

**Netherton Hub 400 kV OHL Connection to
New Deer and Peterhead: Tie-In
Environmental Appraisal Report
Appendix 7.2A - Protected Species
Addendum**

August 2026



QUALITY MANAGEMENT

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1. INTRODUCTION

1.1 Proposed Development

- 1.1.1 Scottish Hydro Electric Transmission plc ('the Applicant'), operating and known as Scottish and Southern Electricity Networks Transmission ('SSEN Transmission'), owns, operates, develops and maintains the electricity transmission network across the north of Scotland and islands and holds a licence under Section 9 of the Electricity Act 1989¹ to 'develop and maintain an efficient, co-ordinated and economical electricity transmission system in its licensed area'.
- 1.1.2 Significant volumes of new renewable generation are expected to connect to the SSEN Transmission network, resulting in much greater bulk power transfer requirements on all major SSEN Transmission boundaries. A strategic hub at Peterhead is required for the purpose of establishing a common and coordinated approach to development for the future network reinforcements as identified in the Holistic Network Design to meet the UK's 2030 net zero targets.
- 1.1.3 This holistic approach to project planning and development was considered necessary to maximise the potential efficiencies which comes from a single coordinated and collocated development site for both Alternating Current (AC) and Direct Current (DC) transmission infrastructure in the region. This collective development will substantially strengthen the local transmission network and support new onshore and offshore connections, such as those created through the Scotwind offshore lease rounds. Furthermore, it will help facilitate the export of future renewable generation from the North of Scotland to demand centres throughout the UK.
- 1.1.4 The diversion of the existing New Deer to Peterhead 400 kV OHL into a 400 kV AC substation (the 'Netherton Hub') is required to integrate the new substation site into the existing network and maximise the transfer capability between the new Hub substation and the wider transmission network to increase network security.
- 1.1.5 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) into a new 400 kV Alternating Current (AC) substation, proposed separately as part of the Netherton Hub Development.
- 1.1.6 The alignment of the OHL, associated infrastructure including access tracks and existing towers to be dismantled, a Limit of Deviation (LoD) which varies in distance between 100 m to 200m depending on the works at certain points, plus a 25 m working corridor, are hereafter collectively referred to as the 'Site'.
- 1.1.7 The layout of the Site is shown on **Annex A: Figure 7A.1**. For full details of the Proposed Development, please refer to **Chapter 2: Description of the Proposed Development (Volume 1)** of the **Environmental Appraisal Report (EAR)**.
- 1.1.8 The Section 37 Application relating to the Proposed Development was submitted to the Energy Consents Unit in July 2026.

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 (Volume 1)** of the **EAR**.
- 1.2.2 A previously issued report (see **Appendix 7.2: Protected Species Baseline (Volume 3)** of the **EAR**) presented methods and baseline findings of studies relating to protected and priority species,

¹ UK Government (1989). The Electricity Act 1989. Available at: <https://www.legislation.gov.uk/ukpga/1989/29/contents>

excluding badgers *Meles meles* and birds which were reported on separately (see **Appendix 7.3: Confidential Badger Technical Report (Volume 3)** and **Chapter 8: Ornithology (Volume 1)** of the **EAR**). As detailed in the Assumptions and Limitations of **Appendix 7.2: Protected Species Baseline (Volume 3)** of the **EAR**, only one water vole survey was undertaken. However, the water vole survey best practice guidance states two surveys in the water vole season should be conducted. In addition, the bat Potential Roost Feature (PRF) inspection survey of trees classified as 'PRF-M' suitability (defined in **Table 2-1**) only encompassed two separate PRF inspection surveys, completed during the 2025 active bat season. Bat survey guidance states a total of three separate PRF inspections should be completed within the active bat season to trees with PRF-M suitability.

- 1.2.3 These remaining survey aspects were completed in 2026, and the findings are included in this addendum report. This pertained to a second water vole *Arvicola amphibius* survey within the water vole season and a third PRF inspection of PRF-M trees during the active bat season. Additionally, results from environmental DNA (eDNA) for great crested new *Triturus cristatus* (GCN) surveys completed in 2026 are also reported on.

2. METHODS

2.1 Field Surveys

- 2.1.1 All surveys were undertaken by members of the Chartered Institute of Ecology and Environmental Management (CIEEM), with the lead surveyors during each survey visit being at least 'capable' of species survey design, planning and field work per the CIEEM Competency Framework².
- 2.1.2 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.
- 2.1.3 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.

Bats

Potential Roost Feature Inspection

- 2.1.4 Following the results of the initial Ground-Level Tree Assessment (GLTA) in 2025, trees identified as Further Assessment Required (FAR) and PRF within the Bat Survey Area (see **Figure 7.2.1 of Appendix 7.2: Protected Species Baseline**) were subject to PRF inspection surveys, undertaken by a team of ecologists with at least one holding a NatureScot bat licence (including hibernacula).
- 2.1.5 PRF inspection surveys included both ground and aerial inspections, utilising ladders, torches, polekam³, aerial tree climbing equipment and endoscope inspection cameras.
- 2.1.6 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.
- 2.1.7 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 2-1**.

Table 2-1: PRF Suitability Categories and survey requirements⁴

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.

- 2.1.8 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

² CIEEM (2024). Competency Framework [online]. Available at <https://cieem.net/wp-content/uploads/2019/02/Competency-Framework-2024-V7-Web.pdf>

³ A telescopic pole survey camera that allows the inspection and recording of features up to 10m in height from the ground.

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

shown in **Table 2-1**). As such, no further PRF inspection surveys were conducted to trees or features classified as presenting 'PRF-I' or 'NONE' suitability.

2.1.9 In the 2025 surveys, a total of two separate PRF inspection surveys were conducted to PRF-M trees located within the Bat Survey Area. These surveys identified seven trees categorised as PRF-M. Of these, two have never been accessible and two were located within the inaccessible Netherton Hub boundary. The three remaining trees were subject to a third PRF inspection on 4 June 2026.

2.1.10 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 summertime⁵.

Water Vole

2.1.11 A second water vole survey within the water vole active season was completed between 2 - 5 June 2026. This covered watercourses and burns (minor watercourses) within the Site and 100 m buffer (hereafter "Water Vole Survey Area") where the previous survey identified suitable habitat and where access was possible. The Water Vole Survey Area is shown in **Annex A: Figure 7A.1 – Survey Areas and Access Constraints**.

2.1.12 Survey methods followed NatureScot standing advice⁶, standard Mammal Society guidance⁷ and practical survey guides for field signs and habitat suitability assessment⁸.

2.1.13 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.

2.1.14 The 2026 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.
- 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 sent for deoxyribonucleic acid (DNA) testing to an accredited laboratory (ADAS Biotechnology⁹) to confirm if the species is water vole¹⁰.
- 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).
- The recording of any field signs or evidence relating to other relevant wildlife (for example otter *Lutra lutra*, or invasive predatory species such as American mink *Neovison vison* or brown rat *Rattus norvegicus*).

⁵ Collins, J. (ed) (2023). Bat Surveys for Professional Ecologist: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London..

⁶ NatureScot (online). Standing advice for planning consultations – Water Voles. Available: <https://www.nature.scot/doc/standing-advice-planning-consultations-water-voles>

⁷ Dean, M, Strachan, R., Gow, D., Andrews, R., Matthews, F., Chanin, P. (2016) The Water Vole Mitigation Handbook. The Mammal Society Mitigation Guidance Series.

⁸ Dean, M (2021) Water Vole Field Signs and Habitat Assessment. Pelagic Publishing.

⁹ ADAS. Available at: <https://adas.co.uk/services/bat-speciation-dna-analysis-of-droppings/>

¹⁰ 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.

Great Crested Newt

- 2.1.1 During the 2025 surveys, four ponds were identified within the GCN Survey Area (**GCN1 – GCN4**) and were subject to Habitat Suitability Index (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'. An additional two ponds have been identified within the Site during a desk-based habitat review (**GCN5** and **GCN6**) following changes to the design – central to the southern extent of existing OHL to be dismantled.
- 2.1.2 Following best practice methods, the three ponds within the GCN Survey Area that returned at least a 'below average' or greater suitability for GCN require further surveys following the HSI assessment, as well as the two additional ponds as shown in **Annex A: Figure 7A.2 – Additional Survey Results 2026**. These ponds were therefore subject to an eDNA survey in 2026.
- 2.1.3 The eDNA surveys were undertaken on 2 June 2026. The survey involved collecting water samples from 20 locations around the perimeter of each waterbody. The samples were then sent to an accredited laboratory (ADAS¹¹) for analysis to determine the presence/absence of GCN eDNA. The sampling was carried out in accordance with the protocol described in the Technical Advice note for Field and Laboratory Sampling of GCN environmental DNA¹².

2.2 Assumptions and Limitations

- 2.2.1 Faunal species are transient and can move between favoured habitats regularly throughout and between years. This baseline report 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 management¹³. NatureScot state 'pre-application 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'¹⁴.
- 2.2.2 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 water vole and other relevant species such as otter, mink or brown rat 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.
- 2.2.3 T48 could not be fully inspected during the third PRF inspection on 4 June due to the presence of an active bird nest within the tree. To avoid disturbance to nesting birds, access to part of the tree was restricted, and therefore a complete assessment of all features was not possible. A precautionary approach has been taken with regards to this tree and the status of it as a potential bat roost, however with the mitigation presented within Chapter 7, it is not considered to provide a significant limitation with regards to the assessment presented.

Access Restriction and Survey Schedule

- 2.2.4 Access to the Site and surrounding area was restricted in multiple areas, due to constraints such as presence of livestock and overgrown vegetation preventing full access to some waterbodies. Assumptions were made on the likely habitat suitability within these areas, by surveying at a distance using binoculars if access had not been granted. For full transparency, the survey areas,

¹¹ ADAS. Available at: <https://adas.co.uk/services/edna-analysis-for-great-crested-newt-gcn/>

¹² Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Griffiths, R. A., Foster, J., Wilkinson, J., Arnett, A., Williams, P. & Dunn, F. (2014). Analytical and methodological development for improved surveillance of the Great Crested Newt. Defra Project WC1067. Freshwater Habitats Trust. Oxford.

¹³ 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/>

¹⁴ NatureScot. Standing advice for planning consultations- Bats. Available: <https://www.nature.scot/doc/standing-advice-planning-consultations-bats>

Site boundary, and access constraints have been presented on **Annex A – Figure 7A.1: Survey Areas and Access Constraints**.

- 2.2.5 A precautionary approach has been taken when assessing potential effects and prescribing mitigation measures in **Chapter 7: Ecology (Volume 1)** of the **EAR**.

3. RESULTS

3.1 Bats

- 3.1.1 No evidence of roosting bats (both current and historic) was noted during the third PRF inspection survey completed for each of these three PRF-M trees. No evidence of roosting bats was identified during any of the PRF inspection surveys.
- 3.1.2 **Annex B: Table B-1** contains the results of the initial tree GLTA and first two PRF inspections from the 2025 surveys, updated with the results of the third PRF inspection for PRF-M trees. **Annex A: Figure 7A.2: Additional Survey Results 2026** shows the locations of the trees identified as having suitability for roosting bats.

3.2 Water Vole

- 3.2.1 Evidence of water vole was recorded within the Water Vole Survey Area, included potential burrows (referred to as **WV34, WV37, WV39, WV42 and WV46 – WV48, Annex B: Table B-2**) recorded along a slow flowing modified ditch, downstream to the Burn of Ludquham (see **Annex A: Figure 7A.2: Additional Survey Results 2026**). In the same location several feeding signs – presumed to be water vole - were recorded (**WV33 and WV44**).
- 3.2.2 To the centre of the Site, potential water vole droppings were collected and subject to DNA testing (**WV51 and WV53**). Further potential water vole droppings were also collected in the east part of the site (**WV55, WV58, WV60 and WV62**) with several of these samples also subject to DNA testing. The DNA from dropping samples collected at **WV51 and WV55** returned positive results from the DNA testing, confirming they belong to water vole. No species could be determined from the DNA testing for the remaining collected samples. The laboratory results report for water vole DNA testing is included in **Annex C**.
- 3.2.3 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 guidance⁸ (**WV31, WV32, WV45 and WV49**). However, other ditches present in the Water Vole Survey Area would be categorised as ‘suitable but poor’⁸ (**WV54, WV63 and WV65 – WV67**). 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.
- 3.2.4 Water voles in northeast Scotland have been documented to live as metapopulations, which comprise a network of fragmented colonies with low numbers of individuals¹⁵. The species maintains genetic diversity through dispersal and movement between colonies and areas of suitable habitat within a metapopulation¹⁶. Although some areas may be occupied intermittently, with colonies naturally expanding, contracting, or becoming temporarily absent over time, water voles are confirmed to be present within the Site and the wider Water Vole Survey Area. This confirms that the Site forms part of the local metapopulation and may support ongoing water vole activity, dispersal, and habitat use.
- 3.2.5 Due to the presence of confirmed water vole droppings, all potentially suitable burrows will be assumed to be water vole burrows on a precautionary basis. This approach is necessary because not all burrows had confirmed water vole droppings present at their entrances, and none have been subject to camera-trap monitoring to confirm occupancy.

¹⁵ 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.

¹⁶ 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.

3.3 Great Crested Newt and Other Amphibians

- 3.3.1 The pond scoring 'Poor' (**GCN3**) in the HSI was discounted from eDNA survey and is not considered further in this report. The remaining five waterbodies were accessible and contained sufficient water for GCN eDNA surveys to be completed. The location of these is shown in **Annex A: Figure 7A.2: Additional Survey Results 2026** and below provides a summary of the latest previous HSI results and eDNA results for each waterbody. The eDNA laboratory result reports are included in **Annex C**.

Table 3.1: HSI and eDNA Results

Waterbody number	2025 HSI score	2025 HSI category	2026 eDNA result
GCN1	0.63	Average	Negative
GCN2	0.56	Below Average	Negative
GCN3	0.41	Poor	N/A
GCN4	0.59	Below Average	Negative
GCN5	N/A	N/A	Negative
GCN6	N/A	N/A	Negative

- 3.3.2 All five waterbodies subject to eDNA surveys returned a negative result for GCN, therefore it is now considered that GCN are likely absent from the Site and surrounding area.

4. APPRAISAL

- 4.1.1 The information presented in the following table supersedes that provided for water vole in Table 7.7 of **Chapter 7: Ecology (Volume 1)** of the **EAR**. Water vole is classified as an Important Ecological Feature (IEF) within the Proposed Developments Ecological Zone of Influence (EZoI), with the species' presence now confirmed by positive DNA analysis of collected droppings.

Table 4.1: Appraisal of IEF within the Proposed Development's EZoI

IEF	IEF Description	Impacts and Effects	Assessment and Recommendations
Protected species – water vole	The watercourses, ditches and bankside habitat within the Site provide suitable habitat for water vole. Potential burrows and droppings were recorded during field surveys, and subsequent DNA analysis of the droppings returned positive results for water vole, confirming the species' presence within the Site and Water Vole Survey Area. As such, all potentially suitable burrows will be assumed to belong to water voles on a precautionary basis.	At the time of writing, final design of watercourse crossings is unknown. Every effort should be made to microsite the location of watercourse crossings to avoid confirmed or potential burrows by at least 10m and, therefore avoid damage or destruction of burrows. Where a 10m exclusion zone is not possible around potential water vole burrows a license will be required from NatureScot before works can proceed (Additional Biodiversity (BD) Mitigation Measure, BD5; see Table 5.1 below). Given the species' metapopulation ecology and use of drainage ditches as dispersal routes, there is potential for temporary habitat fragmentation impacts from watercourse crossing and track installation works. This could temporarily affect water vole movement along habitat corridors. During construction, unmanaged artificial lighting could also potentially cause temporary effects of displacement, which is of minor adverse significance. Lighting design must be sensitive to nocturnal foraging. Suitable mitigation measures should be embedded within the Proposed Development to avoid spill of artificial lighting onto habitats beyond the Site (e.g. watercourses) (BD3; see Table 7.9 in Chapter 7: Ecology of the EAR).	To enable legal compliance, given the time that may lapse between baseline surveys and construction phase, a pre-construction check for water vole is required to take place immediately prior to works associated with the Proposed Development (BD5; see Table 5.1). As works at each watercourse crossing would be temporary and short-term, with embedded mitigation for the management of artificial light, water voles may be able to disperse across watercourse crossing areas during nighttime when works are likely ceased, and as such, effects would not be significant. The watercourse crossing works could result in habitat degradation for water voles via pollution from run-off or sedimentation; and at the bankside where removal of vegetation may be required. Vegetation removal would be temporary and short-term, with natural re-establishment to follow. The spatial extent of habitat removal/ degradation would be negligible relative to the banksides which would remain unaffected. With the application of additional mitigative measures for pollution prevention (BD8; see Table 7.9 in Chapter 7: Ecology (Volume 1) of the EAR), habitat degradation effects would not be significant. Successful application of embedded measures and good construction practice should sufficiently reduce the risk of injury or harm to water vole.

IEF	IEF Description	Impacts and Effects	Assessment and Recommendations
			With the application of embedded and additional mitigative measures to ensure legal compliance (BD3 and BD8; see Table 7.9 in Chapter 7: Ecology (Volume 1) of the EAR) and BD5; see Table 5.1 below), no significant effects to water vole have been predicted.

5. RECOMMENDATIONS AND MITIGATION MEASURES

- 5.1.1 The additional mitigative measures outlined in the **Table 5.1** below supersede that provided for water vole in **Table 7.9** of **Chapter 7: Ecology (Volume 1)** of the **EAR** and are to be implemented in conjunction with relevant embedded mitigation measures.

Table 5.1: Additional biodiversity mitigation measures

ID	Title	Description
BD5	Pre-construction water vole surveys	A pre-works survey of suitable habitat to support water vole up to 100 m beyond the Site needs to be undertaken in advance of construction works, to reassess water vole activity and avoid direct damage to burrows, runs or foraging habitat during the construction of the Proposed Development. Surveys should be undertaken by a capable ecologist following methodology described in the Water Vole Mitigation Handbook¹⁷. If water vole burrows are identified within 30 m of the Proposed Development during the pre-works survey, consider if the works may be micro-sited to avoid/ retain the burrows. Where it is not possible to micro-site the works to avoid damage or disturbance to potential burrows, a licence from NatureScot will be obtained in advance of any construction activity and a water vole trapping and relocation exercise will be required under the terms of the relevant NatureScot licence. Any captured water voles may only be released into suitable habitat within the territory of the same water vole population, or into suitable habitat that is not currently occupied by another water vole population. A licence can only be issued once sufficient evidence has been provided regarding matters such as the provenance of the water voles to be released and the carrying capacity of the proposed receptor site. The feasibility, duration and overall programme implications of such a trapping and relocation exercise will depend on the scale and extent of watercourse impacts associated with the Proposed Development. This will enable compliance with the legal protection for water voles. A Species Protection Plan specific to the project would be required to support a licence application, and this would identify specific mitigation measures and any proposed compensation. With the implementation of the above mitigation, it is considered that no significant effects to water vole will occur as a result of this Proposed Development.

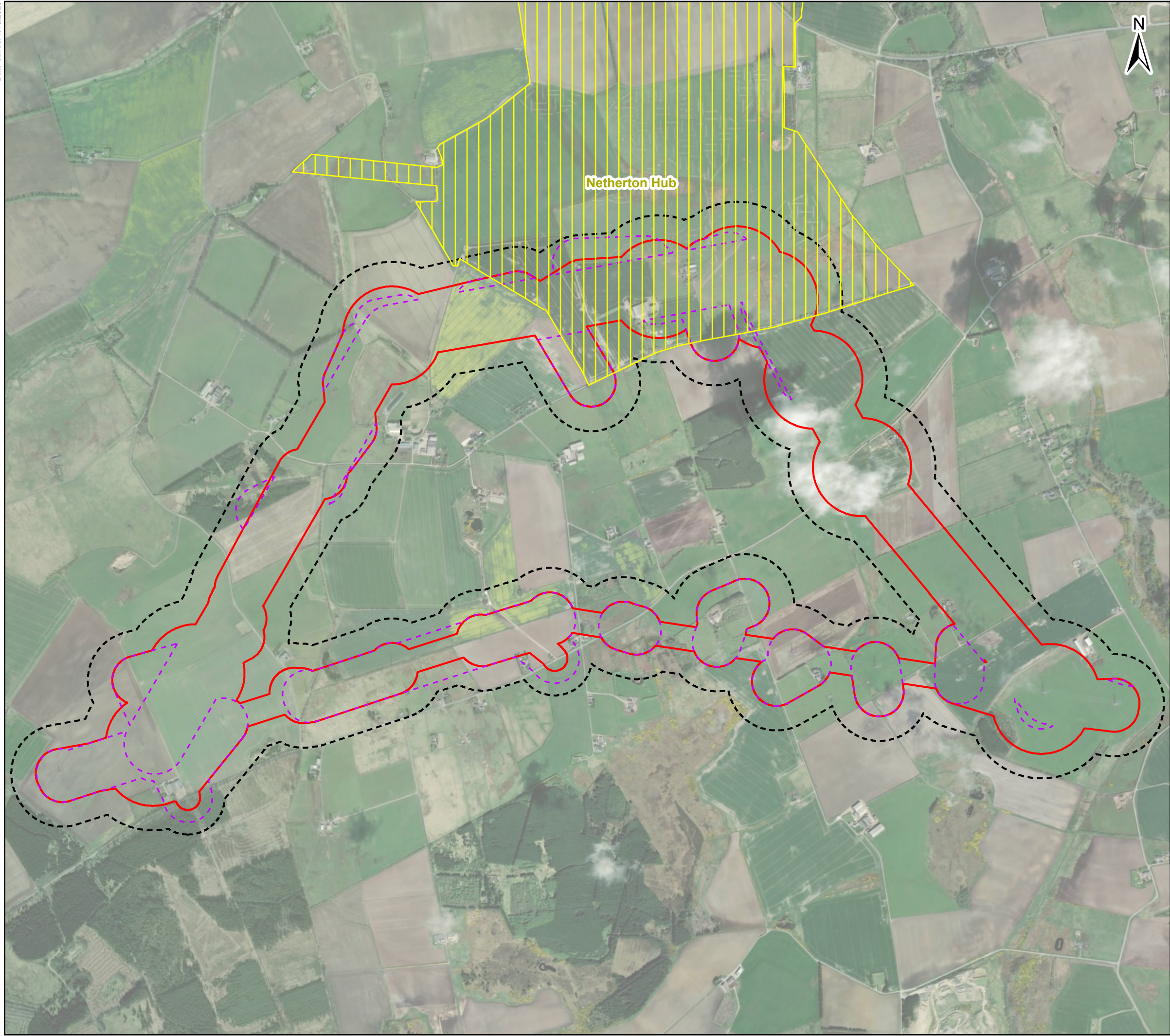
¹⁷ Dean, M., Strachan, R., Gow, D., Andrews, R., Mathews, F., Chanin, P. (2016). The Water Vole Mitigation Handbook. The Mammal Society Mitigation Guidance Series.

6. CONCLUSION

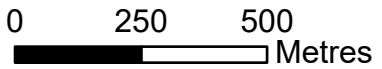
- 6.1.1 The ecological baseline of the Site and surrounding area was established through desk-based studies and field surveys. This information has been used to inform **Chapter 7: Ecology (Volume 1)** of the **EAR**. Conclusions were made following the 2025 surveys in relation to protected and priority faunal species (see **Appendix 7.2: Protected Species Baseline (Volume 3)** of the **EAR**).
- 6.1.2 After incorporating the findings from the 2026 additional surveys presented in this document, the overall conclusions for water voles and bats are in line with those made in **Appendix 7.2: Protected Species Baseline (Volume 3)** of the **EAR**, except for GCN. The eDNA survey of suitable waterbodies returned negative results, therefore it is now considered that GCN are absent from the Site and surrounding area.
- 6.1.3 The presence of water vole is now confirmed within the Site and wider Water Vole Survey Area, following positive DNA analysis of collected droppings. Elements related to water vole in **Section 7.6: Appraisal** and **Section 7.9: Recommendations and Mitigation Measures** of **Chapter 7: Ecology** of the **EAR** are now superseded by information in this addendum report, presented under the same headings.

ANNEX A: FIGURES

- Figure 7A.1: Survey Areas and Access Constraints
- Figure 7A.2: Additional Survey Results 2026



- Key
- Site
 - Water Vole Survey Area
 - Associated Infrastructure Survey Area
 - Access Constraints



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

Project:
New Deer to Peterhead Overhead Line
Tie - In

Title
Figure 7A.1 – Survey Areas and Access Constraints

Date: 10/07/2026 Scale: 15,000 @ A3
Drawn: EH Checked: TB Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024



Key

- Site
- Water Vole Survey Area
- Associated Infrastructure Survey Area
- Access Constraints
- HSI Pond

Water Vole Survey Results

- Burrows: Species Unknown
- Droppings : Confirmed Water Vole
- Droppings
- Feeding Remains
- Potential Water Vole Burrow
- Suitable Habitat

Bat DBW GTLA Survey

- PRF-M

0 25 50 Meters

Client: Scottish & Southern Electricity Networks

TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: 7A.2 - Additional Survey Results 2026

Page 1 of 6

Date: 10/07/2026 Scale: 1:2,000 @ A3

Drawn: EH Checked: TB Approved: MB

Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-025



Key

- Site
- Water Vole Survey Area
- Associated Infrastructure Survey Area
- Access Constraints
- HSI Pond

Water Vole Survey Results

- Burrows: Species Unknown
- Droppings : Confirmed Water Vole
- Droppings
- Feeding Remains
- Potential Water Vole Burrow
- Suitable Habitat

Bat DBW GTLA Survey

- PRF-M

0 25 50 Meters

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

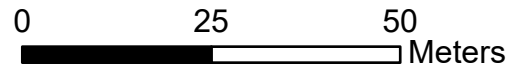
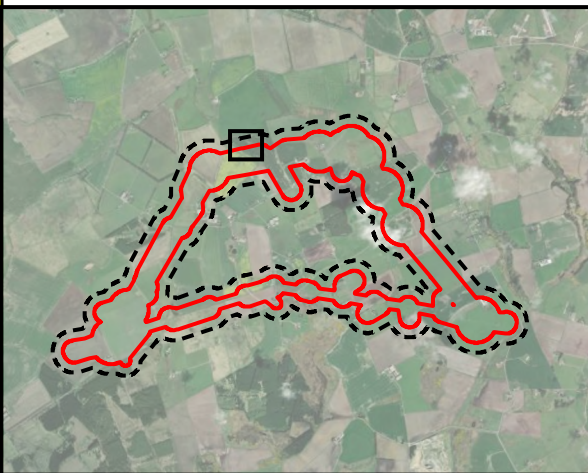
Project: New Deer to Peterhead Overhead Line
Tie - In

Title 7A.2 - Additional Survey Results 2026
Page 2 of 6

Date: 10/07/2026 Scale: 1:1,000 @ A3
Drawn: EH Checked: TB Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024



- Key**
- Site
 - Water Vole Survey Area
 - Associated Infrastructure Survey Area
 - Access Constraints
 - HSI Pond
- Water Vole Survey Results**
- Burrows: Species Unknown
 - Droppings : Confirmed Water Vole
 - Droppings
 - Feeding Remains
 - Potential Water Vole Burrow
 - Suitable Habitat
- Bat DBW GTLA Survey**
- PRF-M

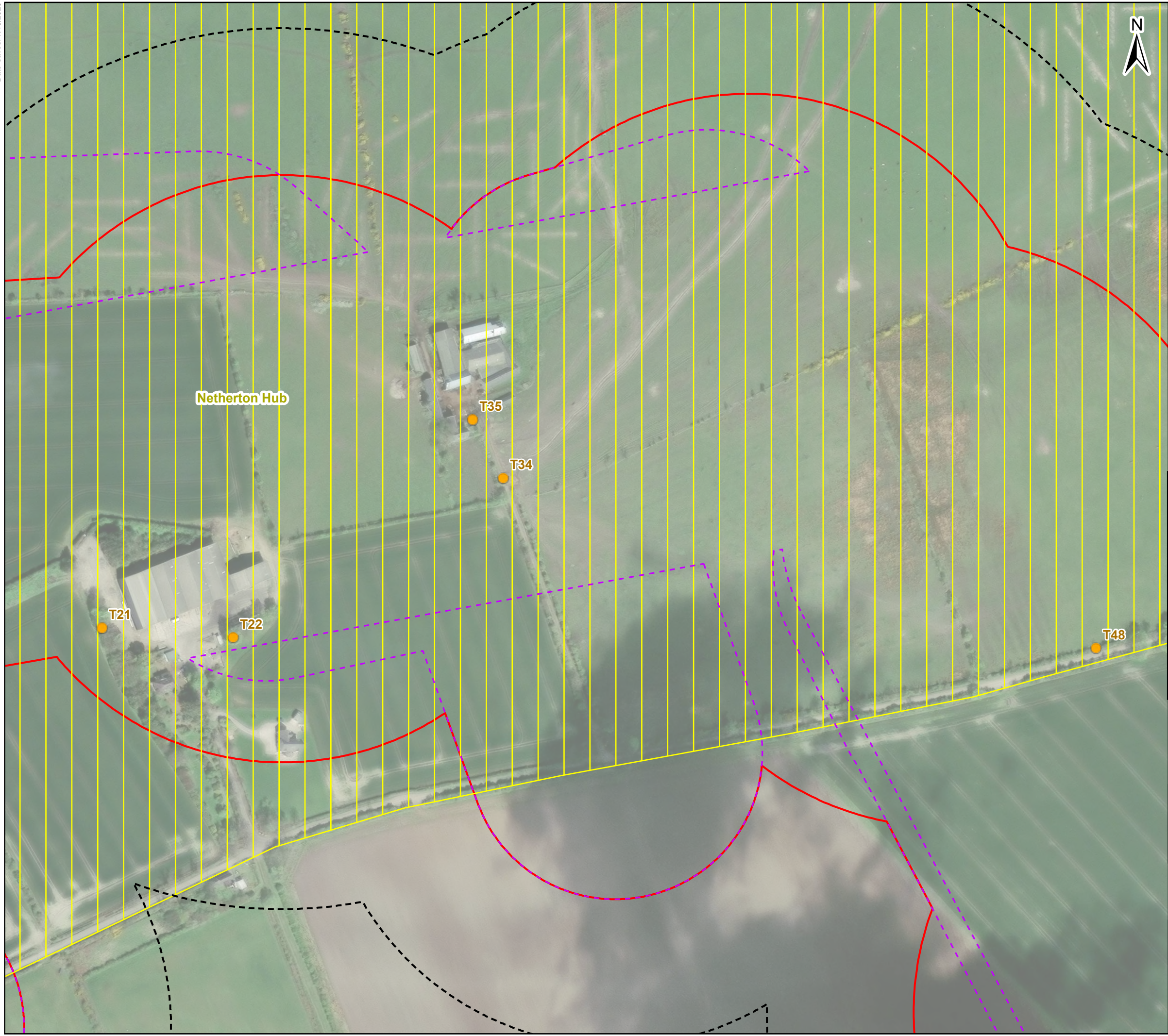


Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

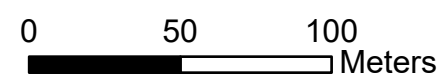
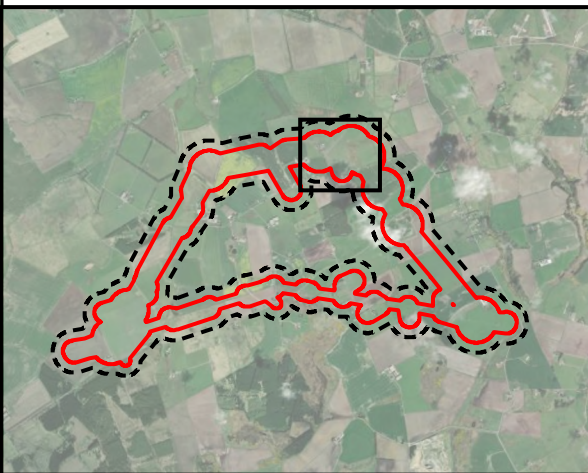
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 3 of 6

Date: 10/07/2026 Scale: 1:1,000 @ A3
Drawn: EH Checked: TB Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024



- Key**
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Client:	 Scottish & Southern Electricity Networks	
	TRANSMISSION	
Project:	New Deer to Peterhead Overhead Line Tie - In	
Title	7A.2 - Additional Survey Results 2026 Page 4 of 6	
Date:	10/07/2026	Scale: 1:2,500 @ A3
Drawn:	EH	Checked: TP
		Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024		



Key

- Site
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Water Vole Survey Results

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Bat DBW GTLA Survey

- PRF-M

0 50 100 Meters

Client: Scottish & Southern Electricity Networks

TRANSMISSION

Project: New Deer to Peterhead Overhead Line Tie - In

Title: 7A.2 - Additional Survey Results 2026

Page 5 of 6

Date: 10/07/2026 Scale: 1:2,500 @ A3

Drawn: EH Checked: TP Approved: MB

Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024



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Bat DBW GTLA Survey

- PRF-M

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

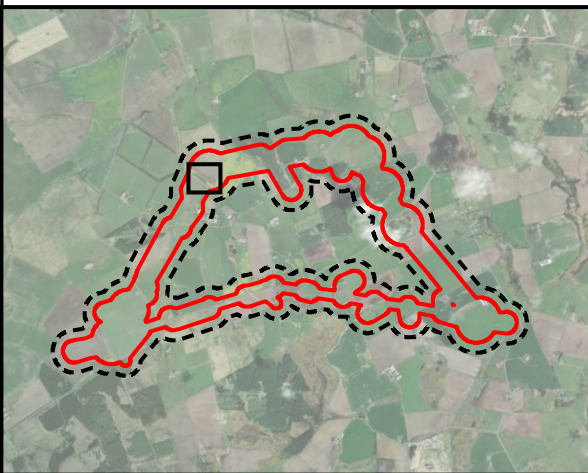
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 1 of 6

Date: 10/07/2026 Scale: 1:2,000 @ A3
Drawn: EH Checked: TB Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024



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

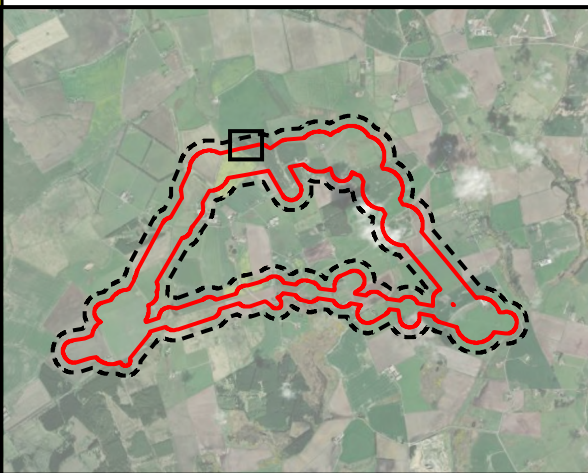
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 2 of 6

Date: 10/07/2026 Scale: 1:1,000 @ A3
Drawn: EH Checked: TB Approved: MB
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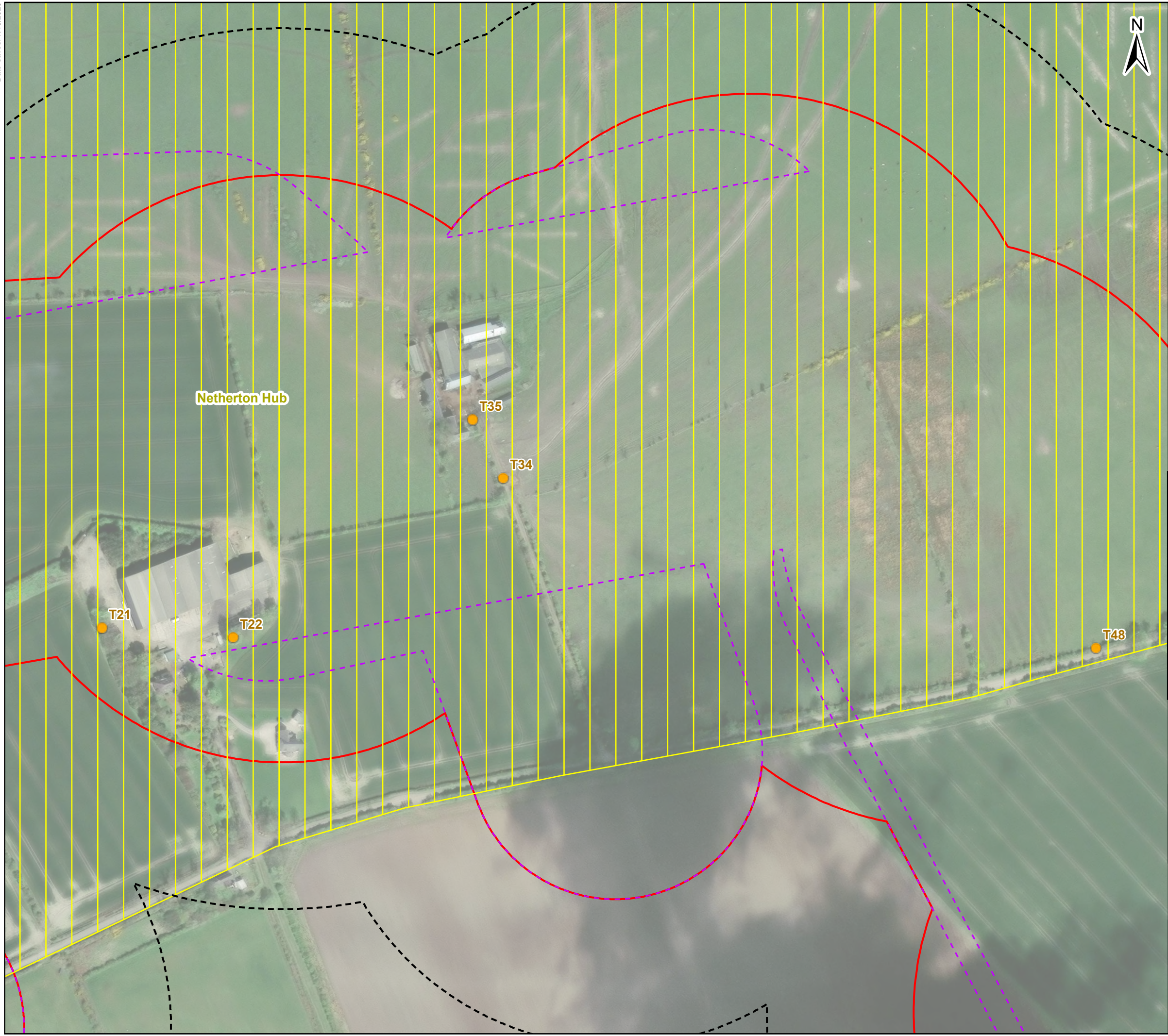


Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

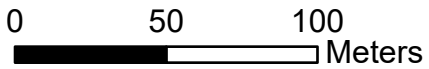
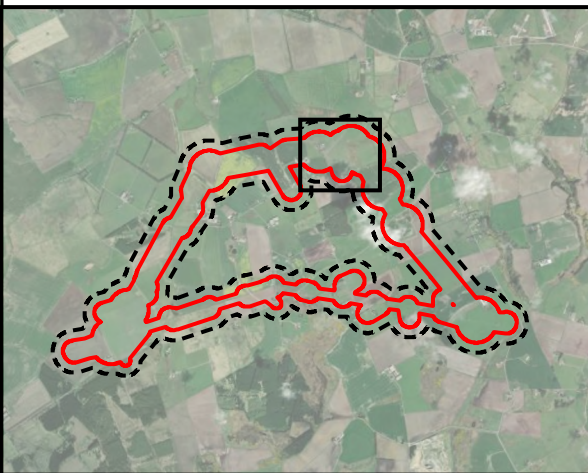
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 3 of 6

Date: 10/07/2026 Scale: 1:1,000 @ A3
Drawn: EH Checked: TB Approved: MB
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Client:	 Scottish & Southern Electricity Networks	
	TRANSMISSION	
Project:	New Deer to Peterhead Overhead Line Tie - In	
Title	7A.2 - Additional Survey Results 2026 Page 4 of 6	
Date:	10/07/2026	Scale: 1:2,500 @ A3
Drawn:	EH	Checked: TB Approved: MB
Drawing Number:	UK0029295.1009-NEWDEER-EAR-TIE-WSP-024	



Key

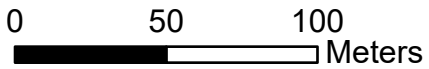
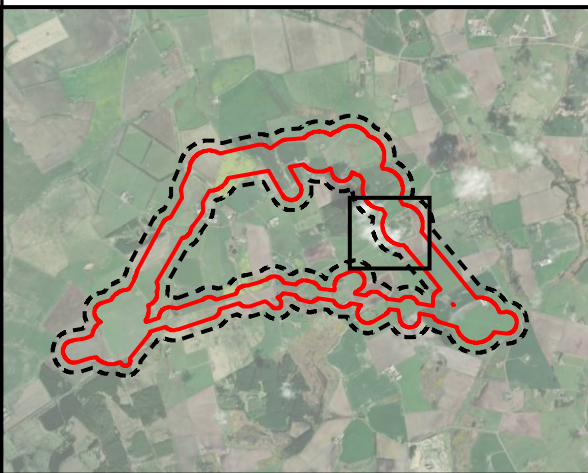
- Site
- Water Vole Survey Area
- Associated Infrastructure Survey Area
- Access Constraints
- HSI Pond

Water Vole Survey Results

- Burrows: Species Unknown
- Droppings : Confirmed Water Vole
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Bat DBW GTLA Survey

- PRF-M



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

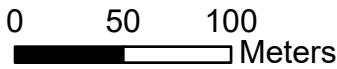
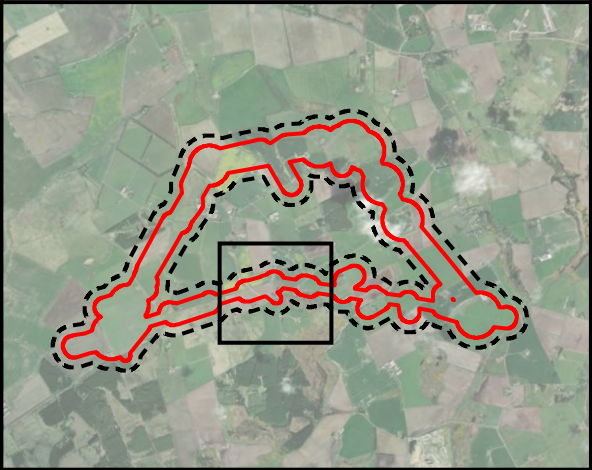
Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 5 of 6

Date: 10/07/2026 Scale: 1:2,500 @ A3
Drawn: EH Checked: TB Approved: MB
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- Key**
- Site
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Client:  **Scottish & Southern**
Electricity Networks
TRANSMISSION

Project: New Deer to Peterhead Overhead Line
Tie - In

Title: 7A.2 - Additional Survey Results 2026
Page 6 of 6

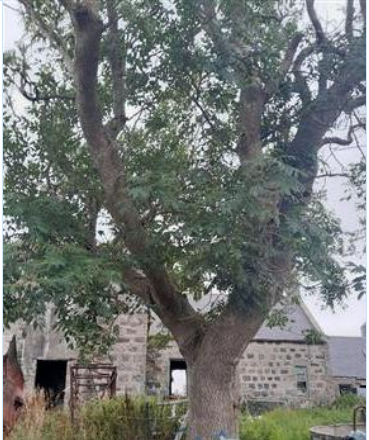
Date: 10/07/2026 Scale: 1:3,500 @ A3
Drawn: EH Checked: TB Approved: MB
Drawing Number: UK0029295.1009-NEWDEER-EAR-TIE-WSP-024

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	Third PRF Inspection Results	Photo
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.	Third inspection 4 June 2026. PRF-M hazard beam fully inspected - no field signs. Additional, new twisted hazard beam at top of canopy inspected (PRF-I) – no field signs.	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results	Third PRF Inspection Results	Photo
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.	Third inspection 4 June 2026. No field signs.	
T21	Ash	Tear out 1 – 3 m east.	PRF-M	N/A – no access	N/A – no access	N/A – no access	N/A – no access
T22	Sycamore (<i>Acer pseudoplatanus</i>)	Knothole at 5m	PRF-M	N/A – no access	N/A – no access	N/A – no access	N/A – no access

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results	Third PRF Inspection Results	Photo
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.	N/A – no access	
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	N/A – no access	

Tree Ref	Tree Species	Features	PRF Inspection Categorisation	First PRF Inspection Results	Second PRF Inspection Results	Third PRF Inspection Results	Photo
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.	Final inspection 4 June 2026. No field signs. Active bird's nest present therefore features could not be fully inspected.	

Table B-2: Water Vole Survey Results

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV31	Site	Water Vole	Suitable habitat	Slow flowing ditch with bank densely covered by common reed, thistle and rush species. Some of the watercourse channel not accessible due to steep banks and ditch soft-bottomed No field signs.	
WV32	Site	Water Vole	Suitable habitat	Hard-bottomed ditch with slow flow, with densely covered bank vegetation dominated by common reed.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV33	Site	Water vole	Potential water vole feeding remains	Potential water vole feeding remains within 20 cm of water on the south-east bank of a slow flowing ditch, under overhanging bank/vegetation. Vegetation cut at 45-degree angles.	
WV34	Site	Water vole	Potential water vole burrow	Potential water vole burrow identified on the south-east bank of slow flowing ditch. Inner tunnel approx. 7 cm wide.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV35	Site	Water vole	Burrow – species unknown	Single entrance identified on south-east bank of slow flowing ditch. Likely too small for water vole.	
WV36	Site	Water vole	Burrow – species unknown	Single entrance identified on south-east bank of slow flowing ditch. Likely too small for water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV37	Site	Water vole	Potential water vole burrow	Potential water vole burrow identified on the south-east bank of slow flowing ditch. Tunnel approx. 10 cm wide.	
WV38	Site	Water vole	Burrow – species unknown	Single entrance identified on south-east bank of slow flowing ditch. Likely too small for water vole.	
WV39	Site	Water vole	Potential water vole burrow	Potential water vole burrow identified on the south-east bank of slow flowing ditch. Tunnel approx. 10 cm wide.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV40	Site	Water vole	Burrow – species unknown	Bank vole burrow identified on north-west bank with flat chewed vegetation surrounding burrow and within. Burrow is 10 cm wide.	
WV41	Site	Water vole	Potential water vole feeding remains	Potential water vole feeding remains identified on south-east bank of slow flowing ditch. Chewed vegetation with a mix of flat and 45-degree edges.	

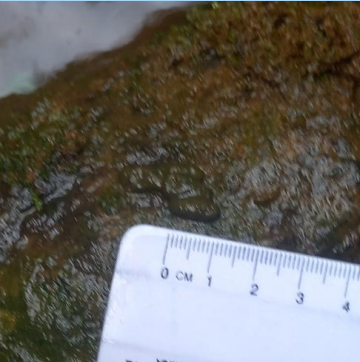
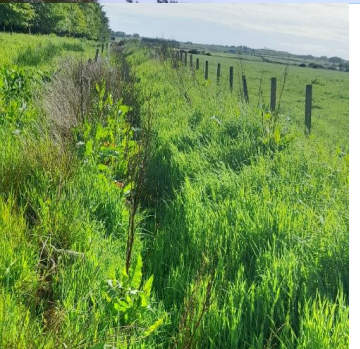
Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV42	Site	Water vole	Potential water vole burrow	Potential water vole burrows identified on south-east bank of slow flowing ditch. Four entrances approx.15 cm wide.	
WV43	Site	Water vole	Burrow – species unknown	Small burrow identified on north-west bank of slow flowing ditch, suspected of bank vole but potentially large enough for water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV44	Site	Water vole	Potential water vole feeding remains	Area of flattened vegetation with feeding remains on edge of water.	
WV45	Site	Water vole	Suitable habitat	Hard-bottomed ditch with slow flow, with densely covered bank vegetation dominated by common reed.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV46	Site	Water vole	Potential water vole burrow	Potential water vole burrow identified on north-east bank of slow flowing ditch. Approx 20 cm wide opening.	
WV47	Site	Water vole	Potential water vole feeding remains	Flattened vegetation and potential water vole feeding remains near edge of water.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV48	Site	Water vole	Potential water vole feeding remains	Flattened vegetation and potential water vole feeding remains near edge of water. Vegetation with mix of 45-degree angles and flat chewed edges.	
WV49	Site	Water vole	Suitable habitat	Slow flowing ditch with bankside vegetation comprising of grass. Sheltered areas suitable for water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV50	Site	Water vole	Burrow – species unknown	One burrow where previous one found during 2025 surveys. Potentially brown rat. Appears to have collapsed.	
WV51	Water Vole Survey Area	Water vole	Droppings	Confirmed water vole droppings on raised section of mud within ditch. DNA sample returned positive result for water vole.	
WV52	Water Vole Survey Area	Water vole	Potential water vole feeding remains	Potential water vole feeding station with cut vegetation located 1 m from water edge.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV53	Water Vole Survey Area	Water vole	Droppings	Potential water vole droppings on prominent rock in ditch. Sample subject to DNA test but species was not identifiable.	
WV54	Water Vole Survey Area	Water vole	Suitable habitat	Dry ditch with steep banks and banks vegetated with grasses. Considered 'suitable but poor' habitat for water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV55	Site	Water vole	Droppings	Confirmed water vole droppings on prominent rock in slow flowing ditch. DNA sample returned positive result for water vole.	
WV56	Site	Water vole	Droppings	Potential water vole droppings on water edge of slowing flowing ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV57	Site	Water vole	Droppings	Potential water vole droppings on prominent rock in slow flowing ditch.	
WV58	Site	Water vole	Droppings	Multiple potential water vole droppings on prominent rock in slow flowing ditch. Sample subject to DNA test but species was not identifiable.	
WV59	Site	Water vole	Potential water vole burrow	Potential water vole burrow on south-east bank of slow flowing ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV60	Site	Water vole	Droppings	Potential water vole droppings on prominent rock in slow flowing ditch. Sample subject to DNA test but species was not identifiable.	
WV61	Site	Water vole	Droppings	Multiple potential water vole droppings on raised section of earth in slow flowing ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV62	Site	Water vole	Droppings	Potential water vole droppings on prominent rock in slow flowing ditch. Sample subject to DNA test but species was not identifiable.	
WV63	Site	Water vole	Suitable habitat	Dry ditch with steep banks and banks vegetated with abundant grasses. Considered 'suitable but poor' habitat for water vole.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV64	Site	Water vole	Potential water vole burrow	Two potential water vole burrows at toe of ditch bank. Ditch almost completely dry at time of survey. No field signs.	
WV65	Water Vole Survey Area	Water Vole	Suitable habitat	Dry ditch with steep banks and banks vegetated with abundant grasses. Considered 'suitable but poor' habitat for water vole. Potential water vole tunnels through thick bankside vegetation.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV66	Water Vole Survey Area	Water vole	Suitable habitat	Dry ditch with steep banks and banks vegetated with abundant grasses. Considered 'suitable but poor' habitat for water vole.	
WV67	Water Vole Survey Area	Water vole	Suitable habitat	Dry ditch with steep banks and banks vegetated with abundant grasses. Considered 'suitable but poor' habitat for water vole. Overgrown vegetation prevented survey for majority of this ditch.	

Ref.	Location - in the Site or wider Survey Area	Species	Field sign	Comment	Example Photo
WV68	Site	Water vole	Potential water vole burrow	Multiple potential water vole burrows on south bank of ditch.	

ANNEX C: ADAS LABORATORY REPORTS

Client:
New Deer, [REDACTED], WSP
1040091-1464, New Deer, version 1



RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: [REDACTED]
Email: [REDACTED]

www.adas.uk

Sample ID: ADAS-13443

Client Identifier: GCN1

Grid references/coordinates: NK0371244643

Description: pond water samples in preservative

Condition on Receipt: Medium Sediment

Date of Receipt : 08/06/2026

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	16/06/2026
Degradation Control [§]	Within limits	Real Time PCR	16/06/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	16/06/2026
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	[REDACTED]	Report Issued by:	[REDACTED]
Signed:	[REDACTED]	Signed:	[REDACTED]
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	16/06/2026	Date of issue:	16/06/2026

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for GCN if all of the replicates are negative; positive for GCN if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Client:
New Deer, [REDACTED], WSP
1040091-1464, New Deer, version 1



RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Te [REDACTED]
Email: [REDACTED]

www.adas.uk

Sample ID: ADAS-13444

Client Identifier: GCN4

Grid references/coordinates: NK0434145184

Description: pond water samples in preservative

Condition on Receipt: Good

Date of Receipt : 08/06/2026

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	15/06/2026
Degradation Control [§]	Within limits	Real Time PCR	15/06/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	15/06/2026
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	[REDACTED]	Report Issued by:	[REDACTED]
Signed:	[REDACTED]	Signed:	[REDACTED]
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	16/06/2026	Date of issue:	16/06/2026

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

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[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Client:
New Deer, [REDACTED], WSP
1040091-1464, New Deer, version 1



RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: [REDACTED]
Email: [REDACTED]

www.adas.uk

Sample ID: ADAS-13445

Client Identifier: GCN6

Grid references/coordinates: NK0546644001

Description: pond water samples in preservative

Condition on Receipt: Low Sediment

Date of Receipt : 08/06/2026

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	16/06/2026
Degradation Control [§]	Within limits	Real Time PCR	16/06/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	16/06/2026
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	[REDACTED]	Report Issued by:	[REDACTED]
Signed:	[REDACTED]	Signed:	[REDACTED]
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	16/06/2026	Date of issue:	16/06/2026

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for GCN if all of the replicates are negative; positive for GCN if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Client:
New Deer, [REDACTED], WSP
1040091-1464, New Deer, version 1



RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: [REDACTED]
Email: [REDACTED]

www.adas.uk

Sample ID: ADAS-13446

Client Identifier: GCN2

Grid references/coordinates: NK0378044653

Description: pond water samples in preservative

Condition on Receipt: Low Sediment

Date of Receipt : 08/06/2026

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	16/06/2026
Degradation Control [§]	Within limits	Real Time PCR	16/06/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	16/06/2026
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	[REDACTED]	Report Issued by:	[REDACTED]
Signed:	[REDACTED]	Signed:	[REDACTED]
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	16/06/2026	Date of issue:	16/06/2026

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for GCN if all of the replicates are negative; positive for GCN if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Client:
New Deer, [REDACTED], WSP
1040091-1464, New Deer, version 1



RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: [REDACTED]
Email: [REDACTED]

www.adas.uk

Sample ID: ADAS-13447

Client Identifier: GCN5

Grid references/coordinates: NK0512044060

Description: pond water samples in preservative

Condition on Receipt: Low Sediment

Date of Receipt : 08/06/2026

Volume: Passed

Determinant	Result	Method	Date of Analysis
Inhibition Control [†]	2 of 2	Real Time PCR	16/06/2026
Degradation Control [§]	Within limits	Real Time PCR	16/06/2026
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	16/06/2026
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10 ⁻⁴ ng/μL) [#]	4 of 4	Real Time PCR	As above for GCN
Report Prepared by:	[REDACTED]	Report Issued by:	[REDACTED]
Signed:	[REDACTED]	Signed:	[REDACTED]
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	16/06/2026	Date of issue:	16/06/2026

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[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10⁻¹, 10⁻², 10⁻³ ng/μL) are also routinely run, results not shown here.

Appendix 1: Interpretation of results

Sample Condition

Upon sample receipt we score your samples according to quality: good, low sediment, medium sediment, high sediment, white precipitate, and presence of algae.

There are three reasons as to why sediment should be avoided:

1. It is possible for DNA to persist within the sediment for longer than it would if it was floating in the water which could lead to a false positive result i.e. in this case GCN not recently present but present a long time ago
2. In some cases sediment can cause inhibition of the PCR analysis used to detect GCN eDNA within samples which could lead to an indeterminate result.
3. In some cases sediment can interfere with the DNA extraction procedure resulting in poor recovery of the eDNA which in turn can lead to an indeterminate result.

Algae can make the DNA extraction more difficult to perform so if it can be avoided then this is helpful.

Sometimes samples contain a white precipitate which we have found makes the recovery of eDNA very difficult. This precipitate can be present in such high amounts that it interferes with the eDNA extraction process meaning that we cannot recover the degradation control (nor most likely the eDNA itself) at sufficient levels for the control to be within the acceptable limits for the assay, therefore we have to classify these type of samples as indeterminate.

What do my results mean?

A positive result means that great crested newts are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).

A negative result means that DNA from the great crested newt has not been detected in your sample.

On occasion an inconclusive result will be issued. This occurs where the DNA from the great crested newt has not been detected but the controls have indicated that either: the sample has been degraded and/or the eDNA was not fully extracted (poor recovery); or the PCR inhibited in some way. This may be due to the water chemistry or may be due to the presence of high levels of sediment in samples which can interfere with the DNA extraction process. A re-test could be performed but a fresh sample would need to be obtained. We have successfully performed re-tests on samples which have had high sediment content on the first collection and low sediment content (through improved sample collection) on the re-test. If water chemistry was the cause of the indeterminate then a re-test would most likely also return an inconclusive result.

The results will be recorded as indeterminate if the GCN result is negative and the degradation result is recorded as:

1. evidence of decay - meaning that the degradation control was outside of accepted limits
2. evidence of degradation or residual inhibition - meaning that the degradation control was outside of accepted limits but that this could have been due to inhibitors not being removed sufficiently by the dilution of inhibited samples (according to the technical advice note)

Client:

WSP

Tel:

Email:

www.adas.uk

Sample ID: 621149801-WV1

Client Identifier: WV53

Sample Description: Container of droppings

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Determinant	Result	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	Not identifiable	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position: Research Scientist

Position: Director: Biotechnology

Date of preparation: 29/06/2026

Date of issue: 29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

^sThe identity or percentage match of the two sequences (ideally 100%).



ADAS
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Client:

WSP

Tel:

Email:

www.adas.uk

Sample ID: 621149801-WV2

Client Identifier: WV62

Sample Description: Container of droppings

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Determinant	Result	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	Not identifiable	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position: Research Scientist

Position: Director: Biotechnology

Date of preparation: 29/06/2026

Date of issue: 29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

^sThe identity or percentage match of the two sequences (ideally 100%).

Client:

WSP

ADAS
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel:

Email:

www.adas.uk

Sample ID: 621149801-WV3

Client Identifier: WV51

Sample Description: Container of droppings

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Determinant	Result (closest match)	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	<i>Arvicola amphibius</i>	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026
Sequence Alignment*		Sequence Identity	54/54 (100%)
Query 1	GCCCTACTAGGAGATGACCAAATCTATAATGTAGTAGTAACCGCCCATGCCTTC	54	
Sbjct 136	GCCCTACTAGGAGATGACCAAATCTATAATGTAGTAGTAACCGCCCATGCCTTC	189	

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position: Research Scientist

Position: Director: Biotechnology

Date of preparation: 29/06/2026

Date of issue: 29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

§The identity or percentage match of the two sequences (ideally 100%).

Sample ID: 621149801-WV4

Client Identifier: WV58

Sample Description: Container of droppings

Client:

WSP

Tel: 01925 838900

Email: ADAS@ADAS.co.uk

www.adas.uk

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Determinant	Result	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	Not identifiable	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position:

Research Scientist

Position:

Director: Biotechnology

Date of preparation:

29/06/2026

Date of issue:

29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

§The identity or percentage match of the two sequences (ideally 100%).

Sample ID: 621149801-WV5

Client Identifier:

WV55

Sample Description:

Container of droppings

Client:

WSP

Tel: 01

Email:

www.adas.uk

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Determinant	Result (closest match)	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	<i>Arvicola amphibius</i>	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026

Sequence Alignment*	Sequence Identity	52/52 (100%)
Query 1 CCTACTAGGAGATGACCAAATCTATAATGTAGTAGTAACCGCCCATGCCTTC 52 		
Sbjct 138 CCTACTAGGAGATGACCAAATCTATAATGTAGTAGTAACCGCCCATGCCTTC 189		

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position: Research Scientist

Position: Director: Biotechnology

Date of preparation: 29/06/2026

Date of issue: 29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

§The identity or percentage match of the two sequences (ideally 100%).

Sample ID: 621149801-WV6

Client Identifier: WV60

Sample Description: Container of droppings

Date of Receipt: 11/06/2026

Material Tested: Dropping material processed

Client:

WSP

ADAS
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Email: Tel:

www.adas.uk

Determinant	Result	Method	Date of DNA Sequence Analysis
Cytochrome oxidase subunit 1 (COI) DNA sequence	Not identifiable	DNA extraction from droppings followed by PCR amplification of a short fragment of the COI gene, DNA sequencing and comparison to a database of known DNA sequences for species identification	26/06/2026

Report Prepared by:

Report Issued by:

Signed:

Signed:

Position: Research Scientist

Position: Director: Biotechnology

Date of preparation: 29/06/2026

Date of issue: 29/06/2026

*DNA sequence alignment for the test sample (Query) matched to a known sequence (Sbjct).

^sThe identity or percentage match of the two sequences (ideally 100%).