VOLUME 2: CHAPTER 9 - ECOLOGY

Appendices (Volume 4 of this EIA Report)

- **Appendix 9.1: Desk Study and Legal Context**
  - Figure 9.1.1: The Proposed Development and Survey Area
  - Figure 9.1.2: Designated sites within 10 km and 5 km of the Site
- **Appendix 9.2: Ecology Survey Report**
  - Figure 9.2.1: Habitat Survey Results
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- **Appendix 9.3: Biodiversity Net Gain Assessment Report**

9. ECOLOGY

9.1 Introduction

9.1.1 This chapter considers the potential effects of the Proposed Development on ecology. The assessment includes potential effects upon ecologically designated sites, habitats of conservation concern[1] and non-avian protected species. Evaluation of the baseline environment has been undertaken through a combination of desk-based study, consultation with statutory bodies and field surveys. The chapter constitutes an Ecological Impact Assessment (EcIA) with objectives as follows:

- describe and interpret the ecological baseline (including desk-based studies and field surveys);
- describe the assessment methodology and significance criteria used in assessing effects on ecological features;
- describe how consultation has informed the scope of the assessment;
- describe the mitigation measures proposed to address potential significant effects (if required);
- assess the residual effects remaining following implementation of mitigation.

9.1.2 This chapter should be read in conjunction with **Chapter 3: Description of the Proposed Development (Volume 2)** for full details of the Proposed Development and alongside **Chapter 10: Ornithology** which assesses likely significance in relation to avian features.

9.1.3 This chapter is supported by **Figures 9.1.1-9.2.2** in **Volume 4**, which are referenced throughout the text and introduced below:

- **Figure 9.1.1: The Proposed Development and Ecology Survey Area**;
- **Figure 9.1.2: Designated sites within 10 km and 5 km of the Site**;
- **Figure 9.2.1: Baseline Habitat Survey Results**; and
- **Figure 9.2.2: Protected Species Survey Results**.

9.1.4 The following appendices are also referred to throughout the chapter:

- **Appendix 9.1: Desk Study and Legal Context**; and
- **Appendix 9.2: Ecology Survey Report**.

9.1.5 The ecology assessment was undertaken by LUC. This EcIA was prepared and overseen by professional and experienced ecological consultants with appropriate memberships of the Chartered Institute of Ecology and Environmental Management (CIEEM). Field surveys and data collection were undertaken by ecologists who had extensive experience and/or training in undertaking baseline ecological surveys for energy projects and in the assessment of ecological effects in the EIA context. Further details can be found in **Chapter 2: The EIA Report.**

9.1.6 The following terminology will be referred to throughout this chapter:

- Site: all land within the planning application (red line) boundary (**Figure 1.1: Site Location**);
- Proposed Development: The infrastructure including the platform, bays, control buildings, access tracks, drainage and landscape features and temporary construction compounds (see Section 3.3 in **Chapter 3: Description of the Proposed Development**); and
- Ecology Survey Area: The area within the red-line boundary, plus relevant buffers (up to 250 m around the Site, and up to 50 m around the proposed construction haul route) where access was granted in which all ecology surveys were undertaken in line with good practice guidelines for all ecological features surveyed (see **Figure 9.1.1: The Proposed Development and Ecology Survey Area).**

[1] Habitats of conservation concern include habitats considered conservation priorities in the Habitats Directive (Annex I habitats); habitats considered to indicate potential groundwater dependency; habitats included on the Scottish Biodiversity List; and habitats included in local biodiversity policy.

9.2 Scope of the Assessment

Effects Assessed in Full

9.2.1 This assessment concentrates on the likely effects of construction and operation of the Proposed Development upon those ecological receptors identified in the Scoping Report (**Appendix 6.1: Scoping Report**) and informed by review of desk-based information and field surveys, project design and the embedded and applied mitigation.

9.2.2 The EIA Scoping process, baseline conditions and professional judgement has identified the following direct and cumulative effects for detailed assessment:

- Direct effects during construction as a result of loss or fragmentation of habitats on legally protected species[2], and species noted to be national[3] or local[4] importance, specifically otter, beaver, bats and badger; and
- Cumulative effects during construction on sensitive ecological receptors..

Effects Scoped Out

9.2.3 On the basis of the desk-based and field survey work undertaken, the professional judgement of the EIA team, experience from other relevant projects and policy guidance or standards, and feedback received from statutory consultees, the following effects have been 'scoped out' of detailed assessment, as proposed in the EIA Scoping Report:

- Direct and indirect effects during construction and operation on designated sites;
- Direct and indirect effects during construction and operation on habitats of conservation concern[1];
- Direct and indirect effects during construction and operation on protected and notable species as a result of loss or fragmentation of habitats, specifically pine marten, red squirrel, water vole, mountain hare, brown hare, hedgehog amphibians and reptiles;
- Direct effects during construction and operation on protected and notable species via mortality;
- Indirect effects during construction on protected and notable species via lighting, noise, pollution or visual disturbance;
- Direct and indirect effects during operation on protected and notable species;
- Cumulative effects during operation on sensitive ecological receptors; and
- Direct and indirect effects on invertebrate species.

9.2.4 Although a number of protected species have been scoped out of detailed assessment, the legislative protections afforded to these will be included in the Construction Environmental Management Plan (CEMP) which is assumed to be secured through an appropriately worded planning condition, and adopted Species Protection Plans (SPPs)[5,6,7,8,9,10] published by SSEN Transmission, adherence to which is a contractual requirement of the Principal Contractor.

9.2.5 It is important to note, however, that whilst effects are scoped out because they are not considered to be significant in EIA terms, the need to ensure compliance with nature conservation legislation still applies. The presence and potential presence of all species within the Site will require consideration within the Ecological Management Plan, to be prepared by the Principal Contractor pursuant to the terms of contract and to discharge planning conditions, which will include adherence to SSEN Transmission's SPPs[5,6,7,8,9,10], and appropriate measures that may be necessary to ensure legislative compliance.

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[2] Protected species are defined as those subject to legal protection as outlined within this chapter.
[3] i.e. listed on the Scottish Biodiversity List (SBL).
[4] i.e. listed on a Local Biodiversity Action Plan (LBAP) relevant to the Proposed Development.
[5] SSEN Transmission (2023) Badger Species Protection Plan.
[6] SSEN Transmission (2023) Bat Species Protection Plan.
[7] SSEN Transmission (2023) Beaver Species Protection Plan.
[8] SSEN Transmission (2022) Otter Species Protection Plan.
[9] SSEN Transmission (2022) Red Squirrel Species Protection Plan.
[10] SSEN Transmission (2022) Water Vole Species Protection Plan.

9.2.6 Angus Council, in its Scoping Opinion (**Appendix 6.2: Scoping Opinion**) did not raise any comment or disagreement to the proposed scope of assessment within the Scoping Report (**Appendix 6.1: Scoping Report**).

Study Areas

9.2.7 The Study Areas adopted in the assessment and reported in this chapter vary by desk study, and by ecological feature, as defined by best practice (detailed in **Appendix 9.1: Desk Study and Legal Context** and **Appendix 9.2: Ecology Survey Report**). The Study Area for this assessment is the Site plus relevant buffers of up to 10 km radius as shown in **Figure 9.1.1: The Proposed Development and Survey Area** and **Figure 9.1.2: Designated sites within 10 km and 5 km of the Site** and defined in **Table 9.1: Study Area Descriptions: Desk-Based Studies**.

Table 9.1: Study Area Descriptions: Desk-Based Studies

Ecological Feature	Designation Type	Buffer around the Site
Statutory Designated Sites:	• Special Areas of Conservation (SAC); and • Ramsar Sites	10 km
	• Sites of Special Scientific Interest (SSSI); • National Nature Reserves (NNR); and • Local Nature Reserves (LNR).	5 km
Non-Statutory Designated Sites	• Local Nature Conservation Sites (LNCS); • RSPB and Scottish Wildlife Trust Reserves; and • Ancient/Long-established Woodland.	2 km
Existing records of Protected and Notable Species	• All native protected and notable species records from the preceding 15 years.	5 km for Protected and Notable Species 10 km for Bats

9.2.8 The Study Area used for field surveys is referred to as the Ecology Survey Area (ESA); this comprised the Site plus a 250 m buffer (refer to **Figure 9.1.1: The Proposed Development and Survey Area**) and a 50 m buffer (where access allowed) to the principal construction haul route (refer to **Figure 12.1: Construction Access**), in which all ecology surveys were undertaken in line with good practice guidelines for all ecological features surveyed.

9.3 Assessment Methodology

Legislation, Policy and Guidance

Legislation

9.3.1 This assessment is carried out in accordance with the principles contained within the following legislation that creates a mechanism for designated sites, protected habitats, and protected species:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)[11];
- The Wildlife and Countryside Act 1981 (as amended) (WCA)[12];

[11] UK Government (1994) https://www.legislation.gov.uk/uksi/1994/2716/contents. Accessed August 2024.
[12] UK Government (1981) Wildlife and Countryside Act 1981. Available online: https://www.legislation.gov.uk/ukpga/1981/69. Accessed May 2024.

- Protection of Badgers Act 1992[13];
- The Nature Conservation (Scotland) Act 2004[14];
- Wildlife and Natural Environment (Scotland) Act 2011[15]; and

  The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017[16].

9.3.2 Key elements of relevant legislation are detailed within **Appendix 9.1: Desk Study and Legal Context**.

Policy

9.3.3 The assessment within this chapter is carried out in accordance with the principles established in the following relevant nature conservation policy or guidance that creates a mechanism for locally-designated sites, habitats, and species of conservation interest:

- National Planning Framework 4[17];
- The Scottish Biodiversity List (SBL)[3];
- PAN 60: Planning for Natural Heritage (Scottish Government 2000)[18];
- Nature Conservation: Implementation in Scotland of the Habitats and Birds Directives: Scottish Executive Circular 6/1995 as amended (June 2000)[19];
- Angus Council Local Development Plan[20]; and
- Tayside Local Biodiversity Action Plan[21].

Guidance

9.3.4 Relevant guidance that has informed the assessment methods adopted in the chapter includes:

- Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Version 1.2 (CIEEM 2022)[22] ;
- Good Practice Guidance for Habitats and Species, Version 3[23];
- NatureScot, Planning and Development: Standing Advice and Guidance Documents[24];
- NatureScot Guidance: Environmental Impact Assessment Handbook (2018)[25];

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[13] UK Government (1992) Protection of Badgers Act 1992. Available online: https://www.legislation.gov.uk/ukpga/1992/51/contents. Accessed May 2024.

[14] Scottish Government (2004) Nature Conservation (Scotland) Act 2004. Available online: https://www.legislation.gov.uk/asp/2004/6/contents Accessed May 2024.

[15] Scottish Government (2011) Wildlife and Natural Environment (Scotland) Act 2011. Available online: https://www.legislation.gov.uk/asp/2011/6/contents. Accessed May 2024.

[16] UK Government (2017) The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Available online: https://www.legislation.gov.uk/ssi/2017/102/contents. Accessed November 2024.

[17] Scottish Government (2023) National Planning Framework 4. Available online: https://www.gov.scot/publications/national-planning-framework-4/. Accessed May 2024.

[18] Scottish Government (2000) Planning Advice Note 60: natural heritage. Available online: https://www.gov.scot/publications/pan-60-natural-heritage/.

[19] Scottish Government (2000) Nature Conservation: Implementation in Scotland of EC Directives on the Conservation of Natural Habitats and of Wild flora and Fauna and the Conservation of Wild Birds (The Habitats Directives)

[20] Angus Council (2016) Angus Local Development Plan. Available online: https://www.angus.gov.uk/directories/document_category/development_plan. Accessed May 2024

[21] Tayside Biodiversity Partnership (2016) Tayside Local Biodiversity Action Plan, 2nd Edition 2016 – 2026 Incorporating the local authority areas of Angus and Perth & Kinross. Available online: https://www.angus.gov.uk/sites/default/files/Tayside%20Local%20Biodiversity%20Action%20Plan%202016_2026.pdf. Accessed August 2024.

[22] CIEEM (2022) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.2. Available online: https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf. Accessed May 2024.

[23] CIEEM (2021) Good Practice Guidance for Habitats and Species Version 3. Available online: https://cieem.net/wp-content/uploads/2021/05/Good-Practice-Guide-April-2021-v6.pdf. Accessed May 2024.

[24] NatureScot. Planning and Development: Standing Advice and Guidance Documents. Available online: https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents. Accessed May 2024

[25] NatureScot (2018) Environmental Impact Assessment Handbook- Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact assessment process in Scotland. SNH. Battleby

- NatureScot SiteLink web pages (online information on designated sites)[26]; and
- SSEN Transmission Species Protection Plans.

9.3.5 Further guidance in relation to survey methods and the interpretation of ecological data is referenced in the relevant technical appendices, where appropriate.

Consultation

In undertaking the assessment, consideration has been given to the consultation responses which have been received as detailed in **Table 9.2: Summary of Consultation**.

Table 9.2: Summary of Consultation

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
Angus Council 05 June 2023	Pre-application consultation	None relating to Ecology	N/A
Angus Council 05 July 2023	Pre-application consultation	The substation design requirements are noted, and landscaping/screening and associated biodiversity net gain will be important mitigation for a development of this scale and nature. The comments provided by consultees in relation to the proposed Site raise a number of useful considerations including the potential for the development to deliver biodiversity enhancement.	Robust environmental appraisals and assessments have been undertaken in the selection of sites and the development of the substation. Full cognisance has been given to environmental and planning legislation, regulations, consenting requirements and best industry practice in developing the project. Mitigation measures to avoid and reduce significant detrimental environmental effects are identified, as well as outline environmental restoration and enhancement opportunities.
Dundee City Council 05 June 2023	Pre-application consultation	None relating to Ecology	N/A
NatureScot 30 April 2024	Pre-application consultation	None relating to Ecology, but please refer to Ornithology. NatureScot provide standing advice and guidance on minimising the impacts on nature and securing the benefits that nature can provide, all available online.	Noted. Robust environmental appraisals and assessments will be undertaken in the selection of sites and the development of the substation. Full cognisance will be given to environmental and planning legislation, regulations, consenting requirements and best industry practice in developing the project. Mitigation measures to avoid and reduce significant detrimental environmental effects will be identified, as well as outlining environmental restoration and enhancement opportunities.
NatureScot 30 May 2024	Pre-application consultation	We recognise that the preferred sites selected will not impact directly on any protected areas for nature conservation but, as identified in your consultation documents, there is potential connectivity with a number of Special Protection Areas (SPAs) designated for their bird interests	Noted. Robust environmental appraisals and assessments have been undertaken in the selection of sites and the development of the substation. Full cognisance has been given to environmental and planning legislation, regulations, consenting requirements and best industry practice in developing the

[26] NatureScot. Planning and Development: Standing Advice and Guidance Documents. Available online: https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
			project. Mitigation measures to avoid and reduce significant detrimental environmental effects are identified, as well as outline environmental restoration and enhancement opportunities.
		We have standing advice and guidance on minimising impacts on nature and securing the benefits that nature can provide available online.	Robust environmental appraisals and assessments have been undertaken in the selection of sites and the development of the substation. Full cognisance have been given to environmental and planning legislation, regulations, consenting requirements and best industry practice in developing the project. Mitigation measures to avoid and reduce significant detrimental environmental effects are identified, as well as outline environmental restoration and enhancement opportunities.
Scottish Environment Protection Agency (SEPA) 16 June 2023	Pre-application consultation	No issues, however SEPA suggested that the Fithie Burn, which has been artificially straightened, could be realigned to contribute to biodiversity enhancement and help meet the National Planning Framework 4, Policy 3 requirements.	A reduction in the Site boundary, and hence the land within the control of the Applicant, no longer includes a considerable length of the Fithie Burn that was originally included.
SEPA 31 July 2024	Formal Scoping consultation	Please note that whilst SEPA will accept the use the UKHab survey methodology in place of a Phase 1 survey we will not accept its use instead of the National Vegetation Survey (NVC) method. Therefore, the approach set out in Section 7.3.6 of the EIA Scoping report where UKHab outputs will be converted to standard NVC terminology will not be acceptable. We note that no GWDTE were identified on site. If this substantiated by NVC survey outputs this issue can be scoped out of the final EIA Report.	Noted. Surveyors undertook a habitat survey using the UKHab survey methodology as described in this Chapter and in **Appendix 9.2: Ecology Survey Report.** However, where habitats of conservation concern[1] were identified within the ESA, an NVC survey was undertaken. This means there was no conversion between the two survey methods.
NatureScot 12 July 2024	Formal Scoping consultation	NatureScot confirmed that they were content with the scope of the surveys and assessment. Reference was also made to NatureScot's standing advice and the EIA Handbook.	N/A
Angus Council 31 July 2024	Formal Scoping Opinion	No comment in relation to the scope of the assessment upon ecology was received in the Scoping Opinion Response provided.	N/A
Community feedback (including Tealing CC) July 2024	Feedback from consultation process	Reference to the damage to wildlife (including ornithology) and flora on the proposed site, access roads and surrounding area is likely to be significant in such a rural area and is only now being explored despite plans being advanced.	Assessment made with respect to habitat change with consideration to potential suitable mitigation.

Desk Based Research and Data Sources

9.3.6 A desk study was undertaken to identify known ecological features within the Study Areas as described in **Table 9.1: Study Area Descriptions: Desk-Based Studies**. Searches were made for those habitats and species agreed through consultation. The following data sources have informed the assessment:

- NatureScot SiteLink[27];
- Scotland's Environment Mapping Services[28];
- The Ancient Woodland Inventory (AWI)[29];
- The Carbon and Peatland Map[30]; and
- National Biodiversity Network (NBN) Atlas Scotland under OGL and CC-BY licences[31].

9.3.7 It is of note that there is no local biological records centre which covers the Site, therefore a request for additional locally-held information could not be made; see Limitations section below (Paragraphs 9.3.28 to 9.3.34).

9.3.8 Where appropriate, other scientific resources were referred to when determining protected species behaviour or population sizes. These resources are referenced in this chapter where appropriate.

9.3.9 Further information relating to the desk study method is provided in **Appendix 9.1: Desk Study and Legal Context**.

Field Survey

9.3.10 The Study Areas adopted for field survey vary by the type of survey as defined by best practice (detailed in **Appendix 9.2: Ecology Survey Report**).

9.3.11 The following field surveys were carried out to inform the assessment within the ESA:

- Habitat survey following the UK Habitat (UKHab) Classification[32] system, and condition assessments (version 2).
- Surveys to identify habitat suitable for, or signs of, protected species, including the following species / taxa:
  - Otter *Lutra lutra*;
  - Bats;
  - Beaver *Castor fiber*;
  - Red squirrel *Sciurus vulgaris*;
  - Pine marten *Martes martes*;
  - Water vole *Arvicola amphibius*; and
  - Badger *Meles meles*.

9.3.12 In addition, consideration was given to the potential for habitats to be of conservation concern and therefore requiring detailed National Vegetation Classification (NVC) survey. However, due to the intensively-managed, lowland nature of the habitats within the ESA, no habitats of conservation concern[1] were recorded. Specifically, there were no habitats that were assessed to have potential to be Annex I, SBL or LBAP habitats. Furthermore, no habitats were identified to have potential to be groundwater dependent terrestrial ecosystems (GWDTEs). A small area mapped on the AWI was noted to overlap with the ESA, but there were no trees present.

9.3.13 Incidental observations of other protected and notable species, including those scoped out of assessment through the Scoping process (see **Appendix 6.1: Scoping Report**), were also recorded. In addition, opportunities for restoration and enhancement were considered and noted during the field surveys.

[27] NatureScot (2024) SiteLink website: https://sitelink.nature.scot/home. Accessed May 2024.
[28] Scotland's Environmental Mapping Service website: https://map.environment.gov.scot/sewebmap/. Accessed May 2024
[29] Ancient Woodland Inventory online: https://spatialdata.gov.scot/geonetwork/srv/api/records/A091F945-F744-4C8F-95B3-A09E6EF6AE33. Accessed May 2024.
[30] Carbon and Peatland Map website: https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map. Accessed May 2024
[31] NBN Atlas website: https://nbnatlas.org/. Accessed May 2024.
[32] UK Habitat Classification system (2023) version 2: https://ukhab.org/. Accessed May 2024.

9.3.14 Ecology field surveys were undertaken in August 2023, and April, July, August and September 2024 and were undertaken in appropriate conditions. Detailed accounts of survey dates, rationale, methods, weather conditions, limitations and findings are provided in **Appendix 9.2: Ecology Survey Report**.

Assessing Significance

9.3.15 The EcIA undertaken in this chapter is based on good practice methods described in CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater, Coastal and Marine'[22] (The CIEEM Guidelines).

9.3.16 The CIEEM Guidelines recommend that the 'Ecological Importance' of a given site or study area in relation to each of its ecological features is determined within a defined geographical context. The geographical context as it relates to the Proposed Development, is described in **Table 9.3: Ecological Importance Criteria**.

Table 9.3 Ecological Importance Criteria

Ecological Importance	Qualifying Criteria	Relevant Context
International	A site is considered of International ecological importance when it supports: • An internationally designated site or candidate site (SPAs, potential SPA, SAC, candidate SAC, possible SAC, Ramsar sites, proposed Ramsar sites or Biogenetic Reserve) or an area which NatureScot has determined meets the published selection criteria for such designations, irrespective of whether or not it has been notified. • A viable area of habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintaining the viability of that ecological resource at an international scale. • >1% of the European resource of an internationally important species, i.e. listed in Annex I, II or IV of the Habitats Directive.	Europe
UK/ National	A site is considered of UK/National ecological importance when it supports: • A nationally designated site (SSSI, NNRs, Marine Nature Reserve) or a discrete area which NatureScot has determined meets the published selection criteria for national designation irrespective of whether or not it has yet been notified. • A viable area of a priority habitat referenced in the UK Post-2010 Biodiversity Framework or SBL, or smaller areas of such habitat which are essential to maintaining the viability of that ecological resource at a national scale. • >1% of the National resource of a regularly occurring population of a nationally important species i.e. a priority species listed in the SBL and/or Schedules 1, 5 (Section 9 (1, 4a, 4b)) or 8 of the Wildlife and Countryside Act 1981.	UK/Scotland
Regional	A site is considered of Regional ecological importance when it supports: • Non-statutory designated sites that represent a scale, or habitat/species assemblage, of value across a number of counties which are recognised in a regional context. • Non-designated sites that the designating authority has determined meet the published ecological selection criteria for designation, particularly large or representative habitat or species assemblages of importance at a regional level.	Northeast Scotland

Ecological Importance	Qualifying Criteria	Relevant Context
	• Viable and extensive areas of legally protected habitat/habitat identified in Regional BAP or County BAP, or smaller areas of such habitats that are essential to maintaining the viability of the resource at a regional scale. • Any regularly occurring populations of an internationally/nationally important species or a species in a relevant policy which is important for the maintenance of the regional meta-population. • Semi-natural ancient woodland greater than 0.25 hectares (ha.)	
County	A site is considered of County ecological importance when it supports: • County sites and other sites which the designating authority has determined meet the published ecological selection criteria for designation, e.g. LNCS. • Viable areas of legally protected habitat/habitat identified in Council BAP or smaller areas of such habitats that are essential to maintaining the viability of the resource at a county scale. • Any regularly occurring population of an internationally/nationally important species of species in a relevant UK/Council BAP which is important for the maintenance of the county meta-population. • Semi-natural ancient woodland smaller than 0.25 ha. • Networks of species-rich hedgerows.	Angus
Local	A site is considered of Local ecological importance when it supports: • Commonplace and widespread semi-natural habitats, e.g. scrub, poor semi-improved grassland, coniferous plantation woodland, intensive arable farmland, etc. which despite their ubiquity, contribute to the ecological function of the local area (habitat networks etc.). • Isolated or species poor stands of habitat of conservation interest which contribute to the viability of the resource at a local level. • Very small, but viable, populations of internationally/nationally important species or a species in a relevant UK/Council BAP which is important for the maintenance of the local meta-population.	Study Area plus a 5 km radius
Study Area	A Study Area is considered of Study Area ecological value when it supports: • Habitats of limited ecological value, e.g. amenity grassland, but which contribute to the overall function of the application site's ecological functions.	Study Area

9.3.17 Following the assessment of ecological importance, likely effects are identified. This process involves the study of the construction and operational methods and timescales with a view to identifying the pathways by which ecological features may be affected. Potential effects can be grouped into the following broad types:

- Direct habitat loss (including both permanent and temporary loss or damage of habitat);
- Fragmentation (disruption of ecological processes through fragmentation, isolation and barriers);
- Mortality (loss of life experienced by faunal species, either individual animals or populations, through direct contact or following pollution events, etc.); and
- Disturbance (disruption to ecological processes through increased human presence, noise, vibration, etc.).

9.3.18 To determine significance, effects are considered with reference to the following parameters:

- Beneficial or adverse;

- Extent – the spatial or geographical area over which the effect may occur;
- Magnitude – the size, amount, intensity or volume of the effect (e.g. the percent of an ecological feature affected);
- Duration – the timeframe over which an effect may occur in relation to the ecological characteristic of the relevant feature;
- Frequency – the number of times that an effect may occur; and
- Reversibility – an indication of whether recovery from an effect is possible within a reasonable timeframe.

9.3.19 A degree of confidence, based on professional judgement, is used to assess the likelihood of an effect occurring. The following scale is referred to:

- Certain/Near-certain: probability estimated at ≥95%;
- Probable: probability estimated at 50 – 90%;
- Unlikely: probability estimated at 5 – 50%; and
- Extremely unlikely: probability estimated at ≤ 5%.

9.3.20 Based on the combination of these parameters listed above, an effect is then considered to be either significant or not significant in the context of the EIA Regulations[33]. An effect is considered to be significant if it has the potential to affect the integrity of a designated site or habitat, or the conservation status of a species. Technical definitions of integrity and conservation status follow the CIEEM Guidelines[23].

9.3.21 The significance of a potential effect is considered, using professional judgement, within the context of the geographically based ecological importance of the feature. For example, the significance of a potential effect on a habitat of Local ecological importance is considered to be significant, or not significant, at a Local level. In some cases, where only a small part of an ecological feature is affected, the potential effect may be significant at a lower geographical level; for example, an effect deemed to be significant on a feature of Local ecological importance may be only considered significant at the Site level.

9.3.22 The EIA process requires that the significance of an effect is described as either 'Major, 'Moderate', 'Minor' or 'Negligible/None'. However, best practice guidance in relation to EcIA does not support this approach, due to the complexities of ecological processes.

9.3.23 To allow the potential effects identified in this EcIA to be considered alongside those addressed in other topic chapters, a 'translation' from EcIA significance to EIA significance has been undertaken, as described in **Table 9.4: Matrix for Determination of Significance of Effects**. The translation relates the geographically based significance of ecological effects (identified through the EcIA process) to the standard terminology for significance presented in other chapters (following the EIA process), allowing direct comparison.

9.3.24 Major and moderate effects are considered significant in the context of the EIA Regulations.

Table 9.4 Matrix for Determination of Significance of Effects

EIA Significance Terminology	Corresponding EcIA Effect Significance Terminology
Major	International/European
	UK/National
Moderate	Regional
	County
Minor	Local
	Study Area
Negligible	Not significant

[33] Scottish Government (2017) The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.

Habitats Regulations Appraisal Screening

9.3.25 The potential for functional connectivity between the Proposed Development and the designated sites in **Table 9.5 Designated Sites** is considered. As such, the relevant steps of the Habitats Regulations need to be adhered to in relation to SACs.

9.3.26 The method for assessing the significance of a likely effect on an SAC is different from that employed for wider-countryside ecological interests. The Habitats Directive is transposed into domestic legislation by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland). Regulation 48 includes a number of stages to be taken by the competent authority before granting consent (these are referred to here as a Habitats Regulations Appraisal (HRA).

9.3.27 Following scoping consolation with NatureScot (refer **Table 9.2: Summary of Consultation**) the Proposed Development has been identified as not having a likely significant effect i.e. assessment beyond Stage 3 is not required. As such, there is no requirement for the competent authority to conduct an Appropriate Assessment.

Assessment Assumptions and Limitations

Assessment Assumptions

9.3.28 All ecological surveys represent a snapshot of the faunal and floral assemblages of any given site. While surveys provide an overview of the habitats and species present, they cannot be used to determine long-term trends in species and habitat populations or behaviours. Methods adopted during the surveys of the ESA represent current good practice, but the data collected cannot be used to confirm the absence of a species from the ESA. Faunal and floral assemblages are dynamic and can change over short periods of time. To that end, in addition to direct searches for evidence, the suitability of the ESA to support protected and notable species is considered.

Assessment Limitations

9.3.29 The Site is not covered by a local biological records centre, therefore desk study data was obtained from NBN Atlas only. Due to licensing rules, desk study data obtained from NBN Atlas was limited to records under the CC-BY and OGL licences only. As such a small number of records may not have been available for use. Given the habitats present within the Study Area, which is dominated by lowland agricultural land, this is not considered to have had a material impact on the conclusions of the assessment.

9.3.30 It is the policy of SSEN Transmission to use UKHab for the broad classification of habitats. This is a relatively newer classification system that is being increasingly used. Resources such as conversion tables are available for surveyors, and the survey team undertook UKHab training prior to conducting surveys. Where potential habitats of conservation concern[1] were encountered, the more detailed NVC system was used. As such, the use of the UKHab system is not considered to be a substantial limitation.

9.3.31 Due to land access limitations, surveys of some extents of the 50 m buffer surrounding the principal construction haul route (refer **Figure 12.1: Construction Access**) could only be undertaken from the public road using binoculars. As such, it is possible that ecological features or evidence of protected species may not have been recorded. However, targeted surveys of key habitat areas (such as woodlands) were undertaken. Given the intensively-managed, lowland habitats that dominate the ESA, this is not considered to have had a material impact on the conclusions of the assessment.

9.3.32 Three bat surveys of the Emmock Road Bridge (NGR NO 40002 34126) were conducted during the 2024 survey season; however, these were undertaken in August and September which does not cover the peak maternity period and this may affect the results of the surveys. Further, the results of the bat surveys may have been impacted by the weather during the summer of 2024 during which average temperatures have been lower and average rainfall has been higher, and this is anecdotally reported to have affected the levels of bat activity observed throughout the country. A precautionary approach has therefore been taken with regards to analysing the bat survey results, and robust mitigation is proposed which will include a comprehensive suite of pre-works surveys to encompass the maternity period. As such, the surveys are considered suitable to allow assessment of the impacts of the Proposed Development.

9.3.33 During the endoscope survey of the Emmock Road Bridge, not all crevices could be accessed due to deep water under the bridge preventing safe access. The bridge was however observed to be relatively well-sealed underneath. All features that were safely accessible were checked with an endoscope and overall a precautionary approach has been taken in considering the hibernation potential of Emmock Road Bridge.

9.3.34 Whilst some potential information gaps have been identified, it is considered that an appropriate level of data has been collected to enable an informed decision to be taken in relation to the identification and assessment of likely significant environmental effects on ecology.

9.4 Baseline Conditions

Summary of Baseline

9.4.1 **Table 9.5: Designated Sites within 10, 5 and 2 km of the Site** lists the SACs and Ramsar sites identified within 10 km of the Site, NNRs, SSSIs and LNRs within 5 km of the Site, RSPB, Scottish Wildlife Trust reserves and woodlands listed on the AWI identified within 2 km of the Site. There are no LNRs nor LNCS within 2 km of the Site, however there is one LNR and 16 LNCS within 2 km of the principal construction haul route, listed in **Table 9.6: Additional Designated Sites within 10, 5 and 2 km of the Principal Construction Haul Route** below.

9.4.2 In each case only sites designated for their ecological interests are considered. SPAs and SSSIs designated solely for their ornithological interest are detailed in **Chapter 10: Ornithology**.

9.4.3 Designated sites identified in the desk study and designated for their ecological interest(s) are illustrated in **Figure 9.1.2: Designated sites within 10 km and 5 km of the Site**.

Table 9.5 Designated Sites within 10, 5 and 2 km of the Site

Site Name	Designation	Approx. Distance and Orientation from the Site	Qualifying Feature(s)
Statutory Sites (within 10km)			
River Tay	SAC	Approximately 8.3 km northeast	Otter Atlantic salmon *Salmo salar* River lamprey *Lampetra fluviatilis* Brook lamprey *Lampetra planeri* Sea lamprey Petromyzon marinus Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels
Firth of Tay and Eden Estuary	SAC	Approximately 7.2 km south	Estuaries Intertidal mudflats and sandflats Harbour seal *Phoca vitulina* Subtidal sandbanks
Statutory Sites (within 5km)			
Auchterhouse Hill	SSSI	Approximately 2.7 km northwest	Subalpine dry heath
Non-statutory Designated Sites (within 2km)			
Unnamed woodland Woodland ID: 20331	Ancient Woodland	Approximately 0.1 km southwest	Long-Established (of plantation origin) (LEPO)
Unnamed woodland Woodland ID: 20334	Ancient Woodland	Approximately 1.7 km southwest	LEPO
Wynton Wood Woodland ID: 20330	Ancient Woodland	Approximately 0.3 km west	LEPO

Table 9.6 Additional Designated Sites within 10, 5 and 2 km of the Principal Construction Haul Route

Site Name	Designation	Approx. Distance and Orientation from the Site	Qualifying Feature(s)
Statutory Sites (within 10km)			
Barry Links	SAC	9.1 km southwest	Coastal dune heathland Dune grassland Humid dune slacks Shifting dunes Shifting dunes with marram
Statutory Sites (within 5km)			
Gaige Marsh	SSSI	2.7 km east	Flood-plain fen
Non-statutory Designated Sites (within 2km)			
Trottick Ponds	LNR and LNCS	Approximately 140 m east	Open water, woodland, scrub, grassland
Dighty Burn	LNCS	Within the proposed construction haul route; this LNCS flows under the U322 Emmock Road	Running water in stoney burn, and associated mature woodland and reed beds.
Balmuir	LNCS	Approximately 170 m east	Adjoins Trottick Ponds LNR & consists of semi-natural broadleaved woodland and young plantation.
Tarzan's Island	LNCS	Approximately 1.3 km southeast	A diverse and complex hill with grassland habitats, scrub and wetland margins along a burn.
Middleton Woods	LNCS	Approximately 875 m southeast	Establishing mixed native woodland, grassland, new native plantation and developing pond.
Longhaugh Quarry	LNCS	Approximately 1.5 km east	Grassland, broom scrub and ash/sycamore woodland.
Fithie Burn and Duntrune Quarry	LNCS	Approximately 1.3 km east	Proposed LNCS
Burnside of Duntrune	LNCS	Approximately 1.7 km east	Proposed LNCS
Caird Park	LNCS	Immediately south	A largely typical golf course with fairways divided by linear plantations and lines of trees.
Stobsmuir Pond	LNCS	Approximately 1.8 km southwest	Formal water feature with wooded island used by wildfowl
Scottish Water Field	LNCS	Approximately 1.8 km southwest	Small inaccessible grassland atop a covered reservoir.
Den o' Mains	LNCS	Approximately 550 m southeast, wholly within the Caird Park LNCS	Running water, ponds, marsh and woodland.
The Miley	LNCS and SWT Reserve	Approximately 1.7 km southwest	Diverse grasslands on railway ballast, tall herb/scrub and a linear woodland.
Dundee Crematorium	LNCS	Approximately 2.0 km southwest	Proposed LNCS; Mature policy woodland – highly managed in parts
Ardler Ponds	LNCS	Approximately 2.0 km southwest	Artificial ponds with reed beds.
Clatto Extension	LNCS	Approximately 1.8 km east	Neutral grassland and shrub on sloping ground with newly planted mixed native woodland

Site Name	Designation	Approx. Distance and Orientation from the Site	Qualifying Feature(s)
Statutory Sites (within 10km)			
Unnamed woodland Woodland ID: 21,033	Ancient Woodland	Within the principal construction haul route	LEPO
Unnamed woodland Woodland ID: 21,038	Ancient Woodland	Immediately west of the principal construction haul route	LEPO
Balmuir Wood Woodland ID: 21,017	Ancient Woodland	Approximately 590 m east	LEPO
Shielhill Wood Woodland ID: 21,023	Ancient Woodland	Approximately 590 m east	LEPO
Unnamed woodland Woodland ID: 21,024	Ancient Woodland	Approximately 1.4 km east	LEPO
East Muirhouse Strip Woodland :D: 21,028	Ancient Woodland	Approximately 1.2 km southeast	LEPO
Unnamed woodland Woodland ID: 21,035	Ancient Woodland	Approximately 2 km east	LEPO
Unnamed woodland Woodland ID: 21,037	Ancient Woodland	Approximately 180 m south	LEPO
Unnamed woodland Woodland ID: 21,342	Ancient Woodland	Approximately 1.6 km west	LEPO

9.4.4 Based on the qualifying features of the statutory designated sites, the distance from the Site, lack of structural or functional connectivity between the Site and the sites, and the nature of the Proposed Development, it is unlikely that there will be any significant adverse environmental effects resulting. Therefore, effects as a result of construction or operation of the Proposed Development on statutory designated sites have been scoped out of this assessment; a position that has been agreed with NatureScot in their response to the Scoping Report.

9.4.5 There are no Ramsar sites designated for non-avian features, RSPB reserves, Scottish Wildlife Trust reserves, or NNRs within the Study Area.

9.4.6 No records of deep peat or carbon rich soils were identified within 2 km of the Site[24].

Existing Records of Protected Species

9.4.7 A search of NBN Atlas returned a total of 98 records of bats within 10 km of the Site, and 388 records of other protected species within 5 km of the Site recorded within the last 15 years as detailed in **Table 9.6: Protected Species Data Search Results**. There were no records of protected species within the Site.

Table 9.6 Protected Species Data Search Results

Species	Latin Name	Number of Records	Year of Most Recent Record
Bat Records within 10km of the Site			
Common pipistrelle	*Pipistrellus pipistrellus*	34	2009 - 2020
Soprano pipistrelle	*Pipistrellus pygmaeus*	28	2009 - 2020
Daubenton's	*Myotis daubentonii*	17	2009 - 2022
Noctule	*Nyctalus noctula*	1	2013
Nyctalus species	*Nyctalus sp.*	2	2013
Unidentified bat		16	2009 - 2023
Other Protected Species within 5 km of the Site			
Beaver	*Castor fiber*	1	2023
Badger	*Meles meles*	1	2009
Water vole	*Arvicola amphibius*	1	2024
Red squirrel	*Sciurus vulgaris*	233	2009 - 2021
Common toad	*Bufo bufo*	1	2016

Field Study

9.4.8 A summary of field study findings is presented in Paragraphs 9.4.9 to 9.4.35. Detailed accounts of methods adopted, survey findings and interpretation can be found in **Appendix 9.2: Ecology Survey Report**.

Site Description

9.4.9 The Site is located approximately 2.5 km north of Dundee, and 350 m west of the existing Tealing Substation. The Site is generally flat sloping downhill from north to south, with its highest point approximately 174 m Above Ordnance Datum (AOD) located at the north of the Site.

9.4.10 The Site consists of a mix of arable fields typically separated by post and wire fences. There are two watercourses along the eastern and southwestern boundaries of the Site; an unnamed canalised ditch is located along the east boundary which converges into the Fithie Burn southeast of the Site, with a short section of the Fithie Burn flowing along the southwest boundary of the Site. Both watercourses are hydrologically connected to the Dighty Burn LNCS.

9.4.11 There are no buildings, nor blocks of woodland within the Site.

9.4.12 The topography and habitats within the Site are typical of the immediate area surrounding the Site which is predominantly comprised of arable farmland. In addition to the farmland, there are small blocks of woodland, and a small number of commercial and residential properties within the landscape surrounding the Site.

9.4.13 Habitats within the Site are intensively managed, including agricultural fields and canalised watercourses.

9.4.14 Habitats along the U322 Emmock Road comprise a mix of intensively managed farmland, similar to those present on the Site, and a mixture of woodland types. The U322 Emmock Road crosses over the Dighty Burn, the Fithie Burn and other small watercourses. The bridge over the Dighty Burn LNCS on Emmock Road ('the Emmock Road Bridge') is in Dundee.

UK Habitat Classification

9.4.15 Detailed UKHab descriptions are provided in **Appendix 9.2: Ecology Survey Report**. A summary of the habitats recorded within the ESA is provided in Paragraphs 9.4.16 to 9.4.20 below, and in **Table 9.7: UK Habitat Classifications and Proportions**.

9.4.16 The habitats of the ESA comprise a mosaic of temporary grass and clover leys, cereal and non-cereal crops and modified and other neutral grasslands. Together, these habitats account for 76.8 ha (98.6%) within the Site and 184.3 ha (95.0%) within the ESA.

9.4.17 A total of approximately 2.6 km Rivers and Lakes – Other Rivers and Streams was identified within the ESA, of which 460 m was recorded within the Site, with 190 m classed as Medium and 270 m classed as Low. One watercourse, the Fithie Burn forms a short section of the southern boundary of the Site while a second watercourse forms a canalised ditch along the eastern boundary. The two watercourses converge beyond the southeast corner of the Site.

9.4.18 A small area of the Balkemback Farm is present within the northeast of the Site, with an unsealed access track leading to the centre of the Site. Both comprise of Urban – Artificial unvegetated, unsealed surface which totals 1.1 ha (0.6%) within the ESA, of which 4.7 ha (0.2%) is within the Site.

9.4.19 Other habitats present within the Site included a total of approximately 445 m of Hedgerows (Secondary Code 1180), comprised of two hedgerows, both of which were exclusively hawthorn in poor condition, and a total of approximately 550 m of Lines of Trees (Primary Code w1g6).

9.4.20 A total of six UKHab classifications have been recorded within the Site, and a further two within the ESA. **Table 9.7: UK Habitat Classifications and Proportions** provides a summary of the habitats within the Site, with their absolute area and relative proportions.

Table 9.7 UK Habitat Classifications and Proportions

UK Habitat Classification		Area	
Code	Title	Absolute (ha)	Relative % (1 dp)
c1a5	Grassland - Other neutral grassland	0.2	0.3%
c1b	Cropland - Temporary grass and clover leys	13.8	17.7%
c1c	Cropland - Cereal Crops	34.6	44.4%
c1d	Cropland - Non-cereal crops	5.7	7.3%
g4 with secondary codes 59 and 60	Grassland - Modified grassland	22.5	28.9%
N/A	Urban - Artificial unvegetated, unsealed surface	1.1	1.4%
Code	Title	Metres	N/A
1180	Hedgerows	445	
w1g6	Lines of Trees	550	
r2b	Rivers and Lakes – Other Rivers and Streams (Medium)	190	
r2b	Rivers and Lakes – Other Rivers and Streams (Low)	270	

Bats

9.4.21 The desk study returned 98 publicly held records of bats within 10 km of the Site.

9.4.22 Habitats within the Site were found to provide limited potential for foraging and commuting bats. One tree on the west boundary was classified as offering 'PRF-I suitability'[34,35] for roosting bats meaning that the tree provided limited habitat suitable for only individual or small numbers of bats; refer to **Appendix 9.2: Ecology Survey Report** for further detail. This tree will not be lost or directly impacted during works, and the tree has not been subject to further surveys.

9.4.23 The short lengths of defunct and poor-condition hedgerows within the Site provide limited potential for commuting and foraging bats and no potential for roosting bats, thus no further surveys of the hedgerows have been undertaken. Both hedgerows will be lost during the construction of the Proposed Development.

9.4.24 The short section of the Fithie Burn along the southwest boundary of the Site and the unnamed watercourse on the east boundary provide some limited commuting and foraging habitat for bats around the southwest and east boundaries of the Site. A small section of the line of trees along the western part of the Fithie Burn on the boundary of the Site will be removed as part of the works to allow the outfall from the swale to drain directly into the Fithie Burn.

9.4.25 Given the lack of roosting opportunities and highly managed condition of the fields within the Site, bat activity levels are likely to be low within the Site.

9.4.26 The small blocks of woodland in the northeast of the ESA, associated with Balkemback Farm, may provide some roosting and foraging opportunities for bats although as these woodlands are outside of the area of any construction associated with the Proposed Development, they will not be directly impacted.

9.4.27 Woodlands alongside the principal construction haul route may provide roosting opportunities for bats, however all passing places will be restricted to unwooded areas and thus no further surveys have been conducted of the woodlands.

9.4.28 The Emmock Road Bridge over the Dighty Burn LNCS may be subject to strengthening works and was noted to have potential to support roosting bats. The Emmock Road Bridge was therefore subject to three activity surveys in 2024 which confirmed that it provides roosting opportunities for small numbers of individual soprano pipistrelle bats on an occasional basis, as well as offering hibernation potential.

9.4.29 The woodlands and the watercourses also provide good commuting and foraging opportunities. The woodlands along the Dighty Burn LNCS either side of the Emmock Road Bridge will not be subject to works and therefore were not subject to further survey.

Otter and Beaver

9.4.30 The desk study returned no publicly held records of otter within 5 km of the Site, and one record of beaver recorded in 2023.

9.4.31 The Fithie Burn was considered suitable for commuting otter and beaver, while the watercourse on the eastern boundary of the Site was not considered suitable for either species. The watercourse forming the eastern boundary of the Site is culverted and surface water is only present during periods of flood where runoff is greater than the volume of water that the culvert can accommodate.

9.4.32 The Dighty Burn LNCS was also considered suitable commuting and foraging habitat for these species, although no evidence of their presence was identified during surveys. Surveys identified no evidence of otter or beaver within the ESA.

Badger

9.4.33 The desk study returned one publicly held record of badger within 5 km of the Site, recorded in 2009.

[34] Collins, J., (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition), The Bat Conservation Trust, London. Available online: https://cdn.bats.org.uk/uploads/pdf/Resources/For-professionals/Bat-Survey-Guidelines-23-FINAL

[35] PRF-I is defined by The Bat Conservation Trust (BCT) as a Potential Roost Feature (PRF) that is 'only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats'.

9.4.34 Habitats present within the Site were not considered suitable for sett excavation, and due to the highly managed nature of the fields and lack of field edges providing very limited foraging opportunities, habitats within the Site were considered to be sub-optimal for badger.

9.4.35 Habitats within 50 m of the principal construction haul route provide greater opportunity for badger sett creation, particularly within the woodland blocks immediately south and west of the principal construction haul route, but no evidence was identified during the surveys.

Future Baseline in the Absence of the Proposed Development

9.4.36 Ecological features are rarely static in their extent, distribution and condition. Habitats and species populations are dynamic and so the prediction of future baseline is complex.

9.4.37 The land within the Site is intensively managed farmland which, in the absence of the Proposed Development, is anticipated to remain relatively unchanged. As both the Fithie Burn and unnamed watercourse have been straightened and canalised and culverted respectively, both are unlikely to change over time. Considering the surrounding land-use, the two hedgerows within the Site are unlikely to become longer, denser or more species-rich, and are more likely to remain as they are currently; they may be gradually lost over time as a result of the current management practices.

9.4.38 Settlement is likely to continue to locally change the nature of the study area, particularly given the Site's proximity to the city of Dundee, creating pressure for new housing. A number of small settlements are located in close proximity to each other, with potential future expansion of settlements, even if small in scale, likely to increase the presence of settlement in the east of the study area. Changes in farming and land management practices, driven by policy regimes or climate change, may affect the appearance of the agricultural landscape, for example the further proliferation of polytunnels.

9.4.39 Despite this, the constituent habitats and species present within the Study Area and their current range and distribution are likely to stay broadly similar to the existing baseline as field boundaries are unlikely to be significantly lost to more intensive agricultural practices, although beaver in particular is known to be spreading within the River Tay catchment and may move onto new watercourses as the population grows.

Implications of Climate Change for Baseline Conditions

9.4.40 The predicted effects of climate change are not likely to have a bearing on the ecological status of the Site. The UK Climate Projections (most recently UKCP18) generally predicts hotter, drier summers and milder, wetter winters, with an increase in the number of heavy rain days and the frequency of winter storms.

9.4.41 The Angus Council Local Climate Impacts Profile, 2nd edition (LCLIP) (2012)[12] highlights the region's vulnerability to severe weather events and the impact it has on infrastructure, based on the 2009 Met Office Climate Projections and analysis of severe weather in the council area from 2009. It notes that the most frequently experienced severe weather in Angus was high winds, heavy rain, and heavy snow – all of which '*significantly affect infrastructure*'[36]. Damage to infrastructure, which includes roads, railways and communications networks, was noted as the second largest affected service. The damage includes structural and access issues as a result of fallen trees/ windblown forestry and damage to road surfaces. An updated LCLIP based on the 2018 Climate Projections has not been provided.

9.4.42 These predicted changes may result in changes to the vegetation assemblages in the wider landscape, but given the habitats within the Site, and current land management practices, it is considered unlikely that climate change will have a significant bearing on the structure and function of the habitats present within the Site.

9.4.43 Individual species may be adversely affected by the predicted changes in the climate if conditions affect the survival rate of the animals at a critical life stage such as at hibernation or during breeding. Distribution changes of species in the lowlands as a result of climate change is difficult to predict. However, considering that habitats within the Site are

[36] Angus Council (2012). Angus Council Local Climate Impacts Profile. [Online] Available at: https://www.angus.gov.uk/sites/default/files/LCLIPv2_0.pdf.

predominantly intensively managed agricultural fields, it is considered unlikely that protected and notable species would utilise this Site to a greater extent in the future as a result of climate change.

Summary of Baseline

Ecological Importance

9.4.44 **Table 9.8: Ecological Importance Assessment** provides an interpretation of the Ecological Importance of the ESA for those species scoped into the assessment. A detailed account of these receptors is provided in **Appendix 9.2: Ecology Survey Report**. Habitats recorded were common and widespread, and no habitats of conservation concern[1] were identified; as such, habitats have been scoped out from further assessment and are not presented in the table below.

Table 9.8 Ecological Importance Assessment

Ecological Feature	Ecological Importance of Site for Ecological Feature	Rationale
Bats	Study Area	The ESA contains very few trees or structures with bat roost potential, and very limited potential for foraging and commuting bats within the ESA. From a desk study assessment, it is considered that there is more suitable foraging habitat within the wider landscape, notably in woodlands outside the ESA, and in the absence of evidence of bat roosts on the Site, and limited potential for bat roosts within the ESA (which includes the bridge over the Dighty Burn), it is likely that the ESA is not of importance for bats beyond the Local level.
Otter and Beaver	Study Area	No evidence of otter or beaver was identified within the ESA. The Fithie Burn was considered suitable for commuting and foraging otter and beaver, while the unnamed watercourse on the eastern boundary was not considered suitable for either species. From a desk study assessment, it is considered that watercourses within the surrounding landscape provide more suitable habitat for otter and beaver and in the absence of evidence within the ESA and limited potential habitat on the Site boundaries only, it is likely that the ESA is not of importance to either otter or beaver beyond the Study Area level.
Badger	Study Area	No evidence of badger was identified within the ESA. Habitats within the ESA provide suitable foraging and commuting habitat for badger but offer very limited sett excavation opportunities. From a desk study assessment, it is considered that habitats in the wider landscape provide suitable foraging, commuting and sett excavation habitat. Given the habitats and land use present within the Site and surrounding landscape, it is likely that the ESA is not of importance to badger beyond the Study Area level.

Likely Effect Pathways

9.4.45 Potential effects associated with the construction and operation of the Proposed Development have been identified thorough consideration of information provided in **Chapter 3: Description of the Proposed Development**, standard guidance and guidelines and the professional judgement of the assessor.

9.4.46 **Table 9.9: Identification of Likely Effects** related the ecological features to potential effects, effect pathways and development activities. For ease of reference, the table is set out by ecological feature, listing the development activity which has been identified as having the potential to impact each feature, then listing the pathway identified. The likely effect(s) are then identified which are assessed later in this Chapter.

Table 9.9 Identification of Likely Effects

Ecological Feature	Development Activity	Likely Effect Pathway	Likely Effect
Construction Activities			
Bats	• Loss of hedgerow in centre of the Site • Loss of small section of treeline along the Fithie Burn for construction of the swale outfall • Strengthening works on the Dighty Burn bridge • Installation of construction site security lighting • Presence of construction staff and vehicles	• Removal of foraging and commuting habitat in the centre and south of the Site • Light spill on foraging areas • Loss of potential roost habitat	• Habitat loss • Habitat fragmentation
Otter and Beaver	• Loss of small section of treeline along the Fithie Burn for construction of the swale outfall • Presence of fuelled plant • Installation of construction site security lighting • Presence of construction staff and vehicles	• Loss of a short section of riparian habitat which may provide foraging and commuting potential • Changes in water quality and volume • Pollution event	• Habitat loss • Habitat fragmentation
Badger	• Loss of foraging habitat within the Site • Installation of construction site security lighting • Presence of construction staff and vehicles	• Permanent loss of foraging and commuting habitat within the Site	• Habitat loss • Habitat fragmentation

9.5 Mitigation and Monitoring

9.5.1 Where likely significant effects are identified, mitigation measures are proposed to alleviate their significance as far as is possible. Effects are re-assessed on the basis that mitigation measures will be applied, and a residual significance identified. An important part of this step is the identification of the likely success, or confidence in, the proposed mitigation measure.

Embedded Mitigation

9.5.2 Topic specific embedded mitigation (mitigation achieved through design) is outlined below.

- E1: Landform of the screening bunds around the substation platform has been varied to provide opportunities for different ecological niches as part of the habitat creation proposals that will help to deliver enhancement through

Biodiversity Net Gain (BNG[37]). Habitats will include areas of native deciduous tree planting, areas of scrub, grassland, and wet grassland habitats as shown on **Figure 3.2: Landscape Zonal Plan**.

- E2: The substation drainage design follows sustainable drainage systems (SuDS) and the drainage swale has been designed to allow for wet grassland habitats to be created which offer the potential for local biodiversity enhancement in the longer term.
- E3: Where possible, retention of trees (particularly those with bat roost potential) and riparian habitat along the Fithie Burn that provide commuting and foraging, and potential bat roost opportunities for a range of protected species.

Applied Mitigation

9.5.3 The Applicant is committed to the implementation of Applied Mitigation, summarised in **Table 9.6: Applied Mitigation**, which comprise of the Applicant's General Environmental Management Plans (GEMPs)[38,39,40] and SPPs[5,6,7,8,9,10]. These plans will be secured as conditions of the Principal Contract between the Applicant and the Principal Contractor. Further, the Principal Contractor would be required to prepare additional plans, as a requirement of the Principal Contract, including an Ecological and Ornithological Management Plan. In addition to delivering this Applied Mitigation through contract, it is expected that such mitigation will also be secured by Angus Council through planning conditions.

9.5.4 The requirement for an Advisory Environmental Clerk of Works (ECoW)[41] as defined in **Chapter 3: Description of the Proposed Development** is provided for under the Applicant's Consents and Environmental Specification. The ECoW will be present during construction to provide onsite support and advice, and will monitor compliance with the CEMP, GEMPs[38,39,40], SPPs[5,6,7,8,9,10], the environmental requirements that the Applicant places upon the Principal Contractor, and relevant legislation. The ECoW will report directly to the Applicant where immediate remediation or correction is required. The ECoW will provide regular reporting which will be made available to all relevant site staff including the Applicant. A detailed Scope of Works for the role will be agreed with NatureScot and Angus Council before construction commences. The definition and scope of the role of ECoW has been in **Chapter 3: Description of the Proposed Development**).

9.5.5 The SPPs[5,6,7,8,9,10] cover the protected and notable species considered in this assessment, and will be implemented to monitor species during construction and operation. This includes pre-construction survey updates which will be undertaken to ensure survey data being relied upon during construction is not more than 12 months old or as per best practice guidelines[23] in the season immediately prior to construction (particularly for mobile species, including bats, otter, beaver and badger). Where surveys find evidence of new protected features (e.g. resting sites), amendment of the proposals will attempt to avoid effects. If this is not possible, the ECoW will make the necessary protected species licence applications. The CEMP will be a 'live' document, and will be updated in light of new findings, for example if pre-construction surveys identify a requirement for site- and species-specific mitigation measures.

Table 9.10: Applied Mitigation

Mitigation Measure	Project Stage/Timing	Responsibility
• E4: Adherence to SSEN Transmission's Standard GEMPS (Working In or Near Water[38], Dust Management[39] and Biosecurity[40]) and SPPs (Badger[5], Bat[6], Beaver[7], and Otter[8]). Implementation would be overseen by a suitably experienced ECoW with further detail on the definition of this role and implementation as	Prior to and during construction	Principal Contractor/ECoW

[37] EB1 has been developed in response to Policy 3 of NPF4, and SSEN Transmission's Biodiversity Net Gain policies. Policy 3 requires delivery of meaningful biodiversity enhancement; however, delivery of BNG is not currently a national policy requirement in Scotland.
[38] SSEN Transmission (2022) General Environmental Management Plans – Working In or Near Water.
[39] SSEN Transmission (2020) General Environmental Management Plans – Dust Management
[40] SSEN Transmission (2020) General Environmental Management Plans – Biosecurity (On Land)
[41] AECoW (undated) The Role of an Environmental Clerks of Works Position Statement

Mitigation Measure	Project Stage/Timing	Responsibility
part of an outline Construction Environment Management Plan (see E5 below).		
• E5: Preparation and implementation of CEMP which will incorporate an Ecological and Ornithological Management Plan pursuant to the contractual requirements of the Principal Contractor.	Prior to and during construction	Principal Contractor/ECoW
• E6: Undertaking any works at the Emmock Road Bridge in accordance with a European Protected Species Licence.	Prior to and during construction	Principal Contractor/ECoW
• E7: The Applicant will implement on-site and off-site BNG measures, as defined in **Appendix 9.3: Biodiversity Net Gain Assessment Report**. BNG measures will deliver no less than a 10% net gain in biodiversity units, and will be underpinned by sound ecological principles to deliver broad benefits for a range of ecological features.	Pre-energisation as defined in **Chapter 3: Description of the Proposed Development**	Applicant

Further Survey Requirements and Monitoring

9.5.6 A detailed CEMP will be produced ahead of the commencement of works (see E5), and will be supported by SSEN Transmission's SPPs[5,6,7,8,9,10] (see E4) which set out the approach to the survey and monitoring of protected species during construction. This will include a programme of re-survey to ensure mobile species are protected during works. The SPPs also detail proposals for longer-term monitoring. The level of survey effort and the scope of SPP is proportionate and cognisant of the limited evidence of protected species identified.

9.5.7 Pre-construction update surveys will be undertaken within the 12 months prior to any construction works as per the requirements of the SPPs[5,6,7,8,9,10] (see E4 above); these surveys will confirm the current status of the Site with regards to the protected and notable species identified in this assessment.

9.5.8 Post-construction habitat surveys and monitoring will be undertaken to ensure that mitigation measures are effective, potentially sensitive habitats are retained, and to identify any requirement for improvements or remedial works. These monitoring measures are summarised in **Table 9.11: Monitoring Measures**.

Table 9.11: Monitoring Measures

Monitoring Measure	Project Stage/Timing	Responsibility
• E8: Survey and monitoring to ensure the ongoing efficacy of mitigation measures and identify any requirement for further intervention.	Prior to, during and following construction	Principal contractor / ECoW

Compensation/Enhancement

9.5.9 A BNG Report (**Appendix 9.3: Biodiversity Net Gain Assessment Report**) has been produced for the Site. This document details the ecological value of the baseline, and the measures that will be implemented within the Site through the landscape design (**Figure 7.6 Landscape Design**) to "conserve, restore and enhance biodiversity" in accordance with NPF4 policy 3(b). The Landscape Design has been developed using sound ecological principles and with reference to existing and emerging BNG best practice.

9.5.10 As a result of the limited onsite opportunity, offsite BNG opportunities are being explored at locations remote from the Site but within the Angus Council area in line with the policy commitments of the Applicant and expected planning requirements.

9.5.11 Discussions are being advanced with potential BNG partners (site owners/project developers) regarding projects and sites are being evaluated based on their location, and their potential to provide strategic and holistic biodiversity gain for the area.

9.5.12 The sites that are shortlisted for further assessment will be surveyed by our environmental contractors using the SSEN Transmission metric to measure their BNG potential. BNG partners will also be assessed, and due diligence will be undertaken of potential projects prior to the agreement of heads of terms with BNG partners. Contracts with partners will not be agreed however, until planning consent for the Proposed Development has been granted.

9.5.13 The chosen BNG sites will adhere to SSEN Transmission key BNG goals, namely, to compensate for losses through habitat creation and enhancement, to collaborate with landowners, partners and consultants and to positively impact local council areas.

9.6 Assessment of Likely Significant Effects - Construction

9.6.1 The assessment of effects identified below is based on the project description as detailed in **Chapter 3: Description of the Proposed Development**. Unless otherwise stated, potential effects identified are considered to be adverse.

Predicted Construction Effects

Bats

9.6.2 Likely effects on bats during construction have been identified as:

- Direct habitat loss in relation to suitable sheltering, commuting and foraging habitat; and
- Habitat fragmentation through severance of commuting and foraging corridors.

9.6.3 With the exception of the SUDS outfall to the Fithie Burn and areas of landscaping, no permanent infrastructure is located within SEPA's Recommended Riparian Corridors for adjacent watercourses. Furthermore, laybys along the proposed construction route will be located in agricultural habitats rather than adjacent woodland habitats. As such, any requirement for removal of woodland is minimised, and the habitat potential for commuting, foraging and roosting bats is maintained along the Site boundary and the proposed construction route.

9.6.4 One hedgerow in the centre of the Site will be lost as result of the works. This hedgerow is isolated and of poor quality therefore it is unlikely to be utilised as a frequent commuting route or foraging habitat by bats.

9.6.5 Any structural works that may be required to the Emmock Road Bridge over the Dighty Burn could impact upon roosting bats.

9.6.6 In considering the above, the significance of potential effects on bats is detailed in **Table 9.12: Assessment of Significance of Likely Construction Effects – Bats**. Significance is assessed within the context of the Ecological Importance of the ESA for bats (see **Table 9.8: Ecological Importance Assessment**).

Table 9.12 Assessment of Significance of Likely Construction Effects - Bats

Parameter	Likely Effect	
	Direct Habitat Loss	Habitat Fragmentation
Extent	Limited to the infrastructure within the Site requiring removal of one hedgerow which may provide some very limited foraging and commuting habitat within the centre of the Site. In addition, a very small section of vegetation on the Fithie Burn will be removed on the left bank to create the SuDS outfall into the burn, although this is unlikely to materially affect the flight line along the watercourse. There are no known roosts within the Site. Any structural works to the Emmock Road Bridge could affect potential roosting features directly.	Limited to fragmentation of commuting and foraging habitat linkages around and through the Site such as removal of a potential commuting route (hedgerow) through the Site and removal of a very small section of vegetation for the construction of the SuDS outfall into the Fithie Burn.

Parameter	Likely Effect	
Magnitude	Habitat loss will be minimal within the Site as only the hedgerow in the centre of the Site will be lost and a small section of vegetation along the Fithie Burn to create the SuDS outfall from the swale.	A very small proportion of the available resources within and along the southern edge of the Site could be affected.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible
Likelihood	Unlikely within the Site. The hedgerow within the Site is considered to provide no suitable habitat for roosting bats. It may provide some commuting and foraging potential, but this is very limited. The Fithie Burn will be retained with a very minimal section of vegetation removed to construct a SuDS outfall. Possible at the Dighty Burn. Any loss of a confirmed roosting feature on the Emmock Road Bridge would be mitigated through the commitment to undertake updated surveys and adherence to a licence for the works that would be granted by NatureScot in advance of any construction in this area.	Unlikely. The tree-lined Fithie Burn will be retained and will not be subject to additional construction works. New hedgerows and infill planting along the Fithie Burn will provide improved connectivity around the Site.
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Otter and Beaver

9.6.7 Likely effects on otter and beaver during construction have been identified as:

- Direct habitat loss in relation to suitable sheltering, commuting and foraging habitat; and
- Habitat fragmentation through severance of commuting and foraging corridors.

9.6.8 With the exception of the SUDS outfall to the Fithie Burn, the crossing of the unnamed watercourse and areas of landscaping, no permanent infrastructure is located within SEPA's Recommended Riparian Corridors for adjacent watercourses, and as such the potential for habitat loss or fragmentation is limited.

9.6.9 The Fithie Burn may provide some opportunity for commuting and foraging otter although no evidence was found during surveys. The vegetation on the banks of the watercourse which provide cover for any commuting or foraging otter will be subject to very limited works to construct a SuDS outfall. This will involve removal of a very small section of vegetation on the north bank only.

9.6.10 Works on the Emmock Road Bridge will take place within the riparian corridor of the Dighty Burn, but these will not result in direct habitat loss or fragmentation. Landscaping works on the Site will be delivered within these riparian corridor of the Fithie Burn. Strict pollution prevention measures will be implemented to protect the water environment as outlined in SSEN Transmission's GEMPs; Working In or Near Water[38], Dust Management[39] and Biosecurity[40].

9.6.11 The best practice methods of work will safeguard the riparian habitats which may be important for commuting and foraging otter and beaver, thereby reducing potential foraging habitat loss and preventing habitat fragmentation.

9.6.12 In considering the above, the significance of potential effects on otter is detailed in **Table 9.13: Assessment of Significance of Likely Construction Effects – Otter and Beaver**. Significance is assessed within the context of the ecological importance of the Survey Area for otter and beaver.

Table 9.13. Assessment of Significance of Likely Construction Effects - Otter and Beaver

Parameter	Likely Effect	
	Direct Habitat Loss	Habitat Fragmentation
Extent	Localised. A very small section of vegetation on the Fithie Burn will be removed on the northeast bank to create the SuDS outfall into the burn, although this is unlikely to materially affect the habitat resource available for otter and beaver along the watercourse. No habitat loss will result from works to the Emmock Road Bridge.	Limited. The riparian habitats of the Fithie Burn will be infilled which will improve the connectivity of this watercourse. No habitat fragmentation will result from works to the Emmock Road Bridge.
Magnitude	Very minimal habitat loss on the northeast bank will occur where the swale outfall into the Fithie Burn is constructed. Additional habitat will be created as a result of the SuDs, and the existing riparian habitats along the Fithie Burn will be retained and improved.	A very small proportion of the available resources within the Site could be affected through loss of vegetation along the Fithie Burn. Additional wetland habitat will be created that will connect into the existing watercourse network.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction of the drainage tie-in.	One-off event during construction of the drainage tie-in.
Reversibility	Irreversible	Reversible
Likelihood	Unlikely. The Fithie Burn will be retained with a very minimal section of vegetation removed to construct a SuDS outfall.	Unlikely. The tree-lined Fithie Burn will be retained and will not be subject to additional construction works.
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Badger

9.6.13 Likely effects on badger during construction have been identified as:

- Direct habitat loss in relation to suitable sheltering, commuting and foraging habitat; and
- Habitat fragmentation through severance of commuting and foraging corridors.

9.6.14 The design process has considered these likely effects and sought to mitigate them. Laybys along the principal construction haul route will be located in agricultural habitats rather than adjacent woodland habitats. This approach reduces the requirement for removal of woodland, and maintains key areas of habitat potential for badger along the principal construction haul route.

9.6.15 The survey identified no evidence of badger, and limited opportunity for sett building, foraging and commuting within the Site. In addition, no evidence of badger has been identified in woodland along the principal construction haul route. However, badger is known to be present in the wider area as the desk study identified one record of badger within the search area in 2009. As the habitats provide some potential for badger, albeit limited, a precautionary approach is considered appropriate.

9.6.16 In considering the above, the significance of potential effects on badger is detailed in **Table 9.14: Assessment of Significance of Likely Construction Effects – Badger**. Significance is assessed within the context of the ecological importance of the Survey Area for badger.

Table 9.14. Assessment of Significance of Likely Construction Effects - Badger

Parameter	Likely Effect	
	Direct Habitat Loss	**Habitat Fragmentation**
Extent	Limited to infrastructure location, affecting potential foraging and commuting habitats. There are no known setts within the Site or wider ESA.	Removal of habitat is limited to habitats that are predominantly intensively-managed arable land. The Proposed Development will be immediately surrounded by habitat which will remain suitable for foraging and commuting badger. Connectivity around the Site will be improved through the implementation of landscape proposals. This approach limits the effects of fragmentation.
Magnitude	Habitat loss will be minimal within the Site.	Limited to a relatively small area of habitat with limited suitability, particularly as more suitable habitats are present in the context of the wider landscape. There is limited potential to disrupt commuting patterns and foraging grounds.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible
Likelihood	Certain	Unlikely. Habitats of greater potential, such as woodlands along Emmock Road, will not be directly impacted. Connectivity around the Site will be maintained, and landscaped areas will provide varied opportunities for foraging.
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Additional Mitigation

9.6.17 The assessment has not identified any likely significant effects (in EcIA or EIA terms). The Proposed Development has sought to implement the mitigation hierarchy in relation to effects on habitats.

9.6.18 Construction will be conducted in accordance with SSEN Transmission GEMPs[38,39,40], SPPs[5,6,7,8,9,10] and a CEMP, including an Ecological Management Plan, and supervision of an ECoW. As no significant effects were identified, no additional mitigation measures are proposed.

Residual Construction Effects

9.6.19 Subject to adherence with all embedded and applied mitigation, no significant residual effects (in EIA terms, see the conversion table, **Table 9.4: Matrix for Determination of Significance of Effects**, above) as a result of construction of the Proposed Development are anticipated on the important ecological features identified.

9.7 Assessment of Likely Significant Effects - Operation

9.7.1 All operational effects on important ecological features as a result of the Proposed Development have been scoped out of assessment.

9.8 Assessment of Likely Significant Effects - Decommissioning

9.8.1 Decommissioning effects are unclear given the Proposed Development's operational life and the manner in which ecological features at the Site could change of such a long period. However, while decommissioning effects are not assessed further, it is unlikely that the significance of effects experienced at that time will be greater than those assessed for the construction phase.

9.9 Assessment of Residual Cumulative Effects

Introduction

9.9.1 Predicted adverse effects on ecology arising from the construction of the Proposed Development have the potential to contribute to cumulative effects upon wider populations of protected species. Given the habitats present within the Site are intensively managed and widespread in the landscape, with limited potential for protected species, a 3 km search area is considered appropriate.

9.9.2 **Table 9.7: Cumulative Assessment: Associated SSEN Transmission Developments** provides a cumulative assessment of the Proposed Development with the Associated SSEN Transmission Developments defined in **Chapter 1: Introduction**.

9.9.3 **Table 9.8: Cumulative Assessment: Other Projects** provides a cumulative assessment of the Proposed Development with other reasonable foreseeable SSEN Transmission and 3rd party developments.

Table 9.7: Cumulative Assessment: Associated SSEN Transmission Developments[42,43]

	Construction		
Project	**Badger**	**Bats**	**Otter/Beaver**
Kintore to Tealing 400 kV OHL	The Proposed Development is not predicted to have a significant effect upon badger given that this species was not identified using the ESA during surveys. Furthermore, the desk study returned only one publicly held record of badger within 5 km of the Site (refer to **Appendix 9.1: Desk Study and Legal Context**). The additional land take associated with the construction of the Kintore to Tealing 400 kV OHL is not likely to introduce a significant loss of habitat. Extensive areas of habitats suitable for foraging and commuting badger are present within the wider landscape, there is a lack of suitable habitat for sett excavation on the Site, and good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Developments, which includes pre-construction survey in suitable habitats. This will therefore reduce the risk across the sites. Accordingly, cumulative effects are considered not significant.	The Proposed Development is not predicted to have a significant effect upon bats given the mitigation measures that are in place and the lack of suitable habitat within the Site (refer to **Appendix 9.2: Ecology Survey Report**). Bats are known to be present in the landscape and there is the potential for significant effects as a result of the Kintore to Tealing 400 kV OHL through habitat loss and fragmentation. However, with the information available at present on the location of these works within the ESA and the adoption of the Bat SPP6 (as confirmed in the Kintore to Tealing 400 kV OHL Scoping Report), it is not likely that there will be a significant cumulative effect.	The Proposed Development is not predicted to have a significant effect upon otter and beaver as no evidence of otter or beaver was identified within the ESA. The desk study also identified no publicly held record of otter within 5 km of the Site, and only one record of beaver (refer to **Appendix 9.1: Desk Study and Legal Context**). The likely land take associated with the Kintore to Tealing 400 kV OHL during construction is not likely to introduce a significant loss of habitat. Extensive networks of watercourses with potential for otter, and to a lesser extent beaver, are present within the wider landscape. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Developments, which includes a pre-construction survey in suitable habitats. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.

[42] As defined in **Chapter 1: Introduction**

[43] The proposed Hurlie Substation is remote from the Proposed Development and is not considered here.

	Construction		
Alyth to Tealing Tie-in	As Above	As Above	As Above
Westfield to Tealing Tie-in	As Above	As Above	As Above
Emmock to Tealing Tie-ins	As Above	As Above	As Above
Summary	The ESA has not been identified as being of importance for these protected species beyond the Study Area level. No significant construction effects have been identified in connection with the Proposed Development and it follows that significant effects arising from the Proposed Development together with other Associated SSEN Transmission Developments are also unlikely, based on the information on these projects which is currently available.		

Table 9.8: Cumulative Assessment: Other Projects

	Construction		
Project	**Badger**	**Bats**	**Otter/Beaver**
400kV upgrade of the existing Alyth to Tealing OHL	The Proposed Development is not predicted to have a significant effect upon badger given that this species was not identified using the ESA during surveys. Furthermore, the desk study returned only one publicly held record of badger within 5 km of the Site (refer to **Appendix 9.1: Desk Study and Legal Context**). Alyth to Tealing identified suitable habitat throughout their site, and evidence of badger within the search area[44]. Exact locations are not made public.	The Proposed Development is not predicted to have a significant effect upon bats given the mitigation measures that are in place and the lack of suitable habitat within the Site (refer to **Appendix 9.2: Ecology Survey Report**). Alyth to Tealing identified five records of bats within their study area (including brown long-eared *Plecotus auritus*, soprano and common pipistrelle bats)[44]. Bats are known to be present in the landscape and there is potential for significant effects through habitat loss and fragmentation.	The Proposed Development is not predicted to have a significant effect upon otter and beaver as no evidence of otter or beaver was identified within the ESA. The desk study also identified no publicly held records of otter within 5 km of the Site, and only one record of beaver (refer to **Appendix 9.1: Desk Study and Legal Context**). Alyth to Tealing identified 18 records of otter and 1,196 records of beaver within their search area[44]. No evidence of otter was identified with their site, although suitable habitat was noted. Incidental evidence of beaver was noted to be present.

[44] SSEN Transmission (2024) Alyth to Tealing OHL 400kV Upgrade; Scoping Report.

	Construction		
	The habitats present within the wider landscape are suitable for foraging and commuting badger, there is a lack of suitable habitat for sett excavation on the Site, and good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Developments, which includes a pre-construction survey. This will therefore reduce the risk across the sites. Accordingly, cumulative effects are considered not significant.	However, with the information available at present on the location of these works, and the adoption of the Bat SPP[6], it is not likely that there will be a significant cumulative effect.	Given the nature of this development, it is unlikely that otter and beaver will be affected and accordingly, there is no likely cumulative significant effects.
400kV upgrade of the existing Tealing to Westfield OHL	As above	As above, although Tealing to Westfield identified six records of bats (including unidentified pipistrelle and unidentified species bats) within their survey area[45].	As above although Tealing to Westfield identified six records of otter and 86 records of beaver within their search area[45].
Fithie Energy Park Balnuith BESS Myreton BESS	The Proposed Development is not predicted to have a significant effect upon badger given that this species was not identified using the ESA during surveys. Furthermore, the desk study returned only one publicly held record of badger within 5 km of the Site (refer to **Appendix 9.1: Desk Study and Legal Context**). As these projects are particularly close to the Site, their habitats are broadly similar so there is	The Proposed Development is not predicted to have a significant effect upon bats given the mitigation measures that are in place and the lack of suitable habitat within the Site (refer to Appendix **9.2: Ecology Survey Report**). As these projects are particularly close to the Site, their habitats are broadly similar and trees within the area offer limited bat roost potential. As such, there is a similar likelihood	The Proposed Development is not predicted to have a significant effect upon otter and beaver as no evidence of otter or beaver was identified within the ESA. The desk study also identified no records of otter within 5 km of the Site, and only one record of beaver[46]. As these projects are particularly close to the Site, their habitats are broadly similar so there is a similar likelihood of direct habitat loss or fragmentation to the Proposed Development[46].

[45] SSEN Transmission (2024) Tealing to Westfield Environmental Impact Assessment; Scoping Report.

	Construction		
	a similar likelihood of direct habitat loss or fragmentation to the Proposed Development[46,47]. It is assumed that each project will have similar embedded mitigation measures in place to protect and retain key features and habitats where present. The habitats present within the wider landscape are suitable for foraging and commuting badger, there is a lack of suitable habitat for sett excavation on the Site, and good practice construction measures are to be implemented for the Proposed Development, which includes a pre-construction survey. This will therefore reduce the risk across the sites. Accordingly, cumulative effects are considered not significant.	of direct habitat loss or fragmentation to the Proposed Development[46]. It is assumed that each project will have similar embedded mitigation measures in place to protect and retain key features and habitats where present. Given the low numbers of common species of bats identified, the proposed works and the application of standard best practice methods with regards to bats, cumulative effects are considered not significant.	It is assumed that each project will have similar embedded mitigation measures in place to protect and retain key features and habitats where present. Given the low numbers of records, and absence of any evidence of these species on the Site, cumulative effects are considered not significant.
Summary	The ESA has not been identified as being of importance for these protected species beyond the Study Area level. No significant construction effects have been identified in connection with the Proposed Development and it follows that significant effects arising from the Proposed Development together with these other developments are also unlikely, based on the information on these projects which is currently available.		

[46] Banks Renewables (2024) Fithie Energy Park; Request for Screening Opinion.
[47] Akku (2024) Myreton Battery Energy Storage System; Request for Screening Opinion.

9.10 Summary of Significant Effects

9.10.1 No residual significant effects have been identified on important ecological features as a result of the proposed Emmock 400 kV substation project.