

Spittal to Loch Buidhe to Beauly 400 kV OHL Connection
Environmental Impact Assessment
Volume 5 | Technical Appendix

Appendix 8.7 | Report to Inform Habitat Regulations Appraisal (Dornoch Firth and Loch Fleet SPA)

**July 2025** 





# Spittal – Loch Buidhe – Beauly 400 kV OHL Connection

Habitats Regulations Appraisal (HRA)
Report to inform Appropriate Assessment
Dornoch Firth and Loch Fleet Special
Protection Area and Ramsar (Bird Features)

**July 2025** 





TRANSMISSION

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## 1 INTRODUCTION

- 1.1.1 This report has been produced to inform the Habitats Regulations Appraisal (HRA) process for Scottish and Southern Electricity Networks Transmission ("SSEN Transmission") application for consent to construct and operate the Spittal to Loch Buidhe to Beauly 400 kV Overhead Line (OHL) Connection (Proposed Development). The project description and overview of the HRA process are presented in the HRA Screening Assessment Report (Screening Assessment) (Volume 5, Appendix 8.7). The Screening Assessment presents the HRA Stage 1 Screening Stage assessment of the Proposed Development with respect to its potential to have a Likely Significant Effect (LSE) on European and Ramsar sites of nature conservation importance, either alone or in-combination with other plans or projects.
- 1.1.2 Separate reports have been produced for each European or Ramsar site identified in the HRA Screening Report as requiring further assessment.
- 1.1.3 This report provides information to allow the Competent Authority (i.e. the Scottish Ministers for the Proposed Development) to undertake an HRA Stage 2 Appropriate Assessment (AA) for the Dornoch Firth and Loch Fleet Special Protection Area (SPA) and Ramsar (bird features) which covers the two northernmost estuaries in the Moray Basin ecosystem. The SPA is 6,513.27 ha and qualifies¹ under Article 4.1 of the Birds Directive by regularly supporting populations of European importance of the Annex 1 species: osprey (*Pandion haliaetus*) and bar-tailed godwit (*Limosa lapponica*). The site qualifies under Article 4.2 by regularly supporting populations of European importance of the migratory species: greylag goose (*Anser answer*) and wigeon (*Anas Penelope*). It also qualifies for supporting in excess of 20,000 individual waterfowl, including nationally important numbers of curlew (*Numenius arquata*), teal (*Anas crecca*), scaup (*Aythya marila*), redshank (*Tringa totanus*), dunlin (*Calidris alpina*), oystercatcher (*Heamatopus ostralegus*), wigeon (*Anas penelope*), greylag goose (*Anser anser*), and bar-tailed godwit (*Limosa lapponica*).
- 1.1.4 Dornoch Firth and Loch Fleet Ramsar² is a much larger site at 7,837 ha and has the same boundary as the SAC around Mound Alderwood (at the head of Loch Fleet) where the estuarine alder woodland forms part of the designation. The Ramsar site qualifies under Criterion 1 for a variety of wetland habitats including estuarine alder woodland, estuaries and sand dunes; Criterion 2 for four nationally scarce aquatic plant species, harbour seal (*Phoca vitulina*), otter (*Lutra lutra*) and breeding osprey (*Pandion haliaetus*); and Criterions 4 6 for supporting a range of wintering waterfowl and waders namely curlew, teal, scaup, redshank, dunlin, oystercatcher, greylag goose, wigeon and bar-tailed godwit. The non-bird features of the Ramsar site are reported in the Mound Alderwoods SAC and Dornoch Firth and Loch Fleet Ramsar (non-bird features) Report to Inform Appropriate Assessment.

<sup>1</sup> NatureScot Site Link - Dornoch Firth and Loch Fleet SPA Citation https://www.nature.scot/sites/default/files/special-protection-area/8490/spa-citation.pdf

<sup>&</sup>lt;sup>2</sup> NatureScot Site Link – Dornoch Firth and Loch Fleet Ramsar Citation https://www.nature.scot/sites/default/files/ramsar-site/8420/ramsar-site-citation.pdf



## 2 METHODOLOGY

#### 2.1 Introduction

2.1.1 The approach to the HRA has followed that set out in the Conservation of Habitats and Species Regulations 2017, as amended ('The Habitats Regulations') and NatureScot guidance on the consideration of plans or projects affecting SACs and SPAs <sup>3, 4, 5</sup>. It has also taken account of a range of other guidance material including the DTA Publications HRA Handbook <sup>6</sup> and that produced by the European Commission (EC) 2018a <sup>7</sup>, 2018b <sup>8</sup>, 2007 <sup>9</sup>, 2002 <sup>10</sup>.

#### 2.2 Overview of the HRA Process

- 2.2.1 The HRA process comprises four main stages:
  - Stage 1 Screening to identify the likely effects of a project on a European site and consider whether the
    effects are likely to be significant.
  - Stage 2 Appropriate Assessment to determine whether the integrity of the European site will be adversely affected by the Project.
  - Stage 3 Assessment of Alternative Solutions to establish if there are any that will result in a lesser effect on the European site.
  - Stage 4 Imperative Reasons of Overriding Public Interest (IROPI) and Compensatory Measures to
    establish whether it is necessary for the project to proceed despite the effects on the European site, and to
    confirm that necessary compensatory measures are in place to maintain the coherence of the National Site
    Network.
- 2.2.2 The term "Habitats Regulations Appraisal" encompasses both the initial screening stage and, where required, the follow-on Stages 2 4. Stage 1 Screening was described in the HRA Screening Report and will not be considered in this report. Stage 2 is discussed in more detail in the following section.

## 2.3 Stage 2 – Appropriate Assessment

- 2.3.1 An AA is undertaken by the Competent Authority to determine potential effects of a project upon the integrity of European sites. As the person applying for consent, the Applicant should provide and analyse sufficient information to allow the Scottish Ministers to determine whether the aspects of the project pertinent to their consents will or will not adversely affect the integrity of European sites.
- 2.3.2 AA should exclusively focus on the qualifying features of the European site, and it must consider any impacts on the conservation objectives of those qualifying interests. It should also be based on and supported by evidence that can stand up to scientific scrutiny. EC guidance states that without proper reasoning the assessment does not fulfil its purpose and cannot be considered 'appropriate' and therefore the development

<sup>&</sup>lt;sup>3</sup> NatureScot (Updated 2025) Habitats Regulations Appraisal (HRA) Guidance. Accessed July 2025 at https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra

<sup>&</sup>lt;sup>4</sup> NatureScot (2022). European Site Casework Guidance – How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

<sup>&</sup>lt;sup>5</sup> NatureScot (2019). Guidance Note - The handling of mitigation in Habitats Regulations Appraisal - the People Over Wind CJEU judgement.

<sup>&</sup>lt;sup>6</sup> Tyldesley, D. and Chapman, C. (2013) The Habitats Regulations Assessment Handbook, December 2024 edition UK, DTA Publications Limited.

<sup>&</sup>lt;sup>7</sup> European Commission (2018). Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

 $<sup>^{8}</sup>$  European Commission (2018). Guidance on energy transmission Infrastructure and EU nature legislation.

<sup>&</sup>lt;sup>9</sup> European Commission (2007). Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.

<sup>&</sup>lt;sup>10</sup> European Commission (2002). Assessment of plans and projects significantly affecting Natura 2000 sites.



cannot be consented. In terms of what is reasonable, guidance states "to identify the potential risks, so far as they may be reasonably foreseeable in the light of such information as can be reasonably obtained" <sup>11</sup>.

- 2.3.3 In undertaking an AA, there are two phases:
  - a scientific evaluation of all the likely significant effects of the project on the relevant qualifying interests of a European site; and
  - a conclusion based on outcomes of the scientific evaluation as to whether the integrity of a European site
    will be compromised.
- 2.3.4 The initial onus when carrying out an AA is to prove that no adverse impacts due to a project will occur, either alone or in-combination with other projects, which would compromise a European site's integrity (Section 63(5) & (6) of the Habitats Regulations). Site integrity can be defined as: "The coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified" 12.
- 2.3.5 The assessment will also consider any avoidance or mitigation measures which will be implemented to avoid or reduce the level of impact from the project. The Competent Authority may also consider the use of conditions or restrictions to help avoid adverse effects on site integrity.
- 2.3.6 If the AA concludes that the integrity of the European site would be adversely affected, consent can only be granted if there are no alternative solutions, IROPI is applicable and compensatory measures have been secured (Section 64 of the Habitats Regulations).

<sup>&</sup>lt;sup>11</sup> NatureScot (2001). Natura casework guidance: Consideration of proposals affecting SPAs and SACs.

<sup>&</sup>lt;sup>12</sup> NatureScot (2014). Natura casework guidance: How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).



# 3 INFORMATION TO INFORM THE APPROPRIATE ASSESSMENT

#### 3.1 Introduction

- 3.1.1 The Screening Assessment determined that an AA was required because the potential for LSEs could not be ruled out for several qualifying interest features of the Dornoch Firth and Loch Fleet SPA and Ramsar site. These screened in bird features are the same for both the SPA and Ramsar site. Those features screened in are as follows:
  - osprey (breeding);
  - bar-tailed godwit (wintering);
  - · greylag goose (wintering);
  - wigeon (wintering);
  - curlew (wintering);
  - teal (wintering);
  - redshank (non-breeding);
  - · dunlin (wintering); and
  - oystercatcher (wintering).
- 3.1.2 The LSEs on these qualifying interest features are considered to result from the potential for:
  - direct loss from mortality due to collision with infrastructure;
  - barrier effects as a result of the presence of infrastructure; and
  - indirect loss of habitat due to disturbance and displacement.
- 3.1.3 The potential effects where LSE was predicted for each qualifying interest feature are listed in **Table 3-1**.

Table 3-1: Dornoch Firth and Loch Fleet SPA and Ramsar site – bird features for which Potential LSEs have been identified

| Feature                       | Potential LSEs       |                 |                       |  |  |
|-------------------------------|----------------------|-----------------|-----------------------|--|--|
|                               | Accidental mortality | Barrier effects | Indirect habitat loss |  |  |
| Greylag goose<br>(wintering)  | <b>√</b>             | <b>√</b>        | ✓                     |  |  |
| Wigeon (wintering)            |                      |                 | ✓                     |  |  |
| Teal (wintering)              |                      |                 | ✓                     |  |  |
| Osprey (breeding)             | ✓                    | ✓               | ✓                     |  |  |
| Bar-tailed godwit (wintering) |                      |                 | <b>√</b>              |  |  |
| Curlew (wintering)            | ✓                    | <b>√</b>        | ✓                     |  |  |
| Redshank (non-<br>breeding)   |                      |                 | <b>√</b>              |  |  |
| Dunlin (wintering)            |                      |                 | ✓                     |  |  |
| Oystercatcher (wintering)     |                      |                 | <b>√</b>              |  |  |

- 3.1.4 This section assesses the impacts of the Proposed Development on the qualifying interest features listed above in relation to the conservation objectives for the site. The aim is to identify whether no adverse effects can be concluded (as described in **Section 2**), or whether there will be adverse effects on the integrity of the Dornoch Firth and Loch Fleet SPA and Ramsar site.
- 3.1.5 The assessment has drawn on the ornithology survey findings which are presented within Volume 2, Chapter
   9: Ornithology of the Environmental Impact Assessment Report ("EIA Report") and associated Technical Appendices in Volume 5.
- 3.2 Conservation Objectives and Latest Assessed Condition
- 3.2.1 The Conservation Objectives (COs)<sup>13</sup> for the qualifying interest features of the Dornoch Firth and Loch Fleet SPA are set out in **Table 3-2**. There are no COs for the Ramsar site. For the bird qualifying features, it is assumed that if conservation objectives of the SPA are met, the Ramsar site will be in favourable status.

Table 3-2 Conservation Objectives for Dornoch Firth and Loch Fleet SPA

| Qualifying Interest Feature   | Conservation Objectives   |  |  |  |
|-------------------------------|---|--|--|--|
| Osprey (breeding)             | to avoid deterioration of the habitats of the qualifying species or significant                         |  |  |  |
| Bar-tailed godwit (wintering) | disturbance to the qualifying species, thus ensuring that the integrity of t<br>site is maintained; and |  |  |  |
| Greylag goose (wintering)     | to ensure for the qualifying species that the following are maintained in the                           |  |  |  |
| Wigeon (wintering)            | long term:  |  |  |  |
| Curlew (wintering)            | <ul> <li>population of the species as a viable component of the site;</li> </ul>                        |  |  |  |
| Teal (wintering);             | distribution of the species within the site;  |  |  |  |
| Redshank (non-breeding)       | <ul> <li>distribution and extent of habitats supporting the species;</li> </ul>                         |  |  |  |
| , , , ,                       | structure, function and supporting processes of habitats supporting                                     |  |  |  |
| Dunlin (wintering)            | the species; and  |  |  |  |
| Oystercatcher (wintering)     | no significant disturbance of the species.  |  |  |  |

3.2.2 The latest assessed condition of qualifying interest features of the SPA<sup>14</sup> and Ramsar site<sup>15</sup> and associated negative pressures are outlined in **Table 3-3**, as listed on the NatureScot SiteLink site.

Table 3-3 Assessed condition and negative pressures of qualifying interest features - birds

| Common name                  | Scientific name   | Latest assessed condition | Date assessed condition provided | Negative pressures                       |
|------------------------------|-------------------|---------------------------|----------------------------------|--|
| Greylag goose<br>(wintering) | Anser anser       | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                  |
| Wigeon (wintering)           | Anas penelope     | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance Water management |
| Teal (wintering)             | Anas crecca       | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                  |
| Osprey (breeding)            | Pandion haliaetus | Favourable Maintained     | 12 <sup>th</sup> June 2017       | Forestry operations                      |
| Curlew (wintering)           | Numenius arquata  | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                  |

<sup>13</sup> NatureScot Site Link – Dornoch Firth and Loch Fleet SPA COs https://www.nature.scot/sites/default/files/special-protection-area/8490/conservation-objectives.pdf

<sup>&</sup>lt;sup>14</sup> NatureScot 2025. Dornoch Firth and Loch Fleet SPA. Accessed Jan 2025 at: https://sitelink.nature.scot/site/8490

<sup>15</sup> NatureScot 2025. Dornoch Firth and Loch Fleet Ramsar. Accessed Jan 2025 at: https://sitelink.nature.scot/site/8420



| Common name                   | Scientific name           | Latest assessed condition | Date assessed condition provided | Negative pressures                             |
|-------------------------------|---------------------------|---------------------------|----------------------------------|--|
| Bar-tailed godwit (wintering) | Limosa lapponica          | Favourable Maintained     | 30 <sup>th</sup> January 2015    | No negative pressures listed for this species. |
| Redshank (non-<br>breeding)   | Tringa tetanus            | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                        |
| Dunlin (wintering)            | Calidris alpina<br>alpina | Favourable Declining      | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                        |
| Oystercatcher (wintering)     | Haematopus<br>ostralegus  | Favourable Maintained     | 30 <sup>th</sup> January 2015    | Recreation/ disturbance                        |

#### 3.3 Potential Impacts and Embedded Mitigation Measures

- 3.3.1 The Dornoch Firth and Loch Fleet SPA / Ramsar site is separated into two parts, the Loch Fleet part and the Dornoch Firth part (see **Figure 1.1**). No temporary or permanent infrastructure associated with the Proposed Development is situated within the SPA / Ramsar site and no felling is proposed within the site.
- 3.3.2 With regard to the Loch Fleet part of the SPA / Ramsar site (see **Figure 1.2**), the Proposed OHL oversails the River Fleet, with the closest infrastructure at Tower no. 266 located approximately 250 m north-west of the northern most end of the SPA / Ramsar site. No in-stream works will be undertaken. A temporary cut and fill track is proposed, to access towers 267-269, and will join an existing track that runs along the south west edge of the northern end of SPA / Ramsar boundary.
- 3.3.3 With regard to the Dornoch Firth section of the SPA / Ramsar site (see **Figure 1.1**), the Proposed OHL is 9.5 km from the SPA and Ramsar site at its closest point (Tower 278, to the north). Upstream of the Dornoch Firth, the Proposed OHL oversails the Kyle of Sutherland, with the closest infrastructure 15.2 km (Tower 23) and 15.4 km (Tower 24) to the north-west.
- 3.3.4 The HRA screening stage, taking a precautionary approach, concluded that in the absence of mitigation, it is possible that construction activities could result in LSEs on the SPA / Ramsar site from indirect impacts as a result of accidental mortality, potential barrier effects and indirect loss of bird habitats due to disturbance and displacement. Mitigation measures relevant to the AA of the SPA and Ramsar site are therefore those relating to minimising habitat loss and collision risk.
- 3.3.5 Embedded project mitigation measures are set out in the Environmental Impact Assessment Report (EIAR) and the General Environmental Management Plans (GEMPs) (Volume 5, Appendix 3.3: GEMPS), Species Protection Plans (SPPs) (Volume 5, Appendix 3.4: SPPs) and will be further reinforced in the final Construction Environmental Management Plan (CEMP) (an outline CEMP has been included in Volume 5, Appendix 3.6).
- 3.3.6 The Bird SPP has been developed in consultation with NatureScot and kept under review to ensure that it is in line with current guidance, and, if appropriate, updated accordingly. Measures within the Bird SPP relevant to the SPA include, but are not limited to:
  - The Ecological Clerk of Works (ECoW) will review whether construction activities are likely to affect breeding birds and, if so, what mitigation options are available. A hierarchical approach to mitigation will be applied to any occupied bird habitat that may be affected under the Project works. Priority will be given to assessing and mitigating impacts to species listed on Schedule 1 of the Wildlife and Countryside Act (1981 as amended), which includes breeding osprey.
  - The ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to breeding birds is delivered.



- A hierarchical approach to mitigation of Programme / Avoid / Risk Assess will be applied to any birds that
  may be affected under the Project works. Works to be programmed outwith breeding season, where
  practicable.
- Appropriate protection zones will be put in place (see Appendix A of Bird SPP) and will be set by the ECoW
- A Protected Species Risk Assessment will be completed by the ECoW when works need to be done in protection zones, to assess if disturbance can be avoided.
- An emergency procedure will be implemented if breeding birds are encountered, with all works within 50 m (non-scheduled species) or max protection distance (scheduled species) immediately ceasing.
- Specific mitigation such as dissuasion techniques (habitat management, active dissuasion/disturbance), and removal of disused nests.
- 3.3.7 The embedded mitigation measures set out in the EIAR follow industry best practice and are routinely deployed on SSEN Transmission projects. They will be stipulated in construction contracts and the implementation and audit of these measures will be overseen by a suitably qualified and experienced Environmental / Ecological Clerk of Works (ECoW).
- 3.3.8 Additional measures were also identified to mitigate impacts on SPA / Ramsar site waders. Construction activity has the potential to result in disturbance and displacement of wintering oystercatcher and curlew populations within Strath Fleet which are part of the Dornoch Firth and Loch Fleet SPA / Ramsar population. To minimise disturbance, an ECoW will be employed during the non-breeding season to enforce disturbance buffers around non-breeding flocks of SPA / Ramsar site waders of up to 650 m for curlew and 300 m for oystercatcher within Strath Fleet.

#### 3.4 Assessment of Effects

3.4.1 The Proposed Development is adjacent to the SPA / Ramsar site (4 m at its closest point) where a temporary access track will be constructed immediately south of the SPA/Ramar site (see Figure 1.2). The proposed alignment is approximately 250 m north of the SPA / Ramsar site at its closest point. Four of the qualifying features of the Dornoch Firth and Loch Fleet SPA and Ramsar Site, osprey, greylag goose, oystercatcher and curlew were recorded during baseline surveys of the Proposed Development within connectivity distances from the SPA. NatureScot SPA connectivity guidance<sup>16</sup> advises that osprey have a core foraging range from their nest site during the breeding season of 10 km, with regular foraging out to 20km. During the winter season, greylag goose has a core foraging range of 15 – 20 km.

Direct loss from mortality due to collision with infrastructure

#### Osprey (Breeding)

3.4.2 During flight activity surveys, osprey crossed the alignment in Section B at CRH on five occasions (1-2 birds) within potential connectivity distance of the SPA / Ramsar site (within the core range for osprey of 10km from the SPA / Ramsar site boundary). Birds were also recorded crossing existing 132 kV and 275kV OHLs within the Section B at CRH on five occasions, demonstrating an ability to avoid existing OHLs. Avoidance rates have not been calculated for OHLs for bird species in Scotland; however, avoidance rates calculated for onshore wind farms suggest osprey have a relatively good ability to avoid obstacles in flight (98% avoidance<sup>84</sup>). Due to the species' high avoidance rate, demonstrated avoidance of existing OHLs and the relatively low level of flight activity, there is a low risk of collision mortality for osprey associated with the Proposed Development, including any travelling birds associated with the Dornoch Firth and Loch Fleet SPA / Ramsar site, and therefore the risk

<sup>&</sup>lt;sup>16</sup> SNH (2016) Assessing Connectivity with Special Protection Areas (SPAs) Guidance. Version 3 - June 2016.



of collision is considered to be negligible, and therefore no adverse effects on osprey in relation to the conservation objectives for the site are predicted.

#### Greylag Goose (Wintering)

- 3.4.3 Greylag geese were recorded during flight activity surveys crossing the proposed alignment in Section B, C and D within potential connectivity distance of the SPA (20 km) at collision risk height on 31 occasions, with a peak flock size of 500 birds but the majority of flocks between one and 80 birds. Activity was concentrated in Strath Fleet comprising commuting flights together with a secondary pattern of activity recorded
- 3.4.4 along Strath Brora and the Kyle of Sutherland. Greylag geese were observed crossing pre-existing 132 kV and 275kV OHLs on 17 occasions, indicating an ability to avoid infrastructure. Avoidance rates calculated for onshore wind farms suggest greylag geese have a good ability to avoid obstacles in flight (99.8% avoidance<sup>55</sup>). The recorded flights have potential connectivity (within the core foraging range of 20 km) to the Dornoch Firth and Loch Fleet SPA, however may also relate to birds in the wider area, particularly birds recorded at Loch Brora. Given this species high avoidance rate and the ability of SPA birds to regularly cross the existing OHLs, the risk of collision is considered to be negligible, and therefore no adverse effects on greylag goose in relation to the conservation objectives for the site are predicted.

### Curlew (Wintering)

- 3.4.5 Curlew was recorded in flight on 41 occasions during flight activity surveys in Section B, with activity focussed in Strath Fleet and concentrated within the non-breeding season. Two of the flights crossed the proposed alignment at collision risk height. Curlew were also recorded crossing existing OHL infrastructure on eight occasions, demonstrating at least an awareness and avoidance ability. Given the low level of flight activity, collision mortality from the Proposed Development is assessed as negligible and therefore no adverse effects on curlew in relation to the conservation objectives for the site are predicted.
- 3.4.6 Barrier effects as a result of the presence of infrastructure
- 3.4.7 Barrier effects occur where the vertical configuration of wires and towers creates an actual or perceived barrier which birds may not cross. There are existing 132 kV OHL and 275 kV OHL which run in parallel or in proximity for much of the length to the Proposed Development (particularly Sections A and B) which baseline surveys have shown are frequently crossed by birds. This, together with survey data from other areas of Scotland, demonstrates that birds habituate to the presence of OHLs.
- 3.4.8 Therefore, during operation of the OHL, it is considered that birds would not treat the Proposed Development as a barrier to movement and the Proposed Development will therefore no adverse effects on qualifying feature species in relation to the conservation objectives for the site are predicted.

Indirect loss of habitat due to disturbance and displacement

#### Osprey (Breeding)

3.4.9 All known breeding osprey territories in Section B were situated outwith the disturbance distance buffer for osprey (750 m <sup>83</sup>). The embedded mitigation measures listed above and set out in the bird SPP will prevent disturbance to any osprey nest sites. In Section C, an osprey territory was recorded approximately 17km from the SPA / Ramsar site, beyond the core foraging range of 10 km but within the 20km regular foraging distance, indicating that the pair could be part of the SPA / Ramsar site population. As part of the Special arrangements works for the Proposed Development, the lattice tower which the nest is on will be replaced. To avoid causing disturbance to the nesting birds, the existing nest will be removed from the lattice tower during the non-breeding season (assuming it is not destroyed naturally by winter storms). It is predicted that birds will either use one of the other previously used nest sites within their territory, or construct a new nest at a suitable location when



they return for the following breeding season<sup>17</sup>. Application of appropriate embedded mitigation, principally by confining construction and operational works within 750 m of the nest site to outwith the breeding season, will avoid any disturbance or displacement from the new nest site. As a result there will be no loss of breeding pairs utilising the SPA / Ramsar site and therefore no adverse effects on osprey in relation to the conservation objectives for the site are predicted.

3.4.10 Construction works undertaken within disturbance distance of waterbodies used for foraging have the potential to impact upon foraging birds. However, this is likely to be very limited in extent within the context of an osprey's available foraging range (10 km core range<sup>82</sup>) and there is abundant alternative foraging habitat available nearby. The effects of disturbance and displacement upon foraging osprey is therefore also assessed as negligible and therefore will not result in an adverse effect on osprey in relation to the conservation objectives for the site.

## **Greylag Goose (Wintering)**

3.4.11 Important foraging areas for greylag goose were not recorded in Section B during baseline surveys with larger flocks only recorded feeding in locations 5 km from the Proposed Development. The disturbance distance for non-breeding greylag geese is 600 m, so geese feeding in those areas are not expected to be disturbed. There is abundant alternative suitable foraging habitat which birds will utilise if temporarily displaced during construction activities. As a result, any temporary displacement is not expected to have an adverse effect on greylag goose in relation to the conservation objectives for the site.

#### Wigeon and Teal (Wintering)

- 3.4.12 Two flocks of wigeon were recorded during flight activity surveys of Section B, both flying south-east over the River Fleet in November 2023. Both flights were approximately 200 m southwest of the Proposed Development and neither flight crossed the proposed alignment. No further observations of this species were recorded during baseline surveys of Section B. Given the low number of records of wigeon recorded in the area of the proposed development and the abundant alternative foraging habitat, any temporary displacement is not expected to have an adverse effect on wigeon in relation to the conservation objectives for the site.
- 3.4.13 Two flights of teal were recorded during flight activity surveys of Section B, both flying north over land just north of the River Fleet. Neither flight crossed the proposed alignment. Flocks of wintering teal were recorded at the mouth of the River Fleet approximately 2.6 km south-east of the Proposed Development with a peak count of 74 birds. Given the distance of the teal recorded in the area from the alignment and the abundant alternative foraging habitat, any temporary displacement is not expected to have an adverse effect on wigeon in relation to the conservation objectives for the site.

Curlew, Oystercatcher, Bar-tailed Godwit, Dunlin, (Wintering), Redshank (Non-breeding)

- 3.4.14 Published guidance on potential disturbance distance for bird species in Scotland gives a nonbreeding season disturbance distance for curlew of 200–650 m<sup>Error! Bookmark not defined.</sup> Forty-one flights of curlew were recorded during flight activity surveys of Section B. The majority were located in the River Fleet valley during the non-breeding season and associated with foraging activity within the surrounding agricultural fields.
- 3.4.15 Oystercatcher flights were recorded on nine occasions during flight activity surveys of Section B. The majority of flights were recorded at Strath Fleet and Loch Brora, with flights recorded during the breeding and non-breeding season. NatureScot advises a 300 m non-breeding season disturbance distance. Some of the habitat

<sup>&</sup>lt;sup>17</sup> The Applicant has taken advice from the Roy Dennis Wildlife Foundation on how best to mitigate for the need to undertake works on the lattice tower and the approach described follows the advice received..



within 300 m of the Proposed Development (arable fields) is suitable for wintering oystercatcher and flights and birds on the ground were recorded in this area during flight activity survey.

- 3.4.16 Construction activity has the potential to result in disturbance and displacement of wintering oystercatcher and curlew wintering populations within Strath Fleet which are part of the Dornoch Firth and Loch Fleet SPA / Ramsar population. There is abundant suitable alternative feeding habitat adjacent to the Proposed Development which birds will be able to exploit if displaced from construction activity. However, to minimise disturbance, an ECoW will be employed during the non-breeding season to enforce disturbance buffers around non-breeding wader flocks of up to 650 m for curlew and 300 m for oystercatcher within Strath Fleet.
- 3.4.17 With additional mitigation in place, and given the abundance of suitable alternative habitats nearby for birds to utilise regardless of construction activity, there will no effect on the SPA oyster catcher or curlew populations with respect to the conservation objectives for the SPA / Ramsar site.
- 3.4.18 Published guidance on potential disturbance distance for bird species in Scotland gives a nonbreeding season disturbance distance for bar-tailed godwit of 200–300 m<sup>18</sup>. Within this distance habitats within the SPA comprise wet woodland and upland acid grassland, which are not likely to be used by roosting or feeding bar-tailed godwit. Habitats outside of the SPA that may be used by bar-tailed godwit comprise of intertidal mudflats/sandflats for foraging and saltmarshes, lagoons and rocky shores to roost<sup>19</sup>. Baseline surveys did not record any regular use of the habitats within or around the Proposed Development by bar-tailed godwit. No disturbance and displacement of the SPA bar-tailed godwit population is predicted, however should any birds be displaced, there is abundant alternative foraging and roosting habitat within the SPA which will be used by any displaced birds. As a result, there will be no effect on the SPA bar-tailed godwit population with respect to the conservation objectives for the SPA / Ramsar site.
- 3.4.19 The guidance published on potential disturbance distance for bird species in Scotland gives a nonbreeding season disturbance distance for dunlin of 150–300 m<sup>Errort Bookmark not defined.</sup> Dunlin was recorded twice during flight activity surveys of Section B. Neither flight crossed the proposed alignment. Baseline surveys did not record any regular use of the habitats around the Proposed Development by dunlin. Any temporary displacement of a small number of dunlin will not have an effect on the SPA dunlin population with respect to the conservation objectives for the SPA / Ramsar site.
- 3.4.1 No redshank flights were recorded during flight activity surveys within Section B. Habitats which may be disturbed during construction of the Proposed Development are suitable for non-breeding redshank, being within the 300 m NatureScot advised non-breeding season disturbance distance for the species. Any temporary displacement of a small number of redshank will have no effect on the SPA redshank population with respect to the conservation objectives for the SPA / Ramsar site.

## 3.5 Summary of Effect on Site Integrity

3.5.1 With the embedded and additional mitigation measures in place, no adverse effects on qualifying bird species in relation to the conservation objectives for the site are predicted, and therefore no adverse effect on the integrity of the Dornoch Firth and Loch Fleet SPA and Ramsar site is anticipated either alone or in-combination with other projects.

<sup>18</sup> SNH (2025) Disturbance distances in selected Scottish Bird Species – NatureScot Guidance. Accessed on 21/02/2025 at: Disturbance Distances in selected Scottish Bird Species – NatureScot Guidance | NatureScot

<sup>&</sup>lt;sup>19</sup> Habitats Regulations Appraisal (HRA) on the Moray Firth – NatureScot guidance. Accessed on 18/03/2025 at: Habitat Regulations Appraisal (HRA) on the Firth of Forth



