

Hurlie 400kV Substation Environmental Impact Assessment (EIA) Volume 4 | Appendix 10.1

Desk Study and Legal/Policy Context

November 2024



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LIST OF ABBREVIATIONS

EclA: Ecological Impact Assessment

EPS: European Protected Species

WCA: The Wildlife and Countryside Act 1981 (as amended)

SAC: Special Area(s) of Conservation

SPA: Special Protection Area(s)

SSSI: Site(s) of Special Scientific Interest

NNR: National Nature Reserve

LNCS: Local Nature Conservation Site(s)

ESA : Ecological Survey Area

1. INTRODUCTION

1.1 The Proposals

1.1.1 This appendix presents the full methodology and results of the desk study undertaken to inform the Ecological Impact Assessment (EclA) of the Hurlie 400 kV Substation, hereafter referred to as the Proposed Development. This Appendix should be read in conjunction with **Chapter 10: Ecology and Biodiversity**, and **Chapter 3: Description of the Proposed Development (Volume 2)** of the EIA Report.

1.1.2 This appendix is supported by the following:

- **Figure 10.1.1: The Proposed Development and Survey Area (EIA Report Volume 3)**; and
- **Figure 10.1.2: Designated Sites within 10 km and 5 km of the Proposed Development.**

1.1.3 This appendix informs the EclA in addition to **Appendix 10.2: Habitat and Vegetation Survey Report** and **Appendix 10.3: Protected Species Survey Report**.

1.2 Requirement for the Report

1.2.1 LUC was commissioned by the Applicant to undertake an ecological desk study and provide legal context to aid the design process. It is required to ensure the EclA is cognisant of relevant nature conservation and policy, and aid understanding of the existing baseline. Data returned by the desk study is used to inform field survey methods and the scope of the assessment.

1.3 Terminology and Survey Area

1.3.1 The following terminology will be used throughout this report

- Site: all land within the planning application (red line) boundary (**Figure 1.1: Site Location**);
- Proposed Development: The infrastructure including the platform, bays, control buildings, access tracks, drainage and landscape features and temporary construction compounds (see Section 3.3 in **Chapter 3: Description of the Proposed Development**);
- Substation Site: The main part of the Site within which the proposed substation will be constructed, including the substation platform, drainage and landscape features, construction compounds, set-down, equipment and materials storage, and internal access;
- 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 red-line boundary, plus relevant buffers (up to 250 m around the Substation Site, and up to 50 m from the Access Route) where access was granted in which all ecology surveys were undertaken in line with good practice guidelines for all ecological features surveyed (see **Figure 10.1.1: The Proposed Development and Ecology Survey Area**).

1.3.2 The above areas are all illustrated in **Figure 10.1.1: The Proposed Development and Survey Area**.

1.4 Relevant Legislation

1.4.1 The protections afforded to ecological features in Scotland are enshrined in the following key legislation:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)¹;
- The Wildlife and Countryside Act 1991 (as amended)²; and
- The Protection of Badgers Act 1992 (as amended)³.

¹ Available online: <https://www.legislation.gov.uk/ukxi/1994/2716/contents> [Accessed August 2024]

² Available online: <https://www.legislation.gov.uk/ukpga/1981/69> [Accessed August 2024]

³ Available online: <https://www.legislation.gov.uk/ukpga/1992/51> [Accessed August 2024]

- 1.4.2 A brief summary of each piece of legislation is provided below, with specific reference to development planning.
- 1.4.3 It should be noted that protection offered to ecological features through national or local planning policy are not discussed in this section, nor are protections specifically offered to avian features (which are discussed in **Chapter 11: Ornithology**). Similarly, sites designated for their geological interest are discussed in **Chapter 12: Hydrology, Hydrogeology, Geology and Soils**.

The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)

- 1.4.4 In Scotland, the European Habitats Directive (Directive 92/42/EEC) has been transposed into national legislation via the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) ('the Habitat Regulations'). The Habitats Regulations provide the highest level of legal protection available to ecological features and make provisions for the following protected sites and species.

European Sites

- 1.4.5 The term 'European site' is used to refer to what were previously known as 'Natura' sites. These sites were originally designated as part of the 'Natura 2000' network, a Europe-wide system of sites designated for their ecological value. Sites are either designated as Special Areas of Conservation (SACs), the qualifying features for which are normally internationally important habitats or species assemblages, or Special Protection Areas (SPAs), which largely qualify for their assemblages of birds.
- 1.4.6 Ramsar sites, which support internationally important wetland habitats, are listed under the Convention on Wetlands of International Importance as 'Waterfowl Habitat' (Ramsar Convention, 1971), and form part of the Natura 2000 network in Europe. All Ramsar sites in Scotland are also European sites and are protected under the relevant statutory regimes.
- 1.4.7 SACs and SPAs receive considerable protection through the Regulations and these protections are normally reflected in national and local planning policy. Where developments have the potential to affect SACs or SPAs (refer to **Chapter 11: Ornithology**), an assessment process (Habitat Regulations Assessment) must first be undertaken.
- 1.4.8 In order that potential effects on European sites can be fully understood, it is important that they are considered fully in EclA desk studies.
- 1.4.9 There is no change to the protection of SACs or SPAs (refer to **Chapter 11: Ornithology**) as a result of the United Kingdom's exit from the European Union, and the requirements of the Directive continue to be relevant to the management of European sites.

European Protected Species (EPS)

- 1.4.10 The Habitats Regulations afford wide-ranging protections to a list of species considered to be of international conservation importance, under Schedule 2. A species is normally considered important where it plays an important role in wider ecosystems and has historically suffered significant population decline. Regarding EPS, it is an offence to:
- Capture, injure or kill such an animal;
 - Harass an animal or group of animals;
 - Disturb an animal while it is occupying a structure or place used for shelter or protection;
 - Disturb an animal while it is rearing or otherwise caring for its young;
 - Obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
 - Disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
 - Disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
 - Disturb an animal while it is migrating or hibernating;
 - Take or destroy an animal's eggs (in Scotland, this is relevant only to the great crested newt and natterjack toad); and

- Disturb any cetacean (dolphin, porpoise or whale).

1.4.11 There is no change to the protection of EPS as a result of the United Kingdom's exit from the European Union.

The Wildlife and Countryside Act 1981 (as amended)

1.4.12 The Wildlife and Countryside Act 1981 (as amended) (WCA) is domestic legislation that gives rise to designated sites, regulates the management of invasive species and provides protections for species of national conservation importance. Important features of the legislation in relation to protected sites and species are set out below.

Sites of Special Scientific Interest (SSSI)

1.4.13 The SSSI network in the UK extends to a system of sites designated for their national conservation value. Sites are designated for their biodiversity, habitats and/or species assemblages. There is a general presumption against development in SSSIs. For this reason, it is important that EclA desk studies identify SSSIs that may be affected by the Proposed Development.

Invasive non-native species

1.4.14 The law in Scotland on invasive species, which aims to prevent their spread, is covered under the Wildlife and Countryside Act 1981 as amended by the Wildlife and Natural Environment (Scotland) Act 2012. Under the WCA it is an offence to release or allow an animal outside of its native range⁴, or to plant, or otherwise cause a plant to grow, a plant in the wild at a location outside of its native range⁴. For this reason, it is important that EclA desk studies identify records of invasive non-native species of plants and animals.

Protected Species

1.4.15 Under the WCA Schedules 5 and 6, species considered to be of national conservation importance receive legal protections, often very similar to the protections available to EPS. For this reason, it is important that EclA desk studies identify existing records of WCA protected species.

The Protection of Badgers Act (1992)

1.4.16 Although badgers are not rare in Scotland, they receive protection due to the high levels of persecution they suffer. Badgers and their setts receive protection against killing, disturbance and destruction and, therefore, knowledge of existing records is of importance to EclA desk studies.

National Nature Reserves

1.4.17 National Nature Reserves (NNRs) are areas which are set aside for nature to promote their conservation and enjoyment⁵. This designation is awarded by a partnership of NNR providers and community representatives and fulfils NatureScot's statutory designation functions under the National Parks and Access to the Countryside Act 1949 (as amended) and WCA.

Local Nature Reserves

1.4.18 Local Nature Reserves (LNRs) are selected and designated by local authorities under Section 21 of the National Parks and Access to the Countryside Act 1949 (as amended)⁶. These are areas which are of at least local importance to natural heritage and managed by the local authority through a countryside ranger service or committee. Their management may include by-laws to regulate inappropriate behaviour within LNRs.

⁴ NatureScot (2024) Native Range: Available online: <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-species/invasive-non-native-species/native-range> [Accessed October 2024].

⁵ URL: <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/national-designations/national-nature-reserves> [Accessed October 2024]

⁶ URL: <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/local-designations/local-nature-reserves> [Accessed October 2024].

2. METHODS

2.1 Baseline Data Collection

Designated Sites

2.1.1 A desktop search for statutory designated nature conservation sites was conducted with 10 km and 5 km of the Site, including sites of international⁷, national⁸ and local⁹ importance. Non-Statutory designated sites¹⁰ within 2 km of the Site was also conducted.

Protected Species

2.1.2 A desktop search for protected species was also conducted using publicly available biological records from the past 15 years was undertaken within 5 km of the Site (and 10 km for bat species).

2.1.3 Reference should be made to **Chapter 11: Ornithology** for details of ornithological survey and assessment.

Study Area

2.1.4 **Table 2.1** below lists the features targeted in the desk study, and the resources used to identify them. In order that the study was appropriately focused, buffers were applied as shown in the table below.

Table 2.1: Desk Study

Ecological Feature	Comment	Desk Study Resource	Buffer from Site Boundary
Statutory Designated Sites	<ul style="list-style-type: none"> ▪ Special Areas of Conservation (SAC); and ▪ Ramsar Sites. ▪ Sites of Special Scientific Interest (SSSI); ▪ National Nature Reserves (NNRs); and ▪ Local Nature Reserves 	NatureScot SiteLink website ¹¹ Multi-Agency Geographic Information Centre for the Countryside (MAGIC) ¹² Scotland Environment Mapping Service ¹³	10 km
Non-Statutory Designated Sites	<ul style="list-style-type: none"> ▪ Local Nature Conservation Sites (LNCS); ▪ RSPB and Scottish Wildlife Trust Reserves; and ▪ Ancient (AWI) /Long-established (LEPO) Woodland. 	Aberdeenshire Local Biodiversity Action Plan ¹⁴ MAGIC Native Woodland Survey of Scotland (NWSS) ¹⁵ Scotland Environmental Mapping Service ¹⁶ Aberdeenshire Tree Preservation Orders ¹⁷	5 km

⁷ I.e. Special Areas of Conservation (SAC)

⁸ I.e. Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR)

⁹ I.e. Local Nature Reserves (LNR)

¹⁰ I.e. Local Nature Conservation Sites (LNCS), non-governmental organisation (NGO) nature reserves and Ancient Woodland (AWI)

¹¹ URL: <https://sitelink.nature.scot/home> [Accessed March 2024]

¹² Department for Environment, Food and Rural Affairs et al (n.d.) Multi-Agency Geographic Information for the Countryside [online]. Available at: <http://magic.defra.gov.uk> [Accessed March 2024]

¹³ URL: <https://map.environment.gov.scot/sewebmap/> [Accessed March 2024]

¹⁴ URL: <https://online.aberdeenshire.gov.uk/ldpmedia/LDP2021/Appendix12LocalNatureConservationSites.pdf> [Accessed May 2024]

¹⁵ URL: <https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss> [Accessed May 2024]

¹⁶ URL: <https://map.environment.gov.scot/sewebmap/> [Accessed May 2024]

¹⁷ URL: <https://www.aberdeenshire.gov.uk/environment/natural-heritage/trees> [Accessed May 2024]

Ecological Feature	Comment	Desk Study Resource	Buffer from Site Boundary
Existing records of deep peat and carbon rich soils	N/A	The Carbon and Peatland Map ¹⁸	2 km
Existing records of EPS and WCA Protected Areas	To include: <ul style="list-style-type: none"> ▪ All native EPS and WCA protected species recorded, post-2009. 	North-East Scotland Biodiversity Records Centre (NESBReC) ¹⁹ National Biodiversity Network (NBN) Atlas Scotland ²⁰	5 km for Protected Species 10 km for Bat Species

Limitations

- 2.1.5 Due to licensing rules, desk study data obtained from NBN Atlas was limited to records made available under the CC_BY and OGL licences only. As such, a small number of records may not have been available for use. Given the habitats present within the Study Area, which is dominated by coniferous plantation forestry, this is not considered to have had a substantial impact on the conclusions of the assessment.
- 2.1.6 It should be noted that a lack of records of a given species does not equate to the absence of the species. Thus, where there are no desk study records of a species, the assessment seeks to utilise other indicators of presence from the field surveys.

¹⁸ Scotland's Soils (2016) Carbon and Peatland Map [online]. Available at: <https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map/> [Accessed May 2024]

¹⁹ URL: <https://nesbrec.org.uk/> Data received July 2024.

²⁰ NBN Atlas online: <https://nbnatlas.org/> Data downloaded April 2024.

3. RESULTS

3.1 Designated Sites

3.1.1 Statutory and non-statutory designated sites within 5 km and 10 km of the Proposed Development are listed in **Table 3.1** below, in line with the Scoping Report²¹.

Table 3.1: Designated Sites

Site Name	Designation	Qualifying Features	Approximate Distance and Orientation to the Substation Site
Statutory Sites (within 10 km)			
Red Moss of Netherley	SAC and SSSI	SAC: Active raised bog Degraded raised bog SSSI: Raised bog	Approximately 8.1 km northeast
Garron Point	SAC	Narrow-mouthed whorl snail (<i>Vertigo angustior</i>)	Approximately 8.6 km east
Loch of Lumgair	SSSI	Basin fen – Schwingmoor type Wet woodland	Approximately 5.6 km southeast
Garron Point	SSSI (note that this SSSI partially overlaps Garron Point SAC)	Narrow-mouthed whorl snail (<i>Vertigo angustior</i>) Northern brown argus butterfly (<i>Aricia artaxerxes</i>) Dalradian, Non-marine Devonian, Ordovician Igneous and Maritime cliff	Approximately 7.2 km southeast
River Dee	SAC	Atlantic salmon (<i>Salmo salar</i>) Otter (<i>Lutra lutra</i>) Freshwater pearl mussel (<i>Margaritifera margaritifera</i>)	Approximately 5.5 km northwest
Non-Statutory Sites (within 5 km)			
Mergie	LNCS	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.	Approximately 415 m north
Fetteresso	LNCS	Broadleaved woodland on the slopes of the railway 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.	Approximately 3.6 km southeast
Elfhill	LNCS	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.	Approximately 640 m south
Woodland on the AWI (within 5 km)			

²¹ Scottish and Southern Energy Network (2024) Scoping Report Hurlie

Site Name	Designation	Qualifying Features	Approximate Distance and Orientation to the Substation Site
Wood of Mergie Woodland ID: 22,189 & 22190	Ancient Woodland	Long-Established (of plantation origin) (LEPO)	Within the Access Track and approximately 0.4 km northwest of the Substation Site
Unnamed woodland Woodland ID: 22188	Ancient Woodland	LEPO	Within the Access Track and approximately 0.7 km north of the Substation Site
Unnamed woodland Woodland ID: 22185	Ancient Woodland	LEPO	Approximately 20 m south of the Access Track and 1 km north of the Substation Site
Unnamed woodlands; multiple further blocks	Ancient Woodland	Ancient (of semi-natural origin)	Ten blocks, between 0.9 km and 3.7 km from the Substation Site
Unnamed woodlands; multiple further blocks	Ancient Woodland	LEPO	Sixty-four blocks, between 0.5 km and 4.9 km from the Substation Site
Unnamed woodland Woodland ID: 22,331	Ancient Woodland	On Roy Map	Single block, approximately 3.7 km northeast

- 3.1.2 There were no Ramsar sites, NNRs or LNRs identified within 10 km of the Site, and no RSPB or Scottish Wildlife Trust reserves identified within 5 km of the Site.
- 3.1.3 The NWSS¹⁵ identified four areas of woodland listed as native woodland with an unidentifiable dominant habitat type within the Substation Site and one area of nearly-native woodland with a non-native dominant habitat type also within the Substation Site.
- 3.1.4 The Carbon and Peatland Map¹⁸ identified that much of the Site is Class 4, with a small area of Class 5 located within the east of the Site. Class 4 indicates that the area is unlikely to include carbon-rich soils. However, the Class 5 area may be carbon-rich and contain deep peat, although it is unlikely to support extant peatland habitat and the area is not likely to be nationally important, nor of high conservation value. Further details relating to the soils can be found in **Chapter 12: Hydrology, Hydrogeology, Geology and Soils**.

3.2 Protected Species

NESBReC Records

- 3.2.1 The desk study of relevant protected species records (post 2009) returned a total of 933 records of bats within 10 km of the Proposed Development, held by NESBReC, as detailed in **Table 3.2** below.

Table 3.2: NESBReC Bat Records (post-2009) within 10 km of the Proposed Development

Species	Latin Name	Number of Records	Year(s) of Records
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	356	2009 - 2023
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	409	2010 - 2023
Nathusius pipistrelle	<i>Pipistrellus nathusii</i>	1	2023
Unknown pipistrelle	<i>Pipistrellus sp.</i>	16	2011 - 2023
Brown long-eared	<i>Plecotus auritus</i>	34	2010 - 2023

Species	Latin Name	Number of Records	Year(s) of Records
Leisler's bat	<i>Nyctalus leisleri</i>	1	2016
Daubenton's	<i>Myotis daubentonii</i>	72	2010 - 2024
Natterer's	<i>Myotis nattereri</i>	16	2016 - 2023
Myotis species	<i>Myotis sp.</i>	16	2016 - 2022
Unidentified bat species	N/A	12	2009 - 2023

3.2.2 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.

3.2.3 The desk study also identified a total of 616 records of other protected species within 5 km of the Proposed Development, held by NESBReC, as detailed in **Table 3.3** below.

Table 3.3: NESBReC Protected Species (post-2009) within 5 km of the Proposed Development

Species	Latin Name	Number of Records	Year(s) of Records
Otter	<i>Lutra lutra</i>	42	2009 - 2018
Wildcat	<i>Felis silvestris</i>	10	2009 - 2019
Badger	<i>Meles meles</i>	126	2009 - 2023
Pine marten	<i>Martes martes</i>	207	2009 - 2023
Red squirrel	<i>Sciurus vulgaris</i>	181	2021 - 2023
Water vole	<i>Arvicola amphibius</i>	2	2012
Mountain hare	<i>Lepus timidus</i>	1	2012
Brown hare	<i>Lepus europaeus</i>	28	2011 - 2023
Hedgehog	<i>Erinaceus europaeus</i>	6	2012 - 2023
Adder	<i>Vipera berus</i>	1	2009
Common toad	<i>Bufo bufo</i>	13	2020 - 2022

3.2.4 Within the 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.

NBN Atlas Records

3.2.5 The desk study of relevant protected species records (post 2009) returned a total of 1,056 additional records of bats within 10 km of the Proposed Development, held by NBN Atlas, as detailed in **Table 3.4** below.

Table 3.4: NBN Atlas Bat Records (post-2009) within 10 km of the Proposed Development

Species	Latin Name	Number of Records	Year(s) of Records
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	117	2009 - 2017
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	779	2009 - 2010
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	1	2016
Unknown pipistrelle	<i>Pipistrellus sp.</i>	100	2009 - 2020
Brown long-eared	<i>Plecotus auritus</i>	3	2016
Daubenton's bat	<i>Myotis daubentonii</i>	23	2009 - 2022
Natterer's bat	<i>Myotis nattereri</i>	14	2010 - 2018
Noctule	<i>Nyctalus noctula</i>	1	2013
Unidentified bat species	N/A	18	2009 - 2023

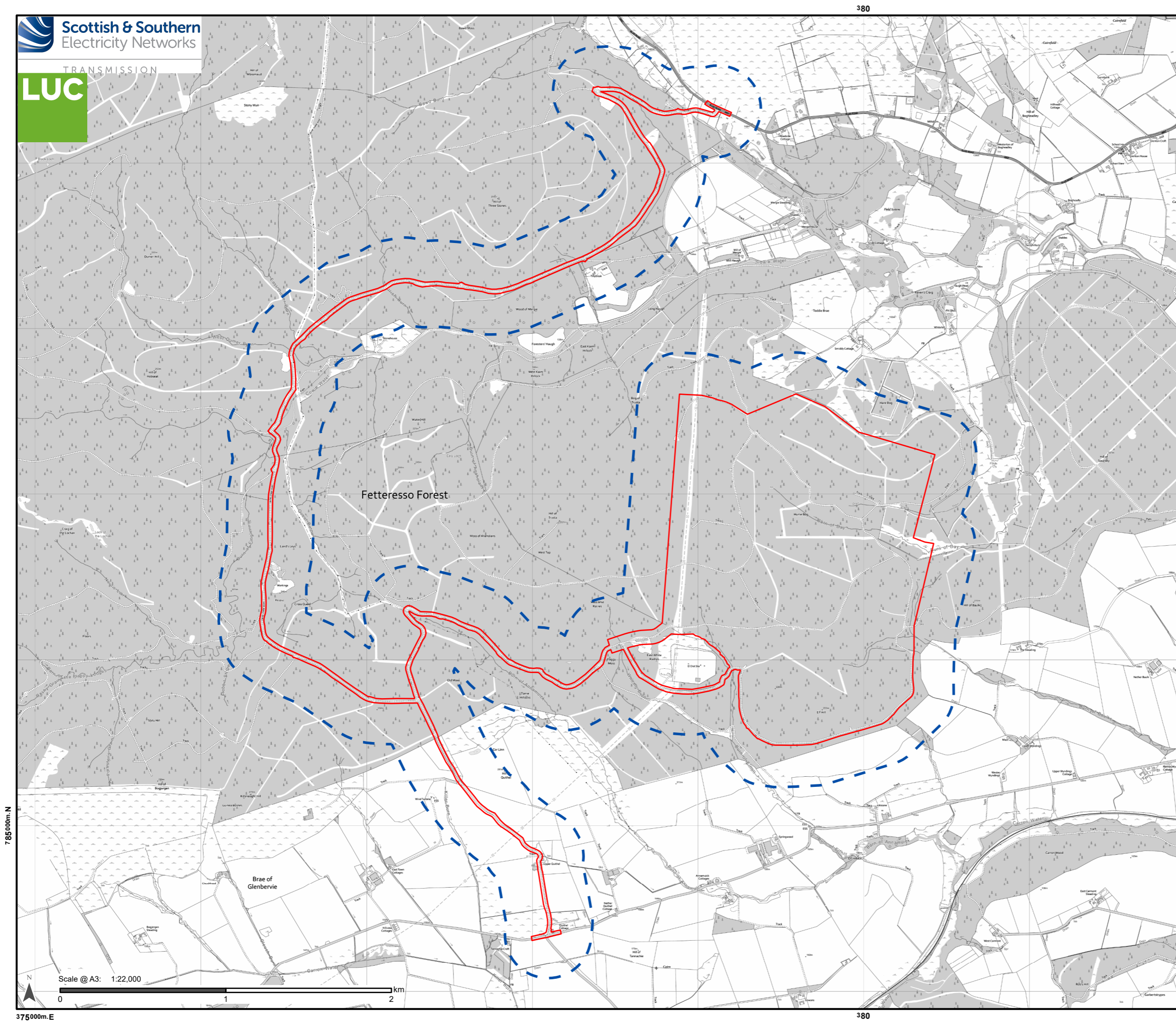
3.2.6 Within the Site, one record of an unknown bat species was identified in 2021.

3.2.7 The desk study of relevant protected species records (post 2009) returned a total of 11,348 additional records of other protected species within 5 km of the Proposed Development, held by NBN Atlas, as detailed in **Table 3.4** below.

Table 3.5: NBN Atlas Protected Species (post-2009) within 5 km of the Proposed Development

Species	Latin Name	Number of Records	Year(s) of Records
Otter	<i>Lutra lutra</i>	11	2009 - 2023
Badger	<i>Meles meles</i>	8	2009 - 2020
Beaver	<i>Castor fiber</i>	6,219* the vast majority of which are feeding signs, not sightings of individual beavers	2012 - 2023
Pine marten	<i>Martes martes</i>	4	2012 - 2021
Red squirrel	<i>Sciurus vulgaris</i>	4,975	2009 - 2023
Brown hare	<i>Lepus europaeus</i>	130	2009 - 2023
Common toad	<i>Bufo bufo</i>	1	2016

3.2.8 Within the Site, one record of a red squirrel was identified in 2020.



— Planning Application Boundary
- - - Survey area (250m buffer from planning application boundary)

785000m.N

Scale @ A3: 1:22,000
0 1 2 km

375000m.E

380



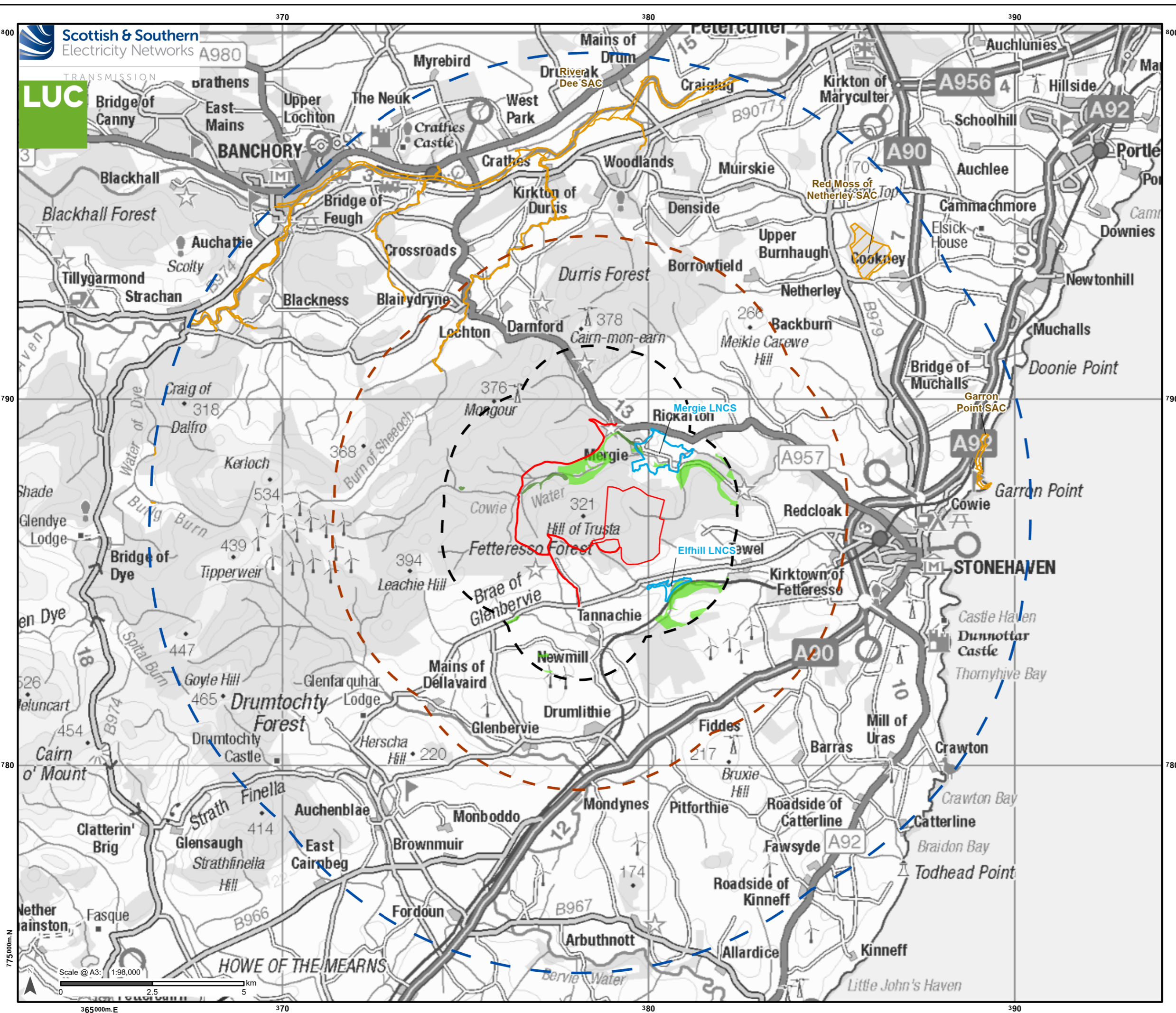
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Project No: LT486
Project: Hurlie 400 kV Substation

Title:
The Proposed Development and Survey Area

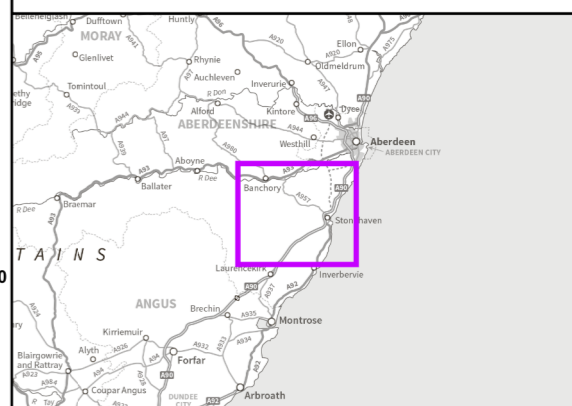
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Figure: 10.1.1



- Hurlie red line boundary
- 2km buffer
- 5km buffer
- 10km buffer
- Designated sites within 10km**
- Special Area of Conservation
- Designated sites within 2km**
- Local Nature Conservation Site
- Ancient Woodland Inventory**
- Ancient (of semi-natural origin)
- Long-Established (of plantation origin)

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Project No: LT486
Project: Hurlie 400 kV Substation

Title:
Ecological Designated Sites

Drawn by: IB Date: 08/10/2024

Figure: 10.1.2

Scale @ A3: 1:98,000
0 2.5 5 km