal mention of recovery time beyond completion of works. The applicants explained that recovery times are of low importance to the passage bird assemblage present at the landfall, as these either use the beach mostly for non-foraging purposes (ringed plover, dunlin and redshank) or are not reliant upon benthic invertebrates in the intertidal and feed instead upon invertebrates washed ashore (sanderling) (Q2:9.1.4 [REP5- 130]).</p> <p><b>Q15 - To NE:</b></p> <p><b>(a)The applicants have assessed the impact pathway of direct temporary habitat loss and, as a distinct pathway, the impact of disturbance and displacement. NE's position has not changed on this issue.</b></p> <p><b>Recognising this impasse, NE is requested to explain what it its view remains missing from the HRA assessment.</b></p> <p><b>(b)The applicants have provided further information on the importance of sediment recovery times to the passage assemblage. Does this alleviate your concerns about recovery times? If not, why not, and what would the applicants need to provide?</b></p>	<p>The Applicants would note that this a standard approach to ornithological assessment and has been applied on numerous projects, both onshore and offshore (e.g. Mona Offshore Wind Farm and onshore cable corridor and for the offshore ornithology assessment for the Transmission Assets project).</p> <p>The Applicants note that clarification on benthic recovery has been provided in Q2.9.1.4 of Applicants' Response to Examining Authority's Written Questions (ExQ2) (REP5-130) and noted that recovery times will be dependent upon the species but for most species recolonisation will start immediately upon completion of work with the literature indicating recovery times of weeks to months for sandy sediments. The mobile amphipods and polychaetes that are of highest value to the wading bird assemblage are likely to recover fastest, with bivalves being slower (over a period of several months to a small number of years at worst). They also noted that not all birds recorded at the landfall are reliant upon these benthic communities. For example, non-foraging birds such as those roosting or loafing do not require benthic communities, and sanderling largely feed upon wash up in the surf, so they too are not dependent on benthic communities.</p>
3.4.2	<p>Impacts at landfall on intertidal waterbirds NE advised (H3, H40, H41, H44, H56, H59 [RR-1601].</p> <p>RI_H33 to RI_H37) that the applicants had not provided sufficient information within the application to accurately identify and assess the impacts for wintering and passage features of R&amp;AE SPA and Ramsar sites.</p> <p>NE (H40) objected to the applicants' rationale (in paragraph 1.6.3.96 of the ISAA Part 3 for example) that the percentage of features affected is not significant because the area of the SPA is large (an area-based calculation assuming a random distribution). NE advised the applicants to consider why the SPA/ Ramsar site birds selected this area as opposed to others.</p>	<p>No response required. See response to Q16 below.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>The applicants removed the potential for impacts upon the wintering features through the commitment to a November – March seasonal restriction (see 3.4.3 below) and submitted a technical note on the energetics of the birds at landfall [REP2-045].</p> <p>NE [AS-078] welcomed this information but continued to raise concerns relating to the deliverability of the energy savings and potential for a significant gap between expenditure and recouping.</p> <p>For passage features, further mitigation was proposed by the applicants (again, see 3.4.3 below) and a technical note was submitted [REP4-121] to provide further detail (temporal and spatial usage) on the passage features using the landfall and to refine the period during which construction activities at the landfall might adversely impact passage birds at the SPA level.</p> <p>NE [REP5-183] welcomed this information and is content that the potential impacts to ringed plover, dunlin and non- foraging sanderling have been reduced to acceptable levels. However, NE expressed outstanding concerns over sanderling using the landfall area to forage. NE considered that although [REP2-045] provides further detail on the energetics associated with foraging, it requires further information to fully quantify the level of risk.</p> <p>The applicants argued that the numbers of foraging sanderling to be impacted is low (below 1% of the SPA population) [REP5-124] and due to the temporary nature and scale of potential effects and the mitigation measures committed to by the applicants [REP5-147], no AEol is concluded.</p> <p>NE [REP5-184][REP5-178] stated that it anticipates that a conclusion of no AEol on passage features at landfall can be reached providing the applicants provide additional detail on impacts to foraging sanderling at the landfall.</p> <p><a href="#">See Q16 below</a></p>	

Reference	Issue and ExA Observation/ Question	Applicants' response
3.4.3	<p>Impacts of landfall works on intertidal waterbirdsNE (NE18, NE19, H4, H59 [RR-1601]/ RI_H4 and RI_H3)</p> <p>considered that the proposed level of restriction to landfall works within the application (a limit of 5 weeks working in November-February, with no restrictions to working outside this period) would not be sufficient to avoid an AEol on the R&amp;AE SPA and Ramsar sites. NE sought comprehensive seasonal restrictions for the key intertidal species and months of the year (covering both the wintering and passage periods) (H4, H21 [RR-1601]).</p> <p>The applicants proposed strengthen the working restrictions at the landfall on Lytham St Annes beach to a full winter restriction between November and March to remove all impacts for intertidal birds over the sensitive winter period (CoT129 of [REP2-048]). This commitment is secured in dDCO Schedules 2A &amp; 2B, Requirement 12 (Ecological Management Plan – updated at DL2 [REP2-019]).</p> <p>These amendments addressed NE's concerns regarding the over-wintering features of the SPA and Ramsar site [REP3-094] [AS-078], however concerns regarding the passage features of the SPA and Ramsar site remained outstanding [REP3-094] [AS-078].</p> <p>The applicants proposed further measures at DL4 [REP4- 058] comprising:</p> <ul style="list-style-type: none"> <li>•an Ecological Clerk of Works stationed at the landfall to advise visitors to avoid certain areas of the foreshore to ensure birds have adequate space to feed (between October and April)</li> <li>•visual screening of the temporary construction compound situated on Lytham St Annes beach (between October and April)</li> <li>•exclusion zones of 25m will be established either side of cable pull in (year-round).</li> </ul> <p>The applicants also stated [REP4-058] that consideration was given to implementing a restriction on certain construction</p>	<p>The Applicants note that this question is directed at Natural England but would refer to Natural England's response to ExQ2.6.1.1 in which Natural England states that the proposed measures at Fairhaven Saltmarsh are not compensation but rather constitute “<i>an alleviation measure in order to reduce the residual impacts on the Ribble and Alt Estuary SPA/Ramsar site.</i>” The Applicants are committed to implementing the Fairhaven Saltmarsh as an alleviation measure within the mitigation package, to ensuring a conclusion of no Adverse Effect on Integrity (AEol).</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>activities in the hours around high tide, to be agreed with NE. However, the applicants confirmed at DL5 that this would not be necessary (Q2:9.1.1 [REP5-130]), and this was agreed with NE [REP5-183].</p> <p>NE [REP5-184] [REP5-178] stated that it anticipates that a conclusion of no AEol on passage features at landfall can be reached, due to the adoption of mitigation measures at the landfall location for the passage periods, providing the applicants submit additional detail on impacts to foraging sanderling at the landfall.</p> <p><b>Q16 - To NE:</b></p> <p><b>a) Confirm, following sight of DL5 submissions, whether you agree with the conclusions of no AEol to the R&amp;AE SPA and Ramsar sites' passage bird features from impacts of landfall works.</b></p> <p><b>b) Confirm definitively whether the package of measures proposed at Fairhaven Saltmarsh are essential for arriving at the conclusion of no AEol? If so, why, given the measures proposed at the source of impact? And if so, has your position that the measures at Fairhaven comprise compensation changed?</b></p>	
3.4.6	<p>Impacts at landfall during the O&amp;M phase on passage dunlin (R&amp;AE Ramsar site)The ExA noted that impacts to passage dunlin in the O&amp;M phase had not been addressed in the ISAA Part 3 (paragraph 1.6.3.184) (Q2:9.3.3 [PD-011]).</p> <p>The applicants argued that NE has agreed with the applicants' assessment that there are no AEol for passage dunlin during the construction period, and as the impacts during construction are predicted to be of a much higher magnitude than during O&amp;M there will therefore be no impacts on passage dunlin during the O&amp;M phase.</p> <p><b>Q17 - To the applicants: For completeness, update theISAA part 3 to demonstrate consideration of passage dunlin (R&amp;AE Ramsar site) in the O&amp;M phase.</b></p>	<p>The Applicants have updated paragraph 1.6.3.188 of the Habitats Regulations Assessment Stage 2 ISAA Part 3 (See E2.3/F03) to provide clarity on the consideration of passage dunlin (R&amp;AE Ramsar site) during the operation and maintenance phase.</p>



Reference	Issue and ExA Observation/ Question	Applicants' response
3.4.10	<p>Temporary habitat loss impacts from the onshore cable corridor to shelduck, wigeon, teal, golden plover, black-tailed godwit, breeding and non-breeding bird assemblages NE raised a series of concerns with the assessment of temporary loss of functionally linked land within the onshore export cable corridor. NE (NE20, H6, H52, H53 [RR-1601]/ RI_H6 and RI_H45) considered the assessment needed to focus on the populations of birds revealed by surveys (rather than modelled information) and be clear on the loss of supporting habitat from disturbance as well as the footprint of works, and the locations of size of alternative habitat available. NE (H52) also sought details on how the applicants would ensure the recovery of the temporary habitat loss, with details of mechanisms and predicted timescales. NE also raised comments on conclusions for specific features:</p> <ul style="list-style-type: none"> <li>• NE disagreed that shelduck would not be affected as numbers in the area are high, recommending that they be included in the supplementary feeding calculations (H46).</li> <li>• NE agreed with the conclusions for wigeon (H47) and teal (H48) in the long term but considered the conclusion did not account for effects in the short-term and advised the applicants to consider measures to reduce impacts, namely spatial scheduling of the works.</li> <li>• NE did not agree with the conclusion for black-tailed godwit (H51 and H57), considering that they should be based on the proportion of the population affected, rather than the area of foraging habitat lost. NE considered if adverse effects could arise, mitigation should be proposed that would cater to the specific needs of the species.</li> <li>• Due to disagreeing with the conclusions for the component species, NE also disagreed with the conclusion with respect to the waterbird assemblages (H53).</li> </ul>	<p>The Applicants acknowledge that these questions are directed at Natural England but wish to confirm that the position regarding shelduck has been agreed with Natural England with appropriate temporary mitigation planned at Lytham Moss. The document S_D4_17 Onshore Terrestrial Waterbird Note - Rev F01 (REP5-120) has been revised and appended to J6 Outline Ecological Management Plan (REP5-068) at Deadline 6 to incorporate mitigation measures for shelduck, as requested by Natural England.</p>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>The applicants provided additional information to support the ISAA part 3 conclusions in the Onshore Terrestrial Waterbird Note [REP4-120].</p> <p>NE [REP5-177] [REP5-183]:</p> <ul style="list-style-type: none"> <li>Continued to disagree with the conclusion for shelduck and sought provision of suitable habitats for shelduck at Lytham Moss and Newton-with-Scales. NE recommended including specific details in the OEMP to illustrate that the mitigation areas will have areas of short sward and muddy wetness with invertebrates; to provide more confidence that shelduck will be supported.</li> <li>[REP5-183] stated that NE agree with the conclusion of “no significant impact on the functioning of FLL for wigeon (H47)”.</li> <li>[REP5-183] confirmed that the detail provided relating to teal (H48) and black-tailed godwit (H51 and H57) largely alleviated its concerns over suitable measures to mitigate for impacts to these species.</li> </ul> <p>The applicants made additions to the OEMP at DL5 and NE's position on AEOI to the above features is expected at DL6.</p> <p><b>Q18 - To NE: the applicants argue that given the terrestrial habitat that will be lost is largely made up from intensively farmed arable and pasture, that it is unlikely these habitats would take long to restore [PDA-023]. In addition, the OEMP (paragraph 1.6.4.32 states that the temporary construction mitigation area at Lytham Moss would continue until all habitats that the wildfowl and waders rely upon are restored. Does this satisfy NE's concerns regarding habitat restoration? If not, why not? What would the applicants need to provide to alleviate your concerns?</b></p> <p><b>Q19 to NE: Following the updates to the OEMP [REP5-068], is NE satisfied with the mitigation proposed for terrestrial waterbird features of the R&amp;AE SPA and Ramsar sites and do you agree with the applicants' conclusions of no AEOI</b></p>	

Reference	Issue and ExA Observation/ Question	Applicants' response
	(provide an answer for each feature listed adjacent)? If not, why not? What would the applicants need to provide to alleviate your concerns?	
3.4.12	<p>Disturbance, displacement and temporary/ permanent loss of supporting habitat impacts on terrestrial features</p> <p>NE (NE20, H7, H23, H25, H49, H61 [RR-1601]) considered that the proposed mitigation sites for terrestrial bird features (Lytham Moss and Newton-with-Scales) had not been presented in sufficient detail to ensure that they would be fit for purpose. NE requested further information on site management and structure against the specific needs of the species affected.</p> <p>The applicants updated the OEMP throughout the examination to provide more detail (including an indicative layout of the mitigation proposed at Lytham Moss and Newton-with-Scales [REP2-018]; clarity of the species targeted [REP4-059]; and information on preconstruction surveys, ongoing monitoring, habitat management, and the energy requirements to be met through supplementary feeding [REP5-068]). The applicants also provided an Onshore Terrestrial Waterbird Note [REP4-120] to address specific issues raised by NE.</p> <p>NE's latest position (Q2:9.1.6 [REP5-184]) is that the updates to the OEMP and the information within the Onshore Terrestrial Waterbird Note [REP4-120] progressed its concerns, and it anticipates being able to agree that the mitigation areas are suitable and sufficient to conclude no AEol, pending some minor updates to the OEMP to provide further detail regarding the habitat management proposed.</p> <p>Appendix H5 to NE's latest representation outlines the updates NE is requesting [REP5-183].</p> <p><b>Q20 - To the applicants: Appendix H5 to NE's latest representation [REP5-183] outlines the updates NE is requesting to the OEMP [REP5-068] and Terrestrial Waterbird Note [REP4-120] to satisfy its concerns. The ExA is unclear whether you have sought to address these in</b></p>	<p>Q20: The Applicants note Natural England's submission at Deadline 5 and have amended the Terrestrial Waterbird Note to address their comments. The amended Terrestrial Waterbird Note has been appended to the OEMP (document reference J6/F06) at Deadline 6. The OEMP has also been updated to address Natural England's minor comments relating to the mitigation measures at Lytham Moss and Newtown-with-Scales. The Applicants therefore expect that this issue will be resolved with Natural England at Deadline 6. The updates made to the OEMP reflect Natural England's comments and include:</p> <ul style="list-style-type: none"> <li>• Further text clarifying the frequency and purpose of monitoring (including monitoring of habitats)</li> <li>• Clarification around the timing of monitoring and management</li> <li>• The addition of detail surrounding the feeding of geese and swans</li> <li>• The amendment of the scrape depth to 45cm throughout</li> <li>• The addition of the updated Terrestrial Waterbird Note.</li> </ul>

Reference	Issue and ExA Observation/ Question	Applicants' response
	<p>their latest submission at DL5 [REP5-068] or intend to make further revisions at DL6. The ExA request you review this appendix and either make amendments to enable this matter to be resolved or provide commentary as to why amendments have not been made.</p> <p><b>Q21 - To NE: In light of the applicants revised OEMP at DL5 [REP5-068], confirm whether this satisfies your concerns regarding the deliverability and effectiveness of the proposed mitigation measures at Lytham Moss and Newton-with-Scales. Confirm whether the proposed mitigation is sufficient to conclude no AEOI on the terrestrial waterbird features of the R&amp;AE SPA and Ramsar sites?</b></p>	
3.4.13	<p>Permanent loss of supporting habitat impacts to golden plover</p> <p>NE (H28, H29 and H49 [RR-1601]/ RI_H22, RI_H23 and RI_H42) sought clarification over the use of the area of permanent habitat loss at the substations by golden plover. NE considered that the numbers recorded in the area implied it was actively being selected by golden plover and that the applicants' claims that the sites were not in regular use were not evidenced.</p> <p>The applicants [PDA-023] explained that golden plover was found only once out of 14 non-breeding visits spread over 2 years. Considering this frequency of usage, the applicants disputed the functionally linked status. Irrespective of this, the applicants note the proposed commitment (CoT120) to provide permanent mitigation south of Newton-with-Scales that would benefit golden plover through the rewetting of grassland and the addition of scrapes.</p> <p>NE noted [REP5-177] that pending some updates to the information on the Newton-with-Scales mitigation area in the OEMP, disagreement over impacts to golden plover (H28, H49)</p>	<p>The Applicants note that this question is directed at Natural England but maintain that, due to the irregular use of the area by golden plover as outlined in paragraph 4.12.4.9 of Volume 3, Chapter 4: Onshore and Intertidal Ornithology (APP-090), the impact of permanent habitat loss caused by the construction of the substations does not constitute AEol (as per section 1.6.3.5 <i>et seq.</i> and Table 69 of the ISAA (REP5-020). Golden plover was the only SPA species present at an abundance of over 1% of the SPA populations at the substation sites and this species was only recorded at the substation site in one out of 14 surveys (i.e. not present in ~93% of surveys). Nevertheless, the Applicants' preference is to implement measures at south of Newton-with-Scales (as per COT120), which will provide long term habitat mitigation to golden plover populations (for the purposes of EIA).</p> <p>As presented in the revised Onshore Terrestrial Waterbird Note submitted at Deadline 6 (J6/F04), the table below shows the number of golden plover recorded (peak and average) during the site-specific surveys at the substation in context of the SPA population. <b>Note:</b> all birds were recorded in a single visit (one visit out of a total of 14 during the non-breeding season) meaning that 100% of birds associated with the SPA were in other locations (either within the SPA or surrounding habitats) more than 90% of the time. A single observation does not</p>

Reference	Issue and ExA Observation/ Question	Applicants' response						
	<p>would be resolved (see discussion over proposed mitigation sites above).</p> <p>The applicants provided updates to the OEMP at DL5 and NE's position on AEOI to golden plover are expected at DL6.</p> <p>See 2<sup>nd</sup> question from 3.4.10</p> <p><b>(Q19 to NE: Following the updates to the OEMP [REP5-068], is NE satisfied with the mitigation proposed for terrestrial waterbird features of the R&amp;AE SPA and Ramsar sites and do you agree with the applicants' conclusions of no AEOI (provide an answer for each feature listed adjacent)? If not, why not? What would the applicants need to provide to alleviate your concerns?)</b></p>	<p>demonstrate that the land supports the ecological function of the population, especially when the species is otherwise well supported elsewhere within the area. Section 2.2 of the Onshore Terrestrial Waterbird Note submitted at Deadline 6 (J6/F04) provides further information on the definition of Functionally Linked Land and clearly demonstrates that this irregularity of use means that the substation site (where permanent habitat loss will be limited to) does not represent Functionally Linked Land for golden plover (or any other SPA species) as it falls well short of the definition of 'regular' usage (e.g. two thirds of the season for which adequate data are available; Stroud <i>et al.</i>, 2001).</p> <table border="1"> <thead> <tr> <th>Species</th><th>Survey peak count (and % of the SPA)</th><th>Average count (and % of the SPA)</th></tr> </thead> <tbody> <tr> <td>Golden plover</td><td>104 (2.89%)</td><td>11 (0.3%)</td></tr> </tbody> </table> <p>In addition, golden plover have a foraging range of up to 10km, and therefore the available habitat for golden plover, after removal of built up environments, is an area of 317,248,436m<sup>2</sup> of pasture and arable land surrounding the Ribble and Alt Estuary SPA.</p> <p>The maximum area to be lost to the substations equates to 223,500m<sup>2</sup>, or 0.07% of their potentially available foraging areas (i.e., pasture and arable). It should also be noted that the area lost is intensively farmed pasture, outside of the SPA and Ramsar boundaries.</p> <p>As set out above, the irregular use of the area, the relatively small number of birds recorded (i.e. average number of birds recorded was &lt;1% of the SPA population) and the extremely small proportion of available habitat which would be lost (&lt;0.1% of available habitat) demonstrates there is no potential for Adverse Effect on Integrity on the Ribble and Alt Estuaries SPA and Ramsar.</p> <p>The Applicants' preference is to implement measures at south of Newton-with-Scales, which will provide long term habitat mitigation to golden plover populations, mitigating impacts for the purposes of EIA only. However, there is no potential for an AEol for the golden plover feature of the Ribble and Alt Estuaries SPA and Ramsar either with or without the proposed mitigation. Paragraphs</p>	Species	Survey peak count (and % of the SPA)	Average count (and % of the SPA)	Golden plover	104 (2.89%)	11 (0.3%)
Species	Survey peak count (and % of the SPA)	Average count (and % of the SPA)						
Golden plover	104 (2.89%)	11 (0.3%)						

Reference	Issue and ExA Observation/ Question	Applicants' response
		1.6.3.17 and 1.6.3.18 of the ISAA Part Three have been updated at Deadline 6 (E2.3/F02) to clarify this point.

## 2.3 Concluding Remarks

**Table 2-5: Confirmation whether the ExA's understanding of screening and adverse effects conclusions at point of RIES publication (tables A1.1 – A1.6 in annex 1) is correct**

Reference	Issue and ExA Observation/ Question	Applicants' response
<b>Concluding remarks</b>		
4.0.2	<b>RIES Q22 - To NE – Please review tables A1.1 to A1.6 and confirm any outstanding concerns in relation to the applicants' assessment of the potential for AEol, with reference to specific sites, qualifying features, and pathways?</b>	The Applicants have no comments in response to this question, beyond the comments provided above and that the Tables A1.1 to A1.6 reflect the positions of agreements with Natural England on conclusions of adverse effects on integrity (based on discussions up to Deadline 5). The Applicant is working with Natural England to close out the outstanding areas of discussion and is confident of agreement on conclusions of no adverse effects on integrity on all European sites.