Scottish & Southern Electricity Networks
TRANSMISSION

Beauly to Blackhillock to New Deer to Peterhead 400 kV Project

Environmental Impact Assessment Report

Volume 5 | Appendices

Appendix 8.1: UK Habitat and Protected Species

APPENDIX 8.1: HABITAT AND PROTECTED SPECIES

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LIST OF ABBREVIATIONS

AWI	Ancient Woodland Inventory
BAP	Biodiversity Action Plan
BAIV	Bat Activity Index Values
BCT	Bat Conservation Trust
BNG	Biodiversity Net Gain
BPpH	Bat Passes per Hour
BPpN	Bat Passes per Night
CIEEM	Chartered Institute of Ecology and Environmental Management
CPM	Carbon and Peatland Map
DEFRA	Department for Environment Food and Rural Affairs
DBW	Daytime Bat Walkover
eDNA	environmental Deoxyribonucleic Acid
EcIA	Ecological Impact Assessment
EIA	Environmental Impact Assessment
EPS	European Protected Species
EU	European Union
FAR	Further Assessment Required
FISC	Field Identification Skills Certificate
FWPM	Freshwater Pearl Mussel
GCN	Great Crested Newt
GLTA	Ground-Level Tree Assessment
GIS	Geographical Information System
HCA	Habitat Condition Assessment
HLCM	Habitat and Land Cover Map
HRA	Habitat Regulations Appraisal
HSI	Habitat Suitability Index
IIA	Important Invertebrate Area
INNS	Invasive Non-Native Species
kV	Kilovolt
LBAP	Local Biodiversity Action Plan
LNCS	Local Nature Conservation Site
LNR	Local Nature Reserve
LoD	Limit of Deviation
MCA	Multi-Criteria Analysis
MMU	Minimum Mapping Unit
MPA	Marine Protection Area
NESBiP	North East Scotland Biodiversity Partnership
NBW	Nighttime Bat Walkover
NVA	Night Vision Aid
NWSS	Native Woodland Survey of Scotland
OHL	Overhead Line
OS	Ordnance Survey
OSMM	Ordnance Survey MasterMap
PRA	Preliminary Roost Assessment
PRF	Potential Roost Feature
SAC	Special Area of Conservation
SBL	Scottish Biodiversity List

SEPA	Scotland Environmental Protection Agency
SFCC	Scottish Fisheries Coordination Centre
SPA	Special Protection Area
SPL	Scottish Priority Landscape (Butterfly Conservation)
S-SET	Species-Specific Emergence Time
SSEN	Scottish and Southern Electricity Networks (SSEN Transmission)
SSSI	Site of Special Scientific Interest
SQE	Suitably Qualified Ecologist
UKHab	UK Habitat Classification
UKBAP	UK Biodiversity Action Plan
WCA	Wildlife and Countryside Act 1981 (as amended)
WPA	Wildcat Protection Area
WSP	WSP UK Ltd.

Executive Summary

This Technical Appendix presents baseline ecology information relevant to the Proposed Development and is intended as a supporting document to inform the ecology chapter of the associated Environmental Impact Assessment (EIA) report. The ecology chapter, presented in **Chapter 8: Ecology** of the EIA report, takes the form of an Ecological Impact Assessment (EcIA).

To inform the EcIA of the Proposed Development, the following desk-based assessments were undertaken:

- desk-based review of protected and notable species, sites and habitats of international, national and local importance, with reference to publicly available data sources within relevant search parameters from the Proposed Development.

Due to seasonal and programme constraints, ecological field survey areas discussed in this Technical Appendix were planned based on a preliminary design which has since evolved into the Proposed Development. This area defined for the purpose of survey planning is hereafter referred to as the Potential Ecological Footprint and comprised of 100 m either side of the Proposed OHL Alignment; proposed upgrades to 'poor and very poor' condition existing access tracks; and new permanent access tracks which would require land take. Data relevant to the final design is then drawn from within the datasets collected, to inform the EcIA. This Technical Appendix also presents baseline information relevant to the Potential Ecological Footprint and surrounding area, in relation to habitats and legally protected and notable species (excluding badgers (*Meles meles*) and freshwater pearl mussel (FWPM) (*Margaritifera margaritifera*) reported on in a separate, confidential appendix):

- habitat surveys applying UK Habitat (UKHab) and Habitat Condition Assessment (HCA) methodology;
- habitat suitability assessment for protected and notable species;
- targeted surveys for bats, pine marten (*Martes martes*), red squirrel (*Sciurus vulgaris*), otter (*Lutra lutra)*, water vole (*Arvicola amphibius*), Scottish wildcat (*Felis silvestris*), great crested newt (GCN) (*Triturus cristatus*) and fish, following good practice guidelines; and
- additional information on Eurasian beavers (*Castor fiber*) that came to light after surveys had been scoped and carried out.

Internationally designated sites recorded within 10 km of the Proposed Development included 10 Special Protected Areas (SPA), 14 Special Areas of Conservation (SAC) and three Ramsar Sites. Nationally designated sites recorded within 2 km of the Proposed Development included 15 Sites of Special Scientific Interest (SSSI) and one seal haul-out site. Several local / non- statutory designated sites were recorded within 1 km of the Proposed Development including one Wildcat Protection Area (WPA), two red squirrel strongholds, two Local Nature Conservation Sites (LNCS), two Important Invertebrate Areas (IIA), one Butterfly Conservation Scottish Priority Landscape (SPL) and several Buglife B-lines.

The Potential Ecological Footprint was found to contain the following Annex I priority habitats which are listed as UKHab primary habitats:

- f1a5 – Blanket bog;
- g2b6 – Species-rich grassland with mat-grass in upland areas;
- h1a7 – Wet heathland with cross-leaved heath- lowland;
- h1b5 – Dry heaths – upland;
- h1b6 – Wet heathland with cross-leaved heath – upland;
- w1d5 – Alder woodland on floodplains;
- w1a5 – Western acidic oak woodland; and,
- w1f6 – Oak-hornbeam forests.

The above-listed habitats are also included on the Scottish Biodiversity List (SBL) and Local Biodiversity Action Plans (LBAP) for each respective council area.

With regards to protected and notable species, definitive evidence of the following was recorded during surveys of the Potential Ecological Footprint and surrounding area:

- bats (roost and activity);
- red squirrel (potential denning sites and sightings);
- otter (holts and spraints);
- GCN (confirmed by environmental DNA (eDNA));
- common lizard (*Zootoca vivipara*) (sighting); and
- brown hare (*Lepus europaeus*) (sighting).

Potential field signs along with suitable supporting habitat was recorded for the following protected and notable species: pine marten (potential den sites and potential scat) and water vole (potential burrows).

Based on the results of desk-based studies and habitat suitability assessments, the following protected and notable aquatic species are considered present within watercourses within the Potential Ecological Footprint:

- beaver;
- Atlantic salmon;
- brown trout; and
- European eel.

No signs were recorded of the following protected and notable species, however based on habitat suitability, it is likely that there will be regularly occurring populations of the following species and as such, their presence cannot be ruled out:

- Scottish wildcat;
- river lamprey (*Lampetra fluviatilis*);
- hedgehog (*Erinaceus europaeus*);
- slow worm (*Anguis fragilis*);
- adder (*Vipera berus*); and
- terrestrial invertebrates.

1 Introduction

1.1 Project Background

1.1.1 WSP UK Ltd (WSP) was commissioned by Scottish and Southern Electricity Networks Transmission ('SSEN Transmission'), operating under licence as Scottish Hydro Electric Transmission plc, to undertake baseline habitat and protected species surveys for a proposed 400 kilovolt (kV) Overhead Line (OHL) transversing from west to east between new substation sites at Beauly, New Deer and Peterhead ('the Proposed Development'). The Proposed Development traverses through Highland, Moray and Aberdeenshire council areas of north and northeast Scotland.

1.1.2 The location of the Proposed Development is shown within **Annex A: Figure 8.1.1: Survey Areas and Access Constraints.** For full details of the Proposed Development, please refer to **Chapter 3: Project Description** of the EIA Report, which this Technical Appendix should be read in conjunction with.

1.1.3 The ecological surveys were undertaken using a preliminary design which has since evolved into the Proposed Development. Initially a Potential Ecological Footprint was defined for survey planning purposes which comprised the following:

- 100 m either side of the Proposed OHL Alignment;
- proposed upgrades to 'poor and very poor' condition existing access tracks; and
- new permanent access tracks which would require land take.

1.1.4 Habitat and species specific survey buffers were then added in addition to the Potential Ecological Footprint to define surveys areas, which are illustrated on **Annex A: Figure 8.1.1: Survey Areas and Access Constraints**.

1.1.5 Note that the Proposed Development (i.e. final iteration of the design) has been used for distances to ecological features in this Technical Appendix.

1.1.6 Confidential badger and FWPM survey results are presented within **Appendix 8.2: Confidential Badger and Freshwater Pearl Mussel,** due to the sensitive nature and persecution risk associated with these species.

1.2 Scope of Report

1.2.1 This Technical Appendix presents baseline ecological information relevant to the Potential Ecological Footprint and is intended as a supporting document to inform the ecology chapter of the EIA report (**Chapter 8: Ecology**). It does not include ornithological data which is covered in a separate technical appendix to support the ornithology chapter (**Chapter 9: Ornithology**) of the EIA.

1.2.2 Baseline data was collected from a desk-based review of existing information; supplemented with site specific and recently undertaken habitat suitability and targeted habitat, protected / notable species surveys, to provide an accurate, representative and timely baseline. Specifically, this Technical Appendix presents the methods and results of the following ecology studies:

- desk based review of existing data pertaining to protected and notable species, habitats and nature conservation sites of international, national and local importance;
- mapping and description of the primary habitats present within the Potential Ecological Footprint, using initial desk-based data and field surveys applying UK Habitat (UKHab) and Multi-Criteria Analysis (MCA) methodologies;
- Habitat Condition Assessment (HCA) within the Potential Ecological Footprint to inform Biodiversity Net Gain (BNG) assessment;
- incidental observations of Invasive Non-Native Species (INNS) recorded during surveys;
- protected species habitat suitability survey; and

- targeted protected and notable species surveys.

1.2.3 The UKHab section of this report is linked to **Appendix 8.3: Biodiversity Net Gain Report** of the EIA, which considers the condition, distinctiveness, and spatial extent of habitats within the Potential Ecological Footprint and demonstrates how positive effects for biodiversity will be achieved through habitat creation and / or enhancement.

1.3 Definition of Terms

1.3.1 Terms specific to this Technical Appendix are presented below. Full details of terminology relating to the Proposed Development are presented within **Chapter 3: Project Description** of the EIA Report.

- Potential Ecological Footprint: area defined for survey planning purposes which comprised 100 m either side of the Proposed OHL Alignment;proposed upgrades to 'poor and very poor' condition existing access tracks; and new permanent access tracks which would require land take.
- Species Survey Buffers: area defined during the habitat suitability assessment stage, encompassing species specific buffers, calculated from the Potential Ecological Footprint, in addition to an outer 45 m Operational Corridor (OC).
- Species Survey Area: the collective area of 'high' and/or 'moderate' suitability habitat identified within Species Survey Buffers, subject to targeted surveys.

2 Methods

2.1 General Approach to Field Surveys

2.1.1 The general approach to protected species field surveys for the EIA has been to survey a proportion of the Potential Ecological Footprint focused on areas of high suitability for protected species, drawing upon desktop data and survey data from the Route Selection Stage and Alignment Selection Stage of the project, and consultation with NatureScot, The Highland Council, Moray Council and Aberdeenshire Council. A pre-EcIA meeting held 30 November 2023 set out the general approach to protected species surveys: to survey up to 20% of the Proposed OHL Alignment, targeting relevant high suitability areas (and medium / high suitability areas for wildcat (which has been raised as a species of interest in consultations)). The focus on high suitability areas (plus medium suitability for wildcat) was considered to be appropriate and proportionate, given the prior process of selecting a Proposed Corridor, Proposed Route and then a Proposed OHL Alignment, whereby avoidance of the most highly suitable areas (where practicable) was a factor in that selection process. Feedback from attendees at the pre-EcIA meeting, and at EIA Scoping in July-August 2024, was taken into account in choosing survey areas, notably woodland and river valleys including the River Beauly, River Nairn, River Findhorn, River Spey, and other major river catchments across the Proposed OHL Alignment. This species data was complemented by the UKHab surveys which were used, together with the aforementioned desktop, consultation and prior survey data, to help identify highly suitable habitats for species.

2.1.2 The aim was to inform the EIA, with detailed surveys to inform any EPS or badger licensing being carried out during the pre-construction phase. By focusing on areas of high (and / or moderate suitability (for wildcat only)) and targeting areas that the prior Route Selection and Alignment Selection Stages' studies had identified as most likely to support protected species, the approach of surveying up to 20% of the Proposed OHL Alignment for protected species was expected to provide sufficient data to inform the EIA. Surveys that would be required pre-construction, to inform project-wide or location-specific protected species licence applications, were not included in the scope of the EIA surveys, particularly as the programme for EIA submission would mean a gap of nearly two years before construction. The impact assessment set out in **Chapter 8: Ecology** of this EIA is precautionary given the proportional survey approach described above, and it also recommends confirmatory surveys, in addition to pre-construction surveys, to allow for the fact that a proportion of the Proposed Development has been directly surveyed.

2.2 Overview

2.2.1 Initial desk-based studies were completed between July and August 2022 during the Proposed Development's Corridor Selection Stage, to identify a broad range of potential ecological constraints and opportunities within the Proposed Development, and its adjacent context. Desk based data was subsequently updated during the Alignment Selection Stage.

2.2.2 Initial habitat and protected / notable species surveys were undertaken in May 2022, with subsequent surveys undertaken between September and October 2022 to inform the Route Selection Stage. Further surveys were conducted in July 2023, to inform the Alignment Selection Stage. Finally, targeted surveys to inform the Proposed Development's EIA were conducted between February and November 2024. The methodology pertaining to desk-based studies is presented first, followed by field survey methodology.

2.2.3 All surveys were carried out by a team of Suitability Qualified Ecologists (SQE) who are at least 'capable' of species and habitat surveys, planning and field work as per the Chartered Institute of Ecology and Environmental Management (CIEEM) Competency Framework[1]. Habitat surveys and design were led by a WSP Senior Ecologist who is 'proficient' in habitat survey methodology and design and holds full CIEEM membership. Protected / notables species surveys and design were led by a WSP Principal Ecologist who is 'proficient' in protected species survey methodology and design and holds full CIEEM membership. Specific survey licences utilised (where applicable) during protected species surveys are provided within **Annex B.**

2.3 Desk Study

Designated Sites and Protected Areas Desk Study

2.3.1 A desk-based study of both ornithological and non-ornithological designated sites and protected areas was undertaken in June 2023 to August 2024 during the Route and Alignment Selection Stages, with review and updating undertaken in January 2025 for the EIA. The aim of the desk study was to identify existing information pertaining to designated sites and protected areas, and to outline the related potential constraints and opportunities regarding the Proposed Development and its adjacent context[2].

2.3.2 Freely downloadable datasets (including those available from NatureScot[3]) were reviewed for information including Scottish Wildlife Trust (SWT) Reserves[4], Royal Society for Protection of Birds (RSPB) Reserve[5] and Important Plant Areas (IPA)[6]. Additional datasets consulted at this stage are referenced in **Paragraphs 2.3.9, 2.4.9 and 2.4.11.**

Protected Species Desk Study

2.3.3 An updated desk study was undertaken to review the results of initial desk-based assessments undertaken at Alignment Selection Stage. This included an updated review of data recorded on the National Biodiversity Network (NBN) Atlas[7] within the last ten years (from 2014), up to 1 km from the Potential Ecological Footprint for targeted terrestrial / riparian species including:

- bats (all species);
- pine marten (*Martes martes*);
- red squirrel (*Sciurus vulgaris*);
- otter (*Lutra lutra*);
- water vole (*Arvicola amphibius*);
- wildcat (*Felis silvestris*); and
- reptiles.

2.3.4 Only datasets that are freely available for commercial use were searched, including those with Open Government Licence (OGL), Creative Commons No rights reserved (CCO) and Creative Commons licence[8] with attribution (CC-BY).

1 CIEEM (2024). Competency Framework v3.0. Available: https://cieem.net/wp-content/uploads/2019/02/Competency-Framework-2024-V7-Web.pdf

2 Note, within the Habitat Regulation Appraisal (HRA), which accompanies this s37 application, designated sites and protected areas located beyond the search radius of the current desk study may be assessed as part of the HRA process in order to evaluate ecological or hydrological connectivity to the Proposed Development.

3 NatureScot's Natural Spaces portal. Available: https://www.nature.scot/information-hub/naturescot-data-services

4 Scottish Wildlife Trust (Online). Available: https://scottishwildlifetrust.org.uk/our-work/our-wildlife-reserves/.

5 RSPB (Online). Available: https://www.rspb.org.uk/reserves-and-events/reserves-a-z/.

6 IPAs are identified by Plantlife as being some of the best places for wild plants in Britain. Available: https://www.plantlife.org.uk/uk/nature-reserves-important-plant-areas/important-plant-areas

7 NBN Atlas (online). Available: https://nbnatlas.org/

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

2.3.5 This review included ecological observations (recorded within the past ten years), obtained from extended public consultation, ad hoc sightings of field signs recorded during targeted surveys undertaken in 2024 during the Alignment Selection Stage and field observations from surveys undertaken during prior ecological studies within the wider area (further information provided within **Paragraph 2.3.8 below**). Sightings reported to Saving Scotland's Red Squirrels[9] between 2020-2024 were also reviewed from up to 5 km from the Site. In addition, data obtained from Spey Fisheries Board[10] was also reviewed pertaining to specific locations (deemed highly suitable for protected and notable species), where further desk-based data was required. The NatureScot report *Beaver Translocation Consultation - River Beauly Catchment Environmental Report*[11] was also consulted pertaining to recent beaver translocations in the Highland Council area.

2.3.6 The Scotland Environmental Protection Agency (SEPA) water classification hub[12] was viewed to inform a fish habitat suitability assessment of rivers located within or in close proximity to the Proposed Development.

2.3.7 Finally, local fisheries board monitoring data was requested for salmonoid records less than ten years old, for 1 km upstream and downstream of the following watercourses where proposed crossings have been identified, within the Potential Ecological Footprint:

- River Beauly requested from the Ness and Beauly Fisheries Trust[13];
- Rivers Findhorn, Nairn and Lossie requested from Findhorn, Nairn and Lossie Rivers Trust[14];
- River Spey requested from the Spey Fisheries Board[15]; and
- Rivers Deveron and Isla requested from the Deveron, Bogie and Isla Rivers Charitable Trust[16].

Multi-Criteria Analysis

2.3.8 A desk-based Multi-Criteria Analysis (MCA) initially undertaken in June 2023 during the Proposed Development's Alignment Selection Stage was reviewed and updated using data from a range of publicly available sources and prior ecological studies.

2.3.9 The MCA involved assigning land use types into likely habitats present within the Potential Ecological Footprint and wider area (up to a 250 m buffer) recorded using the using the UKHab system[17], whilst also assessing connectivity of priority habitats using publicly available map resources and aerial photography including:

- publicly available Ancient Woodland Inventory (AWI)18 and Native Woodland Survey of Scotland (NWSS)19 data were reviewed to identify the presence of potentially irreplaceable ancient woodlands;
- publicly available Carbon and Peatland Map[20] (CPM) data was reviewed to identify the presence of potentially irreplaceable peatland habitat (blanket bog/areas of deep peat);
- review of the Habitat Map of Scotland[21] (HABMOS) habitat data to identify priority habitats including habitats listed in Annex I of the Habitats Directive (Council Directive 92/43/EEC) ('the Habitats Directive'). This includes irreplaceable blanket bog; and

9 Saving Scotland's Red Squirrels (online). Available at: https://scottishsquirrels.org.uk/squirrel-sightings/
10 Spey Fisheries Board (online). Available at: https://riverspey.org/about-us/spey-fishery-board/
11 NatureScot (online). Beaver Translocation Consultation - River Beauly Catchment Environmental Report. Available at: https://www.nature.scot/doc/beaver-translocation-consultation-river-beauly-catchment-environmental-report
12 SEPA (online). Water Classification Hub. Available at: https://www.sepa.org.uk/data-visualisation/water-classification-hub/
13 Ness and Beauly Fisheries Trust. Available at: Monitoring | Ness & Beauly Fisheries Trust (nessandbeauly.org.uk)
14 Findhorn, Nairn and Lossie Rivers Trust. Available at: https://www.fnlrt.org.uk/
15 Spey Fisheries Board. Available at: https://riverspey.org/about-us/spey-fishery-board/
16 Deveron, Bogie and Isla Rivers Charitable Trust. Available at: https://www.deveron.org/
17 UKHab Ltd. (2023). UK Habitat Classification, Version 2.0. Available at: https://www.ukhab.org
18 NatureScot (2022) (online). Ancient Woodland Inventory. Available at: https://opendata.nature.scot/datasets/snh::ancient-woodland-inventory/about
19 Scottish Forestry (2022) (online). Native Woodlands Survey Scotland. Available at: https://open-datascottishforestry.hub.arcgis.com/datasets/6d27b064fcba471da50c8772ad0162d7_0/about
20 Scotland's Soils (2016). Carbon and Peatland 2016 Map. Available at: https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map/
21 Nature Scot (2022) (Online). Habitat Map of Scotland. Available at: Habitat Map of Scotland (nature.scot)

- review of Scotland Habitat and Land Cover Map[22] (HLCM) and base mapping from Ordnance Survey MasterMap (OSMM).

2.3.10 The MCA was complemented by a review of ecological survey results from the following studies (hereafter 'Prior Ecology Studies'):

- walkover survey undertaken for the alignment options, undertaken between the 24 July and 4 August 2023;
- walkover survey undertaken for the corridor options, undertaken on the 9 to 13 May and 23 to 27 May 2022;
- initial UKHab survey and HCA completed for the Potential Ecological Footprint, following standard survey methodology[23]. Undertaken to 20 specific targeted areas, prior to the Route Selection Stage. Completed between 19 to 22 September 2022 and 4 to 14 October 2022;
- Blackhillock 2 Substation Site Selection Report[24];
- New Deer 2, Substation Site Selection Report[25];
- Peterhead 2 Project, Substation Site Selection Report[26];
- Elchies (Rothes III) Windfarm Grid Connection, Environmental Alignment Options Addendum[27];
- North East 400 kV Reinforcement Works, Environmental Impact Assessment Report[28];
- Beauly-Keith 132 kV OHL Reconductoring, Environmental Appraisal[29]; and
- Keith to Blackhillock 132 kV Reinforcement, Environmental Appraisal[30].

2.3.11 During the MCA, reliable sources of habitat data within the Potential Ecological Footprint were derived using factors of data age, data source and professional judgement. Using these criteria, the most reliable data were placed higher up the hierarchy and the data in which there was less confidence were placed lower. For example, OSMM data is spatially and geometrically the most accurate national data set, known to be precise for hardstanding, buildings and water categories; however, it is less useful for assigning habitat types for remaining land categories. Therefore, the remaining datasets in the hierarchy were used for this purpose. Datasets were categorised in order of data quality and reliability, following the below hierarchy:

- OSMM data – only for buildings, hard-standing and waterbodies;
- NWSS;
- HABMOS;
- AWI;
- CPM; and
- HLCM.

2.3.12 These data sources were combined to create a dataset for the Potential Ecological Footprint plus 250 m buffer which maintained all the attributes and geometries of each given layer. Habitat data sources were then ranked with regards to their accuracy and reliability, then fed into the MCA model to generate final UKHab categories. The outputs from the MCA were reviewed by a SQE and UKHab categories confirmed. The final MCA output was then ground-truthed during habitat surveys, described below.

22 Nature Scot (2020) (Online). Scotland Habitat and Land Cover Map. Available at: https://www.data.gov.uk/dataset/911c87c4-a0d3-4bb8-9089-f7657980113e/scotland-habitat-and-land-cover-map-2020

23 UKHab Working Group (2018). UK Habitats Classification User Manual.

24 SSEN Transmission (2022). LT358 Blackhillock 2 400 kV Substation: Substation Site Selection Report.

25 SSEN Transmission (2022), LT379 New Deer 2 400 kV Substation: Substation Site Selection Report.

26 SSEN Transmission (2023). LT52 SSEN Peterhead 2 Project: Substation Site Selection Report.

27 SSEN Transmission (2022). LT121 Elchies (Rothes III) Windfarm Grid Connection: Environmental Alignment Options Addendum.

28 SSEN Transmission (2019). LT134 North East 400 kV Reinforcement Works: Environmental Impact Assessment Report.

29 SSEN Transmission (2017). LT172 Beauly-Keith 132 kV OHL Reconductoring: Environmental Appraisal.

30 SSEN Transmission (2018). LT99 Keith to Blackhillock 132 kV Reinforcement: Environmental Appraisal.

2.4 Field Surveys

Habitat Field Surveys

UK Habitat Classification Surveys

2.4.1 UKHab surveys were undertaken during spring (between April and June) and autumn (between October and November) 2024. UKHab surveys covered the Potential Ecological Footprint, plus relevant survey buffers, hereafter referred to as the 'UKHab Survey Area', as illustrated within **Annex A: Figure 8.1.1: Survey Areas and Access Constraints**. This encompassed a 250 m buffer from the Proposed OHL of the Potential Ecological Footprint, and a 100 m buffer from the centre line of proposed upgrades to 'poor and very poor' existing tracks and new permanent access tracks. These are the access tracks that would require some level of land take. The UKHab Survey area also included later additions to the design (August 2025), and associated buffers. MCA analysis was not applied for these August 2025 additions and therefore this habitat data is described separately to the overall UKHab survey results (see **3.2.3**). All UKHab results are presented on **Annex A: Figure 8.1.2: UK Habitat Survey Results**.

2.4.2 Habitat types assigned during the MCA stage were reviewed and updated where necessary, with updates from field survey recorded using the UKHab system[17].

2.4.3 The UKHab system classifies habitats according to their vegetation types and structure, following a principal hierarchy of 'Primary Habitats', as follows:

- primary Habitats including ecosystems (level 1);
- broad habitat types (level 2 and 3);
- defined habitats, including UK Biodiversity Action Plan (UKBAP) Priority Habitats (level 4); and
- further defined habitats, including EU Habitats Directive Annex I habitats (level 5).

2.4.4 Each Primary Habitat has an alpha-numeric code, unique to UKHab (i.e., different to other habitat survey methods such as Phase 1 and National Vegetation Classification). A non-hierarchical system of numeric codes ('Secondary Codes') can then be used to provide more information on a habitat.

2.4.5 A Primary Habitat and any relevant Secondary Codes were assigned to each area-based polygon, point or linear feature mapped within the UKHab Survey Area, with separate data-files for each Council Area. Habitats were marked on a handheld mapping device using Geographical Information System (GIS) software. The smallest area to be mapped was 0.01 ha, which was selected as a suitable scale to sample the range of different vegetation types present within the Potential Ecological Footprint.

2.4.6 Text descriptions to qualify habitat assignment, including plant species, were also recorded. Plant nomenclature follows the New Flora of the British Isles[31] and Mosses and Liverworts of the British Isles[32].

2.4.7 Additional data on habitat condition for area-based habitats and linear features were also recorded during the UKHab surveys, using the system presented in the Department for Environment Food and Rural Affairs (DEFRA) Statutory Biodiversity Metric[33]. This has been used to inform a separate BNG assessment (**Appendix 8.3: Biodiversity Net Gain Assessment Report** of the EIA).

[31] Stace C. A. (2019). New Flora of the British Isles. Fourth Edition. C&M Floristics, Suffolk.

[32] Atherton, I., Bosanquet, S., Lawley, M. eds. (2010). Mosses and Liverworts of the British Isles: a field guide. British Bryological Society.

[33] Department for Environment Food and Rural Affairs (DEFRA) (2024). The Statutory Biodiversity Metric Calculation Tool V1.0.3. Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides. (accessed on 03/09/2025)

Priority Habitat Identification

2.4.8 Priority habitats such as Annex I habitat types[34] identified during UKHab surveys were reviewed with consideration to geographical relevance. Where UKBAP habitats were identified, these were assessed against the Scottish Biodiversity List[35] (SBL).

2.4.9 A review of the North East Scotland Biodiversity Partnership (NESBiP) statements on Important Habitats for Biodiversity[36] and NESBiP Local Biodiversity Action Plan (LBAP)[37] has also been reviewed, along with the Highland Nature Biodiversity Action Plan (BAP)[38] to help identify priority habitats within the UKHab Survey Area.

2.4.10 UKHab primary habitats were reviewed to identify habitats with potential to support Groundwater Dependent Terrestrial Ecosystems (GWDTE), following SEPA guidance[39]. The results of this assessment were used to inform the assessment of GWDTE present within the Potential Ecological Footprint, which is further detailed within **Chapter 10: Water and Geological Environment** of the EIA Report.

Invasive and Non-Native Species

2.4.11 Any Invasive Non-Native Species[40] (INNS) identified during the UKHab survey were target noted. Particular attention was paid to those considered by NatureScot to cause the most damage[41], which are:

- rhododendron (*Rhododendron ponticum*);
- Japanese knotweed (*Reynoutria japonica*);
- giant hogweed (*Heracleum mantegazzianum*); and
- Himalayan balsam (*Impatiens glandulifera*).

2.4.12 Detailed mapping of such species or a full survey of the UKHab Survey Area for all invasive plant species was beyond the scope of these surveys.

UK Habitat Survey Area Updates

2.4.1 In June 2025, following amendments to the design of the Proposed Development, small areas of the OHL were identified to be located outwith the original UKHab Survey Area. In addition, small areas of 'poor and very poor' existing tracks and new permanent access tracks were also identified to be located outwith the original UKHab Survey Area.

2.4.2 As such, a 250 m buffer was applied to the OHL (June 2025 design iteration) and a 100 m buffer was applied to the centre line of proposed upgrades to 'poor and very poor' existing tracks and new permanent access tracks (June 2025 design iteration).

2.4.3 These new areas, not previously captured during original desk and field-based habitat surveys were subsequently subject to MCA analysis, following the methodology previously described, to assign UK Primary Habitats.

[34] JNCC (online). Available: https://sac.jncc.gov.uk/habitat/ (accessed on 03/09/2025)

[35] Scottish Ministers (2012). Scottish Biodiversity List. Available at: https://www.nature.scot/doc/scottish-biodiversity-list (accessed on 03/09/2025)

[36] NESBiP (online). Important Habitats for Biodiversity. Available at: https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/

[37] NESBiP (online). Local Biodiversity Action Plan Habitat. Available at: https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/

[38] Highland Environment Forum (2021). Highland Nature: Biodiversity Action Plan 2021 – 2026. Available at: https://www.highlandenvironmentforum.info/biodiversity/action-plan/

[39] Scottish Environment Protection Agency (2024). Guidance on assessing the impacts of developments on groundwater dependent terrestrial ecosystems.

[40] Considered as any plant located in the wild at a location outside its native range.

[41] NatureScot (2020). Invasive Non-native Plants. Available at: https://www.nature.scot/professional-advice/protected-areas-and-species/protected-species/invasive-non-native-species/invasive-non-native-plants

2.4.4 Furthermore, later additions to the design (August 2025), were also included within the UKHab Survey Area. Buffers were applied to these additional areas in line with the methodology described above. UK Primary Habitats were assigned in these areas utilising aerial mapping, survey data from adjacent habitats, and professional judgement. As MCA analysis was not applied, additional August 2025 habitat data is presented separately to the overall UKHab survey results.

2.4.5 These additional areas subject to desk-based assessment in June 2025 and August 2025, are henceforth referenced as part of the overall 'UKHab Survey Area'.

Protected Species Field Surveys

Overview

2.4.6 Protected species field surveys were conducted across the Potential Ecological Footprint and included an initial habitat suitability assessment followed by targeted surveys. All protected species field surveys were conducted within suitable survey buffers, calculated from the Potential Ecological Footprint plus a 45 m OC. Due to the anticipated reduced scale of impact / disturbance from access track works, the protected species survey buffers were reduced to a maximum of 30 m from the centre line of proposed 'poor or very poor' and new permanent access tracks, requiring upgrade or creation.

Habitat Suitability Surveys

2.4.7 A protected species habitat suitability assessment undertaken during the Alignment Selection Stage was reviewed and updated in April 2024. Habitats were considered for their suitability to support the protected species outlined in **Paragraph 2.4.13** below. Survey buffers applied at the habitat suitability stage are outlined in **Paragraph 2.4.10** below. The collective area considered at this stage is hereafter referred to as the Species Survey Buffer.

2.4.8 The assessment aimed to classify the suitability of terrestrial habitats within the Species Survey Buffer to support targeted species / groups listed as European Protected Species (EPS), protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended), legally protected or a conservation priority under the Scottish Biodiversity List[42], protected under national legislation such as the Wildlife and Countryside Act 1981 as amended (WCA), Highland Nature BAP species[38] and/or NESBiP LBAP Species[37]. The protected species habitat suitability assessment included:

- bats;
- pine marten;
- red squirrel;
- otter;
- water vole;
- wildcat;
- reptiles; and
- terrestrial invertebrates.

2.4.9 In addition, the assessment aimed to classify the suitability of any waterbodies within the Species Survey Buffers for the following species:

- Great Crested Newt (GCN) (*Triturus cristatus*) and other amphibians; and
- fish.

2.4.10 Species Survey Buffers, applicable at the habitat suitability assessment stage, were calculated from the Potential Ecological Footprint where applicable[43], in addition to an outer 45 m OC. The Species Survey Buffers included:

[42] Scottish Government (2012). Scottish Biodiversity List. Available at: https://www.nature.scot/doc/scottish-biodiversity-list

[43] Survey buffers were reduced to a maximum of 30 m from the centre line of proposed upgrades to 'poor and very poor' existing tracks and new permanent access tracks, due to the anticipated reduced scale of impact/disturbance from the access track works.

- 30 m for bats;
- 250 m for pine marten;
- 50 m for red squirrel;
- 200 m for wildcat;
- 200 m for otter, water vole & fish; and
- 500 m for GCN.

2.4.11 The assessment first incorporated a desk review of general habitat suitability. Sources consulted at this stage included prior ecology studies, data obtained from consultation, publicly available map resources and aerial photography (known protected species distribution maps) and priority species conservation areas within the Species Survey Buffer. Additional data sources consulted included the following:

- Red squirrel strongholds[44];
- Wildcat Priority Areas (WPA)[45];
- GCN, revised geographic zones[46];
- Pine marten, distribution map[47];
- Butterfly Conservation, Scottish Priority Landscapes (SPL)[48];
- Buglife, B-Lines[49]; and
- Important Invertebrate Areas (IIA)[50].

2.4.12 Following the desk-review of general habitat suitability within the Species Survey Buffers, identified habitat parcels were mapped using GIS software. Suitable habitat parcels were subject to a preliminary walkover between December 2023 and April 2024, to verify potential suitability identified during the high-level review stage.

2.4.13 The preliminary walkover of suitable habitat parcels aimed to assign an overall suitability category for each of the targeted species, in accordance with the criteria detailed in **Table 2.1** below. Suitability categories were then utilised to determine locations to conduct targeted surveys of species, the details of which are presented in **Section 2.4.14** below.

Table 2.1: Suitability Criteria of Habitat Parcels for Targeted Species

Suitability Classification	Description
Negligible	Negligible potential for resting sites, foraging resource or commuting habitat.
Low	Area with low abundance of foraging resources and negligible or low potential for resting sites. The species may utilise the habitat as part of a wider territory such as for commuting between foraging resources within other suitable habitat in the wider area.
Moderate	Habitat with low availability or suitability for resting sites but ample foraging resources and commuting potential connecting to other suitable habitat.

44 Scottish Forestry, Red Squirrel Stronghold Areas. Available at: https://forestry.gov.scot/publications/21-map-of-red-squirrel-stronghold-areas (accessed on 03/09/2025)

45 Littlewood, N.A., Campbell, R.D., Dinnie, L., Gilbert, L., Hooper, R., Iason, G., Irvine, J., Kilshaw, K., Kitchener, A., Lackova, P., Newey, S., Ogden, R. & Ross, A. (2014). Survey and scoping of wildcat priority areas. Scottish Natural Heritage Commissioned Report No. 768. Available at: https://www.nature.scot/doc/naturescot-commissioned-report-768-survey-and-scoping-wildcat-priority-areas (accessed on 03/09/2025)

46 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.

47 Vincent Wildlife Trust, Pine Marten (online). Available at: https://www.vwt.org.uk/species/pine-marten/ (accessed on 03/09/2025)

48 Butterfly Conservation, Our conservation strategies (online). Available at: https://butterfly-conservation.org/our-work/our-conservation-strategies (accessed on 03/09/2025)

49 Buglife, B-Lines (online). Available at: https://www.buglife.org.uk/our-work/b-lines/ (accessed on 03/09/2025)

50 Buglife, Important Invertebrate Areas (online). Available at: https://www.buglife.org.uk/our-work/important-invertebrate-areas/ (accessed on 03/09/2025)

High	Abundance of resting site opportunities, foraging resources and commuting routes connecting to other suitable habitat.

Targeted Surveys

2.4.14 Following the results of the habitat suitability assessment, targeted protected species were undertaken. Targeted surveys were undertaken within areas of habitat identified as 'high' suitability within the Species Survey Buffer for the following species; bats, red squirrel, pine marten, otter, GCN, water vole and fish. Additionally, to accommodate a more precautionary approach for wildcat, targeted surveys were also undertaken in areas of both 'high' and 'moderate' suitability habitat for this species.

2.4.15 Targeted surveys were undertaken between April and November 2024. Targeted surveys were conducted within 'high' and/or 'moderate' suitability habitat previously identified within respective Species Survey Buffers (as outlined in **Paragraph 2.4.10** above). As outlined, Species Survey Buffers were calculated (where applicable)[43] from the Potential Ecological Footprint plus a 45 m OC. This collective area of 'high' and/or 'moderate' suitability habitat, subject to targeted surveys is hereafter referred to as the 'Species Survey Area'. Respective survey methods applied in each Species Survey Area is outlined below and illustrated within **Annex A: Figure 8.1.1**.

2.4.16 Evidence of species within the Species Survey Area was recorded by making geo-referenced target notes with photos. Incidental sightings of protected and notable species (including beaver) recorded during other ecology surveys were collated and are included within the findings of this report.

Targeted Surveys Updates

2.4.17 In June 2025, following amendments to the design of the Proposed Development, small areas of the OHL were identified to be located outwith the original Species Survey Buffers. In addition, small areas of 'poor and very poor' existing tracks and new permanent access tracks were also identified to be located outwith the original Species Survey Buffers.

2.4.18 As such, applicable species specified buffers applied to OHL plus 100 m buffer in addition to an outer 45 m OC (June 2025 design iteration) and a 30 m buffer was applied to the centre line of proposed upgrades to 'poor and very poor' existing tracks and new permanent access tracks (June 2025 design iteration).

2.4.19 These new areas, not previously captured during original desk and field-based habitat surveys were subsequently subject to Habitat Suitability Assessments, following the methodology previously described, to identify high suitability habitats (and moderate for wildcat) for further survey.

2.4.20 These additional collective areas subject to targeted surveys in August 2025, are henceforth referenced as part of the 'Species Survey Area'

Bat Surveys

2.4.21 All bat surveys were undertaken within habitats presenting as 'high' suitability for bats located within the Potential Ecological Footprint and 45 m OC; plus a 30 m buffer (where applicable)[43], (hereafter the 'Bat Survey Area'). Surveys were conducted with reference to Bat Conservation Trust (BCT)[51] and NatureScot[52] guidance. Survey methodology was reviewed by NatureScot in association with the NatureScot bat licencing team, with specific deviations to standard guidance outlined within **Section 2.5** below.

Daytime Bat Walkover

2.4.22 A Daytime Bat Walkover (DBW) was undertaken to identify Potential Roost Features (PRFs) for bats within woodland habitats, standalone trees, rockfaces, buildings and structures within the Bat Survey Area. DBWs can be carried out at any time of the year and provide an initial indication of roosting suitability to inform recommendations for further bat surveys during the active bat season (May to September, inclusive)[51].

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

[52] NatureScot (2024). Standing advice for planning consultations – Bats. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-bats

2.4.23 Trees and structures encountered during the DBW were assessed visually from the ground for their suitability to support roosting bats. Where needed, a high-powered torch and binoculars were used to further inspect trees and structures with PRFs. Notes were recorded on each PRF's extent and location, along with evidence of bat activity (if any). PRFs used by bats for roosting within trees include hazard beams, knot holes and decay hollows. PRFs used by bats for roosting within structures include cracks and crevices within rockfaces / structural material.

2.4.24 Trees identified during DBW surveys were categorised in line with BCT guidance[51] (hereafter the "Bat Guidelines"), presented in **Table 2.2** below:

Table 2.2: Guidelines for Assessing Bat Suitability in Trees (from BCT, 2023)[51]

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

2.4.25 Structures encountered during the DBW were categorised in line with Bat Guidelines, based on suitability for roosting bats during the active season (May to September) and hibernation season (November to March)[51], presented in **Table 2.3** below. Concurrently to the DBW, suitability of habitats for bat foraging and commuting was also considered in line with Bat Guidelines, as detailed in **Table 2.3** below.

Table 2.3: BCT Guidelines for Assessing the Potential Suitability for Bats in Structures (from BCT, 2023)[51]

Suitability	Description of roosting habitats	Commuting and foraging habitats
None	No habitat features likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/ suitable shelter at all ground/ underground levels).	No habitat features likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines or generate/shelter insect populations available to foraging bats).
Negligible[a]	No obvious habitat features likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] and/ or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity roosting and not a classic cool/stable hibernation site but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths, such as a gappy hedgerow or unvegetated stream, but feature is isolated, i.e. not very well connected to the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats, such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. However, this roosting habitat is unlikely to support a roost of	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths, such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for

Suitability	Description of roosting habitats	Commuting and foraging habitats
	high conservation status (with respect to roost type only, such as a maternity and hibernation - the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	foraging; such as trees, scrub, grassland, or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time; due to their size, shelter, protection, conditions[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. a maternity or classic cool/stable hibernation roost.	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by bats for flight-paths; such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland. Habitat is close to and connected to known roosts.

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

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

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

2.4.26 Details of further surveys, comprising intrusive PRF inspection and dusk emergence surveys carried out on identified trees and structures, where determined safe to do so, are provided below.

PRF Inspection

2.4.27 Following the results of the initial DBW, a proportion of trees identified as FAR and PRF within the Bat Survey Area[53] were subject to a suite of intrusive PRF inspection surveys. The PRF inspection was completed as a single inspection conducted on a randomly allocated 25% of FAR and PRF trees identified (as agreed with NatureScot and detailed within **Section 2.5.7**).

2.4.28 Intrusive PRF inspection surveys were undertaken by a team of ecologists holding aerial tree climb and rescue qualifications, with at least one of whom holds a NatureScot bat licence, as detailed within **Annex B: Survey Details.**

[53] Further bat surveys did not encompass the results of DBW conducted in October and November 2024 in association with access track areas.

2.4.29 A proportion of the randomly allocated trees identified during the DBW as requiring further surveys, were inspected to identify the presence of PRFs and assign the roosting suitability of identified PRFs. The survey included ground-level inspections, utilising ladders, torches, an extendable inspection camera ("PoleKam") and endoscope inspection cameras. If the PRF was unable to be inspected from ground level, an aerial inspection (where safe to do so) was then completed by qualified tree climbers using climbing equipment, torches and an endoscope.

2.4.30 Each identified PRF was inspected for the presence of bats or evidence indicating use by roosting bats such as droppings, urine staining, and scratch marks / characteristic staining (from fur oils). Notes on the PRFs extent, location and evidence found were recorded. Any bat droppings retrieved during PRF inspection surveys were subject to eDNA analysis following standardised methodology.

2.4.31 Upon completion of the first intrusive PRF inspection survey, the categorisation of the inspected trees' bat roost suitability was assessed and updated where applicable in line with criteria from the Bat Guidelines as shown in **Table 2.4** below.

Table 2.4: PRF Suitability Categories (BCT, 2023)[51]

Classification	Description
PRF - I	PRF is only suitable for individual bats or very small numbers of bats, either due to size or lack of suitable surrounding habitats.
PRF - M	PRF is suitable for multiple bats and may therefore be used as a maternity colony.

2.4.32 During intrusive PRF inspections, trees which were found to contain no PRFs were classified as 'None' as per **Table 2.2** above.

2.4.33 Due to health and safety reasons, not all trees with identified PRFs could be fully inspected during the PRF inspection surveys. In this case a precautionary approach was taken to assign PRF categories described in **Table 2.4**.

2.4.34 Where PRF-I or PRF-M trees were identified, these were assumed to be suitable for hibernating bats in accordance with the Bat Guidelines.

2.4.35 In total, 135 trees were subject to a single intrusive PRF inspection comprising of the above methods. Deviations from the Bat Guidelines have been presented within the limitations section of this report.

Dusk Emergence Surveys

2.4.36 A programme of dusk emergence surveys was undertaken following the methods described within BCT Guidance[51]. Dusk emergence surveys were conducted between 6 June to 17 July 2024 on a proportion of trees identified during PRF inspection stage which were unsafe to access via aerial inspection. In total, seven trees within the Bat Survey Area were subject to dusk emergence surveys, as illustrated within **Annex A - Figure 8.1.4: Further Bat Survey Results.**

2.4.37 Dusk emergence surveys were supported by Night Vision Aids (NVA)[54] and handheld bat detectors (Batlogger) to record echolocation calls emitted by bats.

2.4.38 NVAs and associated handheld detectors were deployed to ensure coverage of identified PRFs. Dusk emergence surveys commenced 15 minutes prior to sunset and concluded 90 minutes after. Data recorded during the survey was subsequently analysed, as described within the Bat Survey Data Analysis section below, to identify bats emerging from identified PRFs.

[54] Bat Conservation Trust (2022) Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys. Available: https://cdn.bats.org.uk/uploads/pdf/Interim-guidance-note-on-NVAs-May-2022-FINAL.pdf?v=1653399882 (accessed on 03/09/2025)

Night-time Bat Walkover

2.4.39 A Night-time Bat Walkover (NBW) comprising of manual transect surveys were undertaken within individual woodland parcels[55] of 'high' bat suitability located within the Bat Survey Area. In total, this consisted of 15 individual woodland blocks within the Bat Survey Area subject to an NBW, as illustrated within **Annex A - Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results**. The NBW was conducted in August 2024 following BCT Guidance[51].

2.4.40 For each identified woodland parcel, transects were selected by identifying potential flight lines and PRF sources, representative of the habitats present. Within pre-defined transects, surveyors were stationed up to 30 minutes before sunset, observing and recording roost emergence and commuting bat behaviour. Once commuting bat activity levels reduced (up to 60 minutes after sunset), each pre-defined transect was then walked by two surveyors. In some instances, a transect route was not possible, in which case a vantage point survey was completed. Surveyors were equipped with full spectrum bat detectors to listen to and record bat activity.

2.4.41 A plan showing the areas within the Bat Survey Area subject to NBW and detailing the survey results is illustrated within **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results.**

Automated Static Detector Surveys

2.4.42 Following the completion of initial DBW a programme of automated static detector surveys was conducted in August 2024. The purpose of the static detector surveys was to determine baseline bat activity within 15 'high' suitability woodland parcels located within the Bat Survey Area. The static detector surveys are detailed below in **Table 2.5,** with survey locations shown in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results.**

2.4.43 To inform the number of static bat detectors deployed, the total number of PRFs (trees) recorded within each individual woodland parcel of high suitability bat habitat was calculated. Static bat detectors were deployed in individual woodland parcels at a ratio of one static bat detector for every ten recorded trees containing PRFs, to a maximum of four detectors per high suitability woodland.

2.4.44 Automated (static) bat detectors (Wildlife Acoustic Song Meter Mini Ultrasonic Recorders) were installed within the Bat Survey Area at pre-determined locations for a minimum of five nights per location in August 2024. The automated detectors were set to commence recording at least 30 minutes before sunset and cease recording 30 minutes after sunrise, following BCT guidance[51].

Table 2.5: Automated Static Detector Deployment

Woodland Reference	No. of Detectors Deployed	Deployment Start	Deployment End
1	3	6 August 2024	13 August 2024
2	1	7 August 2024	13 August 2024
3	2	12 August 2024	22 August 2024
4	3	13 August 2024	19 August 2024
5	3	12 August 2024	20 August 2024
6	4	13 August 2024	20 August 2024
7	1	14 August 2024	19 August 2024
8	3	14 August 2024	19 August 2024
9	3	20 August 2024	28 August 2024

[55] Woodlands greater than 1 ha in total area, with a minimum of ten trees identified as FAR or PRF during the DBW stage.

10	2	21 August 2024	28 August 2024
12	1	20 August 2024	28 August 2024
13	3	8 August 2024	13 August 2024
14	4	21 August 2024	27 August 2024
15	3	21 August 2024	27 August 2024
18	4	14 August 2024	21 August 2024

Bat Survey Data Analysis

2.4.45 The recordings of bat data collected during static detector and NBW surveys were analysed using Wildlife Acoustics Kaleidoscope[56] computer software. Analysis of bat echolocation passes enables reliable identification of species (or genus), using described and industry-recognised call parameters[57]. Following this analysis, a subset of calls from each recording period were subject to quality analysis, following BCT Guidance[51], by an experienced bat call analyser checking 10% of all soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle (*Pipistrellus pipistrellus)* calls, and 10% of calls from all other species recorded.

2.4.46 Species of the genus *Myotis* were grouped under a collated *Myotis* species grouping, as in most cases their call characteristics are similar in structure, with overlapping call parameters, making species identification problematic. Myotis species likely to be encountered within the geographical region are Daubenton's bat (*Myotis daubentonii*) and Natterer's bat (*Myotis natteri*i).

2.4.47 Where calls were not clear of *Pipistrellus* and *Nyctalus* species, these were also grouped under the headings *Pipistrellus* species and *Nyctalus* species.

2.4.48 The relative activity of different species of bats was determined by counting the minimum number of bats recorded within discrete sound files. Once triggered by ultrasound, the automated detectors record sound files with a duration of 15 seconds, which may contain a number of individual bat calls (or passes), or discrete groups of ultrasound 'pulses'. The assessment of relative bat activity between species is based on the relative abundance of recorded calls of each species, within each survey period and across the combined study period.

Quantifying Bat Activity

2.4.49 To assess bat activity across the Bat Survey Area, a comparison was made of Bat Activity Index Values (BAIV) between each woodland, for the duration of deployment. For the purpose of this report, a single labelled Kaleidoscope file containing a sequence of bat pulses was counted as one bat registration (i.e. a single bat pass). If the file had multiple bats present, this entry was duplicated, and each bat registration was counted as a separate bat pass.

2.4.50 Data logs were generated by the automated detectors which detail the recording history for the period they were deployed. These logs were assessed to identify the duration which the detectors were deployed. Where the data log indicated a fault, or where log information was not accessible, bat recordings were confined to all recordings up until the last full night prior to the final recording. These decisions were accounted for when calculating the BAIV to ensure fair comparisons were made between data sets.

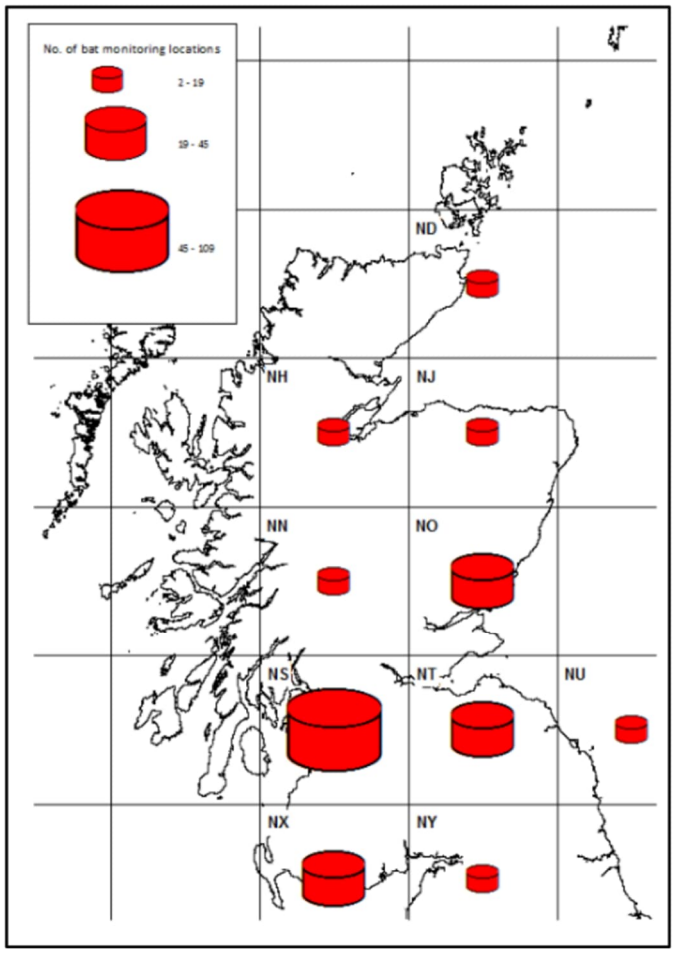
2.4.51 The BAIV was calculated in two ways, by Bat Passes per Night (BPpN) and Bat Passes per Hour (BPpH). BPpN was calculated by taking the total number of bat passes for a deployment period and dividing them by the number of nights recorded within this period and by the number of detectors deployed in each woodland.

[56] Wildlife Acoustics (2024). Kaleidoscope Pro Analysis Software. Available at: Kaleidoscope Pro Analysis Software | Wildlife Acoustics (accessed on 03/09/2025)
[57] Russ, J (2013). British Bat Calls a Guide to Species Identification. Pelagic Publishing.

2.4.52 BPpH was calculated by dividing the total number of bat passes (within the recording period) by the average number of hours between half an hour before sunset to half an hour after sunrise, for the deployment period of each woodland.

2.4.53 To account for variation in night length, data was entered in the format of half an hour before sunset to half an hour after sunrise, as opposed to midnight to midnight. Summer nights are shorter than spring and autumn in Scotland; however, the shortest nights between mid-June to mid-July were avoided during the recording period.

2.4.54 The nights within the active bat season (April to October)[51] which have longer lengths (more hours recorded, between sunrise and sunset) will generally have a larger number of BPpN, but this does not equate to more bats in the area, just a larger period of time in which the bats in the area are active. Where multiple detectors were deployed within a woodland, the BPpN were calculated based on a mean value across the total number of detectors deployed in that woodland. Dowse *et al.*, (2015)[58] collated data from 301 static monitoring points across Scotland (**Graphic 2.1** below). The Site is located within the NH and NJ 100 km grid squares, where between 2- 19 static monitoring points were deployed within each of these areas. The Dowse *et al.*,[58] data was applied in further analysis as it is geographically representative of the Site.



Graphic 2.1- Bat monitoring locations within 100 km grid squares[58]

2.4.55 To conduct further analysis, BPpN levels were the compared with typical activity levels (registrations / night) according to species and habitat classes outlined in Dowse *et al.*, (2015)[58] as shown in **Table 2.6.**

[58] Dowse. D., Daisley. J., Parry. G. (2015) A Technique for Assessing Bat Activity for Ecological Impact Assessment. Heritage Environment Ltd.

Table 2.6: Typical activity levels (registrations/night) according to species and habitat class[58]

Species	Coniferous Woodland	Broadleaved Woodland	Boundary	All Habitats[59]
Common pipistrelle	1.28 - 21.39	3.27 -107.70	0.77 – 12.71	1.84 – 27.69
Soprano pipistrelle	6.90 - 46.35	6.90 – 46.35	1.25 – 22.47	2.44 – 21.95
Total *Pipistrellus*	7.27 - 24.81	23.81 – 122.20	1.90 – 47.58	6.91 – 50.33
Total *Myotis*	0.16 - 1.73	-	0.16 – 0.75	0.14 – 1.07
Brown long-eared bat	0.04 - 0.21	-	-	0.04 – 0.21

2.4.56 To calculate bat activity, three distinct activity level categories were assigned, adapted from Dowse *et al.*, (2015)[58]. Using BPpN data for each species, low activity was categorised as below typical activity levels outlined in Dowse *et al.*, (2015)[58] and high above typical activity level ranges (outlined within **Table 2.6** above) for each respective habitat type.

Potential Roosts Within or Close to the Site

2.4.57 To identify potential roosts within the Bat Survey Area, call data and peaks in bat activity were compared to the standard roost emergence times / Species-Specific Emergence Time (S-SET)[57].

Species Trend Scotland / Site

2.4.58 To provide context to the bat activity results, an extended desk study was conducted to assess bat species population trends in Scotland, compared to bat survey results within the woodlands surveyed. Information on bat activity levels according to species and habitat class was obtained from '*A Technique for Assessing Bat Activity for Ecological Impact Assessment*' (Dowse *et al.*, 2015)[58]. Information on bat population trends was obtained from The National Bat Monitoring Programme Annual Report, BCT (2023)[60] and the Atlas of Highland Land Mammals (2011)[61], as summarised below in **Table 2.7.**

Table 2.7: Bat Species Trends in Scotland

Bat Species	Population sizes and trends Scotland[60, 61]
Common pipistrelle	285,000 – 2,160,000. The population of common pipistrelle in Scotland is considered to have been stable in the long-term (since 1999) and the short-term (since 2017).
Soprano pipistrelle	512,000 – 2,180,000. Population of soprano pipistrelle considered to have increased in the long-term (since 1999) and have been stable in the short-term (since 2017). Most commonly recorded species in Scotland.
Nathusius' pipistrelle ***(Pipistrellus nathusii)***	Numbers unknown. Nathusius' pipistrelle is considered rare but widespread throughout Great Britain.
Myotis **Sp.[62]** **Daubenton's and Natterer's**	Natterer's: 1,490 – 260,000. The population of Natterer's bat in Scotland has been stable since 2011. Daubenton's: 2,860 – 466,000. The population of Daubenton's bat in Scotland is considered to have been stable in the long-term (since 1999) and the short-term (since 2017).

59 Where data is not available for the typical activity levels in broadleaved woodland data from all habitats is used to inform this

60 Bat Conservation Trust (2024). The National Bat Monitoring Programme Annual Report 2023. Bat Conservation Trust, London.

61 Scott, Ro (2011). Atlas of Highland Land Mammals, 1st edition, Highland Biological Recording Group.

62 Whiskered bats are not known to be present beyond the Central Belt of Scotland and therefore are not included.

Bat Species	Population sizes and trends Scotland[60, 61]
Nyctalus Sp. Leisler's and Noctule *(Nyctalus leislerii)* and *(Nyctalus noctule)*	Limited data available for Noctule. Typically present in Southern Scotland with records close to Edinburgh. Single sporadic records of Noctule have been returned on a less then annual basis within the Highland Council Area. Limited data for Leisler's, typically present in southern and west Scotland, with some records in the central belt.

Pine Marten Surveys

2.4.59 Habitats presenting as 'high' suitability to support pine marten were surveyed within the Potential Ecological Footprint and 45 m OC, plus a 250 m buffer (where applicable)[43]. This comprised the Pine Marten Survey Area (all Survey Areas shown on **Annex A: Figure 8.1.1: Survey Areas and Access Constraints**). Surveys included a systematic search for signs of pine marten presence and potential den sites, with reference to industry-standard methodology[63] and standing advice for planning consultants from NatureScot[64]. In addition to visual sightings, surveys involved searching 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;
- **Potential den sites**: a feature considered to be a suitable denning site, together with inconclusive signs of use or potential use;
- **Scats**: highly variable size and shape depending on their contents. Typically found on pathways, rides and tracks through woodland or rocky habitat; and
- **Prints**: more likely to be present in snow as pine marten generally avoid mud.

2.4.60 Pine martens are elusive and largely nocturnal, which makes them difficult to see, but their scats are often quite distinctive (in structure, smell and content) and are the most commonly encountered field sign. Scats are most abundant during the period of June to August.

Red Squirrel Surveys

2.4.61 Habitats presenting as 'high' suitability to support red squirrel were surveyed within the Potential Ecological Footprint, 45 m OC and a 50 m buffer ('Red Squirrel Survey Area'). The surveys were carried out following guidance outlined by the Forestry Commission[65], survey guidance for initial non-intrusive visual surveys[66] and NatureScot[67] guidance. The Red Squirrel Survey Area was systematically searched for evidence of red squirrel[68], with field signs including the following (in addition to recording of any visual sightings):

- **Prints;**
- **Foraging signs:** including chewed or stripped cones with top section remaining untouched, which are often discarded at feeding stations on prominent features such as tree stumps; and

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

64 NatureScot (2024) Standing advice for planning consultations - Pine Martens . Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens

65 Gurnell, John & Lurz, Peter & Mcdonald, Robbie & Pepper, Harry. (2009). Practical Techniques for Surveying and Monitoring Squirrels. 11.

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

67 NatureScot (2020a) Standing advice for planning consultations – Red Squirrels. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels

68 Squirrel evidence within the Red Squirrel Survey Area was assumed to be pertaining to red squirrel, based on the known distribution of red and grey squirrels throughout Scotland. Sightings of Red and Grey Squirrels across Scotland. Available at: https://scottishsquirrels.org.uk/squirrel-sightings/

- **Nest sites:** also known as dreys, within trees (can be conifer or broadleaf species) and comprising of spherical collections (c. 0.3 m) of twigs and leaves and usually located at least 3 m up, in the fork of branches close to the main tree trunk.

Otter Surveys

2.4.62 An otter survey was undertaken 200 m upstream and downstream of all 'high' suitability watercourses, identified where proposed crossings occurred within the Potential Ecological Footprint (the 'Otter Survey Area'), where safe surveyor access permitted (see limitations **Section 2.5** for further information).

2.4.63 Otter surveys were conducted within the Otter Survey Area following standard survey methods[69,70]. Otter presence was identified from field signs including spraints, anal jelly, prints, feeding remains, slipways and worn pathways. Additionally, a search for resting places was undertaken, including identification of the following:

- **Holt:** an underground resting site proving shelter for otters. Holts can comprise 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. Otters may use holts permanently or temporarily.
- **Natal den:** typically, a natal den is a holt used exclusively by females giving birth. These are often located away from potential disturbance such as on small tributaries away from a main river or waterbody but remaining in proximity to feeding resources. Natal dens are typically unmarked to remain inconspicuous from other otters.
- **Couch:** an above ground resting site. Couches may be partially sheltered or fully exposed. They may be regularly used, especially in reed beds and on in-stream islands, and have been known to be used as natal and breeding sites. Couches can be very difficult to identify and may consist of an area of flattened grass or earth.
- **Potential resting site:** a feature considered to be a suitable holt, together with inconclusive signs of use.
- **Suitable resting site habitat:** an area with habitats and features that provide suitable habitat for resting, but where no definitive evidence of use has been recorded.

Further Otter Surveys

2.4.64 Where potential resting sites were identified within the Otter Survey Area, a programme of camera trapping was undertaken for a minimum of four weeks. Camera trapping was carried out by surveyors working as approved agents on behalf of a NatureScot Otter licenced surveyor, as detailed within **Annex B: Survey Details.** Camera trap footage was subsequently analysed, and the nature of otter activity recorded (if any) within the potential resting sites.

Water Vole Surveys

2.4.65 Water vole surveys were undertaken 200 m upstream and downstream of all 'high' suitability watercourses, where proposed crossings occur within the Potential Ecological Footprint (the Water vole Survey Area), following methodology described in the Water Vole Mitigation Handbook[71] and NatureScot guidance[72]. The survey involved visual inspections of the banks and immediate vicinity for water voles or their field signs. Field signs, as described in the Water Vole Conservation Handbook[73], included the following:

- **Faeces:** recognisable by their size, shape and content. If not too dried-out, these are also distinguishable from rat droppings by their smell.
- **Latrines:** faeces deposited at discrete locations.

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

70 NatureScot (2020b) Standing advice for planning consultation – Otters Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-otters

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

72 NatureScot (2022) Standing advice for planning consultations – Water Voles. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-water-voles

73 Strachan, R., Moorhouse, T. and Gelling, M. (2011). Water Vole Conservation Handbook. Third Edition. Wildlife Conservation Research Unit, Oxford.

- **Feeding stations:** food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation up to 10 cm long.
- **Burrows:** appear as a series of holes along the water's edge, distinguishable from rat burrows by size and position.
- **Lawns:** may appear grazed areas around land holes.
- **Nests:** where the water table is high above ground, woven nests may be found.
- **Footprints:** tracks may occur at the water's edge and lead into bankside vegetation. May be distinguishable from brown rat *Rattus norvegicus* footprints by size.
- **Runways in vegetation:** low tunnels pushed through vegetation near the water's edge; these are less obvious than rat runs.

2.4.66 If individuals are not sighted, multiple field signs are usually required to provide certainty of water vole presence.

Wildcat Surveys

2.4.67 The wildcat survey covered all habitats presenting as 'moderate' and 'high' suitability within the Potential Ecological Footprint and 45m OC, plus a 200 m buffer (where applicable)[43], (Wildcat Survey Area). The wildcat survey was undertaken following NatureScot guidelines[74,75] and involved identifying evidence of dens or resting sites, along with signs that indicate habitat use of the site by wildcats, including:

- **Den sites/ resting locations:** may include rocky cairns and boulders, tree hollows, under root plates and dense gorse etc. Wildcats may also use fox earths, badger setts or rabbit burrows. Recent use may be indicated by the flattening of vegetation, smoothing of bark on branches, hair or prey remains. Scats are not commonly found at den sites; and
- **Temporary shelter:** areas of bracken, tall grasslands and brash in forestry may also be important for providing temporary shelter.

Great Crested Newt Surveys and other amphibians

Habitat Suitability Index

2.4.68 A Habitat Suitability Index (HSI) assessment of 'high suitability' ponds occurring within a 500 m buffer of the Potential Ecological Footprint and 45 m OC (GCN Survey Area), was undertaken following Amphibian and Reptile Groups current best practice methods[76,77], amended methods[78] and NatureScot guidance[79].

2.4.69 Targeted ponds were assessed and scored on ten key variables which are known to influence breeding populations of GCN. These variables are:

- geographic location;
- pond area;
- permanence;
- water quality;
- shading;
- impact of waterfowl;
- fish stocks;

74 NatureScot (2014) Wildcat Survey Methods. Available at: https://www.nature.scot/doc/guidance-wildcat-survey-methods

75 NatureScot (2024) Standing advice for planning consultations – Wildcat. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-wildcats

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

77 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

78 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.

79 NatureScot (2024) Standing advice for planning consultations – Great Crested Newt. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-great-crested-newts

- number of ponds within 1 km;
- terrestrial habitat around a pond; and
- macrophyte cover of a pond.

2.4.70 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.

2.4.71 'High' suitability ponds subject to the HSI methodology described above were classified as those which fell within geographical location 'Zone B' (higher suitability areas in Scotland)[77] and contained a network of ponds within 500 m of each other, not split by major barriers to movement, following Leicestershire and Rutland Environmental Records Centre guidance[80], with suitable surrounding GCN habitat. As Aberdeenshire Council falls outwith 'Zone B', no HSI was conducted on ponds within the Aberdeenshire Council portion of the GCN Survey Area.

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

eDNA Survey

2.4.73 Ponds occurring within the within the GCN Survey Area which returned at least a 'below average' or greater suitability for GCN during the HSI assessment, were subject to an eDNA survey following best practice methods[81]. eDNA surveys were carried out by surveyors working as approved agents on behalf of a NatureScot Great Crested Newt licenced surveyor as detailed within **Annex B: Survey Details**. This involved collecting multiple water samples from all areas within the pond, including areas of vegetation to support egg laying and clear areas suitable for displaying. From the combined water samples, six sub-samples were taken and sent for laboratory analysis to RSK ADAS Ltd. to determine presence/absence of GCN. The remaining combined pond water samples (not included in the sub-samples sent for analysis) were returned to each pond.

Fish Surveys

2.4.74 A Habitat Suitability Assessment of the upstream, midstream and downstream point of known major river crossings within the Potential Ecological Footprint and 45 m OC, plus a 100 m buffer was undertaken ('Fish Survey Area'). The assessment was based on standard Scottish Fisheries Coordination Centre (SFCC) guidance[82] on habitat suitability and standard field sign assessment methodology (summarised below), supplemented by the identification of incidental field signs and aided by professional experience and judgement.

2.4.75 Within three points of the selected major rivers (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 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 SFCC guidance[82] of the watercourses present on an OS 1:50,000 map.

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80 Leicestershire and Rutland Environmental Records Centre (LRERC) (2014), Great Crested Newt Survey Protocol. Barries to newt movements include main roads, rivers and larger brooks, an expanse of bare ground or hard surface, arable land and regularly close-mown amenity grassland.

81 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.

82 SFCC (2007). Habitat Survey Manual. Scottish Fisheries Co-Ordination Centre, Faskally, Perthshire [online]. Available at: https://sfcc.co.uk/resources/habitat-surveying.html

Other Protected and Notable Species

2.4.76 Any incidental sightings of notable mammal, reptile, terrestrial invertebrates or other species encountered during targeted surveys were recorded.

2.5 Limitations

2.5.1 Ecology surveys and assessments were undertaken prior to the final design of the Proposed Development, in an area defined for survey planning purposes, referred to as the Potential Ecological Footprint. The subsequent revisions to the Proposed Development are detailed in **Chapter 3: Project Description**. Based on the June 2025 revision of the Proposed Development, additional areas were subsequently scoped in for both MCA analysis and targeted surveys, conducted between June – August 2025. However, due to anticipated subsequent design changes, beyond the June 2025 design, calculated survey buffers based on the Potential Ecological Footprint do not, in some small areas, provide full coverage of the final design of the Proposed Development. Further justification and implications associated with the extent of field survey data available to support the EIA, are captured in **Chapter 8: Ecology.**

2.5.2 Ecological survey data will typically remain valid for up to 12 months, and up to 18 months with the following exceptions[83]:

- where a site may offer existing or new features which could be utilised by a mobile species within a short time frame;
- where a mobile species is present on-site or in the wider area, and can create new features of relevance to the assessment; and
- where country-specific or species-specific guidance dictates otherwise.

Habitat Surveys

2.5.3 Prior to the commencement of UKHab surveys, MCA data was reviewed and updated where necessary. Where possible topology issues in the spatial habitat data, including slivers or gaps within polygons, were eradicated using advanced GIS operations. Due to the scale of the MCA data and the precision of the GIS operations applied, it was not possible to eradicate all topology issues. However, accounting for the scale of the overall Potential Ecological Footprint, any legacy topology issues retained in the final data is not believed to affect the accuracy of the final assessments.

2.5.4 Access to the UKHab Survey Area was restricted in multiple areas, due to access constraints such as presence of livestock, agricultural / commercial forestry operations and landowner refusal (**'Access Constraints', Annex A – Figure 8.1.1: Survey Areas and Access Constraints**). Assumptions were made on the habitat type of inaccessible habitats when surveying at a distance using binoculars. Accessible habitats in the proximity, with similar structural appearance and land use, were used as a basis for assumptions on habitat composition and condition.

2.5.5 Within the UKHab Survey Area, where survey on the ground or from a vantage point was not possible, the results of the MCA were used to assign habitat types. Assumed MCA habitats were then reviewed and cross referenced to UKHab survey results of closest similar habitats, to provide further confidence into the MCA result. MCA data was further screened against overall UKHab results obtained during the field surveys, to identify any outlier habitat types. Where necessary, professional judgement was applied to determine the final habitat type assigned within the context of the wider UKHab Survey Area.

[83] Chartered Institute of Ecology and Environmental Management (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM, Winchester.

Protected Species Surveys

2.5.6 The surveys covered areas identified as presenting 'moderate' (wildcat only) to 'high' suitability for each targeted species (see Targeted Surveys **Paragraph 2.4.14** onwards). Considering the extent and the type of works associated with the Proposed Development, it was essential to identify a proportionate approach for data collection, ensuring data from protected species surveys would be both robust and sufficient to inform the EIA and mitigation. The adopted approach was considered proportionate with reference to the type of works associated with the Proposed Development and was presented at a pre-EIA scoping meeting 30 November 2023 to NatureScot and LPAs (where present). Further justification and implications associated with the extent of field survey data available to support the EIA, are captured in **Chapter 8: Ecology**.

2.5.7 For bats, the proportion of tree / woodland subjected to further surveys deviated from best practice guidance[51]. This approach was based on professional judgement and agreed with NatureScot. The agreed approach to the survey of woodland / trees for bats provided a proportionate dataset (relating to the scale of the Proposed Development) to identify the bat species activity and assemblage occurring within the woodlands with potentially higher suitability to support roosting, commuting and foraging bats. In total, 733 trees were identified during the DBW, as either FAR or PRF within the Bat Survey Area. Following this initial habitat suitability assessment, PRF inspection surveys were conducted, with 135 trees randomly selected from the initial DBW trees. Dusk emergence surveys were then conducted within 25% of trees selected for PRF inspection surveys that were considered unsafe to access. NBW surveys were conducted within 15 'high' suitability woodlands and static detector surveys conducted within 15 'high' suitability woodlands. This combined survey effort aimed to inform the overall scale of woodland resources for bats, as many of the trees identified as providing PRFs during the DBW, occurred in large groups in woodlands. This combined approach provided a more proportionate overview of resources for bats with potential to be affected by the Proposed Development, and accounted for the fact that bats can change their use of individual trees / roosting sites across the seasons and between years. In addition, at EIA stage, the LoD for the Proposed Development is known but the precise location of the Proposed OHL Alignment and hence of any trees that may require to be removed would be defined during detailed, pre-construction design, a process that will require micro-siting. Detailed surveys of individual trees to assess roost status for licensing purposes is therefore considered more appropriate for the pre-construction phase of the Proposed Development.

2.5.8 For bats, of the four detectors deployed, two detectors within woodland 10 (21 to 28 August 24) and one detector within woodland 5 (12 to 20 August 2024) failed during deployment. The remaining detectors deployed (two and three respectively), recorded a minimum of eight days each. It is considered that the reduced recording data does not have an impact on the outcome of the assessment, due to the total number of bats and number of species recorded during detector deployment, thereby still allowing an informed assessment of bat activity in this area.

2.5.9 For fish, data sets from relevant fisheries trusts were used to complement fish habitat suitability surveys. Field surveyor safety, access and the general approach of avoiding working in watercourses, rendered this approach more suitable than collecting a snapshot of specific fish survey data for the Proposed Development. Major river crossings within the Potential Ecological Footprint were assessed for fish habitat suitability, as precise tower / working area locations of the Proposed Development were unknown at the time of survey and as such detailed fish surveys were not completed. As the Proposed Development will avoid or over sail watercourses and working methods near watercourses and in sensitive habitats will follow agreed mitigation measures, additional detailed fish surveys are not considered necessary to inform the EIA at this time.

2.5.10 Where habitat features with suitability for use as resting sites (such as squirrel dreys; or pine marten dens) have been identified within the Protected Species Survey Area, but the presence or current use by a protected species has not been confirmed, they have been recorded as 'potential' rest areas (i.e. 'potential squirrel drey;' or 'potential pine marten den site'). For the purposes of the EIA Report, this allows the habitat suitability for applicable species to be assessed, and the availability of resting sites recorded. This information can then inform the potential impact and mitigation.

2.5.11 Faunal species are mobile and transient in nature, moving between favoured habitats regularly throughout and between years. It is acknowledged that the results of the protected species surveys, including camera trapping surveys, represent a current 'snapshot' of field evidence found at the time of surveying and therefore, lack of evidence does not necessarily equate to the absence of the species.

3 Results

3.1 Desk Study

Designated Sites and Protected Areas

3.1.1 Results of the desk study pertaining to designated sites and protected areas are described below within **Table 3.1.**

3.1.2 The location of designated sites in relation to the Proposed Development is illustrated within **Figures 8.1 – 8.3.**

3.1.3 Internationally designated sites recorded within 10 km of the Proposed Development included ten SPAs, 14 SACs and three Ramsar Sites, as outlined below in **Table 3.1.** For SPAs designated for greylag or pink footed geese or for osprey the search area was 20 km as described in the **HRA Report** and **Chapter 9: Ornithology**.

3.1.4 Nationally designated sites recorded within 2 km of the Proposed Development included 15 Sites of Special Scientific Interest (SSSI) and one seal haul-out site, as outlined below in **Table 3.2.**

3.1.5 Several local / non- statutory designated sites were recorded within 1 km of the Proposed Development, including one WPA, two red squirrel strongholds, two LNCS, two IIAs, one Butterfly Conservation SPL and several Buglife B-lines, as outlined below in **Table 3.3**.

3.1.6 The above search areas were set out during the EIA Scoping Stage with stakeholders given the opportunity to comment. No comments advising a change to these search areas were received. Additionally, ancient woodland listed on the AWI was recorded along the Proposed Development. Of the 216 AWI parcels identified within 1 km of the Proposed Development, 11 are category 1a ancient woodland of semi-natural origin; one is category 1b Long Established Plantation Origin (LEPO) woodland; 34 are category 2a ancient woodland of semi-natural origin; 160 are category 2b LEPO woodland; and 10 are category 3 other ('Roy' map) woodland. Following SSEN guidance[84], category 1a and 2a woodland is interpreted as irreplaceable ancient woodland, however, category 1b, 2b and 3, for the purpose of further assessments, are not considered irreplaceable ancient woodland.

3.1.7 Within the Proposed Development, Class 1[85], Class 2[86] and Class 3[87] peatlands listed on the CPM are present throughout, with concentrated areas of potential deep peat / peatland habitats within Highland and Moray Council areas.

[84] Scottish and Southern Electricity Networks (SSEN) Transmission. Ancient Woodland – Approach to Assessment and Reporting (2023).

[85] Class 1 - Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value

[86] Class 2 - Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential

[87] Class 3 - Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils

Table 3.1: International Designated Sites within 10 km (extended to 20 km for wintering geese and for osprey)

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
Glen Affric to Strathconon SPA	Highland	Supports a population of European importance of the Annex I species golden eagle (*Aquila chrysaetos)* (10 active territories in 2003, 2.2% of the GB population).	9.9 km west
Strathglass Complex SAC	Highland	Annex I habitats that are a primary reason for selection of this site: • 4010 Northern Atlantic wet heaths with *Erica tetralix;* • 4060 Alpine and Boreal heaths; • 4080 Sub-Arctic *Salix spp.* Scrub; • 6150 Siliceous alpine and boreal grasslands; • 7130 Blanket bogs; • 8220 Siliceous rocky slopes with chasmophytic vegetation; and • 91C0 Caledonian forest. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea;* • 4030 European dry heaths; • 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels; • 8110 Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*); • 8210 Calcareous rocky slopes with chasmophytic vegetation; and 91D0 Bog woodland. Annex II species present as a qualifying feature, but not a primary reason for site selection • 1355 Otter	8.9 km west

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
Conon Islands SAC	Highland	Annex I habitats that are a primary reason for selection of this site • 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae, Salicion albae*).	8.4 km north
North Inverness Lochs SPA	Highland	Supports a population of European Importance of the Annex I species: Slavonian grebe (*Podiceps auritus)* (1991 to 1995, 7 pairs, 12% of the GB population).	8.9 km south
Inner Moray Firth SPA	Highland	Supports populations of European importance of the Annex I species: osprey *Pandion haliaetus* forage throughout the SPA (2008 to 2012, up to 25 territories within feeding range, 12.5% of the GB population, with 4 pairs breeding within the site, 4% of the GB population); common tern *Sterna hirundo* (310 pairs, 2% of the GB population) and bar-tailed godwit *Limosa lapponica* (1992/93 to 1996/97 a winter peak mean of 1,090 individuals, 2% of the GB population). Supports populations of European importance of the following migratory species (1992/93 to 1996/97 winter peak means): greylag goose (*Anser anser)* (2,651 individuals, 3% of the Iceland/UK/Ireland biogeographic population); red-breasted merganser (*Mergus serrator)* (1,184 individuals, 1% of the northwest & Central Europe biogeographic population), and redshank (*Tringa tetanus)* (1,621 individuals, 1% of the Eastern Atlantic biogeographic population). Supports excess of 20,000 individual waterfowl, including: nationally important populations of scaup (*Aythya marila)*, curlew (*Numenius Arquata)*, goosander (*Mergus merganser)*, goldeneye (*Bucephala clangula)*, teal *A. crecca*, cormorant (*Phalacrocorax carbo)*, redshank, red-breasted merganser, greylag goose, bar-tailed godwit and oystercatcher (*Haematopus ostralegus*).	505 m north
Inner Moray Firth Ramsar	Highland	The Ramsar qualifies under Ramsar Criterion 1 by virtue of it containing a variety of wetland types: • Mudflats, sandflats and saltmarsh; and • Sand dunes and a shingle bar. The Ramsar also qualifies by supporting the following ornithological features: osprey, common tern, scaup, curlew, goosander, goldeneye, teal, wigeon (*Anas Penelope)*, cormorant, oystercatcher, bar-tailed godwit, greylag goose, red-breasted merganser, redshank and additionally, this Ramsar regularly supports waterbirds in numbers of 20,000 individuals or more.	509 m north

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
Moniack Gorge SAC	Highland	Annex II species that are a primary reason for selection of this site • 1386 Green shield-moss (*Buxbaumia viridis)*	0.3 km west
Cromarty Firth SPA	Highland	The SPA was included in the extended search SPAs designated for wintering geese. Cromarty Firth SPA regularly supports a population of European importance of the migratory species: greylag goose (1992/93 to 1996/97 winter peak mean of 1,782 individuals; 2% of the Iceland/UK/Ireland biogeographic population).	13.2 km north
Monadh Mor SAC	Highland	Annex I habitats that are a primary reason for selection of this site: • 7140 Transition mires and quaking bogs; and • 91D0 Bog woodland.	7.5 km north
Moray Firth SAC	Highland	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 1110 Sandbanks which are slightly covered by sea water all the time. Annex II species that are a primary reason for selection of this site: • 1349 Bottlenose dolphin (*Tursiops truncatus).*	1.1 km north
Moray Firth SPA	Highland	Regularly supports a non-breeding population of European importance of the following Annex 1 species: great northern diver (*Gavia immer)* (a mean peak annual non-breeding population of 144 individuals (5.8% of the Great Britain population) for the years 2001/02-2006/07), red-throated diver *Gavia stellata* (a mean peak annual non-breeding population of 324 individuals (1.9% of the Great Britain population) for the years 2001/02-2006/07) and Slavonian grebe (a mean peak annual non-breeding population of 43 individuals (3.9% of the Great Britain population), for the years 2001/02-2005/06). The SPA also regularly supports populations of European importance of the following migratory species: greater scaup *Aythya marila* (a mean peak annual non-breeding population of 930 individuals (17.9% of the Great Britain population) for the years 2001/02 to 2005/06), common eider (*Somateria mollissima)* (a mean peak annual non-breeding population of 1,733 individuals (2.9% of the Great Britain population) for the years of 2001/02 to 2006/07), long-tailed duck (*Clangula hyemalis)* (a mean peak annual non-breeding population of 5,001 individuals (45.5% of the Great Britain population) for the years of 2001/02 to 2005/6), common scoter (*Melanitta nigra)* (a mean peak annual non-breeding population of 5,479 individuals (5.5% of the Great Britain	0.85 km north

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
		population) for the years 2001/02 to 2005/06), velvet scoter (*Melanitta fusca)* (a mean peak annual non-breeding population of 1,488 individuals (59.5% of the Great Britain population) for the years 2001/02 to 2005/06), common goldeneye (*Bucephala clangula*) (a mean peak annual non-breeding population of 907 individuals (4.5% of the Great Britain population) for the years 2001/02 to 2005/06), red-breasted merganser (*Mergus serrator)* (a mean peak annual non-breeding population of 151 individuals (1.8% of the Great Britain population) for the years of 2001/02 to 2005/06) and European shag (*Phalacrocorax aristotelis*) (at least 6,462 individuals during the non-breeding season (3.2% of the biogeographic population and 5.9% of the Great Britain population) and 5,494 individuals during the breeding season ((2.7% of the biogeographic population & 10.2% of the Great Britain population) for the years 1980-2006).	
Loch Ashie SPA	Highland	Supports a population of European importance of the Annex I species: Slavonian grebe (*Podiceps auritus)* (an autumn gathering of up to 60 individuals, up to 15% of the GB population).	2.9 km south
Loch Flemington SPA	Highland	Supports a nationally important population of breeding Slavonian grebe. From 1991 to 1995 an average of 6 pairs of Slavonian grebe bred within the SPA, representing 10% of the GB breeding population.	4.4 km north
Carn nan Tri-tighearnan SAC	Highland	Annex I habitats that are a primary reason for selection of this site: • 7130 Blanket bogs.	1.5 km southeast
Cawdor Wood SAC	Highland	Annex I habitats that are a primary reason for selection of this site: • 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles.	0.3 km north
Darnaway and Lethen Forest SPA	Highland Moray	Supports a breeding population of European importance of the Annex I species capercaillie (*Tetrao urogallus)*. The site is estimated to support 23 individuals (mean 1999/2000, 2002, 2003), representing about 2.1 % of the GB population.	3.6 km north
Lower Findhorn Woods SAC	Moray	Annex I habitats that are a primary reason for selection of this site: • 9180 Tilio-Acerion forests of slopes, screes and ravines.	1.9 km north
Moidach More SAC	Moray	Annex I habitats that are a primary reason for selection of this site: • 7130 Blanket bogs.	1.5 km southeast

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
River Spey SAC	Moray	Annex II species that are a primary reason for selection of this site: • 1029 Freshwater pearl mussel; • 1095 Sea lamprey *Petromyzon marinus;* • 1106 Atlantic salmon *Salmo salar*, and • 1355 Otter.	The Proposed Development traverses the River Spey west of Upper Ordiquish, to the southwest of Fochabers (tower numbers CB14-1B – CB14-2B) (19 m east)
Loch Spynie SPA	Moray	Supports an internationally important population of greylag geese. In the five-winter period 1985/86 to 1989/90 the average peak count was 8,830 birds (9% of the world population).	9.7 km north
Loch Spynie Ramsar	Moray	Loch Spynie Ramsar site qualifies under Ramsar Criterion 1 for supporting the following habitats: • Eutrophic loch; • Open water transition fen; and • Willow/alder carr. Loch Spynie Ramsar site further qualifies under Ramsar Criterion 2 by supporting: • Nationally scarce plants including; slender leaved pondweed *Potamogeton filiformis*, coralroot orchid *Corallorhiza trifida* and baltic rush *Juncus balticus;* and • Near threatened lesser tussock sedge *Carex diandra.* The Ramsar also qualifies under Ramsar Criterion 6 by regularly supporting 1% or more of the individuals in a population of waterbirds: Greylag goose (1985/86 to 1989/90, average winter peak count of 8,830 individuals, 9% of the Iceland/UK/Ireland biogeographic population).	9.4 km north
Lower River Spey - Spey Bay SAC	Moray	Annex I habitats that are a primary reason for selection of this site include: • 1220 Perennial vegetation of stony banks; and • 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, *Alnion incanae, Salicion albae*).	2.4 km south 3 km north

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
Moray and Nairn Coast SPA	Moray	Supports populations of European importance of the following Annex I species: • Osprey forage throughout the SPA (2008 to 2012, with a five year mean of up to 9 territories within feeding range, 4.5% of the GB population and 7 pairs breeding within the site, 7% of the GB population); and • Bar-tailed godwit (five-year winter peak mean 1989/90 to 1993/94 of 899 individuals, 2% of the GB population). The SPA also supports populations of European importance of the migratory species: • Pink-footed goose *Anser brachyrhynchus* (1988/89 to 1992/93, winter peak mean of 7,538 individuals, 4% of the Eastern Greenland/Iceland/UK biogeographic population); • Greylag goose (1988/89 to 1992/93, winter peak mean of 3,023 individuals, 3% of the Iceland/UK/Ireland biogeographic population); and • Redshank (1989/90 to 1993/94, winter peak mean of 1,690 individuals, 1% of the Eastern Atlantic biogeographic population). The SPA also supports in excess of 20,000 individual waterfowl including nationally important populations of: bar-tailed godwit, pink-footed goose, greylag goose, redshank, red-breasted merganser, dunlin *Calidris alpina alpina*m, oystercatcher and wigeon.	3 km north
Moray and Nairn Coast Ramsar	Moray	The Moray and Nairn Coast Ramsar site qualifies under Ramsar Criterion 1 for supporting the following habitats: • Sand dunes; • Shingle; • Saltmarsh; and • Estuarine alder woodland. The Moray and Nairn Coast Ramsar site qualifies under Ramsar Criterion 2 by supporting: • Vascular plants: Nationally scarce sea centaury *Centaurium littorale*, oysterplant *Mertensia maritima,* Baltic rush *Juncus balticus* and vulnerable dwarf eelgrass *Zostera noltei;* and • Invertebrates: *Ochthebius lenensis* and *Tetanocera freyi*.	3 km north

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
		The Ramsar also qualifies by supporting the following ornithological features: osprey, bar-tailed godwit, red-breasted merganser, dunlin, oystercatcher, wigeon, pink-footed goose, greylag goose, redshank and by supporting an assemblage of waterbirds in numbers of 20,000 individuals or more.	
Tips of Corsemaul and Tom Mor SPA	Moray Aberdeenshire	Supports a breeding population of European importance: common gull *Larus canus* (an estimated 15, 870 pairs in 1998, 23 % of GB, 3 % of Western and Central Europe and 3% of World).	9 km southwest
Mortlach Moss SAC	Aberdeenshire	Annex I habitats that are a primary reason for selection of this site: • 7230 Alkaline fens.	0.5 km south
Turclossie Moss SAC	Aberdeenshire	Annex I habitats that are a primary reason for selection of this site: • 7110 Active raised bogs. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • 7120 Degraded raised bogs still capable of natural regeneration.	6.7 km north
Ythan Estuary, Sands of Forvie and Meikle Loch SPA	Aberdeenshire	The SPA regularly supports populations of European importance of the Annex I species: Sandwich tern *Sterna sandvicensis* (1989 to 1991, up to 1125 pairs, up to 7% of the GB population); common tern *Sterna hirundo* (1989 to 1993, up to 265 pairs, up to 2% of the GB population); and little tern *Sterna albifrons* (1989 to 1993, up to 41 pairs, up to 2% of the GB population). The SPA also regularly supports populations of European importance of the migratory species: pink-footed goose (1988/89 to 1992/93 winter peak mean of 17,213 individuals, 9% of the Eastern Greenland/Iceland/UK biogeographic population). Lastly, the SPA supports in excess of 20,000 individual waterfowl, including nationally important populations of pink-footed goose, eider (*Somateria mollissima)*, redshank and lapwing (*Vanellus Vanellus).*	9.5 km southeast
Ythan Estuary and Meikle Loch Ramsar	Aberdeenshire	Qualifies under Ramsar Criterion for supporting the following ornithological features: common tern, little tern, eider, redshank, lapwing, sandwich tern and pink-footed goose.	9.5 km southeast
Buchan Ness to Collieston SAC	Aberdeenshire	Annex I habitats that are a primary reason for selection of this site: • 1230 Vegetated Sea cliffs of the Atlantic and Baltic Coasts.	8.3 km southeast

Feature (Name, Designation)	Local Planning Authority	Reason for Designation (as taken form NatureScot SiteLink)	Distance from Proposed Development
Buchan Ness to Collieston Coast SPA	Aberdeenshire	The SPA supports in excess of 20,000 individual seabirds. It regularly supports 95,000 seabirds including nationally important populations of the following species: black-legged kittiwake *Rissa tridactyla*, common guillemot *Uria aalge*, herring gull *Larus argentatus,* European shag *Phalacrocorax aristotelis* and Northern fulmar *Fulmarus glacialis*.	6.9 km east
Loch of Strathbeg SPA	Aberdeenshire	The SPA was included in the extended search for SPAs designated for wintering geese. Loch of Strathbeg SPA regularly supports populations of European importance of the migratory species: pink-footed goose (1986/87 to 1990/91, average winter peak count of 27,500 individuals, 25% of the Eastern Greenland/Iceland/UK biogeographic population); and greylag goose (1986/87 to 1990/91, average winter peak count of 5,565 individuals, 6% of the Iceland/UK/Ireland biogeographic population).	12.2 km north
Loch of Strathbeg Ramsar	Aberdeenshire	The Loch of Strathbeg Ramsar site qualifies under Ramsar Criterion 1 for supporting the following habitats: • The largest dune slack pool in Britain, with an area of 200 ha. Qualifies under Ramsar Criterion for supporting the following ornithological features: sandwich tern, teal, goldeneye, pink-footed goose, Greylag goose, Whooper swan, Svalbard barnacle goose.	12.2 km north
Southern Trench MPA	Aberdeenshire	Protected Features: • Minke whale (*Balaenoptera acutorostrata)*; and • burrowed mud, fronts, shelf deeps.	8.7 km northeast

Table 3.2: National Designated Sites within 2 km of the Proposed Development

Feature (Name, Designation)	Local Planning Authority	Reason for Designation	Distance from Proposed Development
Beauly Firth SSSI	Highland	• Saltmarsh; • Vascular plant assemblage; and • Birds: goosander, greylag goose and red-breasted merganser.	0.5 km north

Feature (Name, Designation)	Local Planning Authority	Reason for Designation	Distance from Proposed Development
Beauly Protected Seal Haul-out Site	Highland	Seal haul-out sites, including key breeding sites along with a number of additional specific sites, designated through The Protection of Seals (Designation of Haul-Out Sites) (Scotland) Order 2014.	0.2 km north
Moniack Gorge SSSI	Highland	• Upland mixed ash woodland; and • Lichen assemblage.	0.3 km west
Carn nan Tri-tighearnan SSSI	Highland	• Blanket bog; and • Subalpine dry heath.	1.5 km southeast
Cawdor Wood SSSI	Highland	• Upland oak woodland; and • Lichen assemblage.	0.3 km north
Moidach More SSSI	Moray	• Blanket bog;	1.5 km southeast
Buinach and Glenlatterach SSSI	Moray	• Upland oak woodland; • Upland birch woodland; and • Lowland dry heath.	Bisects the Proposed Development (between tower numbers CB9C-28A and CB9C-29B) (133 m northwest)
Gull Nest SSSI	Moray	• Blanket bog.	1.2 km southeast
Coleburn Pasture SSSI	Moray	• Lowland acid grassland.	The Proposed Development spans the SSSI (between tower numbers CB11-3 (146) and CB11-4 (146-1))
River Spey SSSI	Moray	• Atlantic salmon; • Sea lamprey; • Freshwater pearl mussel; and	The Proposed Development traverses the River Spey west of Upper

Feature (Name, Designation)	Local Planning Authority	Reason for Designation	Distance from Proposed Development
		• Otter.	Ordiquish, to the southwest of Fochabers (tower numbers CB14-1B – CB14-2B) (19 m east)
Mill Wood SSSI	Moray	• Upland birch woodland.	0.01 km northeast
Den of Pitlurg SSSI	Moray / Aberdeenshire	• Upland birch woodland; and • Valley fen.	1.1 km southwest
Mortlach Moss SSSI	Aberdeenshire	• Basin fen.	0.5 km south
Whitehill SSSI	Aberdeenshire	• Fen meadow; • Valley fen; • Lowland acid grassland; • Lowland calcareous grassland; and • Lowland neutral grassland.	0.2 km east

Table 3.3: Local / Non-Statutory Designated Sites within 1 km of the Proposed Development

Feature (Name, Designation)	Local Planning Authority	Reason for Designation	Distance from Proposed Development
Buglife B-line	Highland, Moray, Aberdeenshire	B-Lines are a series of 'insect pathways' running throughout the UK, along which Buglife are restoring and creating a series of wildflower-rich habitat stepping stones to link existing wildlife areas together.	Bisects the Proposed Development

Feature (Name, Designation)	Local Planning Authority	Reason for Designation	Distance from Proposed Development
Great Glen and the Beauly Catchment Butterfly Conservation SPL	Highland	Identified by the Butterfly Conservation Trust as an area which supports threatened species[88], including priority butterfly or moth species requiring conservation action through a landscape scale approach.	Bisects the Proposed Development
East Invernesshire IIA	Highland	IIAs are home to nationally or internationally significant invertebrate populations and their habitats.	Bisects the Proposed Development
Findhorn Culbin IIA	Highland, Moray	The Findhorn and Culbin IIA supports a nationally important assemblage of invertebrates, with at least 20 qualifying IIA species of conservation concern. The area supports a number of species which are endangered within the UK. This includes species such as the moss beetle (*Ochthebius lenensis),* nationally rare aspen hoverfly (*Hammerschmidtia ferruginea)*, white-faced darter (*Leucorrhinia dubia*), northern damselfly (*Coenagrion hastulatum*), and pearl-bordered fritillary (*Boloria euphrosyne*). The IIA also supports an assemblage of vulnerable invertebrates including golden net-winged beetle (*Dictyoptera auror)*, northern robberfly (*Rhadiurgus variabilis*) and the bend-bearing blunt-brow spider (*Silometopus incurvatus).*	Adjacent to Proposed Development and 0.4 km south
Daviot Loch Moy Red Squirrel Stronghold	Highland	Stronghold forests are large areas of coniferous and mixed forest identified as having the potential to sustain resilient and healthy populations of red squirrel over the long-term. The defining aim of these strongholds is to use woodland management to maintain a healthy self-sustaining population of red squirrels.	Bisects the Proposed Development
Ordiequish, Whiteash, Ben Aigan Red Squirrel Stronghold	Moray		Bisects the Proposed Development
Strathbogie WPA	Aberdeenshire	Priority area identified for wildcat conservation.	Bisects the Proposed Development
Den of Pitlurg LNCS	Aberdeenshire	A large meltwater channel which contains botanically rich fen and wet woodland vegetation, long-established woodland, bog, herb rich grasslands and rush pasture.	0.5 km south
Bin Hill LNCS	Aberdeenshire	Botanically rich areas at the Burn of Carnie and parts of Bin Forest. Extension to the north to include botanically rich grassland, fen and wet woodland.	Bisects the Proposed Development

[88] Butterfly Conservation 2021-2026 Strategy (https://butterfly-conservation.org/sites/default/files/2021-10/Butterfly-Conservation-Strategy%20Brochure.pdf

Protected Species

3.1.8 The results of the desk study pertaining to protected species historically recorded (dating back to 2014) within 1 km of the Proposed Development is described below within **Table 3.4.**

Table 3.4: Protected Species Desk Study Results within 1 km of the Proposed Development

Species	Local Planning Authority	Number of Records Identified	Record Source	Closest record from Proposed Development
Otter	Highland	52	Ecological observation from public consultation NBN Atlas data	20 m east of Proposed Development
Water vole	Highland	1	NBN Atlas data	Within 1 km of Proposed Development
Common pipistrelle	Highland	16	NBN Atlas data	Within 1 km of Proposed Development
Soprano pipistrelle	Highland	10	NBN Atlas data	Within 1 km of Proposed Development
Daubenton's Bat	Highland	88	NBN Atlas data	Within 1 km of Proposed Development
Natterer's Bat	Highland	3	NBN Atlas data	Within 1 km of Proposed Development
Leisler's Bat	Highland	1	NBN Atlas data	Within 1 km of Proposed Development
Brown Long-eared Bat	Highland	13	NBN Atlas data	Within 1 km of Proposed Development
Red Squirrel	Highland	100+	NBN Atlas data	Within 1 km of Proposed Development
Pine Marten	Highland	45	NBN Atlas data	Within 1 km of Proposed Development
Beaver	Highland	2	Ecological observation from adjacent SSEN-T project	500 m north of Proposed Development
Slow worm	Highland	2	NBN Atlas data - HBRG Vertebrates (not Badger) Dataset	Within 1 km of Proposed Development

Species	Local Planning Authority	Number of Records Identified	Record Source	Closest record from Proposed Development
Adder	Highland	1	NBN Atlas data - HBRG Vertebrates (not Badger) Dataset	Within 1 km of Proposed Development
Lizard	Highland	6	NBN Atlas data - HBRG Vertebrates (not Badger) Dataset	Within 1 km of Proposed Development
Daubenton's Bat	Moray	6	NBN Atlas data	Within 1 km of Proposed Development
Natterer's Bat	Moray	1	NBN Atlas data	Within 1 km of Proposed Development
Common pipistrelle	Moray	14	NBN Atlas data	Within 1 km of Proposed Development
Soprano Pipistrelle	Moray	16	NBN Atlas data	Within 1 km of Proposed Development
Water vole	Moray	4	NBN Atlas data	Within 1 km of Proposed Development
Otter	Moray	1	NBN Atlas data	Within 1 km of Proposed Development
Common pipistrelle	Moray	1	NBN Atlas data	Within 1 km of Proposed Development
Red Squirrel	Moray	3	Ecological observation from public consultation Ad hoc sighting during previous survey NBN Atlas data	350 m north of Proposed Development
Pine Marten	Moray	2	Ecological observation from public consultation	Within LoD
Common lizard	Moray	2	NBN Atlas data - HBRG Vertebrates (not Badger) Dataset	Within 1 km of Proposed Development
Common pipistrelle	Aberdeenshire	1	NBN Atlas data	Within 1 km of Proposed Development
Otter	Aberdeenshire	3	Ecological observation from public consultation NBN Atlas data	800 m north of Proposed Development

Species	Local Planning Authority	Number of Records Identified	Record Source	Closest record from Proposed Development
Water vole	Aberdeenshire	1	NBN Atlas data	Within 1 km of Proposed Development
Pine Marten	Aberdeenshire	3	Ecological observation from public consultation	200 m south of Proposed Development
Red Squirrel	Aberdeenshire	2	Ecological observation from public consultation	1 km north of Proposed Development
Wildcat	Aberdeenshire	8	Ecological observation from public consultation NBN Atlas data - Scottish Wildcat Action - Monitoring and Surveys	200 m north of Proposed Development

3.1.9 The results of the desk study pertaining to data requests (dating back to 2014) with relevant fisheries boards is described within **Table 3.5.**

Table 3.5: Fisheries Trust Data 1 km Upstream and Downstream of River Crossings of the Proposed Development

Species	Local Planning Authority	Number	Record Source	Watercourse	Closest record from Proposed Development
Atlantic salmon	Highland	384	Beauly Fisheries Trust	River Beauly	80 m south of Proposed Development (tower number BC2-1)
Brown trout	Highland	1	Beauly Fisheries Trust	River Beauly	80 m south of Proposed Development (tower number BC2-1)
Eel	Highland	50	Beauly Fisheries Trust	River Beauly	80 m south of Proposed Development (tower number BC2-1)
Atlantic salmon	Moray	1,993	Spey Fisheries Trust	River Spey	50 m north of Proposed Development (tower numbers CB14-1B – CB14-2B)
Brown trout	Moray	40	Spey Fisheries Trust	River Spey	50 m north of Proposed Development (tower numbers CB14-1B – CB14-2B)
Eel	Moray	131	Spey Fisheries Trust	River Spey	50 m north of Proposed Development (tower numbers CB14-1B – CB14-2B)

Species	Local Planning Authority	Number	Record Source	Watercourse	Closest record from Proposed Development
Minnow	Moray	24	Spey Fisheries Trust	River Spey	50 m north of Proposed Development (tower numbers CB14-1B – CB14-2B)
Atlantic salmon	Aberdeenshire	30	Deveron Fishers Trust	Burn of Auchmull --- tributary of River Deveron	Burn of Auchmull which bisects the Proposed Development (tower number BN2-11B)
Brown trout	Aberdeenshire	9	Deveron Fishers Trust	Burn of Auchmull --- tributary of River Deveron	Burn of Auchmull which bisects the Proposed Development (tower number BN2-11B)

3.2 UK Habitat Classification Surveys

The spatial extents of the UKHab Primary Habitats within the UKHab Survey Area are shown on **Annex A: Figure 8.1.2: UK Habitat Survey Results**. A description of each Primary Habitat recorded is presented (grouped by level 2 UK Habitat code) for each council area, within **Table 3.6Table 3.8,** including identification of priority habitats.

3.2.1 The plant species list for all combined council areas is provided in **Table 3.9**.

3.2.2 Annex I habitat types, irreplaceable habitats and important peat-forming habitats, were identified within the Potential Ecological Footprint and UKHab Survey Area. Habitats considered a priority within the UKHab Survey Area are identified for each respective council area in the results tables below.

Table 3.6: UKHab Primary Habitats within the UKHab Survey Area- Highland Council Area

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
c1 – Arable and horticulture	510 Bare ground 600 Ploughed 102 Sheep grazed	No	Portions of the western extent of the UKHab Survey Area were used for various arable purposes at the time of survey. A total of 15 commonly observed species were recorded across the habitats, including; tufted hair-grass, common hogweed and Yorkshire-fog, all recorded within unmanaged field margins of these arable habitats. A complete species list is available in **Table 3.9.** These are actively managed habitats which are common and widespread in the northeast landscape of Scotland. They do not qualify as SBL priority habitats, but high nature-value agricultural land, such as the habitats recorded within this area, area mentioned on the Highland Nature BAP.	333.12 ha
c1c – Cereal crops	510 Bare ground 32 Scattered trees	No		
c1c5 – Winter stubble **c1d – Non-cereal crops** **c1f7 - Polyculture**	n/a	No		
f - Wetland	n/a	No	Peatland habitats in various stages of degradation were recorded in multiple sections across the UKHab Survey Area. The habitats frequently occur around the centre of the UKHab Survey Area adjacent to the B861, approximately 2.3 km to the south of Inverness, and dominate the eastern end of the UKHab Survey Area between New Inn Woods and the Dorback Burn, see **Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 10.** Whilst all blanket bog is considered irreplaceable habitat under the National Planning Framework 4[89], one parcel of the Annex I habitat f1a5 – blanket bog (H7130) was recorded to the east of Assich Forest (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 7)**. This Annex I habitat was classified due to the abundance of important peat forming species such as Sphagnum moss assemblages, hare's-tail cottongrass and purple moor-grass. A total of 44 species were recorded across peatland habitats including dwarf shrub species, such as cross-leaved heath, heather and bell heather, along with indicator species including common cottongrass, hare's-tail cottongrass and various Sphagnum moss species. Blanket bog is included in the Highland Nature BAP and qualifies as a SBL priority habitat.	356.66 ha
f1 – Bog	32 Scattered trees	No		
f1a – Blanket bog	13 Scattered dwarf shrub 32 Scattered trees 14 Scattered rushes 10 Scattered scrub	No		
f1a5 – Blanket bog (H7130)	10 Scattered scrub 32 Scattered trees 13 Scattered dwarf shrub	No		
f1a6 – Degraded blanket bog	14 Scattered rushes 10 Scattered scrub 532 Scattered grass	No		

89 Scottish Government (2023) https://www.gov.scot/publications/national-planning-framework-4/

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
f2 - Fen marsh and swamp f2b – Purple moor-grass and rush pasture	n/a	Yes	There are small and scattered parcels of wetland habitat present throughout the UKHab Survey Area. A narrow section of f2b - purple moor-grass and rush pasture spans the width of the proposed LoD in the eastern end of the UKHab Survey Area. A total of 41 species were recorded across wetland habitats including indicator species such as sharp-flowered rush, compact rush, purple-moor grass, marsh-marigold and common reed. Wetland habitats are included in the Highland Nature BAP, with reedbeds, purple moor-grass, rush pasture, upland flushes, fens and swamps qualifying as a SBL priority habitats.	34.37 ha
f2c – Upland flushes fens and swamps	14 Scattered rushes 32 Scattered trees	Yes		
f2e – Reedbeds		Yes		
f2f – Other wetlands	15 Rushes dominant 32 Scattered trees	Yes		
g1 – Acid grassland	14 Scattered rushes	Yes	There are small, scattered and isolated parcels of acid grassland recorded throughout the UKHab Survey Area. A total of 29 species were recorded across acid grassland habitats including indicator species such as matt-grass, common bent, wavy-hair grass and heath rush. Lowland dry acid grassland qualifies as a priority habitat on the SBL.	34.40 ha
g1b – Upland acid grassland	13 Scattered dwarf shrub 10 Scattered scrub 32 Scattered trees	Yes		
g1b6 – Other upland acid grassland	15 Rushes dominant 12 Scattered bracken 14 Scattered rushes 13 Scattered dwarf shrub 10 Scattered scrub 102 Sheep grazed 32 Scattered trees	Yes		
g1d – Other lowland acid grassland	10 Scattered scrub 32 Scattered trees	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
g1c - Bracken	10 Scattered scrub 13 Scattered dwarf shrub 32 Scattered trees	No	There are small and scattered parcels of bracken recorded throughout the UKHab Survey Area. One narrow strip of bracken spans the width of the UKHab Survey Area adjacent to the River Nairn. A total of 12 species were recorded amongst bracken including silver birch and gorse. Bracken is neither mentioned on the Highland Nature BAP nor the SBL.	18.41 ha
g3 – Neutral grassland	12 Scattered bracken 101 Cattle grazed 104 Other grazed	Yes	At the time of survey, neutral grassland is scattered throughout the UKHab Survey Area and stretches across the width of the Proposed Alignment in multiple places to the east of Daviot Woods, and below the A862, approximately 1 km southwest of Kirkhill. The latter is located adjacent to a narrow parcel of g3c5 - *Arrhenatherum* neutral grassland. One parcel of g3c7 - *Deschampsia* neutral grassland is located within plantation woodland to the west of Inverness, with small isolated parcels of g3c8 – *Holcus-Juncus* neutral grassland scattered to the south of Inverness. A total of 79 species were recorded across the neutral grassland habitats including false-oat grass, soft-rush and tufted hair-grass. These grasslands do not qualify as SBL priority habitats and are not mentioned on the Highland Nature BAP.	128.74 ha
g3c – Other neutral grassland	106 Mown 81 Ruderal or ephemeral 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 10 Scattered scrub 32 Scattered trees 16 Tall forbs 100 Grazed 101 Cattle grazed 503 Wet 102 Sheep grazed	Yes		
g3c5 - *Arrhenatherum* neutral grassland	n/a	Yes		
g3c7 - *Deschampsia* neutral grassland	13 Scattered dwarf shrubs 14 Scattered rushes	Yes		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	32 Scattered trees 206 Felled			
g3c8 – Holcus-Juncus neutral grassland	15 Rushes dominant 14 Scattered rushes 102 Sheep grazed 10 Scattered scrub	Yes		
g4 – Modified grassland	10 Scattered scrub 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 16 Tall forbs 32 Scattered trees 516 Active management 106 Mown 510 Bare ground 101 Cattle grazed 108 Frequently mown 110 Silage and haylage128 Tall or tussocky sward 100 Grazed 318 Canalside 518 Neglected	No	Modified grassland, the majority being grazed by cattle or sheep, covers large sections of the UKHab Survey Area often spanning the width of the Proposed Alignment. Grazed grassland dominates the landscape in the eastern end of the Highland Council section of the UKHab Survey Area and the area to the south of Inverness. This is a modified habitat of relatively low species diversity, which is common and widespread in the northeast end of the Highland Council section of the UKHab Survey Area. In total 63 species were recorded across the various parcels of modified grassland, including species indicative of suboptimal conditions such as cow parsley, common ragwort, ribwort plantain, white clover and common nettle. This habitat does not qualify as an SBL priority habitat and is not mentioned on the Highland Nature BAP.	650.03 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	804 Road verge or island 827 Garden 839 Track			
h - Heathland and shrub	n/a	Yes	Heathland was recorded covering large areas within the UKHab Survey Area at the time of survey. Heathland is the dominant habitat in a section stretching from the south of Assich Forest to the west of Achneim Woods. A total of 56 species were recorded throughout heathland habitats including indicator species such as common heather, bell heather, cross-leaved heath and heath rush. Purple moor-grass, mat-grass and common haircap were also recorded throughout heathland habitats. This section included h1b6 – Wet heathland with cross-leaved heath – upland (H4010) which qualifies as an Annex I habitat, due to the assemblage of cross-leaved heath, deergrass and sphagnum moss species **(Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 5).** Several areas of h1b5 - Dry heaths - upland (H4030) were also recorded and qualified as an Annex I habitat due to the dominant ericaceous dwarf-shrub assemblages, along with bilberry and crowberry (characteristic of this habitat type) (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 5**). In addition, two areas of h1a7 - Wet heathland with cross-leaved heath- lowland (H4010) was recorded adjacent to an area of modified grassland and coniferous woodland **(Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 8).** In addition to the identified Annex I habitats, the broad habitat category of upland heathland qualifies as an SBL priority habitat and is included in the Highland Nature BAP.	618.47 ha
h1 – Dwarf shrub heath	206 Felled 510 Bare ground 32 Scattered trees 503 Wet	Yes		
h1a7 - Wet heathland with cross-leaved heath-lowland (H4010)	n/a	Yes		
h1b -Upland heathland	517 Recent Management 10 Scattered scrub 12 Scattered bracken 206 Felled 29 Plantation 32 Scattered trees	Yes		
h1b5 - Dry heaths - upland (H4030)	10 Scattered scrub 12 Scattered bracken 32 Scattered trees 102 Sheep grazed 105 Burnt 611 Soil erosion	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
h1b6 – Wet heathland with cross-leaved heath – upland (H4010)	10 Scattered scrub 57 Peat 32 Scattered trees 503 Wet	Yes		
h2a – Native hedgerow	11 Hedgerow with trees	No	Six native hedgerows were recorded west of Inverness and another native hedgerow was recorded to the south of Inverness. These hedgerows were comprised of hawthorn, beech, gorse, hazel, and ash. Hedgerows are included in the Highland Nature BAP and qualify as a priority habitat on the SBL.	2.59 km 0.02 ha
h2a6 - Other native hedgerow	n/a	No		
h3 - Dense scrub **h3b - Hazel scrub**	n/a	No	Parcels of scrub habitat are mostly dominated by gorse, occasionally by willow or hazel and are scattered throughout the UKHab Survey Area. Gorse scrub is dominant amidst blanket bog to the south of Inverness, adjacent to the B681 road. Scrub is neither mentioned on the Highland BAP nor does it qualify as a priority habitat on the SBL.	115.77 ha
h3e - Gorse scrub	10 Scattered scrub 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 106 Mown 516 Active management 32 Scattered trees	No		
h3h - Mixed scrub	13 Scattered dwarf shrubs 15 Rushes dominant 32 Scattered trees	No		
h3j - Willow scrub	32 Scattered trees	Yes		
r - Rivers and lakes	n/a	No	Various bodies of water are scattered throughout the UKHab Survey Area.	43.85 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
			These include large rivers such as the River Ness, canals such as the Caledonian Canal, smaller streams, agricultural ditches and small (mostly artificial) ponds. Two priority habitat rivers (r2a) were recorded within the Highland Council portion of the UKHab Survey Area and included the River Ness and River Nairn. Other rivers and streams were recorded throughout the UKHab Survey Area and included freshwater streams and burns, transversing both modified agricultural habitats and unmanaged habitats. In total, nine watercourses within the Highland Council portion of the UKHab Survey Area were recorded as r1g - other standing water consisting of ditches, often acting as boundary features between crop and grazing fields. From Ordinance Survey mapping and observations within the UKHab Survey Area, it would appear these burns have been modified in places for agricultural drainage (e.g. some sections straightened). Standing open water was recorded within the Highland Council portion of the UKHab Survey Area and consisted of ponds, often containing aquatic vegetation and supporting waterfowl. Multiple rivers recorded as r2a such as the River Nairn, along with burns such as Big Burn (r2a6) and various ponds scattered throughout the UKHab Survey Area, qualify as priority habitats on the SBL. Rivers, Lochs and burns are mentioned on the Highland Nature BAP.	81.84 km
r1 - Standing open water and canals	40 Ponds (priority habitat) 42 Pond	No		
r1e - Canals	50 Ditch	No		
r1g - Other standing water	50 Ditch 613 Fish Farm 836 Quarry – hard rock	No		
r2 - Rivers and streams **r2a - Rivers (priority habitat)** **r2a6 - Other priority habitat rivers**	47 Freshwater – natural	No		
r2b - Other rivers and streams	47 Freshwater – natural 48 Freshwater – heavily modified 50 Ditch 307 Waterfall	No		
u1 - Built-up areas and gardens	n/a	No	Developed land is located throughout the UKHab Survey Area in the form of roads, farm buildings and housing. These areas of urban habitats and developed land do not qualify as priority habitats on the SBL or the Highland Nature BAP.	75.12 ha
u1b - Developed land - sealed surface	800 Road	No		
u1b5 – Buildings	613 Fish farm	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	818 Residential building			
u1b6 – Other developed land	n/a			
u1c – Artificial unvegetated unsealed surface	85 Active sand pit or quarry or open cast mine 839 Track	No		
u1d – Suburban mosaic of developed/ natural surfaces	n/a	No		
u1e – Built linear features	10 Scattered scrub 32 Scattered trees 85 Active sand pit or quarry or open cast mine 114 Dry stone wall 510 Bare ground 532 Scattered grass 612 Fence 839 Track	No		
u1f - Sparsely vegetated urban land	81 Ruderal or ephemeral 839 Track	No		
w - Woodland and forest	29 Plantation	Yes		508.06 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
w1a5 - Western acidic oak woodland (H91A0) **w1d5 - Alder woodland on floodplains (H91E0)** **w1f6 - Oak-hornbeam forests (H9160)**	n/a	w1a5 & w1f6 No w1d5 -Yes	Various broadleaved woodland types are present throughout the UKHab Survey Area. These form part of the New Inn Woods, Dalnaheiglish Wood, Dulsie Wood, Clunas Wood, Achneim Wood, Foxmoss Wood, Assich Forest, Daviot Wood, and Drumashie Plantation, as well as various unnamed woodland parcels. Throughout the UKHab Survey Area various Annex I woodlands were recorded. Small parcels of w1a5 - Western acidic oak woodland (H91A0), w1f6 - Oak-hornbeam forests (H9160) and w1d5 - Alder woodland on floodplains (H91E0), were recorded around the River Beauly and to the east of the Morriack Burn (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 1**). Broadleaved and mixed woodland, lowland mixed deciduous woodland and other broadleaved woodland types were recorded as line of trees within the UKHab Survey Area. In total, 95 species were recorded among the various types of woodland including canopy species such as sycamore, alder, downy birch, hazel, ash and sessile oak. Common understory species recorded within this habitat included germander speedwell and holly. The INNS Rhododendron (**TN1**) was recorded in multiple parcels of w1g – other broadleaved woodland in the western extent of the UKHab Survey Area, adjacent to the River Beauly and Newton Burn. Additionally, Rhododendron was recorded in one parcel of w1e – Upland birchwoods, located adjacent to a side branch of the River Findhorn to the south of the village of Ferness. Lowland mixed deciduous woodland and upland birchwoods, upland oakwood, and wet woodland qualify as priority habitat on the SBL. Woodland, especially ancient and long-established ones, are included in the Highland Nature BAP.	1.81 km
w1 - Broadleaved and mixed woodland	33 Line of trees	Yes		
w1a - Upland oakwood	12 Scattered bracken 30 Semi-natural woodland 100 Grazed	No		
w1d - Wet woodland	214 Fallen dead wood abundant	Yes		
w1e - Upland birchwoods	29 Plantation 12 Scattered bracken 30 Semi-natural woodland 102 Sheep grazed	No		
w1f - Lowland mixed deciduous woodland	30 Semi-natural woodland 33 Line of trees 34 Ecologically valuable line of trees	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
w1f7 - Other Lowland mixed deciduous woodland	112 Earthbank 12 Scattered bracken 30 Semi-natural woodland 31 Secondary woodland 102 Young trees – self set	No		
w1g – Other woodland, broadleaved	30 Semi-natural woodland 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 33 Line of trees 34 Ecologically valuable line of trees 50 Ditch 212 High forest	No		
w1h - Other woodland - mixed	29 Plantation 30 Semi-natural woodland 502 Seasonally wet 503 Wet 504 Waterlogged	No	Sections of mixed woodland, often clustered within broadleaved or coniferous woodland, were recorded during the survey within the New Inn Woods, Dalnaheiglish Woods, Bogbain Wood, as well as unnamed woodland around River Beauly. w1h - Other woodland – mixed was recorded as a line of trees to the southeast of Inverness. A total of 52 species were recorded within this woodland habitat including canopy species such as hazel, alder, horse-chestnut, silver birch, beech European larch, Scots pine and sessile oak. The	53.23 ha 0.49 km

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
w1h5 - Other woodland - mixed - mainly broadleaved	12 Scattered bracken	No	field layer was found to frequently comprise of various assemblages of yarrow, cow parsley, sweet vernal grass, rosebay willow herb, spear thistle, cock's foot and foxglove. The INNS rhododendron (**TN1**) was recorded in a patch of mixed woodland located to the west of River Beauly (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 1**). Mixed woodland does not qualify as priority habitat on the SBL. Woodland, especially ancient and long-established ones, are included in the Highland Nature BAP.	
w1h6 - Other woodland - mixed - mainly conifer	12 Scattered bracken 29 Plantation 30 Semi-natural woodland 112 Earthbank 129 Wet moss lawns 503 Wet	No		
w2 - Coniferous woodland	n/a	Yes	Coniferous woodland covers large sections of the UKHab Survey Area, dominating areas within large unnamed forestry plantations to the west of Inverness and within Davit Wood, Blackcroft Wood, and Bogbain Wood to the southeast of Inverness. Additionally, coniferous woodland was recorded scattered throughout the eastern extent of the UKHab Survey Area within the New Inn Woods, Dalnaheiglish Woods, Dulsie Woods, Cluas Woods, and Achneim Wood. Other Scots Pine woodland was recorded as a line of trees located southeast of Inverness. A total of 71 species were recorded within coniferous woodland, although it is largely dominated by either Sitka spruce or Scots pine. Other species recorded include bluebell, Norway spruce and Douglas fir. The INNS Rhododendron (**TN1**) was record in the south of a parcel of w2b – other Scots pine woodland, forming part of the Blackcroft Woods. Woodland, especially ancient and long-established, is included in the Highland Nature BAP, which therefore would apply mainly to Native pine woodlands. Native pine woodlands qualify as a priority habitat in the SBL.	1143.70 ha 0.25 km
w2a - Native pine woodlands	206 Felled 13 Scattered dwarf shrubs	Yes		
w2b - Other Scots Pine woodland	12 Scattered bracken 13 Scattered dwarf shrubs 29 Plantation 30 Semi-natural woodland 206 Felled	No		
w2c - Other coniferous woodland	12 Scattered bracken 13 Scattered dwarf shrubs 29 Plantation	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	30 Semi-natural woodland 31 Secondary woodland 100 Grazed 206 Felled 503 Wet 201 Young trees – planted 202 Young trees – self set 207 Forest brash			

Table 3.7: UKHab Primary Habitats within the Survey Area - Moray Council

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
c1 - Arable and horticulture **c1a5 – Arable field margins – tussocky** **c1b - Temporary grass and clover leys**	n/a	No	Arable land covers large parts of the Moray Council section of the UKHab Survey Area, dominating the eastern end and central extent, with c1c – Cereal crops recorded amongst the majority of agricultural land. Six species were recorded across the habitat often indicating suboptimal conditions, including common ragwort, dandelion, and white clover. The INNS Japanese knotweed (**TN2**) was recorded within c1c- cereal cropland directly adjacent to the west of the River Spey. These are actively managed habitats which are common and widespread in the northeast landscape of Scotland. These do not qualify as SBL priority habitats and are not included in the NESBiP Important Habitats for Biodiversity List or LBAP.	455.17 ha
c1c - Cereal crops	510 Bare ground	No		
f1a - Blanket bog	10 Scattered scrub	No		354.43 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	13 Scattered dwarf shrubs 14 Scattered rushes 32 Scattered tree 57 Peat		Peatland habitats in various stages of degradation were recorded in multiple sections across the Moray Council section of the UKHab Survey Area. Peatlands are present amongst woodland and heathland and spread across the width of the UKHab Survey Area in multiple places, at the western end and centrally within the Kellas Estate. Whilst all blanket bog is considered irreplaceable habitat under the National Planning Framework 4, one parcel of Annex I habitat f1a5 – blanket bog (H7130) was recorded to the west of the River Lossie, where it flows into the Glenlatterach Reservoir (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 13**). This habitat qualified as an Annex I habitat due to the abundance of important peat forming species such as Sphagnum moss assemblages, hare's-tail cottongrass and purple moor-grass. A total of 35 species were recorded within peatland habitats including dwarf shrub species, such as cross-leaved heath, common heather and bell heather, along with frequent occurrences of blanket bog indicator species including common cottongrass, hare's-tail cottongrass, and various Sphagnum moss species. Blanket bog is listed under upland heathland within the NESBiP Important Habitats for Biodiversity, and it qualifies as a SBL priority habitat.	
f1a5 - Blanket bog (H7130)	13 Scattered dwarf shrubs 14 Scattered rushes 32 Scattered trees	No		
f1a6 - Degraded blanket bog	10 Scattered scrub 32 Scattered tree 57 Peat	No		
f2b - Purple moor-grass and rush pasture	n/a	Yes	There are small and scattered parcels of wetland habitats present throughout the UKHab Survey Area. One linear wetland was recorded stretching along a watercourse within coniferous woodland approximately 5 km to the south of the village of Dallas. A total of 18 species were recorded across the various types of wetlands, including indicator species such as soft-rush, common reed and water mint. Fen wetland habitats are in included the NESBiP LBAP. Purple moor-grass and rush pasture as well as upland flushes, fens and swamps qualify as a SBL priority habitat.	9.40 ha / 0.70 km
f2c - Upland flushes fens and swamps	13 Scattered dwarf shrubs 15 Rushes dominant	Yes		
f2f - Other wetlands	10 Scattered scrub 13 Scattered dwarf shrub 14 Scattered rush 32 Scattered trees 81 Ruderal or ephemeral	Yes		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	101 Cattle grazed 532 Scattered grass			
g1 - Acid grassland **g1a - Lowland dry acid grassland** **g1b - Upland acid grassland**	n/a	g1 & g1b - Yes g1a - No	There are small, scattered and isolated parcels of acid grassland recorded throughout the UKHab Survey Area. Accumulations of acid grassland were recorded adjacent to the Glenlatterach Reservoir on Kellas Estate. A total of 34 species were recorded within acid grassslne habitats including indicator species such as mat grass, sweet vernal-grass, and common bent. Acid grassland is included in the NESBiP Important Habitats for Biodiversity List and LBAP. Lowland dry acid grassland qualifies as a priority habitat on the SBL.	31.36 ha
g1d - Other lowland acid grassland	10 Scattered scrub 13 Scattered dwarf shrubs 14 Scattered rushes 32 Scattered trees	No		
g1c - Bracken	10 Scattered scrub 13 Scattered dwarf shrub 14 Scattered rushes 32 Scattered trees 29 Plantation 57 Peat	No	There are small and scattered parcels of bracken recorded throughout the UKHab Survey Area. A total of 12 species were recorded within the bracken habitat type (dominated by bracken) including scattered silver birch and bramble. Bracken is neither mentioned on the NESBiP LBAP nor the SBL.	18.38 ha
g2b - Upland calcareous grassland **g2b6 - Species-rich grassland with mat-grass in upland areas (H6230)**	n/a	No	Two large parcels of upland grassland, both including the Annex I habitat g2b6 - Species-rich grassland with mat-grass in upland areas (H6230), were recorded between the village of Fogwatt and Mosstodloch[90] (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 16**). Calcareous grassland is not included in the NESBiP LBAP ; however it qualifies as a priority habitat on the SBL.	11.46 ha

[90] Primary habitat classification via MCA analysis. No species list available.

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
g3c - Other neutral grassland	10 Scattered scrub 11 Hedgerow with trees 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 15 Rushes dominant 18 Species-rich grassland 32 Scattered trees 100 Grazed 101 Cattle grazed 102 Sheep grazed	Yes	Neutral grassland is scattered throughout the UKHab Survey Area and stretches across the LoD in multiple places close to the village of Aultmore, on Kellas Estate, and 1.2 km to the southeast of the village of Edinkillie. Scattered parcels of species rich grassland, namely g3c7 - *Deschampsia* neutral grassland were recorded to the north of Kellas Estate, with g3c8 - Holcus-Juncus neutral grassland recorded to the south of the River Isla adjacent to the A95. In total 63 species were recorded across the various neutral grasslands within the UKHab Survey Area. Species present include false oat-grass, spear thistle, tufted hair-grass, lady's bedstraw and sheep's sorrel. The INNS Japanese knotweed (**TN2**) was recorded in a parcel of g3 – neutral grassland located directly adjacent to the east of the River Spey. Neutral grassland is not included as a priority habitat on the SBL, but species rich- neutral grassland is discussed on the NESBiP LBAP.	234.73 ha
g3c7 - *Deschampsia* neutral grassland	10 Scattered scrub 13 Scattered dwarf shrubs 14 Scattered rushes 15 Rushes dominant 503 Wet	Yes		
g3c8 - *Holcus-Juncus* neutral grassland	n/a	Yes		
g4 - Modified grassland	10 Scattered scrub 13 Scattered dwarf shrubs	No	Modified grassland, the majority being grazed by cattle or sheep, covers large sections of the UKHab Survey Area often spanning the width of the LoDr. The habitat dominates the landscape in the eastern end of the UKHab Survey Area adjacent to Balloch Woods and to the north of the village of Newhill, south of the village of Fogwatt, and surrounding the village of Edinkillie.	1135.26 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	14 Scattered rushes 15 Rushes dominant 32 Scattered trees 100 Grazed 101 Cattle grazed 102 Sheep grazed 103 Horse grazed 106 Mown 109 Hay 510 Bare ground 516 Active Management 827 Garden 839 Track		In total 38 species were recorded across the various modified grasslands within the UKHab Survey Area. This habitat was dominated by Yorkshire-fog and perennial rye-grass. Other species present include ribwort plantain, broad-leaved dock, and common nettle, potentially indicative of suboptimal conditions. This is a modified habitat of relatively low species diversity, which is common and widespread in the northeast portion of Scotland, including the Moray Council area. It therefore does not qualify as an SBL priority habitat. Some areas of improved, but less intensively managed, grasslands are discussed on the NESBiP LBAP, due to their importance for wading bird species.	
h1 - Dwarf shrub heath		Yes	Heathland covered large extents within the UKHab Survey Area. Heathland habitat dominations the section of the Potential Ecological Footprint running through the Kellas Estate. This area was also found to contain the Annex I habitat h1b6 - Wet heathland with cross-leaved heath - upland (H4010) (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 14**). This area qualifies as an Annex I habitat due to the assemblage of cross-leaved heath, deergrass and Sphagnum moss species it supports. Large areas of heathland were recorded surrounding the village of Edinkillie. The Annex I habitat h1a7 - Wet heathland with cross-leaved heath- lowland (H4010) was also present throughout this area (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 13**). A total of 63 species were recorded across heathland habitats including indicator species such as common heather, bell heather, cross-leaved heath, and heath bedstraw. Purple moor-grass, mat-grass and common haircap were also recorded throughout this habitat. In addition to the identified Annex I habitats, the broad habitat category of upland heathland qualifies as an SBL priority habitat and is included in the NESBiP LBAP.	803.28 ha
h1a - Lowland heathland	10 Scattered scrub 14 Scattered rushes			
h1a7 - Wet heathland with cross-leaved heath- lowland (H4010)	10 Scattered scrub 503 Wet	Yes		
h1b - Upland Heathland	10 Scattered scrub 12 Scattered bracken 14 Scattered rushes 15 Rushes dominant 29 Plantation	Yes		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	32 Scattered trees 57 Peat			
h1b6 - Wet heathland with cross-leaved heath - upland (H4010)	14 Scattered rushes 10 Scattered scrub 29 Plantation 32 Scattered trees 503 Wet	Yes		
h2a – Native hedgerow	n/a	No	Four native hedgerows were recorded between Fogwatt and Fochabers, consisting of beech or gorse. Native hedgerows are included in the NESBiP LBAP and qualify as a priority habitat on the SBL.	5.21 km
h3e - Gorse scrub	11 Hedgerow with trees 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 200 Tree 32 Scattered trees 517 Recent Management	No	Parcels of scrub habitat mostly dominated by gorse, occasionally by willow or hazel are scattered throughout the UKHab Survey Area. Gorse and mixed scrub form large habitat parcels to the southeast of the village of Fogwatt. One isolated parcel of h3k – Juniper scrub was recorded 2.5 km to the southeast of Fogwatt. Common juniper is a SBL priority species for conservation. In total, 26 species were recorded across scrub habitats including broom, bramble, goat willow, and elder. Scrub habitat is included in the NESBiP LBAP but does not qualify as a priority habitat on the SBL.	40.95 ha
h3h - Mixed scrub	12 Scattered bracken 13 Scattered dwarf shrubs 32 Scattered trees 206 Felled	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
h3j - Willow scrub	12 Scattered bracken	Yes		
h3k - Juniper scrub	13 Scattered dwarf shrubs	No		
r1 - Standing open water and canals	n/a	No	Various bodies of water are scattered throughout the Moray Council portion of the UKHab Survey Area. These waterbodies comprised large rivers, burns, ditches, reservoirs and ponds. Four priority habitat rivers (r2a), namely the River Divie, River Lossie, River Spey, and River Isla occur within the Moray Council portion of the UKHab Survey Area. Other rivers and streams were recorded throughout the UKHab Survey Area and consisted of burns such as Herricks Burn, Den Burn, Burn of Kinminity and unnamed burns, transversing both modified agricultural habitats and unmanaged habitats. A total of 16 drainage ditches were recorded throughout the UKHab Survey Area, often acting as boundary features between crop and grazing fields. From Ordinance Survey (OS) mapping and observations within the UKHab Survey Area, it would appear that some of these burns are modified for agricultural drainage (e.g., some sections straightened). Standing open water was recorded within the Highland Council portion of the UKHab Survey Area and consisted of ponds, often containing aquatic vegetation and supporting waterfowl. Multiple rivers as well as the various ponds scattered throughout the UKHab Survey Area qualify as priority habitats on the SBL. Rivers, lochs and burns are included in the NESBiP LBAP.	39.84 ha / 120.83 km
r1g - Other standing water	41 Pond (non-priority) 42 Pond 48 Freshwater (heavily modified) 50 Ditch	No		
r2 - Rivers and streams **r2a - Rivers (priority habitat)**	n/a	No		
r2b - Other rivers and streams	50 Ditch	No		
s1 - Inland rock	n/a	No	The UKHab Survey Area runs through the Netherglen Quarry, 3 km to the south of Fogwatt. This habitat constituted mostly exposed rockface with occasional sparsely vegetated land. Inland rock habitats are not included in the NESBiP LBAP and do not qualify as a SBL priority habitat.	0.20 ha
u1b - Developed land - sealed surface	10 Scattered scrub 81 Ruderal or ephemeral	No	Buildings and other developed land are scattered throughout the UKHab Survey Area in the form of roads, farm buildings and housing. Three species were recorded across urban habitats including common heather and red fescue. Urban habitats and developed land do not qualify as priority habitats on the SBL or feature in the NESBiP LBAP.	99.19 ha
u1b5 - Buildings	n/a	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
u1b6 - Other developed land				
u1c - Artificial unvegetated - unsealed surface	84 Windfarm 85 Active sand pit or quarry or open cast mine 113 Stone-faced bank 839 Track	No		
u1d - Suburban mosaic of developed and natural surface	n/a	No		
u1e - Built linear features	802 Railway	No		
u1f - Sparsely vegetated urban land	n/a	No		
w1 - Broadleaved and mixed woodland	n/a	Yes	Several types of broadleaved woodland are present throughout the Moray Council portion of the UKHab Survey Area. The recorded woodlands form part of the Glenerny Wood, Speymouth Forest, Balloch Wood as well as various unnamed woodlands. Much of the broadleaved woodland recorded was w1g – Other broadleaved woodland. Two lines of trees were recorded to the south of Keith and to the east of Dallas. A total of 46 species were recorded within broadleaved woodlands including various trees such as sycamore, hazel, beech, bird cherry, alder, horse-chestnut, silver birch, downy birch and goat willow. Understory species recorded within this habitat included germander speedwell, foxglove, hard-fern, wood anemone and holly. w1f - lowland mixed deciduous woodland, w1e - upland birchwood and w1h - upland mixed ashwoods qualify as a priority habitat on the SBL. In addition, upland birch woodland and lowland mixed deciduous woodland are included in the NESBiP LBAP.	280.26 ha / 0.93 km
w1e - Upland birchwoods	101 Cattle grazed 102 Sheep grazed 12 Scattered bracken	No		
w1f - Lowland mixed deciduous woodland	n/a	No		
w1g - Other broadleaved woodland	12 Scattered bracken	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	13 Scattered dwarf shrubs 30 Semi-natural woodland 33 Line of trees 201 Young trees - planted 202 Young trees - self-set			
w1h - Other woodland - mixed	12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 30 Semi-natural woodland	No	Small parcels of mixed woodland, often clustered within broadleaved or coniferous woodland were recorded within the Balloch Wood and various unnamed woodlands located in the vicinity of the villages of Dallas, Fogwatt, Fochabers and Keith. A total of 42 species were recorded within the habitat supporting both broadleaved and coniferous trees including field maple, dwarf birch, ash, Sitka spruce and Scots pine. Mixed woodland is not included in the SBL nor the NESBiP LBAP.	25.44 ha
w1h5 - Other woodland - mixed - mainly broadleaved	13 Scattered dwarf shrubs	No		
w1h6 - Other woodland - mixed - mainly conifer	n/a	No		
w2a - Native pine woodlands	n/a	Yes	Coniferous woodland covers large sections of the UKHab Survey Area, dominating the area within a large unnamed forestry plantation to the south of Dallas and to the west of the Netherglen Quarry; with further expanses approximately 3.8 km to the south of the village of Lhanbryde, and within the Speymouth Forest and Trochelhill Woods. Small parcels of coniferous plantation were	1597.24 ha
w2b - Other Scots Pine woodland	12 Scattered bracken	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 212 High forest		recorded within Glenerny Wood, Bantrach Wood, Balloch Woods, and isolated unnamed woodlands. w2a - Native pine woodlands were recorded to the east of the River Spey close to Fochabers, 3 km to the east of Fogwatt, 4.5 km to the south of Dallas adjacent to the River Lossie and forming part of Glenerny Woods in the western end of the UKHab Survey Area. One line of trees comprising of other coniferous species was located to the south of Inverness. A total of 49 species were recorded within coniferous woodland habitats dominated by Sitka spruce or Scots pine. Other species recorded include European larch, juniper, Norway spruce and great wood-rush. Five sightings of the INNS Rhododendron (**TN1**) were recorded in w2b – other Scots Pine woodland and w2c – Other coniferous woodland, within the Trochelhill Woods and Speymouth Forest. Native pinewood qualifies as priority habitat on the SBL. Native pine woodland and planted coniferous woodland are both included in the NESBiP LBAP.	
w2c - Other coniferous woodland	12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 57 Peat 201 Young trees - planted 206 Felled 517 Recent Management 839 Track	No		

Table 3.8: UKHab Primary Habitats within the Survey Area - Aberdeenshire Council

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
c1 - Arable and horticulture **c1b7 - Herb-rich ley** **c1c5 - Winter Stubble**	n/a	No	Arable land dominates the Aberdeenshire landscape, with c1c – Cereal crops dominating the majority of the Aberdeenshire Council portion of the UKHab Survey Area. These are actively managed habitats which are common and widespread in the northeast landscape of Scotland. These do not qualify as SBL priority habitats and are not included in the NESBiP.	3168.67 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
c1d - Non-cereal crops			The INNS Himalyian Balsam (**TN3**) was recorded adjacent to c1c – cereal cropland in the eastern extent of the UKHab Survey Area, approximately 1.7 km to the west of the village of Clola.	
c1b - Temporary grass and clover leys	517 Recent Management	No		
c1c - Cereal crops	102 Sheep grazed 32 Scattered trees	No		
f2f - Other wetlands	15 Rushes dominant	Yes	Small pockets of wetland plant communities are present in the western extent of the UKHab Survey Area, located 2 km to the south of the village of Maud. A total of 19 species were recorded across these wetlands habitats, including indicator species such as soft-rush, common reed and meadowsweet. This type of wetland is neither mentioned on the NESBiP LBAP nor qualifies as a priority habitat on the SBL.	11.90 ha
g3c - Other neutral grasslands	10 Scattered scrub 14 Scattered rushes 15 Rushes dominant 16 Tall forbs 32 Scattered trees 206 Felled	Yes	Isolated areas of neutral grassland are scattered throughout the central and eastern extent of the UKHab Survey Area. In total 57 species were recorded across the various neutral grasslands recorded across the UKHab Survey Area. Species included timothy grass, tufted hair-grass, broad-leaved dock and sheep's sorrel. Neutral grassland does not qualify as a priority habitat on the SBL, but species rich- neutral grassland is included in the NESBiP LBAP.	69.63 ha
g3c8 - *Holcus-Juncus* neutral grassland	14 Scattered rushes 32 Scattered trees	Yes		
g4 - Modified grassland	10 Scattered scrub 12 Scattered bracken 13 Scattered dwarf shrubs 14 Scattered rushes	No	Large sections of the Aberdeenshire Council portion of UKHab Survey Area are covered in sheep and cattle grazed modified grassland. In total 54 species were recorded across the various modified grasslands throughout the UKHab Survey Area. These habitats were dominated by Yorkshire-fog and perennial rye-grass. Creeping thistle, field horsetail, cock's-foot and common nettle, were recorded frequently, indicative of suboptimal conditions.	1550.88 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	16 Tall forbs 32 Scattered trees 50 Ditch 81 Ruderal or ephemeral 100 Grazed 101 Cattle grazed 102 Sheep grazed 103 Horse grazed 510 Bare ground 516 Active management		Field horsetail (**TN4**) was recorded amidst modified grassland, forming part of agricultural land directly to the east of River Deveron. The INNS Rhododendron (**TN1**) was recorded within modified grassland between New Deer and Maud. Overall, modified grassland is highly modified and as such contains a relatively low species diversity and is a common and widespread habitat in the northeast of Scotland. It therefore does not qualify as an SBL priority habitat. Some areas of improved but less intensively managed grasslands, are included in the NESBiP LBAP due to their importance for wading birds	
h1 - Dwarf shrub heath	14 Scattered rushes 32 Scattered trees	Yes	Heathland was recorded in one area in the centre of the UKHab Survey Area, 3.2 km to the southeast of Forgue. Nine species were recorded across heathland habitats including indicator species such as common heather and heath rush, along with other species such as broom, red fescue, great wood-rush and common haircap. Upland heathland qualifies as a priority habitat on the SBL and is included in the NESBiP LBAP.	22.74 ha
h1b - Upland Heathland	10 Scattered scrub	Yes		
h2 – Hedgerows **h2b - Non-native and ornamental hedgerow**	n/a	No	Hedgerows are scattered throughout the UKHab Survey Area along boundary features such as roads and watercourses. A total of 47 species were recorded forming the various hedgerows including; hornbeam, hawthorn, beech, hazel, ash, blackthorn, rowan, dog-rose, gooseberry, and gorse. Hedgerows are included in the NESBiP LBAP and qualify as a priority habitat in the SBL.	0.35 ha / 16.10 km
h2a – Native hedgerow	11 Hedgerow with trees	No		
h2a6 - Other native hedgerow	11 Hedgerow with trees	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	50 Ditch 801 Road verge or island			
h3e - Gorse scrub	12 Scattered bracken 14 Scattered rushes 32 Scattered trees 50 Ditch	No	Scrub is present scattered throughout the UKHab Survey Area along boundary features such as roads and watercourses. A total of 24 species were recorded across the scrub parcels including; hazel, broom, goat willow, elder and gorse. Scrub is included in the NESBiP LBAP but is not listed on the SBL.	29.88 ha
h3h - Mixed scrub	32 Scattered trees	No		
r1 - Standing open water and canals	50 Ditch	No	Various bodies of water transect the UKHab Survey Area. These waterbodies comprised large rivers (r2a), small watercourses (r2b), agricultural ditches (r1) and ponds (r1g). r2a – Rivers (priority habitat), recorded as area-based habitats, included the River Deveron. Other rivers and streams consisted of freshwater watercourses including unnamed burns transversing both modified agricultural habitats and unmanaged habitats. Ditches recorded as r1 standing open water and canals were located throughout the UKHab Survey Area, often acting as boundary features between crop and grazing fields. From OS mapping and field observations , it appears these burns are modified in places for agricultural drainage (e.g., some sections straightened). r1g - Other standing water was recorded within the UKHab Survey Area and comprised various ponds in both agricultural and unmanaged habitats. Multiple rivers as well as the various ponds scattered throughout the UKHab Survey Area qualify as priority habitats on the SBL. Rivers, lochs and burns are included in the NESBiP LBAP.	10.94 ha 66.47 km
r1g - Other standing water	41 Pond (non-priority) 42 Pond 50 Ditch	No		
r2 – Rivers and streams **r2a - Rivers (priority habitat)**	n/a	No		
r2b - Other rivers and streams	49 Freshwater - artificial 50 Ditch	No		
u – Urban	n/a	No		147.79 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
u1b6 - Other developed land			Urban features are present throughout in the form of roads, farm compounds, and housing. Species recorded across urban habitats included cow parsley, broom, and gorse. These urban habitats and developed land do not qualify as priority habitats on the SBL. The NESBiP LBAP discusses built environment, outlining the importance of gardens, allotments, parks, playing fields, school grounds, golf courses, railway embankments, roadside verges, buildings and structures and development sites.	2.11 km
u1 - Built-up areas and gardens	10 Scattered scrub 818 Residential building 819 Residential premises open space 827 Garden	No		
u1b - Developed land - sealed surface	800 Road 818 Residential building 839 Track	No		
u1b5 - Buildings	817 Industrial building 818 Residential building	No		
u1c - Artificial unvegetated - unsealed surface	10 Scattered scrub 839 Track	No		
u1d - Suburban mosaic of developed and natural surface	85 Active sand pit or quarry or open cast mine 817 Industrial building 818 Residential building	No		

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	827 Garden 839 Track			
u1e - Built linear features	114 Dry stone wall 800 Road 839 Track	No		
u1f - Sparsely vegetated urban land	839 Track	No		
w - Woodland and forest **w1b - Upland mixed ashwoods** **w1d - Wet woodland** **w1d5 - Alder woodland on floodplains (H91E0)** **w1e - Upland birchwoods**	n/a	w, w1d & w1d5 - Yes	All broadleaved woodland habitats present are small, isolated parcels within an agricultural landscape, forming part of the Wood of Darra, Longmoor Wood and various other unnamed woodlands. The Annex I Habitat; w1d5 - Alder woodland on floodplains (H91E0), is present within a small patch of woodland in the eastern extent of the UKHab Survey Area, approximately 900 m to the west of the village of Clola[91] (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 28**). Lowland mixed deciduous woodland and other broadleaved woodland was recorded as a line of trees within the UKHab Survey Area. A total of 61 species were recorded within broadleaved woodland habitats, including; sycamore, hazel, alder and goat willow, as well as common understory species such as germander speedwell and tuberous comfrey. The INNS Rhododendron (**TN1**) was recorded across four parcels of w1g – other broadleaved woodland, throughout the western and central extent of the UKHab Survey Area. Giant hogweed (**TN5**) was present in woodland stretching along the Burn of Cairnie (**Annex A, Figure 8.1.2: UK Habitat Survey Results Sheet 29**). Lowland mixed deciduous woodland, upland birchwoods, upland mixed ashwoods and wet woodland qualify as priority habitats on the SBL. Additionally, upland birch woodland, lowland mixed deciduous woodland and wet woodland are included in the NESBiP LBAP.	153.58 ha 3.94 km
w1 - Broadleaved and mixed woodland	13 Scattered dwarf shrubs	Yes		
w1f - Lowland mixed deciduous woodland	212 High Forest	No		
w1f7 - Other Lowland mixed deciduous woodland	33 Line of trees	No		

[91] Primary habitat classification via MCA analysis. No species list available.

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
w1g - Other broadleaved woodland	13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 33 Line of trees 201 Young trees – planted 521 Unmanaged 827 Garden	No		
w1h - Other woodland - mixed	13 Scattered dwarf shrubs 14 Scattered rushes 29 Plantation 33 Line of trees	No	Mixed woodland present within the UKHab Survey Area is comprised of mostly small, isolated patches. This is except for two larger areas of mixed woodland in the central and western extent of the A UKHab Survey Area, forming part of the Garramuir Wood, Longmoor Wood, Wood of Darra, and various unnamed woodlands. Other woodland – mixed was also recorded as a line of trees located south of Longside. A total of 42 species were recorded within mixed woodland habitatsincluding both broadleaved and coniferous trees such as ash, sessile oak, goat willow, Sitka spruce and Scots pine. Mixed woodland is not included within the SBL nor the NESBiP LBAP.	80.51 ha 0.06 km
w1h5 - Other woodland - mixed - mainly broadleaved	13 Scattered dwarf shrubs 29 Plantation 202 Young trees – self-set 217 Woodland open space	No		
w1h6 - Other woodland - mixed - mainly conifer	29 Plantation 201 Young trees – planted	No		
w2 - Coniferous woodland	29 Plantation	Yes	A small patch of w2a - Native pine woodlands is present centrally within the UKHab Survey Area, approximately 1.7 km to the east of the Glen Dronach Distillery. The recorded woodland forms part	389.70 ha

Primary Habitat (Annex I habitat code if relevant)	Secondary Habitat Codes	Potential GWDTE[39]	Description	Area (ha)/ Length (km)
	201 Young trees – planted 206 Felled		of the Wood of Darra, Brownhill Plantation, Garromuir Woods, as well as various unnamed forestry plantations scattered throughout the western and central extent of the UKHab Survey Area. Other coniferous woodland was recorded as a line of trees located south of Stuartfield and northwest of New Deer. A total of 28 species were recorded within coniferous woodland habitats, which were dominated by either Sitka spruce or Scots pine. Other species recorded include European larch, juniper, Norway spruce and Douglas fir. Native pinewood qualifies as priority habitat on the SBL. Native pine woodland and planted coniferous woodland are included in the NESBiP LBAP.	0.21 km
w2a - Native pine woodlands **w2b - Other Scots Pine woodland**	n/a	Yes No		
w2c - Other coniferous woodland	12 Scattered bracken 29 Plantation 33 Line of trees 104 Other grazed 201 Young trees - planted 206 Felled 523 Non-native	No		

Species Lists

Table 3.9: UKHab Primary Habitats with Species List of all Council areas combined.

Primary Habitat (Annex I habitat code if relevant)	Species
c1 – Arable and horticulture **c1b - Temporary grass and clover leys** **c1b7 – Herb-rich ley** **c1c – Cereal crops** **c1d – Non-cereal crops**	ground-elder *(Aegopodium podagraria)* ramsons (*Allium ursinum)* meadow foxtail *(Alopecurus pratensis)* wood anemone *(Anemone nemorosa)* cow parsley *(Anthriscus sylvestris*) rape *(Brassica napus)* spear thistle *(Cirsium vulgare)* pignut *(Conopodium majus)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* lesser celandine *(Ficaria verna)* cleavers *(Galium aparine)* wood avens *(Geum urbanum)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* himalyian balsam *(Impatiens glandulifera)* common ragwort *(Jacobaea vulgaris)* great wood-rush *(Luzula sylvatica*) dog's mercury *(Mercurialis perennis)* green alkanet *(Pentaglottis sempervirens)* annual meadow-grass *(Poa annua)* cherry sp. (*Prunus* sp.) creeping buttercup *(Ranunculus repens)* groundsel *(Senecio vulgaris)* hedge woundwort *(Stachys sylvatica)* dandelions *(Taraxacum spp.*) white clover *(Trifolium repens)*
f1 – Bog **f1a – Blanket bog** **f1a5 – Blanket bog (H7130)** **f1a6 – Degraded blanket bog**	common bent *(Agrostis capillaris*) wavy hair-grass *(Avenella flexuosa)* silver birch *(Betula pendula)* common heather (*Calluna vulgaris)* wavy bitter-cress *(Cardamine flexuosa)* hairy bitter-cress *(Cardamine hirsute)* star sedge *(Carex echinata)* common sedge *(Carex nigra)* rosebay willowherb *(Chamaenerion angustifolium)* opposite-leaved golden-saxifrage *(Chrysosplenium oppositifolium)* marsh thistle *(Cirsium palustre)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea*) bell heather *(Erica cinerea)*

Primary Habitat (Annex I habitat code if relevant)	Species
	cross-leaved heath *(Erica tetralix)* common cottongrass *(Eriophorum angustifolium)* hare's-tail cottongrass *(Eriophorum vaginatum)* red fescue *(Festuca rubra)* heath bedstraw *(Galium saxatile)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* glittering woodmoss *(Hylocomium splendens)* sharp-flowered rush *(Juncus acutiflorus)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* heath rush *(Juncus squarrosus)* juniper *(Juniperus communis)* hare's-tail *(Lagurus ovatus)* European larch *(Larix decidua)* field wood-rush *(Luzula campestris)* great wood-rush *(Luzula sylvatica)* bogbean *(Menyanthes trifoliata)* purple moor-grass *(Molinia caerulea)* bog-myrtle *(Myrica gale)* mat-grass *(Nardus stricta)* bog asphodel *(Narthecium ossifragum)* Other (e.g. unlisted species/hybrids) wood-sorrel (*Oxalis acetosella)* Sitka spruce *(Picea sitchensis)* Scots pine *(Pinus sylvestris)* red-stemmed feather-moss *(Pleurozium schreberi)* common haircap *(Polytrichum commune)* creeping buttercup *(Ranunculus repens)* rowan *(Sorbus aucuparia)* baltic bog-moss *(Sphagnum balticum)* red bog-moss *(Sphagnum capillifolium)* compact bog-moss *(Sphagnum compactum)* feathery bog-moss *(Sphagnum cuspidatum)* flat-topped bog-moss *(Sphagnum fallax)* olive bog-moss *(Sphagnum majus)* blunt-leaved bog-moss *(Sphagnum palustre)* papillose bog-moss *(Sphagnum papillosum)* Skye bog-moss *(Sphagnum skyense)* spiky bog-moss *(Sphagnum squarrosum)* lustrous bog-moss *(Sphagnum subnitens)* soft bog-moss *(Sphagnum tenellum)* devil's-bit scabious *(Succisa pratensis)* common comfrey *(Symphytum officinale)*

Primary Habitat (Annex I habitat code if relevant)	Species
	deergrass *(Trichophorum cespitosum)* gorse *(Ulex europaeus)* bilberry *(Vaccinium myrtillus)* cowberry *(Vaccinium vitis-idaea)* marsh violet *(Viola palustris)*
f2 - Fen marsh and swamp f2b – Purple moor-grass and rush pasture f2c – Upland flushes fens and swamps f2e – Reedbeds f2f – Other wetlands	ground-elder *(Aegopodium podagraria)* common bent *(Agrostis capillaris)* alder *(Alnus glutinosa)* sweet vernal-grass *(Anthoxanthum odoratum)* wavy hair-grass *(Avenella flexuosa)* daisy *(Bellis perennis)* downy birch *(Betula pubescens)* heather *(Calluna vulgaris)* marsh-marigold *(Caltha palustris)* cuckooflower *(Cardamine pratensis)* common sedge *(Carex nigra)* greater tussock-sedge *(Carex paniculata)* remote sedge (*Carex remota)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* marsh horsetail *(Equisetum palustre)* cross-leaved heath (*Erica tetralix*) lesser celandine *(Ficaria verna)* meadowsweet *(Filipendula ulmaria)* ash *(Fraxinus excelsior)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* creeping soft-grass *(Holcus mollis)* bluebell *(Hyacinthoides non-scripta)* glittering woodmoss *(Hylocomium splendens)* sharp-flowered rush *(Juncus acutiflorus)* compact rush (Juncus conglomeratus) soft-rush *(Juncus effusus)* rush sp. (*Juncus sp.*) heath rush *(Juncus squarrosus)* juniper *(Juniperus communis)* hare's-tail *(Lagurus ovatus)* common bird's-foot-trefoil (*Lotus corniculatus*) great wood-rush *(Luzula sylvatica)* water mint *(Mentha aquatica)* purple moor-grass *(Molinia caerulea)* water forget-me-not (*Myosotis scorpioides*)

Primary Habitat (Annex I habitat code if relevant)	Species
	bog-myrtle *(Myrica gale)* mat-grass *(Nardus stricta)* bog asphodel *(Narthecium ossifragum)* butterbur *(Petasites hybridus)* reed canary-grass *(Phalaris arundinacea)* timothy *(Phleum pratense)* common reed *(Phragmites australis)* Scots pine *(Pinus sylvestris)* common haircap *(Polytrichum commune)* broad-leaved pondweed *(Potamogeton natans)* bog pondweed *(Potamogeton polygonifolius)* bracken (Pteridium aquilinum) creeping buttercup *(Ranunculus repens)* yellow-rattle *(Rhinanthus minor)* sheep's sorrel *(Rumex acetosella)* broad-leaved dock *(Rumex obtusifolius)* Willow sp. (*Salix sp.*) rowan *(Sorbus aucuparia)* flat-topped bog-moss *(Sphagnum fallax)* papillose bog-moss *(Sphagnum papillosum)* soft bog-moss *(Sphagnum tenellum)* greater stitchwort *(Stellaria holostea)* tuberous comfrey *(Symphytum tuberosum)* gorse *(Ulex europaeus)* common nettle *(Urtica dioica)* germander speedwell *(Veronica chamaedrys)* common vetch *(Vicia sativa)*
g1 – Acid grassland **g1b – Upland acid grassland** **g1b6 – Other upland acid grassland** **g1d – Other lowland acid grassland**	common bent *(Agrostis capillaris)* sweet vernal-grass *(Anthoxanthum odoratum)* wavy hair-grass *(Avenella flexuosa)* silver birch *(Betula pendula)* downy birch *(Betula pubescens)* hard-fern *(Blechnum spicant)* heather *(Calluna vulgaris)* common yellow-sedge *(Carex demissa)* rosebay willowherb *(Chamaenerion angustifolium)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* crested dog's-tail *(Cynosurus cristatus)* broom *(Cytisus scoparius)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* crowberry *(Empetrum nigrum)* cross-leaved heath *(Erica tetralix)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common cottongrass *(Eriophorum angustifolium)* red fescue *(Festuca rubra)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* glittering woodmoss *Hylocomium splendens)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* heath rush *(Juncus squarrosus)* juniper *(Juniperus communis)* field wood-rush *(Luzula campestris)* great wood-rush *(Luzula sylvatica)* bogbean *(Menyanthes trifoliata)* purple moor-grass *(Molinia caerulea)* mat-grass *(Nardus stricta)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* Sitka spruce *(Picea sitchensis)* Scots pine *(Pinus sylvestris)* common haircap *(Polytrichum commune)* bracken *(Pteridium aquilinum)* raspberry *(Rubus idaeus)* sheep's sorrel *(Rumex acetosella)* goat willow (*Salix caprea*) rowan *(Sorbus aucuparia)* devil's-bit scabious *(Succisa pratensis)* white clover *(Trifolium repens)* gorse *(Ulex europaeus)* bilberry *(Vaccinium myrtillus)* marsh violet *(Viola palustris)* violet sp. (*Viola sp.*)
g1c - Bracken	silver birch *(Betula pendula)* downy birch *(Betula pubescens)* heather (*Calluna vulgaris)* broom *(Cytisus scoparius)* tufted hair-grass *(Deschampsia cespitosa)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* glittering woodmoss *(Hylocomium splendens)* soft-rush *(Juncus effuses)* Scots pine *(Pinus sylvestris)* bracken (*Pteridium aquilinum*) bramble *(Rubus fruticosus agg.)* rowan *(Sorbus aucuparia)* compact bog-moss *(Sphagnum compactum)*

Primary Habitat (Annex I habitat code if relevant)	Species
	gorse *(Ulex europaeus)* common nettle *(Urtica dioica)* bilberry *(Vaccinium myrtillus)*
g3 – Neutral grassland g3c – Other neutral grassland g3c5 - *Arrhenatherum* neutral grassland g3c7 - *Deschampsia* neutral grassland g3c8 – *Holcus-Juncus* neutral grassland	yarrow *(Achillea millefolium)* ground-elder *(Aegopodium podagraria)* common bent *(Agrostis capillaris)* bent grass sp. (*Agrostis* sp.) creeping bent *(Agrostis stolonifera)* early hair-grass (*Aira praecox*) garden lady's-mantle *(Alchemilla mollis)* alder *(Alnus glutinosa)* meadow foxtail *(Alopecurus pratensis)* sweet vernal-grass *(Anthoxanthum odoratum)* cow parsley *(Anthriscus sylvestris)* greater burdock *(Arctium lappa)* false oat-grass *(Arrhenatherum elatius)* wavy hair-grass *(Avenella flexuosa)* daisy *(Bellis perennis)* silver birch (*Betula pendula*) hard-fern *(Blechnum spicant)* common heather (*Calluna vulgaris*) wavy bitter-cress *(Cardamine flexuosa)* narrow-leaved bitter-cress *(Cardamine impatiens)* common yellow-sedge *(Carex demissa)* hairy sedge *(Carex hirta)* common sedge *(Carex nigra)* greater tussock-sedge *(Carex paniculata)* common mouse-ear *(Cerastium fontanum)* golden chervil *(Chaerophyllum aureum)* rosebay willowherb *(Chamaenerion angustifolium)* opposite-leaved golden-saxifrage *(Chrysosplenium oppositifolium)* creeping thistle *(Cirsium arvense)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare* spear thistle) pignut *(Conopodium majus)* hawthorn *(Crataegus monogyna)* crested dog's-tail *(Cynosurus cristatus)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* heath spotted-orchid *(Dactylorhiza maculata)* heath-grass *(Danthonia decumbens)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* common spike-rush *(Eleocharis palustris)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common couch *(Elymus repens)* square-stalked willowherb *(Epilobium tetragonum)* field horsetail *(Equisetum arvense)* cross-leaved heath *(Erica tetralix)* beech *(Fagus sylvatica)* sheep's-fescue *(Festuca ovina)* red fescue *(Festuca rubra)* meadowsweet *(Filipendula ulmaria)* ash *(Fraxinus excelsior)* snowdrop *(Galanthus nivalis)* cleavers *(Galium aparine)* marsh-bedstraw *(Galium palustre)* lady's bedstraw *(Galium verum)* herb-robert *(Geranium robertianum)* Common ivy *(Hedera helix)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* bluebell *(Hyacinthoides non-scripta)* glittering woodmoss *(Hylocomium splendens)* marsh ragwort *(Jacobaea aquatica)* common ragwort (Jacobaea vulgaris) sharp rush *(Juncus acutus)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* hard rush *(Juncus inflexus)* yellow archangel *(Lamiastrum galeobdolon)* European larch *(Larix decidua)* grass vetchling *(Lathyrus nissolia)* meadow vetchling *(Lathyrus pratensis)* perennial rye-grass *(Lolium perenne)* garden lupin *(Lupinus polyphyllus)* field wood-rush *(Luzula campestris)* heath wood-rush *(Luzula multiflora)* dog's mercury *(Mercurialis perennis)* daffodil *(Narcissus pseudonarcissus)* mat-grass *(Nardus stricta)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* butterbur *(Petasites hybridus)* reed canary-grass *(Phalaris arundinacea)* canary-grass *(Phalaris canariensis)* timothy *(Phleum pratense)* Sitka spruce *(Picea sitchensis)*

Primary Habitat (Annex I habitat code if relevant)	Species
	fox-and-cubs *(Pilosella aurantiaca)* Scots pine *(Pinus sylvestris)* ribwort plantain *(Plantago lanceolata)* annual meadow-grass *(Poa annua)* common haircap *(Polytrichum commune)* tormentil *(Potentilla erecta)* bracken *(Pteridium aquilinum)* pedunculate oak *(Quercus robur)* meadow buttercup *(Ranunculus acris)* ivy-leaved crowfoot *(Ranunculus hederaceus)* creeping buttercup *(Ranunculus repens)* flowering currant *(Ribes sanguineum)* field-rose *(Rosa arvensis)* bramble *(Rubus fruticosus agg.)* raspberry *(Rubus idaeus)* common sorrel *(Rumex acetosa)* sheep's sorrel *(Rumex acetosella)* curled dock *(Rumex crispus)* broad-leaved dock *(Rumex obtusifolius)* goat willow *(Salix caprea)* purple willow *(Salix purpurea)* willow sp.(*Salix* sp.) elder *(Sambucus nigra)* red campion *(Silene dioica)* rowan *(Sorbus aucuparia)* compact bog-moss *(Sphagnum compactum)* feathery bog-moss *(Sphagnum cuspidatum)* bog stitchwort *(Stellaria alsine)* greater stitchwort *(Stellaria holostea)* devil's-bit scabious *(Succisa pratensis)* dandelions *(Taraxacum spp.)* red clover *(Trifolium pratense)* white clover *(Trifolium repens)* gorse *(Ulex europaeus)* common nettle *(Urtica dioica)* marsh valerian *(Valeriana dioica)* germander speedwell *(Veronica chamaedrys)* common field-speedwell *(Veronica persica)* thyme-leaved speedwell *(Veronica serpyllifolia)* bush vetch *(Vicia sepium)* marsh violet *(Viola palustris)*
g4 – Modified grassland	sycamore *(Acer pseudoplatanus)* yarrow *(Achillea millefolium)* ground-elder *(Aegopodium podagraria)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common bent *(Agrostis capillaris)* creeping bent *(Agrostis stolonifera)* alder *(Alnus glutinosa)* marsh foxtail *(Alopecurus geniculatus)* meadow foxtail *(Alopecurus pratensis)* sweet vernal-grass *(Anthoxanthum odoratum)* cow parsley *(Anthriscus sylvestris)* false oat-grass *(Arrhenatherum elatius)* daisy *(Bellis perennis)* silver birch *(Betula pendula)* wavy bitter-cress *(Cardamine flexuosa)* field mouse-ear *(Cerastium arvense)* common mouse-ear *(Cerastium fontanum)* golden chervil *(Chaerophyllum aureum)* rosebay willowherb *(Chamaenerion angustifolium)* creeping thistle *(Cirsium arvense)* meadow thistle *(Cirsium dissectum)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* pignut *(Conopodium majus)* hawthorn *(Crataegus monogyna)* crested dog's-tail *(Cynosurus cristatus)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* male-fern *(Dryopteris filix-mas)* field horsetail *(Equisetum arvense)* beech *(Fagus sylvatica)* sheep's-fescue *(Festuca ovina)* red fescue *(Festuca rubra)* lesser celandine *(Ficaria verna)* meadowsweet *(Filipendula ulmaria)* ash *(Fraxinus excelsior)* erect bedstraw *(Galium album)* cleavers *(Galium aparine)* heath bedstraw *(Galium saxatile)* herb-robert *(Geranium robertianum)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* bluebell *(Hyacinthoides non-scripta)* common ragwort *(Jacobaea vulgaris)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)*

Primary Habitat (Annex I habitat code if relevant)	Species
	hard rush *(Juncus inflexus)* european larch *(Larix decidua)* perennial rye-grass *(Lolium perenne)* greater bird's-foot-trefoil (*Lotus pedunculatus*) hairy bird's-foot-trefoil *(Lotus subbiflorus)* field wood-rush *(Luzula campestris)* great wood-rush *(Luzula sylvatica)* dog's mercury *(Mercurialis perennis)* daffodil *(Narcissus pseudonarcissus)* mat-grass *(Nardus stricta)* wood-sorrel *(Oxalis acetosella)* timothy *(Phleum pratense)* common reed *(Phragmites australis)* sitka spruce *(Picea sitchensis)* scots pine *(Pinus sylvestris)* ribwort plantain *(Plantago lanceolata)* annual meadow-grass *(Poa annua)* silverweed *(Potentilla anserina)* racken (*Pteridium aquilinum*) pedunculate oak *(Quercus robur)* oak spp. (*Quercus sp.*) meadow buttercup *(Ranunculus acris)* creeping buttercup *(Ranunculus repens)* gooseberry *(Ribes uva-crispa)* bramble *(Rubus fruticosus agg.)* raspberry *(Rubus idaeus)* common sorrel *(Rumex acetosa)* sheep's sorrel *(Rumex acetosella)* curled dock *(Rumex crispus)* broad-leaved dock *(Rumex obtusifolius)* elder *(Sambucus nigra)* service-tree *(Sorbus domestica)* hedge woundwort *(Stachys sylvatica)* bog stitchwort *(Stellaria alsine)* common chickweed *(Stellaria media)* tuberous comfrey *(Symphytum tuberosum)* dandelions *(Taraxacum spp.)* red clover *(Trifolium pratense)* white clover *(Trifolium repens)* colt's-foot *(Tussilago farfara)* gorse *(Ulex europaeus)* western gorse *(Ulex gallii)* common nettle *(Urtica dioica)* germander speedwell *(Veronica chamaedrys)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common field-speedwell *(Veronica persica)* common vetch *(Vicia sativa)* bush vetch *(Vicia sepium)*
h - Heathland and shrub **h1 – Dwarf shrub heath** **h1a - Lowland Heathland** **h1a7 - Wet heathland with cross-leaved heath- lowland (H4010)** **h1b - Upland heathland** **h1b5 - Dry heaths - upland (H4030)** **h1b6 – Wet heathland with cross-leaved heath – upland (H4010)**	common bent *(Agrostis capillaris)* bent grass sp. (*Agrostis* sp.) creeping bent *(Agrostis stolonifera)* alder *(Alnus glutinosa)* wood anemone *(Anemone nemorosa)* false oat-grass *(Arrhenatherum elatius)* wavy hair-grass *(Avenella flexuosa)* dwarf birch *(Betula nana)* silver birch *(Betula pendula)* hard-fern *(Blechnum spicant)* heather *(Calluna vulgaris)* marsh-marigold *(Caltha palustris)* common yellow-sedge *(Carex demissa)* glaucous sedge *(Carex flacca)* common sedge *(Carex nigra)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* hemlock *(Conium maculatum)* hawthorn *(Crataegus monogyna)* crested dog's-tail *(Cynosurus cristatus)* broom *(Cytisus scoparius)* heath spotted-orchid *(Dactylorhiza maculata)* tufted hair-grass *(Deschampsia cespitosa)* narrow buckler-fern *(Dryopteris carthusiana)* crowberry *(Empetrum nigrum)* bell heather *(Erica cinerea)* cross-leaved heath *(Erica tetralix)* common cottongrass *(Eriophorum angustifolium)* hare's-tail cottongrass *(Eriophorum vaginatum)* sheep's-fescue *(Festuca ovina)* red fescue *(Festuca rubra)* heath bedstraw *(Galium saxatile)* prickly heath *(Gaultheria mucronata)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* glittering woodmoss *(Hylocomium splendens)* sharp-flowered rush *(Juncus acutiflorus)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* rush sp. (*Juncus sp.*) heath rush *(Juncus squarrosus)*

Primary Habitat (Annex I habitat code if relevant)	Species
	juniper *(Juniperus communis)* hare's-tail *(Lagurus ovatus)* European larch *(Larix decidua)* perennial rye-grass *(Lolium perenne)* field wood-rush *(Luzula campestris)* great wood-rush *(Luzula sylvatica)* marsh clubmoss *(Lycopodiella inundata)* purple moor-grass *(Molinia caerulea)* bog-myrtle *(Myrica gale)* mat-grass *(Nardus stricta)* bog asphodel *(Narthecium ossifragum)* Other (e.g. unlisted species/hybrids) Norway spruce *(Picea abies)* Sitka spruce *(Picea sitchensis)* pine sp. (*Pinus sp.*) Scots pine *(Pinus sylvestris)* common haircap *(Polytrichum commune)* barren strawberry *(Potentilla sterilis)* Douglas fir *(Pseudotsuga menziesii)* bracken *(Pteridium aquilinum)* meadow buttercup *(Ranunculus acris)* creeping buttercup *(Ranunculus repens)* eared willow *(Salix aurita)* goat willow (S*alix caprea)* willow sp.(*Salix sp.*) Saxifrage sp.(*Saxifraga sp.*) lesser clubmoss *(Selaginella selaginoides)* rowan *(Sorbus aucuparia)* Baltic bog-moss *(Sphagnum balticum)* red bog-moss *(Sphagnum capillifolium)* compact bog-moss *(Sphagnum compactum)* olive bog-moss *(Sphagnum majus)*) blunt-leaved bog-moss *(Sphagnum palustre var. palustre)* papillose bog-moss *(Sphagnum papillosum)* Skye bog-moss *(Sphagnum skyense)* devil's-bit scabious *(Succisa pratensis)* deergrass *(Trichophorum cespitosum)* lesser trefoil *(Trifolium dubium)* white clover *(Trifolium repens)* gorse *(Ulex europaeus)* western gorse *(Ulex gallii)* blueberry *(Vaccinium corymbosum)* bilberry *(Vaccinium myrtillus)* cowberry *(Vaccinium vitis-idaea)*

Primary Habitat (Annex I habitat code if relevant)	Species
	marsh violet *(Viola palustris)*
h2a – Native hedgerow h2a6 - Other native hedgerow	field maple *(Acer campestre)* ground-elder *(Aegopodium podagraria)* alder *(Alnus glutinosa)* cow parsley *(Anthriscus sylvestris)* downy birch *(Betula pubescens)* hornbeam *(Carpinus betulus)* golden chervil *(Chaerophyllum aureum)* rosebay willowherb *(Chamaenerion angustifolium)* creeping thistle *(Cirsium arvense)* pink purslane *(Claytonia sibirica)* pignut *(Conopodium majus)* hazel *(Corylus avellana)* hawthorn *(Crataegus monogyna)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* male-fern *(Dryopteris filix-mas)* beech *(Fagus sylvatica)* ash *(Fraxinus excelsior)* cleavers *(Galium aparine)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* garden privet *(Ligustrum ovalifolium)* perennial rye-grass *(Lolium perenne)* green alkanet *(Pentaglottis sempervirens)* Sitka spruce *(Picea sitchensis)* Spruce sp. (*Picea sp).* annual meadow-grass *(Poa annua)* silverweed *(Potentilla anserina)* *c*herry sp. *(Prunus sp.)* blackthorn *(Prunus spinosa)* meadow buttercup *(Ranunculus acris)* gooseberry *(Ribes uva-crispa)* dog-rose *(Rosa canina)* japanese rose *(Rosa rugosa)* rose sp. (*Rosa sp.*) bramble *(Rubus fruticosus agg)* broad-leaved dock *(Rumex obtusifolius)* grey willow *(Salix cinerea)* willow sp. (*Salix sp.*) elder *(Sambucus nigra)* rowan *(Sorbus aucuparia)* Swedish whitebeam *(Sorbus intermedia)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common chickweed *(Stellaria media)* scentless mayweed *(Tripleurospermum inodorum)* gorse *(Ulex europaeus)* common nettle *(Urtica dioica)* bush vetch *(Vicia sepium)*
h3 - Dense scrub **h3b - Hazel scrub** **h3e - Gorse scrub** **h3h - Mixed scrub** **h3j - Willow scrub** **h3k – Juniper scrub**	sycamore *(Acer pseudoplatanus)* yarrow *(Achillea millefolium)* ground-elder *(Aegopodium podagraria)* alder *(Alnus glutinosa)* grey alder *(Alnus incana)* false oat-grass *(Arrhenatherum elatius)* silver birch *(Betula pendula)* downy birch *(Betula pubescens)* birch sp. (*Betula sp.*) common heather (*Calluna vulgaris*) rosebay willowherb *(Chamaenerion angustifolium)* hazel *(Corylus avellana)* hawthorn *(Crataegus monogyna)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* crowberry *(Empetrum nigrum)* cross-leaved heath *(Erica tetralix)* beech *(Fagus sylvatica)* meadowsweet *(Filipendula ulmaria)* cleavers *(Galium aparine)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* bluebell *(Hyacinthoides non-scripta)* holly *(Ilex aquifolium)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* juniper *(Juniperus communis)* honeysuckle *(Lonicera periclymenum)* field wood-rush *(Luzula campestris)* dog's mercury *(Mercurialis perennis)* mat-grass *(Nardus stricta)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* Norway spruce *(Picea abies)* Sitka spruce *(Picea sitchensis)* Scots pine *(Pinus sylvestris)* ribwort plantain *(Plantago lanceolata)*

Primary Habitat (Annex I habitat code if relevant)	Species
	blackthorn *(Prunus spinosa)* bracken *(Pteridium aquilinum)* pedunculate oak *(Quercus robur)* gooseberry *(Ribes uva-crispa)* sweet-briar *(Rosa rubiginosa)* bramble *(Rubus fruticosus agg.)* raspberry *(Rubus idaeus)* broad-leaved dock *(Rumex obtusifolius)* goat willow *(Salix caprea)* grey willow *(Salix cinerea)* purple willow *(Salix purpurea)* willow sp. (*Salix sp.*) osier *(Salix viminalis)* elder *(Sambucus nigra)* rowan *(Sorbus aucuparia)* hedge woundwort *(Stachys sylvatica)* devil's-bit scabious *(Succisa pratensis)* gorse *(Ulex europaeus)* western gorse *(Ulex gallii)* common nettle *(Urtica dioica)* bush vetch *(Vicia sepium)*
u1c – Artificial unvegetated unsealed surface **u1e – Built linear features** **u1f - Sparsely vegetated urban land**	cow parsley *(Anthriscus sylvestris)* heather *(Calluna vulgaris)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* red fescue *(Festuca rubra)* ash *(Fraxinus excelsior)* rush sp. (*Juncus* species) Other (e.g. unlisted species/hybrids) sitka spruce *(Picea sitchensis)* common haircap *(Polytrichum commune)* creeping buttercup *(Ranunculus repens)* deergrass *(Trichophorum cespitosum)* gorse *(Ulex europaeus)*
w1 - Broadleaved and mixed woodland **w1a - Upland oakwood** **w1d - Wet woodland** **w1e - Upland birchwoods** **w1f - Lowland mixed deciduous woodland** **w1f7 - Other Lowland mixed deciduous woodland** **w1g – Other woodland, broadleaved**	sycamore *(Acer pseudoplatanus)* yarrow *(Achillea millefolium)* ground-elder *(Aegopodium podagraria)* horse-chestnut *(Aesculus hippocastanum)* common bent *(Agrostis capillaris)* garlic mustard *(Alliaria petiolata)* garlic *(Allium sativum)* ramsons *(Allium ursinum)* alder *(Alnus glutinosa)* grey alder *(Alnus incana)*

Primary Habitat (Annex I habitat code if relevant)	Species
	meadow foxtail *(Alopecurus pratensis)* wood anemone *(Anemone nemorosa)* wild angelica *(Angelica sylvestris)* sweet vernal-grass *(Anthoxanthum odoratum)* cow parsley *(Anthriscus sylvestris)* false oat-grass *(Arrhenatherum elatius)* wavy hair-grass *(Avenella flexuosa)* silver birch *(Betula pendula)* downy birch *(Betula pubescens)* hard-fern *(Blechnum spicant)* heather *(Calluna vulgaris)* marsh-marigold *(Caltha palustris)* narrow-leaved bitter-cress *(Cardamine impatiens)* hornbeam *(Carpinus betulus)* golden chervil *(Chaerophyllum aureum)* rosebay willowherb *(Chamaenerion angustifolium)* opposite-leaved golden-saxifrage *(Chrysosplenium oppositifolium)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* pignut *(Conopodium majus)* hazel *(Corylus avellana)* hawthorn *(Crataegus monogyna)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* male-fern *(Dryopteris filix-mas)* marsh horsetail *(Equisetum palustre)* cross-leaved heath *(Erica tetralix)* beech *(Fagus sylvatica)* sheep's-fescue *(Festuca ovina)* red fescue *(Festuca rubra)* lesser celandine *(Ficaria verna)* meadowsweet *(Filipendula ulmaria)* ash *(Fraxinus excelsior)* cleavers *(Galium aparine)* heath bedstraw *(Galium saxatile)* wood avens *(Geum urbanum)* ground-ivy *(Glechoma hederacea)* common ivy *(Hedera helix)* hogweed *(Heracleum sphondylium)* yorkshire-fog *(Holcus lanatus)* bluebell *(Hyacinthoides non-scripta)* glittering woodmoss *(Hylocomium splendens)*

Primary Habitat (Annex I habitat code if relevant)	Species
	holly *(Ilex aquifolium)* yellow iris *(Iris pseudacorus)* soft-rush *(Juncus effusus)* juniper *(Juniperus communis)* european larch *(Larix decidua)* perennial rye-grass *(Lolium perenne)* honeysuckle *(Lonicera periclymenum)* spiked wood-rush *(Luzula spicata)* great wood-rush *(Luzula sylvatica)* crab apple *(Malus sylvestris)* dog's mercury *(Mercurialis perennis)* daffodil *(Narcissus pseudonarcissus)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* green alkanet *(Pentaglottis sempervirens)* norway spruce *(Picea abies)* sitka spruce *(Picea sitchensis)* spruce sp. (*Picea* sp.) scots pine *(Pinus sylvestris)* ribwort plantain *(Plantago lanceolata)* common haircap *(Polytrichum commune)* white poplar *(Populus alba)* aspen *(Populus tremula)* primrose *(Primula vulgaris)* wild cherry *(Prunus avium)* cherry laurel *(Prunus laurocerasus)* bird cherry *(Prunus padus)* cherry sp. (*Prunus* sp.) blackthorn *(Prunus spinosa)* douglas fir *(Pseudotsuga menziesii)* bracken *(Pteridium aquilinum)* sessile oak *(Quercus petraea)* pedunculate oak *(Quercus robur)* oak sp. (*Quercus* sp.) meadow buttercup *(Ranunculus acris)* creeping buttercup *(Ranunculus repens)* *Rhododendron* sp. (Rhodedendron sp.) dog-rose *(Rosa canina)* sweet-briar *(Rosa rubiginosa)* bramble *(Rubus fruticosus* agg.) raspberry *(Rubus idaeus)* broad-leaved dock *(Rumex obtusifolius)* white willow *(Salix alba)* goat willow *(Salix caprea)*

Primary Habitat (Annex I habitat code if relevant)	Species
	grey willow *(Salix cinerea)* willow sp. (*Salix* sp.) osier *(Salix viminalis)* elder *(Sambucus nigra)* common whitebeam *(Sorbus aria)* rowan *(Sorbus aucuparia)* flat-topped bog-moss *(Sphagnum fallax)* papillose bog-moss *(papillosum)* lesser stitchwort *(Stellaria graminea)* greater stitchwort *(Stellaria holostea)* common chickweed *(Stellaria media)* common comfrey *(Symphytum officinale)* tuberous comfrey *(Symphytum tuberosum)* dandelions *(Taraxacum spp.)* yew *(Taxus baccata)* small-leaved lime *(Tilia cordata)* large-leaved lime *(Tilia platyphyllos)* colt's-foot *(Tussilago farfara)* bulrush *(Typha latifolia)* gorse *(Ulex europaeus)* western gorse *(Ulex gallii)* wych elm *(Ulmus glabra)* common nettle *(Urtica dioica)* bilberry *(Vaccinium myrtillus)* cowberry *(Vaccinium vitis-idaea)* common valerian *(Valeriana officinalis)* germander speedwell *(Veronica chamaedrys)* ivy-leaved speedwell *(Veronica hederifolia)* early dog-violet *(Viola reichenbachiana)* common dog-violet *(Viola riviniana)* violet sp. (*Viola* sp.)
w1h - Other woodland - mixed **w1h5 - Other woodland - mixed - mainly broadleaved** **w1h6 - Other woodland - mixed - mainly conifer**	field maple *(Acer campestre)* sycamore *(Acer pseudoplatanus)* ground-elder *(Aegopodium podagraria)* horse-chestnut *(Aesculus hippocastanum)* bent grass sp. (*Agrostis* sp.) creeping bent *(Agrostis stolonifera)* bugle *(Ajuga reptans)* alder *(Alnus glutinosa)* sweet vernal-grass *(Anthoxanthum odoratum)* lady-fern *(Athyrium filix-femina)* daisy *(Bellis perennis)* dwarf birch *(Betula nana)*

Primary Habitat (Annex I habitat code if relevant)	Species
	silver birch *(Betula pendula)* downy birch *(Betula pubescens)* hard-fern *(Blechnum spicant)* heather *(Calluna vulgaris)* common yellow-sedge *(Carex demissa)* rosebay willowherb *(Chamaenerion angustifolium)* opposite-leaved golden-saxifrage *(Chrysosplenium oppositifolium)* creeping thistle *(Cirsium arvense)* spear thistle *(Cirsium vulgare)* pignut *(Conopodium majus)* hazel *(Corylus avellana)* monterey cypress *(Cupressus macrocarpa)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* male-fern *(Dryopteris filix-mas)* cross-leaved heath *(Erica tetralix)* beech *(Fagus sylvatica)* lesser celandine *(Ficaria verna)* ash *(Fraxinus excelsior)* cleavers *(Galium aparine)* herb-robert *(Geranium robertianum)* common ivy *(Hedera helix)* hogweed *(Heracleum sphondylium)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* bluebell *(Hyacinthoides non-scripta)* glittering woodmoss *(Hylocomium splendens)* holly *(Ilex aquifolium)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* juniper *(Juniperus communis)* European larch *(Larix decidua)* honeysuckle *(Lonicera periclymenum)* common bird's-foot-trefoil *(Lotus corniculatus)* great wood-rush *(Luzula sylvatica)* dog's mercury *(Mercurialis perennis)* wood millet *(Milium effusum)* mat-grass *(Nardus stricta)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* Norway spruce *(Picea abies)* Sitka spruce *(Picea sitchensis)*

Primary Habitat (Annex I habitat code if relevant)	Species
	spruce sp. (*Picea* sp.) Scots pine *(Pinus sylvestris)* common haircap *(Polytrichum commune)* juniper haircap *(Polytrichum juniperinum)* black-poplar *(Populus nigra)* bird cherry *(Prunus padus)* Douglas fir *(Pseudotsuga menziesii)* bracken *(Pteridium aquilinum)* sessile oak *(Quercus petraea)* pedunculate oak *(Quercus robur)* creeping buttercup *(Ranunculus repens)* rhododendron sp. (Rhododendron sp.) curled dock *(Rumex crispus)* broad-leaved dock *(Rumex obtusifolius)* goat willow *(Salix caprea)* grey willow *(Salix cinerea)* willow sp. (*Salix* sp.) osier *(Salix viminalis)* elder *(Sambucus nigra)* red campion *(Silene dioica)* rowan *(Sorbus aucuparia)* skye bog-moss *(Sphagnum skyense)* common chickweed *(Stellaria media)* dandelions *(Taraxacum spp.)* gorse *(Ulex europaeus)* dwarf gorse *(Ulex minor)* wych elm *(Ulmus glabra)* common nettle *(Urtica dioica)* bilberry *(Vaccinium myrtillus)* cowberry *(Vaccinium vitis-idaea)* heath speedwell *(Veronica officinalis)*
w2 - Coniferous woodland **w2a - Native pine woodlands** **w2b - Other Scots Pine woodland** **w2c - Other coniferous woodland**	sycamore *(Acer pseudoplatanus)* ground-elder *(Aegopodium podagraria)* common bent *(Agrostis capillaris)* bent grass sp. (*Agrostis* sp.) creeping bent *(Agrostis stolonifera)* alder *(Alnus glutinosa)* wood anemone *(Anemone nemorosa)* sweet vernal-grass *(Anthoxanthum odoratum)* cow parsley *(Anthriscus sylvestris)* false oat-grass *(Arrhenatherum elatius)* wavy hair-grass *(Avenella flexuosa)* silver birch *(Betula pendula)* downy birch *(Betula pubescens)*

Primary Habitat (Annex I habitat code if relevant)	Species
	hard-fern *(Blechnum spicant)* heather *(Calluna vulgaris)* common sedge *(Carex nigra)* pendulous sedge *(Carex pendula)* rosebay willowherb *(Chamaenerion angustifolium)* dwarf thistle *(Cirsium acaule)* creeping thistle *(Cirsium arvense)* marsh thistle *(Cirsium palustre)* hemlock *(Conium maculatum)* Himalayan cotoneaster *(Cotoneaster simonsii)* lawson cypress *(Cupressus lawsoniana)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* broad-leaved willowherb *(Epilobium montanum)* bell heather *(Erica cinerea)* cross-leaved heath *(Erica tetralix)* common cottongrass *(Eriophorum angustifolium)* hare's-tail cottongrass *(Eriophorum vaginatum)* beech *(Fagus sylvatica)* red fescue *(Festuca rubra)* lesser celandine *(Ficaria verna)* meadowsweet *(Filipendula ulmaria)* ash *(Fraxinus excelsior)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* bluebell *(Hyacinthoides non-scripta)* glittering woodmoss *(Hylocomium splendens)* holly *(Ilex aquifolium)* sharp-flowered rush *(Juncus acutiflorus)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* heath rush *(Juncus squarrosus)* juniper *(Juniperus communis)* hare's-tail *(Lagurus ovatus)* European larch *(Larix decidua)* perennial rye-grass *(Lolium perenne)* honeysuckle *(Lonicera periclymenum)* narrow-leaved lupin *(Lupinus angustifolius)* heath wood-rush *(Luzula multiflora)* hairy wood-rush *(Luzula pilosa)* great wood-rush *(Luzula sylvatica)* purple moor-grass *(Molinia caerulea)*

Primary Habitat (Annex I habitat code if relevant)	Species
	mat-grass *(Nardus stricta)* bog asphodel *(Narthecium ossifragum)* Other (e.g. unlisted species/hybrids) wood-sorrel *(Oxalis acetosella)* Norway spruce *(Picea abies)* Sitka spruce *(Picea sitchensis)* Scots pine *(Pinus sylvestris)* common haircap *(Polytrichum commune)* bird cherry *(Prunus padus)* Douglas fir *(Pseudotsuga menziesii)* bracken *(Pteridium aquilinum)* pedunculate oak *(Quercus robur)* rhododendron sp. (*Rhododendron* sp.) flowering currant *(Ribes sanguineum)* gooseberry *(Ribes uva-crispa)* bramble *(Rubus fruticosus* agg.) common sorrel *(Rumex acetosa)* goat willow *(Salix caprea)* willow sp.(*Salix* sp.) osier *(Salix viminalis)* elder *(Sambucus nigra)* rowan *(Sorbus aucuparia)* Baltic bog-moss *(Sphagnum balticum)* red bog-moss *(Sphagnum capillifolium)* compact bog-moss *(Sphagnum compactum)* fringed bog-moss *(Sphagnum fimbriatum)* olive bog-moss *(Sphagnum majus)* blunt-leaved bog-moss *(Sphagnum palustre)* Skye bog-moss *(Sphagnum skyense)* deergrass *(Trichophorum cespitosum)* western hemlock-spruce *(Tsuga heterophylla)* gorse *(Ulex europaeus)* western gorse *(Ulex gallii)* wych elm *(Ulmus glabra)* bilberry *(Vaccinium myrtillus)* cowberry *(Vaccinium vitis-idaea)*
r - Rivers and lakes r1 - Standing open water and canals r1e - Canals r1g - Other standing water r2 - Rivers and streams r2a - Rivers (priority habitat) r2a6 - Other priority habitat rivers r2b - Other rivers and streams	yarrow *(Achillea millefolium)* ground-elder *(Aegopodium podagraria)* wild angelica *(Angelica sylvestris)* sweet vernal-grass *(Anthoxanthum odoratum)* cow parsley *(Anthriscus sylvestris)* false oat-grass *(Arrhenatherum elatius)* hard-fern *(Blechnum spicant)* common water-starwort *(Callitriche stagnalis)*

Primary Habitat (Annex I habitat code if relevant)	Species
	heather *(Calluna vulgaris)* marsh-marigold *(Caltha palustris)* wavy bitter-cress *(Cardamine flexuosa)* glaucous sedge *(Carex flacca)* common sedge *(Carex nigra)* golden chervil *(Chaerophyllum aureum)* rosebay willowherb *(Chamaenerion angustifolium)* creeping thistle *(Cirsium arvense)* marsh thistle *(Cirsium palustre)* spear thistle *(Cirsium vulgare)* pink purslane *(Claytonia sibirica)* pignut *(Conopodium majus)* broom *(Cytisus scoparius)* cock's-foot *(Dactylis glomerata)* tufted hair-grass *(Deschampsia cespitosa)* foxglove *(Digitalis purpurea)* male-fern *(Dryopteris filix-mas)* broad-leaved willowherb (*Epilobium montanum*) square-stalked willowherb (*Epilobium tetragonum*) field horsetail (*Equisetum arvense*) water horsetail (*Equisetum fluviatile*) marsh horsetail (*Equisetum palustre*) lesser celandine (*Ficaria verna)* floating sweet-grass *(Glyceria fluitans)* giant hogweed *(Heracleum mantegazzianum)* Yorkshire-fog *(Holcus lanatus)* fir clubmoss *(Huperzia selago)* Himalayan balsam *(Impatiens glandulifera)* compact rush *(Juncus conglomeratus)* soft-rush *(Juncus effusus)* European larch *(Larix decidua)* meadow vetchling *(Lathyrus pratensis)* common duckweed *(Lemna minor)* great wood-rush *(Luzula sylvatica)* marsh clubmoss *(Lycopodiella inundata)* water forget-me-not *(Myosotis scorpioides)* mat-grass *(Nardus stricta)* onerow yellowcress *(Nasturtium microphyllum)* Other (e.g. unlisted species/hybrids) reed canary-grass *(Phalaris arundinacea)* common reed *(Phragmites australis)* Sitka spruce *(Picea sitchensis)* Scots pine *(Pinus sylvestris)* annual meadow-grass *(Poa annua)*

Primary Habitat (Annex I habitat code if relevant)	Species
	common haircap *(Polytrichum commune)* broad-leaved pondweed *(Potamogeton natans)* bracken *(Pteridium aquilinum)* creeping buttercup *(Ranunculus repens)* bramble *(Rubus fruticosus agg.)* raspberry *(Rubus idaeus)* common sorrel *(Rumex acetosa)* broad-leaved dock *(Rumex obtusifolius)* goat willow *(Salix caprea)* osier *(Salix viminalis)* rowan *(Sorbus aucuparia)* red bog-moss *(Sphagnum capillifolium)* flat-topped bog-moss *(Sphagnum fallax)* bog stitchwort *(Stellaria alsine)* devil's-bit scabious *(Succisa pratensis)* common comfrey *(Symphytum officinale)* tuberous comfrey *(Symphytum tuberosum)* dandelions *(Taraxacum spp.)* bulrush *(Typha latifolia)* gorse *(Ulex europaeus)* dwarf gorse *(Ulex minor)* common nettle *(Urtica dioica)* bilberry *(Vaccinium myrtillus)* brooklime *(Veronica beccabunga)* common field-speedwell *(Veronica persica)* bush vetch *(Vicia sepium)* marsh violet *(Viola palustris)*

Additional Habitat Mapping

3.2.3 Where the habitat mapping was extended to include later additions to the Proposed Development, it was done using aerial mapping, neighbouring survey results and professional judgement. These habitats were an extension of those reported above and included mixed woodland, coniferous woodland, modified grassland, cropland and urban habitats including hard standing and buildings.

3.3 Invasive and Non-native Species

3.3.1 The locations of INNS recorded in various habitats within the UKHab Survey Area are illustrated with corresponding target notes (TNs) within **Annex A: Figure 8.1.2: UK Habitat Survey Results.** This included rhododendron (**TN1**), Japanese knotweed (**TN2**), Himalayan balsam (**T3**), and giant hogweed (**T5**). Field horsetail (**T4**), although a native species was also highlighted due to its ability to cause damage to hardstanding infrastructure.

3.4 Bat Surveys

3.4.1 Locations of FAR and PRF trees and structures identified within the Bat Survey Area during the DBW are presented in **Annex A: Figure 8.1.3: Initial Bat Survey Results.** Locations of trees subject to dusk emergence surveys, the results of intrusive PRF inspections, along with the location of deployed static bat detectors are illustrated in **Annex A: Figure 8.1.4: Further Bat Survey Results.** Woodlands subject to NBW surveys along with graphical summaries of the results of bat call analysis are illustrated within **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results**. Results of further bat surveys conducted within each council area are listed in **Table 3.10 - Table 3.21** below, including the identification of a confirmed bat roost.

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3.4.2 From the initial DBW, a total of 344 trees were identified as potentially suitable for roosting bats within the Highland Council section of the Bat Survey Area. Of these, 136 trees were suitable for PRF inspection at ground-level and 189 trees suitable for aerial PRF inspection. A further 19 trees were identified as unsafe for inspection and were therefore recommended dusk emergence surveys.

3.4.3 PRFs were recorded within tree species such as ash *(Fraxinus* spp.*)*, alder *(Alnus* spp.*),* beech *(Fagus* spp.*)*, birch *(Betula* spp.*),* Douglas fir *(Pseudotsuga menziesii)*, elm *(Ulmus procera)*, hazel *(Corylus avellana)*, larch *(Larix decidua)*, lime *(Tilia x europaea)*, oak *(Quercus robur)*, pine *(Pinus* spp.*)*, Scots pine *(Pinus sylvestris)*, sycamore *(Acer pseudoplatanus)* and willow *(Salix* spp.*)*.

3.4.4 A rocky crag (**S2, Annex A: Figure 8.1.3: Initial Bat Survey Results**) was noted approximately 13 km southeast of Nairn, with multiple gaps and fissures. This was assessed to be of high suitability for roosting bats during both the active bat season and hibernation season. The dilapidated ruins of a farm steading (**S3**) were noted 280 m west of the River Nairn. This structure was assessed to be of moderate suitability for roosting bats during both the active bat season and hibernation season.

3.4.5 Following the agreed approach, a proportional number of trees (approximately 25%) were randomly selected and subject to further survey as illustrated within **Annex A: Figure 8.1.4: Further Bat Survey Results.** This included four trees subject to dusk emergence surveys and 77 trees subject to intrusive PRF inspection, the results of which are illustrated in **Table 3.10** below. Categorisation of trees subject to PRF inspection followed criteria outlined within **Table 2.4.** Details of weather conditions recorded during dusk emergence surveys are displayed within **Annex B - Table B2**.

Table 3.10: Highland Council Bat Tree Further Survey (Dusk Emergence Survey and PRF Inspection) Results

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
1577	Dusk emergence survey (No roosts recorded)	PRF-M	NH 95433 44725	60 m east of Proposed Development and within LoD
1709	Dusk emergence survey (No roosts recorded)	PRF-M	NH 95010 45127	100 m north of Proposed Development and within LoD
1953	Dusk emergence survey (No roosts recorded)	PRF-M	NH 95410 44716	39 m northeast of Proposed Development and within LoD
2001b	Dusk emergence survey (No roosts recorded)	PRF-M	NH 62318 41636	177 m southeast of Proposed Development and 4 m northeast of LoD
0098	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 56393 43272	121 m southwest of Proposed Development and 7 m southwest of LoD
0094	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 56392 43295	101 m southwest of Proposed Development and within LoD
0093	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 56389 43337	71 m southwest of Proposed Development and within LoD
0088	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 56411 43397	23 m west of Proposed Development and within LoD
0080	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 56441 43322	56 m southwest of Proposed Development and within LoD
0078	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 56405 43286	103 m southwest of Proposed Development and within LoD
0198	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 93367 46281	244 m east of Proposed Development and 87 m northeast of LoD
0068	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 93357 46317	242 m east of Proposed Development and 102 m northeast of LoD
0066	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 93347 46333	234 m east of Proposed Development and 106 m of Proposed Development and northeast of LoD
0197a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 93366 46356	258 m east of Proposed Development and of

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
				Proposed Development and 127 m northeast of LoD
0195a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94284 45447	19 m southwest of Proposed Development and within LoD
0190a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94373 45455	30 m southwest of Proposed Development and within LoD
0055	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 93602 45734	90 m southwest of Proposed Development and within LoD
0054	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 93650 45722	78 m southwest of Proposed Development and within LoD
0185a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94300 45520	52 m northeast of Proposed Development and within LoD
0183a	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 94311 45479	22 m southwest of Proposed Development and within LoD
0051	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 93721 45692	71 m southwest of Proposed Development and within LoD
0175a	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 94110 45603	34 m northeast of Proposed Development and within LoD
0174a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94008 45704	75 m northeast of Proposed Development and within LoD
0050	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 93989 45808	158 m northeast of Proposed Development and within LoD
0048	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 93974 45823	164 m northeast of Proposed Development and within LoD
0145b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 63173 40772	157 m north of Proposed Development and within LoD
1538	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95373 44942	166 m north of Proposed Development and within LoD
1940	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95286 44983	208 m north of Proposed Development and within LoD

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
1921	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95349 44969	190 m north of Proposed Development and within LoD
1925	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95349 44972	192 m north of Proposed Development and within LoD
1934	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95268 45016	243 m northeast of Proposed Development and within LoD
1943	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95296 45058	272 m east of Proposed Development and 66 m northeast of LoD
1596	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95426 44710	57 m east of Proposed Development and within LoD
1559	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95408 44709	39 m east of Proposed Development and within LoD
1958	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95160 45213	229 m northeast of Proposed Development and 84 m northeast of LoD
0196c	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95100 45200	188 m northeast of Proposed Development and 37 m northeast of LoD
1966	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95073 45186	166 m north of Proposed Development and 8 m north of LoD
1971	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94990 45169	146 m north of Proposed Development and within LoD
1973	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 94954 45151	143 m northwest of Proposed Development and within LoD
1985	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 94960 45113	108 m northwest of Proposed Development and within LoD
1982a	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94959 45070	78 m northwest of Proposed Development and within LoD
1997	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94916 45119	142 m northwest of Proposed Development and within LoD
1993a	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 94922 45140	152 m northwest of Proposed Development and within LoD

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
1730	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95425 44895	132 m northeast of Proposed Development and within LoD
1733	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95482 44915	178 m northeast of Proposed Development and 2 m northeast of LoD
1734	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95486 44921	185 m northeast of Proposed Development and 9 m northeast of LoD
1735	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95469 44932	183 m northeast of Proposed Development and 5 m northeast of LoD
1752	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95219 45149	229 m northeast of Proposed Development and 71 m northeast of LoD
1744	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95233 45100	220 m east of Proposed Development and 49 m northeast of LoD
1746	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95219 45118	214 m northeast of Proposed Development and 48 m northeast of LoD
1753	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95231 45128	219 m northeast of Proposed Development and 62 m northeast of LoD
1993b	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94798 45118	199 m southeast of Proposed Development and within LoD
1987	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 94828 45096	205 m northwest of Proposed Development and within LoD
1711	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95085 45136	124 m northeast of Proposed Development and within LoD
1705	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95122 45154	160 m northeast of Proposed Development and 15 m northeast of LoD
1714	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95122 45156	161 m northeast of Proposed Development and 16 m northeast of LoD
1718	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95187 45140	198 m northeast of Proposed Development and 45 m northeast of LoD
1720	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95182 45147	197 m northeast of Proposed Development and 46 m northeast of LoD

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
1722	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 95181 45152	199 m northeast of Proposed Development and 50 m northeast of LoD
1250	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 95387 44705	19 m northeast of Proposed Development and within LoD
2497	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 63384 40543	191 m northeast of Proposed Development and 7 m north of LoD
2496	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 63383 40563	197 m northeast of Proposed Development and 26 m north of LoD
2490	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 63279 40491	74 m east of Proposed Development and within LoD
2003	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 62307 41611	180 m northeast of Proposed Development and within LoD
2012	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62219 41641	100 m southeast of Proposed Development and within LoD
2001a	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 62358 41631	215 m southeast of Proposed Development and 32 m northeast of LoD
2007	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 62243 41573	109 m northeast of Proposed Development and within LoD
2013	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 62263 41659	119 m southeast of Proposed Development and within LoD
2019	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62137 41510	49 m northwest of Proposed Development and within LoD
2020	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 62104 41440	67 m west of Proposed Development and within LoD
2024	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62119 41294	137 m southwest of Proposed Development and within LoD
2027	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62303 41330	80 m southeast of Proposed Development and within LoD
2030	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 62330 41349	95 m east of Proposed Development and within LoD

Tree Reference	Further Survey Type/Survey Result	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
2036	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 62449 41435	76 m west of Proposed Development and within LoD
2037	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62458 41422	64 m west of Proposed Development and within LoD
2048	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 62328 41483	135 m northeast of Proposed Development and within LoD
2477	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 53452 44315	22 m southwest of Proposed Development and within LoD
2475	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 53422 44347	18 m southwest of Proposed Development and within LoD
2474	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 53374 44394	16 m southwest of Proposed Development and within LoD
2471	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NH 53461 44516	7 m southeast of Proposed Development and within LoD
2469	Single intrusive PRF inspection (No field signs or bats identified)	None	NH 53666 44464	5 m southeast of Proposed Development and within LoD
2464	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NH 53904 44454	101 m north of Proposed Development and within LoD

3.4.6 The results of the NBW surveys conducted within the six high suitability woodlands identified within the Highland Council portion of the Bat Survey Area are illustrated below within **Table 3.11** and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results, Sheet 1- 5.**

Table 3.11: Highland Council Night-Time Bat Walkover (NBW) Survey Results

Woodland Reference	Transect Reference	Survey Dates	Results
W1	T1 T2	6 August 2024	Activity of soprano pipistrelle, common pipistrelle, brown long-eared bat and *Myotis* species wasrecorded during the transect undertaken. Soprano pipistrelle calls were recorded during both transects within the S-SET, suggesting this species was roosting within or nearby the woodland.
W2	T1 T2	7 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the transect undertaken.

Woodland Reference	Transect Reference	Survey Dates	Results
			No calls were recorded during S-SETs.
W3	T1	12 August 2024	Activity of soprano pipistrelle, common pipistrelle, brown and *Myotis* species was recorded during the transect undertaken. A single *Nyctalus* species call was recorded. Soprano pipistrelle, common pipistrelle and *Myotis* species calls were recorded during Transect 1 and Transect 2 within the S-SET, suggesting bats of these species were roosting within or nearby the woodland.
	T2		
W4	T1	13 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the transect undertaken. *Myotis* species calls were recorded during Transect 2 within their S-SET, suggesting bats of this species were roosting within or nearby the woodland.
	T2		
W5	T1	12 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the transect undertaken. No calls were recorded during S-SETs.
	T2		
W13	T1	8 August 2024	Activity of soprano pipistrelle, common pipistrelle, brown long-eared bat and *Myotis* species was recorded during the transect undertaken. Soprano pipistrelle calls were recorded during Transect 1 within their S-SET, suggesting this species roost within or nearby this woodland.

3.4.7 Within the Highland Council portion of the Bat Survey Area, 13 static detectors were deployed within six high suitability woodlands, the results of which are illustrated within

3.4.8 **Table 3.12** below, and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results.**

Table 3.12: Highland Council Bat Static Survey Results

Woodland Reference	Woodland Type	Species	Mean Bat Passes Per Night	Call percentage[92]	Activity Levels[58]
W1	Broadleaved	Common pipistrelle	74.48	43.92	Typical
		Soprano pipistrelle	75.27	44.38	High
		Pipistrellus species	163.66	96.51	High
		Myotis species	4.67	2.75	High
		Brown long-eared bat	1.24	0.73	High

[92] Call percentage of *Pipistrellus* species encompasses Common pipistrelle, Soprano pipistrelle and calls not identified to species level.

Woodland Reference	Woodland Type	Species	Mean Bat Passes Per Night	Call percentage[92]	Activity Levels[58]
W2	Broadleaved (Riparian)	Common pipistrelle	44.67	4.64	Typical
		Soprano pipistrelle	838.83	87.10	High
		Pipistrellus species	902.83	93.75	High
		Myotis species	81.80	6.21	High
		Brown long-eared bat	0.33	0.03	Low
W3	Broadleaved	Common pipistrelle	22.15	6.94	Typical
		Soprano pipistrelle	200.85	62.94	High
		Pipistrellus species	277.00	86.80	High
		Myotis species	40.90	12.81	High
		Nyctalus species	0.05	0.01	Low
		Brown long-eared bat	1.15	0.36	High
W4	Broadleaved	Common pipistrelle	100.45	49.29	Typical
		Soprano pipistrelle	76.68	37.59	High
		Pipistrellus species	189.90	93.09	High
		Myotis species	13.54	6.63	High
		Brown long-eared bat	0.54	0.26	High
W5	Broadleaved	Common pipistrelle	71.69	63.66	Typical
		Soprano pipistrelle	35.01	31.09	Typical
		Pipistrellus species	109.11	96.89	Typical
		Myotis species	2.68	2.39	High
		Brown long-eared bat	0.80	0.71	High
W13	Broadleaved	Common pipistrelle	50.10	29.02	Typical
		Soprano pipistrelle	93.80	54.32	High
		Pipistrellus species	168.29	97.51	High
		Myotis species	1.33	0.77	High
		Nyctalus species	0.22	0.01	Typical
		Brown long-eared bat	2.93	1.70	High

3.4.9 Within the six woodlands subject to static detector surveys in the Highland Council Area, all resulted in high levels of soprano pipistrelle activity, with the exception of Woodland 5. Woodland 5, however, recorded a high number of *Myotis* species.

3.4.10 Of note was Woodland 2 which recorded notably high levels of soprano pipistrelle and *Myotis* species bats. Woodland 3 and Woodland 13 both recorded *Nyctalus* species calls. *Nyctalus* species are not known to be frequently present in this area, with rare and sporadic records of Noctule[61] and Leisler's bat previously recorded to the east of Highland Council within Moray Council and Aberdeenshire Council[93].

3.4.11 Peaks in bat activity were compared to the species-specific emergence times[57] to identify potential roosts within the woodlands (subject to static detector surveys), the results of which are illustrated within **Table 3.13** below.

Table 3.13: Highland Council Bat Calls Indicating Nearby Roosts

Woodland Reference	Detector Reference	Species	No. of calls within S-SET[57]	Potential roosting opportunities near[94] detector
Woodland 1	B	*Myotis* species	9	Farmhouse, barns and mature trees nearby
		Brown long-eared bat	5	
		Pipistrellus species	184	
	C	*Myotis* species	6	Farmhouse, barns and mature trees nearby
	C	Brown long-eared bat	6	
	C	*Pipistrellus* species	20	
	A	*Myotis* species	4	Farmhouse, barns and mature trees nearby
		Pipistrellus species	23	
Woodland 2	A	*Myotis* species	32	Farmhouse, barns and mature trees nearby
		Brown long-eared bat	1	
		Pipistrellus species	3	
Woodland 3	A	*Myotis* species	122	Farmhouse, barns and mature trees nearby
		Brown long-eared bat	1	
		Pipistrellus species	3	
	B	*Myotis* species	92	Farmhouse, barns and mature trees nearby
		Brown long-eared bat	1	
		Pipistrellus species	178	
Woodland 4	B	*Pipistrellus* species	2	Mature trees nearby
	D	*Myotis* species	342	House and mature trees nearby
		Soprano pipistrelle	132	
	C	*Pipistrellus* species	15	House and mature trees nearby
Woodland 5	C	*Myotis* species	1	Farmhouse, barns and mature trees nearby
	A	Common pipistrelle	1	Farmhouse, barns and mature trees nearby
	D	Brown long-eared bat	1	Mature trees nearby
Woodland 13	A	*Myotis* species	2	Farmhouse, barns and mature trees nearby
		Brown long-eared bat	2	

93 North East Scotland Bat Group (2023) Latest Newsletter. Available: https://nesbats.blogspot.com/

94 Within 500 m of detector location

Woodland Reference	Detector Reference	Species	No. of calls within S-SET[57]	Potential roosting opportunities near[94] detector
		Common pipistrelle	61	
	B	Brown long-eared bat	2	Farmhouse, barns and mature trees nearby
	C	Brown long-eared bat	1	Farmhouse, barns and mature trees nearby

3.4.12 It is likely that roosts are present within or in close proximity to all of the woodlands subject to static survey as shown in **Table 3.13**. Of note is Woodland 1 (184 *Pipistrellus* species calls), Woodland 3 (214 *Myotis* species calls and 181 *Pipistrellus* species calls), Woodland 4 (342 *Myotis* species calls and 132 soprano pipistrelle calls) and Woodland 13 (61 common pipistrelle calls). A high number of calls recorded during S-SET in Woodland 1, 3, 4 and 13 suggest a sizeable roost of species of conservation value (such as maternity) is located in close proximity.

Moray Council

3.4.13 Based on the results of the initial DBW, a total of 178 trees were recorded as potentially suitable for roosting bats within the Moray Council section of the Bat Survey Area. Of these, 37 trees were noted as suitable for further ground-level PRF inspections, 130 for aerial PRF inspection and 11 for dusk emergence survey.

3.4.14 PRFs were recorded within tree species such as ash, alder, beech, birch, cherry, Scots pine, silver birch, and sycamore. An exposed rock face (**S1**) was recorded overhanging a watercourse with visible cracks and fissures; this was assessed of moderate suitability to support bats during the active bat season and hibernation season. This PRF was recorded approximately 13 km south of Forres.

3.4.15 Following the agreed approach, a proportional number of trees (25%) were randomly selected and subject to further survey. This included one tree subject to a dusk emergence survey and 33 trees subject to intrusive PRF inspection, the results of which are illustrated in **Table 3.14** below. Details of weather conditions recorded during dusk emergence surveys are displayed within **Annex B - Table B2**.

Table 3.14: Moray Council Bat Tree Further Survey (dusk emergence survey and PRF Inspection) Results

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
0024	Dusk emergence survey (No roosts recorded)	PRF-M	NJ 00481 45132	172 m north of Proposed Development and within LoD
0183b	Ground level PRF inspection during DBW. Confirmed Roost. eDNA results: Soprano pipistrelle	PRF-M/ Confirmed Roost	NJ 00383 44770	211 m southwest of Proposed Development and 15 m south of LoD
0008	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 03175 45761	88 m west of Proposed Development and within LoD
0014	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00379 45088	152 m north of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
0017	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 03240 45685	66 m south of Proposed Development and within LoD
0018	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 03350 45663	102 m south of Proposed Development and within LoD
0020	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 03350 45664	101 m south of Proposed Development and within LoD
0021	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00372 45099	142 m southeast of Proposed Development and within LoD
0026	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00406 45073	143 m north of Proposed Development and within LoD
0027	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00409 45104	167 m northwest of Proposed Development and within LoD
0029	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00445 45099	146 m north of Proposed Development and within LoD
0034	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00429 45091	142 m north of Proposed Development and within LoD
0041	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00397 45103	163 m north of Proposed Development and within LoD
0151	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00370 44890	143 m southwest of Proposed Development and within LoD
0162	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00398 44912	108 m southwest of Proposed Development and within LoD
0163	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 03110 45795	148 m north of Proposed Development and within LoD
0165	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 03340 45739	25 m south of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
0173b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00323 44986	150 m southeast of Proposed Development and within LoD
0182b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00323 44816	182 m east of Proposed Development and within LoD
0185b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00363 44897	147 m southwest of Proposed Development and within LoD
0187b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00326 44802	190 m east of Proposed Development and within LoD
0191b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00393 45013	115 m northwest of Proposed Development and within LoD
0192b	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00229 45074	25 m southeast of Proposed Development and within LoD
0212	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00209 44743	141 m southeast of Proposed Development and within LoD
0221	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00304 44834	159 m east of Proposed Development and within LoD
0229	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00309 45044	110 m southeast of Proposed Development and within LoD
0244	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00145 44765	101 m south of Proposed Development and within LoD
0251	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 03210 45729	55 m west of Proposed Development and within LoD
0254	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00180 44796	80 m south of Proposed Development and within LoD
0262	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00155 44764	105 m south of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
0273	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 00228 45055	32 m southeast of Proposed Development and within LoD
0285	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 00247 45073	41 m southeast of Proposed Development and within LoD
0292	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 00231 44910	92 m northeast of Proposed Development and within LoD
0385	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 33529 56645	135 m southwest of Proposed Development and within LoD
0395	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 33519 56652	136 m southwest of Proposed Development and within LoD

3.4.16 The results of the NBW surveys conducted within the five high suitability woodlands identified within the Moray Council portion of the Bat Survey Area are illustrated within **Table 3.15** below, and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results, Sheet 6 – 8, 10**.

Table 3.15: Moray Council Night-time Bat Walkover Survey Results

Woodland Reference	Transect Reference	Survey Dates	Results
W6	T1 T2	13 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the transect undertaken. Soprano pipistrelle and common pipistrelle calls were recorded during Transect 1 within their S-SET, suggesting bats of these species were roosting within or nearby the woodland.
W7	T1 T2	14 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the transect undertaken. Soprano pipistrelle and common pipistrelle calls were recorded during Transect 1 within their S-SETs, suggesting bats of these species were roosting within or nearby the woodland.
W8	T1 T2	14 August 2024	Activity of soprano pipistrelle, common pipistrelle, Nathusius's pipistrelle and *Myotis* species were recorded during the transect undertaken. No calls were recorded during S-SETs.
W10	T1 T2	15 August 2024	Activity of soprano pipistrelle and common pipistrelle was recorded during the transect undertaken. Soprano pipistrelle and common pipistrelle calls were recorded during Transect 1 and Transect 2 within their S-SETs, suggesting bats of these species were roosting within or nearby the woodland.

3.4.17 Within the Moray Council portion of the Bat Survey Area, 14 static detectors were deployed within five high suitability woodlands, the results of which are illustrated within **Table 3.16** below, and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results.**

Table 3.16: Moray Council Bat Static Survey Results

Woodland Reference	Woodland Type	Species	Mean Bat Passes Per Night	Call percentage[92]	Activity Levels[58]
W6	Broadleaved	Common pipistrelle	22.26	36.71	Typical
		Soprano pipistrelle	33.82	55.76	Typical
		Pipistrellus species	59.36	97.88	Typical
		Myotis species	0.50	0.95	Typical
		Brown long-eared bat	0.70	1.16	High
W7	Broadleaved (Riparian)	Common pipistrelle	200.40	87.35	High
		Soprano pipistrelle	23.20	10.11	Typical
		Pipistrellus species	225.20	98.16	High
		Myotis species	4.20	1.83	High
W8	Broadleaved (Riparian)	Common pipistrelle	65.55	27.54	Typical
		Soprano pipistrelle	155.04	65.14	High
		Pipistrellus species	223.24	93.79	High
		Myotis species	14.33	6.02	High
		Brown long-eared bat	0.42	0.01	High
W10	Broadleaved (Riparian)	Common pipistrelle	3.50	4.70	Typical
		Soprano pipistrelle	66.88	89.89	High
		Pipistrellus species	73.09	98.24	Typical
		Myotis species	1.09	1.47	High
		Nyctalus species	0.09	0.12	Typical
		Brown long-eared bat	0.11	0.16	Typical
W18	Broadleaved	Common pipistrelle	49.90	48.30	Typical
		Soprano pipistrelle	49.96	48.36	High
		Pipistrellus species	100.83	97.60	Typical
		Myotis species	1.90	1.84	High
		Brown long-eared bat	0.57	0.55	High

3.4.18 Within the five woodlands subject to static detector surveys in the Moray Council Area, all resulted in high levels of soprano pipistrelle activity with the exception of woodland 6 and woodland 7 which recorded a high number of brown long-eared bat, common pipistrelle and *Myotis* species respectively. Of note, woodland 7 returned notably high levels of common pipistrelle bat calls, which is not typical for the woodland type and location (adjacent a river), which would be expected to contain a greater number of soprano pipistrelle and Daubenton's bats (*Myotis* species). Woodland 10 recorded *Nyctalus* species calls, with sporadic records of Leisler's bat previously recorded within Moray Council and Aberdeenshire Council[93].

3.4.19 Peaks in bat activity were compared to species-specific emergence times[57], to identify potential roosts within the woodland subject to static detector surveys, the results of which are illustrated within **Table 3.17** below.

Table 3.17: Moray Council Bat Calls Indicating Nearby Roosts

Woodland Reference	Detector Reference	Species	No. of calls within S-SET[57]	Potential roosting opportunities near detector[94]
Woodland 6	A	*Myotis* species	3	Farmhouse, barns and mature trees nearby
	D	*Pipistrellus* species	3	Farmhouse, barns and mature trees nearby
		Myotis species	5	
	C	*Pipistrellus* species	1	Farmhouse, barns and mature trees nearby
Woodland 8	D	*Myotis* species	2	Farmhouse, barns and mature trees nearby
		Pipistrellus species	5	
	B	*Myotis* species	1	Farmhouse, barns and mature trees nearby
	C	*Myotis* species	9	Farmhouse, barns and mature trees nearby
Woodland 10	B	Soprano pipistrelle	161	Farmhouse, barns and mature trees nearby
	D	*Myotis* species	4	Farmhouse, barns and mature trees nearby
		Nyctalus species	1	
		Pipistrellus species	252	
Woodland 18	A	*Myotis* species	4	House and mature trees nearby
		Soprano pipistrelle	6	

3.4.20 It is likely that roosts are present within four of the woodlands subject to static survey as shown in **Table 3.17.** Of note would be woodland 10, which during the S-SETs for pipistrelle bats recorded 252 *Pipistrellus* species calls and 161 soprano pipistrelle calls. This suggests that these woodlands contain or are in close proximity to sizeable colony roosts of these species. Of further note, a single call of *Nyctalus* species bats was recorded within the *Nyctalus* species S-SET.

Aberdeenshire Council

3.4.21 Based on the results of the initial DBW, a total of 211 trees were recorded as potentially suitable for roosting bats within the Aberdeenshire Council section of the Bat Survey Area. Of these, 63 were noted as suitable for further ground-level PRF inspection surveys, 138 for aerial PRF inspection and ten for dusk emergence surveys.

3.4.22 PRFs were recorded within tree species such as ash, alder, beech, birch, cherry, elm, hawthorn, hazel, larch, lime, oak, pine, Scots pine, sycamore, willow, and unknown species.

3.4.23 One bridge (**B1**) with bat roosting potential was recorded 5 km north of Huntly. Gaps were noted in the brick-and-mortar construction, and it was assessed of moderate suitability to support roosting bats year-round.

3.4.24 Following the agreed approach, a proportional number of trees (25%) were randomly selected and subject to further survey. This included two trees subject to dusk emergence surveys and 25 trees subject to intrusive PRF inspection, the results of which are summarised in **Table 3.18** below. Details of weather conditions recorded during dusk emergence surveys are displayed within **Annex B - Table B2**.

Table 3.18: Aberdeenshire Council Bat Tree Further Survey Results

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
1904	Dusk emergence survey (No roosts recorded)	PRF-I	NJ 53419 44403	168 m south of Proposed Development and within LoD
2324	Dusk emergence survey (No roosts recorded)	PRF-M	NJ 97367 43462	131 m east of Proposed Development and within LoD
1531	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 53350 44306	28 m southeast of Proposed Development and within LoD
1558	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 53443 44401	48 m south of Proposed Development and within LoD
1569	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 53405 44407	35 m south of Proposed Development and within LoD
1581	Single intrusive PRF inspection (No field signs or	PRF-I	NJ 53343 44320	14 m southeast of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
	bats identified)			
1582	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 53394 44391	54 m south of Proposed Development and within LoD
1907	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 53527 44465	30 m north of Proposed Development and within LoD
1908	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 53650 44535	116 m north of Proposed Development and within LoD
2305	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 97098 43583	96 m northwest of Proposed Development and within LoD
2306	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 97347 43454	116 m southeast of Proposed Development and within LoD
2311	Single intrusive PRF inspection (No field signs or	PRF-I	NJ 97467 43613	17 m northwest of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
	bats identified)			
2318	Single intrusive PRF inspection (No field signs or bats identified)	None	NJ 97478 43724	118 m north of Proposed Development and within LoD
2327	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NK 04031 45197	161 m northwest of Proposed Development and 11 m northwest of LoD
2331	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 97274 43625	73 m north of Proposed Development and within LoD
2332	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NK 04021 45188	167 m northwest of Proposed Development and 15 m northwest of LoD
2345	Single intrusive PRF inspection (No field signs or bats identified)	None	NK 04018 45190	171 m northwest of Proposed Development and 20 m northwest of LoD
2346	Single intrusive PRF inspection (No field signs or	PRF-M	NK 04082 45225	127 m northwest of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
	bats identified)			
2349	Single intrusive PRF inspection (No field signs or bats identified)	PRF-M	NJ 97120 43613	112 m north of Proposed Development and within LoD
2351	Single intrusive PRF inspection (No field signs or bats identified)	None	NK 04025 45198	168 m northwest of Proposed Development and 17 m northwest of LoD
2358	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NK 04109 45238	108 m northwest of Proposed Development and within LoD
2373	Single intrusive PRF inspection (No field signs or bats identified)	None	NK 04029 45198	164 m northwest of Proposed Development and 14 m northwest of LoD
2375	Single intrusive PRF inspection (No field signs or bats identified)	None	NK 04071 45219	135 m northwest of Proposed Development and within LoD of LoD
2378	Single intrusive PRF inspection (No field signs or	PRF-I	NJ 97418 43450	127 m south of Proposed Development and within LoD

Tree Reference	Further Survey Type	PRF Suitability	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
	bats identified)			
2382	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NJ 97330 43458	99 m southeast of Proposed Development and within LoD
2390	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NK 04107 45246	111 m northwest of Proposed Development and within LoD
2398	Single intrusive PRF inspection (No field signs or bats identified)	PRF-I	NK 04146 45261	85 m northwest of Proposed Development and within LoD

3.4.25 The results of the NBW surveys conducted within the four high suitability woodlands identified within the Aberdeenshire Council portion of the Bat Survey Area are illustrated within **Table 3.19** below and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results, Sheet 9, 11 – 14.**

Table 3.19: Aberdeenshire Council Night-time Bat Walkover Survey Results

Woodland Reference	Transect Reference	Survey Dates	Results
W9	T1 T2	28 August 2024	Activity of soprano pipistrelle, common pipistrelle and *Myotis* species was recorded during the NBW undertaken. Common pipistrelle calls were recorded during Transect 1 within their S-SET, suggesting bats of this species were roosting within or nearby the woodland.
W12	T1 T2	20 August 2024	Activity of soprano pipistrelle, common pipistrelle, brown long-eared bat and *Myotis* species bat was recorded during the NBW undertaken. Soprano pipistrelle calls were recorded during Transect 2 and soprano pipistrelle, common pipistrelle, *Myotis* species and brown long-eared bat during Transect 1 within their S-SETs, suggesting

Woodland Reference	Transect Reference	Survey Dates	Results
			bats of this species were roosting within or nearby the woodland.
W14	T1	21 August 2024	Activity of soprano pipistrelle and common pipistrelle was recorded during the NBW undertaken. Soprano pipistrelle calls were recorded during Transect 1 within their S-SET, suggesting bats of this species were roosting within or nearby the woodland.
	T2		
W15	T1	27 August 2024	Activity of soprano pipistrelle and common pipistrelle was recorded during the NBW undertaken. No calls were recorded during S-SETs.
	T2		

3.4.26 Within the Aberdeenshire Council portion of the Bat Survey Area, eleven static detectors were deployed within four high suitability woodlands, the locations of which are illustrated within **Annex A: Figure 8.1.4: Further Bat Survey Results.** Results of analysis are illustrated below within **Table 3.20** and detailed in **Annex A: Figure 8.1.5: Night-time Bat Walkover and Static Bat Survey Results.**

Table 3.20: Aberdeenshire Council Bat Static Survey Results

Woodland Reference	Woodland Type	Species	Mean Bat Passes Per Night	Call percentage[92]	Activity Levels[58]
W9	Broadleaved	Common pipistrelle	61.63	48.71	Typical
		Soprano pipistrelle	54.80	43.32	High
		Pipistrellus species	123.63	98.46	High
		Myotis species	1.70	1.40	High
		Brown long-eared bat	0.17	0.13	Typical
W12	Boundary	Common pipistrelle	48.44	16.53	High
		Soprano pipistrelle	235.44	80.35	High
		Pipistrellus species	292.25	99.765	High
		Myotis species	0.69	0.23	Typical
W14	Broadleaved	Common pipistrelle	73.46	52.20	Typical
		Soprano pipistrelle	64.26	45.66	Typical
		Pipistrellus species	140.19	99.63	High

Woodland Reference	Woodland Type	Species	Mean Bat Passes Per Night	Call percentage[92]	Activity Levels[58]
		Myotis species	0.31	0.22	Typical
		Nyctalus species	0.00	0.00	-
		Brown long-eared bat	0.20	0.01	Typical
W15	Boundary	Common pipistrelle	221.46	90.27	High
		Soprano pipistrelle	18.94	7.72	Typical
		Pipistrellus species	245.13	99.90	High
		Myotis species	0.24	0.09	Typical
		Nyctalus species	0.00	0.00	-
		Brown long-eared bat	0.00	0.00	-

3.4.27 Within the four woodlands subject to static detector surveys in the Aberdeenshire Council Area, calls varied from generally typical to high levels, recording species expected to be present within this area. Woodland 12 recorded a notably high level of soprano pipistrelle calls and woodland 15 recorded a notably high level of common pipistrelle calls during the survey effort.

3.4.28 Peaks in bat activity were compared to the species-specific emergence times[57] to identify potential roosts within the woodland subject to static detector surveys, the results of which are illustrated within **Table 3.21** below.

Table 3.21: Aberdeenshire Council Bat Calls Indicating Nearby Roosts

Woodland Reference	Detector Reference	Species	No. of calls within S-SET[57]	Potential roosting opportunities near detector[94]
Woodland 9	C	*Myotis* species	1	Farmhouse building nearby as well as mature trees
		Pipistrellus species	64	
Woodland 12	A	*Pipistrellus* species	36	Farmhouse building and mature trees nearby
Woodland 14	C	*Myotis* species	1	Farmhouse building nearby as well as mature trees
	B	Brown long-eared bat	1	Farmhouse building nearby as well as mature trees
		Soprano pipistrelle	4	
	A	*Myotis* species	1	Farmhouse building nearby as well as mature trees
		Soprano pipistrelle	2	
Woodland 15	B	*Myotis* species	1	Farmhouse building nearby as well as mature trees
	C	*Myotis* species	1	Farmhouse building nearby as well as mature trees
	A	*Myotis* species	3	Farmhouse building nearby as well as mature trees
		Pipistrellus species	39	

3.4.29 It is likely that roosts are present within or in close proximity to all the woodlands subject to static survey as shown in **Table 3.21**. The survey effort did not identify any notable levels of calls during the S-SETs that would suggest a colony of bats of significant conservation value is roosting within the woodlands or in close proximity.

3.5 Pine Marten Surveys

3.5.1 Locations of pine marten field signs identified within the Pine Marten Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented below within **Table 3.22 - Table 3.24**:

Highland Council

3.5.2 Four potential denning opportunities (**PM1, PM2, PM3 and PM4, Table 3.22**) were identified within the Highland Council section of the Pine Marten Survey Area, all within Dalnaheiglish Wood, located northeast of the Proposed Development. No further field evidence beyond the identification of denning opportunities was found. Within the same area, but not at any potential denning sites, potential pine marten scat was recorded.

Table 3.22 - Highland Council Pine Marten Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
PM1	Potential denning habitat	Cavity under tree roots with pine marten suitability	NH 95255 45060	232 m east of Proposed Development and 32 m northeast of LoD
PM2	Potential denning habitat	Suitable pine marten denning habitat	NH 95482 44770	105 m east of Proposed Development and within LoD
PM3	Potential denning habitat	Suitable pine marten denning habitat	NH 95120 45151	155 m northeast of Proposed Development and 10 m northeast of LoD
PM4	Potential denning habitat	Suitable pine marten denning habitat	NH 95136 45162	174 m northeast of Proposed Development and 29 m northeast of LoD

Moray Council

3.5.3 Five potential denning opportunities (**PM5, PM6, PM7, PM12 and PM13, Table 3.23**) were identified within Moray Council section of the Pine Marten Survey Area, three of which were located within Trochelhill Wood near Orbliston. No further evidence was found near the potential den sites. One potential den site was recorded as a burrow, with the remaining two recorded as nest or drey-like structures within Scots Pine trees. No scat was recorded.

Table 3.23 - Moray Council Pine Marten Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
PM5	Potential denning habitat	Below ground burrow with suitability for pine marten	NJ 30705 58228	251 m north of Proposed Development and 101 m north of LoD

PM6	Potential denning habitat	Suitable pine marten denning habitat within Scots pine	NJ 30821 58284	344 m north of Proposed Development and 181 m north of LoD
PM7	Potential denning habitat	Suitable pine marten denning habitat within Scots pine	NJ 30709 58202	228 m north of Proposed Development and 75 m north of LoD
PM12	Potential denning habitat	Cavity at base of spruce tree, size and shape suitable for pine marten	NJ 46121 48764	97 m east of Proposed Development and within LoD
PM13	Potential denning habitat	Largely enclosed cavity under a root plate but with no specific species signs despite an enclosed dry space	NJ 45755 41213	120 m north of Proposed Development and within LoD

Aberdeenshire Council

3.5.4 Within the Aberdeenshire Council section of the Pine Marten Survey Area, one large tree within Hawk Hill Plantation was recorded with a nest large enough to support pine marten (**PM8, Table 3.24**:). No other evidence was recorded.

3.5.5 Three potential denning opportunities were identified north of the Bin Forest. This included a quarry cliff (**PM9**) within Cruchie Wood that presented opportunities for den sites. Due to the steepness of the terrain, a full inspection was not undertaken, and no other evidence was recorded.

3.5.6 Further areas of suitable habitat for pine marten denning included gaps under root plates (**PM10**) and boulders (**PM11**). No evidence was found by these features. Two wet and degraded scats were recorded within the same woodland.

3.5.7 Within Balloch Wood north of Coachford, further areas of suitable habitat for pine marten denning was identified under a hollow in a tree root plate (**PM14**), under a tree stump (**PM15**) and under a bird shelter (**PM16**). No evidence of pine marten was found within or adjacent to these features.

Table 3.24: Aberdeenshire Council Pine Marten Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
PM8	Potential denning habitat	Scots pine with potential to support pine marten	NJ 62622 41662	741 m southeast of Proposed Development and 641 m south of LoD
PM9	Potential denning habitat	Quarry habitat with on steep cliff with gaps suitable to support pine marten	NJ 58279 43179	162 m north of Proposed Development and within LoD
PM10	Potential denning habitat	Suitable denning habitat below root plates and rock piles	NJ 52677 45322	529 m northeast of Proposed Development and 429 m northeast of LoD

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
PM11	Potential denning habitat	Suitable denning habitat between boulders with crevices extending backwards	NJ 52007 45398	6 m west of Proposed Development and within LoD
PM14	Potential denning habitat	Suitable denning habitat within hollow in tree roots	NJ 46126 48685	7m west of Proposed Development and within LoD
PM15	Potential denning habitat	Potential pine marten denning habitat in the sheltered base of an old tree stump	NJ 46995 46086	29 m south of Proposed Development and within LoD
PM16	Potential denning habitat	Potential denning habitat under old bird shelter. Worn area underneath suitable for pine marten	NJ 46890 46070	98 m south of Proposed Development and within LoD

3.6 Red Squirrel Surveys

3.6.1 Locations of red squirrel field signs identified within the Red Squirrel Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented below within **Table 3.25 - Table 3.27**.

Highland Council

3.6.2 Within the Highland Council section of the Red Squirrel Survey Area, 12 potential dreys (**RS1 - RS3, RS4 – RS12, Table 3.25)** and one potential feeding station (**RS13**) were identified. This included multiple potential dreys (**RS1, RS2, RS3 and RS13**) in woodland adjacent to the River Findhorn. Further to this, a single sighting of an individual red squirrel was recorded within this woodland section.

3.6.3 Further potential red squirrel dreys (**RS5 and RS6**) were identified within Clunas Wood. Two potential squirrel dreys were recorded within Newlands of Fleenas Wood.

3.6.4 Within the Highland Council section of the Red Squirrel Survey Area ample squirrel chewed cones were recorded.

Table 3.25: Highland Council Red Squirrel Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
RS1	Potential drey	Potential drey within Scots pine	NH 95524 44704	51 m northeast of Proposed Development and within LoD
RS2	Potential drey	Potential drey within Scots pine	NH 95586 44794	159 m northeast of Proposed Development and 55 m east of LoD
RS3	Potential drey	Potential drey within birch	NH 95446 44768	69 m east of Proposed Development and within LoD

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
RS5	Potential drey	Potential drey within conifer	NH 90407 46725	60 m south of Proposed Development and within LoD
RS6	Potential drey	Potential drey within conifer	NH 90461 46721	65 m south of Proposed Development and within LoD
RS7	Potential drey	Potential drey within conifer	NH 9228446760	104 m north of Proposed Development and within LoD
RS8	Potential drey	Potential drey within conifer	NH 92013 46899	202 m north of Proposed Development and 57 m north of LoD
RS8	Potential drey	Potential drey within conifer	NH 88943 46781	59 m south of Proposed Development and within LoD
RS9	Potential drey	Potential drey within conifer	NH 88373 47005	135 m north of Proposed Development and within LoD
RS10	Potential drey	Potential drey within conifer	NH 75696 41916	188 m northwest of Proposed Development and 50 m south of LoD
RS11	Potential drey	Potential drey within Scots pine	NH 75733 42041	169 m southwest of Proposed Development and within LoD
RS12	Potential drey	Potential drey within Scots pine	NH 74783 41749	82 m south of Proposed Development and within LoD
RS13	Feeding station	Potential feeding station within root plates with feeding remains	NH 9524 945045	224 m east of Proposed Development and 9 m east of LoD

Moray Council

3.6.5 Within the Moray Council section of the Red Squirrel Survey Area, one potential drey (**RS4, Table 3.26)** was identified within Slorach's Wood. Further to this, squirrel feeding signs were recorded within this woodland.

Table 3.26: Moray Council Red Squirrel Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
RS4	Potential drey	Potential drey within birch	NJ 34452 56941	102 m north of Proposed Development and within LoD

Aberdeenshire Council

3.6.6 Within the Aberdeenshire Council section of the Red Squirrel Survey Area, a potential drey (**RS14, Table 3.27**) was identified within Hawk Hill Plantation and a further potential drey (RS15) identified within Balloch Wood north of Coachford. Squirrel feeding signs were recorded within other woodland parcels within the Aberdeenshire Council section of the Red Squirrel Survey Area. No further evidence was recorded.

Table 3.27: Aberdeenshire Council Red Squirrel Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
RS14	Potential drey	Potential drey within birch	NJ 62732 41659	789 m southeast of Proposed Development and 675 m southeast of LoD
RS15	Potential drey	Potential drey within conifer	NJ 46160 46428	3m north of Proposed Development and within LoD

3.7 Otter Surveys

3.7.1 Locations of otter field signs identified within the Otter Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented within **Table 3.28 - Table 3.30** below. Badger setts also identified with suitability for otter are presented within **Table 3.28 - Table 3.30** below; however, their associated grid reference and target note location within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results** has been omitted and is shown instead in **Appendix 8.2: Confidential Technical Appendix.**

Highland Council

3.7.2 Nine potential otter resting sites were identified within the Highland Council sections of the Otter Survey Area. Five potential resting sites were recorded in the Beauly area, of which, one was subject to further survey (**O1, Table 3.28**).

3.7.3 Two of these potential resting sites were recorded as badger setts and were available for use by otter (**O20 and O21**). These are illustrated within **Appendix 8.2: Confidential Technical Appendix,** due to the sensitive nature and persecution risk associated with these species.

3.7.4 One potential couch (**O19**) was recorded in the River Beauly area along with incidences of spraint and anal jelly identified throughout the Otter Survey Area. One potential resting site (**O24**) was found under an upturned rowing boat on the banks of a small loch adjacent to the River Beauly. Mammal paths were identified leading to this, with the likelihood of use increased by an otter sighting nearby.

3.7.5 Optimal habitat for holt creation was noted along the River Ness, however no potential holts were recorded. One potential resting site (**O23**) was recorded under a tree base on Moniack Burn. No further evidence was recorded.

3.7.6 Several spraints of varying ages were found throughout the Otter Survey Area as illustrated within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.**

Table 3.28: Highland Council Otter Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
O1	Potential Rest Site	Potential holt area. Lifted and sheltered section of earth under leaning tree, close to water edge. Subject to camera trapping.	NH 49945 43617	118 m northwest of Proposed Development and within LoD
O5a	Potential Rest Site	Mammal burrow in sand and gravel leading to water edge. Additional burrow with a 10 cm squeeze hole along bank under alder roots.	NH 5000 443608	65 m northwest of Proposed Development and within LoD
O18	Potential Holt	Potential holt comprising of a single entrance mammal burrow on riparian embankment.	NH 52303 44112	126 m south of Proposed Development and 26 m south of LoD
O19	Potential Couch	Potential couch comprising of a sheltered area under tree roots.	NH 52283 44133	103 m south of Proposed Development and 3 m south of LoD
O20	Potential Rest Site	Badger sett approximately 10 m from edge of water, available for use by otter.	n/a	252 m southeast of Proposed Development and 152 m south of LoD
O21	Potential Rest Site	Badger sett entrances at top of banking, one open for otter to use.	n/a	218 m southeast of Proposed Development and 118 m southeast of LoD
O22	Potential Rest Site	Potential otter resting site comprising of a dry sheltered area under tree stump located 10 m away from water edge.	NH 52292 44129	108 m south of Proposed Development and 8 m south of LoD
O23	Potential Rest Site	Broken base of tree stem which includes a cavity from opposite bank. Unable to survey further due to access constraints.	NH 55366 44160	117 m south of Proposed Development and within LoD
O24	Potential Rest Site	Mammal path leading to upturned abandoned rowboat, with suitable sheltered area. Otter recorded incidentally 20 m away.	NH 51738 44444	65 m north of Proposed Development and within LoD

Moray Council

3.7.7 One confirmed couch (**O15, Table 3.29**:) was recorded within the Moray Council section of the Otter Survey Area. Eight potential resting sites, four potential holts and one potential couch was also recorded as illustrated within **Table 3.29**: below.

3.7.8 Two potential resting sites were recorded as badger setts and were available for use by otter (**O13 and O13**). These habitat features area illustrated within **Appendix 8.2: Confidential Technical Appendix,** due to the sensitive nature and persecution risk associated with these species.

3.7.9 Of these, three potential resting sites were subject to a programme of camera trapping (**O2, O3, O4** illustrated within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results**).

3.7.10 Several spraints were found throughout the Otter Survey Area of varying ages and are illustrated within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.**

Table 3.29: Moray Council Otter Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
O2	Potential Rest Site	Basal tree cavity suitable as a resting site for otter.	NJ 03288 45696	57 m southeast of Proposed Development and within LoD
O3	Potential Rest Site	Sheltered crevice in rock and sand embankment under root plates. Extends approximately 1 m deep. No field signs.	NJ 33383 56866	223 m northeast of Proposed Development and within LoD
O4	Potential Rest Site	Potential resting site with bedding at base and dry spraint at entrance. Further spraints also recorded. Subject to camera trapping.	NJ 33490 56687	135 m southwest of Proposed Development and within LoD
O5b	Potential Rest Site	Potential otter resting site comprising of large, sheltered crevice within embankment rock pile which extends in banking. Extends backwards out of sight. No field signs.	NJ 03756 45928	218 m south of Proposed Development and 112 m southeast of LoD
O6	Potential Rest Site	Potential otter rest site comprising of a large, sheltered crevice within tree basal cavity at edge of watercourse. No field signs.	NJ 03820 45941	215 m south of Proposed Development and 116 m south of LoD
O7	Potential Holt	Single entrance mammal burrow within 1 m of water's edge with worn path. Potential holt site. No field signs.	NJ 32059 57206	11 m southwest of Proposed Development and within LoD
O8	Potential Couch	Potential couch site comprising of a sheltered crevice under concrete slab within 1.5 m of watercourse.	NJ 32927 56868	48 m northwest of Proposed Development and within LoD

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
		Single dried intact spraint on rock near entrance.		
O9	Potential Rest Site	Potentially otter resting site comprising of reinforced rock armour embankment. No field signs.	NJ 33292 57004	276 m north of Proposed Development and 93 m north of LoD
O10	Potential Holt	Potential otter holt site comprising of a large gap under boulders, gap extends into embankment. No field signs.	NJ 33218 56637	93 m south of Proposed Development and within LoD
O11	Potential Holt	Potential otter holt site comprising of a crevice within embankment boulders. No field signs.	NJ 33213 56593	137 m south of Proposed Development and within LoD
O12	Potential Holt	Potential otter holt. One sheltered tunnel traverses through section of embankment, open at both ends. One end extends into embankment. No field signs.	NJ 33207 56584	145 m south of Proposed Development and within LoD
O13	Potential Rest Site	Single entrance outlier badger sett; however due to proximity to watercourse, there is potential for use as an otter resting site. No field signs.	n/a	206 m north of Proposed Development and 54 m north of LoD
O14	Potential Rest Site	Sheltered area with bedding and badger field signs located adjacent to watercourse, potential for use as otter resting site. No otter field signs.	n/a	89 m south of Proposed Development and within LoD
O15	Confirmed Couch	Confirmed otter couch. Sheltered crevice under stone slabs, within 7 m of watercourse. Otter anal jelly present and signs of recent soil movement from mammal use.	NJ 03563 46018	71 m southeast of Proposed Development and within LoD

Aberdeenshire Council

3.7.11 One confirmed holt (**O16**, **Table 3.30**) and one potential holt (**O17**) were recorded within the Aberdeenshire Council section of the Otter Survey Area. The confirmed holt (**O16**) was located in a field margin along the River Deveron.

3.7.12 A number of spraints were recorded nearby this section, along with otter feeding remains as illustrated within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results**.

Table 3.30 - Aberdeenshire Council Otter Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
O16	Confirmed Holt	Mammal tunnel system which extends backwards. Contains greater than ten otter spraints which contain fish bones and scales. Straw also presents at entrance and within tunnel.	NJ 53841 44601	239 m northeast of Proposed Development and 80 m north of LoD
O17	Potential Holt	Potential otter holt which extends backwards within riparian boulders. No positive evidence suggestive of current use.	NJ 53989 44629	220 m west of Proposed Development and 90 m north of LoD

Further Surveys - Camera Trapping

3.7.13 Within the Otter Survey Area, at the time of survey, four potential resting sites were identified within 30 m of a previous design iteration of the OC of the Proposed Development. Although final design iterations of the Proposed Development have resulted in resting sites no longer being within the original identified buffers, full results are presented for completeness. To confirm status at the time of survey, the four potential otter resting sites were subject to a minimum four-week programme of camera trapping. Following analysis of footage, no otter activity was noted during the four-week deployment period, as detailed within **Table 3.31** below.

Table 3.31: Otter Camera Trapping Results

Reference	Planning Authority	Deployment Dates	Feature Type	Summary of activity
O1	Highland Council	23 April to 5 June 2024	Potential Otter Resting Site	No otter activity
O2	Moray Council	30 April to 6 June 2024	Potential Otter Resting Site	No otter activity
O3	Moray Council	17 April to 20 June 2024	Potential Otter Resting Site	No otter activity
O4	Aberdeenshire Council	17 April to 6 June 2024	Potential Otter Resting Site	No otter activity

3.8 Water Vole Surveys

3.8.1 Locations of water vole field signs identified within the Water Vole Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results**. One potential burrow was recorded within an unnamed burn within the Highland Council section of the Water Vole Survey Area, the details of which are presented within **Table 3.32** below.

Table 3.32: Water vole survey results – all Council Areas

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
WV1	Potential Burrow	Single-entranced riparian burrow, no further field signs recorded.	NH 95365 44316	210 m southwest of Proposed Development and within LoD

3.8.2 Within the remainder of the Water Vole Survey Area, suitable habitat was recorded throughout and comprised of ample unnamed, slow flowing burns with grassy sheltered banks. These areas also contain pools and areas of standing water suitable for water vole burrow construction and foraging. However, within the remainder of the Water Vole Survey Area, no further evidence was recorded.

3.9 Wildcat Surveys

3.9.1 Locations of wildcat field signs identified within the Wildcat Survey Area is presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented within **Table 3.33 - Table 3.35** below.

Highland Council

3.9.2 Two potential denning sites and six potential resting sites for wildcat were found within the Highland Council portion of the Wildcat Survey Area. Two potential den sites (**WC1** and **WC2**) and one potential resting site (**WC38**) were recorded on the eastern banks of the River Nairn, consisting of a fox den and a suitable cavity beneath a fallen tree. Two potential resting sites (**WC3** and **WC4**) were recorded along the River Findhorn with boulder piles and rocky crags. Finally, three further potential resting sites were noted within dense scrub, west of Drummossie Muir.

3.9.3 No evidence of wildcat was recorded during any of the surveys undertaken within the Highland Council portion of the Wildcat Survey Area. However, summarised within **Table 3.33** below, potential habitat to support this species was noted throughout.

Table 3.33: Highland Council Wildcat Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
WC1	Potential denning site	Sheltered area under fallen tree, suitable as a wildcat den area. No field signs.	NH 73358 41103	284 m southwest of Proposed Development and within LoD
WC2	Potential denning site	Positive signs confirming fox den, including hair and scat, with potential to also support wildcat. No wildcat field signs.	NH 73301 41036	295 m southwest of Proposed Development and 35 m south of LoD
WC3	Potential resting site	Suitable habitat within boulders for wildcat resting. No field signs.	NH 95176 45186	215 m northeast of Proposed Development and 58 m northeast of LoD

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
WC4	Potential resting site	Gaps and sheltered areas between boulders for wildcat resting. No field signs.	NH 95103 45192	168 m northeast of Proposed Development and 13 m northeast of LoD
WC5	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NH 67721 39243	123 m south of Proposed Development and 3 m south of LoD
WC6	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NH 6859 439530	69 m south of Proposed Development and within LoD
WC7	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NH 69512 39787	55 m south of Proposed Development and within LoD
WC38	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NH 73124 41482	1 m west of Proposed Development and within LoD

Moray Council

3.9.4 Two potential denning sites and five potential resting sites for wildcat were identified within the Moray Council portion of the Wildcat Survey Area. Four of the potential denning / resting sites were recorded in a woodland surveyed east of the River Divie. This comprised of two potential resting sites (**WC10** and **WC11**) recorded within the hollows beneath the root plate of fallen trees; one potential denning site (**WC8**) was a cavity beneath a fallen tree and one potential denning site (**WC9**) comprised a sheltered area beneath the overhang of earth banking.

3.9.5 Along the northern bank of Glenlatterach, two notably dense areas of scrub (**WC13** and **WC14**) and a single mammal burrow (**WC12**) were noted as suitable denning sites for wildcat.

3.9.6 No evidence of wildcat was recorded during the any of the surveys undertaken within the Moray council portion of the Wildcat Survey Area. However, potential habitat to support this species was noted throughout, as summarised within **Table 3.34** below.

Table 3.34: Moray Council Wildcat Survey Results

Reference	Feature Type	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
WC8	Potential denning site	Fallen hollowed tree with adjacent mammal path. No field signs.	NJ 03553 45656	240 m southeast of Proposed Development and 133 m southeast of LoD
WC9	Potential denning site	Sheltered vegetation overhang at earth banking. No field signs.	NJ 03540 45576	272 m west of Proposed Development and 174 m southeast of LoD
WC10	Potential resting site	Sheltered hollow under tree root plates. No field signs.	NJ 03574 45567	303 m southeast of Proposed Development and 203 m southeast of LoD
WC11	Potential resting site	Sheltered hollow under tree root plates. No field signs.	NJ 03638 45527	379 m southeast of Proposed Development and 281 m southeast of LoD
WC12	Potential resting site	Mammal burrow in dry grass embankment. No field signs.	NJ 19268 53347	190 m west of Proposed Development and within LoD
WC13	Potential resting site	Dense, inaccessible scrub area providing suitable sheltered area for wildcat resting. No field signs.	NJ 19074 53185	273 m south of Proposed Development and 123 m south of LoD
WC14	Potential resting site	Dense, inaccessible scrub area providing suitable sheltered area for wildcat resting. No field signs.	NJ 19072 53233	224 m south of Proposed Development and 73 m south of LoD

Aberdeenshire Council

3.9.7 Two potential denning sites and 24 potential resting sites for wildcat were found within the Aberdeenshire council portion of the Wildcat Survey Area.

3.9.8 Two potential denning sites (**WC15** and **WC16**) were recorded within woodland habitat north of Bin Forest. These potential denning sites consisted of suitable rock piles with cavities beneath.

3.9.9 Six potential resting sites were identified within scrub and heathland habitat located within Drumblair Wood. This included three mammal burrows (**WC24, WC25** and **WC35**), shelter beneath a fallen tree root plate (**WC30**), rock piles and debris from tree and fence works creating shelter beneath (**WC28**). A single fallen Scots pine tree (**WC36**) south of Turrif was identified as suitable shelter for wildcat. Three further potential resting sites were identified within various features located within Balloch Wood north of Coachford (**WC39, WC40 and WC41**).

3.9.10 Two potential wildcat scats were recorded within the Aberdeenshire council portion of the Wildcat Survey Area. Potential habitat to support this species was noted throughout, as summarised within **Table 3.35** below.

Table 3.35: Aberdeenshire Council Wildcat Survey Results

Reference	Feature Type	Description	Grid reference	Distance (m) and orientation from Proposed Development and LoD
WC15	Potential denning site	Hollow area within rock pile. No field signs.	NJ 53645 44509	85 m north of Proposed Development and within LoD
WC16	Potential denning site	Large rocks with hollows between them. No field signs.	NJ 53675 44548	130 m north of Proposed Development and within LoD
WC17	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 6392 143021	73 m south of Proposed Development and within LoD
WC18	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 64033 42971	189 m south of Proposed Development and 17 m south of LoD
WC19	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 63852 42868	218 m south of Proposed Development and 75 m south of LoD
WC20	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 6371 442903	128 m south of Proposed Development and within LoD
WC21	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 63658 42733	268 m south of Proposed Development and 124 m south of LoD
WC22	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. Evidence of prey items.	NJ 63708 42814	220 m south of Proposed Development and 67 m south of LoD
WC23	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 64579 43115	182 m northwest of Proposed Development and 43 m northeast of LoD
WC24	Potential resting site	Small mammal burrow with four entrances. Suitable for wildcat. No field signs.	NJ 64333 43128	86 m north of Proposed Development and within LoD

Reference	Feature Type	Description	Grid reference	Distance (m) and orientation from Proposed Development and LoD
WC25	Potential resting site	Small mammal burrow with one entrance. Suitable for wildcat. No field signs.	NJ 64159 43088	93 m southeast of Proposed Development and within LoD
WC26	Potential resting site	Rocky area with gaps and coverage from gorse scrub. No field signs.	NJ 64444 42906	22 m southeast of Proposed Development and within LoD
WC27	Potential resting site	Heather moorland habitat with rocky crags and coverage from gorse scrub. No field signs.	NJ 64409 42906	39 m southeast of Proposed Development and within LoD
WC28	Potential resting site	Large, discarded pile of wooden fence poles providing shelter. Mammal paths and evidence of prey items.	NJ 64420 42847	82 m southeast of Proposed Development and within LoD
WC29	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 64383 42816	132 m southeast of Proposed Development and 25 m southwest of LoD
WC30	Potential resting site	Sheltered area beneath tree roots. No field signs.	NJ 64324 42841	138 m southeast of Proposed Development and 33 m southwest of LoD
WC31	Potential resting site	Thick gorse and spruce providing coverage. Mammal paths leading into this sheltered area.	NJ 64174 42862	212 m southeast of Proposed Development and 86 m southwest of LoD
WC32	Potential resting site	Heather with coverage from gorse scrub. No field signs.	NJ 64207 42950	136 m southeast of Proposed Development and within LoD
WC33	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. No field signs.	NJ 64278 42983	67 m southeast of Proposed Development and within LoD
WC34	Potential resting site	Dense areas of scrub scattered across this location suitable as a wildcat rest area. Mammal paths leading to this area.	NJ 64276 43027	35 m southwest of Proposed Development and within LoD
WC35	Potential resting site	Mammal burrow beneath fallen tree currently disused. Unknown species droppings within tunnel.	NJ 6399 443081	48 m south of Proposed Development and within LoD

Reference	Feature Type	Description	Grid reference	Distance (m) and orientation from Proposed Development and LoD
WC36	Potential resting site	Fallen pine tree with cavity beneath. No field signs.	NJ 74095 48322	197 m east of Proposed Development and 34 m east of LoD
WC37	Potential resting site	Large rocks with hollows between them. No field signs	NJ 51878 44978	23 m east of Proposed Development and within LoD
WC39	Potential resting site	Potential resting site, size and shape suitable for wildcat. No field signs	NJ 45946 46550	29 m north of Proposed Development and within LoD
WC40	Potential resting site	Mammal burrow, suitable for use by wildcat, no field signs	NJ 45920 46394	56 m north of Proposed Development and within LoD
WC41	Potential resting site	Shelter suitable for wildcat in the base of an old tree stump. No field signs	NJ 46995 46086	101 m south of Proposed Development and within LoD

3.10 Great Crested Newt Surveys

3.10.1 Ponds identified as suitable for GCN within the GCN Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented within **Table 3.36** and **Table 3.37** below.

Highland Council

3.10.2 A total of 37 ponds were identified within the Highland Council portion of the GCN Survey Area. The HSI identified four excellent habitats, 13 good habitats, six average habitats, three below average habitat, nine poor and three N/A (these did not support a pond habitat).

3.10.3 In total, 20 ponds which retuned a HSI score of 'below average' or above were subject to eDNA testing (where access allowed) to determine the presence of GCN, the results of which are presented within **Table 3.36** below. In summary, a single pond (**Pond AL**) returned a positive eDNA result for GCN, as illustrated within **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.**

3.10.4 No other GCN evidence was recorded within this section of the GCN Survey Area.

Table 3.36: Highland Council GCN Survey Results

Pond Reference	HSI Result	eDNA Result	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
D	Poor	-	NH 50303 44248	102 m northwest of Proposed Development and 19 m north of LoD
G	Good	Negative	NH 50426 44130	68 m southeast of Proposed Development and 18 m southeast of LoD

Pond Reference	HSI Result	eDNA Result	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
H	Excellent	Negative	NH 50507 44225	82 m southeast of Proposed Development and 32 m southeast of LoD
I	Good	Negative	NH 50670 44350	96 m southeast of Proposed Development and 46 m southeast of LoD
N	Average	No Access	NH 48042 42108	637 m southwest of Proposed Development and 458 m southwest of LoD
O	Excellent	Negative	NH 50976 44242	59 m southeast of Proposed Development and within LoD
P	Excellent	Negative	NH 51116 43936	159 m southeast of Proposed Development and 109 m southeast of LoD
Q	N/A	-	NH 51414 44683	45 m southeast of Proposed Development and within LoD
R	N/A	-	NH 51478 44761	33 m east of Proposed Development and within LoD
S	Below Average	Negative	NH 51947 43894	437 m south of Proposed Development and 292 m south of LoD
T	Good	Negative	NH 51751 44480	100 m north of Proposed Development and within LoD
AG	Good	Negative	NH 94714 45962	521 m north of Proposed Development and 421 m north of LoD
AH	Poor	-	NH 94621 45957	489 m north of Proposed Development and 389 m north of LoD
AI	Poor	-	NH 94560 45899	422 m north of Proposed Development and 322 m north of LoD
AJ	Good	Negative	NH 66212 38761	405 m south of Proposed Development and 267 m southwest of LoD
AK	Average	Negative	NH 66420 39064	47 m south of Proposed Development and within LoD
AL	Good	Positive	NH 66562 39268	189 m north of Proposed Development and within LoD
AM	Below Average	Negative	NH 66921 39437	242 m north of Proposed Development and 97 m north of LoD

Pond Reference	HSI Result	eDNA Result	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
AN	Excellent	Negative	NH 66703 39244	131 m north of Proposed Development and within LoD
AO	Average	Negative	NH 67888 39678	73 m east of Proposed Development and 82 m north of LoD
AP	Poor	-	NH 67587 39599	227 m north of Proposed Development and 82 m north of LoD
AQ	Good	Negative	NH 67397 39473	25 m east of Proposed Development and within LoD
AR	Good	Indeterminate	NH 68078 40019	214 m east of Proposed Development and 107 m east of LoD
AS	Good	Negative	NH 68193 39972	331 m east of Proposed Development and 222 m east of LoD
AT	Below Average	Indeterminate	NH 68742 39348	292 m south of Proposed Development and 167 m south of LoD
AU	Poor	-	NH 68781 39451	202 m south of Proposed Development and 77 m south of LoD
AV	Good	Indeterminate	NH 69028 40389	621 m north of Proposed Development and 476 m north of LoD
AX	Good	Negative	NH 6885 640268	560 m north of Proposed Development and 404 m north of LoD
AY	Average	Indeterminate	NH 68517 40183	571 m north of Proposed Development and 408 m north of LoD
BJ	Poor	-	NH 52054 44150	211 m south of Proposed Development and 40 m south of LoD
BK	Poor	Negative	NH 63154 42209	85 m west of Proposed Development and within LoD
BL	Poor	Negative	NH 63223 42115	43 m north of Proposed Development and within LoD
BM	Poor	Negative	NH 63207 42013	101 m northeast of Proposed Development and within LoD
BN	Good	Negative	NH 63207 41663	152 m east of Proposed Development

Pond Reference	HSI Result	eDNA Result	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
BO	Average	Negative	NH 62630 41427	27 m north of Proposed Development and within LoD
BP	Average	Negative	NH 62833 42020	192 m north of Proposed Development and within LoD

Moray Council

3.10.5 A total of nine ponds were identified within the Moray Council portion of the GCN Survey Area. No ponds within this area returned above a 'poor' HSI result and as such no further studies were conducted, as summarised within **Table 3.37** below.

Table 3.37: Moray Council GCN Survey Results

Pond Reference	HSI Result	eDNA Result	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
AZ	Poor	-	NJ 13337 48098	378 m north of Proposed Development and 233 m north of LoD
BA	Poor	-	NJ 13612 47836	148 m north of Proposed Development and within LoD
BB	N/A No Access	-	NJ 13708 47466	217 m south of Proposed Development and 89 south of LoD
BC	Poor	-	NJ 13491 47344	291 east of Proposed Development and 222 m south of LoD
BD	Poor	-	NJ 13626 47267	419 m south of Proposed Development and 291 m south of LoD
BF	Poor	-	NJ 16589 52662	271 m east of Proposed Development and 161 m east of LoD
BG	Poor	-	NJ 16763 52614	438 m south of Proposed Development and 324 m south of LoD
BH	Poor	-	NJ 16811 52649	421 m south of Proposed Development and 306 m south of LoD
BI	Poor	-	NJ 17312 52692	542 m south of Proposed Development and 419 m south of LoD

Aberdeenshire Council

3.10.6 As waterbodies within Aberdeenshire Council fall outside the HSI definition of 'higher suitability' GCN areas in Scotland[76], no further studies were conducted on waterbodies located within the Aberdeenshire Council portion of the GCN Survey Area.

3.11 Fish Surveys

Highland Council

3.11.1 Watercourses likely to support salmonid and other fish species were recorded within the Highland Council section of the Fish Survey Area. This included larger rivers and associated tributaries of the River Beauly, River Ness, River Nairn and River Findhorn, along with burns such as Newton Burn and Big Burn. River Beauly and River Findhorn have been classified as 'Good' surface water quality by SEPA[12].

3.11.2 Habitat such as stable gravel beds for fish spawning, along with riffles and runs with large pebble and cobble substrate suitable to support salmonid parr were noted within several watercourses including the River Findhorn and River Beauly (before the Beauly River dam). Atlantic salmon and brown trout (*Salmo trutta)* are likely to persist within multiple larger river and burn habitats within the Highland Council area, due to connectivity to the sea downstream via Moray Firth and Spey Bay, allowing migration of these species as part of their annual lifecycle[95,96].

Moray Council

3.11.3 Watercourses likely to support salmonid species, eel and lamprey (*Lampetra fluviatilis*) were recorded within the Moray Council section of the Fish Survey Area. This included larger rivers and associated tributaries of the River Divie, River Lossie, River Spey and River Isla along with burns such as Dorback Burn, Berry Burn and Red Burn. Of these, River Spey has been designated as a SAC and SSSI as it supports populations of sea lamprey and Atlantic salmon. The River Spey and River Lossie have been classified as 'Good' surface water quality by SEPA[12].

3.11.4 Habitat such as stable gravel beds for fish spawning, along with riffles and runs with large pebble and cobble substrate suitable to support salmon and trout parr were noted within several watercourses including the River Divie and Dorback Burn. Salmonid species are likely to persist within large river and burns within the Moray Council area, due to connectivity with the sea via Spey Bay and Moray Firth.

3.11.5 Habitat to support lamprey juveniles and spawning activity was recorded within multiple watercourses including Dorback Burn and the River Spey, inlcuding stable sand with organic plant matter and gravel beds. Habitat suitable to support eel was also recorded within the River Spey and included areas containing silt and with ample bankside vegetation.

Aberdeenshire Council

3.11.6 Watercourses with suitability to support salmonid and other fish species were identified within the Aberdeenshire Council area of the Fish Survey Area. The River Deveron within the Aberdeenshire Council Area has been classified as 'Good' surface water quality by SEPA[12]. Habitat such as stable gravel beds for fish spawning as well as large pebble and cobble substrate suitable to support salmonid parr were noted within the River Deveron and associated tributaries. Salmonid species are likely to persist within large river and burns within the Aberdeenshire Council area, due to connectivity with the sea via the Moray Firth.

[95] NatureScot (2023). Atlantic salmon. Available: https://www.nature.scot/plants-animals-and-fungi/fish/freshwater-fish/atlantic-salmon
[96] NatureScot (2023). Brown trout. Available: https://www.nature.scot/plants-animals-and-fungi/fish/freshwater-fish/brown-trout

3.12 Other Protected and Notable Species

3.12.1 Field signs pertaining to other protected and notable species incidentally identified within the Species Survey Area are presented in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results.** Corresponding target notes are presented within **Table 3.38** below.

3.12.2 Large watercourses with adjacent sheltered woodland habitat were recorded throughout the Species Survey Area, and at the time of survey no evidence of beavers was identified. Subsequently however, in November 2024, positive beaver evidence was recorded within an adjacent SSEN-T project, within the Highland Council local authority area.

3.12.3 Hedgerows and sheltered treelines with scrub were recorded throughout the Species Survey Area; however, no evidence of hedgehog (*Erinaceus europaeus)* was recorded.

Highland Council

3.12.4 Surveys within the Highland Council section noted areas of dead wood which could provide suitable habitat for invertebrates. A single brown hare (*Lepus europaeus*) was observed (**NS1**) within grassland. Suitable habitat for reptiles (including slow worm (*Anguis fragilis)* and adder (*Vipera berus)* for basking, feeding and sheltering was recorded within the Species Survey Area, and included hard standing, brash, deadwood and rubble piles, however no sightings were recorded. A common lizard (*Zootoca vivipara)* (**NS2**) was recorded in woodland within the Highland Council area.

3.12.5 Within the Highland Council area, incidental evidence of beaver was identified in November 2024 by the contractor of environmental surveys for works being undertaken for SSEN Transmission's proposed Fanellan substation. Beaver evidence was recorded along Black Bridge and on the small island in the channel of the River Beauly. This included two instances of potential food caches (**B1 and B2**) and two incidents of beaver foraging activity (**B3 and B4**), all noted to occur along with River Beauly, as illustrated within **Table 3.38** and in **Annex A: Figure 8.1.6: Other Protected and Notable Species Survey Results**. Potential beaver slides and mammal paths were also observed on the small island[97].

Table 3.38: Highland Council Other Protected and Notable Species: Incidental Sightings

Reference	Description	Grid Reference	Distance (m) and orientation from Proposed Development and LoD
NS1	Hare observed	NH 67881 39522	2 m east of Proposed Development and within LoD
NS2	Common lizard observed	NH 82820 45681	155 m northwest of Proposed Development and 10 m northwest of LoD
B1	Potential food cache	NH 49718 44090	590 m north of the Proposed Development
B2	Potential food cache	NH 49699 44070	600 m north of the Proposed Development
B3	Foraging Activity	NH 49687 44034	590 m north of the Proposed Development
B4	Foraging Activity	NH 49733 44080	590 m north of the Proposed Development

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

Moray Council

3.12.6 Surveys within the Moray Council area identified suitable habitat for invertebrates, including areas of dead wood. Suitable habitat for reptile basking, feeding and sheltering was recorded within the Species Survey Area, and included hard standing, brash, deadwood and rubble piles.

Aberdeenshire Council

3.12.7 Surveys within the Aberdeenshire Council area identified suitable habitat for invertebrates, including dead wood. Suitable habitat for reptile basking, feeding and sheltering was recorded within the Species Survey Area, and included hard standing, brash, deadwood and rubble piles.

Annex A: Figure

Figure: 8.1.1 Survey Areas and Access Constraints
Figure: 8.1.2 UK Habitat Survey Results
Figure: 8.1.3 Initial Bat Survey Results
Figure: 8.1.4 Further Bat Survey Results
Figure: 8.1.5 Night-time Bat Walkover and Static Bat Survey Results
Figure: 8.1.6 Other Protected and Notable Species Survey Results

Figures are provided at the end of this Appendix.

Annex B: Survey Details

Table B1: Surveyor Qualifications and Licences

Survey Type	Relevant Licences and Qualifications
PRF inspection	NatureScot bat licence number: 151666
	NatureScot bat licence number: 196587
	NatureScot bat licence number: 163803
	NatureScot bat licence number: 268059
	NatureScot bat licence number: 268450
Otter Camera Trapping	NatureScot otter licence number: 152044
GCN eDNA analysis	GCN licence number: 202058

Table B2: Dusk Emergence Survey Results

Tree Reference	Survey Date	Survey Start Time	Survey End Time	Temperature Start (degrees Celsius)	Temperature End	Cloud Cover (Octaves)	Wind Speed and direction (km per hour)	Rainfall	Humidity	Results	Council Area
1577	4 June 2024	24:34	23:19	14	10	6/8	6 kmph southwest	N/A	82%	No roosts	Highland Council
1953	5 June 2024	21:30	23:35	7	7	7/8	2 kmph west / southwest	Very light/None	79%	No roosts	Highland Council
1709	5 June 2024	21:51	23:36	13	13	2/8	2 kmph west / southwest	N/A	83%	No roosts	Highland Council
2001b	4 July 2024	21:54	23:37	11	11	8/8	21 kmph southwest	N/A	81%	No roosts	Highland Council

Tree Reference	Survey Date	Survey Start Time	Survey End Time	Temperature Start (degrees Celsius)	Temperature End	Cloud Cover (Octaves)	Wind Speed and direction (km per hour)	Rainfall	Humidity	Results	Council Area
0024	6 June 2024	21:38	23:13	15	12	5/8	8 kmph northeast	N/A	83%	No roosts	Moray Council
1904	3 July 2024	21:54	23:39	10	9	8/8	23 kmph west	N/A	80%	No roosts	Aberdeenshire Council
2324	17 July 2024	21:55	23:20	15	15	5/8	20 kmph southeast	N/A	83%	No roosts	Aberdeenshire Council