



MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Alternative Ornithology Mitigation Note - Permanent



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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	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. 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.
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.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
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.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Intertidal area	The area between Mean High Water Springs and Mean Low Water Springs.
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).

Term	Meaning
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.
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 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	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. Also referred to in this report as the Transmission Assets, for ease of reading.
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.
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 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.
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

Acronyms

Acronym	Meaning
AEoI	Adverse Effects on Integrity
DCO	Development Consent Order
DIO	Defence Infrastructure Organisation
EIA	Environmental Impact Assessment
FLL	Functionally Linked Land
HRA	Habitats Regulations Assessment
ISAA	Information to Support an Appropriate Assessment
OEMP	Outline Ecological Management Plan
oWHMP	Outline Wildlife Management Plan
RIES	Report on the Implications for European Sites
SACO	Supplementary Advice on Conservation Objectives
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WeBS	Wetland Bird Survey

Units

Unit	Description
%	Percentage
km	Kilometres
m	Metres
nm	Nautical mile

1 Alternative Permanent Mitigation for Ornithology Technical Note

1.1 Purpose of the Note

- 1.1.1.1 The original purpose of this note was to address comments raised by Natural England in its Deadline 7 submission (REP7-049) regarding the use of the onshore substation sites and surrounding area by Special Protection Area (SPA) species, in particular golden plover. Natural England considered that the mitigation area south of Newton-with-Scales was needed to address the potential impacts on golden plover as a result of permanent habitat loss of Functionally Linked Land (FLL), in the unlikely event that the south of Newton-with-Scales mitigation area could not be delivered (as a result of concerns from aviation stakeholders), Natural England '*would not be able to rule out Adverse Effect on Integrity (AEol) for golden plover*'.
- 1.1.1.2 As set out in the Applicants' Response to Secretary of State Letter and Request for Information 2 (S_SoSQ_14), Natural England have advised the Applicants (in a meeting held on 19 June 2026) that, following review of the Applicants draft responses to Points 10 to 13, they consider there is no residual risk of AEol on the basis that the substation sites are unlikely to represent FLL and therefore mitigation is not required to rule out AEol. Natural England noted to the Applicants that this advice was subject to reviewing the final responses submitted to the Secretary of State, but the Applicants can confirm that the responses included in this submission have not materially changed from the drafts shared with Natural England. Therefore, the Applicant's expectation is that this verbal position will be reflected in Natural England's responses to these Secretary of State points.
- 1.1.1.3 The Applicants' position is that the mitigation area south of Newton-with-Scales provides long term habitat mitigation to non-breeding waders (including golden plover) for the purpose of the Environmental Impact Assessment (EIA). This note therefore provides an update on the approach to mitigating effects of permanent habitat loss on non-breeding waders (including golden plover), including alternative mitigation solutions to reduce the risk of bird strike and ensure the acceptability of the proposed mitigation to aviation stakeholders, whilst also being sufficient to mitigate significant residual EIA effects on non-breeding wading birds.
- 1.1.1.4 The Applicants have continued to engage with Natural England to address the comments raised in their Deadline 7 submission (REP7-049) and to close out residual concerns and welcome Natural England's latest advice that, subject to seeing the Applicants' final submissions, AEol can be ruled out. As part of this engagement, Natural England has been consulted on the principles of the alternative mitigation options included within this updated note. Natural England has recognised the possible benefits of the approach to address potential permanent habitat loss and has not objected in principle, whilst noting that more detailed information

– as set out in this note and included in the Outline Ecological Management Plan (OEMP) (document reference J6/F08) – will be required to enable formal advice to be provided.

- 1.1.1.5 This technical note should be read alongside the OEMP (document reference J6/F08), which provides further detail on the proposed mitigation measures set out in this note.

1.2 Alternative permanent mitigation

1.2.1 Background information

- 1.2.1.1 This note considers alternative mitigation of potential permanent impacts caused by the potential displacement of birds due to habitat loss in the vicinity of the onshore substation sites.
- 1.2.1.2 The permanent mitigation area south of Newton-with-Scales is the Applicants' preferred option. The Applicants have described (in the Outline Wildlife Hazard Management Plan (oWHMP); S_D3_8/F06) that the mitigation measures will be implemented using an adaptive management approach supported by ongoing monitoring and an escalation process, to avoid an unacceptable increase in bird strike risk at Warton Aerodrome. Data was received from BAE Systems, which has allowed the Applicants to undertake the bird strike risk assessment for Warton Aerodrome and confirm that the approach in the oWHMP is acceptable. BAE has also carried out its own bird strike risk assessment (C1-023).
- 1.2.1.3 The south of Newton-with-Scales mitigation area is proposed to accommodate birds potentially displaced from the vicinity of the onshore substation sites. The Applicants and Natural England agree that the purpose of the proposed mitigation areas at south of Newton-with-Scales and Lytham Moss is *'to provide habitat for species already within the area and Ribble SPA/Ramsar which have been potentially impacted or displaced from FLL habitat as a result of the Project, not to attract birds from elsewhere outside the SPA* (see Natural England's response to Q14 of the RIES (REP6-194)). However, BAE Systems and the DIO are concerned that the measures on land south of Newton-with-Scales could increase bird numbers and have the potential to attract unintended bird species (in particular, gulls and other large potentially hazardous species).
- 1.2.1.4 As shown in the Applicants' bird strike risk assessment (Appendix C of the oWHMP (S_D3_8/F06)), the measures south of Newton-with-Scales (and all other mitigation areas) will not lead to an unacceptable increase in bird strike. In all circumstances, with the deployment of monitoring, agreed trigger levels and both passive and active management measures, the Applicants are confident that the risk of bird strike will not exceed existing levels. However, due to ongoing concerns from BAE Systems (as set out in their closing statement (REP7-055)), there remains some uncertainty surrounding the deliverability of mitigation in this area. The Applicants' Response to Secretary of State Letter and Request for Information 2 (S_SoSQ_14) also provides a further update

on discussions with BAE Systems and DIO – see paragraph 1.3.2.11 onwards and the agreed joint response between BAE Systems and the Applicants to Point 21.

- 1.2.1.5 In response to the ongoing concerns of BAE and DIO, the Applicants have updated the measures proposed at land south of Newton-with-Scales to focus on maintaining existing habitats using grassland and rush management and reduced disturbance during the overwintering period (see OEMP (J6/F08)). The approach focuses on retaining the site's existing habitats through ongoing management activities to provide a safe haven for non-breeding waders, such as golden plover. The updated mitigation also reflects the minimal impact of the Projects on non-breeding waders and is proportionate to the risk of residual effects on birds.
- 1.2.1.6 The Applicants have additionally outlined an alternative permanent mitigation option at Lytham Moss, which it believes would be acceptable to Natural England in respect of providing suitable mitigation (to address significant residual EIA impacts), and BAE Systems and DIO concerns regarding aviation safeguarding at Warton Aerodrome.
- 1.2.1.7 The type of measures that will be implemented at the south of Newton-with-Scales environmental mitigation area are described in Appendix B of the OEMP, and a summary is provided in **Table 1.1** below. The location of the mitigation area south of Newton-with-Scales is shown on **Figure 1-1**.

Table 1.1: Summary of the measures to be implemented at the south of Newton-with-Scales mitigation area

Mitigation Area	Summary of measures
Land south of Newton-with-Scales	Species: This mitigation area is specifically designed for: • Non-breeding waders, including golden plover, lapwing, snipe and curlew. Size: this mitigation area would permanently occupy approximately 30 ha of land south of Newton-with-Scales. Maintenance and monitoring of existing habitat: Grassland management – Ensuring that the sward height is maintained for different waders and wildfowl using existing grazing practices Rush management – Ensuring that the rush cover is kept to no more than existing extents (as defined by pre-construction monitoring) Reduction in disturbance – ensuring grazing and other activities are restricted within overwintering period (October to March inclusive) Monitoring: Based on the findings of ongoing monitoring, maintenance may be required to maintain the existing habitat relative to the pre-construction baseline.

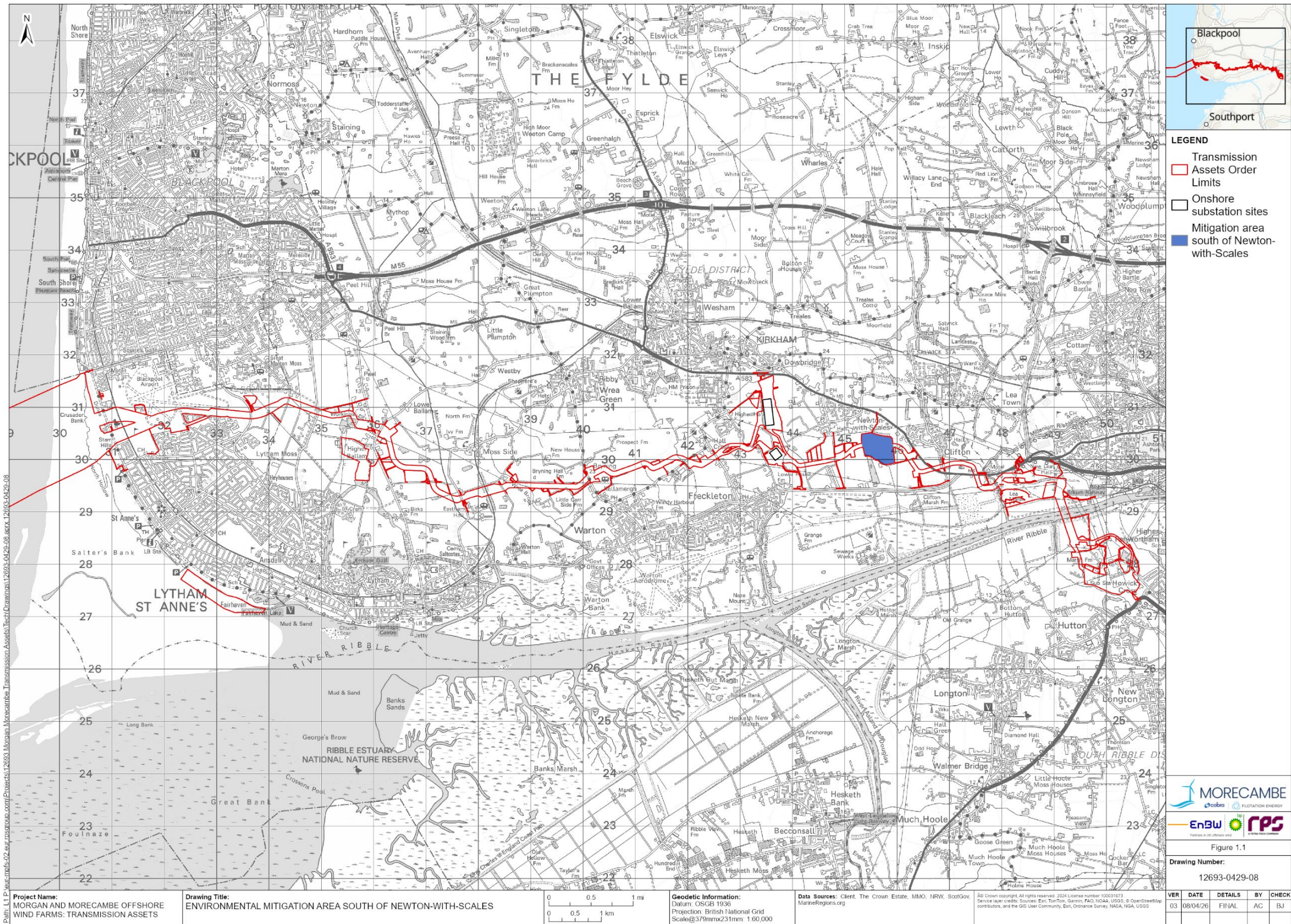


Figure 1-1: Environmental mitigation areas at south of Newton-with-Scales

1.2.2 Approach to Assessment

Magnitude of Potential Impact from the Transmission Assets Project

- 1.2.2.1 For clarity, the magnitude of potential impacts are separated into HRA and EIA level: (i) are measures required to reduce the risk of AEol to the Ribble and Alt Estuaries SPA and Ramsar site, addressed through the Habitats Regulations Assessment (HRA-level mitigation); and (ii) are measures required to avoid or minimise significant adverse effects as assessed under the Environmental Impact Assessment (EIA-level mitigation).

Habitats Regulations Assessment

- 1.2.2.2 As set out in section 1.1 above, Natural England have advised verbally that they consider there is no residual risk of AEol on the basis that the substation sites are unlikely to represent FLL and therefore mitigation is not required to rule out AEol (see the Applicants' Response to Secretary of State Letter and Request for Information 2 (S_SoSQ_14)). As such, this section has been removed.

Environmental Impact Assessment

- 1.2.2.3 The need for mitigation due to the permanent displacement from the onshore substation sites was identified during the EIA (F3.4 Volume 3, Chapter 4: Onshore and intertidal ornithology (APP-090)) for non-breeding waders as the area was occasionally used by low numbers of oystercatcher, lapwing, golden plover, ruff, curlew and snipe (**Table 1.2**). These were assessed within the generic non-breeding wader species group for the EIA (see the HRA section above for SPA level impacts).
- 1.2.2.4 Without further mitigation, the EIA concluded a moderate adverse effect on non-breeding waders. With the mitigation area at land south of Newton-with-Scales applied, the residual effect is reduced to minor and is not significant for EIA purposes. Only lapwing, golden plover, curlew and snipe had average counts above one bird, so the mitigation was developed for those species (see **Table 1.2**). The oystercatcher and ruff were recorded so infrequently and in such low numbers that the potential impacts to these species were deemed to be negligible, although the proposed mitigations may provide benefits to these species.
- 1.2.2.5 Potential impacts for all other species groups and at other times of year were minor or lower without the need for additional mitigation. These impacts were therefore not significant in EIA terms and other receptors are not considered further for permanent impacts.

Table 1.2: All non-breeding waders present at the onshore substations

Species group	Species	2022/23 peak	2023/24 peak	Overall peak	Mean peak	Mean	Frequency (%)
Waders	Oystercatcher	2	0	2	1	0	7
	Lapwing	12	120	120	66	9	14
	Golden plover	0	104	104	52	7	7
	Ruff	2	0	2	1	0	7
	Curlew	0	4	4	2	1	14
	Snipe	28	1	28	15	2	14

1.2.3 Methodology for identifying alternative mitigation

Purpose of the mitigation

- 1.2.3.1 As previously discussed, the purpose of the mitigation is to provide EIA level mitigation for low numbers of non-breeding waders.
- 1.2.3.2 As highlighted in **Table 1.2**, the EIA-level mitigation needs to support, on average, at least nine lapwing, seven golden plover, one curlew and two snipe. This mitigation needs to be provided over the wintering period between September and March when these birds are present in the area.
- 1.2.3.3 The habitats being lost are improved and semi-improved grazed grassland.
- 1.2.3.4 The area being lost is 22.35 ha (across both substation sites), although due to the low frequency with which birds used the area combined with the availability of other suitable habitat, it is not considered of critical value.

Screening

- 1.2.3.5 A screening process was undertaken to identify areas where appropriate mitigation could be delivered to mitigate for significant residual effects on ornithological receptors (in an EIA context) and satisfy concerns from BAE Systems and the DIO (with regard to concerns about potential increased risk of bird strike). The screening took account of:
 - Habitats – The loss of grassland habitats that are occasionally used by small numbers of non-breeding waders including golden plover.
 - Presence of birds at the site – In order to provide a direct benefit to the birds predicted to be impacted, the mitigation site must be demonstrably accessible to those birds.
 - Distance from impact – The area must benefit the wading birds from the Ribble and Alt Estuaries SPA and Ramsar site.

- Distance from SPA – The area must be within the foraging range of the impacted birds, e.g., the non-breeding golden plover foraging range is assumed to be 10 km based upon the Natural England Site of Special Scientific Interest (SSSI) impact zone buffer distance (see **Table 1.3**).
- Distance from Warton Aerodrome – In order to satisfy BAE Systems and the DIO aviation concerns regarding bird strike risk, the mitigation should be as far away from Warton Aerodrome as possible.
- Therefore, to qualify as suitable mitigation, the area:
 - Must be within the foraging ranges for the non-breeding waders present (e.g., 10 km for golden plover).
 - Must contain, benefit or create habitats suitable to support the non-breeding wader assemblage that will be impacted.

1.2.3.6 The screening exercise identified potential measures to enhance habitat and reduce disturbance for non-breeding golden plover, lapwing, curlew and snipe on the southern bank of the estuary at Crossens Outer and Banks Marsh. This option was investigated further to determine bird distribution and the suitability of the proposed measures. However, this option has recently received internal funding from Natural England and is no longer available for delivery by the Applicants (although the Applicants would note that the provision of this funding and the supported measures will generally provide benefits for non-breeding wading birds).

1.2.3.7 A further ten existing schemes were identified; however, these were largely beyond connectivity for wading birds and golden plover of the Ribble and Alt Estuaries SPA, or contained habitats that were not suitable to support these species. These have therefore been screened out from further consideration as mitigation at this stage.

1.2.3.8 Options on privately owned land parcels were also considered as part of this screening process, noting that many parts of the search area (particularly south of the River Ribble) are characterised by Grade 1 and Grade 2 land in arable production and use of these areas for ornithology mitigation would lead to loss of productive agricultural land.

Species ecology

Table 1.3: Species foraging range, foraging and roosting habitats during the non-breeding season.

Species	Foraging range	Diet	Foraging habitat	Roosting habitat
Lapwing	Unreported	Adult and larval insects (e.g. beetles), spiders, snails, earthworms ³	Damp grassland, stubble and ploughed fields ⁴	Scrapes and short grassland ⁴

Species	Foraging range	Diet	Foraging habitat	Roosting habitat
Golden plover	10 km ¹	Earthworms, crane fly (and larva), spiders, beetles ³	Damp grassland, stubble and ploughed fields ⁴	Scrapes and short grassland ⁴
Curlew	15 km ²	Estuarine invertebrates and earthworms in terrestrial fields ³	Mudflats and coastal pasture / grassland. ⁵	Pools in saltmarsh and coastal wet pasture or grassland. ⁵
Snipe	Unreported	Larval insects, adult insects, earthworms, small crustaceans, small gastropods and spiders ³	Upper reaches of estuaries and coastal meadows with long grass and damp soils ³	Upper reaches of estuaries and coastal meadows with long grass and damp soils ³

¹ Natural England, ² Bowland Ecology (2021), ³ e.g., Birdlife International (2026), ⁴ Gillings & Fuller (1999), ⁵ Mander, *et al.* (2022)

Supplementary Advice on Conservation Objectives for Ribble and Alt Estuaries SPA

- 1.2.3.9 In addition to the screening criteria, the screening process looked at the Supplementary Advice on Conservation Objectives (SACO) and Site Improvement Plan (SIP) for the species impacted where applicable. This was to identify the mitigation measures that could have the greatest benefits and to tailor mitigation to directly benefit the potentially impacted species within the Ribble and Alt Estuaries SPA and Ramsar site. While there is no residual risk of AEoI and mitigation is not required for HRA purposes, consideration of the SACO of the Ribble and Alt Estuaries SPA is useful to ensure the mitigation measures are appropriate for non-breeding waders generally.
- 1.2.3.10 As lapwing, curlew and snipe are not designated features, no supplementary advice exists so assumptions about their status in the area can only be inferred from population changes. **Figure 1-2:** shows the five-year trends for the impacted species. Golden plover and lapwing have increased and are in favourable condition, curlew declined but have since increased in 2017/18 to remain stable over the period. Snipe appear to have declined but they are likely to be poorly recorded by the WeBS due to their cryptic nature.

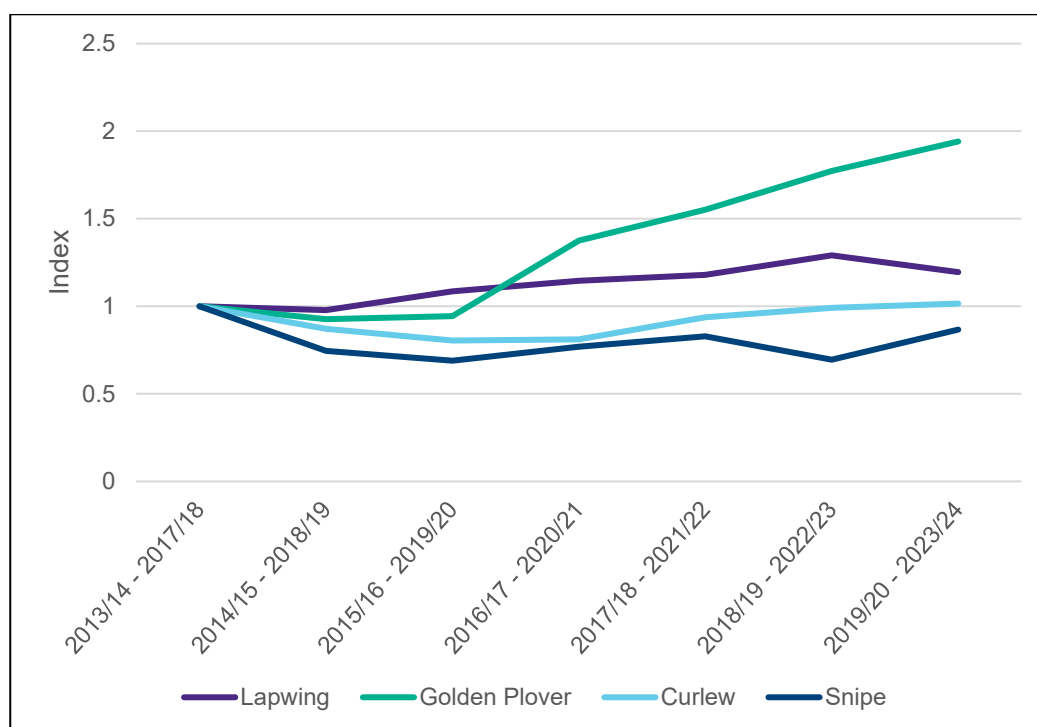


Figure 1-2: Indexed 5-year averages in the Ribble Estuary for the impacted species as taken from Calbrade, *et al.* (2025) data

- 1.2.3.11 As there are no data on the threats and impacts to lapwing, curlew, or snipe within the Ribble and Alt Estuaries SPA, golden plover has been used as a proxy. Golden plover often associates with lapwing and have similar foraging and roosting requirements.
- 1.2.3.12 The supplementary advice for golden plover has a number of attributes, targets and supporting notes. Although golden plover, and its attributes, are in favourable condition for most attributes, there is some uncertainty surrounding the impact of disturbance within the site, and habitat quality at roosting sites.

Table 1.4: Summary of the supplementary advice for the Ribble and Alt Estuaries SPA golden plover feature (as taken from Natural England's SACO on the designated sites viewer¹)

Attribute	Target
Disturbance caused by human activity	Restrict the frequency, duration and/or intensity of disturbance affecting roosting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed
Supporting habitat: vegetation characteristics for roosting	Maintain a vegetation structure of key roost sites dominated by bare ground or a short sparsely-vegetated sward.

¹ [Designated Sites View](#)

- 1.2.3.13 In addition, the Ribble Sefton Site Improvement Plan (SIP) written in 2014 identifies disturbance as a threat to golden plover (Table 1.5).
- 1.2.3.14 There are no specific recommendations for habitat enhancement measures for any of the habitats utilised by waterbirds such as roost sites.

Table 1.5: The Ribble Sefton Site Improvement Plan (as taken from Natural England's Access to Evidence²)

Threats and pressures				
Priority and issue	Pressure or threat	Features affected	Measure	Delivery bodies
6. Public access/disturbance	Threat	A037(NB) Bewick's Swan, A038(NB) Whooper Swan, A040(NB) Pink-footed Goose, A048(NB) Common shelduck, A050(NB) Wigeon, A052(NB) Eurasian teal, A054(NB) Pintail, A130(NB) Eurasian oystercatcher, A137(NB) Ringed Plover, A140(NB) Golden Plover , A141(NB) Grey Plover, A143(NB) Red knot, A144(NB) Sanderling, A149(NB) Dunlin, A151(B) Ruff, A156(NB) Black-tailed Godwit, A157(NB) Bar-tailed Godwit, A162(NB) Common redshank, A183(B) Lesser Black-backed Gull, A193(B) Common Tern, H2110 Shifting dunes, H2120 Shifting dunes with marram, H2130 Dune grassland, H2150 Coastal dune heathland, H2170 Dunes with creeping willow, H2190 Humid dune slacks, S1166 Great crested newt, S1395 Petalwort, Seabird assemblage, Waterbird assemblage	Raise public awareness via Landscape Partnership Scheme and the new Sefton Coastal Strategy	Natural England, Sefton Metropolitan Borough Council, Sefton Coast Partnership

- 1.2.3.15 This evidence suggests that meaningful benefits for the impacted non-breeding wader assemblage can be achieved through mitigation that improves roosting habitat and reduces recreational disturbance.

1.2.4 Permanent mitigation options

- 1.2.4.1 As with the temporary impacts, mitigation for potential permanent impacts now comprise several options. Option 1 (land south of Newton-with-Scales) is the preferred option: it was assessed in the Development Consent Order (DCO) application, carried through the examination, and has been agreed with Natural England. Option 2 constitutes an alternative mitigation area, addressed in detail below.

² [Site Improvement Plan: Sefton Ribble - SIP212](#)

Option 1 – South of Newton-with-Scales

- 1.2.4.2 The mitigation at the land south of Newton-with-Scales has already been discussed at length (see section 1.2.1 and Table 1.1). For further detail about the land south of Newton-with-Scales see Appendix B of the OEMP (document reference J6/F08), noting the measures at land south of Newton-with-Scales have been adapted to ensure existing habitats would be maintained to provide wintering refuge, as the relevant wading bird species already utilise the area and existing habitats are suitable for these species (see Table 1.1).

Option 2 - Lytham Moss – permanent mitigation

Overview

- 1.2.4.3 The area of land that was originally proposed to deliver temporary mitigation at Lytham Moss is now also, in part, being proposed for the permanent mitigation, with measures being implemented in the southern part of the mitigation area following construction and taken forward for the lifetime of the project. The area in which permanent measures would be implemented is an area of arable land that is approximately 7.7 ha in size (as shown in Figure 1-3). Lytham Moss is widely accepted as an area of FLL for the Ribble and Alt Estuaries SPA. A large number of wader and wildfowl species (including golden plover) were identified by both the Applicants' data and the Fylde Bird Club data, which showed golden plover using this area (APP-090 and APP-094). In addition, lapwing, curlew and snipe are known to frequent this area alongside other waders such as oystercatcher, redshank and black-tailed godwit.
- 1.2.4.4 The Applicants have engaged with the landowner's agent regarding the use of these field parcels for the purposes of permanent mitigation, and they have responded positively, indicating this would be possible in principle. Further, Blackpool Airport have confirmed that they would be content with this mitigation subject to detailed information on monitoring and management to be agreed post-consent and secured in the OEMP (document reference J6/F08). Due to the greater distance between Lytham Moss and Warton aerodrome than south of Newton-with-Scales, this is also less likely to be a concern for BAE (noting BAE have had less concern with the proposed mitigation measures at Lytham Moss for the construction phase and proposed permanent mitigation measures at Lytham Moss are similar, although considerably reduced to reflect the reduced impact during the operational phase of the project).

Objective of mitigation measures

- 1.2.4.5 The measures proposed at this alternative location would comprise broadly the same core measures set out for Newton-with-Scales in Table 1.1 above (see the OEMP (J06/F08) for full detail) as this would provide the necessary sanctuary areas for the relevant waterbird

species, while also ensuring it is as similar as possible to the land being lost at the Morecambe substation site.

Measures

1.2.4.6 **The permanent mitigation measures proposed at Lytham Moss include:**

- **Management of agricultural activities** – Lytham Moss is currently used for arable production with predominantly spring-sown crops. It is proposed that the mitigation area shown on Figure 1-3 is left as stubble over the winter. Wintering waders such as lapwing, golden plover, curlew and black-tailed godwit favour stubble/short grassland as it provides safe roosting, loafing and foraging opportunities.
- **Reduction in disturbance** – cultivation activities will be avoided during the overwintering period (October to March inclusive).

1.2.4.7 As set out in Appendix B of the OEMP (J6/F08), the temporary mitigation area at Lytham Moss will provide mitigation during the construction phase for a wide range of waterbird species, including golden plover. As such, should the construction phase for one project overlap with the operation and maintenance phase for another (e.g. a sequential construction scenario), then the relevant construction mitigation would be applied to the Lytham Moss mitigation area (effectively ‘scaling up’ mitigation to reflect the construction effects). This would provide a greater level of mitigation (e.g. creation of temporary scrapes) and therefore a much greater capacity for supporting waterbirds (including golden plover) than the alternative permanent mitigation measures set out above, rather than representing any potential conflict between the temporary (i.e. construction) and permanent (i.e. operation) mitigations. Further, the areas potentially impacted by permanent habitat loss (i.e. in the vicinity of the substation sites) overlap those impacted during the construction phase and therefore there would be no need for additional mitigation for permanent impacts during the construction phase.

1.2.5 **Comparison of mitigation options**

Table 1.6 below highlights the similarities and differences between the area of potential impact and both mitigation options.



Figure 1-3: Alternative permanent mitigation area at Lytham Moss

Table 1.6: Comparison of the onshore substations and proposed permanent mitigation areas

Site	Habitats	Area (ha)	Bird presence
Onshore Substation sites	Improved and semi-improved grazed pasture	22.35 (total across both substations)	Non-breeding waders are present on average in single figures
Option 1. South of Newton-with-Scales mitigation site	Wet grassland, seasonal ponds and rush pasture	30	Non-breeding waders are present on average in double figures
Option 2. Lytham Moss	Pasture and arable	7.7 (sufficient in scale to mitigate for the number of wading birds predicted to be permanently impacted at the substation sites – see Table 1.2)	Lytham Moss is widely recognised as FLL with large numbers of waders frequenting the area. Non-breeding waders are regularly present in triple figures.

1.2.6 Conclusion

- The Applicants and Natural England have agreed (subject to Natural England reviewing the Applicants' final Response to Secretary of State Letter and Request for Information 2 (S_SoSQ_14) that the permanent loss of land at the substation sites does not represent an AEoI on the golden plover feature of the Ribble and Alt Estuaries SPA and Ramsar site and therefore mitigation is not required to rule out AEoI.
- The Applicants remain committed to providing permanent mitigation for the significant residual EIA effect of permanent habitat loss at and in the vicinity of the onshore substation sites on a small number of non-breeding waders (including golden plover).
- The loss of land at and in the vicinity of the onshore substation sites affects very low numbers of non-breeding waders on sub-optimal improved and semi-improved grassland habitats.
- The Applicants have presented two mitigation options to demonstrate that, in the event that their preferred option (Option 1 – measures delivered on land south of Newton-with-Scales) is not deliverable, the Transmission Assets Project can still be delivered whilst meeting its commitments under the EIA regulations.

1.3 References

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