# MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

## Appendix E: Outline Wildlife Hazard Management Plan F01

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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. |
| Onshore Order Limits | 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. |
| Special Protection Areas | A site designation specified in the Conservation of Habitats and Species Regulations 2017, classified for rare and vulnerable birds, and for regularly occurring migratory species. Special Protection Areas contribute to the national site network. |
| Transmission Assets | 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. |
| Transmission Assets Order Limits | 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).<br>Also referred to in this report as the Onshore Order Limits, for ease of reading. |

# Acronyms

| Acronym | Meaning |
|---|---|
| CIEEM | Chartered Institute of Ecology and Environmental Management |
| CoCP | Code of Construction Practice |
| DCO | Development Consent Order |
| ECoW | Ecological Clerk of Works |
| ES | Environmental Statement |
| EMP | Ecological Management Plan |
| OEMP | Outline Ecological Management Plan |
| SPA | Special Protection Area |
| SSSI | Site of Special Scientific Interest |

| Acronym | Meaning |
|---|---|
| UK | United Kingdom |

## Units

| Unit | Description |
|---|---|
| % | Percentage |
| ha | Hectare |
| kV | Kilovolt |
| m | Metre |

# 1 Outline Wildlife Hazard Management Plan

## 1.1 Background and Aims

### 1.1.1 Introduction

1.1.1.1 This document comprises an Outline Wildlife Hazard Management Plan for the Transmission Assets and forms an appendix to the Outline Ecological Management Plan (OEMP) (document reference J6). The document will be used to support ongoing discussions between the Applicants, Blackpool Airport and BAE Systems ("BAE") with regards to the safeguarding of Blackpool Airport and Warton Aerodrome associated with wildlife risk management. Other matters highlighted in BAE's Relevant Representation (RR) RR-208 relating to buildings/building heights and potential impacts on radar are considered in the Applicants' response to RR-028.

1.1.1.2 Blackpool Airport and BAE have both raised concerns that the construction of the Transmission Assets (in particular the establishment of the environmental mitigation and biodiversity benefit areas) would increase bird populations and change the patterns of bird abundance, distribution, or behaviour in the area, which could lead to an increase in bird strike risk.

1.1.1.3 Whilst 'designing-out' hazards (e.g. not having them within the 13 km wildlife hazard zone around the airports) would be the preferred option for BAE and Blackpool Airport, when considering the requirements from Natural England to deliver mitigation and biodiversity benefit as close to the source of impact as possible, this Outline Wildlife Hazard Management Plan demonstrates that with commitments made by the Applicants to monitor and manage hazards that the proposed works can proceed without increasing bird strike risk at the airports. The contents of this plan will help inform discussions with the aerodromes to ensure the most appropriate solution is taken forward.

1.1.1.4 At Deadline 2, the Applicants described the process followed in the site selection of the environmental mitigation and biodiversity benefit areas (REP2-046) which took into account proximity to Blackpool Airport and Warton Aerodrome. The Applicants also set out the target species/enhancement measures for each environmental mitigation and biodiversity benefit area and provided further detail on the measures that would be implemented (Outline Ecological Management Plan (document reference J6)).

1.1.1.5 The Applicants have also submitted a Baseline Bird Technical Note at Deadline 3 (S_D3_5) using data presented in Volume 3: Annex 4.2: Wintering and migratory birds technical report (APP-092 and APP-093) and Annex 4.3: Intertidal birds technical report (APP-094) from the Environmental Statement. The Baseline Bird Technical Note (S_D3_5) explains which bird species present a greater collision risk for aircraft (based on national and local data) and seeks to establish the baseline bird numbers and trends for these species. The Applicants have requested bird monitoring data from Blackpool Airport and BAE, which will be incorporated into the Baseline Bird technical note on receipt of the data.

1.1.1.6 This Outline Wildlife Hazard Management Plan follows on from the site selection of the environmental mitigation and biodiversity benefit areas (REP2-046) submitted at Deadline 2 and the Baseline Bird Technical Note submitted (S_D3_5) at Deadline 3 and is in line with the approach set out in the Strategy for Wildlife Hazard Management Plan (REP2-047). The Outline Wildlife Hazard Management Plan also follows the Safety Management System set out in CAP795 and includes:

- An indicative wildlife attractant habitat risk assessment (based on the early design work on the environmental mitigation and biodiversity benefit areas) identifies the bird species that may be attracted to the works areas (including the environmental mitigation and biodiversity benefit areas) due to an increase in potential food sources, standing water or any other factor which may attract birds. The wildlife attractant habitat risk assessment will focus on the bird species which have been identified in the Baseline Bird Technical Note as presenting the greatest risk of collision with aircraft.
- Alongside the wildlife attractant risk assessment, the Outline Wildlife Hazard Management Plan explains how the mitigation measures within the OEMP (J6) and the Onshore Biodiversity Benefit Statement (J11) will manage the risk of bird strike. This is based on a series of practicable measures supported by a strategy for monitoring and reporting the effectiveness of the measures. A key element of the strategy is the procedure for identifying how management measures will be adapted according to results from the monitoring and to reflect other changes in the local area (where required). These management measures will aim to reduce any increased bird strike risk and reduce the risks to As Low As Reasonably Possible (ALARP) based on CAP 738 guidance (Safeguarding of Aerodomes) are also presented.

### 1.1.2 Ongoing Management and Mitigation

1.1.2.1 The Applicants propose that the risks and measures of this Outline Wildlife Hazard Management Plan are reviewed by the Blackpool Airport and BAE. Whilst it is still to be agreed with both airports, any additional mitigation measures required as a consequence of the Transmission Assets, would be adopted and incorporated into their existing Wildlife Attractant Habitats Risk Assessment and Management Plans following the identification of any additional potential bird strike risk above the current level already identified.

1.1.2.2 The Applicant will be responsible for any additional costs associated with the additional hazard management. The principles of this approach have been verbally agreed with Blackpool Airport; discussions are ongoing with BAE. The proposed approach would ensure both airports' operations were aligned with CAP 772 guidance and ensure bird strike risk at the aerodromes does not increase beyond its current level due to the Transmissions Assets. Should either airport prefer not to adopt the monitoring and management of the additional hazards into their existing Wildlife Attractant Habitats Risk Assessment and Management Plans, the Applicants will retain responsibility for managing any additional hazards associated with the Transmission Assets.

## 1.2 Implementation

1.2.1.1 This Outline Wildlife Hazard Management forms an appendix to the OEMP (document reference J6). Following the granting of the consent for the Transmission Assets, bespoke detailed Wildlife Hazard Management Plan(s) will be prepared for and agreed with Blackpool Airport and BAE (on behalf of Warton Aerodrome) as part of the detailed EMP prior to the commencement of the relevant stage of works and will follow the principles established in this Outline Wildlife Hazard Management Plan. The detailed Wildlife Hazard Management Plans will require approval by the relevant planning authority following consultation with relevant stakeholders. Blackpool Airport and BAE Systems (on behalf of Warton Aerodrome) are named consultees. The Applicants and all appointed contractors will be responsible for the implementation of the detailed Wildlife Hazard Management Plans.

1.2.1.2 The Applicants have committed to implementation of detailed Ecological Management Plans via the following commitment, CoT76 (see Volume 1, Annex 5.3: Commitments Register, document reference F1.5.3), which is secured by inclusion of Requirement 12 of the draft Development Consent Order (DCO) (document reference C1) Schedules 2A & 2B.

1.2.1.3 The requirement wording for Project A is set out below (Project B's requirement mirrors that for Project A and is therefore, not repeated):

*12)— (1) No stage of the Project A onshore works or Project A intertidal works may commence until for that stage a written ecological management plan in accordance with the OEMP as appropriate for the relevant stage, has, following consultation with –*

*(a) Natural England;*

*(b) the Environment Agency where works have the potential to impact wetland habitats; and*

*(c) BAE and BAOL in respect of the outline wildlife hazard management plan,*

*been submitted to and approved by the relevant planning authority.*

*(2) The ecological management plan submitted under sub-paragraph (1) must include an implementation timetable and must be implemented as approved.*

*(3) Onshore site preparation works must only take place in accordance with the relevant details set out in the OEMP.*

## 1.3 Indicative Wildlife Attractants Habitat Risk Assessment

1.3.1.1 It is not possible to determine how the works will impact the wildlife strike risk at an airport with any degree of certainty. This is because a) it cannot be certain which species and how many individuals will be attracted to a development, b) it is not known with certainty how the wildlife attracted to the development will behave (i.e. will they move onto or across an aerodrome thus generating a risk) and c) it is not known with certainty how a

development will influence the behaviour of existing hazardous wildlife near an aerodrome, either in a way that might increase or, indeed, reduce the risk.

1.3.1.2 It is for this reason and reflecting that the Transmission Assets project is not at detailed design, that the wildlife attractant habitat risk assessment presented in the Outline Wildlife Hazard Management Plan is indicative and is based on expert evaluation. The wildlife attractant habitat risk assessment will be updated post consent during detailed design. The Applicants commit to on-going management of any attractions to hazardous wildlife, either through the incorporation of the management into the aerodromes' own existing Wildlife Attractant Habitats Risk Assessment and Management Plans, or in consultation with the two aerodromes should the Applicants retain responsibility for managing any additional hazards associated with the Transmission Assets.

## 1.3.2 Approach

1.3.2.1 The approach taken by the Applicants in the identification of hazardous wildlife and their habitats follows the approach set out in the CAP 795 guidance (as set out Figure 1.1).

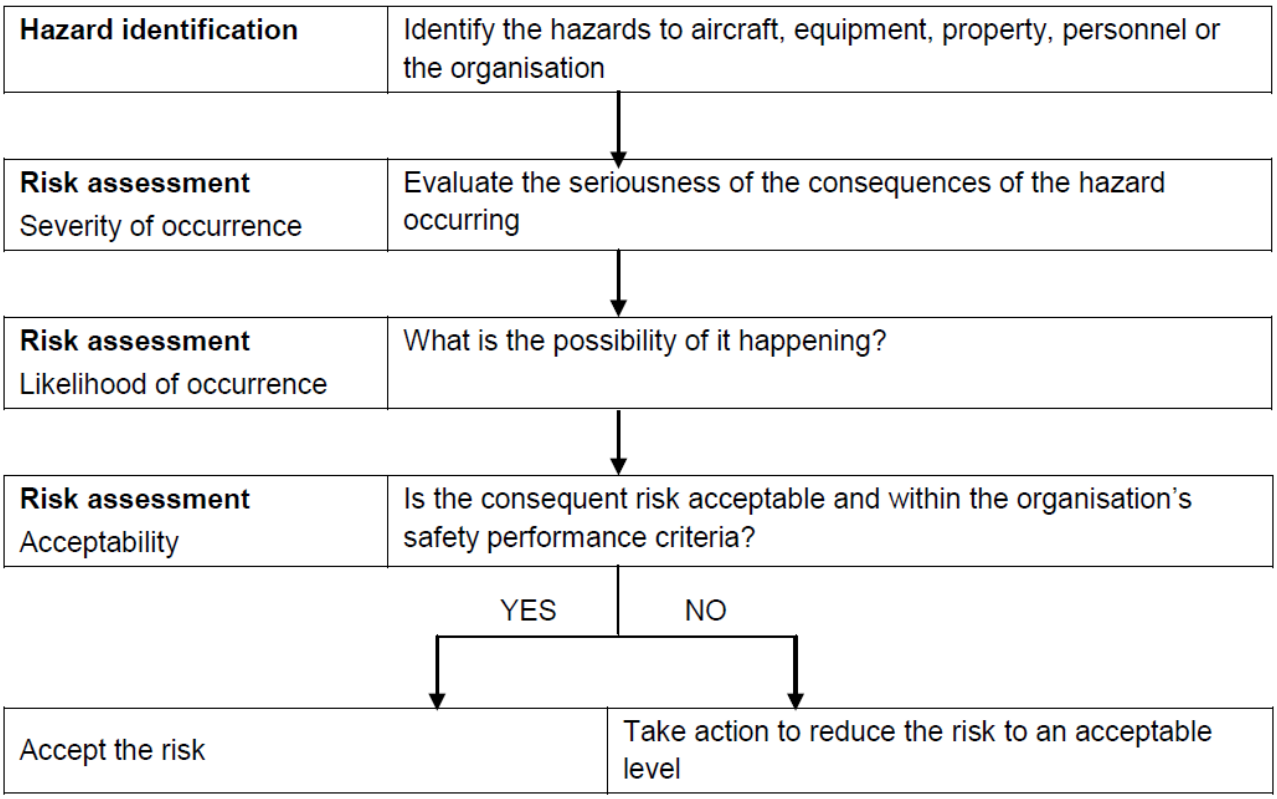


**Figure 1.1: The process to identify hazards and assess risks as taken from CAP 795**

1.3.2.2 The Applicants have completed the initial stage of this process by undertaking the wildlife attractant habitats risk assessment in this Outline Wildlife Hazard Management Plan. For the purposes of this assessment, the attractants are defined as any aspect of the Transmission Assets that has the

potential to cause a change in abundance, distribution, or behaviour of birds within the 13km safeguarding zone (as shown on Figure 1.2). This includes the mitigation areas as set out in **Section 1.3.4** as well as the general risks associated with bird attraction due to earthworks and construction activities related to the Transmission Assets.

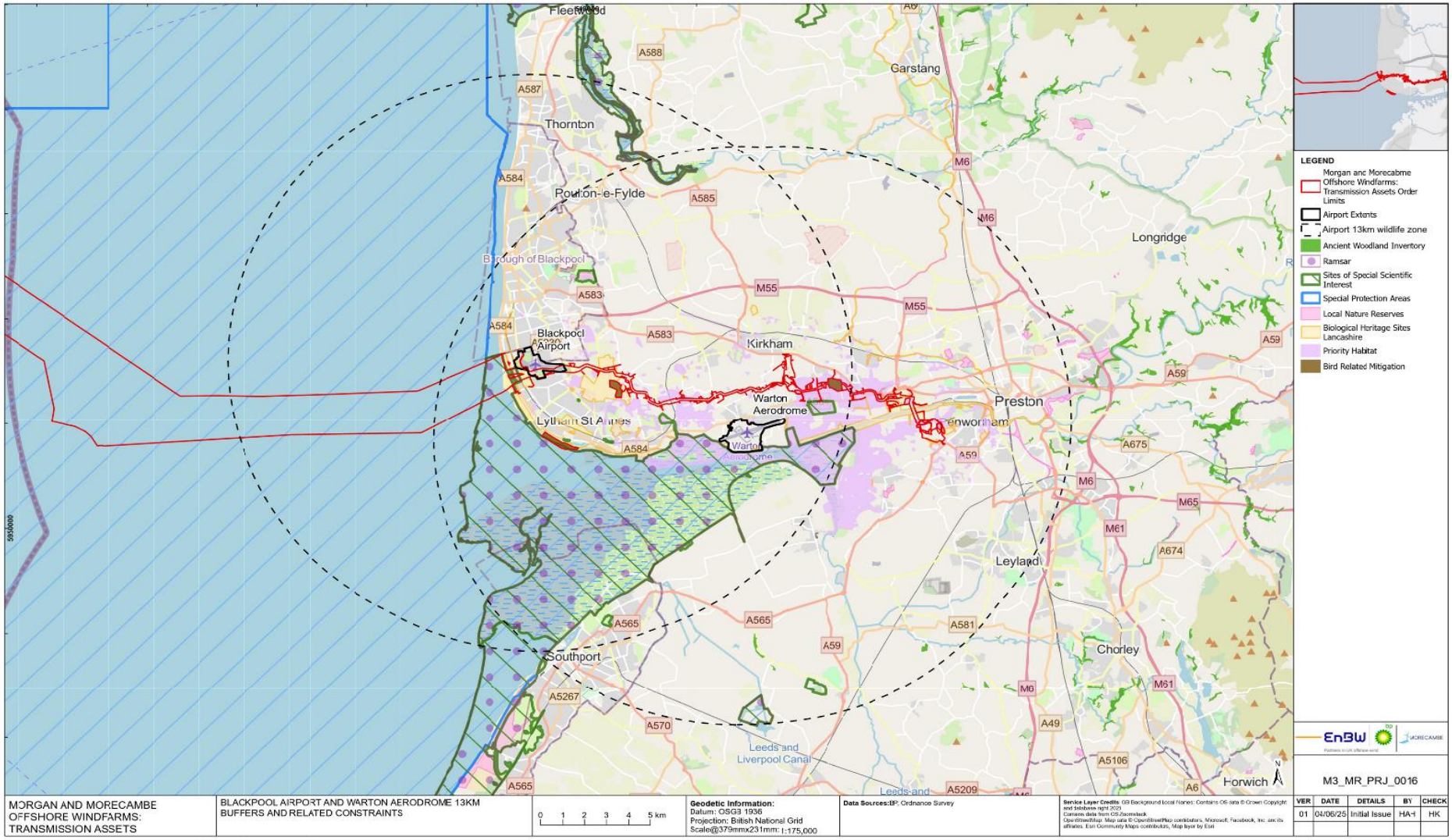


**Figure 1.2: Wildlife Hazard Management Zones around Blackpool Airport and Warton Aerodrome**

### 1.3.3 Species considered in the wildlife attractant habitats risk assessment

1.3.3.1 The Baseline Bird Technical Report (S_D3_5) sets out the species at risk of collision with aircraft within the 13 km wildlife hazard management area. These species are set out in Table 1.1 below and have been agreed with Blackpool Airport. The Applicants await comment from BAE following a request submitted on 29th May 2025.

**Table 1.1: Species at risk of collision with aircraft within the 13km wildlife attractant management area**

| Group | Species |
|---|---|
| Swan | Bewick's swan, |
| | Whooper swan |
| | Mute swan |
| Geese | Canada goose |
| | Greylag goose |
| | Pink-footed goose |
| Ducks | Shelduck |
| | Mallard |
| | Wigeon |
| | Teal |
| Waders | Oystercatcher |
| | Golden plover |
| | Lapwing |
| | Redshank |
| | Black-tailed godwit |
| | Curlew |
| Gulls | Black-headed gull |
| | Common gull |
| | Herring gull |
| | Lesser black-backed gull |
| | Great black-backed gull |
| Corvids | Magpie |
| | jackdaw |
| | Rook |
| | Carrion crow |

| Group | Species |
|---|---|
| Pigeons | Woodpigeon |
| Starling | Starling |
| Winter thrushes | Redwing |
| | Fieldfare |

### 1.3.4 Areas considered in the wildlife attractant habitat risk assessment

#### Transmission Assets Order Limits

1.3.4.1 Several areas and activities within the Transmission Assets Order Limits may contribute to an increased wildlife hazard and, therefore, are considered in the wildlife attractant habitats risk assessment

1.3.4.2 The key components of the Transmission Assets for both the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include:

- Landfall:
  - landfall site: this is where the offshore export cables are jointed to the onshore export cables via the transition joint bays (TJBs). This term applies to the entire area between Mean Low Water Springs (MLWS) and the TJBs.
- Onshore elements:
  - onshore export cables: these export cables will be jointed to the offshore export cables via the TJBs at the landfall site, and will bring the electricity generated by the Generation Assets to the onshore substations;
  - onshore substations: the two electrically separate onshore substations will contain the components for transforming the power supplied via the onshore export cables up to 400 kV;
  - 400 kV grid connection cables: these export cables will bring the electricity generated by the Generation Assets from the two electrically separate onshore substations to the existing National Grid substation at Penwortham.
  - environmental mitigation areas – temporary and/or permanent areas, including accesses identified to provide environmental mitigation only.
  - biodiversity benefit areas - temporary and/or permanent areas, including accesses identified to provide biodiversity benefit only

#### Environmental mitigation and biodiversity areas

1.3.4.3 The environmental mitigation and biodiversity areas are shown on Figure 1.3 and Figure 1.4 and are summarised in Table 1.2. More information about the measures to be implemented at each area are provided in the oEMP (J6).

Table 1.2 also summarises the indicative risk management areas for each of the areas. It should be noted that an Ecological Clerk of Works (ECoW) will be appointed during the construction of the Transmission Assets to liaise with an independently appointed team (appointed either via the Applicants or via the airport / aerodrome team). The appointed team's role will include the monitoring of birds to ensure that features potentially attracting them are managed appropriately so not to cause an increased hazard to the aerodromes.

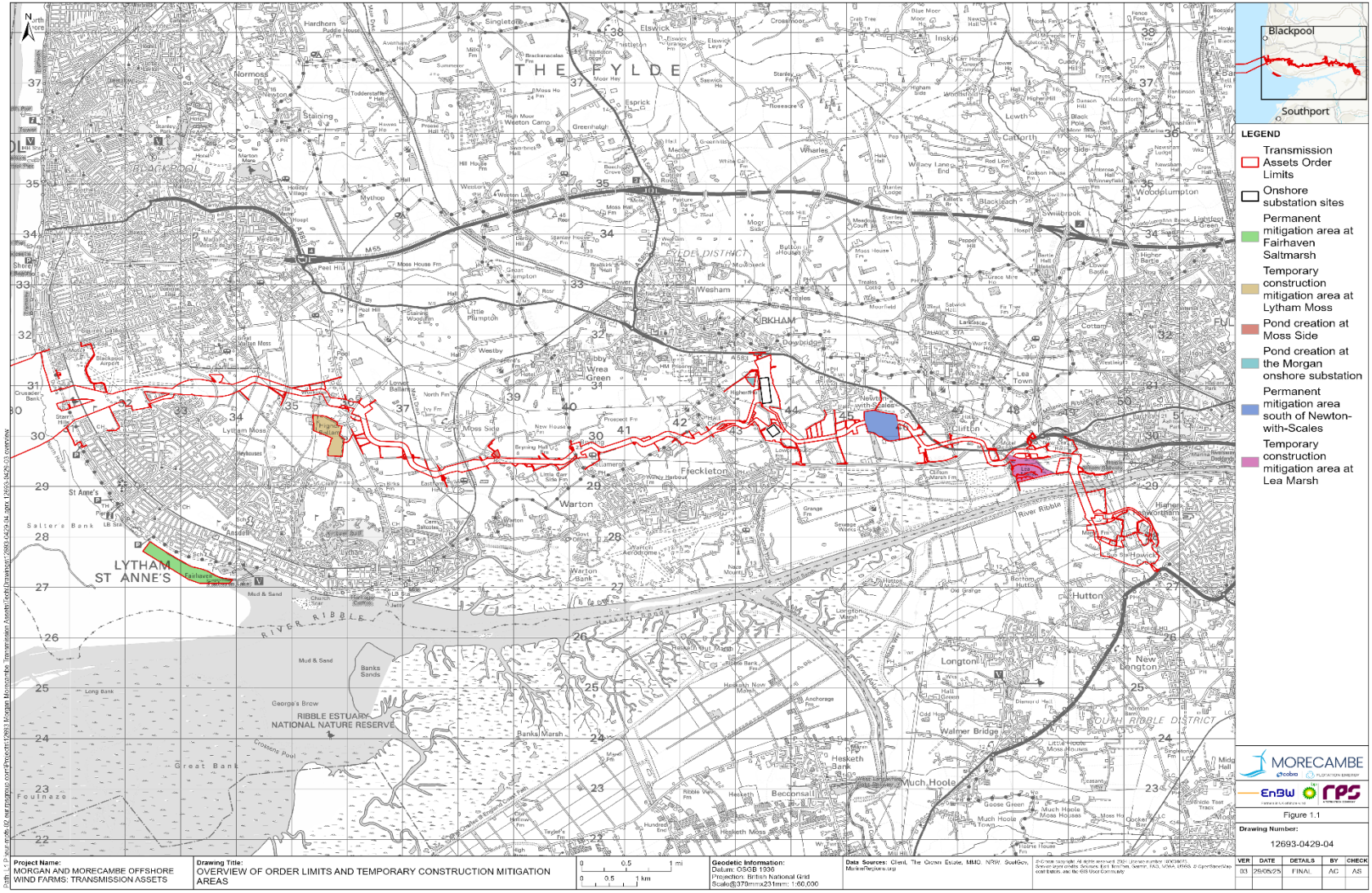


**Figure 1.3: Environmental mitigation areas considered in the wildlife attractant habitats risk assessment.**

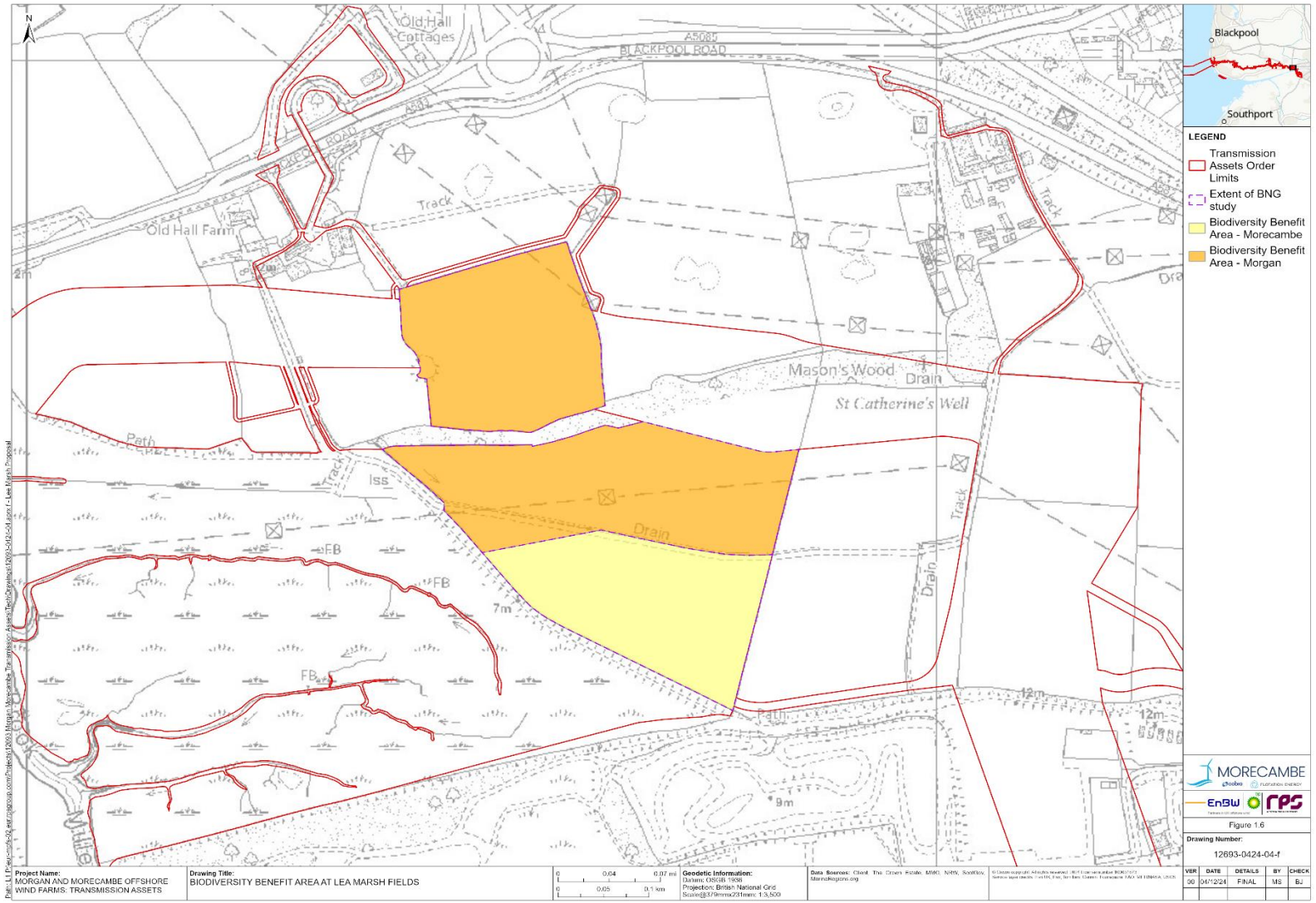


**Figure 1.4_ Biodiversity Benefit Area at Lea Marsh**

## Table 1.2: Environmental mitigation and biodiversity areas

| Name | Target species | Mitigation measures and habitat attractant | Potential habitat management measures |
|---|---|---|---|
| **Permanent environmental mitigation areas** | | | |
| Fairhaven Saltmarsh<br>(Work Area 49A/49B) | Intertidal waders | Management of recreational users at Fairhaven Saltmarsh to reduce disturbance of waders at existing roost site.<br>The mitigation measures may lead to a greater number of intertidal waders using the existing roost site as a result of reduced disturbance. | Those birds that currently roost in the area are known to be heavily disturbed due to users of Lytham St Annes beach. Therefore the birds could currently be spending a lot of time flying within wildlife hazard management area. By minimising the disturbance to the birds it will increase the time roosting flocks remains on the ground. It is possible that the current risk arising from roosting waders at this location, which is already being tolerated by the aerodrome, could reduce as a result of the proposed actions. Monitoring at the mitigation area will be undertaken. |
| Newton-with-Scales<br>(Work Area 49A/49B) | Non- breeding and breeding terrestrial waterbirds and farmland birds | The mitigation measures involve enhancing existing habitat features including:<br>• Controlling of existing ditches to retain water on the site<br>• Creation of permanent scrapes<br>• Creation of a mosaic of grassland habitats through reduction in nutrient levels<br>• Improvement of field margins through gapping up of hedgerows | The final design of the measures set out in the oEMP (document reference J6) would be developed in consultation with Blackpool Airport, BAE and Natural England<br>Grassland management will consider specific planting species and heights to ensure they are managed appropriately.<br>The planting mix for the field enhancement will limit the proportion of fruit and berry bearing species. |

| Name | Target species | Mitigation measures and habitat attractant | Potential habitat management measures |
|---|---|---|---|
| Pond creation at Morgan onshore substation<br>(Work Area 49A) | Aquatic invertebrates | The measures involve the creation of replacement ponds and planting of marginal vegetation<br>The ponds potentially could attract birds to feed or roost. | The ponds will be designed to reduce areas favoured by waterbirds by being small in size (< 300 m2), to avoid attracting flocks of species such as dabbling and diving ducks, and shallow (< 50 cm), so that they periodically dry out to limit the establishment of fish populations, which may attract birds such as herons, and which would be undesirable from a conservation perspective because fish predate on aquatic insect and amphibian larvae.<br>Marginal vegetation cover will be managed to avoid creating extensive reedbeds that could promote excessive bird congregation. |
| Pond creation at Moss Side<br>(Work Area 49AB | Aquatic invertebrates | The measures involve the creation of replacement ponds and planting of marginal vegetation<br>The ponds potentially could attract birds to feed or roost. | The ponds will be designed to reduce areas favoured by waterbirds by being small in size (< 300 m2), to avoid attracting flocks of species such as dabbling and diving ducks, and shallow (< 50 cm), so that they periodically dry out to limit the establishment of fish populations, which may attract birds such as herons, and which would be undesirable from a conservation perspective because fish predate on aquatic insect and amphibian larvae.<br>Marginal vegetation cover will be managed to avoid creating extensive reedbeds that could promote excessive bird congregation. |
| **Temporary environmental mitigation areas** | | | |

| Name | Target species | Mitigation measures and habitat attractant | Potential habitat management measures |
|---|---|---|---|
| Lytham Moss<br>(Work Area 35A/35B) | Geese, swans, waders (e.g. pink footed geese and whooper swan) | • Creation of temporary scrapes -<br>– Creating very small scrapes can occasionally provide loafing opportunities for small numbers of non-breeding gulls, such as black-headed gulls, lesser black-backed gulls, and herring gulls. However, during the breeding season, these shallow scrapes will dry out, eliminating their potential to attract gulls. During the non-breeding season, gulls show a preference for large inland water bodies, where they congregate in large numbers at night.<br>• Supplementary feeding during the winter months<br>– The area where feeding is proposed to take place is located further away from Blackpool Airport than the current goose feeding, but it is out of the runway approach zone, and crucially it is to the south of this zone. This is closer to the pink-footed goose roost sites on the Ribble Estuary saltmarshes than the runway approach zone making it is less likely that geese will fly over the approach zone to access feeding areas further north. | The temporary scrapes will be designed to attract the target species only and will be monitored and managed during their creation.<br><br>Supplementary feeding will be provided at agreed rates and during the winter months only. it is proposed that feeding will take place during the winter only (November to March). This is to prevent additional passage geese from overwintering in the area. |

| Name | Target species | Mitigation measures and habitat attractant | Potential habitat management measures |
|---|---|---|---|
| Lea Marsh Biological Heritage Site (BHS) | Otters | The following mitigation measures will be implemented for otter:<br>Implementation of a meadow grassland regime – the frequency and intensity of grazing will be reduced to encourage the establishment of a taller and more diverse grassland sward. This would discourage roosting/ loafing flocks of large waterbird species such as geese that currently congregate at times in this habitat at times.<br>Reed bed management – sections of reedbed will be selectively reduced to reduce overall reedbed cover along the small ditches; this will reduce the coverage of reeds overall in this area and therefore will reduce the risk of congregations of birds such as roosting starlingsInvasive species control – removal of any invasive non-native plant species that may be recorded during pre-construction surveys such as Japanese knotweed. This measure would not increase the risk of attracting birds to the land parcel.<br>Artificial otter holt creation – this is to provide alternative resting habitat for otters that may be disturbed by construction works to the adjacent Savick Brook. It is not anticipated that this would result in any habitat attractants for birds. The adjacent Savick Brook is the main habitat supporting breeding otters within the Order Limits; there is evidence that otter is also already present on Lea Marsh BHS at times. | No specific risk management measures are considered necessary, as the mitigation measures would already reduce the risk of bird attractant habitats within the BHS. |
| **Biodiversity benefit area** | | | |

| Name | Target species | Mitigation measures and habitat attractant | Potential habitat management measures |
|---|---|---|---|
| Lea Marsh Fields | General Biodiversity Benefit | The measures involves the removal of the existing cropland and the creation of species-rich grassland, woodland, scrub, ponds and new ditches.<br>These habitats could potentially attract birds to feed or roost. | The specifics of the planting and design will be agreed with both aerodromes and will be designed with wildlife hazard in mind. Examples of how this will be achieved are as follows:<br>The ponds will be designed to reduce areas favoured by waterbirds by being small in size (< 300 m2), to avoid attracting flocks of species such as dabbling and diving ducks, and shallow (< 50 cm), so that they periodically dry out to limit the establishment of fish populations, which may attract birds such as herons, and which would be undesirable from a conservation perspective because fish predate on aquatic insect and amphibian larvae.<br>Marginal pond vegetation cover will be managed to avoid creating extensive reedbeds that could promote excessive bird congregation.<br>The planting mix for woodland and scrub will limit the proportion of fruit and berry bearing species that may attract birds.<br>Species-rich grassland will be managed to encourage the establishment of a taller and more diverse grassland sward. This would discourage roosting/ loafing flocks of large waterbird species such as geese.<br>New ditches will not be planted with reeds, and management will ensure that substantial reedbeds do not become naturally established, to limit the potential for creating attractive habitats for flocks of roosting starlings. |

## Other activities and features of the Transmission Assets

1.3.4.4 The following section considers the other activities and features of the Transmission Assets that have the potential to attract greater number of birds to the area. Indicative measures have also been identified to manage these activities to ensure that bird numbers do not increase. An ECoW will be appointed during the construction of the Transmission Assets and will monitor the potential of construction activities inadvertently attracting hazardous bird species. Appropriate and pro-active management will be undertaken in coordination with the team appointed by the Applicants / aerodrome / airport to manage wildlife hazards.

**Table 1.3: Indicative habitat attractants and potential habitat management measures for other activities and features of the Transmission Assets.**

| Activity or feature | Habitat attractant | Bird species | Potential habitat management measures |
|---|---|---|---|
| **Permanent infrastructure** | | | |
| Onshore substations | Roofs of onshore substation buildings provide potential roosting sites and perching opportunities, particularly if the design includes flat roofs or sheltered ledges access holes and crevices. | Gulls<br>Pigeons | Detailed design of substation (e.g. avoid valleys or protruding features and to allow safe access to roof to allow regular checks during the breeding season. |
| Fencing | Creation of secure open spaces around the substations with areas of short grass or gravel may attract ground-nesting species | Gulls<br>Waders (e.g. Oystercatcher) | Bird management measures (e.g. regular inspection of the site in period leading up to nesting season) |
| Attenuation ponds | Attenuation ponds to manage surface water runoff at the onshore substations may attract birds to feed, roost or nest. | Gulls<br>Ducks | Detailed drainage design and bird management |
| Landscape planting | Tree and shrub planting can create dense vegetation that may provide roosting opportunities. Berry and fruit bearing species provide additional food source in autumn. | Pigeons<br>Corvids<br>Starling<br>Winter thrushes | Detailed planting design to limit the proportion of fruit and berry-bearing species and trees with less robust crowns. |
| **Construction activities** | | | |
| Vegetation clearance | The exposure of soils following vegetation clearance and stockpiling of soils may attract birds to feed on the invertebrates in the soil. Seeding of the stockpiles may also attract birds to feed. | Gulls<br>Corvids<br>Pigeons | Soil management (e.g. covering soils, selection of seed type), bird management during seeding. |
| Water and ponding | Areas of standing water within the construction areas may attract birds to feed (from invertebrates brought closer to the surface), drink or bathe. | Gulls | Management of surface water runoff to avoid accumulation of water. |

| Activity or feature | Habitat attractant | Bird species | Potential habitat management measures |
|---|---|---|---|
| Waste management | Discarded food waste or other edible waste, particularly from welfare units at temporary construction compounds may attract birds to feed. | Gulls<br>Corvids<br>Starlings<br>Pigeons | Secure storage of waste at construction compounds, regular collection of waste, good housekeeping policies. These measures will be |

## 1.4 Proposed risk management measures

### 1.4.1 Introduction

1.4.1.1 The following sections describe the measures required to mitigate the potential bird hazards identified in the Wildlife Attractant Habitats Risk Assessment above.

### 1.4.2 Passive measures

1.4.2.1 Indicative passive management measures are included in Table 1.2 and Table 1.3Further detail on these measures is provided below.

1.4.2.2 The most effective deterrent for the majority of flocking birds will be to reduce their line of sight (LOS). Most flocking birds prefer open areas when foraging, loafing or roosting, as any hidden areas can hide mammalian and avian predators. This means that flocking birds are much more likely to avoid areas where the LOS is interrupted. Construction areas will be managed to reduce LOS through the use of fencing to reduce the attractiveness of these areas to birds. The type of fencing during the construction period will be set out in the Construction Fencing Plan (document reference J1.10) which forms part of the Outline Code of Practice.

1.4.2.3 The onshore substations will be designed to prevent access to breeding and roosting birds. This could include preventative netting of any roofs and soffits.

1.4.2.4 Where construction work has been completed the ground will be reinstated, or covered, and re-seeded as soon as is practically possible.

1.4.2.5 Waste will be managed so that no food consumed on site will become available to scavenging birds such as gulls. These measures include the provision of a designated site cabin where all food is to be consumed, self-closing skips and bins, and regular emptying of all skips and bins that contain food waste. ToolBox talks will be given to operatives on site on managing waste and bird attractants.

1.4.2.6 Additional passive measures that would be considered include, rotating devices, humming lines, flags, etc. However, the effects of these measures are acknowledged to be short-lived and may need to be changed and rotated regularly. The location and need for these would be advised by the ECoW in coordination with the independently appointed team for wildlife hazard management.

### 1.4.3 Active measures

1.4.3.1 For areas where supplementary feeding is being provided for ducks and geese the most effective immediate deterrent will be to remove the food source. The disturbance created by this action will cause birds to leave the area and the lack of food will deter them from returning. A target for the numbers of geese and swans using the mitigation area will be set and agreed by all parties prior to construction. If these targets are exceeded by the agreed number, additional management will be implemented, such as the reduction / removal of supplementary feeding or habitats amendments.

1.4.3.2 The following are standard measures from CAP772 guidance and are employed by Blackpool Airport and taken from their Wildlife Hazard Risk Assessment and Management Plan (submitted at Deadline 1 (REP1-115). On this basis, the measures are also likely be applicable at Warton Aerodrome. The measures may be used, subject to legal restrictions and the protocol to avoid impacts on SPA species. The choice of method depends on its effectiveness for the target species, considerations of health and safety for operators and the public, impacts of neighbours and impacts on other wildlife. The measures are listed in (increasing) order of impact, with the intention that an escalation of techniques should be used by trained staff, with the lowest impact techniques being tried first. Not all techniques are appropriate for all species or situations, and sometimes it may be less disturbing to use a high-impact method sparingly rather than repeatedly use a low-impact method. Nevertheless, the principle is one of escalation.

- Arm-waving
- Lure
- Raptor/predator decoys
- Bio-acoustics (e.g. distress calls)
- Use of bird scaring lasers
- Falconry
- Radio-controlled “falcons”
- Bird-scaring rockets and cartridges
- Trapping and humane disposal
- Shooting

## 1.5 Surveillance and monitoring

1.5.1.1 A monitoring strategy will be prepared and agreed with Blackpool Airport and BAE. Monitoring will focus on the key species listed in Table 1.1 and will be undertaken primarily during the construction process. Monitoring of the permanent environmental mitigation and biodiversity benefit areas will also continue post construction. The purpose of the monitoring will be to assess the implementation of the measures described in the oEMP (document reference J6) and the Onshore Biodiversity Benefit Statement (document reference J11) and to ensure the effectiveness of the habitat management measures within the Wildlife Hazard Management Plan. Thresholds will be set and agreed for habitat management measures; where bird numbers are recorded above these levels, appropriate action will be taken to adjust the habitat management measures being implemented.

1.5.1.2 Monitoring will include basic surveillance and acute surveillance methods. Basic surveillance will be undertaken at regular intervals at agreed locations within the Transmission Assets Onshore and Intertidal Order Limits; and implemented by the independently appointed team for wildlife hazard management in coordination with the Transmission Assets ECoW.

1.5.1.3 Bird monitoring techniques, locations, timing and frequency will be agreed with Blackpool Airport and BAE, with the methods likely to vary across mitigation and infrastructure areas but may include vantage points, walkover surveys, etc. If risks (bird numbers) are seen to increase to unacceptable levels, then active controls will need to be used to reduce risk.

## 1.6 Conclusion

1.6.1.1 The development of the Transmission Assets includes ecological mitigation and biodiversity benefit areas designed to compensate for habitat loss and disturbance during construction and operation. The development of these areas may in turn increase the risk of bird strike at both Blackpool and Warton Aerodromes. In order to manage this risk to an acceptable level an initial wildlife attractant habitats risk assessment has been carried out. This identifies the potential hazards related to changes in bird abundance, distribution, and behaviour due to the Transmission Assets around Blackpool Airport and Warton Aerodrome.

1.6.1.2 Whilst 'designing-out' hazards (e.g. not having them within the 13km wildlife hazard zone around the airports) would be the preferred option for BAE and Blackpool Airport, when considered in light of the requirements to deliver mitigation and biodiversity benefit as close to the source of impact as possible this Outline Wildlife Hazard Management Plan demonstrates that with commitments made by the Applicants to monitor and manage hazards that the proposed works can proceed without increasing bird strike risk at the airports.

1.6.1.3 The Applicant has identified proposed mitigation measure—such as the employment of an ECoW to work in coordination with an independently appointed team responsible for wildlife hazard management, seasonal supplementary feeding, habitat management, reducing line of sight, and active monitoring to keep bird strike risk within current acceptable levels.

1.6.1.4 Overall, the plan supports the safeguarding of Blackpool Airport and Warton Aerodrome operations by aligning with CAP 772 and CAP 795 guidance, maintaining bird strike risk at or below current levels.

## 1.7 References

CAP 738, Civil Aviation Publications 738 Safeguarding of Aerodromes, Civil Aviation Authority (2020)

CAP 772, Civil Aviation Publications 772 Wildlife Hazard Management at Aerodromes, Civil Aviation Authority (2017)

CAP 795, Civil Aviation Publications 795 Safety Management Systems (SMS) guidance for organisations, Civil Aviation Authority (2014)