Scottish & Southern Electricity Networks

Fanellan Hub 400 kV Substation and Converter Station

Environmental Impact Assessment Report

Volume 2: Chapter 10 - Ornithology

February 2025

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10. ORNITHOLOGY

10.1 Introduction

This chapter reports the outcome of the assessment of likely significant environmental effects arising from the Proposed Development on ornithology. This chapter is supported by **Technical Appendix 10.1 Ornithology Baseline.**

Legislation, Policy and Guidance

10.1.1 This assessment has been compiled with reference to the following relevant nature conservation legislation, planning policy and guidance documents from which the protection of sites, habitats and species is derived in Scotland:

Legislation

- UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021;
- European Commission Directive on the Conservation of Wild Birds (2009/147/EC) (the Birds Directive);
- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive);
- Conservation (Natural Habitats &c.) Regulations 1994 (as amended) (the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended);
- Nature Conservation (Scotland) Act 2004 (as amended);
- Wildlife and Natural Environment (Scotland) Act 2011 (as amended);
- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017; and
- Planning (Scotland) Act 2019.

National Policy

- Scottish National Planning Framework 4 (NPF4) which secures positive effects for biodiversity, specifically including the following policies of relevance to this Chapter:
  - ◊ Policy 3 Biodiversity, which intends to protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks; and is relevant with a proposed change to the baseline of the Site.
- Policy 4 Natural places, which intends to protect, restore and enhance natural assets making best use of nature-based solutions.
  - ◊ Policy 6 Forestry, woodland, and trees, which intends to protect and expand forests, woodland and trees; and is relevant due to the presence of woodland and lines of trees at the Site.
- Scottish Biodiversity Strategy (SBS) to 2045[1] which sets out an ambition for Scotland to be Nature Positive by 2030 and to have restored and regenerated biodiversity by 2045. This supersedes Scotland's Biodiversity: it's in your hands[2] - a strategy for conserving biodiversity in Scotland up to 2030; and the 2020 Challenge for Scotland's biodiversity[3] - a plan for how to achieve the outcomes of the European Biodiversity Strategy 2020 and UN Aichi targets, with reference to Scottish biodiversity strategy post-2020: statement of intent[4]. It also supersedes the Scottish Biodiversity List[5](SBL) of flora, fauna and habitats considered of principal importance for the conservation of biodiversity. The SBS to 2045 instead refers to a

[1] Scottish Government (2023). Scottish Biodiversity Strategy to 2045. Tackling the Nature Emergency in Scotland. Available at: https://www.gov.scot/publications/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland-2/

[2] Scottish Executive (2004). Scotland's Biodiversity: It's In Your Hands. Edinburgh. Online at: https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy.

[3] Scottish Government (2013). 2020 Challenge for Scotland's Biodiversity. Edinburgh. Online at: https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/documents/

[4] Scottish Government (2020). Scottish biodiversity strategy post-2020: statement of intent. Available at: https://www.gov.scot/publications/scottish-biodiversity-strategy-post-2020-statement-intent/

[5] Scottish Ministers (2012). Scottish Biodiversity List. Online at: https://www.nature.scot/doc/scottish-biodiversity-list

series of overarching targets and indicators. It references the Species on the Edge (SOTE) Programme[6] which aims to deliver nine species recovery projects. The following would be relevant to the Proposed Development, based on the Site location, land-use, habitats and species present:

- Species recovery project: Farming horizons. Species relevant to the Proposed Development: lapwing (*Vanellus vanellus*).

Local Policy

10.1.2 The Highland Local Development Plan (LDP) 2012[7] contains the following policies relevant to this assessment:

- Policy 58 Protected Species which states that where there is good reason to believe that a protected species may be present on site or may be affected by a proposed development, a survey will be required to be carried out to establish any such presence and if necessary, a mitigation plan to avoid or minimise any impacts on the species, before determining the application. The relevant definition of protected species for this ornithology chapter is bird species listed within Schedule 1 of the Wildlife and Countryside Act 1981 as amended and species listed under policy 59. Policy 59 Other Important Species. Giving regard to the presence of and any adverse effects of development proposals, either individually and/or cumulatively, on the Other Important Species which are included in the lists below, if these are not already protected by other legislation or by nature conservation site designations:
  - ◊ Priority species listed in the UK and Local Biodiversity Action Plans; and
  - ◊ Species included on the Scottish Biodiversity List.
- Policy 60 Other Important Habitats and Article 10 Features seeks to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or combination as habitat "stepping stones" for the movement of wild fauna and flora (Article 10 Features). This policy also seeks to create new habitats which are supportive of this concept.
- Policy 74 Green Networks. Green networks should be protected and enhanced. Development in areas identified for the creation of green networks should seek to avoid the fragmentation of the network and take steps to improve its connectivity, where this is appropriate.

10.1.3 The following guidance documents have been used to inform this assessment:

- Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (EcIA) in the UK and Ireland[8] (hereafter the 'CIEEM EcIA Guidelines');
- CIEEM Advice note on the lifespan of ecological reports and surveys[9]; and
- CIEEM Competency Framework[10].

10.1.4 Additional guidance is referenced throughout this chapter as applicable, including good practice survey guidelines for protected species.

10.1.5 **Volume 4, Appendix 1.1- EIA Team** presents details on the competent experts who undertook the assessment.

Confidentiality

10.1.6 This chapter is informed by **Volume 5, Appendix 10.2 – Confidential Schedule 1 Raptors Baseline which** contains sensitive information pertaining to the locations of nest sites for Schedule 1 raptors. The confidential appendix and its accompanying Figure 10.2.1 are not for public viewing and should only be viewed by persons

[6] NatureScot (online). Species on the Edge. Online at: https://www.nature.scot/scotlands-biodiversity/species-edge-sote/species-edge-about-programme
[7] https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan
[8] CIEEM (2018). Guidelines for Ecological Impact Assessment in the U.K and Ireland. Version 1.
[9] CIEEM (2019). Advice note on the lifespan of ecological reports and surveys. Available at: https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf
[10] CIEEM (2021). Competency Framework. Available at: https://cieem.net/wp-content/uploads/2023/09/Competency-Framework-2022-Web.pdf

for whom the information is essential to progress or assess the Proposed Development. This chapter does not provide specific reference to nest site locations to all public viewing.

10.2 Assessment Methodology and Significance Criteria

Extent of the Study Area

10.2.1 CIEEM Guidelines for EcIA define the Ecological Zone of Influence (EZoI)as the area over which ecological features may be subject to significant effects because of the Proposed Development. This could extend beyond the footprint of the Proposed Development.

10.2.2 The EZoI will vary for each ecological feature due to the mobility range of the features being assessed. For example, the EZoI for birds, (which are more mobile) will be greater than the EZoI for habitats (which are sedentary).

10.2.3 Other factors such as supporting habitat, connectivity, sensitivity to disturbance, are considered when determining if a feature falls within the Proposed Development's EZoI.

Consultation Undertaken to Date

10.2.4 Consultation responses relevant to ornithology interests are presented in **Table 10-1** below.

Table 10-1 Consultation responses relevant to ornithology

Contact	Method	Comments	Subsequent Actions
NatureScot	Pre-application advice for major developments	Cromarty Firth SPA – osprey (*Pandion haliaetus)* associated with the Cromarty Firth SPA and Inner Moray Firth SPA are known to nest in the wider area including at Aigas Gorge which is near the proposed substation and converter station at Fanellan. There is a high potential for disturbance to osprey during construction, especially if works are to take place within the Osprey breeding season (February to September). Survey data will be crucial to determine likely effects to sprey breeding in the wider area and inform species mitigation plans that may mean working outwith the breeding season if it is not possible to avoid disturbance. No direct or indirect impacts to non-breeding birds, or SSSI/Ramsar habitats are anticipated. Glen Affric to Strathconon SPA – The proposed substation and converter station lies approximately 10 km from this SPA. There are unlikely to be any direct or indirect impact to breeding golden eagle (*Aquila chrysaetos*) as a result of this proposal. Beauly Firth SSSI – No direct or indirect impacts to non-breeding birds or SSSI habitats are anticipated.	This EIA has used supporting data from newl ornithological survey and other projects to assess effects to osprey and other Schedule 1 raptors. A separate Habitats Regulations Appraisal (HRA) Screening[11] will be the primary method for assessing effects to SPA qualifying populations of osprey.
NatureScot	Scoping Response	As the EIA Scoping Report highlights, no designated sites for nature conservation lie within close proximity to the proposal site. However, NatureScot agree that the breeding osprey and greylag goose (*Anser*	The scope of the surveys is satisfactory, no further action.

11 WSP (2024). Fanellan 400 kV Substation and Converter Station Habitats Regulations Appraisal Screening Report

Contact	Method	Comments	Subsequent Actions
		anser) features of the Inner Moray Firth Special Protection Area (SPA) should be scoped in due to the fact that osprey associated with this European site are known to breed within close proximity to the proposal site and greylag geese may utilise the area for feeding. We are content with the proposed scope of survey and assessment.	
The Highland Council	Scoping Response	The presence of Schedule 1 raptors and qualifying interests of Special Protected Areas and other areas designated for aviary (*avian*) interests must be included and considered as part of the planning application process; not as an issue that can be considered at a later stage. Any consent given without due consideration to these species may breach European Directives with the possibility of consequential delays or the project being halted by the EC.	Schedule 1 raptors and qualifying interests of Special Protected Areas have been considered in this assessment.

Method of Baseline Data Collation

10.2.5 A desk-based study to identify designated sites within and surrounding the Proposed Development was undertaken. Statutory designated sites at European or International level were identified within a provisional search area of 10 km beyond the Site boundary. The search was extended to 20 km to account for the foraging range of certain birds of prey species (osprey) and goose species (greylag goose and pink-footed goose)[12].

10.2.6 A breeding bird survey based on Common Bird Census (CBC) methodology[13] was undertaken within the Site and up to 100 m away, with four visits completed between April to July 2023.

10.2.7 Additional ornithology baseline data is available from three projects with overlapping survey areas:

- Scarce Breeding Bird Surveys (SBBS) following the broad methods outlined in Hardey et al. (2013)[14],for the proposed Beauly to Peterhead 400 kV OHL (2023) extending to 2 km beyond the Site boundary;
- SBBS for the proposed Spittal – Loch Buidhe – Beauly 400 kV OHL (2024); and
- Flight activity surveys from a single Vantage Point within the Site overlooking the proposed Beauly-Denny OHL diversion that will tie into the Proposed Development. These surveys were specifically undertaken to inform collision risk for the proposed OHL diversion. A summary of the results is included here to inform the baseline. However, collision risk is not considered in the context of the Proposed Development as none is predicted. Full details of survey methodology are provided in **Technical Appendix 10.1 Ornithology.**

Impact Assessment Criteria

10.2.8 It is broadly accepted that the significance of an effect reflects the relationship between two factors:

- the value, importance or sensitivity of the resource or system that might be impacted; and
- the magnitude of the impact on that resource and system, (i.e., the actual change taking place to the environment).

[12] Mitchell, C. (2012). Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge. 108pp.

[13] Marchant, J.H (1983). Common Birds Census Instructions. BTO, Tring

[14] Hardey, J., Crick, H.Q.P., Wernham, C.V., Riley, H., Eitheridge, B. and Thompson, D.B.A. (2013). Raptors. A field Guide for Surveys and Monitoring. SNH, Inverness.

10.2.9 The Guidelines for EcIA[15] advise that a significant effect is broadly an effect which either supports or undermines the biodiversity conservation objectives or conservation status of the Important Ecological Features (IEFs)[16] and merits assessment. The significance of an effect has been defined as either beneficial or adverse. An effect of moderate or greater significance is generally considered 'significant' in terms of the EIA Regulations.

10.2.10 For adverse effects relating to species, conservation status defined in the Guidelines for EcIA is “determined by the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a given geographical area”.

10.2.11 A beneficial effect would be considered to be ecologically significant if the Proposed Development causes:

- Restoration of desired conservation status for a species population; and/or
- Restoration of a site’s integrity (where this has been undermined).

10.2.12 In line with Guidelines for EcIA[15], a matrix approach has not been applied to this assessment. This assessment of significance has been prepared using professional judgement. Considering the level of importance and sensitivity of each IEF alongside the magnitude of impacts, this assessment concludes resultant effects to be either:

- Major Beneficial or Major Adverse - where the Proposed Development would cause a significant improvement (or deterioration) to the existing environment; considerable effects (by extent, duration or magnitude) or of more than local significance or breaching identified standards or policy.
- Moderate Beneficial or Moderate Adverse - where the Proposed Development would cause a noticeable improvement (or deterioration) to the existing environment; limited effects which may be considered significant.
- Minor Beneficial or Minor Adverse effect - where the Proposed Development would cause a small or barely perceptible improvement (or deterioration) to the existing environment; slight, very short or highly localised effects.
- Neutral or Negligible - no discernible improvement or deterioration to the existing environment.

10.2.13 The significance has been quantified on a geographical scale which does not necessarily equate to the geographical context in which an IEF has been considered important (see Determining Magnitude of Change and Sensitivity of Receptors). For example, although a habitat type may represent 20 % of the resource at a Regional level and hence be considered of value at this scale, the Proposed Development might affect only a portion of the habitat representing 1% of the resource in the Region, hence the effect would not be considered significant at this scale. However, that 1% may represent 20 % of the resource at a Local scale and therefore the effect at this geographic scale would be considered significant.

Determining Magnitude of Change and Sensitivity of Receptors

10.2.14 In accordance with guidelines for EcIA[15], the sensitivity or importance of ecological receptors, hereafter referred to as ecological features, is determined by considering factors including but not limited to naturalness, rarity, contribution to the functioning of ecosystems, size (of habitat or species population), irreplaceability, connectivity, habitats or species in decline, and large concentrations of species or habitat types considered rare in a wider context. A level of importance is assigned to each ecological feature using the geographical frame of reference set out in the table below.

[15] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

[16] Ecological features requiring specific assessment within EcIA. Ecological features can be important for a variety of reasons (e.g. quality and extent of designated sites or habitats, habitat / species rarity).

Table 10-2 Evaluation criteria for level of ecological importance

Geographical context	Criteria/example
International (Europe)	Extremely rare (endangered), potentially extremely vulnerable to change, of international importance or recognition, very limited potential for substitution. For example: • SPA, SAC, Ramsar site or area meeting the criteria for designation as such. • Considerable extents of a priority habitat type listed in Annex I of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or smaller area of such habitat that are essential to maintain the viability of a larger area. • Any regularly occurring population of an internationally important species, which is threatened or rare in the UK, i.e. IUCN 'Red List' species, or any species of uncertain conservation status or of global conservation concern. • A regularly occurring significant population/ number of any internationally important species, e.g., species listed in Annex II of the Habitats Directive, 1% of the known international population of a particular species.
National (Scotland)	Rare, of national importance or recognition, limited potential for substitution, highly vulnerable to change. For example: • SSSI, National Park, NNR and their qualifying interests; or a site considered worthy of such designation. • Ancient Woodland. • A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintain the viability of a larger whole. • A regularly occurring significant population/ number of any nationally important species e.g. listed on Schedules 5 and 8 of the Wildlife and Countryside Act 1981 (as amended), or e.g. 1 % of the known UK population of a particular species. • Any regularly occurring highly significant population of any bird listed on the 'Red List' of Birds of Conservation Concern (BoCC). • Areas of viable, connected habitat which may support delivery of the SBS to 2045 and meet EU Nature Restoration Law Targets, with actions such as improving and re-establishing biodiversity habitats on a large scale, and bringing back species populations by improving and enlarging their habitats (wetlands, forests, grasslands, rivers and lakes, heath and scrub, rock habitats, and dunes). This is adapted from the SBS to 2045. • Species recognised as vulnerable/important in the SBS to 2045 and associated projects/conservation strategies (e.g., Species on the Edge) – which are regularly occurring in moderate to large numbers.
Regional (Highland)	Somewhat rare or vulnerable, difficult to substitute. For example: • Areas of internationally or nationally important habitats which are degraded but are considered readily restored. • Sites falling slightly below criteria for selection as a national designated site. • Any regularly occurring significant population of 'Red List' BoCC or Locally Important Species, e.g., present in regionally important numbers (e.g. >1 % of the regional population).
District (Inverness)	Difficult to substitute at a district level, rare or unusual at the district level but well represented elsewhere. For example: • Sites that the Local Authority has determined meet the published ecological selection criteria for designation, including Local Nature Conservation Sites. • Sites or features that are scarce within the Local Authority area which appreciably enrich the habitat resource. Areas of internationally or nationally important habitats which are degraded and have little or no potential for restoration. A regularly occurring population of a species which is large enough to be of district level importance.
Local	Locally important, difficult to substitute at a local level, rare or unusual at the local level but well represented elsewhere. For example:

Geographical context	Criteria/example
	• Regularly occurring, substantial population of a species scarce in the local area. • Habitats or species considered to enrich the ecological resource within the local context.
Neighbourhood. Site (including immediate vicinity, such as areas of habitats contiguous with or linked to Site)	Areas of heavily modified or managed vegetation of low species diversity or low value as habitat to species of nature conservation interest. Common and widespread species.
Negligible	No intrinsic nature conservation value associated with habitat or species. Generally, these are areas of hard standing or buildings with no nature conservation interest. Invasive and non-native species which threaten native habitat or species are also included here.

Mitigation, Residual Effects and Monitoring

10.2.15 The mitigation hierarchy (avoid, mitigate, compensate, enhance) has been applied, with Chapter 5 presenting information relevant to the first stage. This EcIA identified potential impacts after the application of primary mitigation measures. Through the EcIA process, secondary mitigation measures have been identified in this chapter and carried forward to **Volume 2: Chapter 19- Schedule of Environmental Mitigation**. The purpose of mitigation is to reduce or compensate for likely significant effects. With respect to protected species, there may also be a legal obligation to provide mitigation even where there is no significant effect.

10.2.16 Primary, secondary, and tertiary mitigation has been defined as follows:

- Primary (inherent or design) – measures that are made during the pre-application phase and that are an inherent part of the project (i.e., do not require additional action, including assessment, to be taken).
- Secondary (additional or foreseeable) – actions that will require further activity in order to achieve the anticipated outcome. These may be imposed as part of the planning consent, or because of environmental assessment.
- Tertiary (inexorable) – actions that would occur with or without input from the environmental assessment feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.

10.2.17 After the application of secondary mitigation, a review of residual effects has been undertaken. This EcIA has concluded residual effects to be significant or not significant at a relevant geographical context and, where significant, as beneficial or adverse.

10.2.18 Monitoring has been proposed where a residual significant effect has been identified and there is a level of uncertainty that the mitigation and / or compensation measures cannot be relied upon (e.g., novel, limited conservation evidence, not industry standard). This aligns with expectations set out in the CIEEM EcIA Guidelines[15].

Limitations and Assumptions

10.2.19 The survey area for the breeding bird survey was based on a smaller Site extent in comparison to the proposed extent of the final site design. The final site design includes additional permanent design elements such as drainage and landscape form mitigation areas and also a large proportion of temporary lay down areas and areas proposed for topsoil storage during the construction phase. These additional areas are proposed within

grazing pasture predicted to be of low value for ornithological interests; similar habitat was present within the breeding bird survey area and therefore a similar breeding bird assemblage is expected.

10.2.20 Considering the above, the change in the extent of the Site boundary is not considered a significant limitation to the robustness of the ornithological data used in this assessment.

Issues Scoped Out

10.2.21 The EIA Scoping Report[17] proposed to scope out an assessment of effects on the following ornithological interests:

- Designated sites: Moray Firth Special Protection Area (SPA) and Glen Affric to Strathconon SPA;
- Foraging greylag goose; and
- Breeding bird assemblage except Schedule 1 raptors.

10.2.22 The Highland Council and NatureScot provisionally agreed to this and justification is provided below.

Moray Firth SPA and Glen Affric to Strathconon SPA

10.2.23 There are no perceived effect pathways for impacts on qualifying interests of the Moray Firth SPA. The qualifying interests are specialist marine species for which the Site and surrounding area are wholly unsuitable.

10.2.24 There are no perceived effect pathways for impacts on qualifying interests of Glen Affric to Strathconon SPA. The SPA is 9.1 km away which would be at the maximum predicted foraging range for golden eagle from the designated site[18]. Further to this, habitat within and surrounding the Site is considered unsuitable for this species.

Foraging greylag goose

10.2.25 The effects from the Proposed Development to populations of foraging geese are scoped out of further assessment through EIA due to a lack of evidence of large foraging aggregations within an EZoI of the Proposed Development.

Breeding Bird Assemblage

10.2.26 Other ornithological interests, aside from Schedule 1 raptors discussed above, are scoped out of further assessment. Breeding bird surveys to date have found that the arable and grazing dominated habitat within the Site held low densities of typical farmland passerines (songbirds) during the breeding season including eight red-listed species within BoCC5[19]. Although eight species of red listed passerines were recorded during the surveys, only two species, skylark (*Alauda arvensis)*and yellowhammer (*Emberiza citrinella),*were confirmed as holding territory. Another five species were recorded foraging in the Site: starling (*Sturnus vulgaris)*, mistle thrush (*Turdus viscivorus),* tree sparrow (*Passer montanus)*, house sparrow (*Passer domesticus)*, linnet (*Linaria cannabina),* and a single species, house martin (*Delichon urbicum)*, flew over the Site. There was a single territory for a red-listed wader, lapwing.

10.2.27 However, taking account of the relatively localised nature of the Proposed Development in comparison to the extensive suitable habitat (arable and grazed farmland) present in the wider area, no significant effects to the species are predicted.

[17] WSP (2024). Fanellan 400 kV Substation and Converter Station. Environmental Impact Assessment Scoping.

[18] 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.

[19] Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I (2021). Birds of Conservation Concern 5: 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.

10.3 Baseline Conditions

Full details of the Ornithological Survey Results can be found in **Volume 4, Appendix 10.1 – Ornithology Baseline** and are illustrated on **Volume 3**, **Figures 10.1.1-10.1.3** accompanying **Appendix 10.1** and on **Volume 5, Confidential Figure 10.1** accompanying this chapter.

Desk Study

10.3.1 The following statutory designated sites at European or International level with ornithological interests were identified within the search area:

- Inner Moray Firth Special Protection Area (SPA) and Ramsar (4.4 km north-east) – designated for breeding osprey and common tern (*Sterna hirundo)*, and non-breeding/overwintering greylag goose, goldeneye (*Bucephala clangula)*, greater scaup (*Aythya marila*), teal (*Anas crecca*), wigeon (*Anas penelope*), goosander (*Mergus merganser*), red-breasted merganser (*Mergus serrator*), bar-tailed godwit (*Limosa lapponica*), redshank (*Tringa totanus*), curlew (*Numenius arquata*), oystercatcher (*Haematopus ostralegus*), cormorant *Phalacrocorax carbo*, and waterfowl assemblage.
- Moray Firth SPA (6.1 km north-east) – designated for non-breeding common scoter (*Melanitta nigra*), eider (*Somateria mollissima)*, goldeneye, great northern diver (*Gavia immer*), long-tailed duck (*Clangula hyemalis*), red-breasted merganser, red-throated diver (*Gavia stellata*), greater scaup, shag *(Gulosus aristotelis*),Slavonian grebe (*Podiceps auritus)*, and velvet scoter (*Melanitta fusca*) .
- Glen Affric to Strathconon SPA (9.1 km west) – designated for breeding golden eagle.
- North Inverness Lochs SPA (9.4 km south) – designated for breeding Slavonian grebe.
- Cromarty Firth SPA and Ramsar (15.1 km north-east) – designated for breeding osprey and common tern, and non-breeding/overwintering whooper swan (Cygnus cygnus), greylag goose, pintail *Anas acuta*, wigeon, greater scaup, red-breasted merganser, bar-tailed godwit, dunlin (*Calidris alpina*), knot (*Calidris canutus*), curlew, redshank, oystercatcher, and waterfowl assemblage.

10.3.2 There are no statutory designated sites at National or Local level within 2 km of the Proposed Development site. There are no non-statutory designations or nature conservation sites which overlap with the Proposed Development site or are otherwise connected to the site.

The distribution maps in Mitchell (2012)[11] for foraging geese within 20 km of the Inner Moray Firth SPA and Ramsar and Cromarty Firth SPA and Ramsar show no indication that the Proposed Development Site is within an important foraging area for geese from the European sites. More dense clusters of foraging activity are indicated to the north-east of the Site. This includes consideration of the associated Black Bridge development which extends the potential EZoI beyond the Site, albeit across a relatively small area. For full details of the ornithology assessment of the associated Black Bridge development please refer to **Volume 4, Technical Appendix 3.2: Review of Black Bridge Works.**

Ornithological Surveys

Breeding Bird Survey (BBS)

10.3.3 A total of 22 bird species were recorded between April and July 2023, inclusive of two Schedule 1 and/or Annex I listed species. Four species (red kite (*Milvus milvus)*, crossbill (*Loxia curvirostra)*, house martin and swallow (*Hirundo rustica)*) were only recorded in flight across the Site. Three species which are all red listed within BoCC 5[19] were confirmed as holding territory: lapwing, skylark and yellowhammer. A summary of the results for all target species recorded is provided below in **Table 10-3**.

Table 10-3 Breeding Bird Survey Results

Species	Scientific name	Count	Annex I	Schedule 1	BoCC[20]	SBL[21]
Lapwing	*Vanellus vanellus*	1 T	-	-	Red	Yes
Skylark	*Alauda arvensis*	3 T	-	-	Red	Yes
House martin	*Delichon urbicum*	1 F	-	-	Red	-
Starling	*Sturnus vulgaris*	15 I	-	-	Red	Yes
Mistle thrush	*Turdus viscivorus*	12 I	-	-	Red	-
Tree sparrow	*Passer montanus*	1 I	-	-	Red	Yes
House sparrow	*Passer domesticus*	19 I	-	-	Red	Yes
Linnet	*Linaria cannabina*	5 I	-	-	Red	Yes
Yellowhammer	*Emberiza citrinella*	3 T	-	-	Red	Yes
Oystercatcher	*Haematopus ostralegus*	3 I	-	-	Amber	-
Common gull	*Larus canus*	8 I	-	-	Amber*	-
Rook	*Corvus frugilegus*	44 I	-	-	Amber	-
Willow warbler	*Phylloscopus trochilus*	5 I	-	-	Amber	-
Whitethroat	*Curruca communis*	1 I	-	-	Amber	-
Wren	*Troglodytes troglodytes*	2 I	-	-	Amber	-
Song thrush	*Turdus philomelos*	1 T	-	-	Amber	Yes
Dunnock	*Prunella modularis*	1 I	-	-	Amber	-
Meadow pipit	*Anthus pratensis*	12 I	-	-	Amber	-
Bullfinch	*Pyrrhula pyrrhula*	5 I	-	-	Amber	Yes
Red Kite	*Milvus milvus*	1 F	Yes	Yes	Green	Yes
Barn swallow	*Hirundo rustica*	1 F	-	-	Green	-
Common crossbill	*Loxia curvirostra*	2 F	-	Yes	Green	-

[20] Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I (2021). Birds of Conservation Concern 5: 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.

[21] The Scottish Biodiversity List is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. For the complete list please visit: https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/scottish-biodiversity-list.

Species	Scientific name	Count	Annex I	Schedule 1	BoCC[20]	SBL[21]
Key to Count Codes. T: Number of estimated territories I: Number of individuals. F: Number of individuals seen in flight only						

Flight Activity Survey

10.3.4 Flight activity surveys were undertaken between April 2023 and August 2023 for the proposed Beauly-Denny OHL diversion , the survey area of which overlapped the Site and 2 km study area. Seven species were recorded across a total of 56 flights: greylag goose (SPA qualifying - one flight); oystercatcher (one flight); lapwing (five flights); herring gull (*Larus argentatus*) (three flights); osprey (SPA qualifying and Schedule 1 species - 18 flights); honey-buzzard (*Pernis apivorus*) (Schedule 1 species - two flights); and red kite (Schedule 1 species - 26 flights).

Scarce Breeding Bird Survey

In addition, there were flight observations of the Schedule 1 species honey-buzzard within the study area during surveys for the proposed Beauly-Peterhead 400 kV OHL. Although breeding was not confirmed, flight activity from this species indicated a territory was established within the wider area surrounding the Site.

Future Baseline

10.3.5 Generally, the long-term trend for the Schedule 1 raptors relevant to the Proposed Developments EZoI, osprey, peregrine and red kite, has comprised increasing populations following a reduction in historic persecution, and in the case of red kite, a re-introduction scheme.

10.3.6 Assuming no significant land use changes e.g., large scale felling of woodland, there may be a short-term increase in the Schedule 1 raptor population relevant to the Proposed Developments EZoI. Any further increase would be expected to level off long term given population constraints such as the availability of suitable nest sites and foraging habitat.

10.3.7 Overall, the future population of Schedule 1 raptors within the Proposed Developments EZoI is predicted to remain stable with the potential for localised changes in nest site locations from year to year as species move between alternative nest sites. Use of alternative nest sites has the potential to bring breeding pairs of Schedule 1 raptors within the Proposed Developments EZoI for disturbance and displacement during the construction phase, where those pairs had previously been outwith the EZoI.

10.4 Sensitive Receptors

10.4.1 The table below highlights those receptors that have been taken forward as IEF's and those receptors that have been scoped out. A rationale is provided for scoping in/out.

Table 10-4 Receptors Scoped In and Out

Feature	Geographical Context	Scoped in/Out	Rationale
Inner Moray Firth Special Protection Area (SPA) and Ramsar	International	In (Osprey only)	Most of the qualifying interests of the European site are specialist marine/estuarine species for which the Site and surrounding area comprises wholly unsuitable habitat. Greylag goose populations potentially linked to the European site could forage within agricultural fields such as those within and surrounding the Site. However, distribution maps in Mitchell (2012)[11]Error! Bookmark not defined. for foraging geese within 20 km of the European site show no indication that the Proposed Development is within an important foraging area for geese. More dense clusters of foraging activity are indicated to the north-east of the Site. Further to this, geese were recorded on only one occasion during surveys for the proposed Beauly-Peterhead 400 kV OHL with overlapping study areas. A flock of eight greylag geese was recorded in flight only during the flight activity surveys and not seen to land, with no indication of the Site being utilised as a foraging area by greylag goose or other geese species. Ospreys nesting within the Proposed Development's EZoI could be linked to qualifying populations of the European site based on the predicted maximum foraging range for the species[22]Error! Bookmark not defined.. Therefore, osprey is taken forward for assessment as an IEF as a qualifying interest of the European site.
Moray Firth SPA	N/A	Out	The qualifying interests of the European site are specialist marine/estuarine species for which the Site and surrounding area comprises wholly unsuitable habitat.
Glen Affric to Strathconon SPA	N/A	Out	At approximately 9.1 km from the European site, the Site is just beyond the maximum predicted foraging range for golden eagle of 9 km[22]Error! Bookmark not defined.. In addition, the Site and surrounding area provide foraging habitat of low suitability for this species.
North Inverness Lochs SPA	N/A	Out	The sole qualifying interest, Slavonian grebe, is a specialist aquatic species for which the Site and immediate surrounding area are wholly unsuitable.

[22] SNH (2016). Assessing Connectivity with Special Protection Areas (SPAs)

Feature	Geographical Context	Scoped in/Out	Rationale
Cromarty Firth SPA and Ramsar	International	In (osprey only)	Most of the qualifying interests of the European site are specialist marine/estuarine species for which the Site and surrounding area comprises wholly unsuitable habitat. Two of the qualifying species of wildfowl could use habitat within and surrounding the Site: • Whooper swan could forage in fields within and surrounding the Site. However, whooper swan has a core foraging range of less than 5 km[Error! Bookmark not defined.], the European site is approximately 15 km away. • Greylag goose populations potentially linked to the European site could forage within agricultural fields such as those within and surrounding the Site and have a predicted maximum foraging range of 20 km[22][Error! Bookmark not defined.]. However, distribution maps in Mitchell (2012)[11][Error! Bookmark not defined.] for foraging geese within 20 km of the European site show no indication that the Proposed Development is within an important foraging area for geese. More dense clusters of foraging activity are indicated to the north-east of the Site. Further to this, geese were recorded on only one occasion during the surveys for the proposed Beauly-Peterhead 400 kV OHL scheme with overlapping study areas. A flock of eight greylag geese was recorded in flight only during the flight activity surveys and not seen to land, with no indication of the Site being utilised as a foraging area by greylag goose or other geese species. Ospreys nesting within the Proposed Developments EZoI could be linked to qualifying populations of the European site based on the predicted maximum foraging range for the species[Error! Bookmark not defined.]. Therefore, osprey is taken forward for assessment as an IEF as a qualifying interest of the European site.
Osprey (non-SPA populations)	Regional	In	Osprey is a Schedule 1 species and SBL species. The latest Rare Breeding Birds Panel (RBBP) report for 2021 (Eaton et al, 2023)[23] gives an estimate 229 pairs in Scotland for that year, including 189 confirmed pairs. In 2021, a total of 71 pairs were present in Highland, the region

[23] Eaton et al and the Rare Breeding Birds Panel 2023. Rare breeding birds in the United Kingdom. 2021. British Birds 116. 615-676

Feature	Geographical Context	Scoped in/Out	Rationale
			applicable to the Proposed Development. Of the 71 pairs, 55 pairs were confirmed as breeding. Two pairs of ospreys were recorded nesting in the Proposed Development's 2 km raptor study area in 2023 and 2024. Two pairs are not considered a significant contribution to the total estimate of the Scottish population (<1 %). Two pairs comprise approximately 3 % of the total pairs estimated for Highland, the region relevant to the Proposed Development. Therefore, the contribution to the regional population is >1 % and considered significant at a regional level. Osprey is scoped in as of regional importance.
Red kite	Regional	In	Red kite is a Schedule 1 species, a SBL species and an Annex l species. Results from the Scottish Raptor Monitoring Scheme (SRMS) for 2022[24] show 298 pairs occupying home ranges in Scotland and 44 pairs occupying home ranges in the Highland region. There was a single confirmed breeding pair of red kites within the Proposed Development's 2 km raptor study area in 2024. Error! Bookmark not defined.One pair is not considered a significant contribution to the total estimate of the Scottish population (<1 %). One pair comprise approximately 2 % of the total pairs estimated for Highland, the region relevant to the Proposed Development. Therefore, the contribution to the regional population is >1 % and considered significant at a regional level. Red kite is scoped in as of regional importance.
Peregrine Falcon	Regional	In	Peregrine Falcon is a Schedule 1 and SBL species. The latest Rare Breeding Birds Panel (RBBP) report for 2021 (Eaton et al, 2023)[2319] gives an estimate of 350 pairs in Scotland for that year, including 259 confirmed pairs. In 2021, a total of 25 pairs were present in Highland, the region applicable to the Proposed Development. Of the 25 pairs, 11 pairs were confirmed as breeding.

[24] Scottish Raptor Monitoring Scheme Website https://raptormonitoring.org/srms-species/accipitriformes/red-kite

Feature	Geographical Context	Scoped in/Out	Rationale
			There was a single confirmed breeding pair of peregrines within the Proposed Development's 2 km raptor study area in 2023. One pair is not considered a significant contribution to the total estimate of the Scottish population (<1 %). One pair comprises approximately 4 % of the total pairs estimated for Highland, the region relevant to the Proposed Development. Therefore, the contribution to the regional population is >1 % and considered significant at a regional level. Peregrine is scoped in as of regional importance.
Honey-buzzard	National	In	Honey-buzzard is a Schedule 1 species and SBL species. There was no confirmed breeding for this species. However, flight activity from this species indicated a territory was established within the wider area surrounding the Site. This activity included three observations of the same individual on a single date in June 2023 from surveys for the proposed Beauly-Peterhead 400 kV OHL over Ruttle Wood, alongside the Site. One of the flights involved 'wing clapping' display indicative of territorial behaviour. Further to this, an apparent pair of honey-buzzard were watched in flight together during VPs for the associated proposed Beauly-Denny 400 kV OHL Diversion in August 2023. This flight activity was approximately 400 m south-west of the Site boundary. Considering that honey-buzzard can display over a large area and make long distance foraging flights, any nest site associated with the territorial behaviour could be outwith the Proposed Developments EZoI. However, a nesting attempt within the Proposed Development's EZoI in 2023 cannot be fully ruled out based on the available evidence. The latest Rare Breeding Birds Panel (RBBP) report for 2021 (Eaton et al, 2023)[2323] gives an estimate of 58 pairs in Scotland for that year, including 17 confirmed breeding pairs. In 2021, a total of 20 pairs were present in Highland, the region applicable to the Proposed Development. Of the 20 pairs, five pairs were confirmed as breeding.

Feature	Geographical Context	Scoped in/Out	Rationale
			Assuming one breeding pair were present within the Proposed Development's EZoI, one pair would comprise approximately 2 % of the national (Scottish) population and therefore a significant contribution to the total estimate of the Scottish population (>2 %). Honey-buzzard is scoped in as of National importance.
Breeding bird assemblage: non-raptors	Neighbourhood	Out	The Site mainly comprises grazing pasture considered of low value for ornithological interests. Most of the 22 species recorded within the Site and a surrounding 100 m buffer during the BBS were passerines (songbirds). Four species of elevated conservation concern (red-listed BoCC5, SBL) were found to be holding breeding territories within the Site and a 100 m buffer: lapwing (one territory), song thrush (one territory), skylark (three territories), and yellowhammer (three territories). An additional six red-listed species were recorded foraging within or over the Site: house martin, starling, mistle thrush, tree sparrow, house sparrow, and linnet. Although red listed, the species confirmed as holding territory have large UK and Scottish populations in the context of the low number of territories recorded during the BBS. UK breeding population estimates[25] for the species confirmed as holding territory are lapwing (97, 500 pairs), song thrush (1,300,000 territories), skylark (1,550,000 territories), and yellowhammer (700,000 territories). Further to this, only a relatively small area mainly comprising grazing pasture will be permanently lost to substation infrastructure with additional areas within the red line boundary landscaped post development. Landscape plans are expected to include enhancement for biodiversity. . Considering the above, the breeding bird assemblage (non-raptors) is scoped out.

[25] Avian Population Estimates Panel (APEP 4, 2020). Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, D.A. & Noble, D. Population estimates of birds in Great Britain and the United Kingdom. British Birds 113: 69–104

10.5 Effects Scoped in and Out

Effects Scoped In

10.5.1 The following effects are scoped in for the construction phase:

- Loss of nesting and foraging habitat. Permanent loss of nest sites and foraging resources, at least on a short-term basis (one breeding season) while birds relocate. Also, potential long-term implications (reduced breeding success) as this effect increases competition for resources with other breeding Schedule 1 raptors in the wider area.
- Disturbance and displacement from foraging habitat. The construction programme is anticipated to last three years, so this effect could occur on a medium-term basis with birds being displaced from parts of their home range across that three-year period. This effect increases competition for resources with other breeding Schedule 1 raptors in the wider area potentially reducing breeding success for several pairs.
- Disturbance and displacement from nest sites. Disturbance from a nest site, at least for one breeding season with a temporary reduction in recruitment of fledged young into Schedule 1 raptor populations. Schedule 1 raptors often have alternative nest sites within their home ranges. Therefore, an alternative nest site may be outwith a EZoI for disturbance and displacement effects from the Proposed Development. In a worst-case scenario, alternative nest sites may also be within a EZoI for disturbance and displacement effects from the Proposed Development, resulting in longer-term displacement.

Effects Scoped Out

10.5.2 In addition to the IEFs scoped out from all consideration of likely significant effects, for those scoped in, the following effects have been scoped out and will not be considered further within this assessment:

- Construction pollution events. The IEFs taken forward for assessment are Schedule 1 raptors nesting in forestry habitat. Data from 2023 and 2024 indicates that nest sites for Schedule 1 raptors are likely to be a minimum of 400 m from the Site boundary and for most species, significantly further away. Considering that any pollution events are likely to be localised and pollution prevention measures as part of embedded mitigation within the Construction Environmental Management Plan (CEMP) will be adopted, significant effects from pollution are highly unlikely.
- Operational collision risk. This assessment considers the proposed substation and not the associated proposed Beauly-Denny 400 kV OHL diversion which will be assessed separately. Although buildings associated with the Proposed Development are relatively high (up to a maximum height of around 27.5 m high including guard rail), these are solid structures which unlike an OHL are anticipated to be easily visible to flying birds. Therefore, no collision risk to flying birds is predicted.
- Operational disturbance and displacement. The operational phase of the Proposed Development is anticipated to involve occasional maintenance involving a low number of personnel and vehicles that would not represent a material impact upon the IEFs.

10.5.3 The two operational effects above were the only effects considered potentially relevant to the IEFs during the operational phase. Therefore, operational effects are not discussed further in this assessment.

10.6 Assessment of Effects, Mitigation and Residual Effects

Habitats Regulation Assessment

10.6.1 A Habitats Regulations Appraisal (HRA) has been undertaken for the Proposed Development, see **Fanellan Substation and Converter Station Habitats Regulations Appraisal Screening Report.**

10.6.2 The HRA will be the primary method for assessing effects to European sites within a EZoI of the Proposed Development.

Mitigation by Design

10.6.3 The footprint of the Proposed Development avoids statutory designated sites of natural heritage interest and priority habitats, wherever possible. The approach to site selection was informed by SSEN Transmission's guidance on substation site selection (refer to **Volume 2 Chapter 4: Site Selection and Alternatives**). The

guidance sets out the approach to identification and selection of new substation sites. This document helps SSEN Transmission to meet its obligations under Schedule 9 of the Electricity Act 1989, which requires transmission license holders:

- To have a regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interests; and
- To do what they reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.

Design Solutions and Assumptions

10.6.4 Effective, industry-standard mitigation measures will be embedded within the project, detailed within the Principal Contractor's CEMP and t SSEN's General Environmental Management Plans (GEMP). Relevant GEMPs are included in **Appendix 3.1**.

10.6.5 An Ecological Clerk of Works (ECoW) will be appointed for the duration of the works to ensure compliance with wildlife legislation and adoption of best practice. Considering the nature of the IEFs, the ECoW will have sufficient experience of Schedule 1 raptors or additional technical specialists will be sought to provide support where required e.g., for pre-construction surveys and construction monitoring.

10.6.6 Species Protection Plans (SPPs) have been developed by SSEN and have been agreed with NatureScot. These are provided in **Appendix 3.1: Species Protection Plans (SPPs)**. The SPPs include bird protection plans which will include the following measures to reduce effects to sensitive species:

- Pre-construction surveys and construction monitoring to update the status of the IEFs;
- Disturbance protection zones around confirmed nest sites; and
- Seasonal working restrictions where required.

Assessment of Construction Phase Effects

<u>Osprey (including European sites)</u>

10.6.7 Effects to osprey populations potentially linked to the four relevant European sites, Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar are considered alongside an assessment of effects to osprey forming non-qualifying populations. It is not possible to confirm if breeding ospreys within the Proposed Development's EZoI use the European sites for foraging although it is likely that they use Inner Moray Firth SPA and Ramsar given its relative proximity to nest sites identified from the baseline results. However, the impacts to osprey are considered similar for both scenarios with any variations in effects highlighted in the text below.

10.6.8 Considering habitat loss, any habitat loss because of the Proposed Development affecting potential nesting habitat is anticipated to be restricted to minor tree felling where small sections of the Site boundary overlap adjoining woodland. Considering the location of osprey nests during the last two years, it is highly unlikely that the relatively low amount of tree clearance to facilitate the Proposed Development would encroach on a nest site. Construction would require the removal of individual trees and groups of trees within agricultural land. In addition, a small section along the perimeter of Ruttle Wood would be removed and approximately half of the young woodland block at Bredaig in the south-west corner of the Site. The Bredaig plantation is a very young coniferous plantation, unsuitable for breeding raptors.

10.6.9 Considering disturbance and displacement from foraging habitat, ospreys forage on fish taken from freshwater and estuarine environments. Suitable foraging habitat is absent from the Site and limited in the immediate surrounding area.There is no requirement for osprey using the nest sites recorded in 2024 and 2023 to cross or fly near the Site to reach foraging habitat within the two relevant European sites which are in the opposite direction from the Site.

10.6.10 Considering disturbance and displacement from nest sites, osprey nest sites recorded in 2023 and 2024 are either beyond the maximum predicted disturbance distance for the species (750 m)**Error! Bookmark not defined.** from

the Site or towards the upper limit.Potential disturbance and displacement effects will be further reduced by the local topography, the Site is situated on the opposite side of a forested hill to the osprey nest sites which are further screened due to their locations in the Beauly River gorge. The topography is predicted to eliminate disturbance from visual stimuli and to significantly reduce noise disturbance.

10.6.11 Blasting operations are potentially required, resulting in louder noise disturbance than other works activities considered above. Although not relating to osprey, studies of reactions to blasting activities study by North American prairie falcons as a suitable model species for peregrine falcon (Holthuijzen et al. 1990)[26] experimentally examined the influence of blasting regimes at mines on nesting prairie falcons. Tolerance was tested up to 140 dB, and in response to some blasts found initiation of flight, cessation of incubation and brooding, for a short period (average recorded return time to the nest was 1.4 minutes after a blast). There were no observable effects from blasts in the range of 560 to 1000 m.

10.6.12 Further to this, the active Beauly Quarry, approximately 400 m from the Site, already contributes to a baseline of blasting activity.

10.6.13 Areas that potentially require blasting are likely to be a minimum of 900 m away from the closest osprey nest location.

10.6.14 Considering all the above, any blasting is unlikely to result in significant effects.

10.6.15 If pre-construction surveys confirm a change in an osprey nest location and a nest site is significantly closer to the Proposed Development, embedded measures within the bird SPP applicable to all works activities will be implemented including disturbance protection zones and seasonal working restrictions where required.

10.6.16 Considering all the above, the effects to osprey during the construction phase have been assessed as minor adverse, temporary, of low spatial magnitude; at a Site level and therefore **Not Significant**. This assessment considers populations potentially linked to the relevant European sites and breeding ospreys in isolation as a species of elevated conservation importance.

Red Kite

10.6.17 Considering habitat loss, any habitat loss affecting potential nesting habitat because of the Proposed Development is anticipated to be restricted to small areas of tree felling where the Site boundary overlaps with adjoining woodland and trees within the Site of low suitability for nesting raptors (mainly immature specimens). Considering the location of red kite nests during the last two years, it is highly unlikely that any tree clearance to facilitate the Proposed Development would encroach on a nest site.

10.6.18 Considering loss of foraging habitat and disturbance and displacement from foraging habitat, red kite forage in a variety of habitats including upland moorland, woodland and farmland. Grazing pasture within the Site is suitable foraging habitat but represents a relatively small area in the context of an extensive mosaic of woodland and farmland in the wider area surrounding the Site.

10.6.19 The closest active red kite nest to the Site was beyond the predicted maximum range of 300 m for disturbance from 'typical construction activities[17]'**Error! Bookmark not defined.**. Further to this, topography is predicted to eliminate disturbance from visual stimuli and to significantly reduce noise disturbance. The closest red kite nest site in 2024 was on the opposite slope of a hill to the Site and further screened by forestry.

10.6.20 As discussed under osprey, blasting is potentially required that would result in elevated noise levels. Given the distances of red kite nests recorded and the effects of topography, any blasting is unlikely to result in significant effects. Potential blasting would take place approximately 800 m away. This assessment also considers other

[26] Holthuijzen, A.M.A., Eastland, W.G., Ansell, A.R., Kochert, M.N., Williams, R.D. & Young, L.S. (1990). Effects of blasting on behaviour and productivity of nesting Prairie falcons. Wildlife Society Bulletin, 18, 270-281.

factors discussed above under osprey, a baseline of blasting activity in the wider area and a study documenting the behaviour of a nesting bird of prey species to blasting, although this study did not relate to red kite.

10.6.21 If pre-construction surveys confirm a change in a red kite nest site location and a nest site is significantly closer to the Proposed Development, embedded measures within the bird SPP applicable to all works activities will be implemented including disturbance protection zones and seasonal working restrictions where required.

10.6.22 Considering all the above, the effects to red kite during the construction phase have been assessed as minor adverse, temporary, of low spatial magnitude; at a Site level and therefore **Not Significant**.

Peregrine Falcon

10.6.23 Considering habitat loss, peregrines generally nest on rocky out crops and cliffs when holding territory in rural areas such as those in the wider area surrounding the Site. Any habitat loss because of the Proposed Development is anticipated to be restricted to minor tree felling where parts of the Site boundary overlap adjoining woodland and the loss of grazing pasture within the Site to accommodate Proposed Development infrastructure. All these habitats are wholly unsuitable for peregrine nest sites and the location of suitable habitat in the Beauly River gorge is likely to result in future peregrine nests being a significant distance from the Site (>700 m).

10.6.24 Considering loss of foraging habitat and disturbance and displacement from foraging habitat, peregrine falcons hunt a variety of prey species in a variety of habitats. The Site and habitats alongside could be used by peregrine falcon as they are likely to have woodpigeon, a favoured prey species, considering suitable habitat for that species comprising woodland and farmland. However, flight activity surveys for the proposed associated Beauly-Denny 400 kV OHL diversion in 2023 did not record any peregrine flights, suggesting that the Site and immediate surrounding area is not important for peregrine foraging.

10.6.25 A peregrine falcon nest was recorded in 2023 towards the upper limit of the disturbance range predicted for the species**Error! Bookmark not defined.**. Potential disturbance and displacement effects will be further reduced by the local topography, the Site is situated on the opposite side of a forested hill to the peregrine nest site which is further screened due to its location in the Beauly River gorge. The topography is predicted to eliminate disturbance from visual stimuli and to significantly reduce noise disturbance.

10.6.26 As discussed under other species, blasting is potentially required that would result in elevated noise levels. Given the distances of the peregrine falcon nest recorded and the effects of topography, blasting is unlikely to result in significant effects. This assessment also considers other factors discussed above under other species: a baseline of blasting activity in the wider area and a study documenting the nesting behaviour of a closely related species (prairie falcon) to blasting. Further to this, a study specific to peregrine falcon in Australia, Olsen and Allen (1997)[27], noted that peregrines can be very tolerant of quarrying activity in proximity to nest sites; an incubating female on a nest located 15 m high in a quarry in Australia was noted to return to the nest within ten minutes of blasting occurring within 100 m of the nest, three young later successfully fledged from the nest.

10.6.27 Considering the greater degree of confidence in predicting this species response to blasting in comparison to other relevant Schedule 1 raptors (available studies reference this species or closely related species) significant effects are highly unlikely. Further to this, because of habitat constraints, there is a low likelihood of alternative nest sites in future years being closer to the Site.

10.6.28 Considering all the above, the effects to peregrine during the construction phase have been assessed as negligible, temporary, of low spatial magnitude; and therefore, **Not Significant**.

Honey-buzzard

10.6.29 This species was not confirmed breeding in the Proposed Developments EZoI although observations from the baseline data in 2023 indicate a territory was being held in the wider area surrounding the Site. There were three observations of the same individual in flight on a single date in June 2023 from surveys for the proposed

[27] Olsen, P. and Allen, T. (1997). The trials of quarry-nesting peregrine falcons. Australian Bird Watcher 17: 87-90.

Beauly-Peterhead 400 kV OHL. One of the flights involved 'wing clapping' display indicative of territorial behaviour. Further to this, an apparent pair of honey-buzzard were watched in flight together during VPs for the proposed Beauly-Denny OHL diversion connection in August 2023. Honey-buzzards can display over a large area, therefore display activity near the Site does not automatically indicate a nest site in proximity to the Site. Further to this, honey-buzzards are a secretive species that spend large amounts of time under the woodland canopy. In Scotland, nest sites are typically deep within mature coniferous forestry. Based on their ecology, it is predicted that a nest site would be a significant distance from the Site and the associated Black Bridge development (several hundred metres or more).

10.6.30 Any habitat loss affecting potential nesting habitat because of the Proposed Development is anticipated to be restricted to small areas of tree felling where the Site boundary overlaps adjoining woodland and trees within the Site of low suitability for nesting raptors (mainly immature specimens). Considering the predicted location of nest sites based on the species ecology, it is highly unlikely that the low amount of tree clearance required to facilitate the Proposed Development would encroach on a nest site. Further to this, embedded mitigation through a bird SPP will account for any change in nest site locations and will include pre-construction surveys and implementation of protection zones where required.

10.6.1 Considering loss of foraging habitat and disturbance and displacement from foraging habitat, honey-buzzard typically forages within woodland and woodland clearings, grazing pasture dominating the Site does not provide suitable habitat and is unlikely to be an important resource.

10.6.2 Considering disturbance and displacement from a nest site, no nest sites have been confirmed to draw firm conclusions. However, based on the species ecology discussed above, a nest site is predicted to be a minimum of several hundred metres from the Site and likely to be screened from works by forestry and the local topography.

10.6.3 As a precaution, if pre-construction surveys and construction monitoring indicate a nest site is within the Proposed Developments EZoI, embedded measures within the bird SPP applicable to all works activities will be implemented including disturbance protection zones and seasonal working restrictions where required.

10.6.4 Considering all the above, the effects to honey-buzzard during the construction phase have been assessed as negligible, temporary, of low spatial magnitude; and therefore, **Not Significant**.

Additional mitigation

10.6.5 To further reduce the likelihood of already non-significant effects the following additional mitigation is proposed.

10.6.6 Any blasting operations will avoid the most sensitive part of the breeding cycle for osprey (and other relevant Schedule 1 raptors) when birds are mating, egg laying and incubating eggs in the period March-May as a minimum, to be informed by pre-construction surveys and construction monitoring.

Cumulative Effects

Table 5-2 in **Volume 2, Chapter 5 EIA Methodology** presents the full list of potential cumulative developments, form this list, the following proposed projects are considered relevant to the cumulative assessment given the nature of the works involved, their scale, and location alongside the Proposed Development.:

- The proposed Spittal-Beauly 400 kV OHL adjacent to the Proposed Development;
- The proposed Beauly-Peterhead 400 kV OHL adjacent to the Proposed Development;
- The proposed Western Isles Link HVDC underground cable (tying into the Proposed Development);
- The proposed Beauly-Denny 400 kV OHL Diversion, which will be required to facilitate the Proposed Development and will tie into it; and

- Black Bridge works. Replacement of the Black Bridge over the River Beauly will be required to allow heavy vehicle access including Abnormal Indivisible Loads (AILs) to site. Structural options are currently being reviewed with Highland Council and where required, will be progressed under a separate application.

10.6.7 The conclusion of the assessment of the Proposed Development is that significant impacts to the IEFs from disturbance and displacement will be avoided through implementation of the bird SPP, including pre-construction surveys and construction monitoring to inform on updated nest site locations and precautionary additional mitigation specifically for blasting operations. All the effects from the Proposed Development alone were determined to be non-significant and therefore unlikely to contribute to cumulative effects.

10.6.8 It is expected that all the above cumulative projects will implement the same measures as the Proposed Development and this process will be efficient and coordinated considering the same developer is responsible for the Proposed Development and the above projects. Further to this, it is unlikely that all construction activities to facilitate the Proposed Development and above projects will occur simultaneously. Construction of the proposed new OHLs would occur sequentially.

10.6.9 On this basis, no significant cumulative effects are predicted.

10.7 Summary

10.7.1 This chapter has considered how, in the absence of mitigation, the Proposed Development's construction phase would affect the above IEFs by the loss of, obstruction of, or disturbance to species and their nest sites and displacement from foraging habitat.

10.7.2 Through the successful application of embedded and industry-standard mitigations (SPPs), which will be adapted to consider non-standard forms of disturbance comprising blasting, this chapter concludes that the Proposed Development would not result in a residual significant effect on any sensitive ecology and nature conservation receptors.

10.7.3 To further reduce the likelihood of already non-significant effects the following additional mitigation is proposed.

10.7.4 Any blasting operations will avoid the most sensitive part of the breeding cycle for Osprey (and other relevant Schedule 1 raptors) when birds are mating, egg laying and incubating eggs in the period March-May as a minimum, to be informed by pre-construction surveys and construction monitoring.