

Netherton Hub 400 kV OHL Connection to New Deer and Peterhead: Tie-In

Environmental Appraisal Report

Volume 3 Appendix 7.2 - Protected Species

Baseline

July 2026



Scottish Hydro Electric Transmission plc
Inveralmond House
200 Dunkeld Road
Perth PH1 3AQ
Tel: +44 (0)1738 456 000
www.ssen-transmission.co.uk

CONTENTS

EXECUTIVE SUMMARY	1-4
1. INTRODUCTION	1
1.1 Proposed Development	1
1.2 Scope of Report	1
2. METHODS	2
2.1 Desk Study	2
2.2 Field Surveys	2
2.3 Assumptions and Limitations	10
3. RESULTS	12
3.1 Overview	12
3.2 Bats	12
3.3 Otter	13
3.4 Water Vole	13
3.5 Pine Marten	14
3.6 Red Squirrel	14
3.7 Scottish Wildcat	15
3.8 Beaver	15
3.9 Reptiles	15
3.10 Great Crested Newt and Other Amphibians	16
3.11 Fish	16
3.12 Freshwater Pearl Mussel	17
3.13 Terrestrial Invertebrates	17
3.14 Other Species	17
4. CONCLUSION	18

TABLE

Table 2.1: Survey Dates and Areas by Target Species

Table 2.2: Guidelines for Assessing Bat Suitability in Trees

Table 2.3: PRF Suitability Categories and survey requirements

EXECUTIVE SUMMARY

Scottish and Southern Electricity Networks Transmission (hereafter referred to as 'SSEN Transmission'), operating under licence as Scottish Hydro Electric Transmission plc, is proposing to construct and install a permanent diversion, referred to as a 'Tie-In,' of the existing New Deer to Peterhead 400 kV Overhead Line (OHL) (hereafter referred to as the 'Proposed Development') into a new 400 kV Alternating Current (AC) substation, proposed separately as part of the Netherton Hub Development.

To inform an Environmental Appraisal Report (EAR) of the Proposed Development, the following has been undertaken in relation to legally protected and priority species (excluding birds and badgers which are reported on separately):

- Desk-based review of existing data from publicly available sources;
- Habitat suitability assessment;
- Targeted surveys for bats, otter, water vole, pine marten, red squirrel and great crested newt following good practice guidelines; and
- Incidental observations of other notable species.

Definitive evidence of the following protected / conservation priority species has been recorded during field surveys within the Site and surrounding area:

- Otter;
- Water vole;
- Pine marten;
- Brown hare; and
- Common toad.

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

- Bats (roost and activity);
- Red squirrel;
- Great crested newt;
- Reptiles such as common lizard, slow worm; and
- Salmonids.

The following protected species are considered likely absent from the Site and surrounding area:

- Scottish wildcat;
- beaver; and
- Freshwater pearl mussel.

The Site and surrounding area could support the following conservation priority species as suitable habitat is present on Site however there were no/ limited observations across each Site visit:

- Terrestrial invertebrates;
- Hedgehog; and
- Water shrew.

1. INTRODUCTION

1.1 Proposed Development

- 1.1.1 Scottish and Southern Electricity Networks Transmission (hereafter referred to as 'SSEN Transmission'), operating under licence as Scottish Hydro Electric Transmission plc, is proposing to construct and install a permanent diversion, referred to as a 'Tie-In,' of the existing New Deer to Peterhead 400 kV Overhead Line (OHL) (hereafter referred to as the 'Proposed Development') into a new 400 kV Alternating Current (AC) substation, proposed separately as part of the Netherton Hub Development. The Tie-In is split into an 'In' leg, stemming from the existing New Deer – Peterhead OHL to the Hub substation (of which the 12 redundant towers will be dismantled), and an 'Out' leg, connecting the substation back to the existing New Deer – Peterhead OHL. A second proposed connection considered in parallel to the Proposed Development comprises a connection from the Tie-In point of the 'Out' leg, back to the existing Peterhead Substation, referred to as the Netherton Hub 400 kV OHL Connection to New Deer and Peterhead: Rebuild (hereafter referred to as 'the Rebuild'). The Rebuild does not form part of this report and will be delivered via a separate section 37 application.
- 1.1.2 The area of land which is now defined as the Site has evolved through the design and planning stages to incorporate associated infrastructure such as access tracks and changes to the Limit of Deviation (LoD). Throughout the survey period, study areas were defined following best practice guidance in combination with a review of the anticipated works and objectives of the surveys (to inform the Environmental Appraisal Report (EAR)). The Site boundary has been extended in places to reflect design changes identified after the surveys were undertaken. As a result, the field surveys covered an earlier iteration of the limit of deviation ("the Provisional LoD").
- 1.1.3 For protected species, the majority of the Site was surveyed between July 2025 and September 2025. Survey buffers originally extended from the Provisional LoD. Additional surveys were undertaken in November 2025 to capture land required for associated infrastructure. Based on the information available at the time of survey in November 2025 and anticipated potential effects, the survey area for associated infrastructure for all target species was defined as up to 100 m from the centre line of access tracks requiring upgrade or creation, and from towers to be dismantled., referred to as the 'Associated Infrastructure Survey Area'.
- 1.1.4 The location of the Proposed Development is shown on **Figure 1.1: Site Location Plan (Volume 2)** and the layout of the Site is shown on **Figure 1.2: Site Layout Plan (Volume 2)**. For full details of the Proposed Development, please refer to **Chapter 2: Description of the Proposed Development (Volume 1)** of the EAR.

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 and surrounding area, which would be used to inform **Chapter 7: Ecology** of the EAR.
- 1.2.2 Ecological assessment of effects on features within the red line boundary of Netherton Hub are beyond the scope of this report and have been presented within a separate application.
- 1.2.3 This report presents methods and baseline findings of studies relating to protected and priority species, excluding badgers *Meles meles* and birds which are reported on separately (see **Appendix 7.3: Badger Technical Report (Confidential) (Volume 3)** and **Chapter 8: Ornithology (Volume 1)**).

2. METHODS

2.1 Desk Study

- 2.1.1 A desk study was undertaken in July 2025 and updated in November 2025 to account for the inclusion of the Associated Infrastructure Survey area. The purpose was to review existing ecological baseline information available in the public domain. The objective was to identify records of protected or notable species within 2-5 kilometres (km) of the Proposed Development between 2014 - 2025 (i.e., relatively recent records).
- 2.1.2 This included a review of data available on National Biodiversity Network (NBN) Atlas¹ up to 2 km from the Site and Associated Infrastructure. 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 with attribution (CC-BY)².
- 2.1.3 The search of NBN Atlas was extended to 5 km from the Site and Associated Infrastructure for commercially available records of bats. Sightings reported to Saving Scotland's Red Squirrels³ between 2020 - 2024 were also reviewed from up to 5 km from the Proposed Development. Scottish Environment Protection Agency (SEPA) water classification hub⁴ has also been reviewed to indicate watercourse suitability to support aquatic species.
- 2.1.4 Data from ecological surveys conducted to inform the baseline for the proposed Netherton Hub development⁵ were reviewed and incorporated into the findings, where relevant to the Proposed Development.

2.2 Field Surveys

Habitat Suitability

- 2.2.1 The data searches, alongside a review of habitats present, were used to inform a habitat suitability assessment for species/ groups which may occur. The following species/ groups were reviewed due to their conservation status, as either a legally protected species or a conservation priority under the Scottish Biodiversity List⁶ (SBL)⁷ and North East Scotland Biodiversity Partnership (NESBiP) Locally Important Species⁸:
- Bats;
 - Otter *Lutra lutra*;
 - Water vole *Arvicola amphibius*;
 - Pine marten *Martes martes*;
 - Red squirrel *Sciurus vulgaris*;
 - Scottish wildcat *Felis silvestris*;
 - Beaver *Castor fiber*;
 - Hedgehog *Erinaceus europaeus*;

¹ NBN Atlas (online). Available: <https://nbnatlas.org/>

² NBN Atlas (online). Available: <https://docs.nbnatlas.org/data-licenses/>

³ Saving Scotland's Red Squirrels (online). Available: <https://scottishsquirrels.org.uk/squirrel-sightings/>

⁴ SEPA (online). Water Classification Hub. Online at: <https://www.sepa.org.uk/data-visualisation/water-classification-hub/>

⁵ SSEN Transmission (2024). Netherton Hub. Environmental Impact Assessment Report. Volume 4, Appendix 9.2 Protected Species Baseline.

⁶ Scottish Government (2012). Scottish Biodiversity List. Available: <https://www.nature.scot/doc/scottish-biodiversity-list>

⁷ The SBL has not been captured within the Scottish Biodiversity Strategy to 2045 but remains a useful tool to identify conservation priorities.

⁸ NESBiP (online). Locally Important Species. Available: <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.nesbiodiversity.org.uk%2Fwp-content%2Fuploads%2F2019%2F06%2FLocallyImportantSpeciesNESBReC.xlsx&wdOrigin=BROWSELINK>

- Brown hare *Lepus europaeus*; and
- Water shrew *Neomys fodiens*.
- Reptiles;
- Great crested newt (GCN) *Triturus cristatus* and other amphibians;
- Fish;
- Freshwater pearl mussel *Margaritifera margaritifera*.
- Terrestrial invertebrates;

2.2.2 Habitat suitability assessments were undertaken to determine the requirements and extent for further targeted surveys for specific species / species groups.

Targeted Surveys

2.2.3 Based on the result of habitat suitability assessments, the requirement for targeted surveys was identified for specific species / species groups.

2.2.4 The area of land which is now defined as the Site has evolved through the design and planning stages. Targeted surveys for protected species were undertaken across different study areas which covered and extended outwards from an earlier iteration of the Site (covering the OHL alignment, working corridor and a provisional LoD – hereafter collectively the ‘Provisional LoD’) and based on the design information available at the time of survey (see below and **Annex A: Figure 7.2.1: Survey Areas**). Throughout the survey period, study areas were defined following best practice guidance in combination with a review of the anticipated works. For example, land required for associated infrastructure (e.g., access tracks, towers to be dismantled) was identified later. Based on the information available at the time of survey and anticipated potential effects, the survey area for associated infrastructure for all target species was defined as up to 100 m from the centre line of access tracks requiring upgrade or creation and from towers to be dismantled “Associated Infrastructure Survey Area”). The survey areas are shown on **Annex A: Figure 7.2.1: Survey Areas**. The majority of the Site and sufficient surrounding area has been surveyed for the purposes of informing the EAR. Any gaps in data coverage due to changes to the Site boundary are discussed in **Section 2.3: Limitations**.

2.2.5 Extent and timings of this survey effort are presented in **Table 2.1** below.

Table 2.1: Survey Dates and Areas by Target Species

Species	Extent of Survey Area			
Survey Dates	21 – 25 July 2025	18 – 22 August 2025	15 – 18 September 2025	17 – 22 November 2025
Bats	Ground Level Tree Assessment (GLTA) / Potential Roost Assessment (PRA) – Provisional LoD	Potential Roost Feature (PRF) (visit one of two)	PRF Inspection (visit two of three)	GTLA / PRA – Associated Infrastructure Survey Area
Otter (plus incidental beaver records)	Provisional LoD, plus 200 m buffer of watercourses (up and down stream) plus suitable terrestrial habitat		Provisional LoD, plus 200 m buffer where further access had been granted	Associated Infrastructure Survey Area

Species	Extent of Survey Area			
Water vole	Provisional LoD, plus 100 m buffer to watercourses and any suitable habitat		Provisional LoD, plus 100 m buffer where further access had been granted	Associated Infrastructure Survey Area
Pine marten	Provisional LoD, plus 250 m buffer		Provisional LoD, plus 250 m buffer, where further access had been granted	Associated Infrastructure Survey Area
Red squirrel	Provisional LoD, plus 50 m buffer		Provisional LoD, plus 50 m buffer, where further access had been granted	Associated Infrastructure Survey Area
Great crested newt	Waterbodies and suitable terrestrial habitat within the Provisional LoD, plus 250 m buffer		Waterbodies and suitable terrestrial habitat within the Provisional LoD, plus 250 m buffer, where further access had been granted	Waterbodies and suitable terrestrial habitat within the Associated Infrastructure Survey Area
Fish and freshwater pearl mussel	Undertaken of the upstream, midstream and downstream point of watercourses up to 100 m from the Provisional LoD			Associated Infrastructure Survey Area

- 2.2.6 All surveys were undertaken by members of the Chartered Institute of Ecology and Environmental Management (CIEEM), with the lead surveyor being at least 'capable' of species survey design, planning and field work per the CIEEM Competency Framework⁹.
- 2.2.7 Survey methodology employed for each targeted protected species survey is outlined below. Evidence of species was recorded by geo-referenced target notes with representative photos.
- 2.2.8 Incidental sightings of protected and notable species not subject to targeted surveys due to the results of habitat suitability assessment (for example, wildcat and beaver) were recorded during surveys of the Site and are included within the findings of this report.

⁹ CIEEM (2024). Competency Framework [online]. Available at <https://cieem.net/wp-content/uploads/2019/02/Competency-Framework-2024-V7-Web.pdf>

Bats

Ground Level Tree Assessment

- 2.2.9 An initial GLTA and PRA survey was undertaken to identify Potential Roost Features (PRFs) for bats within any woodland habitats, standalone trees, treelines, hedgerows, buildings and structures within the relevant survey areas defined above in Table 1 (hereafter the “Bat Survey Area”), following best practice guidance¹⁰.
- 2.2.10 As per the best practice guidance¹⁰ GLTA is a ground-based visual inspection of trees undertaken by suitably licenced and experienced bat ecologists to search for PRFs suitable to support roosting bats which are assigned classifications in line with **Table 2.2** below. Where needed, a high-powered torch and binoculars were used to further inspect PRFs. Notes on each PRF (if present) were recorded, including extent and location, along with any recommendation for further surveys during the active bat season (May to September, inclusive).
- 2.2.11 Where a tree could not be fully inspected from ground level, a Further Assessment Required (FAR) classification was assigned (**Table 2.2**). Examples of PRFs used by bats for roosting or hibernating in trees include hazard beams, knot holes and decay hollows.

Table 2.2: Guidelines for Assessing Bat Suitability in Trees

Classification	Description
NONE	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further Assessment Required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Potential Roost Assessment

- 2.2.12 Structures within the Bat Survey Area were subject to an external PRA to identify features bats could use to enter the structure/building for roosting and to search for evidence of bats. 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).
- 2.2.13 No additional surveys of structures were undertaken to support the Proposed Development. At the time of survey, the Proposed Development would not encroach within 30 m of buildings or structures and there were no plans to demolish or carry out works on structures, except for those located within the Netherton Hub project boundaries. Further survey conducted within structures located within the redline boundary of Netherton Hub is beyond the scope of this report.

PRF Inspection

- 2.2.14 Following the results of the initial GLTA, trees identified as FAR and PRF within the Bat Survey Area were subject to PRF inspection surveys, undertaken by a team of ecologists with at least one holding a NatureScot bat licence (including hibernacula).
- 2.2.15 PRF inspection surveys included both ground and aerial inspections, utilising ladders, torches, polekam¹¹, aerial tree climbing equipment and endoscope inspection cameras.

¹⁰ Collins, J. (ed) (2023). Bat Surveys for Professional Ecologist: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

¹¹ A telescopic pole survey camera that allows the inspection and recording of features up to 10m in height from the ground.

- 2.2.16 Each identified FAR / PRF tree was inspected in full to identify and categorise PRFs, and to search for evidence indicating use by roosting bats such as droppings, urine staining, and scratch marks / characteristic staining (from fur oils). Further details on the PRFs extent, location and evidence found were recorded.
- 2.2.17 Upon completion of the first PRF inspection survey, the categorisation of the inspected trees' bat roost suitability was reassessed in line with criteria shown in **Table 2.3**.

Table 2.3: PRF Suitability Categories and survey requirements¹⁰

Classification	Description
NONE	Either no PRFs in the tree or highly unlikely to be any. No further surveys required.
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. No further surveys required.
PRF - M	PRF is suitable for multiple bats and may therefore be used as a maternity colony. Requires three visits between May and September, with at least two in the period May to August.

- 2.2.18 Following the completion of the initial GLTA and first PRF inspection, the number of further surveys scheduled for PRF-I and PRF-M trees was proportional to suitability categorisations assigned (as shown in **Table 2.3**. As such, no further PRF inspection surveys were conducted within PRF-I trees. At the time of writing, a total of two separate PRF inspection surveys were conducted within PRF-M trees located within the Bat Survey Area. Further information is provided within **Section 2.3 Assumptions and Limitations**.
- 2.2.19 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 PRF-M suitability during the summertime¹².

Otter

- 2.2.20 Otter surveys were undertaken within watercourses and suitable terrestrial habitat within the relevant survey areas defined in Table 1, where safe access permitted (hereafter "Otter Survey Area"). These are shown in **Annex A: Figure 7.2.1: Survey Areas**.
- 2.2.21 The survey comprised a search for signs of otters following NatureScot standing advice¹³, with reference to industry standard guidance¹⁴, and additional updated evidence-based research^{15,16}.
- 2.2.22 Otter presence can be identified from field signs such as spraints, anal jelly, prints, feeding remains, slipways and worn pathways, and visual sightings.
- 2.2.23 Additionally, a search for resting places was undertaken. Where suitable features for resting sites were identified, these were classed in line with the following definitions:

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

¹³ NatureScot (online). Standing advice for planning consultations – Otters. Available <https://www.nature.scot/doc/standing-advice-planning-consultations-otters>

¹⁴ Chanin, P. (2003). Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.

¹⁵ Findlay, M., and White, P.J.C. (2024). Do UK Survey Licences for Otter Support Best Practice? CIEEM March 2024 Issue 123.

¹⁶ Findlay, M., Briers, R.A., Ingledew, R.P., and White, P.J.C. (2022). An evidence-based approach to identifying resting sites of Eurasian otter *Lutra lutra* from camera-trap and field-sign data. Available at: An evidence-based approach to identifying resting sites of Eurasian otter *Lutra lutra* from camera-trap and field-sign data (researchgate.net)

- **Holt:** underground features providing shelter for otters. Holts can be tunnels within bank sides, underneath root-plates or boulder piles, and man-made 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 sources of 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; and
- **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.

2.2.24 Where a feature was identified but no definitive signs of use recorded, this has been recorded as an 'potential' resting site.

2.2.25 Signs of beaver, and any features suitable to support this species were recorded, if observed during otter surveys.

Otter: Camera Trapping

2.2.26 At the time of survey, three potential resting sites were identified within the Otter Survey Area. To confirm status, the potential otter resting sites were subject to a minimum four-week programme of camera trap monitoring, working under the conditions of a NatureScot otter licence (licence number 271618). Camera trap footage was subsequently analysed, and the nature of otter activity recorded (if any) within the potential resting site, with full details provided within **Annex B: Table B-5**.

Water Vole

2.2.27 Water vole surveys were undertaken within watercourses and burns (minor watercourses) within the relevant survey areas defined in Table 1, where access was possible (hereafter "Water Vole Survey Area") as shown in **Annex A: Figure 7.2.1: Survey Areas**.

2.2.28 Survey methods followed NatureScot standing advice¹⁷, standard Mammal Society guidance¹⁸ and practical survey guides for field signs and habitat suitability assessment¹⁹.

2.2.29 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.

2.2.30 The survey comprised a single visit to each watercourse incorporating three elements:

- A walked survey of the entire length of the watercourses within the Water Vole Survey Area to conduct a thorough visual inspection of the banks and immediate vicinity for visual sightings of water voles or their field signs;

¹⁷ NatureScot (online). Standing advice for planning consultations – Water Voles. Available: <https://www.nature.scot/doc/standing-advice-planning-consultations-water-voles>

¹⁸ Dean, M., Strachan, R., Gow, D., Andrews, R., Matthews, F., Chanin, P. (2016) The Water Vole Mitigation Handbook. The Mammal Society Mitigation Guidance Series.

¹⁹ Dean, M (2021) Water Vole Field Signs and Habitat Assessment. Pelagic Publishing.

- Field signs include faeces, latrines, feeding stations, burrows, 'lawns', nests, footprints and runways in vegetation. This walked survey includes the collection of droppings where present and of suitable appearance of water vole to be taken for deoxyribonucleic acid (DNA) testing to EcoWarwicker Ecological Forensics²⁰ to confirm the species is water vole²¹;
- The recording of habitat variables and features relevant to water voles (for example general habitat type, shore/bank substrate, bordering land use, vegetation, disturbance level, bank profile, water depth); and
- The recording of any field signs or evidence relating to other relevant wildlife (for example otter, or invasive predatory species such as American mink *Neovision vison* or brown rat *Rattus norvegicus*).

Pine Marten

2.2.31 Pine marten surveys involved a systematic search for signs of pine marten presence and potential den sites with reference to survey guidance from UK BAP Mammals²² and NatureScot standing advice²³. The search covered all suitable habitats within the relevant survey areas defined in Table 1, where safe access permitted (hereafter "Pine Marten Survey Area").

2.2.32 This search involved looking for the following field signs:

- 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;
- 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; and
- Visual sightings, most likely possible as incidental records can be gathered during dusk or dawn surveys for other species (e.g., breeding birds or bats).

2.2.33 Where a feature was identified but no definitive signs of use recorded, this has been recorded as an 'opportunity'.

Red Squirrel

2.2.34 A walkover survey for red squirrel was undertaken following guidance outlined by Forestry Commission²⁴ and in accordance with survey guidance for initial non-intrusive visual surveys²⁵ and NatureScot standing advice²⁶. The search covered woodlands within the relevant survey areas, where safe access permitted (hereafter "Red Squirrel Survey Area").

2.2.35 The woodland habitat was systematically searched for evidence of red squirrel, with field signs including:

- Visual sightings;

²⁰ EcoWarwicker Ecological Forensics. Available at: <https://www.ecowarwickerforensics.com/>

²¹ Other vole species such as bank vole and field vole could be misidentified, so DNA analysis can provide definitive proof of the presence of water vole.

²² Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trehwella, W.J., Wells, D. and Wray, S. (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. The Mammal Society, Southampton.

²³ NatureScot (online). Standing advice for planning consultations – Pine martens. Available: <https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens>

²⁴ Gurnell, J., Lurz, P., McDonald, R., and Pepper, H. (2009). Practical techniques for surveying and monitoring squirrels. Forest Research, Surrey.

²⁵ Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trehwella, W.J., Wells, D. & Wray, S. (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. Southampton, UK: The Mammal Society

²⁶ NatureScot (online). Standing advice for planning consultations – Red squirrels. <https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels>

- Prints;
- Foraging signs: including chewed or stripped cones with top section remaining untouched, which are often discarded on prominent features at feeding stations.; and
- Dreys: nest sites visible within trees (can be coniferous 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 close to the trunk.

Great Crested Newt and other amphibians

Habitat Suitability Assessment

2.2.36 A Habitat Suitability Index (HSI) assessment of ponds within the relevant survey areas defined in Table 1 (hereafter 'GCN Survey Area') and a search of suitable terrestrial habitat for the non-breeding stage of the lifecycle was undertaken following current best practice methods^{27,28}.

2.2.37 Ponds were assessed and scored on ten key variables which are known to influence breeding populations of GCN, in accordance with standard methods²⁹ These variables are:

- 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.

2.2.38 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.

2.2.39 Incidental evidence of other amphibian species was also recorded within ponds and waterbodies assessed for GCN.

Fish

2.2.40 A Habitat Suitability Assessment was undertaken at upstream, midstream and downstream points of watercourses within the relevant survey areas defined in Table 1 (hereafter 'Fish Survey Area'). The assessment was based on standard field sign assessment methodology (summarised below)³⁰, supplemented by the identification of incidental field signs and aided by professional experience and judgement.

2.2.41 Within three points of the watercourses (upstream, midstream and downstream), suitability of standing and running water for fish, and macro-invertebrate assemblage was assessed concurrently to otter surveys conducted within the same watercourses. Any incidental features of relevance to

²⁷ Amphibian and Reptile Groups of the United Kingdom (2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. ARG UK, UK

²⁸ Oldham R.S., Keeble J., Swan M.J.S., and Jeffcote M. (2000) Evaluating the suitability of habitat for the great crested newt. Herpetological Journal 10: 143-155

²⁹ 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

³⁰ Scottish Fisheries Coordination Centre (2007). Habitat Surveys Training Course Material.

fish were noted such as substrate for spawning e.g. gravel beds, along with obvious signs of management, erosion, pollution and poaching. Migratory connectivity was also assessed using SFCC³⁰ guidance of the watercourses present on an OS 1:50,000 map.

2.3 Assumptions and Limitations

- 2.3.1 Faunal species are transient and can move between favoured habitats regularly throughout and between years. The baseline represents 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 management³¹. For bats, NatureScot state 'pre-application bat surveys normally remain valid for two more survey periods and should be repeated if the application is going to be delayed beyond the start of the third survey period'³².
- 2.3.2 In some parts of the survey areas, habitats were not fully accessible or visible due to dense impenetrable vegetation (including gorse and hawthorn) obscuring watercourses, banksides and treelines. As such the presence of species such as otter, brown hare, European hedgehog, and others cannot be ruled out within these areas. Assumptions were made on the likely habitat suitability within these areas, by surveying at a distance using binoculars.

Access Restriction and Survey Schedule

- 2.3.3 The area of land which is now defined as the Site has evolved through the design and planning stages to incorporate access tracks and changes to the LoD. In some places, the Site has been extended into the buffer distances surveyed for species. This does not substantially limit the baseline dataset, as most of the Site has been surveyed for each target species (where access was permitted). Any data gaps beyond the Site because of this tend to be in the periphery of the various survey areas, where protected species are less likely to be at risk of being affected by the Proposed Development. In some places, the Site's extent has reduced meaning that surveys have covered ground beyond minimum guidelines at these locations – any 'extra' data has been retained to provide additional context and supplement understanding of the Site's baseline.
- 2.3.4 Access to the Site and surrounding area was restricted in multiple areas, due to constraints such as presence of livestock, agricultural operations and landowner refusal at the early stages of survey planning. Assumptions were made on the likely habitat suitability within these areas, by surveying at a distance using binoculars if access had not been granted.
- 2.3.5 Three survey attempts were made over the course of the project's design and planning stage to cover as much ground as possible, as the Site's extent evolved and access permissions were granted (see **Table 2.1**). For full transparency, the survey areas, Site boundary, and access constraints have been presented on **Annex A Figure 7.2.1: Survey Areas**.
- 2.3.6 Due to aforementioned access constraints, only a single water vole survey was conducted within the 2025 active season within the Water Vole Survey Area. Positive field signs pertaining to water vole were identified during this first survey. Water vole surveys best practice guidance states two surveys in the water vole season should be conducted. The second survey is currently scheduled for summer 2026. Results of this second survey will be presented separately within an addendum report.
- 2.3.7 Due to access constraints, bat PRF inspection survey of trees classified as PRF-M have thus far encompassed two separate PRF inspection surveys, completed during the 2025 active bat season.

³¹ 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/>

³² NatureScot. Standing advice for planning consultations- Bats. Available: <https://www.nature.scot/doc/standing-advice-planning-consultations-bats>

Bat survey guidance states a total of three separate PRF inspections should be completed within the active bat season within PRF-M trees. The final PRF inspection is currently scheduled for the 2026 active bat season within the Bat Survey Area. Results of this survey will be presented separately within an addendum report.

- 2.3.8 Three ponds within the GCN Survey Area returned at least a 'below average' or greater suitability for GCN during the HSI assessment. An additional two ponds have been identified within the Site during a desk-based habitat review, following changes to the design – central to the southern extent of existing OHL to be dismantled. Following best practice methods³³, environmental DNA (eDNA) surveys have been scheduled to take place within the three ponds requiring further surveys following HSI assessment, as well as the two extra ponds, during the spring / summer of 2026. Surveys were not conducted of these ponds during the 2025 survey season due to access constraints. Results of the eDNA survey will be presented separately, within an addendum report.
- 2.3.9 A precautionary approach has been taken when assessing potential effects and prescribing mitigation measures in **Chapter 7: Ecology** of the **EAR**.

³³ Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn F (2014). Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA. Freshwater Habitats Trust, Oxford.

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 SBL⁶ and as Locally Important Species identified by NESBiP⁸ is also noted. Specific target notes gathered during the surveys are provided in **Annex B** and their locations are shown on figures referenced throughout this section, which are provided in **Annex A**.

3.2 Bats

- 3.2.1 As European Protected Species (EPS), bats are fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). All bat species likely found in this geographical region are SBL priority species.

Desk Study

- 3.2.2 No commercially available records of bats were identified up to 5 km from the Site on NBN Atlas.

Trees

- 3.2.3 Following the completion of the GLTA, 52 trees were categorised as FAR or PRF within the Bat Survey Area and were subject to further survey.
- 3.2.4 As such, PRF inspection surveys were completed within the 52 trees identified as having potential suitability for use by roosting bats at the GLTA stage within the Site. No evidence of roosting bats (both current and historic) was noted during the suite of PRF inspection surveys completed within the Bat Survey Area.
- 3.2.5 After PRF inspections, trees were re-categorised as:
- PRF-M: 7;
 - PRF-I: 34; and
 - None: 11.
- 3.2.6 **Annex B: Table B-1** contains the results of the initial tree GLTA and subsequent PRF inspections. **Annex A Figure 7.2.2: Bat Survey Results** shows the locations of the trees identified as having suitability for roosting bats.

Structures

- 3.2.7 Eight structures were identified within the Site and Associated Infrastructure Area. **Annex B: Table B-2** contains results of the PRA of the identified structures. **Annex A Figure 7.2.2: Bat Survey Results** shows the location of the structures.
- 3.2.8 This included a collection of dilapidated farm and residential buildings which overlaps with the proposed boundary of the Netherton Hub project (referred to as **S2**). During surveys to inform the Netherton Hub development, this structure was classified as having moderate suitability to support roosting bats in summer (active season) and moderate suitability to support roosting bats in winter (hibernation season).
- 3.2.9 Furthermore, an additional area of five separate dilapidated farm buildings and outbuildings was identified within the Site (referred to as **S3 – S7**). These buildings were found to be in a state of disrepair and offered suitable features for roosting bats within both the active and hibernation season. No further surveys were conducted within structures located within the Site.

3.3 Otter

- 3.3.1 As a European Protected Species (EPS), the otter is fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and it is a SBL priority species.
- 3.3.2 Commercially available records of otter were identified on NBN Atlas within 2 km of the Site. These records were located in the North Ugie Water, south of Millbank, and South of Crimmond. All records were from the Scottish Mink Initiative, which is a project that monitored the presence of American mink in watercourses in Scotland.
- 3.3.3 Evidence of otter in the form of spraint (referred to as **O5**) was recorded along a small burn which joins downstream to the Burn of Ludquharn. Otters are likely to use other burns and ditches which cross the Otter Study Area, which were found to offer suitable commuting habitat (**O1 and O3**). **Annex A Figure 7.2.3: Protected Species Survey Results** shows the recorded evidence from the survey, with further details provided within **Annex B: Table B-3**.
- 3.3.4 Three potential resting opportunities were recorded during the surveys. Two potential resting opportunities (potential underground resting sites) (**O2 and O4**) were found to comprise of secluded mammal holes along the embankment of slow flowing ditches. During the course of camera trapping, no evidence of otter was recorded.
- 3.3.5 The final potential resting opportunity (holt-type structure) (**O6**) was recorded along a small burn which joins the Burn of Ludquham downstream. This feature consisted of a tunnel system under a hawthorn root plate. No positive evidence of otter was recorded during the 6-week camera trap monitoring undertaken at the three identified features, and as such are no longer considered potential resting sites.

3.4 Water Vole

- 3.4.1 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. Water vole is an SBL priority species.
- 3.4.2 No commercially available records of water vole were identified on NBN Atlas within 2 km of the Site.
- 3.4.3 Evidence of water vole recorded within the Water Vole Survey Area, included potential burrows (referred to as **WV4 - WV6** and **WV8 – WV10**, **Annex B: Table B-3**) recorded along a slow flowing modified ditch, downstream to the Burn of Ludquham (see **Annex A Figure 7.2.3: Protected Species Survey Results**). In the same location ample droppings – presumed to be water vole - were recorded (**WV7**), along with anecdotal evidence from the landowner of water vole presence.
- 3.4.4 To the centre of the Site, further potential water vole droppings were collected in August 2025 DNA testing (**WV23**). The DNA from samples collected at **WV23** could not be identified by analysis to a specific species and were inconclusive. That these droppings were made by water vole cannot therefore be discounted.
- 3.4.5 Overall, the Water Vole Survey Area contains drainage ditches that would be categorised as 'good' habitat due to the presence of highly suitable steep bank sides, with bankside or instream vegetation cover and water present, as per the guidance¹⁹ (**WV1, WV2 and WV18 – WV22**). However, other ditches present in the Water Vole Survey Area would be categorised as 'suitable but poor'¹⁹ (**WV24 and WV25**). This is due to the ditches being dry for much of the year meaning water voles would be less likely to use them, but supporting other characteristics present such as steep banks, vegetation cover and proximity to other suitable areas of water.

- 3.4.6 Water voles in North East Scotland have been documented to live as metapopulations, which comprise a network of fragmented colonies with low numbers of individuals³⁴. The species is able to retain genetic diversity through dispersal and movement between sites and new suitable habitat within a metapopulation³⁵. Therefore, areas in which water voles have previously been inhabiting may have been abandoned since, but the possibility for re-habitation remains. Therefore, the presence of water vole within the Site and the wider Water Vole Survey Area cannot be ruled out.

3.5 Pine Marten

- 3.5.1 The pine marten receives full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) meaning both the animals and their places of shelter or protection are protected. It is an SBL priority species.
- 3.5.2 No commercially available records of pine marten were identified on NBN Atlas within 2 km of the Site; however, pine marten have been incidentally recorded during ecological assessments of nearby infrastructure projects⁵.
- 3.5.3 During a suite of camera trapping of a mammal hole (**O4, Annex B: Table B-5**), a single adult pine marten was incidentally recorded commuting within the Site (**PM4**), but no evidence of the individual using a place of shelter was recorded at this time.
- 3.5.4 Occasional small scale commercial woodland blocks within the Pine Marten Survey Area contained features with suitability to support pine marten commuting and foraging. Within one woodland, a potential pine marten scat was recorded (**PM2**) under a mature Sitka spruce. Two potential areas of suitable habitat for pine marten denning (**PM1 and PM3**) were recorded within the Site, comprising of large boulders which may provide coverage for pine marten, but no evidence of use by pine marten was recorded. No further field signs were recorded within this area to confirm use.

3.6 Red Squirrel

- 3.6.1 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 priority species.
- 3.6.2 Records of red squirrels were reported³ between 2020-2024 within the local area including sightings around Mintlaw to the west of the Site (with the closest record occurring approximately 5 km from the Site). These records were all clustered around areas of larger woodland and more optimal red squirrel habitat (Aden Country Park, Drinnie's Wood and large blocks of plantation woodland).
- 3.6.3 Surveys focussed upon the small stands of woodland habitats. No field signs of red squirrel (or the non-native grey squirrel *Sciurus carolinensis*) were recorded during the survey efforts undertaken. Woodlands within the Red Squirrel Survey Area were considered to be suboptimal for use by red squirrel due to lack of continuous large woodland cover and lack of connectivity to suitable resources in the wider area. The wider surrounds where records have been made are not well connected to the Site, and therefore it is considered unlikely the Site and wider Red Squirrel Survey Area support breeding red squirrel. The presence of commuting red squirrel is considered unlikely but given the local population, cannot be ruled out.

³⁴ Stewart, W. A., Dallas, J. F., and Piertney, S.B. (1999). Metapopulation Genetic Structure in the Water Vole, *Arvicola terrestris*, in NE Scotland, Biological Journal of the Linnean Society, 68: 159 – 171.

³⁵ Aars, J., Lambin, X., Denny, R. and Griffin, A. (2001). Water Vole in the Scottish Uplands: Distribution Patterns of Disturbed and Pristine Populations Ahead and Behind the American Mink Invasion Front. Animal Conservation 4, 187 – 194.

3.7 Scottish Wildcat

- 3.7.1 The Scottish wildcat is fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an SBL priority species.
- 3.7.2 No commercially available records of Scottish wildcat were identified from the NBN Atlas within 2 km of the Site and are unlikely present in North East Scotland²².
- 3.7.3 It was concluded in 2019 that the Scottish wildcat population was no longer viable without reinforcement or reintroduction³⁶. Thereafter, conservation efforts have been/will be (2019-2026) focussed on captive breeding of wildcats and reintroduction to the Cairngorms National Park (SavingWildcats, SWAforLife project)³⁷.
- 3.7.4 Initial habitat suitability assessments determined that suitable habitat or features to support Scottish wildcat were unlikely to be present within the Site. As such, targeted surveys for this species were not undertaken. Furthermore, no incidental field signs were recorded during surveys. This species is considered likely absent from the Site and surrounding area.

3.8 Beaver

- 3.8.1 Beavers are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) as EPS.
- 3.8.2 No commercially available records of beaver were identified from the NBN Atlas within 2 km of the Site.
- 3.8.3 Initial habitat suitability assessments determined that habitat or features to support beaver were unlikely to be present within the Site. As such, targeted surveys for this species were not undertaken. Furthermore, no field signs of beaver were identified incidentally during surveys of the burns and ditches for otter and water vole. This species is therefore considered likely absent from the Site and surrounding area.

3.9 Reptiles

- 3.9.1 Native reptiles in Scotland are given limited protection under the Wildlife and Countryside Act 1981 (as amended). All native reptiles are SBL priority species.
- 3.9.2 No commercially available records of reptiles, such as common lizard *Zootoca vivipara* or slow worm *Anguis fragilis* were identified on NBN Atlas within 2 km of the Site. However, common lizard has been recorded within the wider area³⁸.
- 3.9.3 Reptiles prefer successional habitats with a degree of heterogeneity. Optimal habitat includes vegetated and/or rocky areas for shelter, and open areas for basking³⁹. The Site contains 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. However, there are areas of piled stones around field margins that would provide limited but high-quality basking habitat for reptiles (**PM1**), and limited hibernacula potential. The Site is unlikely to qualify as a Key Reptile Site with reference to criteria in the Froglife advice note⁴⁰, but the presence of a small population of widespread species such common lizard and slow worm remains possible in discrete locations of the Site and surrounds.

³⁶ 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>

³⁷ NatureScot (2023). National effort needed to save Scottish wildcat. Available at: <https://www.nature.scot/national-effort-needed-save-scottish-wildcat>

³⁸ The Record Pool (Online). Available: <https://www.recordpool.org.uk/>

³⁹ 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/>

⁴⁰ 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>

3.10 Great Crested Newt and Other Amphibians

- 3.10.1 GCN has full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an SBL priority species.
- 3.10.2 No commercially available records of GCN or other amphibians were identified on NBN Atlas within 2 km of the Site and GCN are not known to be present within the North East of Scotland⁴¹.
- 3.10.3 Four ponds were identified within the GCN Survey Area (**GCN1 – GCN4**) and were subject to HSI assessment. Of the ponds surveyed in the field, the HSI assessment resulted in one pond scoring 'Average' (**GCN1**), two ponds scoring 'Below Average' (**GCN2 and GCN4**) and one pond (**GCN3**) scoring 'Poor'. The calculations are presented in **Annex B: Table B-4**. These ponds are shown on **Annex A Figure 7.2.3: Protected Species Survey Results**.
- 3.10.4 An additional two ponds have been identified within the Site during a desk-based habitat review, following changes to the design – central to the southern extent of existing OHL to be dismantled.
- 3.10.5 The expanse of grazing pasture within the Site was considered to be broadly unsuitable for GCN. Isolated areas dominated by rush and tree lines/ hedgerows/ scrub along field boundaries were perceived largely disconnected to ponds in the wider area. The Site is located in a geographical region which is considered broadly unsuitable for breeding GCN⁴¹. In the absence of eDNA survey results (scheduled for June 2026), a precautionary approach to the potential presence of GCN will be taken, until further data has been acquired.
- 3.10.6 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.
- 3.10.7 Common toad was recorded on two separate occasions in an area of willow scrub, adjacent to a small pond, to the west of the Site north of Nether Kinmundy (**TN1 and TN2, Annex B: Table B-3**). These ponds are shown on **Annex A Figure 7.2.3: Protected Species Survey Results**.
- 3.10.8 The remaining watercourses, ponds, and ditches in slower stretches were considered suitable for breeding and foraging common toads and other widespread amphibian species, therefore their presence within these habitats and surrounds remains possible.

3.11 Fish

- 3.11.1 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 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.
- 3.11.2 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.
- 3.11.3 European eel *Conger conger* is a SBL priority species.
- 3.11.4 None of the water bodies present within the Site were recorded on SEPA's water classification hub⁴. However, there are a number of unnamed ditches and burns within the Site. These smaller water

⁴¹ 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.

bodies were found to flow into larger burns downstream and outwith the Site, such as the Burn of Ludquharn, and Faichfield Burn, which are both located within the wider River Ugie catchment.

- 3.11.5 No evidence of fish was recorded during surveys of watercourses. In general, burns were found to be unsuitable to support fish species, being composed of highly modified with steep banks, often choked with tall grasses and rushes, with evidence of influence from agricultural activities such as sediment run off and poaching. Waterbodies were also found to be silted across all sections and appeared nutrified. As such, ditches and waterbodies within the Site were considered less suitable to support salmonid spawning.

3.12 Freshwater Pearl Mussel

- 3.12.1 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. Freshwater pearl mussel is a SBL priority species
- 3.12.2 No commercially available records of freshwater pearl mussel were identified on NBN Atlas within 2 km of the Site.
- 3.12.3 The ditches and burns within the Survey Area that were surveyed were considered unsuitable for supporting freshwater pearl mussel due to a combination of being silted across all sections, unsuitable substrate, limited instream cover in the form of boulders and the watercourses appeared nutrified.

3.13 Terrestrial Invertebrates

- 3.13.1 The hedgerows, field margins and pastoral grassland provide suitable habitat for a range of widespread terrestrial invertebrates.
- 3.13.2 The vast majority of the mosaic of grazed grassland and arable fields throughout the Site and wider Survey Area does not offer suitable habitat for a diverse range of invertebrates.

3.14 Other Species

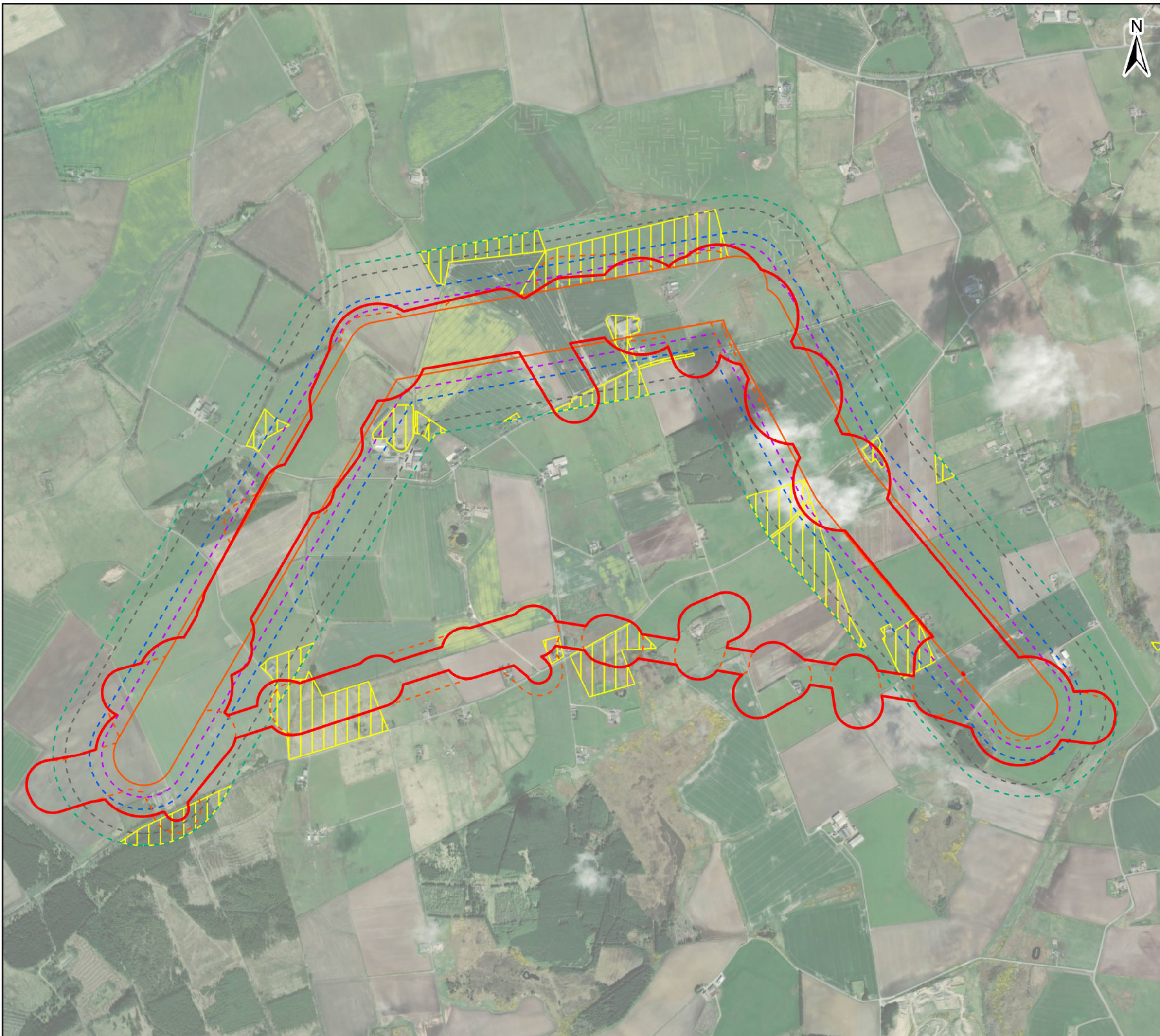
- 3.14.1 Brown hare (SBL priority species) was incidentally recorded across the Site and Associated Infrastructure (**TN3**) during surveys with suitable habitat such as field margins and tall grassland, present throughout. A total of nine observations of brown hare were made within the desk study.
- 3.14.2 There were no incidental sightings of hedgehog (SBL priority species) during surveys, however the mosaic of farmland, grassland and woodland and hedgerow edge habitats could support foraging, sheltering and hibernating hedgehogs.
- 3.14.3 Water shrew (NESBiP Locally Important Species⁸) was not incidentally recorded during surveys for other species, however the ditches and watercourses across the Site could be suitable to support this species.

4. CONCLUSION

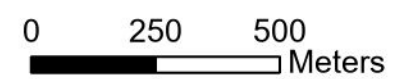
- 4.1.1 The ecological baseline of the Site and surrounding area has been established through desk-based studies and field surveys. This information has been used to inform **Chapter 7: Ecology** of the EAR. In relation to protected and priority faunal species, the following has been concluded.
- 4.1.2 Definitive evidence of the following protected and notable species has been recorded during field surveys of the Site plus relevant species-specific buffers and Associated Infrastructure Survey Area:
- Otter;
 - Water vole;
 - Pine marten;
 - Brown hare; and
 - Common toad.
- 4.1.3 No definitive signs were recorded of the following protected species. Based on habitat suitability, it is unlikely that there will be regularly occurring or significant populations of the following species within the Site and wider Survey Area, but their occasional presence cannot be ruled out:
- Bats (roost and activity);
 - Red squirrel;
 - Great crested newt;
 - Common lizard, slow worm; and
 - Salmonids.
- 4.1.4 The following protected species are considered likely absent from the Site and surrounding area:
- Scottish wildcat;
 - Beaver; and
 - Freshwater pearl mussel.
- 4.1.5 The Site could support the following conservation priority species as suitable habitat is present on Site however there were no/limited observations across each Site visit:
- Hedgehog;
 - Water shrew; and
- Terrestrial invertebrates.

ANNEX A: FIGURES

- Figure 7.2.1: Survey Areas and Access Constraints
- Figure 7.2.2: Bat Survey Results
- Figure 7.2.3: Protected Species Survey Results



- Key**
- Site
 - Bat Survey Area
 - Associated Infrastructure Survey Area
 - Red Squirrel Survey Area
 - Badger and Water Vole Survey Area
 - Otter Survey Area
 - Pine Marten and GCN Survey Area
 - Access Constraints



Client:	 Scottish & Southern Electricity Networks TRANSMISSION
Project:	New Deer to Peterhead Overhead Line Tie - In
Title	Figure 7.2.1 – Survey Areas and Access Constraints
Date: 07/04/2026	Scale: @ A3
Drawn: AT	Checked: JD
Approved: NM	
Drawing Number: NEW-DEER-ECO-SURVEY-AREA	



Key

- Associated Infrastructure Survey Area
- Site
- Bat Survey Area
- Access Constraints

Bat Structures Potential Roost Assessment (PRA) Results

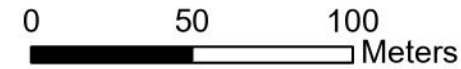
Suitability

- Low
- Moderate

Bat Tree Potential Roost Inspection (PRF) Results

Suitability

- NONE
- PRF-I
- PRF-M



Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.2 – Bat Survey Results
Page 1 of 5

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-BAT-SURVEY-RESULTS



Key

- Associated Infrastructure Survey Area
- Site
- Bat Survey Area
- Access Constraints

Bat Structures Potential Roost Assessment (PRA) Results

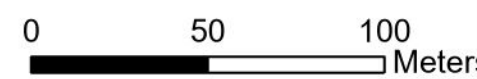
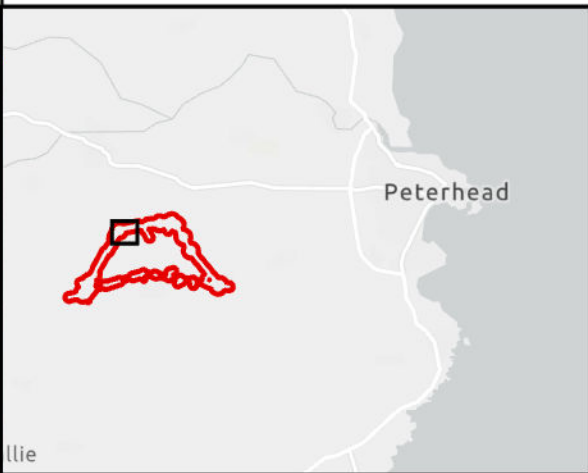
Suitability

- Low
- Moderate

Bat Tree Potential Roost Inspection (PRF) Results

Suitability

- NONE
- PRF-I
- PRF-M



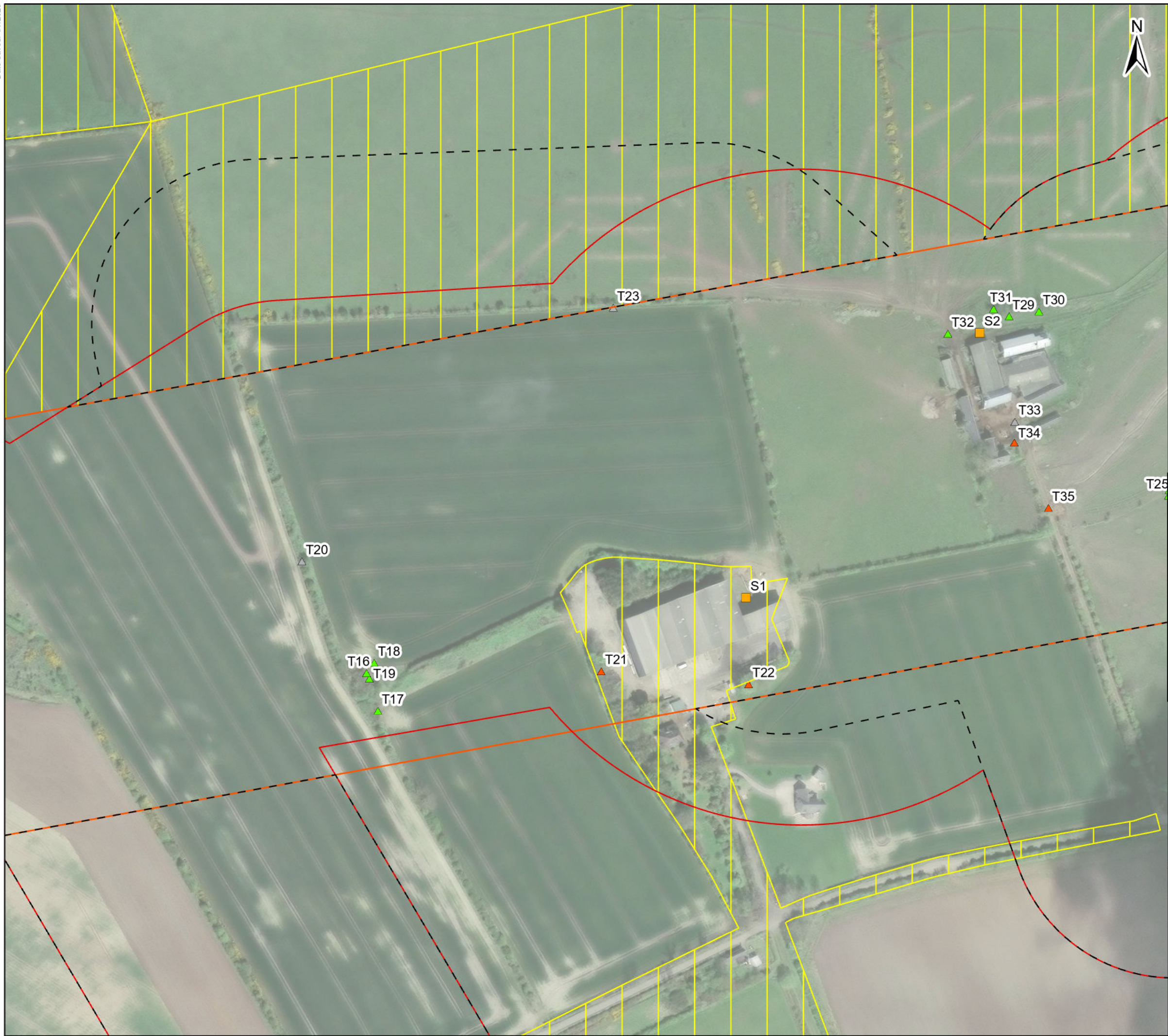
Client:  **Scottish & Southern**
Electricity Networks

TRANSMISSION

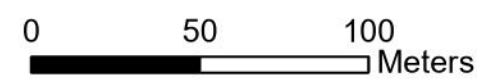
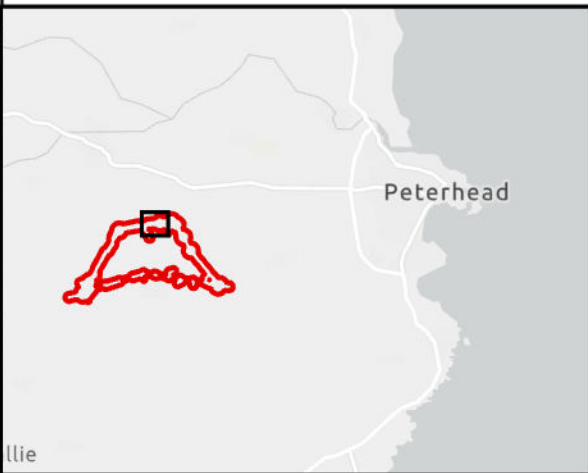
Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.2 – Bat Survey Results
Page 2 of 5

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-BAT-SURVEY-RESULTS



- Key
- Associated Infrastructure Survey Area
 - Site
 - Bat Survey Area
 - Access Constraints
- Bat Structures Potential Roost Assessment (PRA) Results
- Suitability
- Low
 - Moderate
- Bat Tree Potential Roost Inspection (PRF) Results
- Suitability
- NONE
 - PRF-I
 - PRF-M



Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.2 – Bat Survey Results
Page 3 of 5

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-BAT-SURVEY-RESULTS



Key

- Associated Infrastructure Survey Area
- Site
- Bat Survey Area
- Access Constraints

Bat Structures Potential Roost Assessment (PRA) Results

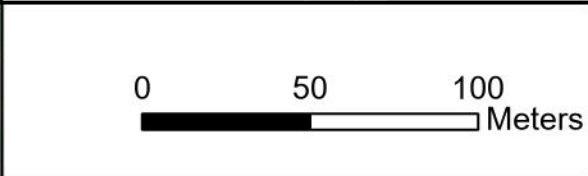
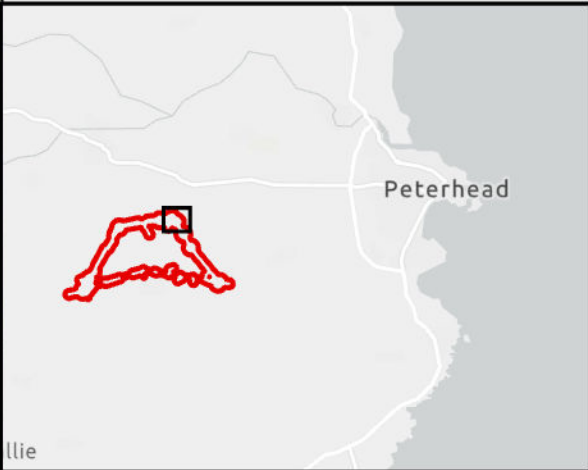
Suitability

- Low
- Moderate

Bat Tree Potential Roost Inspection (PRF) Results

Suitability

- NONE
- PRF-I
- PRF-M



Client:  **Scottish & Southern**
Electricity Networks

TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.2 – Bat Survey Results
Page 4 of 5

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-BAT-SURVEY-RESULTS



Key

- Associated Infrastructure Survey Area
- Site
- Bat Survey Area
- Access Constraints

Bat Structures Potential Roost Assessment (PRA) Results

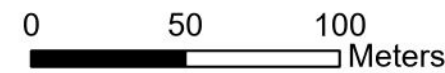
Suitability

- Low
- Moderate

Bat Tree Potential Roost Inspection (PRF) Results

Suitability

- NONE
- PRF-I
- PRF-M



Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

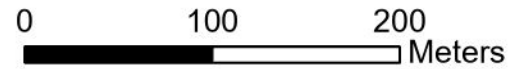
Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.2 – Bat Survey Results
Page 5 of 5

Date: 07/04/2026 **Scale:** @ A3
Drawn: AT **Checked:** JD **Approved:** NM
Drawing Number: NEW-DEER-BAT-SURVEY-RESULTS



- Key**
- Site
 - Bat Survey Area
 - Associated Infrastructure Survey Area
 - Red Squirrel Survey Area
 - Badger and Water Vole Survey Area
 - Otter Survey Area
 - Pine Marten and GCN Survey Area
 - Access Constraints
- Other incidental species (TN)**
- Brown Hare

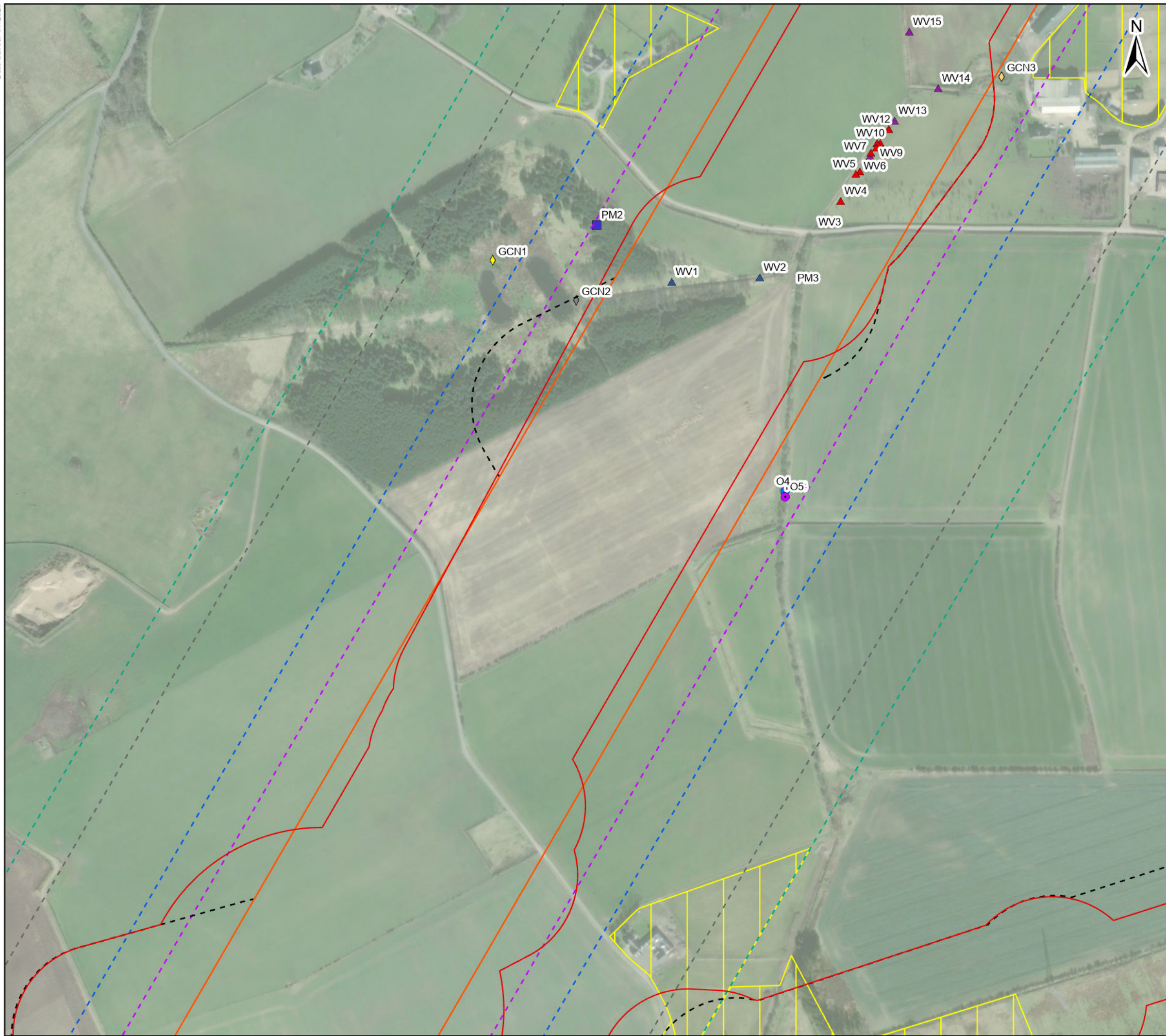


Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project:
New Deer to Peterhead Overhead Line
Tie - In

Title
Figure 7.2.3 – Protected Species Survey Results
Page 1 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



Key

- Site
- Bat Survey Area
- Associated Infrastructure Survey Area
- Red Squirrel Survey Area
- Badger and Water Vole Survey Area
- Otter Survey Area
- Pine Marten and GCN Survey Area
- Access Constraints

Otter Survey Results (O)

Field sign

- Potential resting site
- Spraint

Water Vole Survey Results (WV)

Field Sign

- Droppings
- Potential water vole burrow
- Suitable habitat

Pine Marten (PM)

Field sign

- Potential scat

Great Crested Newt (GCN) Habitat Suitability Assessment

Suitability score

- Average
- Below Average
- Poor

0 100 200 Meters

Client: **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 2 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



Key

- Site
- Bat Survey Area
- Associated Infrastructure Survey Area
- Red Squirrel Survey Area
- Badger and Water Vole Survey Area
- Otter Survey Area
- Pine Marten and GCN Survey Area
- Access Constraints

Otter Survey Results (O)

Field sign

- Potential resting site
- Suitable habitat

Water Vole Survey Results (WV)

Field Sign

- Burrows - species unknown
- Droppings
- Potential water vole burrow
- Suitable habitat

Pine Marten (PM)

Field sign

- Potential scat

Great Crested Newt (GCN) Habitat Suitability Assessment

Suitability score

- Average
- Below Average
- Poor

Other incidental species (TN)

- Common Toad
- Weasel

0 100 200 Meters

Client: Scottish & Southern Electricity Networks

TRANSMISSION

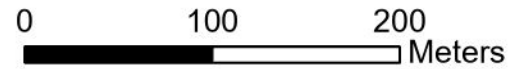
Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 3 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



- Key**
- Site
 - Bat Survey Area
 - Associated Infrastructure Survey Area
 - Red Squirrel Survey Area
 - Badger and Water Vole Survey Area
 - Otter Survey Area
 - Pine Marten and GCN Survey Area
 - Access Constraints
- Otter Survey Results (O)**
- Field sign
- Potential resting site
- Water Vole Survey Results (WV)**
- Field Sign
- Potential water vole burrow
 - Suitable habitat

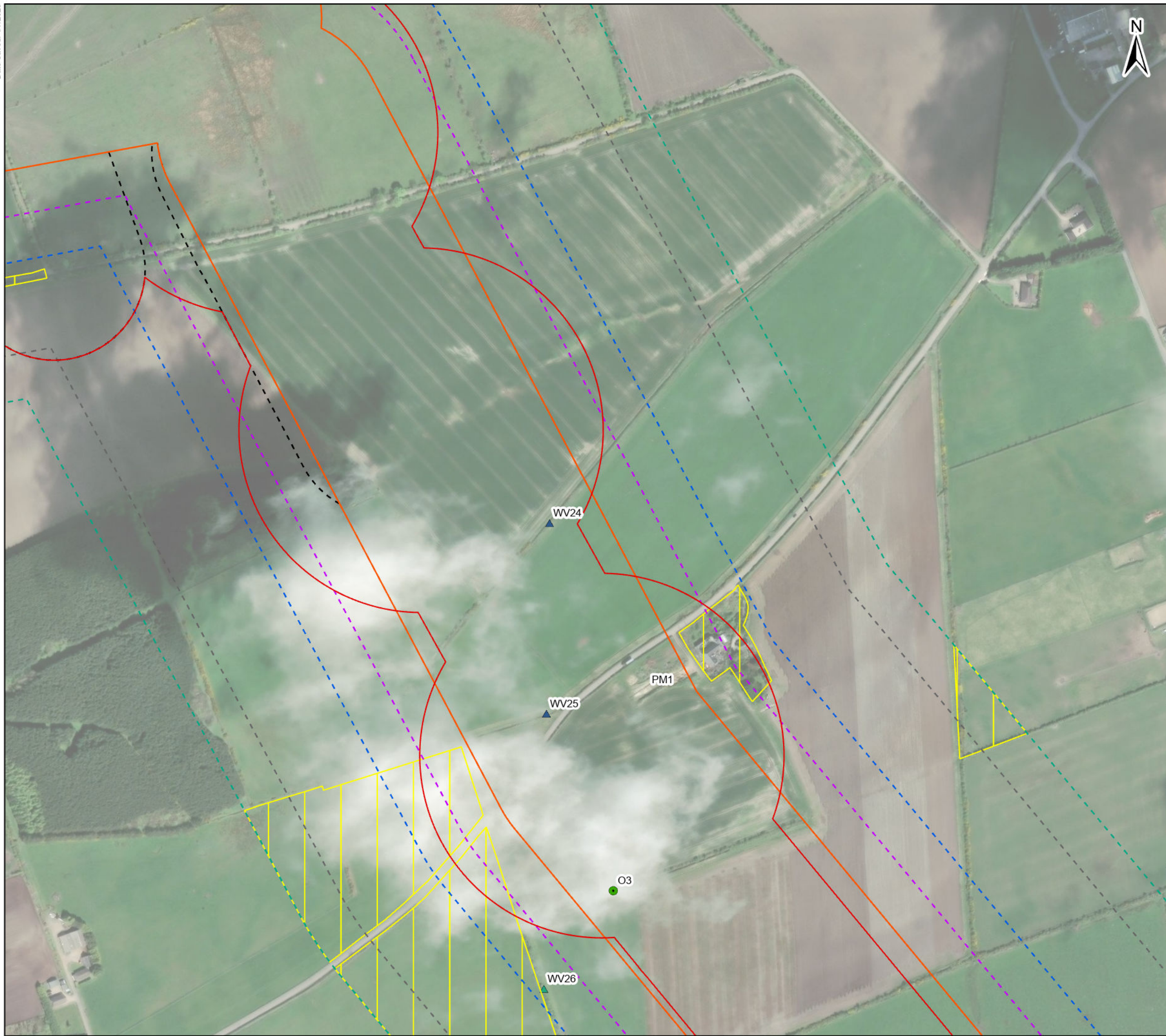


Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

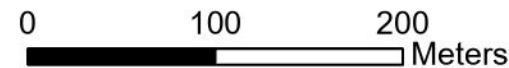
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 4 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



- Key**
- Site
 - Bat Survey Area
 - Associated Infrastructure Survey Area
 - Red Squirrel Survey Area
 - Badger and Water Vole Survey Area
 - Otter Survey Area
 - Pine Marten and GCN Survey Area
 - Access Constraints
- Otter Survey Results (O)**
- Field sign
- Suitable habitat
- Water Vole Survey Results (WV)**
- Field Sign
- Burrows - species unknown
 - Suitable habitat



Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line
Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 5 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



Key

- Site
- Bat Survey Area
- Associated Infrastructure Survey Area
- Red Squirrel Survey Area
- Badger and Water Vole Survey Area
- Otter Survey Area
- Pine Marten and GCN Survey Area
- Access Constraints

Otter Survey Results (O)

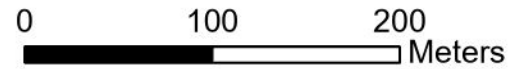
Field sign

- Suitable habitat

Water Vole Survey Results (WV)

Field Sign

- Burrows - species unknown



Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 6 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES



Key

- Site
- Bat Survey Area
- Associated Infrastructure Survey Area
- Red Squirrel Survey Area
- Badger and Water Vole Survey Area
- Otter Survey Area
- Pine Marten and GCN Survey Area
- Access Constraints

Otter Survey Results (O)

Field sign

- Potential resting site

Water Vole Survey Results (WV)

Field Sign

- Burrows - species unknown

0 100 200 Meters

Client: **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: Figure 7.2.3 – Protected Species Survey Results
Page 7 of 7

Date: 07/04/2026 Scale: @ A3
Drawn: AT Checked: JD Approved: NM
Drawing Number: NEW-DEER-PROTECTED-SPECIES

ANNEX B: TARGET NOTES, SURVEY RESULTS AND PHOTOS

Table B-1: GLTA and PRF Tree Results

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T1	Ash (<i>Fraxinus excelsior</i>)	Butt rot at base of ash which extends inwards. Some suitably for individual bat to roost within inner chamber.	PRF-I	No field signs	N/A	
T2	Hawthorn (<i>Crataegus monogyna</i>)	Pruning cut with decay at 1.5 m east.	PRF-I	No field signs	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T3	Silver birch (<i>Betula pendula</i>)	Silver birch with partial transverse snap at 4 m.	NONE	Fully inspected 18 September 2025 & reclassified as 'none'.	N/A	N/A
T4	Silver birch	Silver birch with partially snapped limb at 6.5 m east.	NONE	Fully inspected 18 September 2025 & reclassified as 'none'.	N/A	N/A
T5	Silver birch	Wound where twin leaders have met which extends 10 cm downwards.	PRF-I	No field signs	N/A	

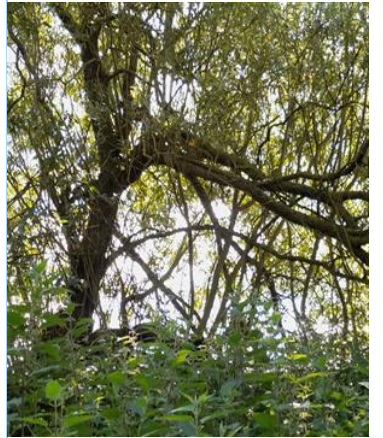
Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T6	White willow (<i>Salix alba</i>)	Hazard beam at 2.5 m with twisted and flaking bark (PRF-M). Second hazard beam on lower limbs at 1 m (PRF-I).	PRF-M	Fully inspected 19 August 2025. No field signs.	Second inspection 15 September 2025. No field signs.	
T7	White willow	Transverse snap at 0.5 m with small gaps.	PRF-I	No field signs	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T8	Willow sp. (<i>Salix</i> sp.)	Bay willow with hazard beam on second stem 0.5 m east.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T9	Alder (<i>Alnus glutinosa</i>)	Knothole at 0.5 m east.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	

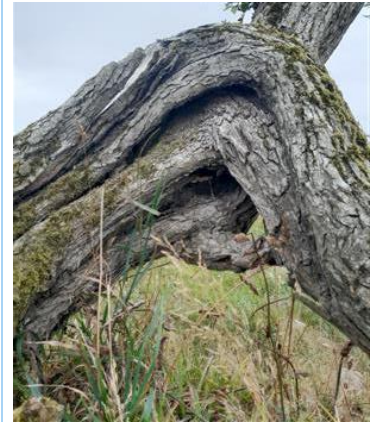
Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T10	Willow sp.	Willow with complete transverse snap on main stem.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T11	Willow sp.	Hazard beam at 1 m.	NONE	Fully inspected 19 August 2025 & reclassified as 'none'.	N/A	N/A
T12	Willow sp.	Hazard beam throughout main stem – wet and exposed.	NONE	Fully inspected 19 August 2025 & reclassified as 'none'.	N/A	N/A

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T13	Alder	Knot hole at 30 cm with disused nest.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T14	Alder	Knothole at 2 m north.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T15	White willow	Willow with hazard beam at 2 m. Freshly formed in recent storm.	PRF-M	Fully inspected 19 August 2025. No field signs.	Second inspection 15 September 2025. No field signs.	
T16	Willow sp.	Knothole at 0.5 m south extending upwards but narrows.	PRF-I	Fully inspected 19 August 2025. No field signs	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T17	Willow sp.	Willow with hazard beam at 0.5 m.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T18	Willow sp.	Hazard beam at 2 m north.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T19	Willow sp.	Hazard beam at 0.5 m..	PRF-I	Fully inspected 19 August 2025. No field signs.		
T20	Ash	Small crack in branch on norther aspect approx. 3 m from ground. Found to be superficial.	NONE	Fully inspected 18 September 2025 & reclassified as 'none'.	N/A	N/A
T21	Ash	Tear out 1 – 3 m east.	PRF-M	N/A – no access	N/A – no access	N/A – no access
T22	Sycamore (<i>Acer pseudoplatanus</i>)	Knothole at 5 m	PRF-M	N/A – no access	N/A – no access	N/A – no access
T23	Ash	Semi mature tree line, no PRFs noted upon inspection.	NONE	Fully inspected 19 August 2025 & reclassified as 'none'.	N/A	N/A

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T24	Hawthorn	Hawthorn with fluting at 0.5 m. extends 10 cm into gap.	PRF-I	Fully inspected 20 August 2025. No field signs	N/A	
T25	Hawthorn	Hawthorn with fluting at 0.3 m. extends 10 cm into gap.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T26	Hawthorn	Hawthorn with crack and decay from 1 m – 2 m south.	PRF-I	Fully inspected 20 August 2025. No field signs.	Second inspection 16 September 2025. No field signs. Reclassified as 'PRF-I'.	
T27	Hawthorn	Hawthorn with knothole at 30 cm which extends 10 cm into gap.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T28	Sycamore	Hawthorn with decay hollow at 0.2 m, extends 10 cm upwards into gap. Further substance crack at 30 cm.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T29	Sycamore	Decay hollow at 2 m west and tear out at 2.5 m north.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T30	Sycamore	Knothole at 2 m north (PRF-I). Decay hollow at 2 m south (PRF-I). Remaining features superficial.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T31	Sycamore	Knothole with decay 3 m north. Knothole 2 m east.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T32	Ash	Desiccation and some superficial knotholes. Decay hollow at 2 m south.	PRF-I	Fully inspected 19 August 2025. No field signs.	N/A	
T33	Ash	Dead tree with desiccation and decay throughout. Superficial.	NONE	N/A	N/A	N/A

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T34	Ash	Decay hollow, pruning cut and knothole (PRF-I). Knothole with further decay at 4 m and knothole at 5 m north (both PRF-M).	PRF-M	Fully inspected 19 August 2025. No field signs.	Second inspection 17 September 2025. No field signs.	
T35	Hawthorn	Twin leaders with gap at Union extending 20 cm back.	PRF-M	Fully inspected 19 August 2025. No field signs.	Second inspection 16 September 2025. No field signs	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T36	Hawthorn	Hawthorn with decay at 0.2 m. extends 10 cm upwards into gap.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T37	Hawthorn	Hawthorn with knothole at 10 cm. extends 5 cm into gap.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T38	Hawthorn	Hawthorn with lifting bark throughout.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T39	Hawthorn	Hawthorn with fluting at 20 cm.	PRF-I	Fully inspected 20 August 2025. No field signs.	Second inspection 16 September 2025. No field signs. Reclassified as 'PRF-I'.	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T40	Hawthorn	Hawthorn with fluting at 30 cm. extends 10 cm into gap.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T41	Hawthorn	Hawthorn with fluting at 1.5 m extending downwards where two stems meet.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T42	Hawthorn	Hawthorn with decay hollow 0.5 m east extending upwards.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T43	Ash	Ash with knot hole 2 m north.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T44	Ash	Ash with basal cavity at 10 cm with rot that extends downwards by 10 cm. quite cluttered at entrance with vegetation.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	
T45	Ash	Knotholes throughout from 2-6 m, tear out at 5 m, tree dead.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T46	Sycamore	Sycamore knot hole at 3 m east.	NONE	Fully inspected 20 August 2025 & reclassified as 'none'.	N/A	N/A
T47	Ash	Ash with three knotholes at multiple aspects, 0.5 m. One knothole has large entrance and extends 15 cm into a wide chamber.	PRF-I	Fully inspected 20 August 2025. No field signs.	N/A	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T48	Ash	Desiccation throughout main stem with rot and knot hole on eastern aspect extending into large chamber (PRF-M). Remaining knothole and desiccation (PRF-I).	PRF-M	Fully inspected 20 August 2025. No field signs.	Second inspection 16 September 2025. No field signs.	
T49	Sycamore	Twin leaders with potential gap where stems have fused. Further knothole at 2 m east.	NONE	Fully inspected 20 August 2025 & reclassified as 'none'.	N/A	N/A
T50	Ash	Ash with transverse snap at 2 m north.	NONE	Fully inspected 20 August 2025 & reclassified as 'none'.	N/A	N/A

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results (PRF-M only)	Photo (PRF-M and PRF-I only)
T51	Ash	Substance crack at 1 m. Transverse snap at 2 m east and partial transverse snap at 1.7 m north west.	PRF-I	Inspected 20 August 2025. No field signs.	N/A	
T52	Sycamore	Mature sycamore with partially decaying limb with desiccation at 2 m north.	NONE	Fully inspected 20 August 2025 & reclassified as 'none'.	N/A	N/A

Table B- 2: Bat Structure PRA Results

Structure/ Building Reference	Structure/ Building Type	Features	Comment	Photo
S1	Corrugated iron shed	Corrugated iron and concrete farming shed with gaps between beams and ample cracks in concrete sheets. Did not assess internally. High levels of industrial noise and vibration due to industrial operations.	Moderate suitability for roosting bats in Summer (active season) and low suitability in Winter (hibernation season).	
S2	Collection of abandoned residential and farm buildings	Buildings within the footprint of Netherton Hub project.	Moderate suitability for roosting bats in Summer (active season) and moderate suitability in Winter (hibernation season).	

Structure/ Building Reference	Structure/ Building Type	Features	Comment	Photo
S3	Collapsed wooden shed	Collapsed shed with corrugated iron sheeting. Walls comprised of wooden slats with small, isolated gaps between supporting wooden beams and iron sheeting. Overall gaps appear exposed and offer limited shelter. Not investigated in full due to scrap material and asbestos risk. Assumed low precautionarily.	Low suitability for roosting bats in Summer (active season).	
S4	Dilapidated stone outbuilding	Stone outbuilding with pitched roof constructed of wooden beams and corrugated iron sheeting. Gaps where mortar has crumbled away in brickwork. Gaps in chimney breast structure. Direct access to loft where roof panels have rotted away.	Moderate suitability for roosting bats in Summer (active season) and moderate suitability in Winter (hibernation season).	

Structure/ Building Reference	Structure/ Building Type	Features	Comment	Photo
S5	Dilapidated farm building	Gaps where mortar has crumbled away on corners. Direct access into building where roof panels have collapsed. No windows or doors.	Moderate suitability for roosting bats in Summer (active season) and moderate suitability in Winter (hibernation season).	
S6	Dilapidated farm building	Gaps where felt roof has come away leading to soffit box, small areas where mortar has crumbled away in brickwork. Gaps in chimney breast structure. Direct access to internal space where roof panels has collapsed.	Moderate suitability for roosting bats in Summer (active season) and moderate suitability in Winter (hibernation season).	

Structure/ Building Reference	Structure/ Building Type	Features	Comment	Photo
S7	Dilapidated stone outbuilding	Gaps where mortar has crumbled away in brickwork. Roof collapsed in remainder of building	Moderate suitability for roosting bats in Summer (active season) and moderate suitability in Winter (hibernation season).	
S8	Dilapidated stone outbuilding	Stone outbuilding with no roof. Gaps where mortar has crumbled away in stonework leading to small cavities between brick layers.	Moderate suitability for roosting bats in Summer (active season) and low suitability in Winter (hibernation season).	n/a

Table B- 3: Target Notes

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
O1	~110 m north of Site boundary	Otter	Suitable habitat	Ditch with slow flowing water, 20 cm in depth. Waterbody surrounded by dense vegetation. Suitable habitat for otter to commute and potentially rest. Vegetation too dense to survey in full.	
O2	~70 m south of Site boundary, within Associated Infrastructure boundary	Otter	Potential resting site	Tunnel into bank of ditch. Approximately 30 cm wide and extends 1.5 m upwards into bank under mature hawthorn root system. No field signs. Located within the boundary of Netherton Hub project and as such, no further assessment was undertaken.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
O3	Site	Otter	Suitable habitat	Potential for otter to commute and rest among hawthorn hedge and bank. Water levels less than 10 cm in depth.	
O4	~ 25 m from Site boundary	Otter	Potential resting site	Mammal excavation potentially suitable as a resting site, comprising of a single circular entrance approx. 40 cm wide into bank. Suitable for otter, with spraint (O5) recorded within 10 m of entrance. Subject to a suite of camera trapping (CT03). No evidence of this species was returned during the period of assessment.	
O5	~ 25 m from Site boundary	Otter	Spraint	Multiple otter spraints on large boulder in watercourse. Dry and intact.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
O6	~ 25 m from Site boundary	Otter	Potential resting site	Dry cavity under root plate of hawthorn. Extends beyond reach into a 40 cm circular tunnel system. Dry and sheltered adjacent to secluded watercourse. Suitable for otter, however no field signs. Subject to a suite of camera trapping (CT05). No evidence of this species was returned during the period of assessment.	
O7	Outside of Site, within Associated Infrastructure	Otter	Potential resting site	Burrow approximately 40 cm wide along bank of slow flowing ditch, extends out of sight. No field signs. Subject to a suite of camera trapping (CT07). No evidence of this species was returned during the period of assessment.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV1	Site	Water vole	Suitable habitat	Sluggish ditch highly vegetated steep bank with ample rushes and grasses. Watercourse shaded. Channel substrate silt and gravel. No field signs.	
WV2	Site	Water vole	Suitable habitat	Slow flowing ditch with bank densely covered by common reed, thistle and rush species. Some of the watercourse not visible for survey due to dense vegetation. No field signs.	
WV3	Site	Water vole	Tunnel	Potential mammal tunnels through long bankside grass.	
WV4	Site	Water vole	Potential water vole burrow	A potential water vole burrow located on the south east bank of a slow-flowing ditch.	
WV5	Site	Water vole	Potential water vole burrow	A potential water vole burrow located on the south east bank of a slow-flowing ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV6	Site	Water vole	Potential water vole burrow	A potential water vole burrow located on the south east bank of a slow-flowing ditch.	
WV7	Site	Water vole	Potential droppings	Potential water vole droppings on raised earth patch within ditch.	
WV8		Water vole	Potential water vole burrow	Potential water vole burrow identified on the south east bank of slow flowing ditch. Located within 20 cm of water, inner tunnel approx. 7 cm wide.	
WV9		Water vole	Potential water vole burrow	Potential water vole burrow identified on the south east bank of slow flowing ditch. Located within 20 cm of water, inner tunnel approx. 7 cm wide.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV10		Water vole	Potential water vole burrow	Potential water vole burrow identified on the south east bank of slow flowing ditch. Located within 20 cm of water, inner tunnel approx. 7 cm wide.	
WV11	Site	Water vole	Potential water vole burrow	Five potential water vole burrows on south east bank of slow flowing ditch, within 1 m of watercourse, inner tunnels approx. 7cm wide.	
WV12	Site	Water vole	Potential water vole burrow	Potential water vole burrow on south east bank of slow flowing ditch. Located within 20 cm of water, inner tunnel approx. 7 cm wide.	
WV13	Site	Water vole	Potential droppings	Droppings, forming a potential water vole latrine, located on wooden post on edge of ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV14	Site	Water vole	Potential droppings	Slow flowing ditch with bankside vegetation comprising of common reed, rosebay willowherb, and false oat grass. Moderate sloping earthen banks with ample small pools and sheltered channel areas. Potential water vole droppings noted.	
WV15	Site	Water vole	Potential droppings	Potential water vole droppings located on mid channel stone within slow flowing ditch.	
WV16	Site	Water vole	Potential water vole burrow	Single entrance (4 cm wide) adjacent to burn. Potential droppings were collected 5 m upstream.	
WV17	~ 35 m east of Site	Water vole	Burrow – species unknown	Single entrance (4 cm wide). Extends beyond reach into earthen banks. Potentially brown rat.	
WV18	Site	Water vole	Suitable habitat	Slow flowing ditch with bankside vegetation comprising of grass. Sheltered areas suitable for water vole. No field signs.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV19	Site	Water vole	Suitable habitat	Drainage pond located between crop field. Unable to fully due to health and safety reasons. Small island in pond. Rush and grass vegetation, with earthen banks. Suitable for water vole. No field signs.	
WV20	Outside of Site but within Associated Infrastructure	Water vole	Suitable habitat	Ditch between arable fields. Very dense vegetation on edge of banks and along channel. Unable to survey due to health and safety reasons. Appears to contain suitable banks to support water vole burrows. Where accessible for survey, no field signs.	
WV21	~120 m north of Site	Water vole	Suitable habitat	Sluggish ditch highly vegetated steep bank with ample rushes and grasses. Watercourse shaded. Channel substrate silt and gravel. No field signs.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV22	Site	Water vole	Suitable habitat	Sluggish ditch highly vegetated steep bank with ample rushes and grasses. Watercourse shaded. Channel substrate silt and gravel. No field signs.	
WV23	Site	Water vole	Potential water vole burrow	Sluggish watercourse with grassy banks which transitions into an area shaded by gorse. On banks and adjacent to waterline multiple burrows which range in diameter from 3 cm to 5 cm. Potential droppings recorded.	
WV24	Site	Water vole	Suitable habitat	Ditch with densely vegetated banks. Water static in this location, with low channel levels downstream of approx. 10 cm depth. Unable to fully survey underneath areas of gorse. No field signs.	
WV25	Site	Water vole	Suitable habitat	Ditch with densely vegetated banks. Water static in this location, with low channel levels downstream of approx. 10 cm depth. Unable to fully survey underneath areas of gorse. No field signs.	
WV26	~80 m west of Site	Water vole	Burrow – species unknown	Series of burrows on dry bank with droppings. Droppings recorded however not characteristic of water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV27	~150 m west of Site	Water vole	Burrow – species unknown	Further network of burrows paths and some small droppings on dry embankment. Likely too small to be attributed to water vole.	
WV28	~150 m west of Site	Water vole	Burrow – species unknown	Further network of burrows paths and some small droppings on dry embankment. Likely too small to be attributed to water vole.	
WV29	Outside of Site, within Associated Infrastructure	Water vole	Burrow – species unknown	Ditch embankment containing 4 cm in diameter burrows. Ditch with suitability for water vole. No further field signs, however, surveys conducted outwith optimal water vole survey season.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV30	Outside of Site, within Associated Infrastructure	Water vole	Burrow – species unknown	4 cm in diameter burrows on ditch embankment. Ditch with suitability for water vole. No further field signs, however, surveys conducted outwith optimal water vole survey season.	
PM1	Site	Pine Marten	Resting opportunity	Area of rubble and boulders with gaps and crevices suitable for pine marten. No field signs.	
PM2	~ 50 m to west of Site	Pine Marten	Potential scat	Potential PM scat found within coniferous woodland, under mature Sitka spruce.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
PM3	Site	Pine Marten	Resting opportunity	Dry cavity under collection of boulders, suitable for pine marten resting. No field signs.	
PM4		Pine Marten	Individual sighting	Individual sighting of pine marten during camera trapping (CT03).	

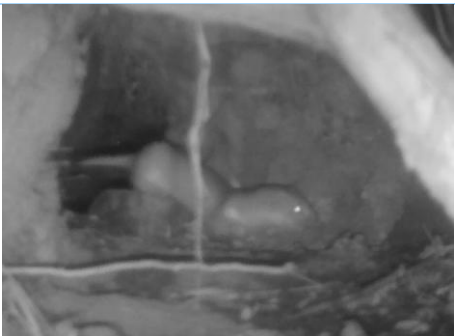
Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
TN1 & TN2	Site	Toad	Individual sighting	Sighting of toad within ash tree on two separate occasions. Within 20m of pond habitat.	
TN3	Site	Brown Hare	Individual sighting	Individual sighting within arable field	n/a
TN4	~40 m south east of Site	Weasel	Individual sighting	Multiple incidences of weasel <i>Mustela nivalis</i> recorded during camera trap programme (CT05).	

Table B-4: Great Crested Newt Habitat Suitability Index Assessment Results

Ref.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Score	Suitability
GCN1	0.10	0.95	1.00	0.67	1.00	0.67	0.67	0.78	0.67	0.70	0.63	Average

Ref.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Score	Suitability
GCN2	0.10	0.82	0.50	0.67	1.00	0.67	0.67	0.47	0.67	0.90	0.56	Below Average
GCN3	0.10	0.05	0.50	0.33	1.00	0.67	1.00	0.47	0.67	0.90	0.41	Poor
GCN4	0.10	1.00	1.00	0.33	1.00	1.00	1.00	0.47	0.67	0.50	0.59	Below Average

Table B-5: Camera Trap Analysis Results

Reference	Camera Trap Reference	Classification	Deployment dates	Evidence Recorded
O4	CT03	Mammal entrance	17 November 2025 - 15 January 2026	No positive evidence of otter was recorded during the deployment period. Incidental evidence of a single adult pine marten was recorded commuting within the general vicinity.
O6	CT05	Mammal entrance	17 November 2025 - 15 January 2026	No positive evidence of otter was recorded during the deployment period. Incidental evidence of a weasel was recorded within the general vicinity.
O7	CT07	Mammal entrance	2 December 2025 - 15 January 2026	No positive evidence of otter was recorded during the deployment period.