Scottish & Southern Electricity Networks

TRANSMISSION

Spittal to Loch Buidhe to Beauly 400 kV OHL Connection

Environmental Impact Assessment

Volume 5 | Technical Appendix

Appendix 8.2 | Ecology Assessment Methodology

July 2025

VOLUME 5: APPENDIX 8.2 – ECOLOGY ASSESSMENT METHODOLOGY

ACRONYMS AND ABBREVIATIONS

Acronym	Description
AWI	Ancient Woodland Inventory
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CTMP	Construction Traffic Management Plan
EclA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
GEMP	General Environmental Management Plans
GWDTE	Groundwater Dependent Terrestrial Ecosystems
LNCS	Local Nature Conservation Sites
LoD	Limit of Deviation
PAWS	Plantation on Ancient Woodland Site
SAC	Special Area of Conservation
SPP	Species Protection Plans
SSEN Transmission	Scottish and Southern Electricity Networks Transmission
SSSI	Special Scientific Interest
TPO	Tree Preservation Orders

1. INTRODUCTION

1.1.1 This Appendix outlines the approach taken to the Ecological Impact Assessment (EcIA) for the Spittal to Loch Buidhe to Beauly 400 kV OHL Connection, here after referred to as the Proposed Development.

1.1.2 This Appendix details the approach taken to baseline data collection including survey method, followed by a description of embedded mitigation, that is, measures that are an integral part of the Proposed Development as managed by Scottish and Southern Electricity Networks Transmission (SSEN Transmission). The final section outlines the methodology for impact assessment, in order to identify any significant residual impacts. The methodology takes into account the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland[1] and refers to not significant, rather than negligible.

[1] Guidelines for Ecological Impact Assessment In the UK and Ireland - Terrestrial, Freshwater, Coastal and Marine (v1.3 2024) https://cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf [Accessed 18.12.24].

2. BASELINE

2.1 Desk based Study

2.1.1 A desk-based study was undertaken to inform the field surveys through identification of designated sites and species of importance that are present within the Study Area. The Study Area varies for different ecological features, each of which is presented within this section.

Zone of Influence

2.1.2 The 'zone of influence' (ZoI) for a project is the area over which ecological features may be affected by biophysical changes as a result of the Proposed Development. This is likely to extend beyond the project site, for example, where there are ecological or hydrological links beyond the site boundaries. A ZoI has been identified over which impacts on sensitive ecological receptors have been considered. The ZoI varies based on the perceived impact pathways identified as detailed below:

- Hydrological connectivity (surface water) downstream, is limited to 1 km, aligned with standard practice measures outlined in **Volume 2, Chapter 10: Water Environment**;
- Groundwater connectivity is considered out to 250 m in line with SEPA guidance; and,
- Protected species disturbance zones inline with NatureScot Standing Advice for Planning Consultations[2].

2.1.3 The Study Area for statutory designated sites has been set at 1 km. Any designated sites identified with no likely connectivity to the Proposed Development have been scoped out and are not discussed further within the chapter.

2.1.4 NatureScot SiteLink and open-source data sets were used to identify all relevant statutory designated sites.

2.1.5 Records of protected species, invasive non-native species (INNS) and "other species" records, as well as information on non-statutory designated sites were received from the Highland Biological Recording Group (HBRG) for the Study Area (2 km).

2.1.6 In addition to the above, desk-based baseline data reviewed included information from freely downloadable datasets which were searched for information on statutory and non-statutory designated sites as well any protected / notable flora and fauna including;

- National Biodiversity Network (NBN) Atlas Scotland[3] for protected or notable species records within 2 km;
- NatureScot Sitelink for designated site information within 1 km;
- Ancient Woodland Inventory (AWI) (Scotland) for ancient woodland sites;
- Scotland's Environment map for the Carbon and Peatland Map 2016;
- SEPA Water Environment Hub for watercourse classification;
- Highland Nature Biodiversity Action Plan (HNBAP);
- Saving Scotland's Red Squirrels website; and
- Relevant scientific literature on protected species, habitats distribution and conservation status.

[2] NatureScot (2024). Planning and Development: Protected Species. https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species [Accessed 16.04.25]

[3] https://nbnatlas.org/?gad_source=1&gad_campaignid=799879603&gclid=EAIaIQobChMI6uOBka_cjQMV6JRQBh3V6ixrEAAYASAAEgKs4vD_BwE

Bat Habitat Appraisal

2.1.7 Areas of woodland habitat crossed by the Proposed Development, were identified and assessed for their potential to provide opportunities for commuting and foraging bats. This habitat assessment was undertaken in cognisance of the BCT guidance and only habitat of moderate of high potential suitability was reported.

2.1.8 Aerial mapping overlaid with the Proposed Development design and mapped results from the habitat survey were used to identify locations where woodland clearance is required to enable the Proposed Development. The appraisal excluded commercial forestry on account of its rotational clearance / replanting as part of the forestry management strategy and general low suitability for bats. Further to this, areas of recent tree planting or young self-seeded trees were excluded on account of them being unlikely to be of sufficient height to provide linear landscape features by which bats are likely to navigate, and there being no operational requirement to remove the saplings for safe operation of the proposed OHL.

2.1.9 Management felling for the Proposed Development is not considered in relation to the bat habitat appraisal, as the felling of these areas is out with the control of the Applicant (i.e. may not happen) and where it does happen a condition of the felling licence covering the works will require replanting of the area.

Watercourse Crossings Appraisal

Designated Sites

2.1.10 NatureScot's SiteLink was consulted to obtain information about local or national statutory designated sites such as Sites of Special Scientific Interest (SSSI) and National Network Sites such as SACs and Ramsar sites with freshwater qualifying features, within 1 km of the Proposed Development.

Surface Water Quality

2.1.11 The Scottish Environment Protection Agency's (SEPA) Water Classification Hub was consulted for information on the classification of waterbodies, within 1 km of the Proposed Development as part of the Water Framework Directive (WFD).

2.1.12 Surface water bodies are classified using a status of one of the following classes:

- High
- Good
- Moderate
- Poor
- Bad

2.1.13 In general, the classification of waterbodies describes by how much their condition differs from near natural conditions (i.e., those at a near natural condition are at High status, while those whose quality has been severely damaged are at Bad status)

2.1.14 For the purposes of this assessment the overall WFD Classification and relevant parameters were searched for (physio-chemical, macroinvertebrates, macrophytes and fish).

Watercourse Suitability Screening

2.1.15 Each watercourse crossing has been subjected to survey by competent ERM hydrologists between September 2024 and January 2025. These surveys were completed to inform assessment of hydrological characteristics of

each watercourse that is proposed to be crossed. These surveys, their methods and results, are discussed in **Volume 5, Appendix 10.1: Schedule of Watercourse Crossings** and is not discussed here.

2.1.16 A desk-based screening was then undertaken using the collected data to screen out unsuitable watercourses for aquatic life of importance in this report. This may include watercourses such as overland flow channels, watercourses with no clear flow or those which are deemed to be too narrow and shallow to support aquatic species of interest. Watercourse crossings which were screened in at this stage were then taken forward and appraised against wider available data.

Aquatic Protected Species

2.1.17 Records from the National Biodiversity Network (NBN) Atlas were obtained for protected and / or priority aquatic species, including fish and macroinvertebrates, within 1 km of the Proposed Development. Only data that was suitable for use commercially was included in the data search; therefore, data covered by the CC-BY-NC license was excluded from the records searched.

2.1.18 In addition, data was obtained from the Highland Biological Recording Group (HBRG) in December 2024 for protected and priority species within 1 km of the Proposed Development, and this was screened for any instances of aquatic species.

Review Of Fisheries Management Plans

2.1.19 The following Fisheries Management Plans were reviewed in January 2025, to obtain further details on the presence and absence of salmonids and in some instances other aquatic fauna in each of the following District Salmon Fishery Boards (DSFB), which are crossed by the Proposed Development;

- Caithness – including published electrofishing data
- Kyle of Sutherland
- Brora
- Cromarty Firth

Consultation

2.1.20 The DSFB is owned by the Association of Salmon Fishery Boards and is made up of ten DSFB. The following DSFBs, all of whom have watercourses crossed by the Proposed Development, were contacted via email on 5th November 2024 for information on watercourses supporting Atlantic salmon (*Salmo salar*) and brown / sea trout (*Salmo trutta*) populations and any information held on the presence of FWPM:

- Beauly District Fishery Board
- Cromarty Firth Fishery Board
- Kyle of Sutherland Fisheries
- Brora District Salmon Fishery Board
- Caithness District Salmon Fishery Board
- Helmsdale DSFB (letter issued as no email contact was available)

2.2 Survey Area

Protected Species

2.2.1 Survey areas presented vary depending on the species being looked at, species specific survey areas have therefore been identified in line with best practice.

2.2.2 The Survey Area generally covers a 200 m survey corridor around the proposed OHL alignment (100 m either side of the OHL centre line) and 50 m either side of the centre line of associated access tracks. This larger survey area accounts for the inclusion of an estimated Limit of Deviation (LoD) routinely included within OHL consent applications. A species-specific buffer was then applied as follows;

- 30 m (red squirrel, badger, pine marten, bats, water vole);
- 200 m up and downstream (for otter) on suitable watercourses to account for disturbance to natal holts; and,
- 200 m from the Proposed Development for Scottish wildcat.

2.2.3 On account of a long survey programme, required to cover the Proposed Development surveys were undertaken on a number of design iterations including community alternative alignments and design moves to accommodate technical constraints or other environmental constraints such as Schedule 1 birds or cultural heritage features. Where field data collected from surveys now exceeds 2 km from the current design this has been excluded from the report.

Habitats

2.2.4 A 700 m survey corridor was centred around the OHL, comprising a 100 m standoff and 250 m buffer applied to both sides of the alignment. For new access tracks, a 100 m standoff and 150 m buffer were applied on either side of the proposed centreline, i.e. a 300 m survey corridor. For existing tracks where significant upgrading was proposed, a 200 m survey corridor was applied.

UKHab

2.2.5 UKHab surveys were undertaken within 100 m of the Proposed Alignment only as habitats out with this area will not likely be directly impacted by the Proposed Development.

NVC for GWDTE

2.2.6 NVC surveys for GWDTEs were undertaken within 100 m of the Proposed Development and extended out to 250 m in line with SEPA guidance. Surveys were extended to this reach as it is considered possible that ground water impacts associated with development may affect habitats out to this distance. Within protected sites NVC surveys were undertaken within 100 m of the Proposed Development and extended to 250 m where GWDTEs were likely present.

2.2.7 NVC surveys only recorded communities out to 250 m where there is a likelihood that they were groundwater dependent. Where no GWDTEs or likely GWDTEs were present, habitats were not mapped.

2.3 Field Survey Methods

2.3.1 All ecological field surveys were undertaken in respect of the Proposed Development, where the Proposed Development encompasses a single alignment plus ancillary infrastructure such as permanent / temporary access tracks, compounds and pulling locations. An appropriate buffer has been applied to this depending on the species, as detailed in paragraph 2.2.2.

Habitats

UKHab

2.3.2 UKHab surveys were undertaken by ERM within the Survey Area, as described in paragraph 2.2.5. Surveys were based on the methods described in the UK Habitat Classification User Manual and the Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 Habitat Survey, as extended for use in Environmental

Assessment. UKHab Version 2.0 was used to assign the alphanumeric UKHab habitat classification codes which are presented in this report.

2.3.3 Plants and their frequency of occurrence were recorded using the subjective DAFOR scale (dominant, abundant, frequent, occasional, or rare). The nomenclature of vascular plants identified follows Stace (2019).

NVC for GWDTE

2.3.4 Habitats within the Survey Area with the potential to support GWDTEs were classified using the NVC. The survey was based on the methods described in the JNCC National Vegetation Classification: Users' handbook, with communities identified by eye. NVC communities were then cross-referenced with those listed in Scottish Environment Protection Agency (SEPA) guidance[4,5] to confirm their potential to be GWDTE receptors.

2.3.5 Further assessment of potential GWDTEs is beyond the scope of **Volume 2, Chapter 8: Ecology and Nature Conservation** as the assessment is related to the impact on groundwater changes. However, potential GWDTE are subject to further assessment and site-specific scrutiny in terms of topography and hydro-ecological context in **Volume 2, Chapter 10: Water Environment**.

Protected Species

2.3.6 Protected species are those that are deemed 'sensitive' and especially vulnerable to persecution or over-exploitation and are protected under legislation such as the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), Wildlife and Countryside Act 1981 and Protection of Badgers Act 1992. Other notable species of priority, such as those included on the Scottish Biodiversity List (SBL)[6] or Highland Nature Biodiversity Action Plan (HNBAP)[7] which are of particular importance for the conservation of biodiversity in Scotland, were also recorded where encountered.

2.3.7 Evidence of protected species including the animals themselves, their places of shelter and other field signs were searched for throughout the relevant Survey Area (paragraph 2.2.2). Species searched for included those highlighted as present or likely to be present due to their known UK distribution, pertinent desk-based records and the presence of suitable habitat. These species and their field signs are described below.

Otter

2.3.8 All watercourses and surrounding habitats were searched, following general 'standard' survey guidance (Chanin P 2003)[8], for the following signs:

- Shelters (holts): underground features where otters live. They can be tunnels within bank sides, underneath root-plates or boulder piles, and even man-made structures such as disused drains. Holts are used by otters to rest during the day and are the usual location of natal or breeding sites;
- Temporary shelters (couches): these are above ground resting sites. They may be partially sheltered, or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. Couches

[4] SEPA (2017) *Land Use Planning Guidance Note 31 – Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems.* SEPA, UK.
[5] SEPA (2024) *Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems.* SEPA, UK. Available online [Accessed May 2025]: https://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/
[6] NatureScot. Scottish Biodiversity List. https://www.nature.scot/doc/scottish-biodiversity-list [Accessed 16.04.25].
[7] The Highland Council. Highland Nature Biodiversity Action Plan 2021-2026. https://www.highland.gov.uk/downloads/download/2260/highland_nature_biodiversity_action_plan_2021_to_2026 [Accessed 16.04.25].
[8] Chanin, P. 2003. Monitoring the Otter Lutra lutra. Conserving Natura 2000 River Monitoring Series No. 10, English Nature, Peterborough.

can be very difficult to identify and may consist of an area of flattened grass or earth. Where rocks or rock armour are used as couches, these can be almost impossible to identify without observing the otter in situ;

- Faeces (spraints or anal gel): may be used to mark territories, often on in-stream boulders. They can be present within or outside shelters and temporary shelters. Spraints have a characteristic smell sometimes described as being like jasmine tea, and often contain fish remains;
- Foraging signs: the remains of prey items may be found at preferred feeding stations. Remains of fish, crustaceans, mollusks, or skinned, legless amphibians may indicate the presence of otter;
- Prints: otters have characteristic footprints that can be found in soft ground and muddy areas;
- Paths: these are terrestrial routes that otters take when moving between resting sites and watercourses, or at high flow conditions when they will travel along bank sides in preference to swimming; and
- Slides and play areas: slides are typically worn areas on steep slopes where otters slide on their bellies, often found between holts or couches and watercourses. Play areas are used by juvenile otters in play and are often evidenced by trampled vegetation and the presence of slides.

2.3.9 Any of the above signs (apart from paths) are diagnostic of the presence of otter. It is often not possible to identify temporary shelters with confidence unless other field signs are also present. Confirming the breeding status of a shelter usually requires monitoring with a remote camera, undertaken under licence. Camera monitoring did not form part of the current survey scope. Spraints are the most reliably identifiable evidence of the presence of this species.

Badger

2.3.10 Habitat within the Survey Area with the potential to support badgers was searched for field signs, with particular attention given to areas to woodland edges, linear features such as drystone walls and areas underlain by mineral soils. Field signs of badger are described in Scottish Badgers (2018)[9]. Field signs searched for include:

- Shelters (setts): individual or groups of entrances (holes), the size of a sett is generally indicated by the number of active entrances (including size of spoil heaps). This also maybe suggestive of its value within the social group and this in turn maybe indicative of the type of sett (main, annex or satellite) (**Table 1** and **2**);
- Faeces (latrines and dung pits): these are small, excavated pits in which droppings are deposited in. Latrines are a collection of dung pits often used as territorial markers;
- Hairs: tufts of hair can often be found on fences, or in the entrances and spoil heaps of setts;
- Foraging signs: small scrapes, also known as snuffle holes, where badgers have searched for earthworms, insects and plant tubers. Feeding signs can also include dug up wasp or bee nests and ripped up dung of other species including cattle;
- Scratching posts: marks on trees (including fallen trees) where badgers have scratched leaving claw marks or ripped at areas of rotten bark to sharpen claws;
- Prints: badgers have characteristic footprints that can be found in soft ground and muddy areas; and,
- Paths: these are routes that badgers take when moving between setts and foraging areas.

2.3.11 Where setts were recorded their sett entrance classification and sett type were noted, in line with the definitions outlined in Scottish Badgers (2018), which are reproduced below in **Table 1** and **Table 2** below.

9 https://www.scottishbadgers.org.uk/information-hub/badger-surveying/ Accessed 05.12.24.

Table 1: Sett Entrance Classifications and Associated Descriptions (Scottish Badgers (2018), Surveying for Badgers: Good Practice Guidelines, Version 1.)

Classification	Description
Well Used	Are clear of debris and vegetation, sides worn smooth but not necessarily excavated recently.
Partially Used	Are not in regular use and have debris e.g. twigs and leaves in the entrance. They could be used after only a minimal amount of clearance.
Disused	Not in use for some time, are partially blocked and could not be used without considerable effort. Rabbits and foxes may take over part of a sett and keep disused entrances open.
Collapses	Where a tunnel has collapsed.
Air Holes	Where badgers have made a small hole in a tunnel roof from below.

Table 2: Categories of Sett and Associated Descriptions

Classification	Description
Main	Main setts usually have several holes with large spoil heaps, and the sett generally looks well used. There are obvious paths to and from the sett and between sett entrances. In the British National Badger Survey the average number of holes for a main sett was twelve, although main setts may be much smaller, even a single hole in exceptional circumstances. Normally the breeding sett and in continuous use, it is possible to find a main sett that has some disused or dormant entrances.
Annex	These are often close to a main sett, normally less than 150 m away, and are connected to the main sett by one or more well-worn paths. Usually there are several holes but the sett may not be in use all the time, even if the main sett is very active. The average number of holes per annexe sett in the British survey was eight.
Subsidiary (Satellite)	These are usually at least 50 m from a main sett, and do not have an obvious path connecting with another sett. They are not in continuous use. The average number of holes per subsidiary sett in the British survey was four.
Outlier (Satellite)	These often have little spoil outside the holes, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the actual entrance hole), which is at least 25 cm in diameter, and rounded or a flattened oval shape (i.e. broader than high). Fox and rabbit tunnels are smaller and often taller than they are broad. The average number of holes per outlying sett in the British survey was two.
Other	Badgers may adopt temporary rest sites sometimes referred to as daybeds generally open structures within dense vegetation.

Red Squirrel

2.3.12 Areas of woodland that have the potential to support red squirrel were surveyed, following visual, drey count, and feeding sign survey guidance from Gurnell et al. (2009)[10]. Field signs searched for included:

- Sightings: visual sightings of red squirrels;

[10] Gurnell, J., Lurz, P., Wauters, L. 2009. *Practical techniques for surveying and monitoring squirrels.*

- Shelters (Dreys): dreys are usually built close to the main stem of a tree, over 3 m from ground level and are c. 50 cm x 30 cm in size, composed of sticks and branches, often lined with leaves, grass, moss and lichen; and
- Foraging signs: stripped cones (cone cores), often scruffy (not neat), found below trees or at feeding stations.

Pine Marten

2.3.13 Signs of pine marten were searched for within the Survey Area, following the general survey method used by O'Mahony et al. (2005)[11] in that the survey area was walked slowly and searched for;

- Scats: searches for pine marten scats were made along linear features such as fence lines, stone walls or forestry tracks / rides. Also searches for scats on prominent features such as tree stumps, dead logs or stones, and around rock piles and dense scrub where the species could establish a den; and
- Shelters (Dens): identification of features which could be used as a den. Dens can include the utilisation of upturned trees, tree cavities, rocks or manmade structures such as log piles or large bird boxes.

2.3.14 Pine marten scat is difficult to differentiate from other species such as fox[12] and requires the use of environmental Deoxyribonucleic acid (eDNA) analysis to confirm origin. Where possible scats were sent for eDNA analysis to confirm identification.

Water Vole

2.3.15 All watercourses within the Survey Area were surveyed for water vole field signs as described in Dean et al. (2016)[13]. This involved searching for the following field signs:

- Faeces (droppings): recognisable by their size, shape, and colour. If not too dried-out these are also distinguishable from rat droppings by their smell;
- Latrines: droppings, often deposited in piles and frequently drummed / flattened with hind feet;
- Foraging (feeding stations): food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation, often cut at a 45-degree angle;
- Lawns: may appear as grazed areas around land holes;
- Shelters (burrows): appear as a series of holes along the water's edge distinguishable from rat burrows by size and position;
- Nests: where the water table is high above ground woven nests may be found;
- Footprints: tracks may occur at the water's edge and lead into bank side vegetation. May be distinguishable from rat footprints by size; and
- Runways in vegetation: low tunnels pushed through vegetation near the water's edge; these are less obvious than rat runs.

2.3.16 Dean et al. (2016) states that water vole droppings are the only field sign that can be used to determine water vole presence reliably on their own; a collection of these field signs found in close proximity to each other can

[11] O'Mahony, D., O'Reilly, C., Turner, P. 2005. *National Pine Marten Survey of Ireland 2005*.

[12] A. Davidson, JDS. Birks, RC. Brooks, TC. Braithwait and JE. Messenger (2002) On the origin of faeces: morphological versus molecular methods for surveying rare carnivores from their scats. Journal of Zoology, 257, 141-143. The Zoological Society of London. London.

[13] Dean, M., Strachan, R., Gow, D., Andrews, R. (2016). *The Water Vole Mitigation Handbook* (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.

indicate water vole presence. Experience is required to distinguish feeding signs, burrows and footprints of water voles from those of other species.

Scottish Wildcat

2.3.17 Surveys for signs of Scottish wildcat were undertaken in line with NatureScot Guidance14. Wildcats tend to occupy woodland edges or a mosaic of habitats incorporating woodland, scrub, rough grassland, and moorland. A walk-over survey aims to establish if there are potential den sites present, which are diverse and could include rocky cairns, boulders, tree hollows, under root plates and dense gorse, as well as fox earths, badger setts, and rabbit burrows. Scats are not commonly found at den sites, though they were searched for throughout the survey area. Wildcats may also leave signs of flattened vegetation, smoothing of bark on branches, and hair or prey remains.

2.3.18 Due to the near impossibility of differentiating wildcat scat or hair from hybrid or feral / domestic cats, by eye, the use of eDNA assessment is required to confirm origin.

Bats

2.3.19 Surveys for bats were limited to identification of potential roost features through walkover survey.

2.3.20 Identified trees or groups of trees likely to require felling within the Survey Area were classified based on their general age and condition then inferring suitability, using the suitability guidelines in **Table 3.** Assessment of the potential for bat roosts in the habitats was made based on ground observations throughout the Survey Area. Any buildings (or other suitable habitat features) identified for removal as part of the Proposed Development or located within the Survey Area were assessed for their potential to support roosting bats. All bat habitat assessment and classification was undertaken in line with Bat Conservation Trust (BCT)[15] guidance.

Table 3: Guidelines for assessing the potential suitability of proposed development sites for bats

Potential suitability	Description	
	Roosting habitats in structures	Potential flightpaths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices / suitable shelter at all ground / underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight lines or generate / shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flightpaths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protected, appropriate conditions and / or suitable surrounding habitat to be used on a regular basis or by larger number of bats (i.e. unlikely to be	Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.

14 Guidance - Wildcat Survey Methods. NatureScot https://www.nature.scot/doc/guidance-wildcat-survey-methods Accessed 22.01.25.
15 Collins, L. (ed) 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

Potential suitability	Description	
	Roosting habitats in structures	Potential flightpaths and foraging habitats
	suitable for maternity and not a classic cool / stable hibernation site, but could be used by individual hibernating bats).	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity or hibernation – categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and their surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool / stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flightpaths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

[a] Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute), but it is unlikely that they actually would (due to another attribute).

[b] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

[c] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2016 and Jansen et al., 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delavel Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Reptiles and Amphibians

2.3.21 Species specific surveys for reptiles and amphibians (outside of GCN) were not undertaken, though incidental observations and general habitat suitability were recorded throughout protected species and habitat surveys.

Great Crested Newt Surveys

2.3.22 Water samples were taken from each pond found in order to conduct eDNA sample testing. Each survey visit used a minimum of three of the five methods suggested by NS – bottle trapping, egg searching, torching, netting and refugia searching. Those methods most suited to weather and general site conditions are chosen at the time of survey. The numbers of smooth (*Lissotriton vulgaris*) and palmate (*Lissotriton helveticus*) newts observed were also recorded as per standard practice. The method for each survey technique is outlined below.

eDNA

2.3.23 Water samples were used to test for the presence of GCN using environmental DNA (eDNA) within the Main Cable Route. eDNA survey method was carried out in accordance with NS standing advice[16] and Biggs et al. (2014). Samples were collected and stored in line with NS guidelines, and sent to NatureMetrics for analysis.

Bottle Trapping

2.3.24 Bottle trapping (also known as 'funnel trapping') comprises setting bottle traps around the margins of the pond, which are left overnight. The traps typically comprise 2-litre plastic bottles with the wide end cut off and inverted, attached to a cane. These are inserted into the sediment/substrate of the pond at approximately 2 m intervals (to a maximum of 50 traps per pond), with the narrow, open end (funnels) inserted into the water and the wide end clear of the water surface, with an air bubble trapped to enable the newts to breath. Newts swim into the entrance of the bottle but cannot escape. Traps are then checked the following morning between 0600 and 1100. Any newts caught are identified to species level, sexed, counted and released.

2.3.25 This method is particularly useful when surveying turbid and/or weedy ponds. It should only be used when the night-time air temperature is >5°C and if not undertaken correctly can be harmful to newts within the traps. It is also unsuitable to use this method during periods of hot weather and where water levels are low or if there is a risk of vandalism.

Egg Searches

2.3.26 Egg searches involve the searching of all submerged vegetation (live and dead) within the pond for great crested newt eggs. All UK native newts fold a leaf over the top of an egg to protect it from predation. Once discovered, a licensed surveyor can identify the species of newt which laid the egg based on its size and colour. Once great crested newts have been reliably identified, the egg search will stop. This method can only assess a pond for presence/absence and not population size.

Torching

2.3.27 Torching is undertaking at night, ideally when there is little or no wind, no rain and a night-time air temperature >5°C. Surveys involve walking slowly around the edge of the pond and using high powered torches (minimum 50,000 candlepower) to shine into the water and search for great crested newts, which may seek the cover of vegetation to escape the bright light, making them easy to detect. Any newts observed are identified to species level, sexed (if possible) and counted.

2.3.28 This survey method is best suited for use in clear ponds, with limited suitability in heavily vegetated and/or turbid ponds.

Netting

2.3.29 Netting is undertaken using a long-handled dip-net. It can be conducted either during the day or in the evening, but evening surveys may produce better results as adult newts are more likely to be in open water and can be combined with other methods of survey, as required by the guidelines. A perimeter walk of the pond is undertaken and at least 15 minutes of netting is undertaken for every 50 m of shoreline. Any newts caught are identified to species level, sexed, counted and released.

[16] https://www.nature.scot/doc/standing-advice-planning-consultations-great-crested-newts

2.3.30 The method is less effective than bottle trapping, egg searching and torching when searching for adult great crested newts but is particularly useful in finding larvae during late summer. This method can only assess a pond for presence / absence and not population size.

Refugia Searching

2.3.31 On land, newts take refuge beneath objects such as rocks, logs, moss, and discarded debris, particularly if they are flat and retain moisture. Looking underneath such objects, especially in the vicinity of ponds, can sometimes reveal newts. Juvenile and adult newts may be found under refuges from March to October. However, refuge searching is often not very reliable; newts may be present at a site, but simply not found under refuges. This method is best used as an additional technique when undertaking other survey methods. Anything moved during a refuge search should be replaced in its original position.

Population Size Class

2.3.32 The maximum adult count recorded from a waterbody on a single night using a single survey technique is used to estimate the population size class as Small (≤10 individuals), Medium (11–100 individuals) or Large (>100 individuals). The populations of GCN in waterbodies within 500 m of each other can be considered together to form an effective meta-population if there are no significant barriers to dispersal and migration among the waterbodies.

Freshwater Pearl Mussel

Desk-based Study

2.3.33 Watercourses that were identified as having the potential to support freshwater pearl mussel were assigned to a category of appropriate survey effort (red or amber):

- **Red**: Watercourses where populations of freshwater pearl mussel were known or considered likely to exist. These watercourses were subject to detailed freshwater pearl mussel survey (Transect survey).
- **Amber**: Watercourses known, or considered likely to contain, salmonid fish; with no known barriers to fish migration and with good or high-quality water, but not known to support freshwater pearl mussel populations. These watercourses were subject to an initial habitat assessment survey, before scaled down freshwater pearl mussel survey was carried out on those with suitable habitat to support freshwater pearl mussel (Sampling survey). Amber watercourses were upgraded to red if mussels were found during this sampling survey. In addition, more detailed transects were undertaken in areas of more suitable habitat identified on amber watercourses.

Transect Survey

2.3.34 Survey of red watercourses extended approximately from a 500 m buffer downstream to a 100 m buffer upstream of the Proposed Development. This survey was conducted using the methods approved by NatureScot for freshwater pearl mussel transect surveys (Young et al., 2003). Using waders and bathyscopes, two surveyors worked together, walking in parallel when conditions allowed, walking along the transects to scan the riverbed up to c. 2 m either side of each surveyor. This allowed for up to 5-10 m from the riverbank (depending on water depth and substrate) to be intensively surveyed for evidence of live mussels or dead shells (where water was shallow enough and slow flowing). Details of riverbed habitat were summarised for each transect section. A third surveyor always remained on the bank and assisted with recorded data.

2.3.35 For every approximate 50 m section of watercourse, site information was recorded on a standard recording form. This included average width and depth of the watercourse, likelihood of pollution or land run-off, water flow speed, substrate composition (based on the widely used a modified Wentworth Scale (Wentworth, 1922), main types of adjacent land-use, bankside vegetation, evidence of impacts and details of any discussions with

local people concerning their knowledge of the status of freshwater pearl mussel on the watercourse. Where both the watercourse substrate and bankside vegetation did not change, some recorded sections were longer than 50 m until a change in substrate and / or bankside vegetation occurred.

Sampling Survey

2.3.36 Initial survey of amber watercourses extended from an approximate 20 m buffer upstream to an 80 m buffer downstream of the Proposed Development. These watercourses were surveyed using the following method: A general bankside and / or instream assessment of the watercourse was carried out to identify specific areas most likely to support mussels.

2.3.37 When a suitable area was found, the watercourse was entered at the nearest point possible and a search conducted, concentrating on most favourable substrate types. Searches followed the transect method as above where suitable habitat was identified and conditions and access allowed, otherwise spot checks were made along 50 m transects of the watercourse.

2.3.38 If freshwater pearl mussel were found during a survey of an amber river, survey methods and survey extent were updated to follow those for category red watercourses i.e. a transect survey was carried out and survey extended to a 100 m buffer upstream of the Proposed Development and a 500 m buffer downstream.

eDNA Survey

2.3.39 Water samples for environmental DNA (eDNA) analysis were taken from the River Beauly on 30th September 2024 to detect the presence / likely absence of freshwater pearl mussel. Samples were taken by a licensed freshwater pearl mussel surveyor following the recommended methods provided by SureScreen Scientific. The samples were sent to SureScreen Scientific for analysis, which can detect the very recent presence of FWPM (in the last 20 days).

Invasive Non-Native Species (INNS)

2.3.40 Incidental notes were recorded for invasive non-native species during all protected. These species included, but were not limited to, American mink and sika deer.

3. EMBEDDED MITIGATION

3.1.1 Embedded mitigation measures will be further implemented as both the detailed design continue and the construction phase commences, including the timing of installation and careful siting of permanent and temporary structures to avoid or minimise interaction with sensitive ecological receptors.

3.1.2 Compliance with project wide and site-specific environmental management procedures, with reference to the Proposed Development's Construction Environmental Management Plan (CEMP) will also be implemented. This will describe the proposed approach to construction methods and environmental protection during construction of the Proposed Development, including (but not limited to) details of ecological constraints and measures (e.g., site working hours, control of light spill, noise emissions, pollution, dust management and avoiding incursion into habitats to be retained), procedures for surface water management and pollution prevention guidelines.

3.1.3 Scottish and Southern Electricity Networks Transmission (SSEN Transmission) have established General Environmental Management Plans (GEMPs) (**Volume 5, Appendix 3.3: GEMPs** and **Volume 5, Appendix 3.4: SPPs**), which will be implemented through the CEMP. Based on ecologically sensitive receptors identified in this Impact Assessment, relevant GEMPs include, but are not limited to:

- Working in or Near Water;
- Bad Weather;
- Working in Sensitive Habitats;
- Forestry;
- Working with Concrete;
- Oil Storage and Refuelling;
- Waste Management;
- Soil Management;
- Dust Management;
- Biosecurity (On Land); and
- Restoration.

3.1.4 SSEN Transmission have well-established Species Protection Plans (SPPs) for a number of protected species, which have been developed in consultation with NatureScot and are currently being used across other SSEN Transmission projects (**Volume 5, Appendix 3.3: GEMPs** and **Volume 5, Appendix 3.4: SPPs**). Each SPP provides details on what actions are required should species be encountered during construction of the Proposed Development. Based on the ecologically sensitive receptors identified in this Impact Assessment, relevant protection plans include, but are not limited to:

- Badger SPP;
- Bat SPP;
- Beaver SPP;
- Freshwater Pearl Mussel SPP;
- Otter SPP;
- Pine marten SPP;
- Red squirrel SPP;
- Water vole SPP;
- Wood ant SPP; and

- Wildcat SPP.

3.1.5 Embedded measures to protect biodiversity will include a pre-construction site survey of the construction area plus the appropriate disturbance zone, by a suitably qualified Ecological Clerk of Works (ECoW), focusing on habitats and species to be directly and indirectly impacted by the Proposed Development. The purpose of these surveys would be to confirm any changes to, and update of the baseline, to confirm the data on which this Impact Assessment is based, are still true. Should a new species be identified, the appropriate SPPs (included within the CEMP) would be followed during construction of the Proposed Development (or appropriate best practice guidance where an SPP does not exist) and an assessment undertaken to understand the impacts the Proposed Development may have on that species, as well as any further measures that should be put in place, for example, protected species licensing.

3.1.6 A Construction Traffic Management Plan (CTMP) for the Proposed Development is also in draft (**Volume 5, Appendix 14.6: Outline Construction Traffic Management Plan)** and will be updated iteratively in advance of the start of construction and throughout the construction phase. Whilst it is not an ecology-focused plan it will help to avoid / manage effects on ecological features in the vicinity of the areas to be directly affected, for example to prevent spillages, discharges, and unnecessary incursion into habitats, as well as implementing speed limits and caution signage etc. which may avoid or reduce direct mortality of species associated with vehicle collisions.

3.1.7 Management felling areas are not within the control of the Applicant and on account of the statutory obligations requiring the replanting of these areas by landowners, the replanting of areas felled on account of management felling (only), are considered to be included as part of the embedded mitigation for the Proposed Development. Management felling, whilst out with the Applicant's control, due to the requirement for future landowner agreement, it is the intention that the Applicant will undertake the management felling works alongside clearance of the operational corridor. Where this is the case, management felling will be undertaken in line with the Applicant's SPP's and GEMP's.

4. ASSESSMENT METHODOLOGY

4.1.1 The approach to the EcIA within **Volume 2, Chapter 8: Ecology and Nature Conservation** is undertaken in cognisance of the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland (revised in September 2024) and refers to not significant, rather than negligible.

4.1.2 The approach to EcIA outlined in the CIEEM Guidance avoids and discourages the use of a matrix approach and categorisation, in an effort to avoid spurious quantification, in which numerical scores or significance rankings / categories are used without a clear definition of the criteria and thresholds that underpin them. Whilst a matrix approach is commonly used by other disciplines in EIA by disciplines other than ecology to assign significant residual effects to categories (e.g. major, moderate, minor), the approach taken for ecology is to identify effects that are either 'not significant' or 'significant' at a defined geographic level.

4.2 Method for the Assessment of Significant Effects

4.2.1 The process followed when assessing the impacts of the Proposed Development involved;

- Defining the likely potential impacts on ecological receptors resulting from the Proposed Development;
- Defining the value of ecological receptors;
- Determining the magnitude of impact on ecological receptors as a result of the Proposed Development;
- Determination of the significance of effects on ecological receptors;
- Identification of opportunities to further avoid, reduce, mitigate or compensate for significant impacts;
- Identification of opportunities for enhancement to meet the requirements of NPF4; and,
- Determination of any significant residual impacts.

Valuation of Ecological Features

4.2.2 Assignment of levels of importance for designated sites, habitats and species is based on professional judgement informed by a number of factors including;

- level of protection;
- rarity;
- conservation status;
- population trends; and,
- quality / extent of the feature(s) in relation to the Proposed Development.

4.2.3 Published evaluation criteria e.g. the Scottish Biodiversity List (SBL), Highland Nature BAP (HNBAP) and JNCC site on selection of biological SSSI were used where relevant.

Designated Sites

4.2.4 The approach taken to valuation of designated sites has been directly linked to its protected status, with European sites (Special Area Conservation (SAC)) and wetlands of international importance (Ramsar sites) being allocated a high importance. Nationally protected sites (Sites of Special Scientific Interest (SSSI) allocated medium importance. No sites of local importance were identified within 1 km of the Proposed Development and have therefore not been included.

4.2.5 Assessment of The Flow country World Heritage Site (WHS) has been undertaken in line with The Highland Council assessment toolkit and the UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context[17], the results of which are summarised within the impacts assessment section only.

Habitats

4.2.6 Annex 1 habitats have been assigned a high value on account of their listing on Annex 1 of The Habitats Directive, a cornerstone of EU biodiversity policy. In Scotland, the Habitats Directive is translated into specific legal obligations by the Conservation (Natural Habitats, &c.) Regulations 1994.

4.2.7 Scottish Biodiversity List and Highland Nature Biodiversity Action Plan (HNBAP) habitats have been assigned a medium value on account of their national / regional significance.

4.2.8 AWI

- Class 1a and 2a woodland has been assigned high value on account of it long standing tree cover, natural / semi-natural composition and likely high ground flora and soil biodiversity.
- Class 2b woodland has been assigned medium value on account of its long standing tree cover through plantation woodland likely leading to a higher ground flora and soil biodiversity than might be found in a newly planted woodland.
- No class 1b or 3 woodlands are likely to be impacted by the Proposed Development.

Protected Species

4.2.9 The approach taken to valuation of protected species is linked to individual species legislative protection in the context of their abundance in Scotland or the UK (where population estimates exist). Consideration is also given to external pressures on populations (e.g. persecution), habitat availability for the species in the context of the Proposed Development and population trends (where available). These factors are weighed using professional judgement.

- **Example 1**: Eurasian otter (*Lutra lutra*) are a European protected species listed on the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), affording them international status (high value), the population in Scotland is approximately 8,000 individuals, likely at or approaching the carrying capacity for the country, as such, it has been identified as medium sensitivity overall.
- **Example 2**: water vole (*Arvicola amphibious*) are afforded protection under the Wildlife and Countryside Act (Schedule 5), as such conferring national status (medium sensitivity). However, the population of water vole in the UK (Scotland data not available) is thought to be between approximately 58,341 and 186,142 individuals and currently declining, following a period of significant declines, with estimates suggesting they are now absent from up to 90% of their historic habitats, mainly attributed to habitat loss and predation by American mink. As such water vole have been identified as high value overall.

Characterising Impacts

4.2.10 The magnitude of predicted impacts is identified through professional judgement informed by best practice guidance and where appropriate legislative context. Consideration has been given to the predicted degree of change to baseline conditions, how the ecological features are likely to respond, and the duration, frequency / timing and reversibility of an impact. Impacts are considered during construction and operation of the Proposed

[17] World Heritage Centre - Guidance and Toolkit for Impact Assessments in a World Heritage Context

Development. Impacts associated with decommissioning are not considered on account of the need for the Proposed Development, based on existing technology, being in perpetuity.

4.2.11 Identification of impact pathway has been assessed as per the following;

- **Direct** - where the effect is a direct result (or primary effect) of the Proposed Development. An example of a direct impact would be the disturbance of a protected species shelter due to the construction of a temporary access track.
- **Indirect** - a knock-on effect which occurs within or between environmental components and may include effects on the environment which are not a direct result of the Proposed Development, often occurring away from the proposals or as a result of a complex biological or chemical pathway. An example of an indirect impact would be the excessive drying (or wetting) of a habitat as a result of installation of a steel lattice tower foundation leading to a change in that habitat / loss of that habitat type.

4.2.12 Temporal impacts have been assessed as per the following;

- **Permanent** – where the effect represents a long-lasting change for a defined receptor. An example of a permanent impact is the loss of a blanket bog habitat within the footprint of a permanent access track, or the loss of a water vole burrow to a permanent watercourse crossing.
- **Temporary** – where the effect occurs for a limited period of time and the change for a defined receptor can be reversed. An example of a temporary impact is the loss of scrub habitat to a temporary access track or disturbance of a protected species shelter through construction of a steel lattice tower.

Determination of Significance

4.2.13 The significance of effects has been determined using standard impact assessment methods and criteria (see below):

- the magnitude of both positive and negative effects, as determined by intensity, frequency and by the extent of the effect in space and time;
- the vulnerability of the habitat or species to the changes likely to arise from the Proposed Development;
- the ability of the habitat, species, or ecosystem to recover, considering both fragility and resilience;
- the viability of component ecological elements and the integrity of ecosystem function, processes, and favourable condition;
- value within a defined geographic frame of reference (e.g., UK, national, regional, local);
- the biodiversity value of affected species, populations, communities, habitats, and ecosystems, considering aspects such as rarity, distinct subpopulations of a species, habitat diversity and connectivity, species-rich assemblages and species distribution and extent;
- designated sites, and where a site has multiple designations the effects on the features of each designation; and
- protected species status.

4.2.14 Value and magnitude of effect are weighed using professional judgement and impacts are reported as either 'significant' at a particular geographical level (e.g. internationally, nationally, locally), or 'not significant'. A 'significant effect' is an effect "…*that either supports or undermines biodiversity conservation objectives for important ecological features, or for biodiversity in general.*"[18]

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

4.2.15 Where significant effects are predicted, additional mitigation or compensation is applied to reduce or eliminate effects (where possible). Following application of mitigation, effects are reappraised and residual effects reported. This approach strives to make the EcIA more transparent and demonstrate the adequacy / necessity of proposed additional mitigation.

4.3 Cumulative Impacts

4.3.1 Cumulative effects arising from the addition of the Proposed Development to other cumulative developments are assessed. Cumulative developments identified as consented, in planning, those within the public domain, and those deemed reasonably foreseeable, are illustrated alongside the Proposed Development in **Volume 3, Figure 5.1: Cumulative Developments** and in **Chapter 5: EIA Process and Methodology**.

4.3.2 The assessment of cumulative effects is limited to sites, habitats or species of international, national or regional importance for which a likely effect has been identified relating to the Proposed Development. Therefore, only effects assessed as minor or above are included in the cumulative assessment. Effects that are assessed to be negligible are not taken forward to the cumulative assessment as it is considered that such effects will not contribute to cumulative effects.

4.4 Limitations of Assessment

4.4.1 Due to natural population fluctuations in species, their distribution will move in and out of areas as numbers increase and decrease. Fluctuations may take place over short or long temporal phases. Surveys are a sample in time and this chapter is based on species found or likely to be found based on their known distribution, and habitat availability present within the Survey Area. A lack of evidence of a species has not been taken necessarily as the absence of that species unless corroborating evidence suggests this is likely to be the case.

4.4.2 Due to the scale of the Proposed Development surveys were undertaken over the most part of a year, with surveys in some cases necessarily being undertaken in locations out with the optimal survey season. Limitations to specific surveys are detailed within the appropriate survey report.

4.4.3 Where third party data is referred to, this is referenced and taken at face value guided by professional judgement.

4.4.4 The design of the Proposed Development on which this assessment has been based maybe subject to further detailed design and refinement, however a “worst case” approach, as is understood at time of writing, has been taken in the assessment.

4.4.5 The inclusion of management felling areas came later in the design process, necessarily following completion of the forestry impact assessment. The inclusion of these areas came after the completion of the protected species surveys and so there is only partial coverage of these areas within the protected species survey. Due to the commercial nature of these felling areas, biodiversity value is likely to be low on account of low species diversity (monoculture) and a common age class, harvested before features of value to biodiversity develop (e.g. potential shelter features). Impacts of management felling on protected species are considered alongside the Proposed Development in terms of disturbance to places of shelter. Impacts to bat foraging / commuting routes (and other species habitat loss) are not considered in respect to management felling due to the requirement of the necessary felling licence for such areas to be re-planted. Further to this on account of the commercial nature of these woodlands, felling and replanting is a standard expectation of their rotation irrespective of whether the Proposed Development were to proceed or not.