

Scottish Hydro Electric Transmission plc

CLASH GOUR WIND FARM CONNECTION LT264

Appendix E: Habitat and Protected Species
Baseline Report

July 2022







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1. INTRODUCTION

- 1.1.1 This is an Appendix to the Clash Gour Wind Farm Connection Environmental Appraisal (EA) and should be read in conjunction with it.
- 1.1.2 The Proposed Development is located in a rural area, approximately 10 km south of Forres and 22 km south-west of Elgin, Moray, at approximate National Grid Reference NJ 05038 48469 (the 'Site'). The location of the Proposed Development is provided in **Figure 1** in **Appendix A**.

1.2 Scope of report

- 1.2.1 This report documents the results of a UK Habitat Classification (UKHab) survey, protected species surveys, and a desk study including review of relevant guidance on species likely to be encountered. The field surveys covered the Site and where access permitted, and an area of up to 250 m from the Site boundary (hereafter the 'Survey Area' in Figure 1; Appendix A).
- 1.2.2 The key objectives of this study are to identify the ecological baseline of the Site and wider area (as applicable) and potential ecological constraints associated with the Proposed Development.
- 1.2.3 This report presents methodologies and findings of the UKHab survey and protected species survey.
- 1.2.4 A targeted breeding bird survey separate to this report, the results that report can be found in **Appendix** F: Ornithology Technical Report.

1.3 Relevant legislation and policy

1.3.1 The study has been compiled with reference to the following relevant nature conservation legislation, planning policy and the Scottish Biodiversity Strategy from which the protection of sites, habitats and species is derived in Scotland.

Legislation

- Conservation (Natural Habitats etc.) Regulations 1994 (as amended in Scotland) (Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended) (WCA);
- Nature Conservation (Scotland) Act 2004 (as amended);
- Wildlife and Natural Environment (Scotland) Act 2011 (WANE Act);
- Protection of Badgers Act (1992);
- Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017;
- Planning (Scotland) Act 2019; and
- Wild Mammals (Protection) Act 1996.

Policy

UK Post-2010 Biodiversity Framework (2011-2020)¹;

¹ Joint Nature Conservation Committee and Department for Environment, Food and Rural Affairs (2012). The UK Post-2010 Biodiversity Framework (2011-2020). Available at: https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc#UK-Post2010-Biodiversity-Framework-2012.pdf [Accessed: December 2021].



- Scottish Biodiversity Strategy (2004² and 2013³) which comprises of:
 - Scotland's biodiversity: it's in your hands;
 - 2020 Challenge for Scotland's Biodiversity;
- Scottish National Planning Framework 3⁴, and Draft National Planning Framework 4⁵ which is currently under public consultation;
- Scottish Planning Policy⁶; and
- Moray Local Development Plan⁷.
- 1.3.2 The North East Scotland Biodiversity Partnership⁸ has developed habitat statements which build upon the previous Local Biodiversity Action Plan, which should be used to provide local context in relation to planning, design and development. Broad habitat statements include wetlands, woodlands, marine and coastal, grasslands, upland heathland, and the built environment. As well as seeking to protect existing habitats at development sites, the North East Scotland Biodiversity Partnership also recognise the importance of creating an integrated habitat network to see landscape-wide benefits for biodiversity. North East Scotland Biodiversity Partnership has also compiled a list of locally important species which are not necessarily afforded legal protection; these include 56 fungi, 188 plants and one mammal (water shrew).

² Scottish Government (2004). Scotland's biodiversity: it's in your hands. Available: https://www.gov.scot/publications/scotlands-biodiversity---its-in-your-hands/ [Accessed: December 2021].

³ Scottish Government (2013). 2020 Challenge for Scotland's Biodiversity. Available: https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/ [Accessed: December 2021].

⁴ Scottish Government (2014). National Planning Framework 3. Available: https://www.gov.scot/publications/national-planning-framework-3/ [Accessed: December 2021].

⁵ Scottish Government (2021). Draft National Planning Framework 4. Available: https://consult.gov.scot/local-government-and-communities/draft-national-planning-framework-4/ [Accessed: December 2021].

⁶ Scottish Government (2020). Scottish Planning Policy. Available: https://www.gov.scot/publications/scottish-planning-policy/ [Accessed: December 2021].

 $^{^{7} \ \}text{Moray Council (2020)}. \ \text{Moray Local Development Plan. Available: http://www.moray.gov.uk/moray_standard/page_133431.html [Accessed: December 2021]}.$

⁸ North east Scotland Biodiversity Partnership (2021). Our Biodiversity. Available: https://www.nesbiodiversity.org.uk/feedback-for-north-east-scotland-biodiversity-partnership/ [Accessed: December 2021].



2. METHODS

2.1 Overview

- 2.1.1 This report has been prepared with reference to current good practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM), including Guidelines for Preliminary Ecological Appraisal (PEA)⁹, and Ecological Report Writing¹⁰. Specifically, the following work was undertaken during October 2021:
 - an ecological desk study of the Site and up to 10 km buffer zone;
 - a UKHab field survey; and
 - a detailed a protected and priority species and invasive non-native species survey.

2.2 Desk Study

- 2.2.1 The desk study was undertaken during October 2021 to review existing ecological baseline information available in the public domain with regards to designated and priority areas of biological interest.
- 2.2.2 A preliminary review of data collected 2014-18 for Clash Gour Wind Farm¹¹ was completed to gather available information on protected and priority species.
- 2.2.3 The ecological desk study was carried out by a Consultant Ecologist who is 'capable' of such tasks per the CIEEM Competency Framework¹².

Designated Sites

- 2.2.4 Freely downloadable datasets (including those available from NatureScot¹³) were consulted for information regarding the presence of the following features:
 - statutorily designated sites of European or international conservation importance¹⁴ for non-avian interests occurring within 10 km of the Site;
 - statutorily designated sites of local and/or national conservation importance¹⁵ occurring within 2 km of the Site; and
 - non-statutory designated sites of local importance¹⁶ occurring within 2 km of the Site.

⁹ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of. Ecology and Environmental Management, Winchester.

 $^{^{10}}$ CIEEM (2017b). Guidelines for Ecological Report Writing. CIEEM, Winchester.

¹¹ SLR (2018). Clash Gour Wind Farm Environmental Statement. Chapter 8: Ecology. Available: http://www.force9energy.com/assets/uploads/project/Vol%202%20EIAR%20Report%20(Chap8-17)%20low.pdf [Accessed December 2021]

¹² CIEEM (2019a). Competency Framework. Available: https://cieem.net/i-am/continuing-professional-development/competency-framework/ [Accessed: December 2021]

¹³ NatureScot (2021). SNHi Data Service. Available: https://www.nature.scot/information-hub/snhi-data-services [Accessed: December 2021].

¹⁴ "European sites" refers to a network of sites across the European Union designated for rare and threatened species, and rare natural habitat types, protected in their own right under the Birds Directive 2009/147/EC (as Special Protection Areas) and the Habitats Directive 92/43/EEC (as Special Areas of Conservation). Previously referred to as "Natura 2000" sites. Ramsar sites; areas designated of international conservation importance under the Convention on Wetlands of International Importance (1971).

 $^{^{15}}$ Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR).

¹⁶ e.g., Local Nature Conservation Sites (LNCS), Local Biodiversity Sites (LBS), Sites of Interest for Nature Conservation (SINC).



Other Areas of Conservation Importance

- 2.2.5 The following information was gathered from desk study sources, extending 2km from the Site:
 - Woodland listed on the Ancient Woodland Inventory¹⁷ (AWI);
 - National Woodland Survey of Scotland¹⁸ (NWSS) database;
 - Scottish Wildlife Trust¹⁹ (SWT) Reserve; and
 - Important Birds and Biodiversity Areas²⁰ (IBA).

2.3 UK Habitat Classification Survey

- 2.3.1 Habitats were described and mapped following the Professional Version 1.1 of UKHab using the following documents:
 - UKHab User Manual²¹;
 - UKHab Field Key²²; and
 - UKHab Habitat Descriptions Version 1.1²³.
- 2.3.2 The UKHab Classification Working Group describes UKHab as "...a unified and comprehensive approach to classifying habitats, designed to provide a robust technique for classifying and mapping British habitats". The dominant plant species are recorded, and habitats are classified according to their vegetation types. UKHab system comprises of a principal hierarchy (the Primary Habitats) and non-hierarchical Secondary Codes. Primary Habitats include ecosystems (level 1), broad habitat types (level 2 and 3); more defined habitats, including Priority Habitats²⁴ (level 4) and further defined habitats, including Annex 1 Habitats²⁵ (level 5).
- 2.3.3 Secondary Codes can then be used to provide more information on a habitat from the following categories:
 - Mosaic habitats;
 - Habitat complexities;
 - Origin of habitat;
 - Management;
 - Land use;

¹⁷ The ancient woodland inventory in Scotland lists areas which are currently wooded and have been continuously wooded since at least 1750.

¹⁸ NWSS identified and mapped the location, extent, type and condition of all of Scotland's native woodlands. https://forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss: Accessed December 2021.

 $^{^{19}\,\}text{https://scottishwildlifetrust.org.uk/our-work/our-wildlife-reserves/:}\,\,\text{Accessed December 2021}.$

²⁰ IBAs are considered by BirdLife International to represent places of international significance for the conservation of birds and other biodiversity. http://www.birdlife.org/worldwide/programme-additional-info/important-bird-and-biodiversity-areas-ibas: Accessed December 2021.

²¹ Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification User Manual Version 1.1. Available at: https://ukhab.org/ [Accessed: December 2021].

²² UK Habitat Classification Working Group (2020). UK Habitat Classification Field Key. UK Habitat Classification Working Group (UKHab Ltd), Stockport, Cheshire. Available at: https://ecountability.co.uk/ukhabworkinggroup-ukhab/ [Accessed: December 2021].

²³ Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). The UK Habitat Classification Habitat Definitions1.1 UK. Available: https://ecountability.co.uk/ukhabworkinggroup-ukhab/ [Accessed: December 2021].

²⁴ JNCC (2010). UK BAP Priority Habitats. Available: https://jncc.gov.uk/our-work/uk-bap-priority-habitats/ [Accessed: December 2021].

²⁵ European Union Habitats Directive 92/43/EEC Annex I.



- Environmental qualifiers;
- Hydrological regime; and
- Green infrastructure.
- 2.3.4 A single Primary Habitat is assigned to each polygon, line or point feature with generally a maximum of six Secondary Codes used. Lowercase letters are used, with the levels 2 to 5 shown by the alphanumeric code and no commas are used between secondary codes as per the UKHab User Manual. Habitats are described by the Primary Habitat first (e.g., w1h5 other woodland; mixed predominantly broadleaved) with Secondary Codes following (e.g. w1h5 36 57 other woodland; mixed predominantly broadleaved that is plantation with young trees self set). Secondary Codes are required for habitat mosaics, Priority Habitats and Annex 1 Habitats that occur in multiple Primary Habitats and habitat origins.
- 2.3.5 The names for vascular (flowering) plant species follow those in the New Flora of the British Isles (Stace, 2019). Relative plant species abundance was estimated using the DAFOR scale²⁶.
- 2.3.6 Common plant and animal names only are included in the main report text. Where no common name is recognised, the scientific name is provided. All scientific names are provided in **Appendix B**.
- 2.3.7 Habitats were recorded in the field using Geographical Information System (GIS) enabled software. Once recorded, these habitats were later quality assured utilising GIS desktop software. Habitat symbology was ascribed following UKHab Basic Edition: Suggested Symbology for Maps. Any habitats not included within the suggested symbology were given an alternative symbol.
- 2.3.8 The metadata are summarised in Table 1 for the survey to accompany the GIS shapefile output.

Table 1 - Summary of UKHab Metadata

Metadata heading	Survey metadata
Purpose of the survey	Baseline UKHab survey to inform Environmental Appraisal
Area surveyed	Site + 250 m buffer
UKHab edition	UKHab Professional V1.1
Level of UKHab Primary Habitat hierarchy used	Level 5 as far as reasonably possible
Secondary Code groups applied	Habitat Mosaic, Habitat Complex, Origin, Management
Minimum Mappable Unit	Unenclosed, upland habitats - 0.25 m ²
Other data collected	Habitat condition using the Natural England Farm Environment Plan (FEP) manual.
Map projection and unit	British National Grid (BNG) in metres.

2.4 Habitat Condition Assessment

2.4.1 A HCA of all habitats was completed concurrently with the UKHab survey. The HCA followed the SSEN Transmission Guidance, which requires habitat condition to be assessed using the system presented in Natural England's (NE) Farm Environment Plan (FEP) manual²⁷.

²⁶ D = Dominant, A = abundant, F = frequent, O = occasional, R = rare.

²⁷ Natural England (2010). Higher Level Stewardship, Farm Environment Plan (FEP) Manual, 3rd Edition.



2.5 Protected and Priority Species Survey

- 2.5.1 Targeted protected species surveys were completed in October 2021, searching for signs of red squirrel, pine marten and badger, which were recorded by Target Note (TN) (listed in **Appendix C**). Then general suitability for other protected and priority species was also recorded within the Survey Area, as described in **Table 2**.
- 2.5.2 The targeted protected species surveys was carried out by two Ecologists who are 'capable' and 'accomplished' in such tasks per the CIEEM Competency Framework²⁸.

Red Squirrel Survey

- 2.5.3 The survey undertaken across the Survey Area was carried out following guidance outlined by Forestry Commission²⁹ and in accordance with survey guidance for initial non-intrusive visual surveys³⁰ and NatureScot guidance³¹. In addition to visual observations of the species, the woodland habitat was systematically searched for evidence of red squirrel, with field signs including:
 - visual sightings;
 - prints;
 - foraging signs, including chewed or stripped cones with top section remaining untouched, which are often discarded on prominent features at feeding stations; and
 - 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 3m up, in the fork of branches closes to the trunk.

Pine Marten Survey

- 2.5.4 A pine marten survey was undertaken across the Survey Area in October 2021.
- 2.5.5 The pine marten survey followed methodology prescribed in UK BAP Mammals³² and with reference to guidance from NatureScot³³. This involved searching for field signs including scat and den sites within woodland and open habitats.

²⁸ CIEEM (2019a). Competency Framework. Available: https://cieem.net/i-am/continuing-professional-development/competency-framework/ [Accessed: December 2021].

²⁹ Gurnell, J., Lurz, P., McDonald, R., and Pepper, H. (2009). Practical techniques for surveying and monitoring squirrels. Forest Research, Surrey.

³⁰ Cresswell, W.J., Birks, J.D.S., Dean, M., Pacheco, M., Trewhella, W.J., Wells, D. & Wray, S. (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. Southampton, UK: The Mammal Society.

³¹ NatureScot (undated). Standing advice for planning consultants - Red Squirrel. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels [Accessed: December 2021].

³² Birks, J. (2012) Pine marten. In: 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.

³³ NatureScot (undated). Standing advice for planning consultants – Pine Marten. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens [Accessed: December 2021].



Badger Survey

- 2.5.6 A badger survey was completed which comprised a search for signs of badger within the Survey Area. The Survey Area was searched for evidence of badger following the standard methodology outlined by Scottish Badgers³⁴ and with reference to guidance from NatureScot³⁵.
- 2.5.7 Where present, evidence indicative of badger activity was recorded. Field signs can include setts, dung pits and latrines, prints, mammal paths, guard hairs, snuffle holes, feeding remains, and scratching posts.
- 2.5.8 Where encountered, other mammal excavations were recorded during the survey (e.g., rabbit warrens).

Table 2 - Preliminary protected/priority species assessment - criteria

Receptor	Criteria Considered
Terrestrial Invertebrates	General suitability of terrestrial habitats for invertebrates such as butterflies, beetles, bees and moths, e.g. botanical diversity, habitat heterogeneity, food plants and food sources, dead wood. Incidental observations of adult or immature life stages, e.g. caterpillars.
Aquatic invertebrates and fish species	Potential suitability of standing and running water for fish, freshwater pearl mussel and macro-invertebrate assemblage. Obvious signs of management, erosion, pollution, poaching. Substrate for spawning fish e.g. gravel beds.
Amphibians	The suitability of habitats (including ponds and waterbodies) for amphibians. The proximity, quality and accessibility of surrounding terrestrial habitats. Incidental observations of adult or immature life stages, e.g. spawn, tadpoles ³⁶ .
Reptiles	General suitability of terrestrial habitats to support reptiles, e.g. embankments, slopes, potential natural and artificial refugia, interface or edge habitats, and shade free areas near dense vegetation. Linkages to off-site habitats. Incidental observations of reptile species.
Bats	Presence of woodland, scrub lines, hedgerows, watercourses, ponds for commuting and foraging. Presence of suitable buildings, trees, and structures for roosting. Incidental observation of roosts via evidence of droppings, urine stains ³⁷ .
Otter	General suitability of watercourses to support otter. Spraints (faeces), footprints, otter laying up sites, e.g. holts – an underground structure which is deep enough that the back of the cavity cannot be readily seen ³⁸ .
Water vole Arvicola amphibius	General suitability of watercourses to support water vole, including details of burn geomorphology and riparian and emergent vegetation. Incidental water vole signs: droppings, burrows, footprints, chewed vegetation.
Other species	Surveyors remained vigilant for evidence of other protected or priority species including, deer, and brown hare. Evidence or sightings of other

³⁴ Scottish Badgers (2018). Surveying for Badgers: Good Practice Guidelines. Version 1. Available: https://www.scottishbadgers.org.uk/userfiles/file/planning_guidelines/Surveying-for-Badgers-Good-Practice-Guidelines_V1.pdf [Accessed: December 2021].

³⁵ NatureScot (undated). Standing advice for planning consultants – Badger. Available: https://www.nature.scot/doc/standing-advice-planning-consultations-badgers [Accessed: December 2021].

³⁶ Sewell, D, Griffiths RA., TJC. Beebee, Foster, J. and Wilkinson, JW (2013). Survey protocols for the British herpetofauna. Version 1.0.

³⁷ Collins J. (ed.) (2016). Bat Surveys for Professional Ecologists, Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.

³⁸ Chanin P (2003). Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature, Peterborough.



Receptor	Criteria Considered	
	protected or priority species were recorded with photographs taken where appropriate and the grid reference noted.	

2.6 Invasive non-native species survey

2.6.1 Observations of any invasive non-native species³⁹ (plants or animals) were recorded by TN where encountered. This was undertaken ad hoc to the UKHab survey; a survey to map all occurrences of invasive non-native species has not been undertaken.

2.7 Limitations

- 2.7.1 The UKHab survey was undertaken outside of the optimal period (May to August), therefore it is likely that flowering plants have been under-recorded. However, it was still possible to identify the dominant species and vegetation structure and to use these to assign a UKHab Primary Habitat.
- 2.7.2 Access was restricted in areas where windblown trees had blocked safe access to inspect the interior of the plantation (TN 17 in Figure 2; **Appendix A**). This was not considered to be a significant limitation due to sufficient vantage points and the overall condition of the plantation offering sub-optimal habitat to protected and priority species.
- 2.7.3 The results of the UKHab assessment and the matches made in describing plant communities represent a current evaluation (as opposed to one seeking to describe what the community was before any human interference or may become in the future). In the absence of changes in land use, hydrology, or otherwise, and depending on the sensitivity and condition of communities identified, it is likely that habitat data remain valid for up to five years. However, it is noted that parts of the Site and wider surveyed area are subject to active management; therefore, the habitats baseline should be reconsidered should there be any delay beyond 18 months to the delivery of the positive biodiversity management strategy.
- 2.7.4 Any INNS observations recorded during the survey in October 2021 do not constitute a dedicated survey for all INNS. The survey was completed outwith the optimal botanical survey season (May to August inclusive). As such, INNS stands may have died back, or may be the process of doing so, and the full extent of INNS infestation (which includes below-ground roots and rhizomes) might not have been obvious.
- 2.7.5 Faunal species are transient and can move between favoured habitats regularly throughout and between years. This survey provides recommendations on the snapshot of field signs and habitat suitability observed in the Site on the date of the survey (October 2021). In particular, badgers and pine marten may rely upon a network of resting sites or establish new resting sites during any given season. The protected species survey data are therefore likely to remain valid up to 18 months⁴⁰. Pre-construction surveys for protected species where findings become outdated have been incorporated to the recommendations.
- 2.7.6 The Site boundary was updated in June 2022, including a narrow extension to the south. As a result, a marginal area of the Site falls outwith the 250m Survey Area which was covered during habitat and species surveys in 2021. As the Site was extended to include temporary access track in the south which

³⁹ Scottish Government (2012). Code of Practice on Non-Native Species. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2012/08/non-native-species-code-practice/documents/00398608-pdf/00398608-pdf/govscot%3Adocument/00398608.pdf [Accessed: December 2021].

⁴⁰ CIEEM (2019b). Advice note on the lifespan of ecological reports and surveys. Available: https://cieem.net/resource/advice-note-on-the-lifespan-of-ecological-reports-and-surveys/ [Accessed: December 2021].



remains within the 250m Survey Area, this marginal gap in data does not limit the assessment. There would be no new mitigation measures.



INANSMISSION

3. BASELINE CONDITIONS

Protected Areas

- 3.1.1 The Site is not located within any statutory or non-statutory designated sites, nor is it within 2 km of any statutory or non-statutory designated sites.
- 3.1.2 Designated sites for non-avian interests identified within the 10 km search radius and of ecological interest are presented in **Table 3**, below, alongside their qualifying interests. The locations of each designated site in relation to the Site are shown on **Figures 1.3 and 1.4** in **Appendix A** of the EA Report⁴¹.

Table 3 - Designated sites up to 10km from the Survey Area

Site Name	Designation	Qualifying feature	Distance & Direction from Site
Moidach More	Special Area of Conservation (SAC)	Moidach More SAC is designated for its blanket bogs in in unfavourable but recovering condition.	4.5 km south of the Site
Lower Findhorn Woods	SAC	The SAC is designated for its mixed woodland on baserich soils associated with rocky slopes in unfavourable declining condition.	4.5 km west of the Site
River Spey	SAC	The River Spey SAC qualifies for its population of otter, freshwater pearl mussel, sea lamprey and Atlantic salmon.	9 km south-east of the Site

- 3.1.3 There are no ancient woodlands listed on the AWI within the Site. There is a mosaic of ancient woodlands within 2 km of the Site, with the closest parcel of unnamed ancient woodland described as long-established (of plantation origin), located approximately 600 m to the north of the Site.
- 3.1.4 The NWSS database returned four parcels of woodland located within the Site, described as Caledonian forest, and also a mosaic of woodland listed on the NWSS within 2 km of the Site.
- 3.1.5 There are no IBAs or SWT sites within 2 km of the Site.

3.2 UK Habitat Classification

- 3.2.1 The results of the habitat assessment within this section presents the habitat descriptions for each of the habitat types recorded within the Survey Area. Survey photographs are presented in **Appendix D**. The mapped UKHab data is presented on **Figure 1** in **Appendix A**.
- 3.2.2 A total of 13 Primary Habitats were identified across the UKHab Survey Area, as shown on Figure 1 in Appendix A. Alpha-numeric codes used in this section cross-refer to the UKHab User Manual. The habitats are grouped into broad habitat categories and then the broad habitat categories are listed in order of prevalence within the Survey Area, from largest to smallest. UKHab Secondary Codes applied to the Survey Area are listed in Table 4.

 $^{^{41}}$ WSP (2022). Clash Gour Wind Farm Connection: Environmental Appraisal.



3.2.3 The Survey Area lies within a landscape dominated by blanket bog, coniferous plantation, and upland heathland. A forestry haulage access track cuts through the centre of the Survey Area, which runs north to south (Figure 1 in Appendix A).

Table 4 - UKHab Secondary Codes

Secondary Code Group	Secondary Code	Label
Habitat Mosaic	10	Scattered scrub
Habitat Mosaic	11	Scattered trees
Habitat Mosaic	13	Scattered dwarf shrubs
Habitat Mosaic	14	Scattered rushes
Habitat Mosaic	15	Rushes dominant
Origin	36	Plantation
Management	53	Felled
Management	56	Young trees - planted
Management	60	Sheep grazed
Management	63	Burnt
Management	85	Cutover peat

f1a5 - Blanket bog (H7130)

- 3.2.4 Blanket bog category was applied to multiple parcels of land spread across the Survey Area and was the dominant habitat (Photo 1 in **Appendix D**). The habitat comprised dominant cross-leaved heath and hare's-tail cottongrass, then abundant deergrass and *Sphagnum capillifolium*, and occasional heather, bog asphodel, crowberry, and common cottongrass. *Polytrichum commune*, tormentil, mat-grass, creeping thistle, and *Sphagnum palustre* were locally frequent, whilst soft rush and hairy woodrush were rare.
- 3.2.5 The habitat had occasional bare patches of peat, *Sphagnum* rich bog pools, and peat shelves present (Secondary Code 85). In areas of raised ground and where blanket bog neighboured areas of woodland habitat, scattered trees (Secondary Code 11) and scattered scrub (Secondary Code 10) encroachment was recorded. Evidence of recent burning (Secondary Code 63) was noted where blanket bog overlapped with other UKHab types. The species abundance distribution (SAD) fluctuated in species richness throughout blanket bog habitat, overlapping with other UKHab types with no distinct boundary, creating a mosaic habitat. Blanket bog is listed on the SBL as a priority habitat and is also a Habitats Directive Annex 1 habitat.

f1a6 - Degraded blanket bog

3.2.6 In areas described as degraded blanket bog, the habitat showed signs of drying out, where forestry irrigation ditches had lowered the surface water table. As a result, scrubby species such as gorse and hard fern were present, along with the encroachment of scattered trees (Secondary Code 11) and scattered scrub (Secondary Code 10), and a distinct absence of *Sphagnum* species. Evidence of recent burning (Secondary Code 63) was recorded throughout this habitat and the remains of recently felled plantation (Secondary Code 53) was present. Large swathes of the degraded blanket bog had been recently planted with commercial forestry coniferous saplings (Secondary Codes 56 36), further degrading what would have originally been blanket bog habitat. This example does not align with Annex 1 or SBL habitats.



f2b - Purple moor grass and rush pastures

3.2.7 Sited on top of an area of recently felled plantation (Secondary Code 53), a small area of land within the Survey Area had begun to show signs of the emergent seedbank recolonising the area. Emergent species included heather, purple moor-grass, and soft rush and has been classified as purple moor-grass and rush pastures (f2b). Although listed as a priority habitat on the SBL, due to the species-poor state of this habitat, this example is not considered to align with any Annex I or SBL habitats.

g1b6 - Other upland acid grassland

3.2.8 There were three parcels of land described as other upland acid grassland, both comprising of comparable plant species, which included dominant perennial rye-grass and then frequent wavy hairgrass, sheep's fescue, Yorkshire fog, bentgrass, ribwort plantain, sweet vernal-grass, abundant heather, occasional marsh thistle, cross-leaved heath, crowberry, creeping thistle, scattered soft rush (Secondary Code 14), white clover, bell heather, heath bedstraw (Secondary Code 13), mat-grass, tormentil, and rare harebell, violet, and Devil's-bit scabious. Two of the areas of this habitat showed signs of recent sheep grazing (Secondary Code 60) resulting in short sward and a reduced diversity in plant species. The third smaller area of this habitat appeared to be part of what was originally blanket bog habitat but has since been altered by the construction of OHL tower foundations. Other upland acid grassland habitat does not align with any Annex I or SBL habitats.

g4 - Modified grassland

3.2.9 Modified grassland was recorded in the south-east corner of the Survey Area, with a species-poor composition comprised of dominant perennial rye-grass, frequent white clover, creeping buttercup, creeping thistle, locally frequent crested dog's-tail and common bent, and occasional scattered soft rush (Secondary Code 14). The habitat was heavily grazed by sheep (Secondary Code 60) and had a short sward throughout. This type of habitat does not align with any Annex I or SBL habitats.

h1b - Upland heathland

3.2.10 Within the Survey Area four parcels of land were categorised as upland heathland. These habitats were drier underfoot and sited on elevated areas of land. Species within this habitat comprised locally dominant heather, common cottongrass, abundant deergrass, locally frequent asphodel, wavy hairgrass, occasional cross-leaved heath, heath rush, and rare purple moor-grass, tormentil, and *Sphagnum capillifolium*. Species such as deergrass, cross-leaved heath, and purple moor-grass indicate that there are remnants of wet bog species. Areas within this habitat had been fenced off with deer fencing, reducing the impact of grazing and subsequently allowing heather to mature and become dominant, the lack of grazing had also increased the occurrence of scattered trees (Secondary Code 11). As with interconnecting habitats, the upland heath showed signs of being recently burnt (Secondary Code 63). Upland heathland is listed on the SBL as a priority habitat.

h1b5 - Dry heaths; upland (H4030)

- 3.2.11 Dry heath; upland (h1b5) was located within the south-west and north-east aspect of the Survey Area.

 The area of h1b5 located in the north-east (Photo 2 in **Appendix D**) was directly connected to a larger area of the same habitat leading in an easterly direction and enclosed by plantation woodland. Whereas the h1b5 located in the south-west had no defined boundary against the neighbouring upland heathland and blanket bog.
- 3.2.12 The plant species within the habitat comprised dominant heather, abundant lichen, locally frequent hare's-tail cottongrass and common cottongrass, occasional cross-leaved heath, and rare *Hylocomium splendens*. This habitat had been partially planted with saplings (Secondary Codes 56 36) and contained



scattered trees (Secondary Code 11). This habitat is listed on the SBL as a priority habitat and is also a Habitats Directive Annex 1 habitat.

h1b6 - Wet heathland with cross-leaved heath; upland (H4010)

3.2.13 An area of land was categorised as wet heathland with cross-leaved heath; upland heather (Photo 3 in Appendix D). This habitat forms part of a wider mosaic habitat due to it being interconnected with a mix of habitat previously discussed. The habitat was dominated by cross-leaved heath, abundant lichen, locally frequent common cottongrass and hare's-tail cottongrass, and rare bilberry and *Hylocomium splendens*. The habitat was noted as showing signs of recent burning (Secondary Code 63), resulting in a heathland lacking age variation and variation in structure. The wet heathland with cross-leaved heath; upland (H4010) habitat is listed on the SBL as a priority habitat and is also a Habitats Directive Annex 1 habitat.

w1e - Upland birchwood

3.2.14 Located on an area of land that was historically coniferous plantation and had since been felled (Secondary Code 36), self-seeded upland birchwood dominated that area (Photo 4 in **Appendix** D). The silver birch trees were young in age-class and were densely scattered in their distribution (Secondary Code 11). The field layer for this habitat was comparable to the species description for upland heathland (h1b). This habitat is listed as a priority habitat on the SBL, and although it is sited on an area of historic felled plantation, this example is self-seeded and has formed a natural structure with age variance and if left to develop would align with an SBL Priority habitat.

w1h5 - Other woodland; mixed; mainly broadleaved

3.2.15 Other woodland; mixed; mainly broadleaved was recorded in the southern aspect of the Survey Area, directly west of a private residential property. Species within the woodland included Scots pine, alder, cherry, rowan, white willow, sycamore, goat willow, and ash. The tree canopy was undeveloped and semi-mature in age class. The ash tree had started to show characteristic signs of ash dieback, such as dead wilted black leaves on the tips of branches. The field layer was species-poor; nettle, gorse, short-sward grass species, and showed signs of recent grazing (Secondary Code 60). This type of habitat does not align with any Annex 1 or SBL habitats.

w2b - Other Scots pine woodland

- 3.2.16 The Survey Area contains multiple parcels of habitat categorised as other Scots pine woodland (w2b). The habitat is dominated by Scots pine throughout.
- 3.2.17 Within the southern aspect of the Survey Area, the w2b had been recently felled (Secondary Code 36 53), leaving an area of land covered in brash, tree stumps, and overturned root plates, and grass and dwarf shrub species had begun to emerge through the once dormant seedbank.
- 3.2.18 The w2b located toward to western boundary of the Survey Area has been subject to a forest wildfire in 2019 (Secondary Code 63), and there were no signs of management since the fire (Photo 5 in **Appendix** D).
- 3.2.19 The remaining areas of w2b are semi-mature in age class and uniformed in structure due to its plantation origin (Secondary Code 36). Within the woodland areas of windblown trees have created glades where the prevailing heathland seedbank begun to recolonise the open ground.
- 3.2.20 All areas of w2b habitat had an established network of forestry irrigation ditches and forestry rides.
- 3.2.21 Other Scots pine woodland does not align with any Annex 1 habitats, but can be included as an SBL habitat under native pinewoods.



w2c - Other coniferous woodland

3.2.22 Other coniferous woodland was located within the eastern aspect of the Survey Area and bounded by heathland and blanket bog to the west. The habitat was comprised of dominant European larch and frequent Scots pine and is of plantation origin (Secondary Code 36). The field layer was overlain with a surface of pine needles. The southern periphery of the woodland showed signs of poaching and sheep grazing (Secondary Code 60). This type of habitat does not align with any Annex I or SBL habitats.

u1b6 - Other developed land

3.2.23 Located towards the centre of the Survey Area and sited adjacent to the main access track which passes through the centre of the Survey Area, an area of land has been cleared and repurposed for storing aggregate piles. The ground surrounding the aggregate piles was a mix of bare ground and compacted sand and after heavy rainfall had become covered in surface water approximately 15cm deep. The periphery of this area contained scattered scrub (Secondary Code 10) and rushes (Secondary Code 15). This type of habitat does not align with any Annex 1 or SBL habitats.

u1c - Artificial unvegetated, unsealed surface

3.2.24 There was a network of haulage access tracks passing through the Survey Area that have been allocated the UKHab classification of artificial unvegetated, unsealed surface. The road aggregate was comprised of crushed stones, and in most sections had deep irrigation ditched either side of the road. This type of habitat does not align with any Annex I or SBL habitats.

r1 – Standing open water and canals

- 3.2.25 At the time of the survey a pond was recorded within the grounds of a private residence (Photo 6 in **Appendix C**). The pond has been categorised as standing open water and canals. The pond had no surface vegetation, occasional emergent iris, and was approximately 20% shaded from surrounding woodland and open to sunlight at it had a south facing aspect.
- 3.2.26 There were also two ponds within close proximity to each other in the west of the Survey Area, located on adjacent sides of the haulage road (Photo 7 in **Appendix** D). Both ponds were surrounded by rush dominant habitat and the water level in the eastern pond was influenced by an irrigation channel/culvert running beneath the road. Both ponds were in close proximity to the aggregate piles and may be subject to sediment pollution. Ponds are listed as a priority habitat on the SBL.

3.3 Protected/Priority Species

3.3.1 This section of the report presents a full review of all species data available and presents the species which have been confirmed to or which could occur (based on suitable habitat at the Site and confirmed presence in wider area) within the Survey Area. Protected species not included in the following section are considered absent from the Survey Area (e.g., otter, water vole, fish).

Red squirrel

- 3.3.2 The data collected 2014-18 for Clash Gour Wind Farm noted that there was a red squirrel sighting and potential dreys were recorded, but beyond 100 m of the Site.
- 3.3.3 Evidence of red squirrel was recorded within the Survey Area located in the area of other coniferous woodland (w2b). Based on the known population of red squirrel in the locality to the Survey Area and the lack of grey squirrel populations, combined with the red squirrel field signs included feeding stations with multiple eaten pinecones (Photo 8 in **Appendix D** and TN 1-8 in **Figure 2** in **Appendix C**) and three potential dreys located within a European larch (Photo 9 in **Appendix D** and TN 9 in **Figure 2** in **Appendix C**). The remaining woodland/plantation (Primary Habitats w1h5 w2b w2c) was also considered



to offer suitable foraging and drey establishment habitat. It is possible that the fire damaged plantation woodland to the east of the Survey Area once contained red squirrel and have since relocated to more optimal habitat. The suitable habitat within the Survey Area has robust connectivity to similar habitat outwith the Survey Area to the east.

3.3.4 Red squirrel is listed as a priority species on the SBL and is a legally protected species.

Pine marten

- 3.3.5 Records from the 2014-18 for Clash Gour Wind Farm stated that multiple potential pine marten scats were recorded along existing tracks, in the northern and eastern part of the Survey Area (exact coordinates were not provided), and a sighting from over 1 km north of Site, and den site further away by Loch Dallas.
- 3.3.6 Similar to red squirrel discussed above, large, connected areas of coniferous woodland habitat are suitable to support pine marten and the creation of dens. No definitive pine marten signs have been recorded from the Survey Area, however, a potential fox or pine marten scat was recorded on a prominent rock located on a mammal commuting route (Photo 10 in **Appendix D** and TN 10 in **Figure 2** in **Appendix C**). There are no significant barriers are in place to prevent the movement of pine marten both within and outwith the Survey Area.
- 3.3.7 Pine marten is a legally protected species which is also included on the SBL. Pine marten is also listed on the North East Scotland Biodiversity Partnership as one of the Big 5 species⁴².

Badger

- 3.3.8 The desk study review of the Clash Gour Wind Farm report identified badger setts which were over 1 km from the Site.
- 3.3.9 No evidence of badger was recorded within the Survey Area, despite October coinciding with a period of high activity in the annual badger life cycle. However, suitable habitat to support foraging activity was recorded across the wider Survey Area (Primary Habitats w1h5 w2b w2c), in isolated and connected sections of plantation woodland. The same habitats present opportunities for sett building in areas with drier ground located within the wooded areas. As the habitats within the Survey Area are considered suitable for foraging and commuting, and for sett establishment, the presence of badger cannot be ruled out, and it is considered that badger may use the habitats within the Site and on occasion pass through the Site.
- 3.3.10 Badger is listed on the SBL Social Criterion as a top 10 species valued by the Scottish public and is a legally protected species.

Reptiles

- 3.3.11 The review of the Clash Gour Wind Farm data noted that there was a potential hibernaculum recorded over 100 m from the Site.
- 3.3.12 At the time of the survey, suitable habitat for reptiles was recorded within the areas of recently felled plantation (TN 11-13 in Figure 2 in Appendix A). The felled areas provided brash piles, tree stumps, and overturned root plates, and combined with their locality to open ground along the access tracks, all create optimal habitat for basking and hibernating reptile species.

⁴² North East Scotland Biodiversity Partnership. The Bog 5; Available at: https://www.nesbiodiversity.org.uk/our-biodiversity-in-the-north-east-of-scotland/the-north-east-scotland-big-5/#:~:text=We%20thought%20this%20was%20a,So%20why%20them%3F Accessed: April 2022.



3.3.13 Native reptile species such as slow worm, adder and common lizard are all listed as priority species on the SBL.

Bats

- 3.3.14 An automatic detector deployed to inform the Clash Gour Wind Farm Environmental Statement, recorded common pipistrelle, soprano pipistrelle, and a single registration from brown long-eared bat within the vicinity of the Site.
- 3.3.15 In an area of Scots pine woodland (w2c), multiple standing dead trees were recorded, which offered potential roost features for bats (TN 14 in Figure 2 in Appendix A). Given the number of suitable roosting features and suitable foraging habitat in the surrounding area, the woodland was given an overall assessment of having moderate suitability to support roosting bats (see Tree Roost Suitability Categorisation in Table 1; Appendix E).
- 3.3.16 Several species of bat are listed as priority species on the SBL and all species in the UK are legally protected.

Amphibians

3.3.17 No field signs for amphibians were recorded during the survey. There are three ponds within the Survey Area of varying quality and isolated from similar habitat in the wider area. It is considered unlikely that great crested newts are present within the Survey Area as the ponds appear relatively new/created. However, the habitats within the Survey Area were considered to be suitable for common amphibian species.

Terrestrial invertebrates

3.3.18 Wet heath and bog habitats within the Survey Area may support aerial invertebrate activity. These habitats did not appear rich in forbs or flowering plants; however the survey was undertaken outwith the optimal botanical season. Although the rush vegetation present within and around the Survey Area is of a poor quality, it still offers suitable habitat that could support protected and priority butterfly species.

Other species

- 3.3.19 At the time of the survey two wood ant nests were recorded (Photo 11 in **Appendix D** and TN 15 in **Figure 2** in **Appendix A**). Some species of wood ant are listed on The International Union for Conservation of Nature (IUCN) Red List of Threatened Species.
- 3.3.20 Two sightings of brown hare were recorded within the Survey Area (TN 17 in Figure 2; Appendix A). Brown hare is listed as a priority species on the SBL.

3.4 Invasive non-native species

3.4.1 A large stand of rhododendron was recorded amongst the upland birchwood (TN 17 in Figure 2; Appendix A). Rhododendron is a non-native and invasive species that can form dense scrub in woodlands and upland habitats, which can then alter the natural structure of habitats.



4. CONCLUSION

4.1.1 With reference to the baseline findings of the Site and wider Survey Area, it is concluded that the EA should focus on the following priority habitats that occur within, and protected species that could nest or forage within the Proposed Development's Ecological Zone of Influence.

Priority habitats

- f1a5 Blanket bog (H7130)
- h1b Upland heathland
- h1b5 Dry heaths; upland (H4030)
- h1b6 Wet heathland with cross-leaved heath; upland (H4010)
- w2b Other Scots pine woodland
- r1 Standing open water and canals

Protected species

- Badger
- Pine marten
- Red squirrel
- Bats
- Reptiles
- Amphibian
- Brown hare.
- Wood ants

Invasive non-native species

Rhododendron



APPENDIX A: FIGURES



APPENDIX B: SPECIES LIST

Taxon group	Common name	Scientific name
Terrestrial mammal	Red squirrel	Sciurus vulgaris
Terrestrial mammal	Pine marten	Martes martes
Terrestrial mammal	Badger	Meles meles
Terrestrial mammal	Brown hare	Lepus europaeus
Terrestrial mammal	Water vole	Arvicola amphibius
Terrestrial mammal	Otter	Lutra lutra
Terrestrial mammal	Common pipistrelle	Pipistrellus pipistrellus
Terrestrial mammal	Soprano pipistrelle	Pipistrellus pygmaeus
Terrestrial mammal	Brown long-eared	Plecotus auritus
Aquatic species	Freshwater pearl mussel	Margaritifera margaritifera
Aquatic species	Sea lamprey	Petromyzon marinus
Aquatic species	Atlantic salmon	Salmo salar
Bird	Barn owl	Tyto alba
Bird	Capercaillie	Tetrao urogallus
Amphibian	Great crested newt	Triturus cristatus
Invertebrate	Wood ant	Formica sp.
Reptiles	Adder	Vipera berus
Reptiles	Slow worm	Anguis fragilis
Reptiles	Common lizard	Zootoca vivipara
Plants	Cross- leaved heath	Erica tetralix
Plants	Hare's-tail cottongrass	Eriophorum vaginatum
Plants	Heather	Calluna vulgari
Plants	Bog asphodel	Narthecium ossifragum
Plants	Crowberry	Empetrum nigrum
Plants	Common cottongrass	Eriophorum angustifolium
Plants	Common haircap	Polytrichum commune
Plants	Tormentil	Potentilla erecta
Plants	Mat-grass	Nardus stricta
Plants	Creeping thistle	Cirsium arvense
Plants	Blunt-leaved bogmoss	Sphagnum palustre
Plants	Soft rush	Juncus effusus
Plants	Hairy woodrush	Luzula acuminata
Plants	Purple moor-grass	Molinia caerulea
Plants	Wavy hair-grass	Deschampsia flexuosa
Plants	Sheep's fescue	Festuca ovina
Plants	Ribwort plantain	Plantago lanceolata
Plants	Yorkshire-fog	Holcus lanatus
Plants	White clover	Trifolium repens
Plants	Perennial rye-grass	Lolium perenne
Plants	Bentgrass	Agrostis sp.
Plants	Sweet vernal-grass	Anthoxanthum odoratum



Taxon group	Common name	Scientific name
Plants	Marsh thistle	Cirsium palustre
Plants	Bell heather Erica cinerea	
Plants	Heath bedstraw	Galium saxatile
Plants	Harebell	Campanula rotundifolia
Plants	Devil's-bit scabious	Succisa pratensis
Plants	Creeping buttercup	Ranunculus repens
Plants	Crested dog's-tail	Cynosurus cristatus
Plants	Common bent	Agrostis capillaris
Plants	Heath rush	Juncus squarrosus
Plants	Mountain fern moss	Hylocomium splendens
Plants	Common nettle	Urtica dioica
Plants	Bilberry	Vaccinium myrtillus
Plants	Gorse	Ulex europaeus
Plants	Silver birch	Betula pendula
Plants	Scots pine	Pinus sylvestris
Plants	Alder	Alnus glutinosa
Plants	Cherry	prunus avium
Plants	Rowan	Sorbus aucuparia
Plants	White willow	Salix alba
Plants	Sycamore	Acer pseudoplatanus
Plants	Goat willow	Salix caprea
Plants	Ash	Fraxinus excelsior
Plants	European larch	Larix decidua
Plants	Rhododendron	Rhododendron ponticum



APPENDIX C: TARGET NOTES

ID	Species/Feature	Target Note
1	Red squirrel	Feeding station. Multiple eaten cones. Potential drey.
2	Red squirrel	Potential drey, small in size. Above feeding station.
3	Red squirrel	Feeding station.
4	Red squirrel	Feeding station.
5	Red squirrel	Feeding signs. Eaten cones.
6	Red squirrel	Feeding signs. Eaten cones.
7	Red squirrel	Feeding station.
8	Red squirrel	Feeding signs. Eaten cones.
9	Red squirrel	Potential drey.
10	Pine marten	Potential pine marten or fox scat.
11	Reptiles	Suitable hibernacula, pile of overgrown rubble.
12	Reptiles	Suitable foraging, basking and hibernacula in areas of stacked brash from felled woodland.
13	Reptiles	Suitable basking, foraging and hibernacula in the large area of felled woodland and brash piles.
14	Bat	Scots pine woodland with lots of standing deadwood showing potential roost features. Moderate suitably given number of features and suitable foraging habitat.
15	Wood ant	On edge of woodland under Scots pine tree, approx. 0.5m by 1m.
16	Wood ant	On edge of woodland.
17	Brown hare	Spotted travelling across the Survey Area.
18	Restricted access	Access limited by windblown trees along plantation perimeter.
19	Invasive non-native species	Rhododendron was recorded in a large stand amongst birch woodland.



APPENDIX D: SITE PHOTOS

Clash Gour - Site Photos





Photo 1: Example of *Sphagnum* rich pool within the blanket bog habitat.

Photo 2: Example of dry heaths; upland within the northeast corner of the Survey Area





Photo 3: Example of the wet heathland with cross-leaved heath; upland recorded within the Survey Area.

Photo 4: Upland birchwood, self-seeded birch sited on top of felled plantation.



Clash Gour - Site Photos





Photo 5: Example of the 2019 wildfire damage in the w2b - Other woodland; mixed; mainly conifer habitat.

Photo 6: Pond located within the ground of a private residence.





Photo 7: Pond located on the eastern side of the haulage road.

Photo 8: Example of red squirrel feeding station recorded at the time of the survey.



Clash Gour - Site Photos



Photo 9: Example of potential red squirrel drey.



Photo 10: Potential pine marten or fox scat recorded within the Survey Area.



Photo 11: One of two wood ant nests recorded at the time of the survey.



APPENDIX E: TREE ROOST SUITABILITY CATEGORISATION

Table 1- Tree Roost Suitability Categorisation

Suitability	Description of Roosting Habitats	Commuting and Foraging Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats	Negligible habitat features on site likely to be used by foraging bats
Low	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roost potential. Trees with only superficial features are unlikely to be suitable for use by hibernating bats.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but not 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 tree with one or more potential roost sites that could be used by bats due to their size, shelter protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessment in this table are made irrespective of species conservation status, which is established after presence is confirmed). Trees with shallow cavities may be suitable for use by bats in mild winter conditions.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A tree 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 habitats. Trees with deep cavities may be suitable for hibernation if deep enough to support low, stable temperatures and are undisturbed.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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



Suitability	Description of Roosting Habitats	Commuting and Foraging Habitats
Confirmed	Tree with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.	grazed parkland. Site is close to and connected to known roosts.



