

VOLUME 1: CHAPTER 8: ORNITHOLOGY

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Figures (Volume 2 of this EIA Report)

The figures associated with this Chapter are contained within Appendix 8.1: Ornithology Baseline Report

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Appendix 8.1: Ornithology Baseline Report

Appendix 8.2: Ornithology Desk Study

Appendix 8.3: Confidential Sensitive Ornithological Information

8. ORNITHOLOGY

8.1 Executive Summary

- 8.1.1 Ornithological surveys have been undertaken to characterise the avian baseline conditions, consisting of flight activity surveys based on strategically located vantage points (to assess flight activity and inform any subsequent necessary collision assessment), breeding birds survey, breeding raptor survey and targeted black grouse survey. Consultations with relevant stakeholders has taken account of relevant ornithological features of primary concern. While no flight activity was recorded throughout the vantage point surveys at collision height, target species were recorded using habitats affected by the Proposed Development. The breeding bird, raptor, and black grouse surveys identified and confirmed target bird species, which were assessed in detail and where relevant were incorporated into the scheme design process as key constraints.
- 8.1.2 Important ornithological features scoped into further assessment are assessed in terms of construction and operational impacts and there is not anticipated to be any significant effects resulting from the Proposed Development were identified alone or in-combination (i.e. cumulatively) with other relevant schemes within the wider Zone of Influence. That assessment incorporated best practice methods as 'embedded' mitigation. Given that no significant effects were identified, there was no strict need for any additional mitigation of residual impacts. However, by way of a precautionary approach, further specific mitigation is presented in the form of line markers to be used along a specific stretch of the Overhead Line where target species are known to be more active. Species protection plans are also proposed for target species recorded as active and where these may relocate within a Zone of Influence between the point of the baseline being characterised and work commencing on site.
- 8.1.3 Two internationally designated (European) sites within potentially connective distances of the Proposed Development were identified as having potential connectivity: Fowlsheugh Special Protection Area (SPA) and the Montrose Basin SPA. A shadow Habitats Regulations Appraisal has been undertaken and is presented as an appendix to this EIA Report that considers the relevant pressure pathways and any likely significant effects presented by the Proposed Development. Further consultation is ongoing with specific stakeholders in relation to a specific target species, as outlined in a separate Confidential Appendix, as well as with the raptor study group and other relevant land managers. These data are expected to assist in refining targeted species protection plans as part of a subsequent mitigation strategy to be finalised prior to construction commencing on site and to be included as part of any conditions of consent.
- 8.1.4 Enhancements with respect to biodiversity are proposed and presented as a separate, dedicated Appendix that accounts for both ornithology and terrestrial ecology.

8.2 Introduction

- 8.2.1 This Chapter presents the assessment findings of the predicted likely significance of effects of the Proposed Development on ornithology. There is a particular focus on Important Ornithological Features (IOFs) identified within the 'Site' (defined by the Limits of Deviation (LoD)) and the wider survey buffers for respective species groups (the 'Study Area').
- 8.2.2 The specific objectives of the Chapter are to:
- Describe the current baseline conditions;
 - Describe the assessment methodology and significance criteria for completing the impact assessment;
 - Describe the potential effects, including direct, indirect and cumulative effects;
 - Describe the mitigation measures proposed to address any likely significant effects; and
 - Assess the predicted residual effects remaining following the implementation of mitigation measures.

- 8.2.3 The assessment is supported by a number of appendices which can be found in **Volume 4**.
- 8.2.4 The assessment reported in this Chapter is based on the key characteristics of the Proposed Development as detailed in **Chapter 3: The Proposed Development**. It is related to the assessment of ecological effects in **Chapter 7: Ecology** (and associated Appendices and Figures), in the context of the overall fauna being considered with respect to the Proposed Development. Specific reference to an Outline Biodiversity Enhancement Plan (**Appendix 7.6**) should be considered with respect to proposed enhancements for overall biodiversity.

Statement of Qualifications

- 8.2.5 All staff contributing to this Chapter have undergraduate and/ or postgraduate degrees in relevant subjects, extensive professional ornithological impact assessment experience, and professional membership of the Chartered Institute of Ecology and Environmental Management (CIEEM). A table presenting relevant qualifications and experience of key staff involved in the preparation of this Chapter is included in **Appendix 5.1** of this EIA Report.

8.3 Legislation, Policy and Guidance

Legislation

- 8.3.1 All relevant nature conservation legislation has been considered as part of this assessment, as referenced in this Chapter (a summary of pertinent nature conservation legislation is presented below). Of particular relevance are:
- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017¹;
 - Council Directive 2009/147/EC on the conservation of wild birds (the “Birds Directive”)² as transposed into Scots law by The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)³;
 - The Ramsar Convention on Wetlands 1976⁴;
 - Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”)⁵ as transposed into Scots law by The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)³;
 - The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)³;
 - The Wildlife and Countryside Act 1981 (as amended) (WCA)⁶;
 - The Wildlife and Natural Environment (Scotland) (WANE) Act 2011 (as amended)⁷; and
 - The Nature Conservation (Scotland) Act 2004 (as amended)⁸.

Policy and Guidance

- 8.3.2 The assessment considers the relevant aspects of Scottish policy and other relevant guidance. This includes the following:

¹ The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (online) Available at: <https://www.legislation.gov.uk/ssi/2017/101/contents> (last accessed 08/10/2025)

² The European Parliament and the Council of the European Union on the conservation of wild birds 30 November 2009 (online) Available at: <https://eur-lex.europa.eu/eli/dir/2009/147/oj/eng> (last accessed 08/10/2025)

³ The Conservation (Natural Habitats, &c.) Regulations 1994 (online) Available at: <https://www.legislation.gov.uk/ukksi/1994/2716/contents> (last accessed 19/09/2025)

⁴ Ramsar (online) (online) Available at: <https://www.ramsar.org/> (last accessed 08/10/2025)

⁵ The European Parliament – Council directive 92/43/ECC of the 21 May 1992 on the Conservation of natural habitats and wild fauna and flora. (online) Available at: <https://eur-lex.europa.eu/eli/dir/1992/43/oj/eng> (last accessed 08/10/2025)

⁶ The wildlife and countryside act 1981 (online) Available at: <https://www.legislation.gov.uk/ukpga/1981/69/contents> (last accessed 08/10/2025)

⁷ Wildlife and Natural Environment (Scotland) Act 2011 (online) Available at: <https://www.legislation.gov.uk/asp/2011/6/contents> (last accessed 08/10/2025)

⁸ Nature Conservation (Scotland) Act 2004 (online) Available at: <https://www.legislation.gov.uk/asp/2004/6/contents> (last accessed 08/10/2025)

- National Planning Framework 4 (NPF4)⁹;
- Band, W., Madders, M. & Whitfield, D.P. 2007. Developing field and analytical methods to assess avian collision risk at windfarms.
- Band, B. 2024. Using a collision risk model to assess bird collision risks for onshore wind farms.
- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018, updated 2024). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.3.
- Gilbert, G., Gibbons, D.W. & Evans, J. (1998) Bird Monitoring Methods. RSPB, Sandy.
- Goodship, N.M. and Furness, R.W. (MacArthur Green) (2022). Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.
- Hardey, J., Crick, H.Q.P., Wernham, C., Riley, H., Etheridge, B., Thompson, D. (2013). Raptors: A field guide for surveys and monitoring (3rd Edition). The Stationery Office: Edinburgh.
- Local Biodiversity Action Plan North East Scotland (LBAPNES).
- NatureScot (2017 (SNH) & 2025). Recommended bird survey methods to inform impact assessment of onshore wind farms.
- NatureScot (2024). Guidance on using an updated collision risk model to assess bird collision risk at onshore wind farms.
- NatureScot (2025). Assessing Significance of Impacts from Onshore Wind Farms on Birds Outwith Designated Areas.
- Scottish Biodiversity List (SBL)¹⁰.
- Scottish Natural Heritage (SNH) (now NatureScot) (2016a). Assessment and Mitigation of Impacts of Power Lines and Guyed Meteorological Masts on Birds (SNH, 2016b).
- Scottish Natural Heritage (SNH) (now NatureScot) (2016). Assessing Connectivity with Special Protection Areas (SPAs).
- Scottish Natural Heritage (SNH) (now NatureScot) (2016c). Environmental Statements and Annexes of Environmentally Sensitive Bird Information.
- Stanbury et al. (2021). The Status of our Bird Populations: the Fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and Second IUCN Red List Assessment of Extinction Risk for Great Britain.
- Stanbury et al. (2024). The Status of the UK's breeding seabirds: an addendum to the Fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and Second IUCN Red List Assessment of Extinction Risk for Great Britain.
- The Birds of Conservation Concern (BoCC) 5.
- Wilson, M. W., Austin, G. E., Gillings S. and Wernham, C. V. (2015). Natural Heritage Zone Bird Population Estimates. SWBSG Commissioned report number SWBSG_1504. P.72.

International Conventions and Directives, and associated domestic legislation

The Birds Directive (2009/147/EC) and Habitats Directive (92/43/EEC)

8.3.3 The European Union (EU) Directive on the Conservation of Wild Birds (2009/147/EC)³ was first adopted in 1979 and is the primary mechanism for delivering the EU's obligations under the Convention on Biological Diversity (CBD), and the Ramsar and Bonn Conventions. Habitats Directive (92/43/EEC)⁵ complements this by

⁹ Scottish Government (2023) National Planning Framework 4. (online) Available at: <https://www.gov.scot/publications/national-planning-framework-4/> (last accessed 08/10/2025).

¹⁰ NatureScot (2020) Scottish Biodiversity List. (online) Available at: <https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy/scottish-biodiversity-list> (last accessed 08/10/2025)

protecting non-avian species and habitat types of Community interest]. Collectively, the Birds and Habitats Directives require Member States to take action in order to protect all naturally occurring bird species and their habitats, and includes the designation of Special Protection Areas (SPAs) for the species listed on Annex I of the Birds Directive.

Ramsar Convention on Wetlands

8.3.4 The Convention on Wetlands of International Importance (the Ramsar Convention)⁴ was adopted in Iran in February 1971 and came into force in the UK in May 1976. The Convention considers the subject area of wetland conservation and comprises three elements of activity:

- The designation of wetlands of international importance as Ramsar sites;
- The promotion of the sustainable use of all wetlands in the territory of each country; and
- International co-operation with other countries to further the sustainable use of wetlands and their resource.

The Habitats Regulations⁵

8.3.5 In Scotland, the Birds and Habitats Directives were implemented under UK law by the Conservation (Natural Habitats, &c.) Regulations 1994. This piece of legislation is usually known as the Habitats Regulations.

8.3.6 In relation to ornithological interests, the Habitats Regulations cover the requirements for SPAs and Special Areas of Conservation (SACs), which are sites that are internationally important for threatened habitats and species; making a network of designated sites together known as the Natura 2000 network. Following the United Kingdom's exit from the EU, in order to retain the concept of this network these sites are now collectively referred to as the "national site network".

The Convention on Biological Diversity and the Global Biodiversity Framework

8.3.7 The Convention on Biological Diversity (CBD) was adopted at the Earth Summit in Rio de Janeiro, Brazil in June 1992, and came into force in December 1993 and its governing body is the Conference of the Parties (COP)¹¹. It was the first global treaty to provide a legal framework for biodiversity conservation. The treaty has three primary goals:

- The conservation of biological diversity;
- The sustainable use of its components; and
- The fair and equitable sharing of the benefits arising from the use of genetic resources.

8.3.8 Signatories are required to create and enforce national strategies and action plans to conserve, protect and enhance biological diversity.

8.3.9 The UK Government ratified the convention and published the UKBAP in 1994 and to compliment the UKBAP, separate biodiversity strategies for each of the devolved governments have been subsequently developed, including the Scottish Biodiversity Strategy, launched in 2004.

8.3.10 As agreed during the COP15 (2022), the Kunming-Montreal Global Biodiversity Framework (GBF) was adopted. In adopting the Kunming-Montreal GBF, all parties committed to setting national targets to implement it.

¹¹ Convention on biological diversity (online) Available at: <https://www.cbd.int/gbf> (last accessed 08/10/2025)

Other National Legislation

The Wildlife and Countryside Act

8.3.11 The Wildlife and Countryside Act 1981 (as amended) (WCA)⁶ is the principal mechanism for wildlife protection in the UK. Schedule 1 of the Act lists bird species that are afforded special protection. The principal designation established under the Act is the citation of Sites of Special Scientific Interest (SSSI).

8.3.12 The Act also makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- Kill, injure, or take any wild bird;
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- Take or destroy an egg of any wild bird.

Protection of Biodiversity

National Planning Framework 4 (NPF 4):

8.3.13 Policy 3 (Biodiversity) sets out a general policy of halting and reversing biodiversity loss across Scotland.

8.3.14 Policy 11(e)(ix) (Energy) outlines the specific policy considerations for proposals involving renewable energy development, And includes, among other things, an expectation that project design and mitigation will demonstrate how impacts on '*biodiversity including impacts on birds*' have been assessed.

Scottish Biodiversity List

8.3.15 Scottish Ministers created the Scottish Biodiversity List (SBL) in 2005 in order to satisfy the requirements under Section 2(4) of the Nature Conservation (Scotland) Act 2004⁸ and to assist public bodies in carrying out conservation of biodiversity, and to provide the general public with information regarding conservation within Scotland. The list contains habitats, plants and species which are deemed to be of principal importance to the Scottish population and meet the social and scientific criteria. This report focuses on the scientific value of the SBL entries.

8.3.16 Species details, including a list of scientific criteria and reasoning for inclusion to the list, can be located within the Scottish Biodiversity List: Technical Report¹⁰.

The Local Biodiversity Action Plan

8.3.17 Following the recommendations in the report 'Biodiversity: The UK Action Plan', the North East Scotland Biodiversity Partnership was established with members drawn from local government, environmental organisations, wildlife charities and hosted by what is now the James Hutton Institute.

8.3.18 The Partnership was formed in 1997, and part of their scope was to identify 'Important Habitats for Biodiversity' which formed the Local Biodiversity Action Plan North East Scotland (LBAPNES). The LBAPNES outlines a great variety of habitat types providing for a huge range of different species within the area.

8.3.19 The Biodiversity Partnership has developed six broad habitat statements which give a summary of the habitats found in the area, useful information on habitat status and an outline of some of the species they support. The statements also illustrate the importance of each habitat group and opportunities to secure and enhance each habitat for the future.

8.3.20 These habitat statements build on the previous Local Biodiversity Action Plan Habitat and Species Plans and are intended to be used by developers to identify important habitats and opportunities for enhancement. They are to be used by local authorities to provide the local context for advice on biodiversity in relation to planning,

design and development and by partner organisations to guide future action and priorities for biodiversity conservation and enhancement¹².

Birds of Conservation Concern 5

8.3.21 The Birds of Conservation Concern (BoCC) 5 is the fifth iteration of this report that forms a collaboration between the Statutory Nature Conservation Bodies (SNCBs), Royal Society for the Protection of Birds (RSPB), British trust for Ornithology (BTO), Wildfowl and Wetlands Trust (WWT), Game and Wildlife Conservation Trust (GWCT) and several other organisations. It uses an approach based on quantitative assessments against standardised criteria, in order to place individual bird species on 'Red', 'Amber' or 'Green' lists to indicate different levels of conservation concern. Red in the context of BoCC is not the same as IUCN's Red List, though IUCN status is one of the criteria used in BoCC assessment. Collectively, the changes in the numbers and proportions of species on Red, Amber or Green lists provide a gauge of the broad direction of status of UK birds and point to the degree of threat they face, as well as the efficacy of conservation measures taken¹³.

8.3.22 Birds on the Red and Amber lists are subject to at least one of the factors listed below:

- Red - red list species are those that are globally threatened, have had an historical population decline in the UK from 1800 -1995, a rapid (> or = 50%) decline in UK breeding population over the past 25 years, or a rapid (> or = 50%) contraction of UK breeding range over the past 25 years;
- Amber - amber listed species have had a historical population decline from 1800-1995 but are recovering; population size has more than doubled over the past 25 years, a moderate (25-49%) decline in UK breeding population over the past 25 years, a moderate (25-49%) contraction of UK breeding range over the past 25 years, a moderate (25-49%) decline in UK non-breeding population over the past 25 years, or species with unfavourable conservation status in Europe also known as Species of European Conservation Concern (SPEC); and
- Green - green listed species have no identified threat to their population status.

8.4 Scope of Assessment

8.4.1 This assessment concentrates on the effects of construction and operation of the Proposed Development as described upon Important Ornithological Features (IOFs). The following effects were identified at the Scoping stage and during the Environmental Impact Assessment (EIA) process for consideration in this assessment:

Construction

- Temporary or permanent direct loss of, or damage to, statutory and non-statutory designated sites;
- Temporary or permanent direct loss of foraging and/or breeding habitat;
- Temporary or permanent indirect loss of foraging and/or breeding habitat through displacement;
- Disturbance (including noise, vibration, pollution) and displacement due to construction;
- Temporary or permanent loss of, modification or disturbance to protected species foraging areas and commuting routes.

Operation

- Habitat change (modification) over time;
- Disturbance (including noise, vibration, pollution) and displacement due to maintenance; and
- Mortality resulting from collision with an OHL.

12 North East Scotland Biodiversity Partnership. (2019) Important Habitats for Biodiversity – our Local Biodiversity Action Plan. (online) Available at: <https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/> (last accessed 08/10/2025)

13 Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747.

Decommissioning

- 8.4.2 An assessment of decommissioning effects of the Proposed Development has not been undertaken. Although decommissioning can result in adverse effects on IOFs, the level of impact would depend on the habitats and species present at the time of decommissioning, which cannot be reliably predicted. Furthermore, as noted in **Chapter 3: The Proposed Development (paragraph 3.15.1)**, consent is applied for in perpetuity.

Cumulative effects

- 8.4.3 The assessment has considered the potential for cumulative effects to arise where the Proposed Development could combine with other consented, proposed and reasonably foreseeable future developments (as listed in **Chapter 5: EIA Process and Methodology**).

Consultation

- 8.4.4 In undertaking the ornithology baseline and impact assessment, consideration has been given to pre-application consultation responses and the EIA Scoping Opinion which was issued by the Energy Consents Unit (ECU) on the 28th of February 2025.
- 8.4.5 **Table 8.1** below provides a summary of the key responses which are relevant to ornithology and outlines how they have been addressed.

Table 8. 1: Consultation Relevant to Ornithology

Consultee	Key Consultee Comments	Applicant Comment
Energy Consents Unit (ECU)	In their scoping response ECU states: <i>“It is recommended by the Scottish Ministers that decisions on bird surveys – species, methodology, vantage points, viewsheds & duration - site specific & cumulative – should be made following discussion between the Company and NatureScot. It is also recommended the most up to date records should be sought from RSPB and the North East Raptor Study Group.</i> <i>Scottish Ministers recommend attention be given to the further confidential response and advice issued by RSPB on 7 February 2025 for the requirement of species protection.</i> <i>It is recommended by the Scottish Ministers that attention should be given to the advice provided by Aberdeenshire Council regarding protected and priority species.”</i>	As part of the routeing process, the bird survey data has been used to mitigate by design, incorporating due consideration to areas considered more sensitive to higher priority species. A comprehensive suite of mitigation measures has been included as part of the Proposed Development (please refer to para. 8.8.5 to 8.8.18 and Sections 8.12). Ornithological mitigation will be embedded within the Construction Environmental Management Plan (CEMP) (Appendix 3.5) and Species Protection Plan (SPP) (Appendix 3.4), which will include a timetable of actions and form part of the contract documentation. An Environmental Clerk of Works (ECoW) will be appointed to oversee delivery of all relevant mitigation measures for ornithological and terrestrial features. These approaches will ensure that specific precautions are incorporated into the pre-construction stage as required and where applicable they will be agreed, confidentially, with NatureScot, RSPB Scotland and Forestry and Land Scotland (FLS). NatureScot were consulted and agreed that Vantage Point (VP) locations and coverage were sufficient and that survey approach follows the advice as per their survey methods guidance and were adequate to assess the baseline

Consultee	Key Consultee Comments	Applicant Comment
		ornithological conditions (please see the relevant NatureScot consultation responses below). A data consultation exercise has been initiated with both the RSPB Scotland and the North East Raptor Study Group (NERSG), however at the time of writing no data have been returned. Acknowledgment is made of the further confidential response from the RSPB Scotland and advice from Aberdeenshire Council.
Aberdeenshire Council	The Aberdeenshire Council scoping response states in Sections 4 Ecology & Nature Conservation and Section 5 Ornithology: <i>“The following information has been provided in consultation with the Council’s Natural Heritage Team and the North East Scotland Biological Records Centre (NESBReC).</i> <i>In relation to ecology and ornithology the issues covered by the scoping report appear to be comprehensive and cover the required topics including ecology, carbon/peat, ornithology, forestry and hydrology. Local knowledge on the use of the area by birds should be incorporated before scoping out species not seen during the initial surveys. In addition to the issues covered in the scoping report the presence of species of regional and local significance should be considered in the assessment.</i> <i>The Natural Environment Team agree with the scoping assessment in respect to sites designated for local and regional importance.</i> <i>Raptors were highlighted as an important issue in the Glen Dye windfarm and will need to be considered in this proposal.</i> <i>The scoping report proposes the scoping out of species not recorded during initial surveys. Local knowledge of the use of these areas particularly birds which may use locations intermittently, should be incorporated into the decision to scope out any species.”</i>	Acknowledged. Local knowledge of the area was provided via SSEN Transmission operatives as well as ongoing engagement with FLS and their experience and operations within the woodland blocks. Furthermore, a local farmer provided incidental information relating to local red kite activity. This helped with defining a robust coverage for survey areas as well as pre-warning of known locations of activity for target species. The RSPB provided specific, confidential consultation information, provided in Confidential Appendix 8.3.
NatureScot	Pre-Baseline Survey consultation (dated Nov-2023): <i>“The VP locations and VP coverage shown on the associated maps looks sufficient, as does the survey effort described as it follows the advice on survey methods set out in our guidance.”</i> NatureScot then proceed to provide direction to their further guidance on the assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. Scoping Response:	All responses acknowledged. A data consultation exercise has been initiated with both the RSPB Scotland and the NERSG, however at the time of writing no data have been received. Acknowledgment is made of the further confidential response from the RSPB Scotland. Additional specific precautions are anticipated to be incorporated into the pre-construction stage as required and will be agreed, confidentially, with NatureScot, RSPB Scotland and FLS.

Consultee	Key Consultee Comments	Applicant Comment
	<i>"We consider that the approach to gathering the baseline information and range of surveys undertaken is appropriate to inform the Applicant's Environmental Impact Assessment..."</i> In addition, the scoping response states; <i>"We agree the Applicant's decision on issues to scope out."</i> Specifically, with reference to protected species and birds in the wider countryside, the NatureScot response continues; <i>"There is potential for the UCG/OHL to be within core range (6 km) of breeding raptors (golden eagle). The Scoping Report does not suggest golden eagle have been noted in surveys to date. The Applicant should seek the most up to date records that the RSPB and the North East Raptor Study Group hold."</i>	The results of the pre-construction survey will also inform a targeted Species Protection Plan (SPP) that will be agreed with relevant stakeholders and followed during the construction phase.
RSPB Scotland	Golden Eagle: <i>"In addition to the species found during the surveys listed in the scoping report, we are aware of a golden eagle territory in proximity to the proposed route. We do not agree that this species should be scoped out as it was not recorded during the surveys. We recommend that an assessment should be carried out on the impacts on golden eagle and include the potential displacement and disturbance impacts as well as an assessment of the potential risk of collision and electrocution due to the proposed overhead line."</i> <i>We have strong concerns regarding the cumulative impact of proposed and consented developments on breeding golden eagle. RSPB Scotland objected to the now consented Glendye wind farm due to high collision rates for golden eagle, white-tailed eagle and red kite and a loss of range for golden eagle, which would have a significant impact on these populations. Unfortunately, although it was known that a grid connection would be required for the windfarm, details of this were not required at the S36 application stage for the windfarm. RSPB Scotland recommends that the Applicant's cumulative impact assessment captures loss of open ground due to commercial forestry plantations in addition to other operational, consented and proposed development in the planning system, this is especially important due to the clear cumulative pressures faced by breeding golden eagles in this area."</i> <i>We recommend contacting the North East Scotland Raptor Study Group (NESRSG) to provide up-to-date information on the golden eagle pair present in this area. A data request can be made to RSPB Scotland via this link..."</i>	Although golden eagle was not registered at the time the scoping request was submitted for consideration, a flight registration was subsequently made (please refer to the Species Accounts Section, para. 8.7.8 and 8.7.9 for further details). This is considered in full within the context of the Proposed Development and the potential for negative impacts and effects. A data consultation exercise has been initiated with both the RSPB Scotland and the NERSG, however at the time of writing no data have been received. Acknowledgment is made of the further confidential response from the RSPB Scotland and the details relating to FLS records referred to therein. A comprehensive suite of mitigation measures has been included as part of the Proposed Development (please refer to para. 8.8.5 to 8.8.18 and Sections 8.12). Further specific precautions are anticipated to be incorporated into the pre-construction stage as required and will be agreed, confidentially, with NatureScot, RSPB Scotland and FLS.

Consultee	Key Consultee Comments	Applicant Comment
	Other Species: <i>"We recommend that Forest and Land Scotland are contacted for any relevant data that they may hold on Schedule 1 or Annex 1 species in the forested area. Baseline and survey data collected as part of the Hurlie 400 kV Substation Environmental Assessment should also be considered."</i>	

8.4.6 The Scoping Opinion states that the following organisations of relevance to ornithology and ecology were consulted but did not provide a response and it is assumed that they had no comment to make on the scoping report: River Dee Fisheries Trust, John Muir Trust, Mountaineering Scotland, Scottish Wildlife Trust, Scottish Wild Land Group, Woodland Trust, and Mearns Community Council.

8.5 Methodology

Study Area

8.5.1 Appropriate study areas for each specific survey were derived from best practice guidance (SNH, 2017, updated 2025)¹⁴ and are provided below:

- Flight activity Vantage Point (VP) surveys: the Site (at the time of survey) plus 500 m;
- Breeding bird survey (BBS): the Site plus 500 m (BBS Study Area);
- Breeding raptor (Schedule 1) survey: the Site plus 1 km (Breeding Raptor Study Area); and
- Black grouse survey: the Site plus 1 km (BK Study Area).

Desk Study

8.5.2 A desk study was undertaken to identify baseline data for the Site and wider area. The desk study aims to identify international designations such as Special Protection Area (SPAs) and Ramsar wetlands within 10 km of the Site and national statutory designations such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) or Marine Nature Reserves (MNRs) within 5 km of the Site, extending to 20 km for SPAs designated for species of geese. Any Local Nature Conservation Sites (LNCSs) or non-statutory designations, such as Local Biodiversity Sites, were identified within a 2 km distance of the Site.

8.5.3 A data request was initiated (first correspondence dated 9th December 2024) with the NERSG for relevant records within specified search buffers of the Site. Multiple subsequent emails have been sent in an attempt to obtain relevant data, the most recent of which was on the 26th of August 2025. At the time of writing no data has been returned.

8.5.4 In addition, existing records that are freely available for commercial use of protected or otherwise notable species (e.g. SBL / LBAPNES priority species) were identified with a 5 km distance of the Site. Records from the last 10 years were considered relevant to the study. Only those relating to birds are relevant to the assessments presented in this Chapter. Data for priority / notable species and designated sites were obtained from the following databases:

- National Biodiversity Network (NBN) Atlas;
- NatureScot SiteLink;
- Scotland's Environment Interactive Map; and

¹⁴ SNH (2017). Recommended Bird Survey Methods to inform Impact Assessment of Onshore Wind Farms. SNH Guidance Note Series. SNH, Battleby.

- MAGIC: Nature on the Map.

Field Surveys

- 8.5.5 The scope of the ornithology surveys, including field survey methods and VP locations, was developed and agreed with NatureScot, taking cognisance of current best practice guidance as recommended in Scottish Natural Heritage guidance¹⁵. This guidance describes the methods for assessing onshore wind farms (as detailed in SNH, 2017, updated 2025)¹⁴ but it is equally applicable¹⁶ assessing collision risk with power lines. Since the scope and baseline ornithological surveys were agreed and undertaken, the SNH 2019 guidance has since been revised and is now dated March, 2025¹⁶, albeit the methods and approach to survey remain the same. Surveys were carried out at a variety of times and in different weather conditions to ensure data were collected that were fully representative of a range of behaviour patterns throughout the different environmental conditions experienced at the Site. All surveys were undertaken by suitably qualified and experienced ornithologists.
- 8.5.6 NatureScot guidance¹⁶ recommends that the baseline assessment should focus on 'target species'. The guidance defines ornithological target species as:
- Those protected under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)⁶;
 - Those listed on Annex 1 of the Council Directive 79/409/EEC on the Conservation of Wild Birds²;
 - Regularly occurring migratory species which are either rare, vulnerable or warrant species consideration on account of the proximity of migration routes, or breeding, moulting, wintering or staging areas in relation to the proposed wind farm; and
 - Species occurring at the site in nationally or regionally important numbers.
- 8.5.7 The NatureScot guidance highlights that consideration should be given to species of local conservation concern (i.e. those listed in LBAPs), but that target species should be restricted to those likely to be affected by wind farms. Previous experience of similar projects in the local area identified that survey work to inform the assessment should account for the potential presence of 'scarce' diurnal raptors, wildfowl and wading bird species within and adjacent to the Site.
- 8.5.8 A summary of the ornithological methods adopted is provided below and outlined in full in **Appendix 8.1**. The ornithological surveys commenced in October 2023.

Vantage Point (VP) Surveys

- 8.5.9 Flight activity surveys were undertaken over one breeding season and one non-breeding season. NatureScot guidance advises that VP locations should be selected to achieve maximum visibility from the minimum number of survey locations. In this survey method, an arc of up to 180 degrees and extending to 2 km from the observer can be surveyed from each VP, subject to topography, vegetative screening and any other constraints to effective survey. A minimum of 36 hours of survey effort was completed at each VP during each of the breeding season and non-breeding periods, and the timing of VP watches varied to ensure that all times of day were covered.
- 8.5.10 A total of four VP locations (VP1-4) were initially selected, but following the identification of the proposed route (see **Chapter 2: The Routeing Process and Alternatives**), one of the VP locations (VP4) was dropped and VP3 was rotated from north to face south-east. The locations of the four VPs and their respective viewsheds were agreed with NatureScot (see **Table 8.1**), and are presented in **Appendix 8.1** and **Figure 8.1.1**. At each of

¹⁵ Scottish Natural Heritage (2019). Guidance - Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. SNH, Battleby, Perthshire.

¹⁶ NatureScot guidance (2025) - Assessment and mitigation of impacts of powerlines and guyed meteorological masts on birds (online) Available at: <https://www.nature.scot/doc/guidance-assessment-and-mitigation-impacts-power-lines-and-guyed-meteorological-masts-birds> (last accessed 08/10/2025)

VP1-VP3, surveys were completed over a 11 month period, from October 2023 to August 2024. A total of 72 hours was undertaken at each VP. VP watches were conducted for periods of no longer than three hours in a single watch. A minimum 30-minute break was observed between watches to allow the surveyor an adequate rest time between VP watches.

- 8.5.11 Full details of the survey methodology and the survey timings, dates and weather are detailed in **Appendix 8.1 (Annex A: Table A.1)**.

Breeding Bird Survey (BBS)

- 8.5.12 BBS were conducted within the Site and 500 m survey buffer within accessible areas of land ownership between April and July 2024 (see **Figure 8.1.1**). In open areas of the BBS Study Area a walkover technique based on the Brown and Shepherd (1993)¹⁷ method was employed and involved approaching within 100 m of all parts to record the presence of breeding waders.

- 8.5.13 NatureScot guidance states that four survey visits should be completed over the breeding season, based on recommendations set out in Calladine et al. (2009)¹⁸. The survey included a total of four survey visits, conducted during the period April to July, inclusive, with a minimum two-week gap between survey visits. Full details of the survey dates and methodology are outlined in **Appendix 8.1**.

Breeding Raptor (Schedule 1) Species Survey

- 8.5.14 Breeding Schedule 1 raptor and owl species and black grouse surveys were conducted within the Site and a 1 km buffer, where access permissions allowed (see **Figure 8.1.1**). Surveys were conducted from April to July 2024.

- 8.5.15 The survey methods followed Hardey et al. (2013)¹⁹ and Gilbert et al. (2011)²⁰ in general involving four survey visits (minimum of two weeks apart) walking transect routes focusing on suitable habitat. Habitat, such as any prominent features like rock outcrops or fence lines were checked for raptor species within the Site and a 2 km survey buffer. Full details of the survey dates and methodology are outlined in **Appendix 8.1**.

Black Grouse surveys

- 8.5.16 Due to the presence of suitable habitat for breeding black grouse, dedicated black grouse surveys were undertaken in April and May 2024 covering all suitable habitat within the Site and accessible areas of the BK Study Area buffer (**Figure 8.1.1**) as recommended in SNH (2017)¹⁴. The survey methods followed those recommended by Gilbert et al. (2011)²⁰, with full details of the survey dates and methodology described in **Appendix 8.1**.

Survey Limitations

- 8.5.17 Some sections of the survey buffers, in particular the agricultural fields in the eastern part of the Site, had restricted access and as such walkover surveys were not possible within these areas. These areas were scanned from suitable vantage points along roads and public rights of way and given the relatively flat nature of the land the restriction in access was not seen as a significant limitation to the results.

17 Brown A. F. & Shepherd K. B. (1993). A method for censusing upland breeding waders, *Bird Study*, 40:3, pp. 189-195.

18 Calladine, J., Garner, G., Wernham, C. & Thiel, A. 2009. The influence of survey frequency on population estimates of moorland breeding birds. *Bird Study* 56: 388.

19 Hardey, J., Crick, H., Riley, H., Etheridge, B., and Thompson, D. (2013) *Raptors: A field guide to surveys and monitoring*. The Stationery Office; 3rd revised edition.

20 Gilbert, G, Gibbons D W & Evans J, (2011). *Bird Monitoring Methods: A Manual of Techniques for Key UK Species*.

8.6 Assessment Methodology and Significance Criteria

- 8.6.1 The approach to the impact assessment follows the Chartered Institute of Ecology and Environmental Management guidelines²¹, which outlines an industry-standard method to define, predict and assess potential ecological effects of a proposed development. The matrix-based approach commonly applied in other disciplines (as described in **Chapter 5**) is not recommended for ecological assessments. Rather, the CIEEM guidance starts with establishing the baseline through a mix of desk study and field surveys. IOFs are first identified and then evaluated in terms of their vulnerability to the Proposed Development through a reasoned process considering factors such as statutory requirements, policy objectives for biodiversity, conservation status of the IOF, connectivity and spatial separation from the Proposed Development.
- 8.6.2 An impact assessment is then undertaken for scoped-in IOFs that assumes construction industry-standard embedded mitigation will be followed to ameliorate effects as far as practicably possible. This includes bird-specific mitigation measures designed to minimise disturbance and safeguard breeding activity. See **Appendix 3.4** for more information.
- 8.6.3 Additional mitigation strategies can then be determined to minimise any residual effects that will otherwise be experienced by the IOF and any opportunities for enhancement identified. In summary, the impact assessment process²¹ involves:
- Identifying IOFs vulnerable to impacts;
 - Identifying and characterising impacts and their effects;
 - Incorporating embedded, and if necessary, additional measures to avoid and mitigate negative effects;
 - Assessing the significance of any residual effects after mitigation;
 - Identifying the appropriate compensation methods to offset significant residual effects; and
 - Identifying opportunities for ecological enhancement.
- 8.6.4 When there is the potential for the Proposed Development to have an effect on a bird species or population that may be part of, or linked to, a designated site population, whether internationally (such as a SPA or Ramsar population), or nationally (such as a SSSI population), impacts are assessed on whether they affect the integrity of the designated site and, as such, the conservation objectives or management objectives of the designation.
- 8.6.5 The species' link to the designated site may be throughout the year but as detailed in the site citation documentation, it may be specific to the species' activity or the time of year. For example, the designated site may be designated solely for its breeding, wintering, passage or migratory species meaning at other times of year, these species have no link to the designated site. In the situation where the bird population recorded is not considered to be protected by a designation such as an SPA, Ramsar or SSSI, the individuals are considered to be part of the 'wider area population' and in this scenario the assessment concentrates on whether there are effects on the overall population of the species in both a local (Natural Heritage Zone (NHZ) – NHZ 12 (North East Glens) and wider area (Scotland) context.
- 8.6.6 The significance of the effect on an ornithological feature is determined by assessing the following three factors:
- The Nature Conservation Importance (NCI) of the species;
 - The conservation status of the species; and
 - The magnitude of the impact.

²¹ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

Nature Conservation Importance

- 8.6.7 Determination of the level of sensitivity of an IOF²¹ to be taken forward for assessment is based on a combination of the feature's Nature Conservation Importance (NCI) and its conservation status. **Table 8.2** lists the criteria used to determine the NCI value assigned ornithological features.

Table 8.2: Evaluation Criteria for NCI

Importance	Criteria
High	- Populations of species receiving protection due to their inclusion as designated features of a SPA, proposed SPA (pSPA), Ramsar or SSSI including birds outside of protected areas when there is considered to be connectivity to the site. - Breeding species listed on Schedule 1 of the WCA.
Medium	- Presence of target species listed on Annex I species of the Birds Directive but not considered to be protected by a designated site. - More than infrequent presence of target species (but not breeding) listed on Schedule 1 of the WCA. - A Natural Heritage Zone – NHZ 12 (North East Glens) scale important population / area of a bird species listed on the SBL¹⁰ as requiring conservation action. - The presence of NHZ 12 scale population of breeding species noted on the latest BoCC Red-listed species (Stanbury et al., 2021). - Populations of species mentioned as part of a non-statutory designation when there is considered to be connectivity to the site. - The presence of significant number of migratory, passage or wintering species, notable due to using the site as a staging post, wintering grounds or notable migration route.
Low	All other species not mentioned in categories above.

Conservation Status

- 8.6.8 For these purposes, conservation status was taken to mean the sum of the influences acting on a population which may affect its long-term distribution and abundance. The conservation status of a species is defined by NatureScot²² as “the sum of the influences acting on it which may affect its long-term distribution and abundance, within the geographical area of interest” and they state that:

“A species’ conservation status is favourable when:

- population dynamics indicate that the species is maintaining itself on a long-term basis and is therefore likely to persist in the habitat it occupies;*
- the natural range of the species is not being reduced, nor is likely to be reduced for the foreseeable future; and*
- there is (and will probably continue to be) a sufficiently large habitat to maintain its populations on a long-term basis.*

We recommend here that the concept of favourable conservation status of a species should be applied at the level of its Scottish population, to determine whether an impact is sufficiently significant to be of concern.”

²² NatureScot (2025). Guidance note: Assessing the significance of impacts on bird populations from onshore wind farms that do not affect protected areas. NatureScot, Battleby, Perthshire. Available online at: <https://www.nature.scot/doc/guidance-note-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect#favourable-conservation-status> (last accessed 08/10/2025)

- 8.6.9 Where possible, the conservation status for each species population was considered within the appropriate NHZ level (NHZ 12: North East Glens (although the Site is close to the borders of both NHZ 16 and NHZ 9); however, for population estimates, if sufficient information on these populations does not exist, the national (Scottish) population estimate was used. For wintering or migratory species, the national (Scottish) population was considered.

Magnitude of Impact

- 8.6.10 For the purposes of this assessment, magnitude of impact was determined by consideration of the spatial and temporal nature of each impact. The levels of spatial magnitude on an ornithological feature are categorised as 'negligible', 'low', 'medium', 'high' or 'very high', based on the definitions in **Table 8.3**, below, with the temporal impacts categorised in **Table 8.4**.

Table 8.3: Levels of Spatial Magnitude of Impact

Spatial Magnitude	Description
Very High	Total/near total loss of a bird population due to mortality or displacement. Guide: >80 % of regional (NHZ 12) population affected.
High	Major reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 21-80 % of regional (NHZ 12) population affected.
Medium	Partial reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 6-20 % of regional (NHZ 12) population affected.
Low	Small but discernible reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Guide: 1-5 % of regional (NHZ 12) population affected.
Negligible	Very slight reduction in the status or productivity of a bird population due to mortality, displacement or disturbance. Reduction barely discernible, approximating to the 'no change' situation. Guide: <1 % of regional (NHZ 12) population affected.

Table 8.4: Levels of Spatial Magnitude of Impact

Temporal Magnitude	Description
Immediate	Within approximately 12 months
Short term	Within approximately 1-5 years
Medium term	Within approximately 6-15 years
Long term	Between 15-40 years
Permanent	Over 40 years (impacts broadly spanning throughout the lifetime of the scheme (in perpetuity, for the purpose of this assessment)).

Temporal Scope

8.6.11 Potential impacts on ornithological features have been assessed in the context of how the predicted baseline conditions within the Study Area might change between the surveys and the start of construction. It is anticipated that construction would take approximately 30 months to complete and that the baseline conditions would not materially change in the intervening time period.

Determining Significant Effects

8.6.12 An assessment is undertaken in relation to the baseline conditions that would be expected to occur in the absence of a development and, therefore, may include possible predictions of future changes to baseline conditions, such as environmental trends and other completed or planned development. Both adverse and beneficial impacts/effects are possible.

8.6.13 A significant effect, in ornithological terms, is defined as an effect (whether negative or positive) on the conservation status of a species within a given geographical area, including cumulative impacts.

- 8.6.14 Following the classification of each species NCI and consideration of the magnitude of each impact, professional judgement is used to make a reasoned assessment of the likely effect on the conservation status of each potentially affected species.
- 8.6.15 In accordance with the EIA Regulations and good practice, each likely effect is evaluated and classified as either significant or not significant. The significance levels of effect on bird populations are described in **Table 8.5**. Detectable changes, i.e., those of 'major' or 'moderate' significance, in the conservation status of regional populations of NCI are considered to be significant effects under the EIA Regulations. Non-significant effects are those which are likely to result in barely detectable (minor) or non-detectable (negligible) changes in the conservation status of regional (and therefore national) bird populations.

Table 8.5: Evaluation Criteria for NCI

Significance of Effect	Description
Major	A detectable change to regional populations, resulting in total population loss or severe impacts to their conservation status.
Moderate	A detectable change to regional populations, resulting in population losses that are likely to impact their conservation status.
Minor	Small or barely detectable changes to regional populations, that are unlikely to impact their conservation status.
Negligible	No or barely discernible changes to regional populations, with no impact on their conservation status.

- 8.6.16 In accordance with the current CIEEM guidelines, effects of impacts are assessed in the presence of embedded mitigation measures. Additional mitigation may be identified where it is required to reduce a significant effect. Any significant effect remaining post-mitigation is referenced as the residual effect.
- 8.6.17 Ornithological enhancement measures can also be put forward, where they might offset an effect which cannot be directly mitigated. In the present case, there are ornithological enhancement measures, as well as ecological enhancement measures, as set out in the Outline Biodiversity Enhancement Management Plan (refer to **Appendix 7.6**), which are predicted to achieve demonstrable biodiversity enhancements in line with Policy 3 of NPF4⁹.
- 8.6.18 In addition to determining the significance of effects on IOFs, this Chapter also identifies any legal requirements in relation to wildlife, most notably due to disturbance caused by construction activities.

8.7 Baseline Conditions

Nature Conservation Designations

- 8.7.1 Information gathered during the desk study exercise identified a single site of international importance (Fowlsheugh SPA, 9.9 km east) within 10 km of the Site and a second (for long range species such as geese) within 20 km of the Site, namely Montrose Basin SPA (19.7 km south). Please note that **Appendix 8.1, Figure 8.1.2** shows the Cairngorms Massif SPA and Glen Tanar SPA for reference only, as the qualifying features for these sites are considered well beyond potentially connective distance of the Proposed Development.
- 8.7.2 No sites of national importance were identified within 5 km of the Site.

Table 8.6: International Statutory Designated Sites - Qualifying Features

Feature	Scientific Name	Condition (if provided)	Description (NatureScot, 2025)
Fowlsheugh SPA			
Breeding Fulmar	<i>Fulmaris glacialis</i>	Unfavourable Declining	1,170 pairs, 0.2% of the GB population
Breeding Guillemot	<i>Uria aalge</i>	Favourable Maintained	56,450 breeding individuals, %% of the GB population
Breeding Herring gull	<i>Larus argentatus</i>	Unfavourable No change	3,190 pairs, 2% of the GB breeding population
Breeding Kittiwake	<i>Rissa tridactyla</i>	Unfavourable Declining	36,650 pairs, 7.5% of the GB population
Breeding Razorbill	<i>Alca torda</i>	Favourable Maintained	5,800 individuals, 3.9% of the GB population
Breeding Seabird Assemblage	<i>Various</i>	Favourable Maintained	Regularly supporting in excess of 20,000 individual seabirds. The colony regularly supports 145,000 seabirds
Montrose Basin SPA (long-ranging species only)*			
Wintering Greylag Goose	<i>Anser anser</i>	Favourable Recovered	1,080 individuals, 1% of the GB population
Wintering Pink-footed Goose	<i>Anser brachyrhynchus</i>	Favourable Maintained	21,800 individuals, 9% of the the GB population

* I.e. Qualifying features consisting of species of goose or swan, only

Desk Study - External Data

- 8.7.3 Records of 47 species of bird attributed with a conservation status were identified within 2 km of the Proposed Development within the last 10 years. Of the species records returned, 12 are listed as Annex 1, 17 were listed as Schedule 1, 39 were listed under the SBL, 22 as BoCC Red-listed, and 15 BoCC Amber-listed. For full details of the external data consultation please refer to **Appendix 8.2**.

Confidential Data

- 8.7.4 The RSPB Scotland provided a separate confidential consultation response in relation to nightjar within the northeast of Scotland. A copy of this confidential response is provided in full for relevant consultees in **Confidential Appendix 8.3**.

Flight Activity Summary

- 8.7.5 As discussed in **Section 8.6**, flight activity surveys were completed at the site between October 2023 and August 2024. A summary of the results showing all target species flight data is detailed in **Table 8.7**, which includes the total number of flights second which are calculated for each observation (as the product of flight duration and number of individuals recorded), the total number of flights at Collision Risk Height (CRH) (defined as all in part at either height band (HB)1 0-15 m or HB2 5-30 m), and the total number of flights “at-risk” (i.e. at CRH) and crossing the proposed OHL.

8.7.6 For full detail on individual flights, timings and locations see **Appendix 8.1 (Annex A, Tables A.2-A.12; Figures 8.1.3 a-c and Confidential Figure 8.1.5).**

8.7.7 For reasons of brevity, and to avoid duplication, the remaining field survey results are described in this Chapter as “species accounts”, which provides a summary for each species recorded across all surveys undertaken. For specific survey results by survey type (i.e. for the breeding birds, breeding raptor, and black grouse surveys) please refer directly to **Appendix 8.1.**

Table 8.7: Summary of Flight Activity

Species	Flights	Total Count	Flights at CRH	Flights “at-risk”
Curlew	1	1	0	0
Golden Eagle	1	1	0	0
Golden Plover	1	55	0	0
Greylag Goose	1	1	0	0
Hen Harrier	1	1	0	0
Oystercatcher	2	2	2	0
Peregrine	9	9	2	0
Pink-footed goose	8	828	0	0
Red Kite	16	16	2	0
Snipe	1	1	1	0

Species Accounts

Golden eagle

8.7.8 Golden eagle were recorded twice during the breeding raptor surveys, both records including a sub-adult individual and therefore no breeding attempt was identified (see **Figures 8.1.3 a-c and Confidential Figure 8.1.5).**

8.7.9 Flight activity surveys recorded a single flight over the 11 months of VP survey (**Appendix 8.1, Annex A, Table A.4 and Figures 8.1.3 a-c**), and the HB was registered above ‘at-risk’ height meaning no collision risk is predicted for golden eagle.

Goshawk

8.7.10 Goshawk were regularly recorded during breeding walkover surveys within the plantation forestry sections of the breeding raptor (Schedule 1) Study Area, and while no nest sites were confirmed a total of three possible territories were recorded (**Appendix 8.1, Confidential Figure 8.1.5).**

8.7.11 Goshawk were not recorded during flight activity surveys and therefore no collision is predicted for goshawk.

Hen Harrier

8.7.12 Flight activity surveys registered a single hen harrier flight which was not recorded ‘at-risk’ height (see **Table 8.7**) and therefore no collision risk is predicted for hen harrier. The flight was recorded during the non-breeding

season and no evidence of breeding activity was recorded for this species during any of the field surveys conducted.

Merlin

8.7.13 Merlin were registered twice during the breeding raptor (Schedule 1) survey within the open moorland sections of the wider Study Area, however no breeding behaviour was recorded.

8.7.14 No flight activity was recorded for merlin during the VP surveys and therefore no collision risk is predicted for this species.

Osprey

8.7.15 Osprey were recorded once during breeding walkover as a bird recorded flying over the breeding raptor (Schedule 1) Study Area (**Appendix 8.1, Confidential Figure 8.1.5**). However, no breeding behaviour was registered.

8.7.16 Osprey were not recorded during flight activity surveys and therefore no collision risk is predicted for osprey.

Peregrine

8.7.17 Peregrine was confirmed to be holding one territory within the breeding raptor (Schedule 1) Study Area (**Appendix 8.1, Confidential Figure 8.1.5**).

8.7.18 Flight activity surveys recorded nine peregrine flights (**Appendix 8.1, Annex A, Table A.9**, and **Confidential Figure 8.1.5**), two of which were recorded within 'at-risk' (**Table 8.7**) HBs (both flightpaths passed from HB1 into HB2). Although the flights were registered at CRH, both were limited in duration and when considered in terms of the survey effort at the VP location (36hrs during the breeding season/36hrs during the non-breeding season) are rare in occurrence. As such, collision risk is not predicted for peregrine.

Red Kite

8.7.19 Red kite were recorded across the breeding raptor (Schedule 1) Study Area, however no confirmed breeding locations were recorded, a single possible nest was noted on the outer fringes of the Study Area (see **Appendix 8.1, Confidential Figure 8.1.5**).

8.7.20 Flight activity surveys recorded 16 red kite flights (**Appendix 8.1, Annex A, Table A.10** and **Figures 8.1.3 a-c**), two of which were considered to be 'at-risk' height (**Table 8.7**), and therefore no collision risk is predicted for red kite.

Waders

Curlew

8.7.21 No evidence of breeding activity was recorded for curlew within the BBS Study Area. Flight activity surveys recorded a single curlew flight (**Appendix 8.1, Annex A, Table A.2; Figures 8.1.3 a-c**), however, the flight was not registered 'at-risk' height (**Table 8.7**); therefore, no collision risk is predicted for curlew.

Golden Plover

8.7.22 A total of four breeding territories (three probable and one possible) were recorded for golden plover during the breeding bird survey, the territories were spread throughout the upland areas of the site (**Appendix 8.1, Figures 8.1.3 a-c**).

8.7.23 Flight activity surveys recorded a single golden plover flight of a group of 55 individuals (**Appendix 8.1, Annex A, Table A.5** and **Figures 8.1.3 a-c**), and was not considered to be 'at-risk' (**Table 8.7**), and therefore no collision risk is predicted for golden plover.

Oystercatcher

- 8.7.24 No evidence of breeding activity for oystercatcher recorded within the BBS Study Area. Flight activity surveys registered two oystercatcher flights, neither of which were considered to be 'at-risk' (**Appendix 8.1, Annex A, Table A.8** and **Figures 8.1.3 a-c**) and therefore no collision risk is predicted for oystercatcher.

Snipe

- 8.7.25 A single probable breeding record was noted for snipe within the BBS Study Area (**Appendix 8.1, Figure 8.4**). Flight activity surveys registered a single snipe flight which was not considered to be 'at-risk' (**Appendix 8.1, Annex A, Table A.12** and **Figure 8.1.3 a-c**) and therefore no collision risk is predicted for snipe.

Grouse

Black grouse

- 8.7.26 Black grouse were not recorded during VP surveys. A lek including up to four males and five females was identified during BK surveys, and a smaller satellite lek including a single male was also recorded (see **Appendix 8.1, Confidential Figure 8.1.5**).

Wildfowl

- 8.7.27 Flight activity surveys recorded eight pink-footed goose flights and one greylag goose flight (**Appendix 8.1, Annex A, Table A.10** and **A.6** and **Figures 8.1.3 a-c**). All of the flights were above collision risk height.

Gulls

- 8.7.28 No gull species were recorded as holding breeding colonies or territories within the site or wider BBS Study Area. The only records of gull from VP surveys were 14 registrations of herring gull, either flying through the area or foraging in fields from VP1, approximately 1 km from the Proposed Development.

Nightjar

- 8.7.29 Following confidential consultation, nightjar are acknowledged as a consideration for this region of Scotland. Further detailed consultation and data sharing is anticipated as part of the post-planning/pre-construction strategy for this species. See **Section 8.12.3** and **8.12.4**, as well as **Confidential Appendix 8.3**, for more information.

Other Breeding Passerines

- 8.7.30 A total of 26 other species assessed as confirmed breeding during the BBS including five BoCC Red listed, seven BoCC Amber listed and 14 common and widespread species (BoCC Green-list species). The results are shown in **Appendix 8.1; Annex B: Table B.1**.

8.8 Summary of Evaluation of Recorded Features

- 8.8.1 **Table 8.8** below presents a summary of the evaluation of ornithological features and their NCI.

Table 8.8: Summary of Evaluation of Ornithological Features

Feature	Summary	NCI
Designated Sites		
Fowlsheugh SPA	The level of value follows the level of designation. Located 9.9 km east, designated for breeding seabird species: fulmar,	High

Feature	Summary	NCI
	guillemot, herring gull, kittiwake, razorbill, and it's breeding seabird assemblage.	
Montrose Basin SPA	The level of value follows the level of designation. Located 19.7 km south, designated for the following long ranging wintering goose species: greylag goose; and pink-footed goose.	High
Species		
Golden Eagle	Golden eagle is afforded the highest level of legal protection as a Schedule 1 species²³, also listed in Annex 1 of the Birds Directive. Golden eagle is also a SBL species. No evidence of breeding, very low flight activity.	Low
Goshawk	Goshawk is fully protected as a Schedule 1 species. Not recorded during VP surveys, considered likely to be up to three breeding records in plantation forestry.	High
Hen Harrier	Hen harrier is fully protected as a Schedule 1 species. It is also listed in Annex 1 of the Birds Directive. A single flight and no evidence of breeding activity.	Low
Merlin	Merlin is fully protected as a Schedule 1 species. It is also listed in Annex 1 of the Birds Directive. Not recorded during VP surveys and no evidence of breeding activity.	Low
Osprey	Osprey is fully protected as a Schedule 1 species. It is also listed in Annex 1 of the Birds Directive. Not recorded during VP surveys and no evidence of breeding activity.	Low
Peregrine	Peregrine is fully protected as a Schedule 1 species. It is also listed in Annex 1 of the Birds Directive and on the SBL. Confirmed as a breeding species in the breeding raptor (Schedule 1) Study Area and nine flights recorded.	High

²³ Schedule 1 species under the Wildlife and Countryside Act 1981 are afforded the highest level of legal protection in the UK, particularly during the breeding season. It is an offence to intentionally or recklessly disturb these birds while they are nesting, building a nest, or caring for dependent young, and to damage or destroy active nests or eggs. Surveying, ringing, or monitoring activities require a specific licence from the relevant statutory authority (e.g. NatureScot or BTO). Breaches can result in prosecution, with penalties including unlimited fines and up to six months' imprisonment per offence.

Feature	Summary	NCI
Red Kite	Red kite is fully protected as a Schedule 1 species, Annex 1 and an SBL species. No confirmed breeding locations recorded and no flight activity recorded at collision risk height.	Low
Curlew	A BoCC Red listed, SBL species. A single flight recorded not at collision risk height and no breeding activity was recorded.	Low
Golden Plover	Golden plover is in Annex 1 of the Birds Directive. Golden plover is a SBL species. There is no SPA designated for breeding golden plover within 10 km of the site, therefore all records are considered to be wider area population birds. Four breeding records (one possible and three probable territories) and a single flight not at collision risk height.	Medium
Oystercatcher	A BoCC Amber listed species. No breeding records and two flight registrations neither at collision risk height.	Low
Snipe	A BoCC Amber listed species. A single probable breeding record and no flight activity.	Low
Black Grouse	A BoCC Red listed, SBL species. A main lek including four males and five females and a satellite lek of one male were recorded in the Black Grouse Study Area. No flight activity recorded.	Medium
Nightjar	Nightjar is an Annex 1 listed species. There is no SPA designated for nightjar present within Scotland. External data sources, and consultees, have indicated known areas of nightjar activity within this region of Scotland.	Medium
Gulls	Herring gull, the only species of gull recorded, is a BoCC Red listed species. Occasional registrations of herring gull in open fields away from the proposed OHL route.	Low
Breeding Bird Assemblage	A total of five BoCC Red listed, seven BoCC Amber listed and 14 common and widespread species were identified as breeding in the BBS Study Area. These	Low

Feature	Summary	NCI
	species are typical of these habitats in Scotland.	

Ornithological Features Scoped Out of Assessment

- 8.8.2 Ornithological features of medium and high NCI are considered IOFs. Due to a range of factors, some of these IOFs can be scoped out of further consideration if they are not vulnerable to effects from the Proposed Development.
- 8.8.3 Following evaluation of the baseline data, including desk study and field survey data, and considering the standard and embedded mitigation measures, as described in **Paragraphs 8.8.5 to 8.8.18**, some potential effects on IOFs can be scoped out of the assessment, as described in **Table 8.9** below. This is based on professional judgement and experience, including from other relevant projects in the region.
- 8.8.4 The subsequent assessment of effects has been applied to IOFs considered to be of high or medium NCI that are known to be present within the Site or surrounding area, as confirmed through survey results and consultations outlined above.

Table 8.9: Features Scoped in / out of the Assessment

IOF	Rationale for Scoping In/Out	Scoped In/Out
Fowlsheugh SPA	The SPA is designated for breeding fulmar, guillemot, herring gull and kittiwake. Fulmar, guillemot and kittiwake are rarely recorded away from water and inland and were not recorded during the surveys and are scoped out of the assessment. Herring gull will travel long distances away from breeding sites to forage and were recorded occasionally during VP surveys. Given the location of the records was over 1 km from the proposed OHL and the 10 km distance to the SPA, herring gull are scoped out of the assessment.	Scoped Out: Fowlsheugh SPA all qualifying species
Montrose Basin SPA	The SPA is 19.7 km south of the site and is designated for wintering greylag and pink-footed goose which are known to travel up to 20 km from roost sites during the day to forage. Greylag geese were recorded once and pink-footed goose eight times. All the flight records were of birds flying south in the autumn months or north in the spring, indicative of birds moving on migration rather than birds using the local area to forage. The habitats in the site and immediate surrounds are primarily sub-optimal, being open moorland or plantation forestry, which are not utilised by goose species. Given the distance of 19.7 km to the SPA, the unsuitable habitats in the Site and surrounds greylag goose and pink-footed goose are scoped out of the assessment.	Scoped Out: Montrose Basin SPA all qualifying species
Goshawk	Goshawk are protected as a Schedule 1 species. Goshawk were recorded as a possible breeding species and are scoped into the assessment.	Scoped in: Goshawk

IOF	Rationale for Scoping In/Out	Scoped In/Out
Peregrine (wider area population)	Peregrine are protected as a Schedule 1 species and is listed in Annex 1 of the Birds Directive, but no SPA designated for peregrine is present within potentially connective distance of the Site and this assessment therefore deals with the wider area population only. Peregrine were recorded as a breeding species and are scoped into the assessment.	Scoped in: Peregrine (wider area population)
Golden Plover (wider area population)	Golden plover is listed on Annex 1 of the Birds Directive, but no SPA designated for golden plover is present within potentially connective distance of the Site and this assessment therefore deals with the wider area population only. With possible and probable breeding records within the Study Area, golden plover are scoped into the assessment.	Scoped in: Golden Plover (wider area population)
Black Grouse	A main black grouse lek and satellite lek were recorded during surveys and therefore black grouse are scoped into the assessment.	Scoped in: Black grouse
Nightjar	Nightjar is an Annex 1 listed species. There is no SPA designated for nightjar present within Scotland and this assessment therefore considers the wider area population only. Nightjar was confirmed as present within the region via consultation with relevant stakeholders (Confidential Appendix 8.3). Further consultation and data exchange exercise is anticipated post-planning and pre-construction, as well as a dedicated SPP with targeted mitigation measures. As such, nightjar are scoped out of assessment.	Scoped out: Nightjar (wider area population)

Embedded Mitigation

- 8.8.5 As previously noted, following CIEEM guidance²¹, the assessment process assumes the application of standard (or embedded) mitigation measures. This section of the assessment therefore details the mitigation measures that are recommended to ameliorate identified effects associated with the construction and operational phase of the Proposed Development. These measures are aimed to prevent, reduce or offset any likely significant effects of the Proposed Development on identified ornithological receptors. This approach is in accordance with best practice guidance and UK, Scottish and Local Government environmental, planning and sustainability policies.
- 8.8.6 In this context, embedded mitigation refers to standard measures that are integrated into the project design and construction methodology from the outset, outlined in documents such as the Construction Environmental Management Plan (CEMP) and Species Protection Plan (SPP). These include timing restrictions to avoid sensitive breeding periods, buffer zones around known nest sites, and adherence to best-practice protocols for noise and lighting control. Such measures are considered routine and are assumed to be in place when assessing potential impacts. In contrast, additional mitigation is only considered where a significant effect would remain even after embedded measures are applied.

- 8.8.7 The principles and objectives for mitigation associated with the Proposed Development have been developed through an iterative process with the Applicant's design team and discussion with NatureScot and other stakeholders.
- 8.8.8 Mitigation includes best practice methods and principles applied to the Proposed Development as a whole (generic measures) as well as site specific mitigation measures applied to individual locations (specific measures).
- 8.8.9 All ornithological mitigation will be incorporated into a site-specific CEMP. An outline version of the CEMP is provided in **Appendix 3.5**. The CEMP will also outline a timetable of actions and form part of the contract documents to ensure delivery of mitigation specified in this Chapter. In addition, the CEMP will incorporate the provision of an Environmental Clerk of Works (ECoW) to oversee the implementation of committed mitigation relevant to ornithological (as well as terrestrial ecology) features.
- 8.8.10 In the event of consent being granted, the generic mitigation measures that apply to all ornithological receptors across the Proposed Development, and which are considered as embedded in the Proposed Development and therefore assumed to be the case for the purposes of assessing potential impacts, are outlined below.
- 8.8.11 Not more than three months prior to construction of the Proposed Development, the Applicant will engage a Suitably Qualified Ecologist (SQE) to undertake a series of pre-construction ornithological surveys to update the baseline information reported in this Chapter. The aim of these surveys would be to provide up to date information to finalise the mitigation proposals. This would be in addition to completing a final check prior to construction for protected species (see **Chapter 7** of this EIA Report) and would be discussed and agreed in advance of being finalised with NatureScot. For the purposes of limiting the potential for unnecessary duplication of surveys, close liaison with other developments within the area will be undertaken in order to share relevant data and activity of target species.
- 8.8.12 Recommended disturbance buffers apply for protected bird species at their nest and/or lek sites, namely those that have protection as Schedule 1 or Annex 1 species, with recommended distances outlined by Goodship and Furness (2022)²⁴ and the Forestry Commission²⁵. Any disturbance to these species is considered a criminal offence and therefore the iterative design process and incorporation of the ECoW and pre-construction survey checks ensures that the potential for disturbance via construction works can be managed and will be within the recommended guidance distances.
- 8.8.13 All construction works within 200 m of plantation clearfell areas or regrowth up to 10 years old within the plantation forestry will be completed between September to April.
- 8.8.14 Further to or incorporated into the update surveys above, protection of breeding bird nests from damage and/or destruction during the breeding season will be ensured. Wherever possible, all vegetation clearance will occur outside the breeding season (i.e. clearance to be undertaken between September and March, inclusive, and wherever possible between October and February), to ensure that no active nests are accidentally damaged or destroyed by the proposed works and disturbance to breeding birds is avoided. This would include any areas of shrub clearance and vegetation removal for access tracks, working areas, wayleaves, or construction working areas due to the populations of ground nesting birds on and around the Site. Removing vegetation from working areas outside the breeding season would also reduce the attractiveness of those areas to breeding birds the following season, which means that birds are less likely to establish breeding territories in those areas.

²⁴ Goodship and Furness (2022). Disturbance Distances in selected Scottish Bird Species – NatureScot Guidance. (online) Available at: <https://www.nature.scot/doc/disturbance-distances-selected-scottish-bird-species-naturescot-guidance> (last accessed 08/10/2025)

²⁵ The Forestry Commission (2006). FCS Guidance note 32: Forest Operations and birds in Scottish forests

- 8.8.15 Unnecessary disturbance to habitats will be avoided, by minimising the extent of ground clearance and other construction practices as far as practicable.
- 8.8.16 An ecological toolbox talk will be given to all construction personnel as part of site induction on the potential presence of high priority ornithological species and any measures that need to be undertaken should such species be discovered during construction activities. The toolbox talk will also include the requirement to report and log any bird casualties during construction of the Proposed Development.
- 8.8.17 As part of the Proposed Development the BEMP is to be appended to the CEMP to ensure the regeneration of those areas of habitat that have been temporarily lost through development. This is provided as an “Outline” version at the current stage of planning (**Appendix 7.6**). In order to facilitate restoration, disturbed ground will be restored as soon as practicably possible using materials removed during the construction of access tracks and associated infrastructure. To achieve this, any excavated soil will need to be stored in such a manner that is suitable to facilitate retention of the seed bank. This will aid site restoration and help conserve the pre-construction floristic interests at the Site. Further details are given in the outline Peat Management Plan (see **Appendix 9.2**).
- 8.8.18 Additional specific mitigation measures are discussed in **Section 8.123**, following the assessment of impacts and consideration of any residual requirements.

8.9 Potential for Impacts and Effects

- 8.9.1 The main elements of the Proposed Development which have the potential to impact on IOFs, both during construction and operation are:
- The formation of access tracks (permanent, temporary and upgrades to existing tracks) and the installation of bridges or culverts to facilitate access and ongoing maintenance where required;
 - Working areas around infrastructure (i.e. around individual poles) to facilitate construction;
 - Establishment of new wayleaves.
- 8.9.2 The above activities have the potential to cause the following construction impacts to the IOFs identified for the Site:
- Direct loss of foraging habitat and/or breeding habitat;
 - Indirect loss of foraging habitats and/or breeding habitat through displacement; and
 - Disturbance (including noise, vibration, pollution) and displacement due to track construction, as well as pole erection, heavy machinery, noise and human activity on the Site. Disturbance of ground vegetation and ground-nesting birds may affect a zone of approximately 5 m around all infrastructure.
- 8.9.3 The potential operational impacts have been identified as:
- Habitat change (modification) over time (N.B. operational phase drying of wet substrates may affect up to approximately 10 m around workings);
 - Direct and indirect loss of foraging or breeding habitat due to disturbance/displacement or avoidance;
 - Mortality resulting from collision with an OHL; and
 - Cumulative impacts of the Proposed Development in the context of other nearby large-scale projects (operational, consented and in planning).

8.10 Assessment of Construction Effects

Goshawk

- 8.10.1 **Impact:** Displacement of breeding or foraging goshawk from the Site during construction, either by disturbance or because of direct habitat loss.

- 8.10.2 **NCI / Conservation Status of the receptor:** As per **Table 8.8**, goshawk is a Schedule 1-listed species and of High NCI.
- 8.10.3 Goshawk are a BoCC Green listed species due to a stable or increasing population across the UK and as such are classified as having a favourable conservation status.
- 8.10.4 **Magnitude of Impact:** Goshawk are a widespread breeding species in mature forests building large nests in areas of developed canopy cover. They will hunt both over open areas and woodland¹⁹.
- 8.10.5 Goshawk were not recorded during flight activity surveys. The breeding raptor survey identified three possible breeding attempts. The recommended no-disturbance buffer for goshawk is 300 m - 500 m²⁴. All of the possible breeding territories were located over 1 km from any proposed infrastructure (see **Appendix 8.1 and Confidential Figure 8.1.5**).
- 8.10.6 Given the recommended no-disturbance buffer for goshawk is 300 m - 500 m²⁴, it is considered unlikely that construction activities will impact on a goshawk breeding attempt.
- 8.10.7 Potential impacts on breeding goshawk during construction would therefore be limited to temporary disturbance from tree felling, increased noise and vibration, temporary habitat loss and temporary displacement of prey species. Potential disturbance during construction may result in displacement from the areas of land clearance and a slightly wider area adjacent to it. During the breeding season, in order to avoid the abandonment of nests or breeding territories as a result of disturbance, the standard mitigation outlined in **Section 8.10**, including the pre-construction checks, would be undertaken. The appointed ECoW will identify active nesting locations prior to any works taking place. If nest sites are identified, then appropriate mitigation measures (such as suitable exclusion zones/buffers) to protect nest sites will be implemented.
- 8.10.8 The fact that there is alternative available hunting habitat in surrounding woodland and open areas, and given the lack of flights recorded, disturbance during construction and the loss of habitat due to the Proposed Development is unlikely to significantly affect goshawk hunting opportunities. Considering the limited potential of disturbance affecting breeding goshawk and the potential disturbance on foraging goshawk during the construction period, the overall impact on goshawk is considered to be short-term and of negligible magnitude.
- 8.10.9 **Significance of Effect:** As outlined above, the magnitude of the impact on the NHZ 12 goshawk population as a result of construction is deemed to be short-term and negligible. The NCI for goshawk is high, although the UK population is increasing and of favourable status, and disturbance presented to this species considered to be of negligible magnitude. The effect is therefore considered to be **Negligible** and **Not Significant** under the EIA Regulations.

Peregrine

- 8.10.10 **Impact:** Displacement of breeding or foraging peregrine from the Site during construction, either by disturbance or because of direct habitat loss.
- 8.10.11 **NCI / Conservation Status of the receptor:** As per **Table 8.8**, peregrine is a Schedule 1-listed species and of High NCI. Peregrine is considered to have a stable breeding population in Scotland and is a BoCC Green list species, as well as on the SBL, and as such is considered to have a favourable population status.
- 8.10.12 **Magnitude of Impact:** Breeding surveys identified one confirmed breeding attempt within the breeding raptor (Schedule 1) Study Area in 2024. The recommended no-disturbance buffer required for construction activities is 500 m - 750 m for breeding locations of peregrine²⁴.

- 8.10.13 The design process involved the avoidance of any infrastructure within 500 m of the known nest site, with the works taking place 600 m from the nest site. Furthermore, given the topography, the work would not be visible from the nest location.
- 8.10.14 Peregrine were registered on nine occasions in flight activity surveys, with birds using the Site to hunt and to commute to hunting grounds elsewhere in the local area. Peregrines will generally hunt within 2 km of their nest locations during the breeding season although this may be extended up to 6 km depending on prey availability¹⁹. The majority of the flight activity recorded is linked to the breeding attempt within the Study Area, although only two of the recorded flightlines passed over the proposed OHL (see **Appendix 8.1 and Confidential Figure 8.1.5**).
- 8.10.15 With a wide range of hunting habitats in the local area, the loss of habitat during the construction phase is unlikely to have a significant impact on foraging peregrine, although it is considered that there may be a possibility of disturbance to the breeding pair during the breeding seasons during construction, although any impacts would only be temporary, given construction works would be at worst within a single breeding season due to the linear nature of the works.
- 8.10.16 The NHZ 12 population of peregrine is an estimated 13 pairs²⁶, so given a worst-case scenario the loss of one breeding pair would equate to 7.7% of the NHZ12 population. Given the loss of a breeding pair from the local population is considered to be very unlikely (due to the anticipated nature of the construction activities combined with the distance from the nest) and the fact that there is widespread foraging opportunities in the wider area for peregrine, the overall impact on peregrine is considered to be short-term and negligible magnitude.
- 8.10.17 **Significance of Effect:** As outlined above, the magnitude of the impact on the NHZ 12 peregrine population as a result of construction is deemed to be short-term, negligible. The NCI is High and the conservation status is favourable. The effect is therefore considered to be **Negligible** and **Not Significant** under the EIA Regulations.
- Golden plover (wider area population)*
- 8.10.18 **Impact:** Displacement of breeding or foraging golden plover from the Site during construction, either by disturbance or because of direct habitat loss.
- 8.10.19 **NCI / Conservation Status of the receptor:** As per **Table 8.8**, golden plover is of medium NCI.
- 8.10.20 The UK golden plover breeding population was estimated to be 32,500-50,500 pairs in 2016²⁷, although Forrester *et al.* (2012)²⁸ give a Scottish breeding population estimate of 15,000 pairs, stating that this represents 80% of the British breeding population. The NHZ 12 population was estimated by Wilson *et al.* (2015)²⁶ to be 659 (range 609-708) pairs in 2009. The BTO Bird Trends website (BTO, 2025) states that the national population is in probable decline, and this is likely to be reflected in the regional/NHZ population as well. Overall, the golden plover breeding population is considered to be in unfavourable conservation status.
- 8.10.21 **Magnitude of Impact:** Golden plover breed in upland areas or lowland areas dominated with heather moorland and are widespread in the north of Scotland²⁰. Golden plover were recorded in open areas of the BBS Study Area with a total of four breeding territories (three probable and one possible). Golden plover were recorded

²⁶ Wilson, M.W., Austin, G.E., Gillings, S. and Wernham, C.V. (2015) Natural Heritage Zone Bird Population Estimates. SWBSG Commissioned Report: 1504.

²⁷ Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, D.A. & Noble, D. (2020). Population estimates of birds in Great Britain and the United Kingdom. *British Birds* 113: 69–104.

²⁸ Forrester, R.W., Andrews, I.J., McInerney, C.J., Murray, R.D., McGowan, R.Y., Zonfrillo, B., Betts, M.W., Jardine, D.C. & Grundy, D.S. (eds) 2012. *The Digital Birds of Scotland*. The Scottish Ornithologists' Club: Aberlady.

once during flight activity surveys and the flight was not recorded 'at-risk' height. The recommended no-disturbance buffer for breeding locations of golden plover required for construction activities is 200 m - 500 m²⁴.

8.10.22 A total of three of the four golden plover territories were located within 500 m of the proposed infrastructure in 2022 (see **Appendix 8.1, Figure 8.1.4**).

8.10.23 Possible impacts on golden plover during construction could include potential mortality as a result of construction activities, displacement from breeding habitat, temporary disturbance as a result of soil stripping and increased noise and vibration and habitat loss. Mortality may result if construction activities are undertaken during the bird breeding season where nests with chicks may be destroyed.

8.10.24 Potential disturbance during construction may result in the temporary displacement from the areas of land clearance and a slightly wider area adjacent to it. During the breeding season, in order to avoid the abandonment of nests or breeding territories as a result of disturbance, the standard mitigation measures outlined in **Section 8.10** will be undertaken, including the pre-construction checks. The appointed ECoW will identify active nesting locations prior to any works taking place. If nest sites are identified, then appropriate mitigation measures (such as suitable exclusion zones/buffers outlined above) to protect nest sites will be implemented.

8.10.25 It is considered possible that construction activities will have an impact on breeding golden plover in terms of displacement and disturbance. Using a worst-case scenario disturbance distance of 500 m for golden plover, construction activities may impact on three breeding attempts which equates to 0.45 % of the NHZ 12 population (659 breeding pairs²⁶).

8.10.26 In practice it is unlikely that this number of pairs would be lost to the population, with some birds more likely to move away from the disturbance areas into nearby suitable habitat, which based on survey results is also suitable for golden plover. Indeed Sansom *et al.* (2016)²⁹ found that disturbance activity during an onshore wind farm's construction had no significant effect on golden plover breeding abundance or distribution.

8.10.27 Given the potential for small numbers of the breeding populations of breeding golden plover to be affected, the overall impact on golden plover the impact is considered to be direct, short-term and of negligible magnitude (<1% of the regional population).

8.10.28 **Significance of Effect:** As outlined above, the magnitude of the impact on the NHZ 12 population of golden plover as a result of construction is deemed to be short-term and negligible. The NCI is medium. The effect is therefore considered to be **Negligible** and **Not Significant** under the EIA Regulations.

Black grouse

8.10.29 **Impact:** Displacement of lekking black grouse from the Site during construction, either by disturbance or because of direct habitat loss.

8.10.30 **NCI / Conservation Status of the receptor:** As per **Table 8.8**, black grouse is of Medium NCI. Black grouse is a BoCC Red list and SBL species because of declining numbers and, as such, black grouse are considered to be in an unfavourable conservation status.

8.10.31 **Magnitude of Impact:** Black grouse are predominantly found in a mosaic of woodland and moorland habitats and in the early spring males birds gather as part of mating ritual in the form of leks. Leaks are commonly found on open areas of grassland habitats and can consist of a single male ranging up to over 20 males or more.

²⁹ Sansom, A., Pearce-Higgins, J. W. and Douglas, D. J. T. (2016), Negative impact of wind energy development on a breeding shorebird assessed with a BACI study design. *Ibis*, 158: 541–555. doi:10.1111/ibi.12364

8.10.32 Breeding walkover surveys identified a lek involving up to four male and five female birds and a second lek involving a single male, both recorded in April and May 2024. The lek locations are both over 850 m from the nearest proposed infrastructure. Flight activity surveys recorded no registrations for black grouse.

8.10.33 The recommended no-disturbance buffer required for heavy construction activities for black grouse leks is 500 m - 750 m²⁴. As discussed above, pre-construction surveys will be undertaken to check for black grouse lek locations, and all the recommended no-disturbance buffers will be implemented as required at the recommended times and dates (namely two hours either side of dusk and dawn mid-March to mid-May). With the no disturbance buffers in place, it is considered unlikely that the construction activities will cause disturbance to black grouse at their lek locations.

8.10.34 Given the limited potential of disturbance affecting black grouse leks during the construction period, the overall impact on black grouse is considered to result be short-term and negligible magnitude

8.10.35 **Significance of Effect:** As outlined above, the magnitude of the impact on the NHZ 12 black grouse population as a result of construction is deemed to be short-term, negligible. The NCI is medium. The effect is therefore considered to be **Negligible** and **Not significant** under the EIA Regulations.

8.11 Assessment of Operational Effects

8.11.1 Effects of direct land take on birds (i.e. decreased resource availability) are considered to be limited given the very small percentage (i.e. <1 %) of the Site that will be occupied by the footprint of the development. There is the potential for a component of the Proposed Development to be sited on, or close to, a specific type and area of habitat used by one or more bird species carried through in this assessment. That potential effect is assessed, where relevant, in the species text that follows.

8.11.2 The two main ways in which birds can be affected by operational OHL are:

- Displacement due to disturbance caused by the OHL and associated equipment (and by periodic servicing of them); and
- Potential mortality through collision with the OHL.

Displacement Effect

8.11.3 The displacement of nesting and foraging birds from the Site has the potential to extend beyond the construction phase, as described above, and to occur during the operational phase. It is recognised that disturbance may occur due to maintenance activities throughout the operational phase, although since these are likely to be of shorter duration and smaller extent than construction activities, effects will be lower than those predicted for construction effects (refer to **Section 8.11**).

All IOFs

8.11.4 **Impact:** Displacement of breeding or foraging IOFs from the Site during operation, either by disturbance or because of direct habitat loss.

8.11.5 **NCI / Conservation Status of the receptors:** Various, as detailed in **Table 8.8**.

8.11.6 **Magnitude of Impact:** The impacts of the operational OHL are likely to be limited to the routine maintenance of the line, the poles and any repairs or upgrades to the tracks. Any ongoing works will be subject to the same requirements in terms of breeding bird checks as outlined in the embedded mitigation in **Section 8.9**, but given the amount of work required, will be significantly lower than during construction.

- 8.11.7 Similarly, there may be some displacement during the operational phase due to the presence of the OHL meaning bird species no longer nest along the route, although the magnitude of the impacts are considered to be less across all species as compared to construction works.
- 8.11.8 Any proposed works required during the operational period (e.g. maintenance, wayleave clearance, etc.) during the breeding season will follow the standard mitigation outlined in **Section 8.9** in order to avoid the abandonment of nests or breeding territories. An appointed ECoW will identify active nesting locations prior to any works taking place. If nest sites are identified, then appropriate mitigation measures (such as suitable exclusion zones/buffers) to protect nest sites will be implemented.
- 8.11.9 Given the impacts on all species during the operational period is considered to be lower than during construction, the overall impact on all IOFs in terms of displacement and disturbance is considered to be long-term and negligible magnitude.
- 8.11.10 **Significance of Effect:** As outlined above, the magnitude of the impact on all IOFs as a result of operational disturbance and displacement is deemed to be long-term and negligible. The NCI is medium or high. The effect is therefore considered to be **Negligible and Not Significant** under the EIA Regulations.

Collision Effect

All IOFs

- 8.11.11 **Impact:** Injury or even fatalities of flying IOFs during operation, due to collision with the OHL.
- 8.11.12 **NCI / Conservation Status of the receptors:** Various, as detailed in **Table 8.8**.
- 8.11.13 **Magnitude of Impact:** The VP surveys identified a total of 41 flights of target species, with a total of seven of those flights recorded as crossing the OHL alignment. None of the seven flights recorded as crossing the OHL were recorded at or in part as being between 0-30 m in height. The proposed OHL would have a nominal height of approximately 12 to 18 m above ground level and therefore no flights were registered across all the VP survey at potential collision height.
- 8.11.14 There is currently no method of statistical analysis for predicting the risk of birds colliding with OHLs. Therefore, in line with current NatureScot (2025)²² guidance, the use of line markers (or bird diverters) can be proposed along targeted lengths of the OHL to reduce potential for collision risk to IOFs. As a precautionary approach, line markers are being proposed in line with that guidance to make the OHL more visible along sections where higher conservation value species have been recorded in the vicinity. The proposed use of line markers is outlined in **Section 8.13** below.
- 8.11.15 Given the impacts on all species during the operational period is anticipated to be lower than during construction, the overall impact on all IOFs in terms of displacement and disturbance is considered long-term and negligible magnitude.
- 8.11.16 **Significance of Effect:** As outlined above, the magnitude of the impact on all IOFs resulting from operational disturbance and displacement is deemed to be long-term and negligible. The NCI is medium or high. The effect is therefore considered to be **Negligible and Not Significant** under the EIA Regulations.

8.12 Additional Mitigation

Line Markers

- 8.12.1 Although there is no significant effect predicted for collision risk for any of the IOFs considered with respect to the Proposed Development, as a precautionary approach, bird diverters would be installed along a section of the OHL closest to areas where higher conservation value species are more active. To reiterate, throughout

the year of VP surveys conducted across four VP locations, there was no flight time recorded at collision risk height.

- 8.12.2 The use of line markers, their locations, and specification of the markers used will be agreed confidentially with NatureScot due to the sensitive species involved and will be secured under an adequately worded planning condition.

Forestry and Land Scotland (FLS) Woodland

- 8.12.3 The use of specific pre-construction survey approaches to confirm the presence of target species within areas of FLS land is to be considered prior to any construction works commencing. The method and timings will be discussed and agreed with NatureScot and FLS, but likely to be required within the breeding season prior to the year of construction as well as immediately prior (depending on the proposed start date and progress of works along the OHL).
- 8.12.4 This is anticipated to be agreed confidentially with relevant stakeholders and secured, along with a dedicated SPP under a suitably worded planning condition.

8.13 Biodiversity Enhancement

- 8.13.1 As part of the Proposed Development, a comprehensive suite of measures has been outlined and included not only with respect to NPF4 policy but also as the Applicant's commitment to contributing to reversing the decline in levels of biodiversity across Scotland. While these measures will contribute significantly towards enhancing conditions for the bird assemblages found within the Site and wider area, they are focused more generally on facilitating improved habitat conditions and so are included as within the Outline Biodiversity Enhancement Management Plan, as presented in **Chapter 7: Ecology and Appendix 7.6**.

8.14 Cumulative Assessment

- 8.14.1 The assessment of ornithological effects associated with the Proposed Development alone, predicted no significant effects for the identified IOFs. This is due to a low level of both breeding records within the Site and the very low activity levels at collision height of IOFs recorded during baseline surveys, as well as the commitment to embedded mitigation measures. The assessed non-significant effect is further reduced by the additional mitigation and enhancement measures. Consequently, no breeding activity is likely to be significantly affected for any IOF, and collision rates are predicted to be negligible within a population context, both when considering all significant projects within the local area, and at an NHZ 12 level.
- 8.14.2 There are developments that relate directly to the Proposed Development to provide their connection to the National Grid. These include: the consented Glendye Wind Farm, and the associated access tracks and 132 kV substation. The EIA Report³⁰ concluded that cumulative habitat loss impacts for any identified important ornithological feature as a result of construction and operational disturbance (or displacement) would unlikely be significant at a Regional or National level. Significant impacts were considered in relation to black grouse, however, with additional mitigation, the residual impacts were assessed as not significant.
- 8.14.3 The UGC sections of the Glendye Wind Farm Grid Connection are covered under the Applicant's permitted development rights and assessed separately (see **Appendix 1.1**) but 'intra' cumulative effects are considered further in this assessment. There is potential for impacts to occur in the event of simultaneous, overlapping construction phases.
- 8.14.4 Possible in-combination cumulative effects include:

³⁰ Coriolis Energy Ltd (2022) Glendye Wind Farm EIA, Volume 001 – Chapter 008 – Ecology.(online) Available at: <https://www.dpea.scotland.gov.uk/CaseDetails.aspx?id=121949&T=66> (last accessed 08/10/2025)

- *Target species:* species present within the wider Study Area may suffer additional displacement in the event of overlapping construction phases. Mitigation is required to ensure, where construction timelines overlap, phasing of development infrastructure construction timelines will be incorporated into the construction phasing plan and SPPs across SSEN developments within the vicinity, so that temporary displacement is reduced and availability of habitat resource is not adversely impacted.
- *Habitat loss:* likely to be similar to the Proposed Development given the geographical location, however habitat compensation and enhancement requirements will be detailed within HMPs in compliance with NPF4, ensuring that adverse cumulative impacts do not occur.
- *Habitat Degradation:* via water pollution will be avoided through pollution prevention measures to be detailed within CEMPs and through adequate Sustainable Urban Drainage Systems (SuDS) measures. No significant in combination effects are predicted.

8.14.5 Other consented schemes in proximity to the Proposed Development include Fetteresso Wind Farm (0-0.96 km northeast of the Proposed Development) and Craig Neil Wind Farm (4.1 km northeast of the Proposed Development).

8.14.6 Effects scoped into the respective EIA's were concluded as follows:

- Fetteresso Wind Farm: the EIA Report³¹ concluded that construction effects on target species (disturbance / displacement) are considered Not Significant for Goshawk, with no predicted effect on Herring gull. Operational effects (collision risk) were considered Low and Not Significant for Goshawk and Herring gull. No predicted effects for these species in terms of operational disturbance / displacement.
- Craig Neil Wind Farm: the EIA Report³² concluded that no likely significant ornithological effects (through habitat loss, disturbance / displacement or collision mortality risk) are predicted as a result of construction, operation or decommissioning of the wind farm.

8.14.7 There is potential for impacts to occur simultaneously during overlapping construction phases, if build-out timings were to coincide with these consented developments, including Glendye Wind Farm.

8.14.8 Ongoing work is currently underway that includes for detailed consultation with active monitoring within the vicinity of these consented developments to determine sensitive features and their movements. Activity of sensitive species within the region is to be considered via consultation with relevant stakeholders (please see **Confidential Appendix 8.3**). Further consultation and data exchange exercise is anticipated post-planning and pre-construction, as well as a dedicated and targeted mitigation measures to minimise the potential for negative pressures. Part of this approach will be careful management of timed workings.

8.14.9 The 'Hydroglen' Green Hydrogen Production Facility is consented and currently under construction and due for completion in winter 2025. There will not be a temporal overlap in construction periods.

8.14.10 Other schemes currently at application stage include the Kintore to Tealing 400 kV OHL, part of which is located within the vicinity of the eastern extent of the Proposed Development, and the Hurlie 400 kV Substation which is located within Fetteresso Forest.

8.14.11 Effects scoped into the respective EIA's were concluded as follows:

³¹ Fred Olsen Renewables. Fetteresso Wind Farm. (online) Available at: <https://fredolsenrenewables.com/all-projects/fetteresso/> (last accessed 08/10/2025)

³² ESB Asset Development UK Ltd. Craig Neil Wind Farm EIA Report. (online) Available at: [https://upa.aberdeenshire.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=P81XYCCAQT00 \[APP/2018/0993\]](https://upa.aberdeenshire.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=P81XYCCAQT00 [APP/2018/0993]) (last accessed 08/10/2025)

- Kintore to Tealing 400 kV OH: the EIA³³ concluded that no significant effects are predicted as a result of construction stage habitat loss / fragmentation and disturbance / displacement or operational stage collision mortality on the following Regional populations: Red Kite, Goshawk, Merlin, Short-eared Owl or Nightjar.
- Hurlie 400 kV Substation: the EIA³⁴ concluded that Minor and Not Significant effects are predicted on Goshawk populations during the construction stage (habitat loss or disturbance) with Negligible and Not Significant Effects predicted for all other receptors. Negligible and Not Significant effects on the Goshawk population and all other receptors, were predicted during operation staged (disturbance / displacement).

8.14.12 The following projects are at the pre-application stage and so at this stage only limited information is available for consideration: Hurlie Offshore Wind Farm / onshore connection (Potential Area for offshore connections), Quithel Battery Energy Storage System (BESS), Bowdun Offshore Wind Farm Onshore Cable Connection and substation, Fetteresso 132 kV Substation Extension, Fetteresso Wind Farm Grid Connection, and the Fiddes 132 kV Grid Replacement. It is unlikely there would be a temporal overlap in construction periods giving rise to cumulative displacement/disturbance of IOFs.

8.14.13 The Waters BESS application lies less than 1 km to the south of the Proposed Development. Based on its geographical location, it will largely experience habitat losses in lowland habitats which are unlikely to contribute to cumulative effects with habitat loss and associated disturbance/displacement with the Proposed Development. As this project is pre-planning it is unlikely there would be a temporal overlap in construction periods giving rise to displacement of protected species.

8.14.14 'Other SSEN Transmission Land' is at an early stage of development and overlaps with parts of the eastern reaches of the Proposed Development. There is currently no information available in terms of potential for impacts and relevant IOFs.

8.14.15 Given that the residual effects of the Proposed Development on all IOFs would contribute very little to the overall cumulative effect (in fact it is anticipated that IOFs would experience beneficial effects due to proposed enhancements as part of the Outline Biodiversity Enhancement Management Plan) for each potential impact at an NHZ 12 level, an NHZ-level cumulative assessment is therefore not considered necessary.

8.14.16 As such, no significant in combination cumulative effects are predicted.

8.15 Habitats Regulations Appraisal

8.15.1 Although distant, the proximity of the Proposed Development to both the Fowlsheugh SPA (specifically foraging herring gull) and the Montrose Basin SPA (both greylag goose and pink-footed goose, due to the far-ranging foraging behaviour) has been noted (refer to **Table 8.6**). This gives rise to the potential for the activities associated with the Proposed Development's construction and operation to result in adverse effects on the qualifying interests of these European sites. Consequently, a shadow Habitats Regulation Appraisal (sHRA) is considered to be necessary to identify the nature and extent of any adverse effects and whether these are likely to affect the integrity of the designated sites.

8.15.2 A sHRA must formally be undertaken by the ECU, as the competent authority, for the consideration of the Proposed Development section 37 application. A sHRA is provided (please refer to **Appendix 7.7**), which also

33 SSEN Transmission. Kintore to Tealing 400 KV OHL EIA Report (2025). (online) Available at: <https://www.ssen-transmission.co.uk/projects/project-map/kintore-tealing-400kv-ohl-connection/> (last accessed 08/10/2025)

34 SSEN Transmission Hurlie 400 kV Substation (2024). (online) Available at: https://www.ssen-transmission.co.uk/globalassets/projects/hurlie-planning-documents/eia-report---volume-2/eia-report-volume-2_chapter-11_ornithology.pdf (last accessed 08/10/2025)

details consideration of the River Dee SAC in terms of HRA, to enable the competent authority to undertake this process.

8.16 Summary

- 8.16.1 A desk study confirmed relevant SPAs within potentially connective distances and two sites were identified as having potential connectivity: Fowlsheugh SPA (foraging herring gull) and the Montrose Basin SPA (foraging greylag goose and pink-footed goose). A sHRA has been undertaken and is presented as a separate Appendix (please refer to **Appendix 7.7**). Further consultation is ongoing with specific stakeholders in relation to a specific target species, as outlined in a separate Confidential Appendix, as well as with the raptor study group and other relevant land managers. These data are expected to assist in refining targeted species protection plans as part of the mitigation strategy to be finalised prior to construction commencing on site and to be included as part of any conditions of consent.
- 8.16.2 A full year of ornithological survey has been undertaken to characterise the avian baseline conditions, consisting of strategically located vantage points (to assess flight activity and inform any subsequent necessary collision assessment), breeding birds survey, breeding raptor survey, as well as a target black grouse lek survey. Consultations with relevant stakeholders has taken account of relevant ornithological features of primary concern. While no flight activity was recorded throughout the VP surveys at collision height, target species were recorded. The breeding bird, raptor, and black grouse surveys identified key locations for other target species and were key considerations that were incorporated into the scheme design process as key constraints as far as practicable.
- 8.16.3 Important ornithological features scoped into further assessment are assessed in terms of construction and operational impacts and there is not anticipated to be any significant effects resulting from the Proposed Development on its own or in combination (i.e. cumulatively) with other relevant schemes within the wider Zone of Influence. That assessment incorporated best practice methods as 'embedded' mitigation. Given that no significant effects were identified, there was no strict need for any additional mitigation of residual impacts. However, by way of a precautionary approach, further specific mitigation is presented in the form of line markers to be used along a specific stretch of the OHL where target species are known to be more active. SPPs are also proposed in relation to target species that were recorded as active and may relocate within a Zone of Influence between the point of the baseline being characterised and work commencing on site.
- 8.16.4 Enhancements with respect to biodiversity are proposed and presented (please refer to **Appendix 7.6**), that accounts for both ornithology and terrestrial ecology.