Scottish & Southern Electricity Networks

Fanellan Hub 400 kV Substation and Converter Station Environmental Impact Assessment Report Volume 4 | Technical Appendices

Appendix 9.2 – Protected Species Baseline

February 2025

CONTENTS

EXECUTIVE SUMMARY

Scottish Hydro Electric Transmission plc (hereafter the 'Applicant'), operating and known as Scottish and Southern Electricity Networks Transmission (hereafter 'SSEN Transmission'), seeks consent to construct and operate a new 400 kV substation and a new High Voltage Direct Current converter station at Fanellan, Beauly, near Inverness (hereafter the 'Proposed Development'). This would be located on land southwest of Kilmorack and the River Beauly; approximate National Grid Reference at centre NH 48736 43135.

To inform an Environmental Impact Assessment of the Proposed Development, the following has been undertaken in relation to legally protected and priority species (excluding birds and badgers from this report as they have been reported on separately):

- desk-based review of existing data from publicly available sources;
- habitat suitability assessment; and
- targeted surveys for bats; great crested newt; otter, pine marten; and red squirrel following good practice guidelines.

Definitive evidence of the following protected species has been recorded during field surveys of the Proposed Development's red line boundary and surrounding area:

- bats;
- pine marten;
- red squirrel;
- common lizard; and
- otter.

No signs were recorded of the following protected species. Based on habitat suitability, it is considered unlikely that there will be regularly occurring populations of the following species but their occasional presence cannot be ruled out:

- slow worm; and
- adder.

The following protected species are considered likely absent from the Proposed Development's red line boundary and surrounding area:

- Scottish wildcat;
- water vole;
- beaver;
- salmonids;
- great crested newt; and
- freshwater pearl mussel.

The Proposed Development's red line boundary and surrounding area could support the following conservation priority species, but unlikely as regularly occurring or substantial populations because suitable habitat is limited or there were no/limited observations across each field visit:

- common toad;
- brown hare;
- hedgehog; and
- terrestrial invertebrates.

1. INTRODUCTION

1.1 Proposed Development

1.1.1 Scottish Hydro Electric Transmission plc (hereafter the 'Applicant'), operating and known as Scottish and Southern Electricity Networks Transmission (hereafter 'SSEN Transmission'), seeks consent under *the Town and Country Planning (Scotland) Act 1997*[1] (as amended) to construct and operate a new 400 kV substation and a new High Voltage Direct Current (HVDC) converter station at Fanellan, Beauly, near Inverness (hereafter the 'Proposed Development'). This would be located on land southwest of Kilmorack and the River Beauly; approximate National Grid Reference at centre NH 48736 43135. The footprint of the Proposed Development's permanent construction elements and vegetation clearance areas are hereafter referred to as the 'Direct Impact Areas'. The location of the Direct Impact Areas is shown on **Figure 1.1: Location Plan** and the layout of the Proposed Development is shown on **Figure 3.1: Proposed Development**; both included in **Volume 3: Figures** of the Environmental Impact Assessment (EIA) Report. For full details of the Proposed Development, please refer to **Volume 2, Chapter 3: Description of the Proposed Development** of the EIA Report.

1.2 Scope of Report

1.2.1 WSP UK Ltd. (WSP) was commissioned to undertake ecological studies to identify the baseline of the Proposed Development's red line boundary and surrounding area, which would be used to inform **Volume 2, Chapter 9: Ecology and Nature Conservation** of the EIA Report.

1.2.2 This report presents methods and baseline findings of studies relating to protected and priority species, excluding badgers (*Meles meles)* which are reported on separately (**Volume 5, Technical Appendix 9.3: Confidential Badger Baseline**).

[1] Town and Country Planning (Scotland Act) 1997. Available at: https://www.legislation.gov.uk/ukpga/1997/8/contents [Accessed: June 2024].

2. METHODS

2.1 Desk Study

2.1.1 A desk study was undertaken to review existing ecological baseline information available in the public domain. The objective was to identify records of protected or priority species within 2 km of the Proposed Development's red line boundary between 2013-2024 (i.e., relatively recent records). This included a review of data available on NBN Atlas[2]. Only datasets that are freely available for commercial use were searched which includes those with Open Government Licence (OGL), Creative Commons No rights reserved (CCO) and Creative Commons licence[3] with attribution (CC-BY).

2.2 Field Surveys

Habitat Suitability

2.2.1 A field-based habitat suitability assessment for the following European protected and Scottish Biodiversity List[4] (SBL) species which may occur in the geographical region was undertaken during the detailed site selection stage of the Proposed Development, in January 2023:

- bat species;
- otter (*Lutra lutra)*;
- Scottish wildcat (*Felis silvestris)*;
- salmonid species;
- badger;
- water vole (*Arvicola amphibius*);
- pine marten (*Martes martes)*;
- red squirrel (*Sciurus vulgaris)*;
- great crested newt (*Triturus cristatus);*
- reptile species;
- amphibian species;
- brown hare (*Lepus europaeus)*; and
- hedgehog (*Erinaceus europaeus)*.

2.2.2 The suitability assessment incorporated a review of ad hoc field sign observations recorded during the UK Habitat Classification (UKHab) surveys conducted during January 2023; and a high-level suitability assessment based on the habitats recorded during this survey. These species/groups were reviewed due to their conservation status, as either a legally protected species or a conservation priority under the SBL and Highland Nature Biodiversity Action Plan's[5] (HNBAP) Priority Species.

Preliminary Walkover Surveys

2.2.3 The following preliminary protected species walkover surveys were undertaken based on the results of the habitat suitability assessment to ascertain incidental evidence of presence and/or features for further assessment:

- June 2023 – conducted to the Proposed Development's initial Ground Investigation (GI) boundary and its outer 30 m buffer;
- July 2023 – conducted to areas of the Proposed Development's site selection indicative boundary applicable at the time of survey not covered by the June 2023 survey, and up to the following outer protected species survey buffers:

[2] NBN Atlas (online). Available: https://nbnatlas.org/ [Accessed: February 2023].

[3] NBN Atlas (online). Available: https://docs.nbnatlas.org/data-licenses/ [Accessed: February 2023].

[4] Scottish Government (2012). Scottish Biodiversity List. Available: https://www.nature.scot/doc/scottish-biodiversity-list [Accessed: February 2023].

[5] Highland Nature (online). Highland Nature Biodiversity Action Plan. Available: https://www.highland.gov.uk/downloads/download/2260/highland_nature_biodiversity_action_plan_2021_to_2026

- 30 m ground-level Preliminary bat Roost Assessment (PRA);
- 50 m red squirrels;
- 100 m badgers and water voles;
- 200 m otters;
- 250 m pine martens;
- 500 m great crested newts.

- April 2024 – conducted to areas of the Proposed Development's preliminary design red line boundary (RLB) for planning applicable at the time of survey not covered by the June and July 2023 survey and its outer protected species survey buffers.

2.2.4 These three combined surveys are hereafter collectively referred to as the 'Preliminary Walkover Surveys'. The combined areas covered by each species' preliminary surveys is hereafter referred to as the relevant species' 'Study Area'.

2.2.5 All surveys were undertaken by members of the Chartered Institute of Ecology and Environmental Management (CIEEM), with the lead surveyor at least 'capable' of species survey design, planning and field work per the CIEEM Competency Framework[6].

2.2.6 Incidental sightings of protected and priority species recorded during other environmental surveys at the Study Areas were also collated and are included within the findings of this report.

2.2.7 Survey methodology for each protected species specifically searched for (due to habitat suitability) within the Study Area is outlined below, in addition to any subsequent, detailed, species-specific assessments.

2.2.8 Evidence of species was recorded by geo-referenced target notes with photos.

Black Bridge GI ECoW

2.2.9 Ecological Clerk of Works (ECoW) surveys were provided by IKM Consulting Ltd during November 2024 to inform GI works at the Black Bridge over the River Beauly, relating to separate potential works for the Applicant. Protected species activity incidentally observed by the ECoW within the Proposed Development's Study Areas are presented in **Section 3**.

Badger

2.2.10 Due to the on-going persecution of badgers, information relating to this species is considered sensitive. Survey methods and results with regards to badgers are reported on separately (**Volume 5, Technical Appendix 9.3: Confidential Badger Baseline**).

Bats

Preliminary Roost Assessments

2.2.11 A Preliminary bat Roost Assessment (PRA) of structures and trees within the bat Study Area was undertaken during the Preliminary Walkover Surveys to determine the presence/absence of Potential bat Roost Features (PRFs). PRAs can be undertaken at any time of the year and provide an initial indication of suitability that will inform any recommendation for further bat surveys during the active bat season (May to September, inclusive).

2.2.12 The initial PRA was undertaken by a NatureScot licensed bat surveyor supported by a second "capable"[6] surveyor. For consistency, all PRA surveys were completed in accordance with the third edition (2016) of the Bat Conservation Trust (BCT) survey guidelines[7] which were current at the time of the June and July 2023 surveys. The PRA tree results were then translated to the new tree bat suitability classifications of the fourth edition (2023) of the BCT survey guidelines[8], to inform any subsequent detailed survey effort conducted

[6] CIEEM (2021). Competency Framework. Available: https://cieem.net/wp-content/uploads/2023/09/Competency-Framework-2022-Web.pdf
[7] Collins, J (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). Bat Conservation Trust, London.
[8] Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London (as amended).

thereafter. All surveys were undertaken in accordance with the aforementioned BCT and NatureScot[9] survey guidance. Any deviations to guidance are further discussed in **Section 2.3**.

2.2.13 Bat assessments conducted to the Black Bridge (**Volume 3, Figure 9.2.1 - Protected Species, Bat Baseline**, **Structure O55**) and adjacent 'Old Mill' Building (**Structure O13**) are reported on separately in **Volume 4: Appendix 3.2 Review of Black Bridge Strengthening Works**.

Bats – Trees – Preliminary Roost Assessment

2.2.14 Trees in the bat Study Area were inspected to assess their suitability to support bat roosts and to search for evidence of their current or historic use by roosting bats. Definitive evidence of bat presence includes live sightings and droppings. Scratch marks and urine staining can also indicate their presence.

2.2.15 Trees were categorised for their bat roost suitability, taking into account the habitat surrounding the Proposed Development. Trees were initially categorised in line with the BCT third edition guidelines as 'High'; 'Moderate'; 'Low'; or 'Negligible' according to the presence of PRFs which bats could use for roosting; and the relative value of these features for shelter and protection by single or colonies of bats at different times of year in the locality. These categories were then translated to the categories used within the BCT fourth edition guidelines as 'PRF-I'[10] or 'PRF-M'[11].

2.2.16 It is assumed that all trees with PRFs also have the potential to support hibernating bats over the winter period, particularly those assessed as having moderate to high roost suitability during the summertime[12].

Bats – Structures – Preliminary Roost Assessment

2.2.17 An external, ground-level PRA was completed to six structures in the Proposed Development's RLB which occurred within 30 m of the Direct Impact Areas or were otherwise considered to have the potential to receive disturbance from high-impact construction activities that were under consideration at the time of the PRA survey. The PRA assessed their suitability to support bat roosts and to search for evidence of their current or historic use by roosting bats.

2.2.18 The structures were categorised for their bat roost suitability, taking into account the habitat surrounding the Proposed Development. Suitability is categorised as 'High'; 'Moderate'; 'Low'; or 'Negligible' according to the presence of PRFs which bats could use for roosting; and the relative value of these features for shelter and protection by single or colonies of bats at different times of year in the locality.

Bats – Trees – Detailed Inspections

2.2.19 Detailed aerial PRF inspection surveys were completed utilising tree-climbing equipment, torches and endoscope inspection cameras. Where all features were fully assessable from ground, an intrusive Ground Level Tree Assessment (GLTA) was completed utilising extendable 'PoleKam' inspection cameras, endoscope inspection cameras and ladders.

2.2.20 The surveys were undertaken during May to July 2024 by teams of two surveyors. Each team contained at least one NatureScot licensed bat surveyor. Both surveyors held National Proficiency Tests Council (NPTC) climb and rescue certification.

2.2.21 The surveys were undertaken in line with the fourth edition of the BCT guidelines[8] and involved inspections of accessible tree PRFs to further assess/confirm the suitability of the features and search for evidence of current or historic use by roosting bats. The detailed inspections were conducted to accessible trees occurring within 30 m of the Direct Impact Areas with the potential to be felled or disturbed by the Proposed Development's construction. Three inspections were undertaken on trees of PRF-M suitability. In line with the fourth edition of the BCT guidelines[8], no further inspection was conducted to trees of PRF-I suitability. Trees that did not directly overlap with the Direct Impact Areas (**Volume 3, Figure 9.2.1 - Protected Species, Bat Baseline**) and that were already subject to baseline disturbance from the immediately adjacent public road (C1106 Fanellan Road) were not included for further inspection.

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[9] NatureScot (no date). Planning and Development: Protected Species. Available at: https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species [Accessed July 2022]

[10] PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.

[11] PRF is suitable for multiple bats and may therefore be used by a maternity colony.

[12] Middleton, N. (2019). Assessing Sites for Hibernation Potential. A Practical Approach, including a Proposed Method & Supporting Notes.

2.2.22 Upon completion of the first round of PRF inspections, the categorisation of the climbed trees bat roost suitability was reassessed in line with criteria from the guidelines[8].

Bats – Trees – Manual Activity Surveys

2.2.23 Due to not being accessible for detailed aerial surveys because of a lack of resident permission, one tree (tree reference 0792) was assessed via manual dusk emergence bat activity surveys during July and August 2024.

2.2.24 The surveys were undertaken via two viewpoints per survey to allow full visual coverage of the tree's identified PRFs, following the BCT fourth edition[8] and interim Night Vision Aid (NVA) guidelines[13]. The surveyors had the necessary experience to meet at least "basic" competency in bat survey techniques in line with CIEEMs competency framework[6]. The surveys commenced 15 minutes prior to sunset and concluded 90 minutes after.

2.2.25 The surveys were conducted utilising Elekon Batlogger M2 full spectrum, hand held bat detectors supplemented with Canon XA30 infrared (IR) NVA cameras and IR lamps. If required, NVA footage and bat calls recorded during any observed bat roost emergence were later analysed using Kaleidoscope software to identify species.

Bats – Structures – Manual Activity Surveys

2.2.26 Manual dusk emergence bat activity surveys were conducted to structures during April to June 2024. Structures that were identified, at the time of survey commission, as having potential for direct impacts from the Proposed Development's construction (**structure references R1 and R2**); or as requested by the Applicant due to the potential for indirect disturbance from high-impact construction methods (**structure references Y1; Y2; and Y3**) were selected for assessment. Activity surveys of **structure Y4** were also attempted but were not able to be completed due to a lack of resident permission.

2.2.27 The surveys were undertaken via sufficient viewpoints to allow full visual coverage of the identified PRFs per structure. The methods utilised were equal to these employed for the Tree Activity Surveys (S**ections 2.2.24** and **2.2.25**).

Great Crested Newt

Habitat Suitability Index

2.2.28 A Habitat Suitability Index (HSI) survey was conducted by "capable"[6] surveyors to encountered waterbodies within the Great Crested Newt (GCN) Study Area during the Preliminary Walkover Survey. The surveys followed current best practice methods[14] as amended[15].

2.2.29 Ponds were assessed and scored on ten key variables which are known to influence breeding populations of GCN. The variables comprise:

- Geographic location;
- Pond area;
- Permanence;
- Water quality;
- Shading;
- Impact of waterfowl;
- Fish stocks;
- Number of ponds within 1 km;
- Terrestrial habitat around a pond; and
- Macrophyte cover of a pond.

[13] Bat Conservation Trust (2022). Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys. Bat Conservation Trust, London.

[14] Amphibian and Reptile Groups of the United Kingdom (2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. ARG UK, UK.

[15] O'Brien, D. Hall, J., Miró, A., & Wilkinson, J. (2017). Testing the validity of a commonly-used habitat suitability index at the edge of a species' range: great crested newt Triturus cristatus in Scotland. Amphibia-Reptilia 38: 265-273.

2.2.30 Scores for each of the above variables were used to calculate an overall HSI value for each pond. This was then cross referenced with the guidelines to assign the pond to one of five categories: 'poor'; 'below average'; 'average'; 'good'; or 'excellent'. Index calculation is not a failsafe method of identifying whether a pond supports GCN or not; therefore, professional judgement and availability of records of GCN in the locality was also used to inform the requirement for further survey.

eDNA Survey

2.2.31 Ponds which returned at least a 'below average' or greater suitability for GCN during the HSI assessment; that occurred within 500 m from the Proposed Development's red line boundary; and were not separated from the Direct Impact Areas by any significant barriers to newt movement[16] were subject to an eDNA survey following best practice methods during June 2024. This involved collecting multiple water samples from all areas within the pond, including areas of vegetation to support egg laying and clear areas suitable for displaying. From the combined water samples, six sub-samples were taken and sent for laboratory analysis to RSK ADAS Ltd. to determine presence/absence of GCN. The remaining combined pond water samples were returned to each pond. eDNA surveys were completed to **Ponds C** and **B**. An eDNA survey of **Pond N** was also attempted but was not able to be completed due to lack of resident permission.

2.2.32 The eDNA surveys were undertaken by "capable"[6] surveyors working as approved agents of a NatureScot licensed great crested new surveyor.

Otter

Initial Otter Walkover

2.2.33 Initial otter surveys were undertaken during the Preliminary Walkover Surveys to watercourses within the otter Study Area, safe access permitting. The lead surveyor was of "capable" competency in undertaking otter surveys[17]. The survey comprised a search for signs of otters following NatureScot standing advice[18] and with reference to industry standard guidance[19]. Otter presence can be identified from field signs such as spraints, anal jelly, prints, feeding remains, slipways and worn pathways. Additionally, a search for resting places was undertaken. Where suitable features for resting sites where identified, these were classed in line with the following definitions:

- Holt: underground features proving shelter for otters. Holts can be tunnels within bank sides, underneath root-plates or boulder piles, and manufactured structures such as disused drains. Holts are used by otters to rest up during the day and are usually used as natal or breeding sites. Otters may use holts permanently or temporarily.
- Natal den: typically a holt, used exclusively by females giving birth. Often located away from potential disturbance; on small tributaries away from a main river or waterbody but remaining in proximity to feeding resources. Natal dens are typically unmarked so as to remain inconspicuous from other otters.
- Hover: a bolt hole or ledge that will provide an otter temporary cover or a place to feed. The back of a hover can usually be seen. If active there may be field evidence present, such as footprints, spraints, or feeding remains.
- Couch: above ground resting sites. Couches may be partially sheltered or fully exposed. They may be regularly used, especially in reed beds and on in-stream islands and have been known to be used as natal and breeding sites. Couches can be very difficult to identify and may consist of an area of flattened grass or earth.

Potential Resting Site Monitoring

2.2.34 Two potential resting sites (locations **O1** and **O5**) were identified within the otter Study Area. A monitoring programme was undertaken to location **O1** from 23 April 2024 to 05 June 2024, utilising digital camera traps. Monitoring of location O5 was also attempted but was not able to be completed due to lack of land access.

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[16] Examples of significant barriers to newt movement include wide or fast flowing watercourses or busy roads etc.

[17] CIEEM (2023). Competency Standard for Otter Survey, Mitigation and Management. Draft Version: January 2023. Available: https://cieem.net/wp-content/uploads/2023/08/Otter-Competency-Standard-Consultation-Draft-August-2023.pdf

[18] NatureScot (online). Standing advice for planning consultations – Otters. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-otters

[19] Chanin, P. (2003). Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.

2.2.35 The monitoring camera trap installation, collection and interim maintenance visits were carried out by surveyors working as approved agents on behalf of a NatureScot otter licence holder.

2.2.36 The recorded camera trap footage was subsequently reviewed and the nature of any observed otter or other incidental protected species activity recorded.

Water Vole

2.2.37 Water vole surveys were undertaken during the Preliminary Walkover Surveys to watercourses within water vole Study Area, safe access permitting. The lead surveyor was of 'capable' competency in undertaking water vole surveys[20]. Survey methods followed NatureScot standing advice[21] and standard Mammal Society guidance[22].

2.2.38 The water vole surveys included a search for signs of water voles a minimum of 2 m from the water's edge. In some habitats, e.g. rush-dominated marshy grassland, water voles may occur well away from the riparian zone. Where this habitat was present, the survey was extended further away from the waterside into the adjoining habitat and the distance was determined by considering local circumstances and using professional judgement. The potential presence of fossorial water voles was also considered, and the survey adapted if they were potentially present away from water features.

2.2.39 Due to the limited suitability of the encountered habitats for water vole (**Section 2.3.6**), the survey comprised a single visit to each watercourse. The survey comprised a thorough visual inspection of the banks and immediate vicinity for water voles or their field signs. Field signs include faeces, latrines, feeding stations, burrows, 'lawns', nests, footprints and runways in vegetation.

Pine Marten

2.2.40 Pine marten surveys were undertaken to the pine marten Study Area during the Preliminary Walkover Surveys. The pine marten survey involved a systematic search for signs of pine marten presence and potential den sites with reference to survey guidance from UK BAP Mammals[23] and NatureScot standing advice[24]. The lead surveyor was of 'capable' competency in undertaking pine marten surveys[6].

2.2.41 This search involved looking for the following field signs:

- Potential den sites: such as elevated tree cavities, roof voids of buildings or barns, owl boxes, large raptor or corvid nests, squirrel dreys and rocky outcrops with elevated crevices. Current use may be indicated by the presence of scats beneath the entrance.
- Potential scats: variable size and shape depending on their contents, but structure and smell often distinctive. Typically found on pathways, rides and tracks through woodland or rocky habitat. Scats are most abundant during the period of June to August.
- Prints: more likely to be present in snow as pine marten generally avoid mud.
- Visual sightings, most likely possible as incidental records gathered during dusk or dawn surveys for other species (e.g., breeding birds or bats).

[20] CIEEM (2022). Competency Standard for Water Vole Survey, Mitigation and Management. Available: https://cieem.net/wp-content/uploads/2022/02/Water-Vole-Survey-Mitigation-and-Management-Competency-Standard-January-2022.pdf

[21] NatureScot (online). Standing advice for planning consultations – Water Voles. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-water-voles

[22] Dean. M, Strachan. R., Gow. D., Andrews. R., Matthews. F., Chanin. P. (2016) The Water Vole Mitigation Handbook. The Mammal Society Mitigation Guidance Series.

[23] Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trewhella, W.J., Wells, D. and Wray, S. (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. The Mammal Society, Southampton.

[24] NatureScot (online). Standing advice for planning consultations – Pine martens. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens [Accessed February 2023]

Red Squirrel

2.2.42 A walkover survey for red squirrel was undertaken to the red squirrel Study Area during the Preliminary Walkover Surveys, following guidance outlined by Forestry Commission[25] and in accordance with survey guidance for initial non-intrusive visual surveys[26] and NatureScot standing advice[27].

2.2.43 The lead surveyor was "capable" in undertaking red squirrel surveys[6]. The woodland habitat was systematically searched for evidence of red squirrel, with field signs including:

- Visual sightings.
- Prints.
- Foraging signs: including chewed or stripped cones with top section remaining untouched, which are often discarded on prominent features at feeding stations.
- Dreys: nest sites visible within trees (can be conifer or broadleaf species) and comprising of spherical collections (c. 0.3 m) of twigs and leaves and usually located at least 3 m up, in the fork of branches closes to the trunk.

2.3 Assumptions and Limitations

2.3.1 Manual bat activity surveys of **Structure Y4** were attempted but were not able to be completed due to a lack of resident permission. It is, therefore, precautionarily assumed that this structure has the potential to support roosting bats, with 'Moderate' suitability during the active season and 'Low' hibernation suitability. This structure occurs outwith a 30 m disturbance buffer of the Direct Impact Areas; and also outwith 100 m of any known potential blasting activities. Therefore, this limitation is not considered to have a negative effect on subsequent bat impact assessment.

2.3.2 A GCN eDNA survey of **Pond N** was attempted but was not able to be completed due to lack of resident permission. GCN were confirmed as absent from the accessible waterbodies and there was a lack of historic records of their presence in the wider area (**Sections 3.3.2 and 3.3.7**). This pond is assumed to not support a breeding population of GCN and this limitation is not considered to have a negative effect on subsequent GCN impact assessment.

2.3.3 It is assumed that all trees with PRFs also have the potential to support hibernating bats over the winter period, particularly those assessed as having moderate to high roost suitability during the summertime.

2.3.4 It is precautionarily assumed that bats may roost in the 100 trees with 'PRF-I' suitability that have not been subject to additional survey (**Section 3.2.13**).

2.3.5 Following the completion of the Preliminary Walkover Surveys, the Proposed Development's red line boundary was altered in May 2024. This new boundary extends beyond the previous boundary used to inform the Preliminary Walkover Surveys to the northwest, by approximately 120 m into the Ruttle Wood at the widest extent. Survey data gained from the adjacent proposed Spittal-Beauly 400kV OHL development largely overlapped the additional, wider area. This overlapping data is presented in combination in this document. Until further survey is undertaken on the small area of remaining trees, which encompasses a narrow portion of the outer survey buffers of the altered red line boundary, to establish how protected species use these trees and the presence/absence of resting sites, for the purposes of subsequent assessment, it has been precautionarily assumed that these trees may support resting sites for bats; red squirrels; and pine martens.

2.3.6 One survey of each watercourse was undertaken for the water vole presence/absence survey. This is not believed to have impacted up on the results of this survey effort due to the limited suitable habitat for water vole within the water vole Study Area and lack of historic records of their presence in the wider area (**Section 3.5.2**). Furthermore, it would have been possible to observe burrows along any suitable bankside habitat if they were present.

[25] Gurnell, J., Lurz, P., McDonald, R., and Pepper, H. (2009). Practical techniques for surveying and monitoring squirrels. Forest Research, Surrey.
[26] Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trewhella, W.J., Wells, D. & Wray, S. (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. Southampton, UK: The Mammal Society
[27] NatureScot (online). Standing advice for planning consultations – Red squirrels. https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels [Accessed: February 2023].

2.3.7 Faunal species are transient and can move between favoured habitats regularly throughout and between years. This survey provides a baseline using a snapshot of field signs and habitat suitability observed on the dates of survey. Ecological survey data for mobile species is typically valid for 18 months unless otherwise specified, for example, if conditions are likely to change more quickly due to ecological processes or anticipated changes in land management[28].

2.3.8 Portions of habitat suitable for targeted species were unable to be physically or visually assessed due to: fallen and wind-blown trees; dense scrub, land access restrictions, dense bracken and rhododendron; dense, young coniferous plantations; steep embankments; and/or rocky outcrops. The absence of observations within these areas does not confirm absence of protected species.

2.3.9 A portion of the initial field studies were conducted during the summer months, whilst trees were in leaf. In addition, evergreen coniferous trees were also studied. The density of tree canopies has the potential to obscure features at height which may be suitable for use by protected species.

2.3.10 Trees that did not directly overlap with the Direct Impact Areas and that were already subject to baseline disturbance from the immediately adjacent public road were not included for further inspection (**Section 2.2.21**). Should the Direct Impact Areas and/or associated works change in the future to potentially impact more or different locations, then additional protected species surveys and/or licencing may be required prior to the applicable works commencing.

[28] CIEEM (2019). Advice note on the lifespan of ecological reports and surveys. Available: https://cieem.net/resource/advice-note-on-the-lifespan-of-ecological-reports-and-surveys/ [Accessed: February 2023].

3. RESULTS

3.1 Overview

3.1.1 Any evidence of, or potential for, protected or priority species from the above studies is detailed below. Their legal protection and listing on the Scottish Biodiversity List[4] (SBL) and as Priority Species identified within the HNBAP[5] is also noted. Recorded survey data are provided in **Annex A** and their locations are shown on **Volume 3, Figure 9.2.1 - Protected Species, Bat Baseline** and **Figure 9.2.2 - Protected Species, Squirrel, Otter & GCN Baseline**. Target Notes are presented in **Annex A: Table 5-1**.

3.2 Bats

3.2.1 All UK bat species are European Protected Species (EPS) and are fully protected under the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended). All bat species known to breed in Scotland, with the exception of Leisler's bats (*Nyctalus leisleri)*, are SBL priority species.

3.2.2 Brown long-eared *Plecotus auratus*; Daubenton's bat *Myotis daubentoniid*; Natterer's bat *Myotis nattereri;* common pipistrelle (*Pipistrellus pipistrellus)*; soprano pipistrelle (*Pipistrellus pygmaeus)*; and Nathusius' pipistrelle (*Pipistrellus nathusii)* species of bat are HNBAP Priority Species.

3.2.3 Eleven commercially available records of bat species were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary, comprising:

- one record of brown long-eared bat;
- one record of Daubenton's bat;
- two records of Natterer's bat;
- six records of soprano pipistrelle bat; and
- one record of non-specific pipistrelle species of bat.

3.2.4 The records were located within a mix of wooded and open environments.

Trees – Preliminary Roost Assessment

3.2.5 A total of 249 trees were identified within the Bat Study Area as having potential suitability for use by roosting bats during the active bat season (April to October). **Annex A: Table 5-2** contains the results of the tree PRAs and **Volume 3, Figure 9.2.1 - Protected Species, Bat Baseline** shows the tree locations.

3.2.6 The identified trees were initially categorised as presenting the following suitability to support bats during the active season, following the BCT third edition guidelines[7]:

- 13 trees with 'High' suitability;
- 138 trees with 'Moderate' suitability; and
- 98 trees with 'Low' suitability.

3.2.7 The initial suitability results were translated to the following BCT fourth edition guideline[8] classifications, to inform subsequent detailed survey effort:

- 149 trees with 'PRF-M' suitability; and
- 100 trees with 'PRF-I' suitability.

Structures – Preliminary Roost Assessment

3.2.8 The six assessed structures ranged from 'Low' to 'Moderate' suitability during the active bat season (April to October) and 'Low' to 'Negligible' suitability for bats during the hibernation season (November to March). **Annex A: Table 5-3** contains the PRA data.

3.2.9 The identified structures were categorised as presenting the following suitability to support bats during the active season:

- 4 structures with 'Moderate' suitability (**Structures R1; Y2; Y3; and Y4**); and
- 2 structures with 'Low' suitability (**Structures R2 and Y1**).

Trees – Detailed Inspections

3.2.10 Detailed inspections were undertaken to 15 trees initially identified during the PRA as having PRF-M suitability for use by roosting bats; that occurred within 30 m of the Direct Impact Areas; and had the potential to be felled or disturbed by the Proposed Development's construction. 12 of the trees were assessed via detailed aerial inspections, with the remaining three able to be fully inspected via GLTA. Following the inspection of all identified PRFs, the suitability of seven of the trees was downgraded to PRF-I suitability.

3.2.11 One bat roost was identified at **Tree Reference 0759** in the north-central portion of the bat Study Area. The tree contained a peak of two Natterer's bats. This is considered a day roost[29]. This tree occurs outwith, but within circa 50 m of, the Direct Impact Areas. Therefore, direct and/or indirect impacts from the Proposed Development's construction is considered unlikely. However, a NatureScot bat licence will be required prior to Proposed Development's construction works[30] commencing within 30 m of this tree; or high-impact activities, including blasting, commencing within 100 m of this tree, if necessitated via design changes.

3.2.12 Full details of the detailed tree inspection results can be found in **Annex A: Table 5-2**.

3.2.13 It should precautionarily be assumed that bats may roost in the 100 trees with 'PRF-I' suitability that have not been subject to additional survey (see **Sections 2.2.21** and **3.2.7**).

Tree – Manual Activity Surveys

3.2.14 A programme of three dusk emergence manual bat activity surveys was completed to **Tree Reference 0792** during July and August 2024.

3.2.15 No bat roosts were observed within the tree during the three activity surveys.

3.2.16 Full details of the detailed manual activity survey dates and weather conditions can be found in **Annex A: Table 5-4**.

Structures – Manual Activity Surveys

Structure R1

3.2.17 Three roosts were observed in **Structure R1**:

- A single soprano pipistrelle was observed exiting from the roof beside the chimney on the western aspect. This is considered a day roost.
- A single common pipistrelle was observed exiting from the southeastern corner of the roof. This is considered a day roost.
- 32 common pipistrelles and five soprano pipistrelles were observed exiting from the southeastern roof gable end. This is considered a maternity roost[31].

Structure R2

3.2.18 No roosts were identified in **Structure R2** during the bat activity survey effort undertaken.

Structure Y1

3.2.19 Four roosts were observed within the **Structure Y1** sheds:

- In total, 11 soprano pipistrelles were observed emerging from the large shed roof's western apex; northwestern edge; southwestern edge. These are considered as day roosts.
- One soprano pipistrelle was observed emerging from the western edge of the small shed roof. This is considered a day roost.

Structure Y2

3.2.20 Two roosts were observed in **Structure Y2**:

[29] A place where individual bats, or small groups, rest or shelter in the day during the summer.

[30] Includes any activities with the potential to directly impact a roost; obstruct access to it; or disturb bats occupying the roost, including, but not limited to: ground investigations; vegetation clearance etc

[31] A place where female bats give birth and raise their young to independence.

- Five soprano pipistrelles were observed emerging from the southern gable end of the building's roof. This is considered a day roost.
- 19 soprano pipistrelles were also observed emerging from the eastern aspect of the most northerly dormer window. This is considered a maternity roost.

Structure Y3

3.2.21 Two roosts were observed in **Structure Y3**:

- One soprano pipistrelle was observed emerging from the western end of the roof's apex. This is considered a day roost.
- One soprano pipistrelle was also observed emerging from the southeastern side on the roof's central chimney. This is considered a day roost.

Structure Y4

3.2.22 Structure Y4, was not able to be surveyed due to limitations set out in **Section 2.3**.

3.2.23 **Annex A: Table 5-4** contains further activity survey date and weather condition data. Further information on the observed roosts is presented in **Annex A: Table 5-5**.

Bat Structure Discussion

3.2.24 All structures were occupied/in use at the time of assessment with **Structures Y3** and **Y4** also situated in close proximity to the public road (C1106 Fanellan Road). Due to this baseline disturbance, a NatureScot bat licence will not be required prior to the Proposed Development's general construction or operation works commencing, as long as no direct impacts occur to them. However, should high-impact works, such as piling or blasting, be planned within 100 m of a roost, a NatureScot bat licence will be required prior to the associated impacts commencing.

3.2.25 For the purposes of subsequent assessments, it should be precautionarily assumed that **Structure Y4** may be used by roosting bats, with Moderate suitability during the active season and Low suitability during the hibernation season.

3.2.26 Of the structures within the Direct Impact Areas, **Structure R2** was found to present 'negligible' winter hibernation suitability during the PRA survey, due to its open structure, lack of sheltered PRFs, and lack of capacity to present predictable consistent, cool temperatures and high humidity levels during the hibernation period. **Structure R1** was also initially found to present 'negligible' suitability during the PRA survey, however, due to the identified summer roosts, the hibernation suitability has been raised to 'low', informed by non-classic hibernation consideration guidelines[8].

3.3 Great Crested Newt

3.3.1 The great crested newt has full protection under the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended). It is an SBL priority species.

3.3.2 No commercially available records of great crested newt were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary.

3.3.3 The areas of grazing pasture which dominate the Proposed Development's red line boundary was considered to be broadly unsuitable for newts. However, the wooded areas; tree lines; hedgerows and scrub within the GCN Study Area provide potentially suitable foraging, commuting and hibernation opportunities in the wider area.

Habitat Suitability Index

3.3.4 HSI surveys were completed to ten waterbodies which occurred within the GCN Study Area. Of these, one returned an 'Excellent' HSI result; three at 'Good'; four at 'Average' one at 'Below Average'; and one at 'Poor'. The waterbodies comprised:

- 'Excellent' – **Pond H**;
- 'Good' – **Ponds B; G; and I**;

- 'Average' – **Ponds C; J; M; and N**;
- 'Below Average' – **Pond L**; and
- 'Poor' – **Pond D**.

3.3.5 **Annex A: Table 5-6** contains the results of the HSI surveys and **Volume 3, Figure 9.2.2 - Protected Species, Squirrel, Otter & GCN Baseline** shows the waterbody locations.

eDNA Survey

3.3.6 eDNA surveys were completed to **Ponds C** and **B**. Both returned a negative laboratory result for the presence of GCN DNA.

eDNA Discussion

3.3.7 Due to the negative results from **Ponds C** and **B and lack of desk study data within the wider area,** for the purposes of subsequent assessments, it will be assumed that **Pond N**, which was not able to be surveyed due to limitations set out in **Section 2.3**, is not used by breeding GCN.

Other Amphibians

3.3.8 Other native amphibians receive limited protection under the Wildlife and Countryside Act 1981 (as amended), including common toad *(Bufo bufo)*. Common toad is also an SBL priority species. There were no incidental sightings of amphibians during the field surveys. Notwithstanding, the watercourses and ditches in slower stretches were considered suitable for breeding and foraging common toads.

3.4 Otter

3.4.1 As a European Protected Species (EPS), the otter is fully protected under the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended). It is an SBL priority species.

3.4.2 Three commercially available records of otter were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary. These records were all located on the River Beauly.

Initial Otter Walkover

3.4.3 Three otter spraints were identified on the embankments of the River Beauly. One on the north and south sides of the river at the Black Bridge, respectively; and one approximately 250 m east of the bridge. One otter was observed in the River Beauly, adjacent to the northern Black Bridge spraint. Anglers on River Beauly also anecdotally confirmed their regular presence on the watercourse.

3.4.4 Two potential otter resting sites (location **O1** and **O5**) were identified within the Otter Study Area.

3.4.5 The majority of the watercourses and ditches in the otter Study Area were determined to provide suitable cover and habitat for otters to commute/travel along, but were of limited suitability for foraging due to a perceived lack of suitable prey species.

Potential Resting Site Monitoring

3.4.6 No otters or other protected species were observed during the monitoring of potential resting site location **O1**.

Black Bridge GI ECoW

3.4.7 One confirmed otter resting site (location **O6**) was identified by the Black Bridge GI ECoW during November 2024. This was located at the edge of the River Beauly approximately 35 m southeast of the Black Bridge, which is approximately 240 m northeast of the RLB and 330 m from the Direct Impact Areas.

3.4.8 Two further otter spraints were also identified by the Black Bridge GI ECoW on the embankments of the River Beauly, on the north and south sides of the river at the Black Bridge.

3.5 Water Vole

3.5.1 The water vole receives partial protection under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended). In Scotland, this legal protection is currently restricted to the water vole's places of shelter or

protection and doesn't extend to the animal itself. Full protection, to also cover the animal, is proposed. Water vole is an SBL and HNBAP priority species.

3.5.2 No commercially available records of water vole were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary.

3.5.3 The watercourses and ditches encountered in the water vole Study Area were considered to be of limited suitability for water vole, based on the intensive agriculture practices and livestock up to the edge of the banksides; dry to shallow water depths; shallow or unsuitable bank compositions; and rocky substrates.

3.5.4 No field signs of water voles or burrows of suitable shape and size were identified during the survey effort.

3.6 Pine Marten

3.6.1 The pine marten receives full protection under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended). Certain methods of killing or taking pine martens are illegal under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an SBL and HNBAP priority species.

3.6.2 No commercially available records of pine marten were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary.

3.6.3 Monitoring of a potential badger sett was undertaken for a minimum of 6 weeks to a mammal burrow located under a private residence shed. During this monitoring, pine martens were incidentally observed foraging and commuting at the location. No greater than one pine marten individual was observed at any one time. On one occasion, a pine marten was observed entering the burrow with no subsequent recorded exit. Therefore, the burrow is precautionarily assumed to be used as a pine marten resting site, on an infrequent basis. Due to the location's association with a confidential badger study, the burrow's specific location and results with regards to the Proposed Development's potential badger sett monitoring study are reported on separately (**Volume 5, Technical Appendix 9.3: Confidential Badger Baseline)**.

3.6.4 No other potential denning sites or definitive field signs of pine marten activity were recorded during the survey effort.

3.7 Red Squirrel

3.7.1 Red squirrels and their dreys (resting places) receive full protection under Schedules 5 and 6 of the *Wildlife and Countryside Act 1981* (as amended). It is an SBL and HNBAP priority species.

3.7.2 96 commercially available records of red squirrel were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary. Of these, six occurred within the red squirrel Study Area, two of which within the Proposed Development's red line boundary. The records within the red squirrel Study Area were predominantly located within areas of larger, mature woodland.

3.7.3 The mature conifer woodland areas within the red squirrel Study Area were considered to be suitable to support red squirrel.

3.7.4 One red squirrel was observed within the Proposed Development's red line boundary, on the eastern edge of Ruttle Wood, to the northwest of the Fanellan Croft residence.

3.7.5 Signs of squirrel foraging, in the form of chewed cones (which could be attributed to red or grey squirrels *Sciurus carolinensis*) were observed within the red squirrel Study Area within the conifer woodlands to the southwest and west of the Proposed Development's red line boundary.

3.7.6 No potential squirrel dreys were recorded during the survey efforts undertaken.

3.8 Fish and Freshwater Pearl Mussel

3.8.1 Migratory salmonids, their spawn and downstream migrating 'smolts' are legally protected under the *Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003*. Atlantic salmon (*Salmo salar)* is listed on Schedule 4 of the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended), which prohibits capturing or killing fish via poison or explosives, and any means of killing or taking that is indiscriminate and capable of causing the local disappearance of, or serious disturbance to, a population. Atlantic salmon and migratory brown trout *(Salmo trutta)* are SBL priority species. Atlantic salmon is also an HNBAP priority species.

3.8.2 River lamprey (*Lampetra fluviatilis)* is listed on Schedule 4 of the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended). River and brook lamprey (*Lampetra planeri)* are covered by the *Environmental Liability Directive*, which takes effect in Scotland through the *Environmental Liability (Scotland) Regulations 2009*, which requires operators to take preventive measures to avoid environmental damage and holds the operator liable for remediating any damage (all European species and habitats which occur in Scotland are covered by this). River and brook lamprey are all SBL priority species. Lamprey species are also HNBAP priority species.

3.8.3 The freshwater pearl mussel receives full protection under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended) and is an SBL priority species. It is also listed on the *Habitats Directive* Annex II and V.

3.8.4 There are a number of unnamed ditches and small burns within the Proposed Development's red line boundary. These were considered unsuitable for supporting fish and freshwater pearl mussel due to an unsuitable substrate, limited instream cover in the form of boulders and the watercourses appeared nutrified.

3.9 Scottish Wildcat

3.9.1 The Scottish wildcat is fully protected under the *Conservation (Natural Habitats, &c.) Regulations 1994* (as amended). It is an SBL and HNBAP priority species.

3.9.2 No commercially available records of wildcat were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary.

3.9.3 It is considered highly unlikely that Scottish wildcat will use the Direct Impact Areas, given it is predominantly managed as cropland or grazing pasture. Domestic cats (*Felis catus)* were observed during the Preliminary Walkover Surveys and are assumed to be associated with the residential dwellings. These further reduce the likelihood of the Scottish wildcat or their hybrids being present within the Proposed Development's red line boundary[32].

3.9.4 It was concluded in 2019 that the Scottish wildcat population was no longer viable without reinforcement or reintroduction[33]. Thereafter, conservation efforts have been/will be (2019-2026) focussed on captive breeding of wildcats and reintroduction to the Cairngorms National Park[34].

3.10 Beaver

3.10.1 Beavers are protected under the *Conservation (Natural Habitats &c.) Regulations 1994* (as amended) as EPS. Beavers are an HNBAP priority species.

3.10.2 No commercially available records of beaver were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary. A population of beavers is anecdotally reported to be present and associated with the Aigas Loch, approximately 2.5 km west of the Proposed Development's red line boundary[35].

3.10.3 No field signs of beaver were incidentally identified during the Preliminary Walkover Surveys or subsequent detailed survey effort. However, recent signs of beaver foraging as well as two potential beaver food caches[36] were identified by the Black Bridge GI ECoW during November 2024, on the banks of the Black Bridge and on the small island in the channel at the bridge. Potential beaver slides and mammal paths were also observed on the small island[37].

3.11 Reptiles

3.11.1 Native reptiles in Scotland are given limited protection under the *Wildlife and Countryside Act 1981* (as amended). All native reptiles are SBL priority species.

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[32] NatureScot (2009). The Scottish wildcat: a comparison of genetic and pelage characteristics. Commissioned Report No. 365.

[33] Campbell R. D., Gaywood M.J., & Kitchener A.C. (Eds.) (2023). Scottish Wildcat Action: Final Summary Report. NatureScot, Inverness. Available at: https://www.nature.scot/doc/scottish-wildcat-action-swa-final-summary-report-2023

[34] NatureScot (2023). National effort needed to save Scottish wildcat. Available at: https://www.nature.scot/national-effort-needed-save-scottish-wildcat

[35] Aigas Field Centre, Conservation at Aigas, The Aigas Beaver Demonstration Project (online). Available at: https://www.aigas.co.uk/conservation/conservation_at_aigas/ [Accessed: September 2024].

[36] Underwater collections of stripped branches.

[37] Unconfirmed due to only being able to view remotely the from bridge above.

3.11.2 One commercially available record of common lizard (*Zootoca vivipara)* was identified on NBN Atlas within 2 km of the Direct Impact Areas, on the north side of the River Beauly, approximately 730 m east of the Proposed Development's red line boundary. Two commercially available records of slow worm (*Anguis fragilis)* were identified on NBN Atlas, both approximately 1.8 km southeast of the Proposed Development's red line boundary. No commercially available records of adder (*Vipera berus)* were identified on NBN Atlas within 2 km of the Direct Impact Areas.

3.11.3 Two common lizards were incidentally observed during the Preliminary Walkover Surveys (**Annex A**, **Table 5-1**, **TN42** and **TN43**). One was identified outwith and approximately 100 m east of the Proposed Development's red line boundary, within the Fanellan Wood. A second was identified within the red line boundary, approximately 30 m north of the existing overhead line, 50 m east of the boundary.

3.11.4 Reptiles prefer successional habitats with a degree of heterogeneity. Optimal habitat includes vegetated and/or rocky areas for shelter, and open areas for basking[38]. The Direct Impact Areas contain primarily modified habitats including short grazed pastoral farmland and arable fields with limited cover for reptiles amongst hedgerows and scrub at field boundaries, and limited basking/hibernacula sites present. The Direct Impact Areas are unlikely to qualify as a 'Key Reptile Site' with reference to criteria in the Froglife advice note[39].

3.12 Terrestrial Invertebrates

3.12.1 The HNBAP lists 26 initial invertebrate species for detailed consideration during the biodiversity action plan's delivery. Further, the HNBAP outlines that Butterfly Conservation Scotland[40] lists 78 priority species in the Highland region. 14 of which are in the highest category that require urgent action across all occupied landscapes. 25 species need action in some occupied landscapes and 39 are medium priority species.

3.12.2 The hedgerows, field margins and pastoral grassland provide suitable habitat for a range of terrestrial invertebrates. The majority of the agricultural fields, which cover approximately 70 % of the Proposed Development's red line boundary, do not offer suitable habitat for a diverse range of invertebrates.

3.13 Other Species

Brown Hare

3.13.1 Brown hares (SBL priority species) were incidentally recorded at three locations within the Proposed Development's red line boundary during the field surveys (**Annex A**, **Table 5-1**, **TN9**, **TN14** and **TN20**). Suitable habitat for this species is present throughout the Direct Impact Areas.

3.13.2 One commercially available record of brown hare was identified on NBN Atlas within 2 km of the Proposed Development's red line boundary. Located approximately 530 m southeast of the Proposed Development's red line boundary, east of Fanellan Wood.

Hedgehog

3.13.3 There were no incidental sightings of hedgehog (SBL priority species) during surveys. However, farmland; grassland; woodland; and hedgerow edge habitats could support hedgehog foraging. No commercially available records of hedgehog were identified on NBN Atlas within 2 km of the Proposed Development's red line boundary.

[38] Froglife (1999). Froglife Advice Sheet 10. Reptile Survey: An introduction to planning, conducting and interpreting survey for snake and lizard conservation. Available: https://cieem.net/resource/froglife-advice-sheet-10-reptile-survey/ [Accessed: February 2023].

[39] Froglife (2015) Surveying for Reptiles. Tips, techniques and skills to help you survey for reptiles. 1st Edition available: https://www.froglife.org/wp-content/uploads/2013/06/Reptile-survey-booklet-3mm-bleed.pdf

[40] Butterfly Conservation, Scottish Priority Species (online). Available at: https://butterfly-conservation.org/in-your-area/scottish-office/scottish-priority-species [Accessed: September 2024].

4. CONCLUSION

4.1.1 The ecological baseline of the Proposed Development's red line boundary and surrounding area has been established through desk-based studies and field surveys. This information will be used to inform **Volume 2, Chapter 9: Ecology, Nature Conservation** of the Proposed Development's EIA Report. In relation to protected and priority faunal species, the following has been concluded.

Protected Species

4.1.2 Definitive evidence of the following protected species has been recorded during field surveys of the Proposed Development's red line boundary and surrounding area:

- bats;
- pine marten;
- red squirrel;
- common lizard; and
- otter.

4.1.3 No signs were recorded of the following protected species. Based on habitat suitability, it is considered unlikely that there will be regularly occurring populations of the following species but their occasional presence cannot be ruled out:

- slow worm; and
- adder.

4.1.4 The following protected species are considered likely absent from the Proposed Development's red line boundary and surrounding area:

- Scottish wildcat;
- water vole;
- beaver;
- salmonids;
- great crested newt; and
- freshwater pearl mussel.

Conservation Priority Species

4.1.5 The Direct Impact Areas could support the following conservation priority species, but unlikely as regularly occurring or substantial populations because suitable habitat is limited or there were no/limited observations across each field visit:

- common toad;
- brown hare;
- hedgehog; and
- terrestrial invertebrates.

5. ANNEX A: SURVEY DATA

Table 5-1: Target Notes

Reference	Category	Description
TN1	Limitation	Access restricted. Dense bracken over head height along wide OHL wayleave.
TN2	INNS	Multiple large stands of rhododendron near waterbody and fence line, approximately 7 x 40 m in size.
TN3	INNS	Small to moderate stands of rhododendron scattered throughout mature Scot's pine forest.
TN4	INNS	Dense rhododendron along woodland edge.
TN5	INNS	Small to moderate stands of rhododendron scattered throughout mature Scot's pine forest.
TN6	INNS	Dense rhododendron along woodland edge.
TN7	INNS	Small to moderate stands of rhododendron scattered throughout woodland and adjacent wayleave.
TN8	Limitation	Dense, young, inaccessible plantation.
TN9	Brown hare	Two individuals observed in long grass at edge of cattle grazing field.
TN10	Limitation	Access restricted. Dense bracken over head height. Very high numbers of ticks.
TN11	Limitation	Access restricted. Dense bracken over head height. Very high numbers of ticks.
TN12	INNS	Small to moderate stands of rhododendron scattered throughout woodland.
TN13	Limitation	Cattle herd with calves in grazing pasture field.
TN14	Brown hare	One individual observed in grass.
TN15	Limitation	Dense, inaccessible bracken.
TN16	INNS	Young rhododendron scattered across woodland understorey.
TN17	INNS	Rhododendron scattered across woodland understorey.
TN18	INNS	Rhododendron scattered across woodland understorey.
TN19	Limitation	Trees in centre of field not accessed, cattle with young calves present.
TN20	Brown hare	One individual observed in woodland.
TN21	INNS	Two small stands of rhododendron.
TN22	INNS	Large stand of rhododendron.
TN23	Limitation	Dense bracken with high density of ticks preventing access.
TN24	Limitation	Dense bracken with high density of ticks preventing access.

Reference	Category	Description
TN25	INNS	Rhododendron scattered across woodland understorey.
TN26	INNS	Large stands of rhododendron in woodland area.
TN27	Limitation	Dense, inaccessible scrub on steep slope.
TN28	Limitation	Steep, inaccessible downward slope to river.
TN29	Limitation	Dense bracken and scrub preventing access to some trees.
TN30	Limitation	Dense bracken and scrub preventing access to some trees.
TN31	INNS	Numerous small stands of rhododendron scattered around this area of woodland.
TN32	INNS	Young rhododendron scattered within understorey.
TN33	Limitation	Dense, inaccessible young conifers.
TN34	Limitation	Dense bracken potentially obscuring field signs.
TN35	INNS	Scattered young rhododendron in woodland understorey.
TN36	INNS	Scattered rhododendron throughout woodland understorey.
TN37	Limitation	Steep, inaccessible valley.
TN38	Limitation	Steep gorge. Unable to survey.
TN39	Limitation	Dense, inaccessible bracken.
TN40	Limitation	Dense, inaccessible bracken.
TN41	Limitation	Inaccessible steep embankments.
TN42	Common lizard	Single common lizard observed.
TN43	Common lizard	Single common lizard observed.
TN44	INNS	Dense, inaccessible rhododendron.
TN45	INNS	Dense, inaccessible rhododendron.
TN46	INNS	Dense, inaccessible rhododendron.
TN47	Limitation	Dense, inaccessible, immature mixed plantation.
TN48	INNS	Single stand of rhododendron.
TN49	Limitation	Dense, inaccessible, immature mixed plantation.
TN50	INNS	Rhododendron scattered throughout woodland.

Reference	Category	Description
TN51	INNS	Dense, inaccessible rhododendron.
TN52	INNS	Rhododendron scattered throughout woodland.
TN53	INNS	Rhododendron throughout woodland floor.
TN54	Limitation	Dense, inaccessible, immature mixed plantation.
TN55	INNS	Rhododendron scattered throughout woodland.
TN56	Limitation	Dense, inaccessible, immature mixed plantation.
TN57	INNS	Birch stand amongst felled plantation, rhododendron present.

Table 5-2: Bat Trees Preliminary Roost Assessment and Detailed Inspection Data

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0101	PRF-I	Pedunculate oak (*Quercus robur*)	Multiple visible PRFs associated with torn and rotting branches, between 4-6 m height, east facing.	1: NONE, TS 4 m N, superficial. 2: NONE, KH 5 m N, superficial. 3: PRF-I, TS 7 m N. 4: PRF-I, TO & 2xTS 6 m S. 5: PRF-I, TO 7 m SE. 6: PRF-I, TS 9-11 m SE, at highest limb upwards facing.	-	-
0102	PRF-I	Pedunculate oak	North facing lifting bark at 5 m height.	-	-	-
0103	PRF-I	Pedunculate oak	Large oak with rotting trunk, however PRFs are exposed.	-	-	-
0104	PRF-I	Pedunculate oak	Rotting trunk of large oak provides entrances in the bottom and in the top.	1: NONE, large TS limb NW 6 to 7 m, unsuitable. 2: NONE, small upwards TO S 7 m, superficial. 3: PRF-I, Main stem TO,	-	-

[41] Highest suitability of features identified within, following any subsequent detailed inspection of features.

[42] As per **Section 3.2**. Detailed Inspection data, if planned or required. Else, no survey due to outwith 30 m of Direct Impact Areas and / or disturbance not anticipated.

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
				Edge ram's-horn gaps, 2 cm sheltered. Upper TO, limited shelter.		
0105	PRF-I	Pedunculate oak	Knothole at 5 m height facing northeast; main stem at 7 m, large hazard beam.	1: PRF-I, long HB 7.5 m canopy centre, extends 20 cm. 2: NONE, PRA KH at 5 m, Negligible. 3: NONE, TO 8 m S, Superficial. 4: NONE, split limb junction, 9 m S, Unsuitable. 5: PRF-I. KH & TS 6 m S. KH Superficial. TS 20 cm deep. 6: PRF-I. Upwards TO 7 m N, 30 cm deep.	-	-
0106	PRF-I	Pedunculate oak	PRF at 5 m, decaying branch. Second PRF, south facing.	-	-	-
0107	PRF-I	Pedunculate oak	PRF, large decaying branch in main stem at 10 m, facing east.	-	-	-
0108	PRF-M	Pedunculate oak	Dead / decaying branches. Some open wood and lifting bark. Large cavity at 6 m height, south facing.	TS @ 5 m N. PRF-I. HB main stem, 6-7 m, PRF-M no field signs, TS @8 m S, PRF-I, TO @ 7 m NE PRF-I. no field signs	HB main stem, 6 to 7 m, PRF-M no field signs.	HB main stem, 6 to 7 m, PRF-M no field signs.
0109	PRF-I	Pedunculate oak	Two north facing knot holes, at 4 and 5 m. Decay and lifting bark.	Feature 1: 2x KH @ 5 and 6 m N, PRF-I. 2: 40 cm deep gap at top TO at 7 to 8 m, S side, PRF-I. 3: lifting bark extending downward from feature 2, PRF-I. No field signs.	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0148	PRF-M	Pedunculate oak	1: HB on W side at 11 m. Snapped but hanging limb at 9 m on SW side.	-	-	-
0167	PRF-I	Pedunculate oak	Gaps in decaying bark at top of main stem.	-	-	-
0168a	PRF-I	Beech (*Fagus sylvatica*)	Large and small knot holes on NW side at 5 m. In cemetery grounds.	-	-	-
0168b	PRF-M	Pedunculate oak	1: lateral split along limb marked with blue tape on N side at 6 m. 2: gap at top of large basal tear out.	-	-	-
0169	PRF-I	Pedunculate oak	1: hole and lifting, thick branch on lower limb on S side at 3.5 m. 2 & 3: broken branches on SE side at 8 m to 10 m.	-	-	-
0171	PRF-M	Pedunculate oak	1: small gaps at large tear out on river side of tree at 9 m. 2: large tear out on river side at 5 m.	-	-	-
0173	PRF-M	Beech	Woodpecker hole on SE side with large feature leading to heartwood around side at same height at 6.5 m.	-	-	-
0174	PRF-I	Pedunculate oak	Small gaps around vertical bark split near base of main stem.	-	-	-
0175	PRF-M	Scot's pine (*Pinus sylvestris*)	Large tear out and woodpecker holes in central stem.	-	-	-
0176	PRF-I	Pedunculate oak	Gaps at base of dead, upwards facing branch on S side of tree at 7 m.	-	-	-
0177	PRF-M	*Acer* sp.	Knot hole on W side at 5 m.	-	-	-
0179	PRF-M	Scot’s pine	Hazard beam on W side at 7 m up stem.	-	-	-
0180	PRF-I	Pedunculate oak	1: small hole near base of small dead branch on N side at 5.5 m. 2: gaps either side of large tear out on E side at 7.5 m.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0181	PRF-M	Pedunculate oak	Large basal cavity	-	-	-
0182	PRF-I	Pedunculate oak	Small hole extending up short, broken branch on NW side at 4.5 m	-	-	-
0186	PRF-M	Pedunculate oak	1: Large split limb in uppermost central canopy at 16 m 2: broken branch at 15 m on NE side.	-	-	-
0191	PRF-M	Pedunculate oak	Cavity extending up from base of limb on E / SE side at 7 m.	-	-	-
0193a	PRF-I	Pedunculate oak	3 PRFs. A: loose bark and split on dead branch extending E / SE from limb at 9 m up - negligible. B: loose bark on other branch, extending N, from same limb fork - Low, could not be climbed to. C: split branch extending over field on NW side - negligible.	-	-	-
0193b	PRF-M	*Acer* sp.	Cavity at large basal tear out.	-	-	-
0194a	PRF-I	Pedunculate oak	Ram's-horning bark along lateral bark split on N side at 5 m.	-	-	-
0194b	PRF-M	Pedunculate oak	3 PRFs. A: 1 broken limb pointing upwards from limb on S side 7.5 m up - negligible. B: 1 broken branch pointing SE on limb on E side 7 m up - negligible. C: 1 top of large broken limb on NE side 6.5 m up – moderate.	-	-	-
0195a	PRF-M	Pedunculate oak	1: knot hole in limb on SW side at 9 m. 2: gap at base of dead limb on SE side at 12.5 m.	-	-	-
0195b	PRF-I	Pedunculate oak	1 hole in limb on N side extending over field at 6 m up. 1 area of loose bark at base of dead limb on W side 6.5 m up.	-	-	-
0196a	PRF-I	Pedunculate oak	1: gaps around lateral limb wound on N side at 5 m. 2: lateral bark split along top of branch on S side at 4.5 m.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0198a	PRF-M	Pedunculate oak	1: lateral split lower limb on E side at 4 m. 2: decaying smaller limb on S side at 7 m. 3: hazard beam on N side at 11 m.	-	-	-
0198b	PRF-I	Pedunculate oak	Long split along underside of dead limb on E side of tree at 5 m from ground.	-	-	-
0199	PRF-I	Pedunculate oak	2 PRFs on S side. Cavities extending up broken limbs at 10 m and 12 m.	-	-	-
0201	PRF-M	*Acer* sp.	Centre of canker at 13 m on W side has potential to extend into stem.	-	-	-
0217	PRF-M	Pedunculate oak	HB on extending S over main stem at 12 m.	-	-	-
0222	PRF-M	Pedunculate oak	Middle of TS on W side at 7 m has potential to extend inwards.	-	-	-
0225	PRF-M	Beech	Decayed upper section of main stem.	-	-	-
0226	PRF-M	Dead	Lower large limb HB at 4 m extending SE.	-	-	-
0231	PRF-M	Pedunculate oak	Large TO on main stem at 4 m on SE side.	-	-	-
0238	PRF-M	Pedunculate oak	TO, HB & KH on S side from 10 to 12 m.	-	-	-
0239	PRF-M	Beech	Knothole on SW side, on main stem, at 11 m from ground.	-	-	-
0240	PRF-M	Silver Birch (*Betula pendula*)	Decay behind TO at 1.5 m on S side extends up trunk.	-	-	-
0241	PRF-M	Pedunculate oak	Large tear out on upper main stem and hazard beam above it in upper canopy.	-	-	-
0242	PRF-I	Pedunculate oak	Decay at top/main stem end of dead branch at 6 m on W side has potential to extend into stem.	-	-	-
0243	PRF-M	Beech	Two TS on S side at 8 and 11 m. KH's on limb on W side at 11 m. Fluting crevice on N side at 5 m.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0246	PRF-M	Silver Birch	Old KH at 1 m on S side, decay extends up limb.	-	-	-
0248	PRF-M	Beech	Large KH on N side at 4 m.	-	-	-
0249	PRF-M	Pedunculate oak	Old pruning cut decaying into limb overhanging private road at 7 m from ground.	-	-	-
0258	PRF-M	Pedunculate oak	Large, decaying limb at 9 m overhanging main road.	-	-	-
0260	PRF-M	Silver Birch	KH on N side at 3 m.	-	-	-
0261	PRF-M	Silver Birch	Large TO at 6 m N side, cavity extends up stem.	-	-	-
0263	PRF-M	Silver Birch	KH at 6 m on NE side.	-	-	-
0266	PRF-M	Pedunculate oak	Decay top of main stem.	-	-	-
0271	PRF-M	Ash (*Fraxinus excelsior*)	1: large TO at 10 m facing field. 2: 2nd large TO facing field at 3.5 m inner decay may extend up stem.	-	-	-
0275	PRF-I	Pedunculate oak	Lifted bark on main stem starting from 4 m up.	-	-	-
0276	PRF-M	*Acer* sp.	1: large TO at 8.5 m E side. 2: TS E side 1.5 m. 3: long TO near end of limb overhanging road at 12 m from road level, W side.	-	-	-
0277	PRF-M	Silver Birch	2 KH at 4.5 m on N side.	-	-	-
0283	PRF-M	Silver Birch	Decay behind large TO at 2 m extends up stem.	-	-	-
0286	PRF-M	Pedunculate oak	Potential cavity at base of lost branch half way along limb extending SW over field fence at 10 m.	-	-	-
0293	PRF-M	Silver Birch	Upper hazard beam, at 10 to 12 m, leaning NE.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0294	PRF-M	Pedunculate oak	At least 5 TS and HB around stem circumference at 6 to 9 m.	-	-	-
0299	PRF-I	Pedunculate oak	Transverse snap S aspect 7 m up.	-	-	-
0326	PRF-M	Pedunculate oak	Vertical splits and woodpecker hole in main stem into heartwood.	-	-	-
0328	PRF-I	Sweet chestnut (*Castanea sativa*)	Loose bark with sheltered gaps along limbs at 7 m on W side.	-	-	-
0701	PRF-M	Pedunculate oak	1: large knot hole at 9 m on NE side. 2: lateral split along beam at 9 m on SE side.	-	-	-
0702	PRF-I	Silver Birch	Wound on S side of vertical dual leader stem at 15 m.	-	-	-
0703	PRF-I	Scot's pine	Dead standing monolith with multiple fissures and woodpecker holes across height of stem.	-	-	-
0704	PRF-I	Pedunculate oak	Large oak close to fence line with PRF at 6 m east facing rotting trunk. And a cut off branch at 3 m height west facing.	-	-	-
0705	PRF-M	Rowan (*Sorbus aucuparia*)	Dead/dying mature rowan. Long cavity extending horizontally along fallen, broken main stem, fallen but resting up on rest of tree.	All features fully inspected. 4x PRF-M features.	All features fully inspected. 4x PRF-M features.	All features fully inspected. 4x PRF-M features.
0706	PRF-M	Dead	Loose bark across tree.	-	-	-
0707	PRF-M	Dead	Loose bark across tree.	-	-	-
0708	PRF-I	Beech	Gap between merged branches at 11 m on NE side.	-	-	-
0709	PRF-M	Pedunculate oak	1: broken branch on E side at 10 m, feature extending towards the S, with fissures that may extend inwards. 2: hole extending down branch at 4 m on E side.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0710	PRF-M	Silver Birch	Top of tear out on NW side at 5.5 m extends up trunk.	-	-	-
0711	PRF-M	Beech	Large tear out on W side at 6 m, small hole at back of large cavity appears to extend upwards.	-	-	-
0712	PRF-I	Silver Birch	Knot hole at 6 m on S side.	-	-	-
0713	PRF-M	Pedunculate oak	1: knot hole on E side at 13 m. 2&3: two broken branches on W side at 14 m & 15 m.	-	-	-
0714	PRF-M	Pedunculate oak	1: hazard beam on E side at 10 m.	-	-	-
0715	PRF-M	Pedunculate oak	Large vertical split up one stem of dual leader, from 3 m to 7 m, ram's-horning bark and gaps near base of split visible from right side of tree when facing feature.	1: PRF-M, Vertical split as per PRA, extends 20 cm behind dead wood and ram's-horning bark, climbed and fully endoscoped, no field signs.	Fully endoscoped. No field signs.	Fully endoscoped. No field signs.
0716	PRF-M	Pedunculate oak	Gap at top of vertical split on main stem on N side at 9 m	-	-	-
0717	PRF-M	Ash	1: vertical tear out wound on NE side at 6 to 9 m.	-	-	-
0718	PRF-I	Pedunculate oak	Split and decaying branch at 5 m height, facing south.	-	-	-
0719	PRF-I	Willow sp. (*Salix* sp.)	Base of broken limb on N side at 8 m.	-	-	-
0720	PRF-M	Beech	Cavity extending up limb at top of tear out on NW side facing road at 3 m.	-	-	-
0721	PRF-I	Pedunculate oak	Split rotting branch.	-	-	-
0722	PRF-M	Alder (*Alnus glutinosa*)	Knot hole on N side at 4.5 m.	-	-	-
0723	PRF-M	Silver Birch	Top of large basal cavity extends up stem.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0724	PRF-I	Pedunculate oak	End of broken branch on W side at 13 m.	-	-	-
0725	PRF-M	*Acer* sp.	1: knot hole on S side at 4.5 m. 2: wound on upper side of limb on N side of tree at 5.5 m, visible from S and W sides of tree.	-	-	-
0726	PRF-M	Pedunculate oak	Gap at top of SE facing wound in limb at 4 m.	-	-	-
0727	PRF-M	Beech	Cavity at top of large vertical bark split extends up main stem.	Inspected with extended endoscope. Cavity extends 2 m up stem. No bats or field signs.	Fully endoscoped with ladder and single endoscope extension. No field signs.	Fully endoscoped with ladder and single endoscope extension. No field signs.
0728	PRF-I	Pedunculate oak	Scot's pine with north facing knot holes at 12 m height.	-	-	-
0729	PRF-I	Beech	Upwards sheltered gap at compression fork between main leaders.	-	-	-
0730	PRF-M	Rowan	Rotting basal cavity with features extending up multi stems.	-	-	-
0731	PRF-I	Pedunculate oak	Old oak with PRFs in old tear outs where branches start to rot. Two tear outs at 3 and 4 m height. Facing west.	-	-	-
0732	PRF-M	Pedunculate oak	1: knot hole in large limb on N side at 7 m overhanging field. 2: split extending up base of large limb on N side at 6 m, visible from road.	-	-	-
0733	PRF-I	Beech	Small, upwards leading gap at top of large tear out.	-	-	-
0734	PRF-M	Pedunculate oak	Cavities in large tear out on main stem facing NE at 7 m.	-	-	-
0735	PRF-I	Pedunculate oak	7 m height, large cavity under branch.	1: PRF-I, PRA HB, limited shelter, extends 10 cm	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
				towards stem, no field signs.		
0736	PRF-M	Pedunculate oak	Cavities either side of large vertical tear, on main stem.	-	-	-
0737	PRF-I	Dead	Dead standing monolith with multiple fissures and woodpecker holes across height of stem.	-	-	-
0738	PRF-I	Silver Birch	Various knot holes and woodpecker holes in deadwood birch tree.	-	-	-
0739	PRF-I	Silver Birch	Rotting trunk with PRFs along the height of standing deadwood birch.	-	-	-
0740	PRF-I	Pedunculate oak	Split in limb at 3 m, visible from SE side.	-	-	-
0741	PRF-M	Pedunculate oak	Multiple TS and rotting branches.	western aspect, multiple TS from 4 to 6 m all superficial and checked by PoleKam. 9 m E HB - climbed PRF-I. HB @10 E - climbed PRF-M. no field signs	HB @10 E - climbed PRF-M. no field signs	HB @10 E - climbed PRF-M. no field signs
0742	PRF-I	Rowan	Sheltered horizontal split in partially cut limb. Fully inspected at time of survey. No further survey necessary.	-	-	-
0743	PRF-M	Beech	Large vertical split up trunk on W/SW side from 4 m to 9 m.	1: NONE, large KH 2 m above large vertical split. 2: PRF-M, large vertical split from PRA, active bird nest in lower third, behind central decayed wood.	PRF-M, large vertical split from PRA. Fully endoscoped. No field signs.	PRF-M, large vertical split from PRA. Fully endoscoped. No field signs.
0744	PRF-I	Dead	Fissures and woodpecker holes across height of stem.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0745	PRF-I	Scot's pine	Old tear out west facing at 5 m height. Scot's pine.	-	-	-
0746	PRF-I	Silver Birch	Lifting bark.	-	-	-
0747	PRF-I	Pedunculate oak	4 m height, superficial split trunk. North facing.	-	-	-
0748	PRF-M	Pedunculate oak	Knothole.	-	-	-
0749	PRF-I	Beech	Cavity near middle of vertical bark split extends up heartwood.	-	-	-
0750	PRF-I	Beech	Small gap extending upwards at top of split in bark at 1.5 m on W / NW side.	-	-	-
0751	PRF-M	Pedunculate oak	Torn out branch of old oak hanging over road. Decay and fissures in main stem and limbs.	-	-	-
0752	PRF-I	Beech	Small hazard beam at 3.5 m on SE side.	-	-	-
0753	PRF-I	Dead	Sheltered, lifting bark across height of tree.	-	-	-
0754	PRF-I	Pedunculate oak	North facing split/rotting branch on the underside. Superficial and exposed.	-	-	-
0755	PRF-M	Beech	Tear out at 8 m on N side.	-	-	-
0756	PRF-M	Beech	Two knot hole on W / NW side at 6 m and 8 m.	-	-	-
0757	PRF-I	Pedunculate oak	Snapped, hanging branch at 8 m on W / NW side.	-	-	-
0758	PRF-I	Beech	Hole at top of old tear out at 2.5 m on NE side. Fully inspected at time of survey. No further survey necessary.	-	-	-
0759	PRF-M (ROOST)	Beech	Gap at top of vertical bark split extends up stem. Feature extends, sheltered, 25 cm up stem.	Inspected from ground with endoscope extension, 2x Natterer's bats observed at top of feature.	Fully inspected from ground with endoscope extension. No bats observed.	Inspected from ground with endoscope. 1x Natterer's bat present at very end of feature.

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0760	PRF-I	Beech	Shelter tear out / rot hole at 5 m on NE side.	-	-	-
0761	PRF-I	Pedunculate oak	Multi gaps under thick, loose bark.	-	-	-
0762	PRF-M	Beech	Gap in large tear out on S side at 6.5 m	-	-	-
0763	PRF-M	Rowan	Large knot hole at 1.5 m on E side visibly extends into and up stem.	-	-	-
0764	PRF-I	Pedunculate oak	Lateral wound along g base of limb overhanging cow field at 7 m from ground level.	-	-	-
0765	PRF-I	Beech	Hole in bark on southern dual-leader where compressed old branch has rotted away. Feature facing W at 7.5 m.	-	-	-
0766	PRF-I	Beech	Gap at top of vertical bark split extends up stem.	-	-	-
0767	PRF-M	Pedunculate oak	1: knot hole extending into limb at elbow that overhangs cow field on SW side. 2: short split in bark along limb at very top, centre of canopy.	-	-	-
0768	PRF-I	Goat willow (*Salix caprea*)	Split trunk in goat willow that is already rotting. Multiple, however, exposed cavities. PRFs at 2 to 4 m height.	-	-	-
0769	PRF-M	Rowan	Multi vertical gaps in bark on S side of multi stems with gaps at top extending up stems.	-	-	-
0770	PRF-I	Silver Birch	Birch. Standing deadwood with large entrance into rotting trunk up top.	1: PRF-I, KH at 3.5 m facing S, extends 20 cm. other features, inc. all from PRA fully inspected with PoleKam / endoscope and negligible.	-	-
0771	PRF-M	Pedunculate oak	1: knot hole on SE side at 5 m. 2: broken limb and tear out on E / NE side at 9 m.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0772	PRF-I	Scot's pine	Old tear out, main stem at 4 m height, facing north.	fully inspected, PRF-I, no bat field signs. Disused nest at base of upwards-facing split.	-	-
0773	PRF-M	Pedunculate oak	1: knot hole on N side at 9 m almost overhanging fence.	-	-	-
0774	PRF-I	Dead	Gaps in decaying bark at top of vertical, dead dual leader stem.	-	-	-
0775	PRF-M	Dead	Loose bark across tree.	-	-	-
0776	PRF-M	*Acer* sp.	Base of broken limb in centre of upper canopy at 13 m.	-	-	-
0777	PRF-I	Silver Birch	Small hazard beam at 9 m facing NW	-	-	-
0778	PRF-M	Pedunculate oak	1: cavity at end of broken branch with torn black plastic, facing S at 6.5 m. 2: knot hole on underside of limb overhanging field at 7 m, W side.	-	-	-
0779	PRF-M	Pedunculate oak	Multi broken or decaying branches with lateral cavities plus limb with lateral split and ram's-horning bark on SE side.	-	-	-
0780	PRF-I	Beech	Hole at top of crevice on w side at 2 m.	-	-	-
0781	PRF-M	Beech	2 crevices that lead upward on SE side at 1.5 m and 2.5 m.	-	-	-
0782	PRF-I	Dead	Multi woodpecker holes.	-	-	-
0783	PRF-I	Beech	Gap at top of large vertical split in bark	-	-	-
0784	PRF-M	Pedunculate oak	PRF in rotting trunk of old oak.	-	-	-
0785	PRF-M	Beech	1: large tear out cavity extending to heartwood on SW side at 4 m. 2: two smaller tear outs on limb on SW side of tree at 7.5 m. 3: gap at top of large vertical wound on N side at 9 m.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
0786	PRF-M	Beech	1: vertical split on NE side from 4 m to 7 m. 2: another, larger split above, from 8 m onwards with ram's-horning bark.	-	-	-
0787	PRF-M	Beech	Vertical split up trunk on W side extends up trunk from 6 m upwards.	-	-	-
0788	PRF-M	Silver Birch	1: PRF-M, large tear out on N side at 2 m. 2: PRF-M, basal cavity on N side. 3: PRF-I, TS on S side at 7 m.	Climbed and all features fully inspected with narrow endoscope. No field signs.	Both PRF-M features fully endoscoped from ground level. No bats or field signs.	Both PRF-M features fully endoscoped from ground level. No bats or field signs.
0789	PRF-M	Willow sp.	Basal cavity on track side of tree, extends up stem beyond view. Low hibernation suitability.	-	-	-
0790	PRF-M	Silver Birch	Vertical split in bark with gap leading upwards at 2.5 m from ground on NW side. Knot hole on same side at 4 m.	-	-	-
0791	PRF-I	Pedunculate oak	Knot hole above blue tape on W side at 9 m.	-	-	-
0792	PRF-M	Pedunculate oak	Vertical split up short dead limb on S side at 5 m. Gap along under side of hazard beam SE side 8 m. Decaying hazard beam on NW side at 6 m. Horizontal hazard beam N/NW side at 8 m.	-	-	-
0793	PRF-M	Dead	Large holes in standing dead wood.	-	-	-
0794	PRF-I	Silver Birch	PRF rot hole at end of branch.	-	-	-
0795	PRF-M	Beech	1: hazard beam N side 2 m. 2: snapped limb N side 3.5 m.	-	-	-
0796	PRF-I	European larch (*Larix decidua*)	Woodpecker hole facing south at 6 m height.	-	-	-
0797	PRF-M	Pedunculate oak	Gap extending inwards at base of small dead limb on W side at 4 m. Gap in bark	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
			running along underside of larger limb direct above it on W side at 4.5 m.			
0798	PRF-M	*Acer* sp.	1: Old knot hole at 7 m on SW side. 2: tear out on NE side at 5.5 m.	-	-	-
0799	PRF-M	Beech	1 & 2: 2 knot holes on W / NW side at 5 m and 6.5 m. 3: hole at base of small tear out almost directly above the knot holes at 9 m.	-	-	-
0800	PRF-M	Pedunculate oak	Knot hole on branch, feature facing NE at 10 m.	-	-	-
2601	PRF-I	Silver Birch	Semi-mature silver birch. Multiple stems intertwine together to form PRF. ~1.5 m and head height.	-	-	-
2602	PRF-M	Beech	2 knotholes 2 and 2.m up on N aspect.	-	-	-
2603	PRF-I	Silver Birch	Wounds on main stem 3 m high and small knothole 3 m high on N aspect.	-	-	-
2604	PRF-I	Horse chestnut (*Aesculus hippocastanum*)	Decaying through centre with splits and cracks along main stem.	-	-	-
2605	PRF-I	Horse chestnut	Mature tree with splits and cracks throughout main stem.	-	-	-
2606	PRF-M	Silver Birch	2 trees with decay through centre of main trunk. Hole 0.5 m from ground may extend upwards.	-	-	-
2607	PRF-M	Beech	2 knotholes 1 1.5 m from ground and 1 2.5 m from ground both on N aspect.	-	-	-
2608	PRF-M	Ash	One knothole 3 m up on N aspect.	-	-	-
2609	PRF-M	Sycamore (*Acer pseudoplatanus*)	Large tear on SE aspect. Hole in centre of tear and appears to extend at the top of tear out.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
2610	PRF-I	Beech	Fallen tree splits in main stem where tree has fallen over.	-	-	-
2611	PRF-M	Silver Birch	Split down middle of trunk and may extend at the top.	-	-	-
2612	PRF-M	Sycamore	Cavity at bottom of tree on S aspect may extend upward. 3 small knotholes on N aspect and 1 woodpecker hole on W aspect.	-	-	-
2613	PRF-I	Sycamore	Split in limb on W aspect.	-	-	-
2614	PRF-M	Sycamore	Small knothole on N aspect.	-	-	-
2615	PRF-I	Silver Birch	Fallen tree with splits at break point.	-	-	-
2616	PRF-M	*Acer* sp.	Multi stemmed tree. Small tear out with decay on N aspect 2.5 m up.	-	-	-
2617	PRF-M	*Acer* sp.	Splits and cracks on branches.	-	-	-
2618	PRF-M	Silver Birch	Branch on E aspect 2.5 m up with tear out.	-	-	-
2619	PRF-M	Sycamore	Canker on main stem small entrance hole.	-	-	-
2620	PRF-M	Silver Birch	Main stem of tree has cankers and small holes and at least 2 knotholes on W aspect.	-	-	-
2621	PRF-M	Beech	Dead sycamore. Woodpecker hole and broken limb on N aspect 2.5 m up.1 knothole E aspect 3 m up. Lifting bark across entire main trunk and likely more holes.	-	-	-
2622	PRF-M	Beech	Split in limb and hole on branches W aspect 3 to 4 m up.	-	-	-
2623	PRF-M	Sycamore	Dual-leader with multiple small knotholes along W trunk.	-	-	-
2624	PRF-I	Silver Birch	Decay and splits 3 m up on N aspect.	-	-	-
2625	PRF-M	Beech	Splits and cracks on limbs W aspect 3 m up. Crack along bottom on trunk on E aspect.	-	-	-
2626	PRF-I	Beech	Split branch on E aspect 2 m up splits.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
2627	PRF-M	Beech	Large tear out on main stem 2.5 m from ground. Tear out is ~0.5 m wide and 20 cm wide.	-	-	-
2628	PRF-M	Beech	Large tear out from ground on W aspect. Holes on S aspect 1 m up. Branch 3 m up on W aspect with cracks.	-	-	-
2629	PRF-M	Beech	Small tear outs across lower section of main trunk.	-	-	-
2630	PRF-I	Beech	Small canker on S aspect 3 m up.	-	-	-
2631	PRF-M	Beech	2 knotholes on E aspect 1.5 and 3 m.	-	-	-
2632	PRF-M	Dead	Splits through centre of trunks and raised bark.	-	-	-
2633	PRF-I	Sycamore	Branch on E aspect 2.5 m up. Splits and decay.	-	-	-
2634	PRF-I	Beech	Small canker and splits where broken apart, my extend but predominantly superficial.	-	-	-
2635	PRF-I	Beech	Branch on E aspect 2 m up, broken.	-	-	-
2636	PRF-M	Silver Birch	Cavity in main stem 2 m up.	-	-	-
2637	PRF-I	Sycamore	Large crack 1 m starting 2 m on W aspect.	-	-	-
2638	PRF-I	Silver Birch	Decay at base of trunk with holes.	-	-	-
2639	PRF-M	Alder	5 woodpecker holes on single stem starting at 2.5 m up on E aspect. 3 on W aspect from 5 m up.	-	-	-
2640	PRF-M	*Acer* sp.	Large tear out through centre of tree on W aspect. Broken limb with hazard beam on S aspect. Knothole on main stem S aspect 3 m up.	-	-	-
2641	PRF-M	Silver Birch	1 knothole 1 small tear out on main stem N aspect 2 m and 3 m up.	-	-	-
2642	PRF-M	Sycamore	2 small knotholes 3 m up on W aspect. 3 knotholes on N aspect 2-3 m up.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
2643	PRF-I	Silver Birch	Fallen tree with large splits at break point W aspect.	-	-	-
2644	PRF-M	Silver Birch	Woodpecker holes on S aspect 4 m up.	-	-	-
2645	PRF-M	Silver Birch	Tear out in centre of stem at head level. 3 cm wide.	-	-	-
2646	PRF-M	Silver Birch	2 tear outs 1 m from ground in main stem on N aspect.	-	-	-
2647	PRF-I	Silver Birch	Split where tree has fallen over appears to extend.	-	-	-
2648	PRF-M	Scot's pine	At least 7 woodpecker holes on limb N aspect 5 m up.	-	-	-
2649	PRF-I	Silver Birch	Tear out in trunk on N aspect 4 m up.	-	-	-
2650	PRF-I	Sycamore	Knothole in W limb 4 m up.	-	-	-
2651	PRF-M	Silver Birch	Cankers and holes in main stem on E aspect. Squirrel hole 10 cm wide and high on S aspect all ~ 3 to 4 m up.	-	-	-
2652	PRF-I	Beech	Tear out on main stem N aspect 4 m up.	-	-	-
2653	PRF-I	Beech	Cracks and splits throughout main stem.	-	-	-
2654	PRF-I	Poplar sp. (*Populus* sp.)	Hazard beam on limb E aspect 2.5 m from ground.	-	-	-
2655	PRF-I	Silver Birch	Hazard beam on E aspect 6 m up.	-	-	-
2656	PRF-M	Beech	Large split in limb E aspect 4 m up.	-	-	-
2657	PRF-M	Pedunculate oak	1: TO on large limb at 6 m facing NW. 2: HB overhanging road at 7 m.	-	-	-
2658	PRF-M	Pedunculate oak	1: HB at 9 m facing S.	-	-	-
2659	PRF-M	Pedunculate oak	Hole at base of dead branch at 7 m on E side.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
2660	PRF-M	Pedunculate oak	1 woodpecker hole 6 m up on S aspect. 1 cavity in branch on N aspect 4 m up.	-	-	-
2661	PRF-M	Beech	1: decay in TO at 4.5 m facing NE. 2: 2 KH S side, 4 and 5 m up. 3: 2 KH and Fluting SW side, 3 to 5 m. 4: Cavity on upper side of limb overhanging limb 7 m up.	-	-	-
2662	PRF-M	Willow sp.	Hazard beam overhanging road at 7 m. Large TO on road side, near ground level.	-	-	-
2663	PRF-M	Beech	1 knothole on NE aspect 2 m up. Large tear out on SW aspect 2.5 m up. Large tear out on S aspect.	-	-	-
2664	PRF-M	Beech	1 hole 2.5 m up on NW aspect. Tear out with decay on S aspect.	-	-	-
2665	PRF-I	Ash	1 knothole E aspect 4 m up.	-	-	-
2666	PRF-I	Pedunculate oak	Split in limb 8 m up S aspect. Split in limb 3 m up S aspect.	-	-	-
2667	PRF-I	Pedunculate oak	Split in limb W aspect 4 m up.	-	-	-
2668	PRF-M	Willow sp.	Long crack down centre of limb that extends upwards on S aspect 3 m up.	-	-	-
2669	PRF-I	Ash	Knothole on N aspect 4 m up.	-	-	-
6816	PRF-M	Dead	Dead tree with desiccating features.	-	-	-
6818	PRF-I		Feature extending along limb on east side of tree.			
6820	PRF-M		4 features in vertical splits on south side of tree 3 of the 4 collected around top split at approx. 14 m up. 1 of 4 features in a second, smaller split, directly below first.	-	-	-
NT(3)	PRF-I	Pedunculate oak	Not accessed. In private residence garden. Negligible hibernation potential. Multiple broken limbs and missing back throughout	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
			canopy, however, majority do not appear to extend.			
NT(4)	PRF-I	Pedunculate oak	Not accessed. In private residence garden. Negligible hibernation potential. Multiple broken limbs in central canopy, however, majority do not appear to extend.	-	-	-
NT(5)	PRF-I	Dead	Multiple areas of lifting bark. At least two upwards-facing PRFs on upper dual leader main stems. Visible knot holes do not extend. Low hibernation potential. Unable to access to tag due to dense rhododendron around base.	-	-	-
NT(6)	PRF-I	Poplar sp.	Mature poplar. One broken limb 3 m from ground on E aspect. 1 broken limb 4 m high on S aspect.	-	-	-
NT(7)	PRF-M	Silver Birch	Birch within rhododendron. Unable to tag due to dense vegetation around base. Snapped branches and decay may provide PRFs.	-	-	-
NT(8)	PRF-I	Silver Birch	Appears to have been cut in half at the top there is splits and small holes. Unable to tag due to dense rhododendron around base may also conceal other PRFs.	-	-	-
NT(9)	PRF-I	Pedunculate oak	Tear out in limb NW aspect 5 m up. Not tagged - no land access permission.	-	-	-
NT(10)	PRF-M	Pedunculate oak	Large TO overhanging boundary fence at 9 m SE side. No land access to tag or survey far side of tree.	-	-	-
NT(11)	PRF-I	Pedunculate oak	HB near end of branch on SE side at 8 m. No land access to tag tree or survey far side of tree.	-	-	-
NT(12)	PRF-I	Pedunculate oak	Two dead limbs with long lifting bark at 7 and 9 m, E and W side. No land access to tag tree.	-	-	-

Reference	Suitability[41]	Tree Species	PRA Description	Detailed Inspection 1[42]	Detailed Inspection 2	Detailed Inspection 3
PRF Categories: • PRF-I – PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats. • PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony. • ROOST – Confirmed bat roost. • NONE – PRF found to be unsuitable to support roosting bats.						
Feature Acronyms: North (N); South (S); East (E); West (W); Transverse Snap (TS); Knot Hole (KH); Tear Out (TO); Hazard Beam (HB).						

Table 5-3: Bat Structures Preliminary Roost Assessment Data

Reference	Building Type	PRA Description	Summer Suitability (Active Season)	Winter Suitability (Hibernation Season)
R1	Residential building	Slate roof tiles offer various access points where lifted at the edges. Birds seem nesting under gutter so potential for more gaps under the eaves. Eastern gable end has wooden fascia. Breaks in mortar on gable end and fascia. Tiles appear to be lifted in places on the northwestern aspect.	Moderate	Low
R2	Agricultural barn	Structure is completely open on one side and exposed. Utilised by cattle at time of PRA survey. Structure consists of metal beams with a corrugated metal roof and wooden slatted walls.	Low	Negligible
Y1	Wooden sheds and connecting log store	Large, wooden shed; with smaller wooden shed adjacent on southwestern side; and small connected wood store on northeastern side. Large shed has metal, duo-pitched roof, containing gaps around doors/in walls/around fascia. Small shed has gaps under mono-pitch roof. Wood store is open to access on two sides, with limited shelter within.	Moderate	Low
Y2	Residential building	Slated roof. North east end of building has rotten wooden fascia, with several exposed large gaps. Slate tiles throughout roof are lifted, with one notable point by sunroof at the back (NW side) of the building.	Moderate	Low
Y3	Residential building	Southern half of the semi-detached building has lean-to type structure with wooden door that is partially open. Some small gaps in tiles in roof but predominantly well maintained. Northern half of the semi-detached building has lifted ridge tile on roof. Gaps present in tiles. Wooden extension to house on the north appears to be reasonably new with no visible PRFs.	Moderate	Low
Y4	Residential building	Slate tiled roof. Roof and brickwork appear to be well maintained. Four chimneys present. Various lifted roof tiles throughout. Lead flashing is present but appears well sealed. Slate	Moderate	Low

Reference	Building Type	PRA Description	Summer Suitability (Active Season)	Winter Suitability (Hibernation Season)
		tiles on the southwestern aspect are lifted in places and appear to offer potential gaps into the roof structure. The southeastern aspect has three windows which are elevated from the roof and show lifted lead flashing in places.		

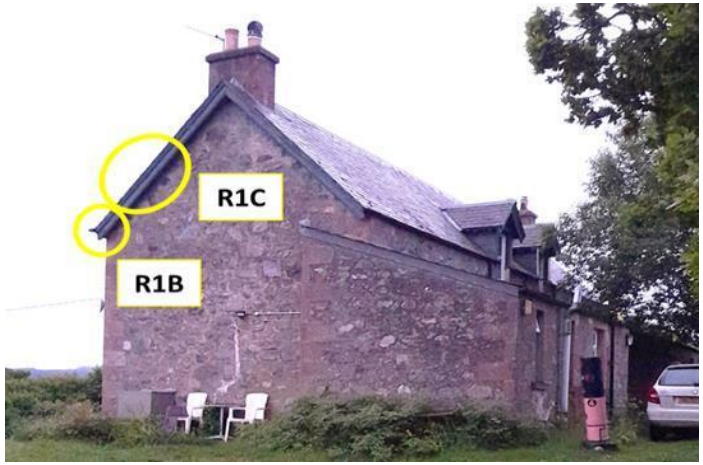
Table 5-4: Bat Manual Activity Survey Dates and Weather Conditions

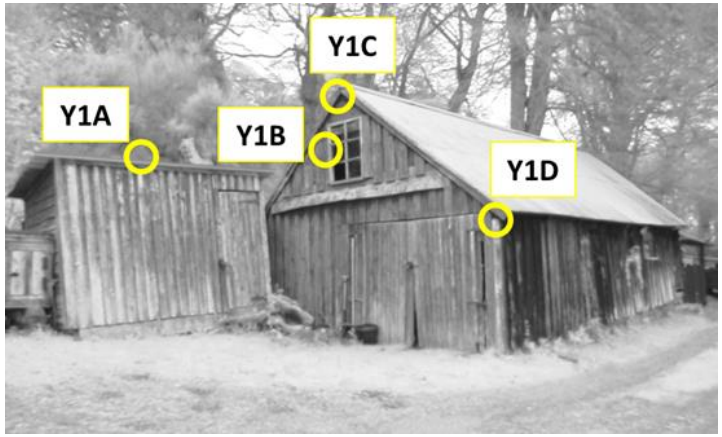
Reference	Type	Date	Start Time	End Time	Temperature) (°C)	Cloud Cover (oktas)	Wind Speed (Beaufort)	Wind Direction	Rain	Humidity
R1 & R2	Structure	30/04/2024[43]	20:47	22:32	12	7	0	N/A	None	63%
Y1 & Y2	Structure	01/05/2024	20:49	22:34	14	8	0	N/A	None	94%
R1 & Y2	Structure	28/05/2024	21:42	23:27	12	7	0	N/A	Very light	94%
Y3	Structure	30/05/2024	21:45	23:30	12	7	0	N/A	None	68%
Y3	Structure	26/06/2024	22:05	23:50	17	8	3	E	None	89%
0792	Tree	04/07/2024	22:01	23:46	11	7	4	SE	None	84%
0792	Tree	25/07/2024	21:31	23:16	13	6	1	SW	None	83%
0792	Tree	15/08/2024	20:37	22:22	13	7	4	SW	None	75%

Table 5-5: Bat Manual Activity Survey Roost Data

Reference	Type	Dates Observed	Roost reference and Type	Species & Maximum Observed Quantity	Roost Details
R1	Structure	30/04/2024 (R1A) 28/05/2024 (R1B & R1C)	R1A: Day Roost R1B: Day Roost R1C: Maternity Roost	R1A: 1x soprano pipistrelle. R1B: 1x common pipistrelle. R1C: 32x common pipistrelle; and 5x soprano pipistrelle.	R1A: Near chimney on the western aspect. R1B: Southeast corner of roof.

[43] The bat active season is generally considered to commence in May, reliant on suitable temperatures and weather conditions. This survey commenced at dusk one day earlier, on final day of April, due to consistent suitable temperate and weather conditions, as informed by guidance[8]

Reference	Type	Dates Observed	Roost reference and Type	Species & Maximum Observed Quantity	Roost Details
					R1C: Southeastern gable end.  

Reference	Type	Dates Observed	Roost reference and Type	Species & Maximum Observed Quantity	Roost Details
Y1	Structure	01/05/2024	Y1A: Day Roost Y1B: Day Roost Y1C: Day Roost Y1D: Day Roost	Y1A: 1x soprano pipistrelle. Y1B: 3x soprano pipistrelle. Y1C: 4x soprano pipistrelle. Y1D: 4x soprano pipistrelle.	Y1A: Small shed, southeastern roof mid edge. Y1B: Large shed, western roof middle edge. Y1C: Large shed, western apex. Y1D: Large shed, southern roof corner edge. 

Reference	Type	Dates Observed	Roost reference and Type	Species & Maximum Observed Quantity	Roost Details
Y2	Structure	01/05/2024 (Y2A & Y2B) 28/05/2024 (Y2B)	Y2A: Maternity Roost Y2B: Day Roost	Y2A: 19x soprano pipistrelle. Y2B: 5x soprano pipistrelle.	Y2A: Eastern aspect, most northerly dormer. Y2B: Southern gable end.  

Reference	Type	Dates Observed	Roost reference and Type	Species & Maximum Observed Quantity	Roost Details
Y3	Structure	30/05/2024 (Y3A & Y3B) 26/06/2024 (Y3B)	Y3A: Day Roost Y3B: Day Roost	Y3A: 1x soprano pipistrelle. Y3B: 1x soprano pipistrelle.	Y3A: Northeast apex of roof. Y3B: Northwest edge of chimney. 

Table 5-6: Great Crested Newt Waterbody Habitat Suitability Index Data

Reference	Suitability Index (SI) 1 *Result (Score)*	SI2	SI3	SI4	SI5	SI6	SI7	SI8	SI9	SI10	Final HSI Score	Pond Suitability Category
B	B (0.5)	922.52 m² (0.96)	Never (0.9)	Good (1.0)	20 % (1.0)	Minor (0.67)	Minor (0.33)	1.91 / km² (0.78)	Moderate (0.67)	65 % (0.95)	0.74	Good
C	B (0.5)	8,607 m² (n/a)[44]	Never (0.9)	Moderate (0.67)	5 % (1.0)	Minor (0.67)	Possible (0.67)	1.59 / km² (0.75)	Moderate (0.67)	10 % (0.35)	0.69	Average
D	B (0.5)	27,992 m² (n/a)	Never (0.9)	Moderate (0.67)	20 % (1.0)	Minor (0.67)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	5 % (0.35)	0.47	Poor
G	B (0.5)	2,273 m² (n/a)	Rarely (1.0)	Moderate (0.67)	80 % (0.6)	Minor (0.67)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	10 % (0.4)	0.70	Good

[44] SI score omitted from waterbody final calculation as area is greater than 2,000 m² (as per guidelines).

Reference	Suitability Index (SI) 1 *Result (Score)*	SI2	SI3	SI4	SI5	SI6	SI7	SI8	SI9	SI10	Final HSI Score	Pond Suitability Category
H	B (0.5)	2,978 m² (n/a)	Rarely (1.0)	Moderate (0.67)	70 % (0.8)	Absent (1.0)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	95 % (0.825)	0.81	Excellent
I	B (0.5)	4,421 m² (n/a)	Sometimes (0.5)	Moderate (0.67)	90 % (0.4)	Absent (1.0)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	100 % (0.8)	0.70	Good
J	B (0.5)	1,500 m² (0.875)	Rarely (1.0)	Poor (0.33)	40 % (1.0)	Absent (1.0)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	100 % (0.8)	0.60	Average
L	B (0.5)	200 m² (0.4)	Rarely (1.0)	Poor (0.33)	90 % (0.4)	Absent (1.0)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	10 % (0.4)	0.59	Below Average
M	B (0.5)	110 m² (0.2)	Rarely (1.0)	Moderate (0.67)	0 % (1.0)	Absent (1.0)	Absent (1.0)	1.59 / km² (0.75)	Moderate (0.67)	10 % (0.4)	0.65	Average
N	B (0.5)	60 m² (0.11)	Never (0.9)	Good (1.0)	60 % (1.0)	Absent (1.0)	Absent (1.0)	1.27 / km² (0.71)	Moderate (0.67)	100 % (0.8)	0.67	Average