VOLUME 2 – CHAPTER 10: ECOLOGY AND BIODIVERSITY

Figures (Volume 3 of this EIA Report)

Figure 10.1.1: The Proposed Development and Survey Area;

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Appendices (Volume 4 of this EIA Report)

Appendix 10.1 Desk Study and Legal Policy Context

Appendix 10.2 Habitats and Vegetation Survey Report

Appendix 10.3 Protected Species Survey Report (including bats)

Appendix 10.4 BNG Report

10. ECOLOGY

10.1 Introduction

10.1.1 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. This 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); and
- assess the residual effects remaining following implementation of mitigation.

10.1.2 This chapter should be read in conjunction with **Chapter 3: Description of the Proposed Development** for full details of the Proposed Development. This chapter should also be read alongside **Chapter 11: Ornithology** of the EIA Report which assesses likely significance in relation to avian features, and **Chapter 12: Hydrology, Hydrogeology, Geology and Soils** which assesses the likely significance of peat and groundwater among other factors.

10.1.3 This chapter is supported by **Figures 10.1.1 – 10.3.2** in **Volume 3**, which are referenced throughout the text and introduced below:

- **Figure 10.1.1: The Proposed Development and Survey Area**;
- **Figure 10.1.2: Designated Sites within 10 km and 5 km of the Proposed Development**;
- **Figure 10.2.1: Habitat Survey Results**;
- **Figure 10.2.2: National Vegetation Classification Survey Results**;
- **Figure 10.3.1: Protected Species Survey Results**; and
- **Figure 10.3.2: Bat Survey Results**.

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

- **Appendix 10.1: Desk Study and Legal Context**;
- **Appendix 10.2: Habitats and Vegetation Survey Report**;
- **Appendix 10.3: Protected Species Survey Report**; and
- **Appendix 10.4: Biodiversity Net Gain Assessment Report**.

10.1.5 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**.

10.1.6 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, internal access, drainage and landscape features and temporary construction compounds set-down, equipment and materials storage areas (see Section 3.3 in **Chapter 3: Description of the Proposed Development**).

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

- Access Track: The existing track from Slug Road to the north and from Hill of Quithel to the southwest; and
- Ecology Survey Area (ESA): The area within the planning application (red-line) boundary, plus relevant buffers (up to 250 m around the Proposed Development, and up to 50 m around the Access Track) where access was granted in which all ecology surveys were undertaken in line with good practice guidelines for all ecological features surveyed (see **Figure 10.1.1: The Proposed Development and Ecology Survey Area).**

10.2 Scope of the Assessment

Effects Assessed in Full

10.2.1 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 embedded mitigation.

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

- Indirect effects during construction on Mergie Local Nature Conservation Site (LNCS);
- Direct effects during construction on woodland listed on the Ancient Woodland Inventory (AWI);
- Direct effects during construction on habitats of conservation concern[1];
- Direct and indirect effects during construction on protected species[2], and species noted to be national[3] or local[4] importance, due to habitat loss or fragmentation - specifically bats, otter, wildcat, badger, water vole, red squirrel, pine marten;
- Cumulative effects during construction on sensitive ecological receptors.

Effects Scoped Out

10.2.3 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 effects during construction and operation on designated sites;
- Indirect effects during construction on designated sites (with the exception of Mergie LNCS);
- Indirect effects during construction on woodland listed on the AWI;
- Direct and indirect effects during operation on designated sites and woodland listed on the AWI;
- Indirect effects during construction on habitats of conservation concern[1];
- Direct and indirect effects during operation on habitats of conservation concern;
- Direct and indirect effects during construction and operation on protected and notable species as a result of habitat loss or fragmentation - specifically mountain hare, brown hare, hedgehog, amphibians and reptiles;
- Direct and indirect effects during construction and operation on protected and notable species as a result of mortality and disturbance;
- Direct and indirect effects on invertebrate species during construction and operation; and
- Cumulative effects during operation on habitats of conservation concern and protected species.

[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); NatureScot (2022) Scottish Biodiversity List. Available online: https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/scottish-biodiversity-list. Accessed November 2024.
[4] i.e. listed on a Local Biodiversity Action Plan (LBAP) relevant to the Proposed Development.

10.2.4 In addition to the effects scoped out above, operational effects on Mergie LNCS have been scoped out. Standard good practice measures are proposed to be implemented, and as such there are no reasonably foreseeable impacts via the Burn of Day that would result in an impact to Mergie LNCS.

10.2.5 Although a number of protected species have been scoped out of detailed assessment, the legislative protections afforded to these will be included in a Construction Environmental Management Plan (CEMP), which it is assumed will be secured through an appropriately worded planning condition, and adopted Species Protection Plans (SPPs)[5,6,7,8,9,10,11] published by SSEN Transmission, adherence to which is a contractual requirement of the Principal Contractor.

10.2.6 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 an 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, and appropriate measures that may be necessary to ensure legislative compliance.

10.2.7 Aberdeenshire Council, NatureScot and SEPA, in their Scoping Opinion, did not raise any comment or disagreement to the proposed scope of assessment within the Scoping Report.

Study Area

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 10.1: Desk Study and Legal Context, Appendix 10.2: Habitats and Vegetation Survey Report** and **Appendix 10.3: Protected Species Survey Report.** The Study Areas for this assessment are the Site plus relevant buffers of up to 10 km radius as shown in **Figure 10.1.1: The Proposed Development and Survey Area** and **Figure 10.1.2: Designated Sites within 10 km and 5 km of the Proposed Development and** defined in **Table 10.1: Study Area Descriptions: Desk-Based Studies**.

Table 10.1: Study Area Descriptions: Desk-Based Studies

Ecological Feature	Designation Type	Buffer from the Site
Statutory Designated Sites	• Special Areas of Conservation (SAC); and • Ramsar Sites • Sites of Special Scientific Interest (SSSI); • National Nature Reserves (NNR); and • Local Nature Reserves (LNR).	10 km
Non-Statutory Designated Sites	• Local Nature Conservation Sites (LNCS); • RSPB and Scottish Wildlife Trust Reserves; and • Ancient/Long-established Woodland.	5 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

10.2.8 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 10.1.1: The Proposed Development and Survey Area)** and a 50 m buffer (where

[5] SSEN Transmission (2023) Badger Species Protection Plan
[6] SSEN Transmission (2023) Bat Species Protection Plan
[7] SSEN Transmission (2022) Otter Species Protection Plan
[8] SSEN Transmission (2022) Pine Marten Species Protection Plan
[9] SSEN Transmission (2022) Red Squirrel Species Protection Plan
[10] SSEN Transmission (2022) Water Vole Species Protection Plan
[11] SSEN Transmission (2022) Wildcat Species Protection Plan

access allowed) to the Access Track (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.

10.3 Assessment Methodology

Legislation, Policy and Guidance

Legislation

10.3.1 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)[12];
- The Wildlife and Countryside Act 1981 (as amended) (WCA)[13];
- Protection of Badgers Act 1992[14];
- The Nature Conservation (Scotland) Act 2004[15];
- Wildlife and Natural Environment (Scotland) Act 2011[16]; and
- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017[17].

10.3.2 Key elements of relevant legislation are detailed within **Appendix 10.1: Desk Study and Legal Context**.

Policy

10.3.3 This assessment 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[18];
- The Scottish Biodiversity List (SBL)[3];
- PAN 60: Planning for Natural Heritage (Scottish Government 2000)[19];
- Nature Conservation: Implementation in Scotland of the Habitats and Birds Directives: Scottish Executive Circular 6/1995 as amended (June 2000)[20];
- Aberdeenshire Local Development Plan 2023[21]; and
- Northeast Scotland Biodiversity Partnership Local Biodiversity Action Plan[22].

[12] UK Government (1994) The Conservation (Natureal Habitats, &c.) Regulations 1994 (as amended). Available [online]: https://www.legislation.gov.uk/uksi/1994/2716/contents [Accessed August 2024]
[13] UK Government (1981) Wildlife and Countryside Act 1981. Available [online]: https://www.legislation.gov.uk/ukpga/1981/69 [Accessed May 2024]
[14] UK Government (1992) Protection of Badgers Act 1992. Available [online]: https://www.legislation.gov.uk/ukpga/1992/51/contents [Accessed May 2024]
[15] Scottish Government (2004) Nature Conservation (Scotland) Act 2004. Available [online]: https://www.legislation.gov.uk/asp/2004/6/contents [Accessed May 2024]
[16] Scottish Government (2011) Wildlife and Natural Environment (Scotland) Act 2011. Available [online]: https://www.legislation.gov.uk/asp/2011/6/contents [Accessed May 2024]
[17] 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 October 2024]
[18] Scottish Government (2023) National Planning Framework 4. Available [online]: https://www.gov.scot/publications/national-planning-framework-4/ [Accessed May 2024]
[19] Scottish Government (2000) Planning Advice Note 60: natural heritage. Available [online]: https://www.gov.scot/publications/pan-60-natural-heritage/
[20] 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)
[21] Aberdeenshire Council (2023) Aberdeenshire Local Development Plan 2023. Available [online]: https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023 [Accessed October 2024]
[22] Northeast Scotland Biodiversity Partnership (2019). Available [online]: https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/ [Accessed July 2024]

Guidance

10.3.4 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)[23];
- Good Practice Guidance for Habitats and Species, Version 3[24];
- NatureScot, Planning and Development: Standing Advice and Guidance Documents[25];
- NatureScot Guidance: Environmental Impact Assessment Handbook (2018)[26];
- NatureScot SiteLink web pages (online information on designated sites)[27]; and
- SSEN Transmission Species Protection Plans[5,6,7,8,9,10,11].

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

Consultation

10.3.6 In undertaking the assessment, consideration has been given to the consultation responses which has been undertaken as detailed in **Table 10.2: Summary of Consultation**.

Table 10.2: Summary of Consultation

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
Aberdeenshire Council 14 August 2023	Route Selection Consultation	NESBReC holds extensive habitat data (Integrated habitat survey) and good coverage for some of the areas within the corridors under consideration. We would suggest contacting NESBReC for use of this data and related species data. Compensatory planting would be required if considered under ALDP 2023. The search does not appear to have used the Native Woodland Survey Scotland data (2014) and this data set should be used to provide additional detail on woodland type and species.	NESBReC data relating to protected and notable species, and LNCS, was acquired and informs this assessment. This assessment has been informed by data relating to trees and woodlands which was acquired from both the Native Woodland Survey of Scotland in addition to other sources of data. A Compensatory Planting Strategy is provided in **Appendix 7.1** and a Woodland Report is provide in **Appendix 7.2**.
Aberdeenshire Council 24 May 2024	Pre-Application Consultation	Key constraints relevant to ecology were listed as: • Wood of Mergie (Ancient Woodland Inventory); and • Class 4 and 5 Peat on the Carbon and Peatland Map. There is a strong assumption against woodland removal, however	The key constraints have been discussed within this chapter. Compensatory planting is detailed within the embedded mitigation and landscaping plans. Impacts to peatland are discussed in **Chapter 12: Hydrology,**

[23] 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]
[24] 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]
[25] 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]
[26] 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.
[27] 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
		where woodland removal is required, there is a need for compensatory planting. The peatland area should remain undisturbed. NatureScot's standing advice should be followed in relation to impacts to habitats suitable of supporting otter, bats, red squirrel, pine marten, water vole and badger. The EcIA should assess the impact and detail mitigation measures to avoid or minimise impacts on protected species. Mergie LNCS includes habitats which depending on drainage of water downslope so the hydrology of the Site must protect these habitats. Elfhill LNCS and Fetteresso LNCS are similar in that their habitats may be impacted by works within the Site and therefore should be included in the EcIA, with appropriate mitigation measures put in place to avoid significant impacts. The EcIA should quantify the loss of habitat resulting from the proposed works. In line with National Planning Framework 4 (NPF4) under Policy 3: Biodiversity) there are opportunities to deliver biodiversity enhancement across the whole project. The EcIA should quantify habitat loss, and detail and quantify habitat enhancement to compensate for this. This should be calculated using a metric and enhancement should be detailed in a Biodiversity Enhancement Plan / Landscape Plan or Habitat Management Plan as appropriate. Details required will include: • The proposed habitat to be created; • Ground preparation and the species, size of plants and spacing; • Management during the establishment phase; and • Long-term management to develop and maintain habitats.	**Hydrogeology, Geology and Soils.** NatureScot's standing advice has been followed, and will be followed throughout construction and operation of the Proposed Development. Impacts to protected species has been assessed within this chapter, with mitigation measures incorporated where relevant. Mergie LNCS has been included within the EcIA, with mitigation measures to protect it and its designated habitats outlined within this chapter. Elfhill LNCS and Fetteresso LNCS were considered within this chapter, though were scoped out of assessment. Reference should be made to **Chapter 12: Hydrology, Hydrogeology, Geology and Soils.** Habitat loss has been quantified within this chapter. An outline Biodiversity Enhancement Statement has been produced to address NPF4, Policy 3.
Aberdeenshire Council 14 August 2024	Scoping Opinion	Confirms that all necessary issues are addressed within the Scoping Report. Compensatory planting, while outside the scope of the EIA, will be required to ensure no loss of existing biodiversity or other features of value.	Refer to **Appendix 7.1 Compensatory Planting Strategy** for details of compensatory planting. Refer to **Chapter 3, section 3.4** for details of the SUDS features. Invasive non-native species were recorded during surveys where identified, refer to **Appendix 10.2:**

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
		Invasive non-native species are unlikely but should be recorded if found during surveys. SUDS features, riparian zones and proposed landscaping may provide opportunities for habitat creation or enhancement.	**Habitats and Vegetation Survey Report** for further detail**.**
NatureScot 30 May 2023	Pre-Application Consultation	Response provided relates to Ornithology. Refer to **Chapter 11: Ornithology**.	N/A
NatureScot March 2024	Pre-Application Consultation	NatureScot encouraged that biodiversity enhancement should be an integral part of the project from the outset.	Opportunities for biodiversity enhancement within the Site have been considered from the outset, and the Applicant is committed to delivering biodiversity enhancement across all major projects, as outlined in this chapter. A diverse range of planting is proposed as detailed in **Appendix 10.4: Biodiversity Net Gain Assessment Report**. The appendix details the net gain in biodiversity delivered by the Proposed Development as calculated using the SSEN Transmission Biodiversity Toolkit.
NatureScot 14 August 2024	Scoping Opinion	Confirms contentment with the proposed scope of the survey and assessment and agree with the issues to be scoped out. Reference to the EIA Handbook for scoping advice and standing advice for consultations that could affect protected species.	Noted.
SEPA March 2024	Pre-Application Consultation	Welcomed the work undertaken to demonstrate the absence of peat across the site and the objectives in the drainage design to avoid impacts on the Burn of Day, Burn of Baulks and Cowie Water.	Noted
Crathes, Drumoak and Durris Community Council (CDDCC) March 2024	Pre-Application Consultation	Raised concerns regarding the impact on woodlands and wildlife.	Impacts to woodland are considered in **Chapter 7: Forestry** and in this chapter. Impacts on habitats and species are considered in this chapter.
Stonehaven and District Community Council (SDCC) March 2024	Pre-Application Consultation	Raised concerns regarding the impact on wildlife.	Impacts on habitats and species are considered in this chapter.

Desk Based Research and Data Sources

10.3.7 A desk study was undertaken to identify known ecological features within the Study Areas as described in **Table 10.1: 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[28];
- Scotland's Environment Mapping Services[29];
- The Ancient Woodland Inventory (AWI)[30];
- Native Woodland Survey Scotland data[31];
- The Carbon and Peatland Map[32];
- North East Scotland Biological Records Centre (NESBReC)[33]; and
- National Biodiversity Network (NBN) Atlas Scotland under OGL and CC-BY licences[34].

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

10.3.9 Further information relating to the desk study method is provided in **Appendix 10.1**: **Desk Study and Legal Context.**

Field Survey

10.3.10 The Study Areas adopted for field survey vary by the type of survey as defined by best practice (detailed in **Appendix 10.2: Habitats and Vegetation Survey Report** and **Appendix 10.3: Protected Species Survey Report**):

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

- Habitat survey following the UK Habitat (UK Hab) Classification[35] system, and condition assessments (version 2).
- National Vegetation Classification (NVC) to provide detailed survey of potential habitats of conservation concern[1];
- Protected species surveys, including the following species / taxa:
  - Bats;
  - Otter *Lutra lutra;*
  - Wildcat *Felis sylvestris*;
  - Badger *Meles meles*;
  - Water vole *Arvicola amphibius;*
  - Red squirrel *Sciurus vulgaris*; and
  - Pine marten *Martes martes*.

10.3.12 Incidental observations of other species of conservation concern[36], including those scoped out of assessment through the Scoping process, were also recorded. In addition, opportunities for restoration and enhancement were considered and noted during the field surveys.

[28] NatureScot (2024) SiteLink website. Available [online]: https://sitelink.nature.scot/home [Accessed May 2024]
[29] Scotland's Environmental Mapping Service website. Available [online]: https://map.environment.gov.scot/sewebmap/ [Accessed May 2024]
[30] Ancient Woodland Inventory online. Available [online]: https://spatialdata.gov.scot/geonetwork/srv/api/records/A091F945-F744-4C8F-95B3-A09E6EF6AE33 [Accessed May 2024]
[31] Native Woodland Survey of Scotland – Data Explorer website. Available [online]: https://experience.arcgis.com/experience/aa6b4ff901294dea84dcff3205d48fab [Accessed October 2024]
[32] Carbon and Peatland Map website. Available [online]: https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map [Accessed May 2024]
[33] North East Scotland Biological Records Centre (NESBReC) (2024). Available [online]: https://nesbrec.org.uk/ [Accessed June 2024]
[34] NBN Atlas website. Available [online]: https://nbnatlas.org/ [Accessed May 2024]
[35] UK Habitat Classification system (2023) version 2. Available [online]: https://ukhab.org/ [Accessed May 2024]
[36] Species of conservation concern are defined as those subject to legal protection and policy priority (such as Scottish Biodiversity List or Local Biodiversity Action Plan priority species) as outlined within this chapter.

10.3.13 Ecology field surveys were undertaken in August 2023 and April 2024 in appropriate conditions. Detailed accounts of survey dates, rationale, methods, weather conditions, limitations and findings are provided in **Appendix 10.2: Habitats and Vegetation Survey Report** and **Appendix 10.3: Protected Species Survey Report**.

Approach to GWDTEs

10.3.14 The term Groundwater Dependent Terrestrial Ecosystems or 'GWDTE' refers to wetland habitats that rely on groundwater for their function and viability. The concept evolved from the Water Framework Directive, transposed in Scotland through the Water Environment and Water Services (Scotland) Act 2003 (WEWS), and subsequent SEPA guidance[37].

10.3.15 SEPA guidance[37] sets out those vegetation communities that at least potentially rely upon groundwater. Classification as a GWDTE does not convey any ecological value on a habitat; indeed, many GWDTE habitats are common and widespread across Scotland (e.g. rush mire). However, although GWDTE habitats are not necessarily of specific ecological value, WEWS and consequent guidance require GWDTEs to be protected wherever possible.

10.3.16 SEPA guidance[37] requires potential effects on GWDTEs to be fully assessed and where necessary, mitigated. It is important to understand this context because to focus the assessment solely on the ecological value of GWDTEs is not appropriate. The assessment of potential effects should focus on GWDTEs as a proxy for groundwater movement, i.e. the assessment should focus on the effect of the Proposed Development upon the quality and quantity of groundwater supporting the GWDTE. Notwithstanding this, the ecological value of GWDTEs in their own right must also be considered.

10.3.17 A short account of the identification methodology for potential GWDTEs is presented in **Appendix 10.2: Habitats and Vegetation Survey Report**. Detailed assessment of GWDTEs and potential effects on them is provided in **Chapter 12: Hydrology, Hydrogeology, Geology and Soils**.

Assessing Significance

10.3.18 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'[23] (The CIEEM Guidelines).

10.3.19 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 10.3: Ecological Importance Criteria**.

Table 10.3: 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 1 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 1, 2 or 4 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	UK/Scotland

[37] Scottish Environmental Protection Agency (SEPA) (2017) Land Use Planning System: Guidance Note 31 – Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems (GWDTE). Available [online]: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf [Accessed May 2024]

Ecological Importance	Qualifying Criteria	Relevant Context
	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.	
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. • 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.)	Northeast Scotland
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.	Aberdeenshire
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

10.3.20 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.).

10.3.21 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.

10.3.22 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%.

10.3.23 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[38]. 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[24].

10.3.24 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.

10.3.25 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.

10.3.26 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 10.4: 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.

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

Table 10.4: Matrix for Determination of Significance of Effects

EIA Significance Terminology	Corresponding EcIA Effect Significance Terminology
Major	International/European

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

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

Habitats Regulations Appraisal Screening

10.3.28 The potential for functional connectivity between the Proposed Development and the designated sites in **Table 10.5 Designated Sites** is considered. As such, the relevant steps of the Habitats Regulations need to be adhered to in relation to SACs.

10.3.29 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).

10.3.30 Following scoping consolation with NatureScot (refer **Table 9.10: 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

10.3.31 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

10.3.32 It is the policy of SSEN Transmission to use UK Hab 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 UK Hab training prior to conducting surveys. Where potential habitats of conservation concern were encountered, the more detailed NVC system was used. As such, the use of the UK Hab system is not considered to be a substantial limitation.

10.3.33 Access to the Site was restricted between 20th June and 16th September 2024. This meant that the summer deployment of the ground-level static bat detectors could not go ahead, however inference from the successfully collected spring and autumn data can be made. All field surveys for habitats and all other protected species however had been completed therefore these are not subject to any limitation.

10.3.34 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.

10.4 Baseline Conditions

Summary of Baseline

10.4.1 **Table 10.5: Designated Sites** lists the SACs, Ramsar sites, NNRs, SSSIs and LNRs identified within 10 km of the Site, within 5 km of the Site, and LNCS, RSPB, Scottish Wildlife Trust reserves and woodlands listed on the AWI identified within 5 km of the Site.

10.4.2 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 11: Ornithology**. Similarly, any sites designated for their geological interest are discussed within **Chapter 12: Hydrology, Hydrogeology, Geology and Soils**.

10.4.3 Designated sites identified in the desk study and designated for their ecological interest(s) are illustrated in **Figure 10.1.2: Designated sites within 10 km and 5 km of the Proposed Development**.

Table 10.5: Designated Sites

Site Name	Designation	Approx. Distance and Orientation from the Proposed Development	Qualifying Feature(s)
Statutory Sites (within 10 km)			
Red Moss of Netherley	SAC and SSSI	Approximately 8.1 km northeast	SAC: Active Raised Bog Degraded Raised Bog SSSI: Raised Bog
Garron Point	SAC	Approximately 8.6 km east	Narrow-mouthed whorl snail (*Vertigo angustior*)
River Dee	SAC	Approximately 5.5 km northwest	Atlantic salmon (*Salmo salar*) Otter (*Lutra lutra*) Freshwater Pearl Mussel (*Margaritafera margaritafera*)
Loch of Lumgair	SSSI	Approximately 5.6 km southeast	Basin fen – Schwingmoor type Wet woodland
Garron Point	SSSI (note this partially overlaps Garron Point SAC)	Approximately 7.2 km southeast	Narrow-mouthed whorl snail (*Vertigo angustior*) Northern brown argus butterfly (Aricia *artaxerxes*) Dalridian, Non-marine Devonian, Ordovician Igneous and Maritime cliff
Non-statutory Designated Sites (within 5 km)			
Mergie	LNCS	Approximately 415 m north	Neutral and acid grassland, broadleaved and coniferous woodland, wet heath, scrub, bracken, bog, pond, rivers and rush pasture alongside the Cowie Water. Locally important species such as lesser twayblade and bog myrtle.
Fetteresso	LNCS	Approximately 3.6 km southeast	This site contains broadleaved woodland on the slopes of the railway

Site Name	Designation	Approx. Distance and Orientation from the Proposed Development	Qualifying Feature(s)
			line, down to the Carron Water. Neutral grassland and gorse scrub are also present. The site has a good woodland flora including the locally uncommon wood stitchwort.
Elfhill	LNCS	Approximately 640 m south	Steep-sided river valley, with semi-natural broadleaved woodland, gorse scrub and acid grassland. Good diversity of plant species and particularly important for native bluebell.
Wood of Mergie Woodland ID: 22,189	Ancient Woodland	Within the Access Track and approximately 0.4 km northwest of the Proposed Development	Long-Established (of plantation origin) (LEPO)
Unnamed woodland Woodland ID: 22,188	Ancient Woodland	Within the Access Track and approximately 0.7 km north of the Proposed Development.	LEPO
Wood of Mergie Woodland ID: 22,190	Ancient Woodland	Approximately 20 m south of the Access Track and 1 km north of the Proposed Development	LEPO
Multiple other blocks of woodland	Ancient Woodland	Ten blocks between 0.9 km and 3.8 km from the Proposed Development	Ancient Woodland (of semi-natural origin)
Multiple other blocks of woodland	Ancient Woodland	Sixty-four blocks between 0.5 km and 5 km from the Proposed Development	LEPO
Unnamed woodland Woodland ID: 22,331	Ancient Woodland	Single block, approximately 3.7 km northeast of the Proposed Development	Roy map

10.4.4 Mergie LNCS is situated approximately 0.4 km north of the Proposed Development as it is downstream via the Burn of Day and is therefore ecologically and hydrologically connected to the Site, including via tributaries of the Cowie Water. As a result, due to the potential impact pathway identified, Mergie LNCS has been scoped into the assessment.

10.4.5 With the exception of Mergie LNCS as discussed above, based on the qualifying features of the statutory and non-statutory designated sites, the distance from the Site, lack of structural or functional connectivity between the Proposed Development and the other designated sites, and the nature of the Proposed Development, it is unlikely that there will be any adverse environmental effects resulting. Therefore, effects as a result of construction or operation of the Proposed Development on statutory designated sites, excluding Mergie LNCS, have been scoped out of this assessment. This position has been agreed with NatureScot in their response to the Scoping Report.

10.4.6 There are no Ramsar sites, NNRs, LNRs, RSPB reserves or Scottish Wildlife Trust reserves within the relevant search areas.

10.4.7 A limited extent of woodland listed on the non-statutory AWI is located within the Site, adjacent to the existing forestry track that comprises the Access Track; Wood of Mergie, near Tillybreak, is listed as Long-Established Plantation Origin (LEPO) and comprises categories 1b and 2b.

Existing Records of Protected Species

10.4.8 The data request made to NESBReC returned a total of 933 records of bats within 10 km of the Site, and 616 records of other protected species within 5 km of the Site, as detailed in **Table 10.6** below. Three records of bat species were recorded during continuous nocturnal recording in May 2021 within the north of the Access Track: soprano pipistrelle, common pipistrelle, and Daubenton's bat. Within the Substation Site, six records of pine marten, two records of badger, and one record of common lizard were noted. In addition, along the Access Track, a further three records of pine marten were identified. Otter was recorded along the Cowie Water either side of the Access track.

Table 10.6: Protected Species Data Search Results

Species	Latin Name	Number of Records	Year of Most Recent Record
Bat records within 10 km of the Site			
Common pipistrelle	*Pipistrellus pipistrellus*	356	2009 - 2023
Soprano pipistrelle	*Pipistrellus pygmaeus*	409	2010 - 2023
Nathusius pipistrelle	*Pipistrellus nathusii*	1	2023
Unknown pipistrelle	*Pipistrellus sp.*	16	2011 - 2023
Brown long-eared	*Plecotus auritus*	34	2010 - 2023
Leisler's bat	*Nyctalus leislieri*	1	2016
Daubenton's	*Myotis daubentonii*	72	2010 - 2024
Natterer's	*Myotis nattereri*	16	2016 - 2023
Myotis species	*Myotis sp.*	16	2016 - 2022
Unidentified bat species	*N/A*	12	2009 - 2023
Other Protected Species within 5 km of the Site			
Otter	*Lutra lutra*	42	2009 - 2018
Wildcat	*Felis silvestris*	10	2009 - 2019
Badger	*Meles meles*	126	2009 - 2023
Pine marten	*Martes martes*	207	2009 - 2023
Red squirrel	*Sciurus vulgaris*	181	2021 - 2023
Water vole	*Arvicola amphibius*	2	2012
Mountain hare	*Lepus timidus*	1	2012
Brown hare	*Lepus europaeus*	28	2011 - 2023
Hedgehog	*Erinaceus europaeus*	6	2012 - 2023
Adder	*Vipera berus*	1	2009
Common toad	*Bufo bufo*	13	2020 - 2022

Additional Records

10.4.9 The data request made to NBN returned a total of 1,056 records of bats within 10 km of the Site, and 11,348 records of other protected species within 5 km of the Site, as detailed in **Table 10.6.1** below. One record of an unknown bat species and one record of a red squirrel were identified within the Site.

Table 10.6.1: Protected Species Data Search Results

Species	Latin Name	Number of Records	Year(s) of Records
Bat records within 10 km of the Site			
Common pipistrelle	*Pipistrellus pipistrellus*	117	2009 - 2017

Species	Latin Name	Number of Records	Year(s) of Records
Soprano pipistrelle	*Pipistrellus pygmaeus*	779	2009 - 2010
Nathusius pipistrelle	*Pipistrellus nathusii*	1	2016
Unknown pipistrelle	*Pipistrellus sp.*	100	2009 - 2020
Brown long-eared	*Plecotus auritus*	3	2016
Daubenton's	*Myotis daubentonii*	23	2009 - 2022
Natterer's	*Myotis nattereri*	14	2010 - 2018
Noctule	*Nyctalus noctula*	1	2013
Unidentified bat species	*N/A*	18	2009 - 2023
Other Protected Species within 5 km of the Site			
Otter	*Lutra lutra*	11	2009 - 2023
Badger	*Meles meles*	8	2009 - 2020
Beaver	*Castor fiber*	6,219* the vast majority of which are feeding signs, not sightings of individual beavers	2012 - 2023
Pine marten	*Martes martes*	4	2012 - 2021
Red squirrel	*Sciurus vulgaris*	4,975	2009 - 2023
Brown hare	*Lepus europaeus*	130	2009 - 2023
Common toad	*Bufo bufo*	1	2016

Field Study

10.4.10 A summary of field study findings is presented in Paragraphs 10.4.16 to 10.4.37. Detailed accounts of methods adopted, survey findings and interpretation can be found in **Appendix 10.2: Habitats and Vegetation Survey Report** and in **Appendix 10.3: Protected Species Survey Report**.

Site Description

10.4.11 The Site is located approximately 5 km west of Stonehaven, in the county of Aberdeenshire. The Site is generally flat sloping downhill from west to east, with its highest point approximately 296.19 m Above Ordnance Datum (AOD) within the west of the Site.

10.4.12 The Site is dominated by coniferous plantation forestry which is under commercial forestry management (refer to **Chapter 7: Forestry** for further detail), and therefore of a variety of age structures, and small areas of upland heathland where the trees have been felled relatively recently. Three watercourses surface within the Site: the Burn of Day is present within the north and flows to the east and out of the Proposed Development; the Burn of Baulks is present in the southeast and flows to the southeast out of the Proposed Development; and the upper reaches of the Burn of Elfhill (sometimes referred to as Clarkenhill Burn) surface in the southwest and flows south out of the Proposed Development. The damp area around the Burn of Day is referred to as Hurlie Bog. Further extents of damp habitat are present in the centre of the Site, where wet heath and scattered rushes were recorded among extents of restocked plantation.

10.4.13 The Access Track to the Proposed Development from the A957 Slug Road is via an existing unpaved forestry track which joins the Proposed Development at its southwest boundary, near the existing Fetteresso Substation. Several watercourses cross under the existing track which lie inside the Site planning application boundary via either box or pipe culverts: upper reaches of the Burn of Elfhill in the south; the Cowie Water, West Dumer Burn, East Dumer Burn and Irish Burn in the west; and the Black Burn in the north.

10.4.14 There are no buildings within the Site, although the existing Fetteresso Substation is immediately southwest of the Proposed Development. Part of the Access Track forms the southern boundary of the existing Fetteresso Substation, thereby surrounding it but excluding it from the Site. The existing Fetteresso Substation is therefore within the ESA but was not subject to survey.

10.4.15 The topography and habitats within the Site are typical of the immediate area surrounding the Site which is predominantly comprised of commercial forestry.

10.4.16 Minor upgrading works to the existing forestry track that forms the Access Track such as upgrading, realigning and/or slight widening in some locations, typically at corners and junctions may be required, and widening and strengthening works to the bridge over the Cowie Water are currently proposed. Further details of these proposed works are discussed in **Chapter 3: Description of the Proposed Works**. The anticipated effects of the widening on sensitive ecological receptors are considered to be extremely minimal and are therefore scoped out of the assessment and not discussed further.

Habitats and Vegetation

UK Habitat Classification

10.4.17 Detailed UK Hab descriptions are provided in **Appendix 10.2: Habitats and Vegetation Survey Report**. A summary of the habitats recorded within the ESA is provided below, and in **Table 10.7** below.

10.4.18 The habitats of the ESA comprise a mosaic of coniferous woodland plantation, felled coniferous woodland plantation, young planted trees and other coniferous woodland. Smaller extents of broadleaved woodland and mixed woodland were also recorded. Together, these habitats accounted for 263.36 ha (90.19%) of the Site.

10.4.19 Other notable habitats present within the Site included a total of 2.20 ha (0.75%) Upland flushes, fens and swamps, 7.85 ha (2.69%) Upland heathland, and 0.03 ha of Upland acid grassland, all of which are SBL priority habitats.

10.4.20 A total 1.14 km of Rivers and Streams was identified within the Site, of which 64.74 m were assessed to qualify as the SBL Rivers priority habitat.

10.4.21 A total of 20 UK Hab classifications have been recorded within the Site. **Table 10.7: UK Habitat Classifications and Proportions** below provides a summary of the habitats within the Site, with their absolute area and relative proportions.

Table 10.7 : UK Habitat Classification and Proportions

UK Habitat Classification		Area	
Code	**Title**	**Absolute (ha)**	**Relative %**
w2c	Woodland and forest - Other coniferous woodland	253.05	86.66
w2b	Woodland and forest - Other Scot's Pine woodland	0.53	0.18
w1h	Woodland and forest - Other woodland; mixed	0.29	0.10
w2	Woodland and forest - Felled	9.26	3.17
w1g	Woodland and forest - Other woodland; broadleaved	0.23	0.08
h1b	Heathland and shrub - Upland heathland	7.85	2.69
h3h	Heathland and shrub - Mixed scrub	0.34	0.12
fc2	Wetland - Upland flushes, fens and swamps	2.20	0.75
g1c	Grassland - Bracken	0.98	0.33
g4	Grassland - Modified grassland	0.52	0.18
g1d	Grassland - Other lowland acid grassland	0.56	0.19
g1b	Grassland - Upland acid grassland	0.026	<0.01
c1c	Cropland - Cereal crops	0.88	0.31
c1d	Cropland - Non-cereal crops	<0.01	<0.01

UK Habitat Classification		Area	
Code	Title	Absolute (ha)	Relative %
c1b	Cropland - Temporary grass and clover leys	<0.01	<0.01
u1b	Urban - Developed land; sealed surface	14.96	5.12
u1d	Urban - Suburban/mosaic of developed/natural surface	0.16	0.05
u1 (351)	Urban - Vacant/derelict land / bare ground	0.12	0.04
r1	Rivers and Lakes - Natural lake or pond	<0.01	<0.01
r2a, r2b	Rivers and Lakes - Rivers and streams	1.14 km	N/A

National Vegetation Classification

10.4.22 Detailed NVC descriptions are provided in Appendix 10.2: Habitats and Vegetation Survey Report and mapped in Figure 10.2.2: National Vegetation Classification Survey Results.

10.4.23 Within the Site, six NVC communities were identified, as summarised in **Table 10.8: NVC Communities Identified within the ESA** below. Two of these communities (M15, H12) qualify as Annex 1 habitats as well as the SBL Upland Heathland priority habitat. The M6 and M23 communities qualify as SBL Upland Flushes, Fens and Swamps priority habitat, while M25 and U4 are LBAP habitats (acid grassland).

Table 10.8: NVC Communities Identified within the ESA

Code	Title	Location within the ESA	Mechanism(s) of designation
M6	*Carex echinata-Sphagnum fallax/denticulatum* mire	The M6 mire community was recorded in the centre of the Site in two locations. It was associated with M15 wet heath in an area identified as UK Hab Upland flushes, fens and swamps (f2c). A second area of M6 was identified along the Burn of Day in the north of the Proposed Development, in mosaic with M23 rush-pasture in an area that was identified as UK Hab Other coniferous woodland (w2c).	SBL: Upland Flushes, Fens and Swamps High potential GWDTE LBAP habitat[39]
M15	*Trichophorum germanicum-Erica tetralix* wet heath	M15 wet heath was noted within the centre of the Site, associated with M6 in an area identified as UK Hab Upland flushes, fens and swamps (f2c).	Annex 1: H4010 Northern Atlantic wet heaths with *Erica tetralix* SBL: Upland Heathland Moderate potential GWDTE LBAP habitat
M23	*Juncus* effusus/*acutiflorus-Galium palustre* rush-pasture	One area within the centre-east of the Site was identified as 100% M23 rush pasture. Within the centre of the Site, an area was identified as M23 rush-pasture in association with M6 mire along the Burn of Day. The area was otherwise recorded as UK Hab Other coniferous woodland (w2c) due to the extensive presence of Sitka spruce.	SBL: Purple Moor Grass and Rush Pasture High potential GWDTE LBAP habitat

[39] NESBiP (2019) Important Habitats for Biodiversity – our Local Biodiversity Action Plan. Available [online]: https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/

Code	Title	Location within the ESA	Mechanism(s) of designation
M25	*Molinia caerulea – Potentilla erecta* mire	One area of M25 mire within the very north of the ESA was identified within a mosaic of U4 grassland and H12 heathland.	Moderate potential GWDTE LBAP habitat
H12	*Calluna vulgaris-Vaccinium myrtillus* heath	Within the north of the Proposed Development, associated with an area identified as UK Hab Upland Heathland A second areas was identified within the north of the ESA in a mosaic with U4 grassland and M25 mire.	Annex 1: H4030 European dry heaths SBL: Upland Heathland LBAP habitat
U4	*Festuca ovina–Agrostis capillaris–Galium saxatile* grassland	One area was identified within the north of the ESA in a mosaic of M25 mire and H12 heath.	LBAP habitat

10.4.24 In addition to the communities listed in **Table 10.8**, watercourses within the Proposed Development area (upper reaches of the Burn of Day, Burn of Baulks, and Burn of Elfhill) are defined as headwaters which qualifies them as the SBL Rivers priority habitat[40]. Another watercourse, the Cowie Water which flows under the Access Track, qualifies as the SBL Rivers priority habitat because it is defined by SEPA's Water Classification Hub[41] as being of high condition. The other watercourses present within the ESA do not meet the criteria set out in the priority habitat definition list[40], therefore they are not considered to be the priority habitat.

Groundwater Dependent Terrestrial Ecosystems (GWDTEs)

10.4.25 Four NVC communities were recorded which, according to SEPA guidance[37], may indicate groundwater dependency (see **Figure 10.2.2: National Vegetation Classification Survey Results** and **Appendix 10.2: Habitats and Vegetation Survey Report**). **Table 10.9: Potential GWDTEs** below summarises the NVC communities of those potential GWDTEs. The two right-hand columns note the potential groundwater dependency according to the guidance, with the furthest right column providing the outcome of an assessment of likely groundwater dependency (with verification via hydrogeological assessment) based on the actual onside condition, habitat assemblage and topography.

10.4.26 All potential GWDTEs were confirmed by hydrological assessment to be mainly surface water fed and are not groundwater dependent, as detailed in **Table 10.9** below. Therefore, they are not GWDTE and are not considered further in the assessment.

Table 10.9: Potential GWDTEs

Potential GWDTE NVC Code		Groundwater Dependency	
Code	**Title**	**Guidance**	**Actual**
M6	*Carex echinata-Sphagnum fallax/denticulatum* mire	High	Not GWDTE
M15	*Trichophorum germanicum-Erica tetralix* wet heath	Moderate	Not GWDTE
M23	*Juncus effusus/acutiflorus-Galium palustre* rush-pasture	High	Not GWDTE
M25	*Molinia caerulea – Potentilla erecta* mire	Moderate	Not GWDTE

Peatland

10.4.27 The Carbon and Peatland Map[32] identified that the Site is located within an area of Class 4 peat, with small areas of Class 5 present within the Site. Class 5 is present within the east of the Proposed Development and in two locations

[40] NatureScot (undated) Priority Habitat – Rivers. Downloaded in 2021 but no longer available online due to data breach.
[41] SEPA (2024) Water Classification Hub. Available [online]: https://informatics.sepa.org.uk/WaterClassificationHub/ [Accessed October 2024]

along the Access Track. Class 5 is indicative of peat soils but lacking in peatland vegetation (such as extents of forestry) while Class 4 is generally unlikely to be associated with peatland habitats, and unlikely to include carbon-rich soils. The use of this mapping indicates the likely presence of carbon-rich soils, deep peat and priority peatland habitat at a coarse scale. As such, site-specific data on peat depth and peatland condition are of greater relevance in assessing impacts. Peatland habitats were not identified within the ESA, therefore these are scoped out of further assessment within this Chapter. For details regarding peat, refer to **Chapter 12: Hydrology, Hydrogeology, Geology and Soils.**

Protected Species

Bats

10.4.28 The desk study returned 1,989 records of bats within 10 km of the Site including common, soprano and Nathusius' pipistrelle, brown long-eared bats, Leisler's bat, Daubenton's bat, Natterers, one record of a Noctule and various unidentified pipistrelle and myotis species as well as unidentified bats.

10.4.29 Habitats within the Site were found to provide limited potential for foraging and commuting bats and no trees with the potential to support roosting bats were identified. One incidental sighting of a bat flying during the daytime surveys in April 2024 was reported and ground-level static bat detectors deployed in spring and autumn recorded three pipistrelle species (Common pipistrelle, soprano pipistrelle and one Nathusius pipistrelle) and *Myotis* sp utilising the site in spring, with *Pipistrellus* sp and *Myotis* sp plus very occasional brown long-eared and Noctule bat species in autumn. Analysis of the ground level static bat detector results using data from both seasons indicate the Site is used predominantly by soprano pipistrelles and detectors 3 and 4 in the north recording the highest number of passes. Activity levels within the Site was generally low.

10.4.30 Given the lack of roosting opportunities and presence of commercial coniferous forestry management practices and taking the results of the field surveys into account, bat activity levels are generally low within the Site with no evidence of bats roosting within the Site identified during baseline surveys.

Otter

10.4.31 The desk study returned 53 records of otter within 5 km of the Site within the last 15 years.

10.4.32 Habitats present within the ESA offer limited potential for commuting and foraging otter due to the small size, low volume of water and surrounding coniferous habitat. One old spraint located on the Cowie Burn during the 2024 surveys. No resting sites were identified during surveys. Otter are therefore likely to be present within the ESA in low numbers.

Water Vole

10.4.33 The desk study returned two records of water vole within 5 km of the Site within the last 15 years.

10.4.34 Habitats within the ESA offered some limited potential for water vole, for example in areas of rushes adjacent to relatively slower flowing watercourses. However, many of the watercourses were upland burns with relatively fast flows and limited habitat potential. No signs of water vole were identified during the surveys.

10.4.35 Due to the lack of evidence of water vole within the ESA, and limited desk study records in the wider area, water vole is scoped out from further assessment.

Badger

10.4.36 The desk study returned 134 records of badger within 5 km of the Site within the last 15 years.

10.4.37 Surveys identified limited habitat present within the Site with the potential to support badger. Dense forestry and wet habitats within the Site offer very limited habitat suitable for sett excavation and foraging, so while the drier more open habitats may be suitable for commuting and foraging badger, much of the Site is considered to be suboptimal.

10.4.38 No evidence of badger was identified during surveys in 2023 and 2024, although the desk study confirms that badger is present in the wider landscape.

Wildcat, Red Squirrel and Pine Marten

10.4.39 The desk study returned ten records of wildcat, 5,156 records of red squirrel and 211 records of pine marten within 5 km of the Site within the last 15 years.

10.4.40 Surveys identified limited habitat present within the Site with the potential to support wildcat. The conifer plantations varied in age structure and may therefore provide some suitable habitat for foraging and commuting wildcat, and foraging and commuting red squirrel and pine marten, but no resting sites were identified for any of these species. Evidence of red squirrel and pine marten were reported within the Access Track west of the Site, but no evidence of wildcat was reported.

Future Baseline in the Absence of the Proposed Development

10.4.41 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.

10.4.42 The land within the Site is currently a commercially managed coniferous forestry as discussed in Chapter 7: Forestry. Felling plans provided by Forestry Land Scotland (FLS) suggest a variety of felling, restocking and no management across the Site suggesting that while the exact locations, age structures and species mixes within the Site may change over time, broadly this area would remain a commercially managed coniferous forest in the absence of the Proposed Development.

10.4.43 Thus, on balance, 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.

Implications of Climate Change for Baseline Conditions

10.4.44 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.

10.4.45 Aberdeenshire Council Local Climate Impact Profile (LCLIP) 2019 – 2022[42] highlights the region's vulnerability to severe weather events and the potential impacts on its infrastructure based on the UK Climate Projections 2018 (UKCP18)[43]. It notes that the most frequently experienced severe weather in Aberdeenshire were storms and high winds, excessive rainfall, extreme low temperatures / snow and ice – all of which have the potential to cause "*damage to infrastructure*". Damage to infrastructure, which includes flood damage to roads, rail and bridges, and power and communication outages, was listed as one of eleven services frequently affected by severe weather across Aberdeenshire.

10.4.46 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.

10.4.47 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 predominantly intensively managed coniferous woodland plantations, 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.

[42] Aberdeenshire Council (2024) Local Climate Impact Profile (LCLIP) 2019-2022. Available [online]: https://aberdeenshirestorage.blob.core.windows.net/acblobstorage/4209a2d3-9811-419f-a171-5614962cce76/lclip-2019---2022.pdf [Accessed October 2024]

[43] Met Office *(2018) UK Climate Projections (UKCP). Available [online]: https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index [Accessed October 2024]

Summary of Baseline

Ecological Importance

10.4.48 **Table 10.10: Ecological Importance Assessment** below provides an interpretation of the Ecological Importance of the ESA for those designated sites, habitats and species scoped into the assessment. A detailed account of these receptors is provided in **Appendix 10.2: Habitat and Vegetation Survey Report** and **Appendix 10.3: Protected Species Survey Report**. Note that habitats and protected species are listed below in order of their highest level of designation to avoid repetition where an ecological feature appears on more than one list.

Table 10.10: Ecological Importance Assessment

Ecological Feature	Ecological Importance of Site for Ecological Feature	Rationale
Designated Sites		
Mergie LNCS	Local	This site is designated for its wide variety of habitats which include both a range of terrestrial and aquatic habitats, and presence of locally important plant species. Mergie LNCS does not fall within the ESA meaning it was not subject to surveys, however it is approximately 400 m north of the Site and hydrologically connected via a network of small, unnamed watercourses which surface within the ESA, but not within the Site. Habitats within Mergie LNCS are relatively rare within the wider landscape, as evidenced by its designation. Due to connectivity via the Burn of Day, the ecological importance of the ESA with regards to the LNCS is of Local level.
Woodlands listed on the AWI	Study Area	A limited extent of woodland listed on the AWI as LEPO is located within the Access Track, at Wood of Mergie, near Tillybreak. This woodland was noted during surveys to comprise plantations of Sitka spruce with some Scots pine. Due to the condition of the woodland which has been affected by the history of land use for commercial forestry, and the limited ecological value of commercial conifer plantation, this woodland is not considered to be of importance beyond the Study Area.
Habitats of Conservation Concern		
Annex 1 Habitats		
H4030 European dry heaths	Local	UK Hab: Upland heathland (h1b); Upland acid grassland (g1b) NVC: H12 *Calluna vulgaris-Vaccinium myrtillus* heath There are a total of six areas of this habitat within the ESA, of which two are present at the very north of the Access Track while the other four, larger areas are present within the Proposed Development. This habitat is present within forest rides and where commercial conifers have been removed without subsequent restocking. These are relatively small, isolated areas of habitat, which are in poor or fairly poor condition. Further, more extensive examples of this habitat are likely to be present in the wider landscape, particularly to the west towards the Angus Glens. As it is an Annex 1 habitat, the ESA is considered to be of Local importance.
H4010 Northern Atlantic wet heaths with *Erica tetralix*	Local	UK Hab: Upland Heathland NVC: M15*Trichophorum germanicum-Erica tetralix* wet heath This community is present as a mosaic with M6 *Carex echinata-Sphagnum fallax/denticulatum* mire in one area in the centre of the Site. It occurs in a ride between stands of coniferous woodland plantation and an area of felled plantation which has reverted to upland heathland. This was limited to a small area that was considered to be in poor condition. Further, more extensive examples of this habitat are likely to be present in the wider landscape, particularly to the west towards the

Ecological Feature	Ecological Importance of Site for Ecological Feature	Rationale
		Angus Glens. As it is an Annex 1 habitat, the ESA is considered to be of Local importance.
Scottish Biodiversity List		
Upland Flushes, Fens and Swamps	Local	UK Hab: Upland Flushes, Fens and Swamps NVC: M6 *Carex echinata-Sphagnum fallax/denticulatum* mire This habitat was present in limited areas within the Site, and considered to be in poor or fairly poor condition. These are small, isolated areas of an SBL priority habitat. The ESA is considered to be of Local importance.
Purple Moor Grass and Rush Pastures	Local	UK Hab: Upland Flushes, Fens and Swamps NVC: M23 *Juncus effusus/acutiflorus-Galium palustre* rush-pasture This habitat was present in two areas; limited areas within the Site, and considered to be in poor or fairly poor condition. These are small, isolated areas of an SBL priority habitat. The ESA is considered to be of Local importance.
Rivers	Local	UK Hab: Rivers and Streams Watercourses within the Site qualify as the SBL Rivers priority habitat. The upper reaches of the Burn of Day, Burn of Baulks, and Burn of Elfhill each occur within the Proposed Development, while the Cowie Water is crossed by the Access Track. Such watercourses are common and widespread in upland areas in the wider area. Many ecological features rely on watercourses, and they are hydrologically connected to the wider landscape. The ESA is therefore considered to be of Local level importance.
Protected Species		
Bats	Study Area	The ESA contains no trees or structures with known bat roost potential. The ESA provides some limited potential for common species of foraging and commuting bats. There is likely to be more extensive suitable foraging habitat within the wider landscape. It is unlikely from the survey results that the ESA independently supports a viable population of bats, nor one which is of importance to the local metapopulation. The ecological importance of the ESA for bats is not above Study Area.
Otter	Study Area	No otter resting sites were identified within the ESA. One old otter spraint was identified within the ESA during the 2024 surveys, located on the Cowie Water under the Access Track. There is more suitable commuting, foraging and resting habitat for otter within the surrounding area, notably on small watercourses outwith the conifer plantation and on the wider reaches of the Cowie Water. Given the limited evidence of use of the ESA by otter, the ecological importance of the ESA for this species is not above Study Area.
Wildcat	Study Area	No evidence of wildcat was identified within the ESA during surveys in 2023 and 2024. Habitats present within the ESA provide potential for foraging and commuting wildcat due to the varying age structure of the coniferous woodland plantation. No potential dens or resting sites were identified. Due to the lack of field evidence and relatively limited habitat potential, the ecological importance of the ESA for wildcat is not above Study Area.
Badger	Study Area	No evidence of badger was identified within the ESA during surveys in 2023 and 2024. Habitats present within the ESA provide limited potential for foraging and commuting badger, and very limited suitable habitat for sett excavation given the presence of commercial forestry and wet habitats, and lack of

Ecological Feature	Ecological Importance of Site for Ecological Feature	Rationale
		hillsides. As such, the ecological importance of the ESA for badger is not above Study Area.
Red squirrel and Pine marten	Study Area	Evidence of both red squirrel and pine marten was confined to the Access Track. Habitats within the ESA provide some potential for foraging and commuting pine marten in that the varying ages of different stands of conifer plantation provide some structural variability and therefore a range of resources. As the ESA is dominated by Sitka spruce, habitat and foraging potential is limited for red squirrel. The ecological importance of the ESA for both red squirrel and pine marten is not above Study Area.

Likely Effect Pathways

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

10.4.50 **Table 10.11: Identification of Likely Effects** relates 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 Proposed 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 10.11: Identification of Likely Effects

Ecological Feature	Development Activity	Likely Effect Pathway	Likely Effect
Construction Activities			
Mergie LNCS	• Pollution from set-aside soils storage area • Construction of infrastructure • Presence and use of fuelled plant.	• Changes in water quality and volume. • Pollution event.	• Habitat loss
AWI	• Surface vegetation clearance during Access Track upgrade / widening.	• Physical removal of habitats.	• Habitat loss
Habitats of Conservation Concern	• Surface vegetation clearance during Access Track upgrade / widening. • Excavation for construction of infrastructure. • Construction of infrastructure • Presence and use of fuelled plant.	• Physical removal of habitats. • Changes in water quality and volume • Changes in hydrological regime • Pollution event.	• Habitat loss • Habitat fragmentation
Bats	• Surface vegetation clearance during construction • Installation of construction site security lighting • Presence of construction staff and vehicles	• Removal of foraging and commuting habitat • Light spill on foraging and commuting areas • Permanent loss of potential roost habitat	• Habitat loss • Habitat fragmentation
Otter	• Excavation for construction	• Trapped in site excavations	• Habitat loss • Habitat fragmentation

Ecological Feature	Development Activity	Likely Effect Pathway	Likely Effect
Construction Activities			
	• Vegetation removal either side of the Cowie Water Bridge • Use of cementitious materials for substation platform • Installation of construction site security lighting • Presence of fuelled plant • Presence of construction staff and vehicles	• Changes in water quality and volume • Disturbance from site staff, plant and site lighting • Pollution event	
Wildcat	• Surface vegetation clearance during construction • Excavation for construction • Installation of construction site security lighting • Presence of construction staff and vehicles	• Trapped in site excavations • Permanent loss of foraging and commuting habitat • Light spill on retained foraging and commuting habitat • Disturbance from site staff, plant and site lighting	• Habitat loss • Habitat fragmentation
Badger	• Surface vegetation clearance during construction • Excavation for construction • Installation of construction site security lighting • Presence of construction staff and vehicles	• Trapped in site excavations • Permanent loss of foraging and commuting habitat • Light spill on retained foraging and commuting habitat • Disturbance from site staff, plant and site lighting	• Habitat loss • Habitat fragmentation
Red squirrel and Pine marten	• Surface vegetation clearance and tree removal during Access Track works and Proposed Development works • Excavation for construction • Installation of construction site security lighting • Presence of construction staff and vehicles	• Permanent loss of foraging and commuting habitat • Trapped in site excavations • Disturbance from site staff, plant and site lighting.	• Habitat loss • Habitat fragmentation

10.5 Mitigation and Monitoring

10.5.1 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

10.5.2 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[44]). Habitats will include areas of native deciduous tree planting, areas of scrub, grassland, and wet grassland habitats as shown on **Figure 3.3: Landscape Design**

- E2: Retention of riparian habitats along the Burn of Day that provide commuting and foraging opportunities for a range of protected species.

Applied Mitigation

10.5.3 The Applicant is committed to the implementation of Applied Mitigation, summarised in **Table 10.6: Applied Mitigation**, which comprise of the Applicant's General Environmental Management Plans (GEMPs)[45,46,47] and SPPs[5,6,7,8,9,10,11]. 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 Aberdeenshire Council through planning conditions.

10.5.4 The requirement for an Advisory Environmental Clerk of Works (ECoW)[48] 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[49,50,51], SPPs[5,6,7,8,9,10,11], 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 Aberdeenshire Council before construction commences. The definition and scope of the role of ECoW has been in paragraph 3.8.5 of **Chapter 3: Description of the Proposed Development**).

10.5.5 The SPPs[5,6,7,8,9,10,11] 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[24] in the season immediately prior to construction (particularly for mobile species, including bats, otter, wildcat, badger, water vole, red squirrel and pine marten). 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 10.12: Applied Mitigation

Mitigation Measure	Project Stage/Timing	Responsibility
• E3: Adherence to all SSEN Transmission GEMPs (Working In or Near Water[45], Dust Management[46] and Biosecurity[47] and Watercourse Crossings[52]) and SPPs (Bats[6], Otter[7], Wildcat[11], Badger[5], Water vole[10], Red squirrel[9] and Pine marten[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

[44] 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.
[45] SSEN Transmission (2022) General Environmental Management Plans – Working In or Near Water
[46] SSEN Transmission (2020) General Environmental Management Plans – Dust Management
[47] SSEN Transmission (2020) General Environmental Management Plans – Biosecurity (On Land)
[48] AECoW (undated) The Role of an Environmental Clerks of Works Position Statement
[49] SSEN Transmission (2022) General Environmental Management Plans – Working In or Near Water
[50] SSEN Transmission (2020) General Environmental Management Plans – Dust Management
[51] SSEN Transmission (2020) General Environmental Management Plans – Biosecurity (On Land)
[52] SSEN Transmission (2020) General Environmental Management Plans – Watercourse Crossings

Mitigation Measure	Project Stage/Timing	Responsibility
part of an outline Construction Environment Management Plan (see E4 below).		
• E4: 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
• E5: The Applicant will implement on-site and off-site BNG measures, as defined in **Appendix 10.4: 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

10.5.6 A detailed CEMP will be produced ahead of the commencement of works (see E5) and will be supported by SSEN Transmission's SPPs[5,6,7,8,9,10,11] (see E3) 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.

10.5.7 Pre-construction update surveys will be undertaken within the 12 months prior to any construction works as per the requirements of the SPPs[5,6,7,8,9,10,11] (see E3 above); these surveys will confirm the current status of the Site with regards to the protected and notable species identified in this assessment.

10.5.8 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 10.13: Monitoring Measures**.

Table 10.13: Monitoring Measures

Monitoring Measure	Project Stage/Timing	Responsibility
• E6: 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

10.5.9 A BNG Report (**Appendix 10.4: 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 3.3 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.

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

10.5.11 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.

10.5.12 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.

10.5.13 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.

10.6 Assessment of Likely Significant Effects – Construction

10.6.1 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

Designated Sites

10.6.2 Likely effects on Mergie LNCS during construction have been identified as:

- Indirect habitat loss as a result of a pollution event;
- Habitat fragmentation as a result of changes to the hydrological regime; and
- Potential disturbance through a pollution event of designated qualifying features of Mergie LNCS (i.e. bog, pond, rivers and rush pasture alongside the Cowie Water).

10.6.3 In addition, likely effects on the Wood of Mergie LEPO have been identified as direct habitat loss as a result of widening of the existing forestry track along the Access Track.

10.6.4 Note that the Cowie Water and Burn of Day, Burn of Baulks and Burn of Elfhill are assessed under habitats of conservation concern below while the effect on the hydrological regime of habitats is assessed in **12: Hydrology, Hydrogeology, Geology and Soils.**

10.6.5 As Mergie LNCS is outwith the Site, it will not be directly subject to works and therefore there will be no direct impact. However, there is the potential for indirect effects through pollution event(s) leading to habitat loss and / or habitat fragmentation due to the site being hydrologically connected to the Site via the Cowie Water, Burn of Day, Burn of Baulks and Burn of Elfhill.

Embedded design avoidance and applied mitigation measures will avoid development in the vicinity of the watercourses with the exception of widening works required for the bridge over the Cowie Water, and protection of qualifying features of this designated site. No works are proposed to the Burn of Day, Burn of Baulks and Burn of Elfhill. Where possible, existing access track routes and watercourse crossings have been utilised. Permanent infrastructure has been located away from watercourses to safeguard the water environment and the qualifying features of designated areas during construction. The temporary set-aside soil storage area will be constructed and maintained in accordance with the relevant GEMPs.[454647]

10.6.6 The Wood of Mergie LEPO may be affected by limited works to undertake track widening along the existing forestry track that forms the Access Track. However, this block of woodland is already heavily impacted by the history of land use and ongoing activities of commercial forestry within Fetteresso Forest. Works that require removal of non-native conifers may result in opportunities for more native woodland species, such as downy birch, to establish in any such areas.

10.6.7 In considering the above, the significance of potential effects on designated sites is detailed in **Table 10.14: Assessment of Significance of Likely Construction Effects – Designated Sites**. Significance is assessed within the context of the Ecological Importance of the Site as defined in **Table 10.10: Ecological Importance Assessment**.

Table 10.14: Assessment of Significance of Likely Construction Effects – Designated Sites

Parameter	Likely Effect
	Habitat Loss
Extent	There will be no direct habitat loss within Mergie LNCS as a result of construction activities. Some limited extent of the Wood of Mergie LEPO may be affected by track widening.

Parameter	Likely Effect
Magnitude	There will be no change to the conservation status of the integrity of the qualifying features of Mergie LNCS or Wood of Mergie LEPO as a result of habitat loss during the construction process.
Duration	Permanent
Frequency	One-off event during construction
Reversibility	Reversible
Likelihood	Unlikely
Significance (EcIA)	Not significant
Significance (EIA)	Not significant

Habitats of Conservation Concern

10.6.8 Likely effects on habitats of conservation concern during construction have been identified as:

- Direct habitat loss as a result of the removal of habitat; and/ or a pollution event; and
- Habitat fragmentation as a result of vegetation removal and/ or changes to hydrological regime (particularly within potential GWDTEs).

10.6.9 Approximately 88 ha (33%) of the Site's total habitat resource is forecast to be lost to the Proposed Development. Of this, approximately 2.18 ha are habitats of conservation concern which will be directly lost; this equates to approximately 22% of the habitats of conservation concern within the Site.

The habitats which will be lost as a result of the Proposed Development are predominantly coniferous plantation which is of limited ecological value. Small areas of Northern Atlantic wet heaths with Erica tetralix and European dry heath will be affected, both of which are Annex 1 habitats and SBL Upland Heathland priority habitat. There is approximately 7.85 ha of Upland Heathland within the Site, of which approximately 1.71 ha (22%) will be lost. In addition, there is approximately 2.20 ha of SBL Upland Flushes, Fens and Swamps within the Site, of which 0.47 ha (21%) will be lost. These numbers illustrate the limited nature of habitat loss within the Site.

10.6.10 There will be no loss nor fragmentation of Upland acid grassland (LBAP habitat), nor of the SBL Rivers priority habitat within the Site as a result of the Proposed Development.

Table 10.15: Assessment of Significance of Likely Construction Effects – Habitats of Conservation Concern

Parameter	Likely Effect	
	Direct Habitat Loss	Habitat Fragmentation
Extent	There will be loss of 1.71 ha (22%) of SBL Upland Heathland within the Site (Annex I habitats: Northern Atlantic wet heaths with *Erica tetralix* and European dry heath). There will be a loss of 0.47 ha (21%) of SBL Upland Flushes, Fens and Swamps within the Site.	The design process has sought to avoid impacting habitats of conservation concern as far as possible. A commitment to utilise the existing access tracks within the Site as far as is practical means that habitat fragmentation is limited. The network of watercourses within the ESA will be maintained. There will be no fragmentation of habitats of conservation concern within the ESA as a result of construction.
Magnitude	The habitats of conservation concern will persist in forest rides and open unplanted ground in the wider landscape. Opportunities will be created for semi-natural habitats such as wet and dry heath and acid grassland to re-establish where commercial conifers have been removed. Wetland habitats alongside the Burn of Day will be retained and encroaching Sitka spruce regeneration will be removed.	There will be no change to the structure of function of habitats of conservation concern within the ESA as a result of habitat fragmentation during the construction process.

Parameter	Likely Effect	
Duration	Permanent	Permanent
Frequency	One-off event during construction	One-off event during construction
Reversibility	Irreversible	Irreversible
Likelihood	Certain	Unlikely
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Bats

10.6.11 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 habitat.

10.6.12 The design process has considered these likely effects and sought to minimise them. Vegetation removal and land-take have been minimised as far as possible by minimising the platform required for the Proposed Development. In addition, watercourses will be subject to a minimum 15 m separation distance from infrastructure with the exception of the SUDS outfall to the Burn of Day and existing watercourse crossings.

10.6.13 Most of the habitat to be lost as a consequence of construction will be coniferous plantation woodland which has very limited potential for roosting, foraging and commuting bats, however this makes up a very small proportion of the coniferous plantation woodland within the ESA. Additionally, the more open habitats within the Site, consisting of the existing access roads and forest rides, and small areas of open habitat may provide further potential for foraging and commuting bats. Given the retained habitats within the Site and much of the surrounding area offer similar levels of habitat potential to bats, construction of the Proposed Development is not likely to cause habitat fragmentation.

10.6.14 In considering the above, the significance of potential effects on bats is detailed in **Table 10.16: 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 10.10: Ecological Importance Assessment**).

Table 10.16: 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 stands of coniferous plantation woodland and wetland habitats which likely provide some limited foraging and commuting habitat for bats, but are unlikely to provide any roosting potential.	Limited to loss and fragmentation of commuting and foraging habitats within the Site.
Magnitude	Only a small proportion of the commercial forestry plantation will be lost as a result of construction, therefore only a small proportion of the available commuting and foraging habitat will be lost. It is considered unlikely existing habitats provide roosting potential.	A very small proportion of the available resources within the Site will be affected
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible
Likelihood	Certain in relation to commuting and foraging habitat loss. Static bat detectors recorded commuting and foraging bats within the Site.	Unlikely

Parameter	Likely Effect	
	Unlikely in relation to loss of potential roosts as no potential roost features were identified within the Site.	
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Otter

10.6.15 Likely effects on otter 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.

10.6.16 No permanent infrastructure is located within SEPA's Recommended Riparian Corridors[53]. The Site contains dry swale SuDS which discharge to both the Burn of Day and Burn of Baulks to maintain hydrological balance with the relevant catchment basins for the upper reaches of these watercourses. The Burn of Day headwaters are surrounded by wet habitats; however, this watercourse was not considered suitable for foraging or commuting otter and no evidence was identified during surveys of the ESA. Evidence of otter was identified on the Cowie Water, which was considered suitable for foraging and commuting although no resting sites were noted.

10.6.17 No works are required for the Burn of Day or Burn of Elfhill crossings. Note that there are no existing or proposed crossings of the Burn of Baulks and the nearest proposed works maintain a minimum 15 m buffer from this watercourse, with the exception of landscape planting.

10.6.18 Widening works are required of the Cowie Water bridge within the riparian habitat which will result in some extremely limited direct habitat loss within the boundaries of the bridge widening works, although these works are not anticipated to result in habitat fragmentation. Strict pollution prevention measures will be implemented to protect the water environment as outlined in SSEN Transmission's GEMPs; Working In or Near Water[45], Dust Management[46] and Watercourse Crossings[52].

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

10.6.20 In considering the above, the significance of potential effects on otter is detailed in **Table 10.17: Assessment of Significance of Likely Construction Effects – Otter**. Significance is assessed within the contact of the Ecological Importance of the ESA for otter (see **Table 10.10: Ecological Importance Assessment**).

Table 10.17: Assessment of Significance of Likely Construction Effects – Otter

Parameter	Likely Effect	
	Direct Habitat Loss	**Habitat Fragmentation**
Extent	Localised and extremely small. Widening of the Cowie Water bridge will result in very small losses of riparian habitat both up and downstream of the bridge.	Very limited and relating only to the Cowie Water bridge.
Magnitude	A very small proportion of the available resources within the Site could be affected through loss of riparian habitat to facilitate the Cowie Water bridge widening.	A very small proportion of the available resources within the Site could be affected through loss of riparian habitat to facilitate the Cowie Water bridge widening.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible

[53] SEPA (2024) Flood Risk Standing Advice

Parameter	Likely Effect	
Likelihood	Certain	Unlikely
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Wildcat

10.6.21 Likely effects on wildcat 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 habitat.

10.6.22 The Proposed Development will result in the loss of approximately 85.3 ha of coniferous woodland plantation of varying age structures, although compensatory planting will be undertaken and will include a varied mixture of woodland types. Such habitats may provide some suitable foraging and commuting habitat for wildcat. Desk study records suggest wildcat may be present within the area with an average of one sighting reported per year, but it is considered highly likely that these sightings are of hybrid cats rather than pure-breed wildcats given the proximity to residential dwellings and towns, and the nearest Wildcat Priority Area being over 40 km southwest of the Site[54],[55].

10.6.23 Home range sizes of Scottish hybrid wildcats were found to be almost 14 km^2 for females and over 18 km^2 for males[56], thus it is considered from the limited desk and field survey data that should wildcat be present within the area, the ESA is unlikely to represent an integral part of any wildcat's territory. Furthermore, the existing forestry track within the Site is used for a variety of purposes including forestry activities, works to existing energy infrastructure, and recreation, all of which maintain an ongoing level of human disturbance and thereby limit the suitability for wildcat (refer to **Chapter 3: Description of Proposed Development**).

10.6.24 Best practice methods will be employed during construction to prevent disturbance including keeping light spill and noise to a minimum while adhering to both SSEN Transmission's Wildcat SPP[11] and SSEN Transmission's relevant GEMPs[45,46,47].

10.6.25 In considering the above, the significance of potential effects on wildcat is detailed in **Table 10.18: Assessment of Significance of Likely Construction Effects – Wildcat**. Significance is assessed within the contact of the Ecological Importance of the ESA for wildcat (see **Table 10.10: Ecological Importance Assessment**).

Table 10.18: Assessment of Significance of Likely Construction Effects – Wildcat

Parameter	Likely Effect	
	Direct Habitat Loss	Habitat Fragmentation
Extent	Localised within the Site to the substation infrastructure.	Localised within the Site to the substation infrastructure. The Proposed Development will be immediately surrounded by habitat which will remain suitable for foraging and commuting wildcat. Landscape proposals include areas of retained conifer plantation and newly planted native woodlands, scrub and scrub habitat thus improving cover, habitat variety and connectivity around the Site. This approach limited the effects of fragmentation.

[54] Wildcat Priority Areas were defined by the results of camera trapping surveys performed by WildCru over the winter of 2013 and 2014.
[55] Wildcat Priority Areas dataset. Available [online]: https://www.data.gov.uk/dataset/3491a9b0-1dd5-4f86-904f-55ca833e9aef/wildcat-priority-areas [Accessed October 2024]
[56] Kilshaw, K., Campbell, R.D., Kortland, K. and Macdonald, D.W. (2023) Scottish Wildcat Action final report: Ecology. NatureScot, Inverness. Available [online]: https://www.nature.scot/doc/scottish-wildcat-action-swa-specialist-report-ecology#5.1+Home+range+size [Accessed October 2024]

Parameter	Likely Effect	
Magnitude	A small proportion of the available resources within the Site and ESA will be lost as a result of the Proposed Development. More extensive habitats with potential for foraging and commuting are available in the wider area.	A small proportion of the available resources within the Site and ESA will be lost as a result of the Proposed Development. There are broadly similar habitats within the immediately surrounding area, including within the retained conifer plantation within the Site, ESA and beyond, therefore limiting the magnitude of any habitat fragmentation resulting from this Proposed Development.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible
Likelihood	Certain	Unlikely
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Badger

10.6.26 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 habitat.

10.6.27 The survey identified no evidence of badger, and limited opportunity for sett building, foraging and commuting within the Site, though desk study data suggests they are present in the wider landscape.

10.6.28 The design process has considered the likely effects on badger as detailed above and sought to mitigate them by reducing the footprint of the Proposed Development and therefore the tree felling requirements. Further, landscaping plans will enhance the suitability of the Site for badger by creating a mosaic of habitats and bunds which may be suitable for sett excavation.

10.6.29 In considering the above, the significance of potential effects on badger is detailed in **Table 10.19: Assessment of Significance of Likely Construction Effects – Badger**. Significance is assessed within the contact of the Ecological Importance of the ESA for badger (see **Table 10.10: Ecological Importance Assessment**).

Table 10.19: 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 coniferous planation woodland. 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

Parameter	Likely Effect	
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Red Squirrel and Pine Marten

10.6.30 Likely effects on red squirrel and pine marten 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 habitat.

10.6.31 Habitats within the Site offer suitable habitat for red squirrel and pine marten with trees of varying age structures present within the Site, though tree species diversity is low. The desk study identified evidence of both species within the Site while field survey identified evidence of both species within the Access Track suggesting a low-density population of each is present. Notably no squirrel dreys nor potential pine marten dens were identified.

10.6.32 Works will involve felling 85.3 ha coniferous plantation woodland within the Site, including infrastructure and advanced felling; however, this represents approximately 32% of the coniferous plantation woodland within the Site, but only a small proportion of the coniferous plantation woodland in the wider landscape. The landscaping plans include planting a range of native tree species which will increase the diversity of resources available to red squirrel and pine marten within the Site.

10.6.33 Widening works for the Access Track are not anticipated to have an effect on red squirrel, nor pine marten.

10.6.34 In considering the above, the significance of potential effects on red squirrel and pine marten is detailed in **Table 10.20: Assessment of Significance of Likely Construction Effects – Red Squirrel and Pine Marten**. Significance is assessed within the contact of the Ecological Importance of the ESA for red squirrel and pine marten (see **Table 10.10: Ecological Importance Assessment**).

Table 10.20: Assessment of Significance of Likely Construction Effects – Red Squirrel and Pine Marten

Parameter	Likely Effect	
	Direct Habitat Loss	Habitat Fragmentation
Extent	Localised and limited to a small area within the ESA.	Limited. The surrounding landscape is predominantly coniferous woodland plantation which will remain suitable for red squirrel and pine marten, thus limiting the effects of fragmentation.
Magnitude	Habitat loss will be limited within the Site, which forms a small proportion of the available woodland resource in the wider landscape.	A small proportion of the available resources within the Site will be affected through habitat loss. However, the Site is surrounded by extensive areas of coniferous plantation and other types of woodland which are well-connected to the wider landscape.
Duration	Project lifetime	Project lifetime
Frequency	One-off event during construction.	One-off event during construction.
Reversibility	Irreversible	Irreversible
Likelihood	Certain	Unlikely
Significance (EcIA)	Not significant	Not significant
Significance (EIA)	Not significant	Not significant

Additional Mitigation

10.6.35 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.

10.6.36 Construction will be conducted in accordance with SSEN Transmission GEMPs[45,46,47], SPPs[5,6,7,8,9,10,11] and a CEMP, including an Ecological Management Plan, and supervision by an ECoW. As no significant effects were identified, no additional mitigation measures are proposed.

Residual Construction Effects

10.6.37 Subject to adherence with all embedded and applied mitigation, no significant residual effects (in EIA terms, see the conversion table, **Table 10.4: 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.

10.7 Assessment of Likely Significant Effects – Operation

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

10.8 Assessment of Likely Significant Effects – Decommissioning

10.8.1 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.

10.9 Assessment of Likely Cumulative (In-Combination) Effects

Introduction

10.9.1 In this section, the potential cumulative effects of the Proposed Development and other developments in planning and likely future developments within a 3 km radius are considered. Operational developments are not considered in this cumulative assessment of effects because the baseline context and conditions at the Site have already been influenced by the existing developments in operation within the 3 km radius.

10.9.2 Therefore, nine developments have been considered within this cumulative impact assessment including seven associated SSEN Transmission developments and two other developments. These developments are illustrated in **Figure 5.1: Cumulative Developments**

10.9.3 **Table 10.21: Cumulative Assessment: Associated SSEN Transmission Development** provides a cumulative assessment of the Proposed Development with the Associated SSEN Transmission Development defined in **Chapter 1: Introduction** and shown in **Figure 5.1: Cumulative Developments**.

10.9.4 **Table 10.22: Cumulative Assessment: Other SSEN Transmission Developments** and **Table 10.23: Cumulative Assessment: Other Third Party Developments** provide a cumulative assessment of the Proposed Development with other reasonable, foreseeable SSEN Transmission and 3rd party developments as shown in **Figure 5.1: Cumulative Developments**.

Table 10.21: Cumulative Assessment: Associated SSEN Transmission Development

	Construction						
Project	**Mergie LNCS**	**Habitats of Conservation Concern**	**Bats**	**Otter**	**Wildcat**	**Badger**	**Red Squirrel / Pine Marten**
Kintore to Tealing 400 kV OHL	The Proposed Development is not predicted to have a significant effect upon Mergie LNCS as it has been designed to avoid the Burn of Day (excluding the crossing and SUDS outfall). The SUDS ponds will provide areas for silt settlement therefore the water going into the Burn of Day is expected to be clear and pollutant-free. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes following all mitigation measures within SSEN Transmission's GEMPs, SPPs and CEMPs. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	The Proposed Development is not predicted to have a significant effect upon habitats of conservation concern in terms of EIA significance. Habitats of conservation concern within the Site include small areas of generally poor condition Annex 1, SBL and priority habitats, and areas of woodland listed on the Ancient Woodland Inventory / Native Woodland Survey of Scotland. Several of these areas will not be directly impacted, while some will be lost to the Proposed Development, though these losses are not considered significant in EIA terms. The expected land take associated with the construction of the Kintore to Tealing 400 kV OHL is not likely to introduce a significant loss of similar habitat,	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 roosting habitat identified within the Site. Field surveys recorded bats within the Site therefore 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 SPP[6] (as confirmed in the Kintore to Tealing 400 kV OHL Scoping Report), there is no predicted cumulative significant effect.	The Proposed Development is not predicted to have a significant effect upon otter as only one spraint was identified on the Cowie Water within the Access Track and no evidence within the Site. The desk study identified 53 records of otter within 5 km of the Site within the last 15 years illustrating their presence in the wider landscape. Widening works are required of the Cowie Water bridge, but these works will follow best practice guidelines and will not result in a sizable loss of habitat for otter. The expected 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 are	The Proposed Development is not predicted to have a significant effect upon wildcat as no evidence of their presence, nor potential resting sites were identified within the Site. The desk study identified ten sightings within 5 km of the Site within the last 15 years, but these are considered highly likely to be hybrids. The expected land take associated with the construction of the Kintore to Tealing 400 kV OHL is not likely to introduce a significant loss of suitable habitat. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Development, which includes adherence to the Wildcat SPP[11], a pre-construction survey in suitable	The Proposed Development is not predicted to have a significant effect upon badger given that this species was not identified using the ESA during field surveys. The desk study returned over 130 records of badger within 5 km of the Site within the last 15 years, typically in areas of more suitable habitat than those present within the Site. The expected land take associated with the construction of the Kintore to Tealing 400 kV OHL is not likely to introduce a significant loss of suitable 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 within the Site, and good practice construction	The Proposed Development is not predicted to have a significant effect upon red squirrel or pine marten given that evidence of their presence was only identified within one area of the Access Track and no evidence was recorded during field surveys within the Site. The desk study returned over 5,100 records of red squirrel and over 200 records of pine marten within 5 km of the Site and within the last 15 years. The expected land take associated with the Kintore to Tealing 400 kV OHL during construction is not likely to introduce a significant loss of suitable habitat. Much of the surrounding area is comprised coniferous plantation woodland with potential to support red squirrel and pine marten.

	Construction						
		therefore the risk to habitats of conservation concern across the sites is limited. As such, there is no predicted cumulative significant effect.		present within the wider landscape and will be retained. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence to the Otter SPP[7], a pre-construction survey in suitable habitats and designing the Proposed Development to adhere with suitable watercourse buffers wherever possible. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	habitats. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence with the Badger SPP[5] pre-construction survey in suitable habitats. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence with both the Red Squirrel SPP[9] and Pine Marten SPP[8], 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.
Summary	The ESA has not been identified as being of importance for Mergie LNCS nor habitats of conservation concern beyond Local level. Only minor significant effects from construction in terms of EIA significance have been identified in connection with the Proposed Development and it follows that significant effects arising from the Proposed Development together with the Kintore to Tealing 400 kV OHL are also unlikely, based on the information on this project which is currently available.		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 the Kintore to Tealing 400 kV OHL are also unlikely, based on the information on this project which is currently available.				

Table 10.22: Cumulative Assessment: Other SSEN Transmission Developments[57]

	Construction						
Project	**Mergie LNCS**	**Habitats of Conservation Concern**	**Bats**	**Otter**	**Wildcat**	**Badger**	**Red Squirrel / Pine Marten**
Fetteresso 132 kV substation extension	While Fetteresso 132 kV substation extension is within the red line boundary of the Proposed Development, it is within the south and is therefore not hydrologically connected to Mergie LNCS. As such, there is no predicted cumulative significant effect.	The Fetteresso 132 kV substation extension is proposed to be located over the headwater of Burn of Elfhill. This watercourse is not likely to be impacted by the Proposed Development and such watercourses are common and widespread in upland areas in the wider landscape. Thus, there is no predicted cumulative significant effect.	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 roosting habitat identified within the Site. Field surveys recorded bats within the Site therefore bats are known to be present in the landscape and the proposed Fetteresso 132 kV substation extension will result in further habitat loss and fragmentation. However, the areas involved are not known to host bat roosts and are small in scall therefore with the information available at present and the adoption of the Bat SPP[6], there is no predicted cumulative significant effect.	The Proposed Development is not predicted to have a significant effect upon otter as only one spraint was identified on the Cowie Water within the Access Track and no evidence within the Site. The desk study identified 53 records of otter within 5 km of the Site within the last 15 years illustrating their presence in the wider landscape. Widening works are required of the Cowie Water bridge, but these works will follow best practice guidelines and will not result in a sizable loss of habitat for otter. The expected land take associated with the proposed Fetteresso 132 kV substation extension is not likely to result in a significant loss of habitat suitable for	The Proposed Development is not predicted to have a significant effect upon wildcat as no evidence of their presence, nor potential resting sites were identified within the Site. The desk study identified ten sightings within 5 km of the Site within the last 15 years, but these are considered highly likely to be hybrids. The expected land take associated with the construction of the proposed Fetteresso 132 kV substation extension is not likely to introduce a significant loss of suitable habitat. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN	The Proposed Development is not predicted to have a significant effect upon badger given that this species was not identified using the ESA during field surveys. The desk study returned over 130 records of badger within 5 km of the Site within the last 15 years, typically in areas of more suitable habitat than those present within the Site. The expected land take associated with the construction of the proposed Fetteresso 132 kV substation extension is not likely to introduce a significant loss of suitable habitat. Extensive areas of habitats suitable for foraging and commuting badger are present within the wider landscape,	The Proposed Development is not predicted to have a significant effect upon red squirrel or pine marten given that evidence of their presence was only identified within one area of the Access Track and no evidence was recorded during field surveys within the Site. The desk study returned over 5,100 records of red squirrel and over 200 records of pine marten within 5 km of the Site and within the last 15 years. The expected land take associated with the proposed Fetteresso 132 kV substation extension during construction is not likely to introduce a significant loss of suitable habitat. Much of the surrounding area is comprised coniferous

[57] As defined in Chapter 1: Introduction.

	Construction						
				otter. Extensive networks of watercourses with potential for otter are present within the wider landscape and will be retained. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence to the Otter SPP[7], a pre-construction survey in suitable habitats and designing the Proposed Development to adhere with suitable watercourse buffers wherever possible. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	Transmission Development, which includes adherence with the Wildcat SPP[11], 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.	there is a lack of suitable habitat for sett excavation within the Site, and good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence with the Badger SPP[5] pre-construction survey in suitable habitats. This will therefore reduce the risk across the sites. As such, there is no predicted cumulative significant effect.	plantation woodland with potential to support red squirrel and pine marten. Good practice construction measures are to be implemented for the Proposed Development and the Associated SSEN Transmission Development, which includes adherence with both the Red Squirrel SPP[9] and Pine Marten SPP[8], 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.
Network Rail Drumlithie	There is no hydrological or functional connection between this project and Mergie LNCS. As such, there is no predicted	The Proposed Development is not predicted to have a significant effect upon habitats of conservation concern. This project is unlikely to have a significant effect as	As above	As above	As above	As above	As above

	Construction						
	cumulative significant effect.	effects on habitats are expected to be considered and ecologically valuable habitats retained wherever possible, as is best practice. As such, there is no predicted cumulative significant effect.					
Fiddes 132 kV replacement	As above	As above	As above	As above	As above	As above	As above
SSEN Transmission Offshore Grids Project	As above	As above	As above	As above	As above	As above	As above
Glendye Wind Farm Grid Connection	As above	As above	As above	As above	As above	As above	As above
Summary	The ESA has not been identified as being of importance for Mergie LNCS nor habitats of conservation concern beyond Local level. Only minor significant effects from construction in terms of EIA significance 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.		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 Developments are also unlikely, based on the information on these projects which is currently available.				

Table 10.23: Cumulative Assessment: Other Third Party Developments

	Construction						
Project	**Mergie LNCS**	**Habitats of Conservation Concern**	**Bats**	**Otter**	**Wildcat**	**Badger**	**Red Squirrel / Pine Marten**
Bowdun Offshore Wind Farm Onshore Cable Connection	The Proposed Development is not predicted to have a significant effect upon Mergie LNCS and all other designated sites were scoped out of assessment due to a lack of impact pathways. The Bowdun Offshore Wind Farm Onshore Cable Connection identified potential impact pathways to one LNCS, Arbuthnott LNCS, and scoped out all other designated sites. Based on the information available,there is no predicted cumulative significant effect	The Proposed Development is not predicted to have a significant effect upon habitats of conservation concern in terms of EIA significance. Habitats of conservation concern within the Site include small areas of generally poor condition Annex 1, GWDTEs, SBL and priority habitats, and areas of woodland listed on the Ancient Woodland Inventory / Native Woodland Survey of Scotland. Bowdun Offshore Wind Farm Onshore Cable Connection anticipates the potential for impacts to habitats of conservation concern, notably	The Proposed Development is not predicted to have a significant effect upon any of these protected species, while all other protected and notable species were scoped out of the impact assessment. Bowdun Offshore Wind Farm Onshore Cable Connection will assess the impacts upon these same species, but only a desk based assessment has been conducted to inform the scoping report to date. With the information available at this time, and given that surveys will be undertaken and appropriate mitigation employed by both developments to avoid and/or minimise impacts to all protected and notable species as far as possible, there is no predicted cumulative significant effect.				

	Construction						
		GWDTE, and notes that where significant effects are identified, appropriate mitigation will be employed to avoid and/or minimise the effects. Based on the information available no cumulative significant effect is predicted .					
Craigneil Wind Farm	Planning permission for a wind farm of eleven turbines was granted through appeal in September 2022. The original application was refused due to significant impacts to dwellings (refer to **Chapter 8: Landscape and Visual Amenity**) and red kites (refer to **Chapter 12: Ornithology**). A PoAN for an updated layout of seven turbines was submitted to Aberdeenshire Council, in early June 2024, with a decision still pending. The original application did not predict a significant impact on non-avian ecological receptors; therefore it is likely that the updated layout of fewer turbines and reduced construction footprint also will result in no predicted significant effects. Given the location of the Proposed Development relative to this wind farm, and lack of predicted significant effects from either, based on the information available it is concluded that there is no predicted cumulative significant effect.						
Quithel 50MW BESS	This proposed BESS is located approximately 1km southwest of the Site. Planning permission was sought for a proposed 50mW BESS at Quithel in December 2023. The Screening Opinion[58] concluded that based on information available, no EIA will be required. It is understood that ecological surveys have not yet been conducted, thus based on the information available it is concluded that there is no predicted cumulative significant effect.						
Summary	Given the information available at this time, there is no predicted cumulative significant effect as a result of either the proposed Bowdun Offshore Wind Farm Onshore Cable Connection or Craigneil Wind Farm and the Proposed Development.						

[58] Scottish Government (2024) Screening Opinion of the Scottish Ministers in respect of the Proposed Application for consent under Section 36 of the electricity act 1989 to construct and operate the proposed Quithel Battery Energy Storage System (BESS) situated on land adjacent to Fetteresso Substation, in the planning authority area of Aberdeenshire Council. Available [online]: https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00005005 [Accessed October 2024]

10.10 Summary of Significant Effects

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