



ESB Asset Development UK Limited

Millmoor Rig Wind Farm

Technical Annex 8.2 - Protected Species

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Author	<u>Katie Farmer</u>	Technical & commercial reviewer	<u>Ruth Morton</u>
Signature		Signature	
Date:	<u>08.11.2022</u>	Date:	<u>10.11.2022</u>
Project manager	<u>Katie Farmer</u>		
Signature			
Date:	<u>08.11.2022</u>		

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EXECUTIVE SUMMARY

1. This Technical Annex has been prepared to accompany **Chapter 8: Ecology** of the Environmental Impact Assessment (EIA) Report for the proposed Millmoor Rig Wind Farm (hereafter the 'Proposed Development').
2. This Technical Annex presents detailed methodologies and results of desk studies and field surveys completed to establish baseline conditions with regards to protected and notable terrestrial species (excluding bats and badgers which are considered separately in **Technical Annex 8.3** and **CONFIDENTIAL Annex 8.4** in **Volume 2** of the EIA Report). This technical annex also provides advice on measures to mitigate the risks of disturbance to protected species. A protected species survey was previously undertaken at the Proposed Development site by MacArthur Green in August 2013 in relation to a wind farm proposal (Highlee Hill Wind Farm¹) which has since been withdrawn from planning.
3. The survey aimed to update the results of the previous surveys carried out by MacArthur Green in 2013 and to identify any new evidence of protected species within the application boundary.
4. A single otter couch was recorded along the banks of Jed Water during the surveys with a number of spraint also recorded. As the tributaries of the River Tweed Special Area of Conservation (SAC), for which otter is a qualifying species, flow through the site it is possible that otter associated with the SAC utilise the site for foraging and commuting. Pre-construction surveys should be undertaken to search for new otter resting sites immediately prior to construction works within proximity of the Black Burn. If any works are due to commence within 30 m of a confirmed resting site or within 200 m of a natal holt, a disturbance licence from NatureScot would be sought and a species protection plan (SPP) would be produced.
5. No evidence of water vole was recorded on the site during the surveys or historically and therefore this species is not considered likely to pose a constraint to the Proposed Development, and no further surveys are recommended.
6. No evidence of red squirrel was recorded during the surveys. Although red squirrels are present within the immediate area surrounding the Proposed Development, ongoing felling works make the site unsuitable for red squirrel due to high levels of human disturbance and lack of suitable foraging habitat which is more readily available in the surrounding areas. Therefore, red squirrels are not considered likely to be present within the Proposed Development site and no further surveys are recommended.
7. A number of common lizards were recorded during the surveys across the Proposed Development site. There is also suitable habitat for reptiles across the Proposed Development site including mosaic habitats for foraging and scrub, dry stone walls and brash piles for hibernacula. There is also potential slow worm and adder to be present across the Proposed Development site. It is considered that there is ample suitable habitat

¹ An application was submitted by RES in July 2016 for a Wind Farm situated at the same location, but with a different site boundary and the application was formally withdrawn in May 2016. Millmoor Rig Wind Farm is a wholly new project with no connection to the Highlee Hill Wind Farm proposal or to RES.

for reptiles to escape to during the construction and operation phases of the Proposed Development and therefore no further surveys are recommended.

8. As two of the identified ponds were assessed as excellent on the Habitat Suitability Index (HSI) to support populations of great crested newts (GCN), as a precautionary approach, reasonable avoidance measures (RAMS) should be adopted in order to avoid and/or minimise any unforeseen disturbance impacts on potential local GCN populations. Further environmental DNA (eDNA) surveys are recommended in order to confirm GCN presence / absence. It is proposed that the eDNA sampling is undertaken prior to construction activities in order to ascertain GCN presence / likely absence within the ponds within the access area.

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1 INTRODUCTION

1.1 Purpose of this Report

- 1.1.1 This Technical Annex has been prepared to accompany **Chapter 8: Ecology** of the Environmental Impact Assessment (EIA) Report for the proposed Millmoor Rig Wind Farm (hereafter 'Proposed Development').
- 1.1.2 This Technical Annex presents detailed methodologies and results of desk studies and field surveys completed to establish baseline conditions with regards to protected and notable terrestrial species (excluding bats and badgers which are considered separately in **Technical Annex 8.3** and **CONFIDENTIAL Annex 8.4** in **Volume 3** of the EIA Report). This Technical Annex also provides advice on measures to mitigate the risks of disturbance to protected species.
- 1.1.3 The following terminology is used throughout this Technical Annex:
- The Proposed Development – The wind farm development outlined by the application boundary including all infrastructure, the turbine area and access area shown in Figure 8.2.1.
 - The application boundary – the boundary of the Proposed Development site where field surveys were carried out including the turbine area and access area.
 - Survey area – turbine area, all site infrastructure and access areas plus a 100 m buffer as shown in Figure 8.2.2. There are some areas within the Proposed Development which have not been surveyed as no turbines, infrastructure or access is planned within these areas.
 - The turbine area – the area within the application boundary containing the wind turbine array.
 - The access area – refers to access route from the A6088 to the turbine area within the application boundary.
 - Initial survey – the first survey undertaken by RSK Biocensus in June 2021, which covered the turbine area.
 - Further survey – the second survey undertaken by RSK Biocensus in May 2022, which covered the turbine area and the access area.
 - The works – all works activities associated with the construction of the Proposed Development.

1.2 Site Description

- 1.2.1 The Proposed Development is located south of Hawick in the Scottish Borders (Ordnance Survey Grid reference: NT 61212 07010). The majority of the land within the application boundary consists of commercially stocked mature Sitka spruce (*Picea sitchensis*) in varying maturity along with large areas of clear-fell. There are numerous small watercourses which flow into Jed Water which is located in the east of the Proposed Development site. Active forestry operations include felling which is ongoing throughout the Proposed Development site.

- 1.2.2 Jed Water and its associated tributaries flow through the Proposed Development site and form part of the River Tweed, which is designated as a Site of Scientific Interest (SSSI) and special area of conservation (SAC). The banksides are mostly vegetated with damp neutral grassland communities. Wolfhopelee Burn is located west of the application boundary and is a tributary to Catlee Burn which flows into the River Tweed SAC and SSSI. The banksides of this burn are steep with broadleaved woodland, scrub and bracken.

1.3 Proposed Development

- 1.3.1 The Proposed Development would consist of up to 13 turbines with a height of between 180m and 230 m. Ancillary infrastructure would include turbine hardstanding areas, internal access tracks, substation compound (including substation, control building and battery energy storage facility), underground cabling, two temporary construction compounds (including a main compound and a mobilisation compound) turbine layover area and up to three borrow pit search areas. Site access is from the A6088 and predominantly follows existing forestry tracks. **Chapter 2: Proposed Development** of the EIA Report contains a more detailed description of the Proposed Development, and the site layout is shown on **Figure 2.2** of Volume 2 of the EIA Report.

2 METHODS

2.1 Overview

2.1.1 The initial survey was carried out between 28 June 2021 and 02 July 2021 by senior consultant Leanne Cooke and ecological consultant Katie Farmer with further surveys undertaken between 23 and 25 May 2022 of the access area and updated turbine area.

2.2 Background Data Search

2.2.1 A search was made in May 2021 for reference materials relating to the ecology of the Proposed Development, and a list of sources is given in Table 1. Designated sites within proximity to the Proposed Development are shown in Figure 8.2.3. Although not strictly related to protected species, these results were included within this report for completeness.

Table 1: Data Sources

Information Obtained	Available From
Protected and Noteworthy species-records including bats	The Wildlife Information Centre
Bat records for England	Environmental Records Information Centre North East
Bat records for England	Northumberland Bat Group – unable to do data requests at the time of asking
Designated site locations and citations	Nature Scot Site Link website
Designated site locations and citations	The Wildlife Information Centre
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) website
Details of species and habitats listed on the Scottish Borders Local Biodiversity Action Plan	Local BAP website https://scottishborders.moderngov.co.uk/documents/s30454/Item%20No.%206%20-%20Annex%20A%20-%20Local%20Biodiversity%20Action%20Plan%202018-2028-%20Supplementary%20Guidance.pdf

2.2.2 A search was made for information on statutory designated sites (often internationally and nationally important sites for ecology) within 2 km of the Proposed Development and non-statutory designated sites (often important in a local context) within 1 km. The search was extended to 10 km for internationally designated sites. A search was also made for records of noteworthy species within 1 km of the Proposed Development. Species included in the search parameters were:

- European protected species (listed on Schedule 2 and 4 of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended));
- Nationally protected species under Schedules 1, 5 and 8 of The Wildlife & Countryside Act 1981 as amended by The Wildlife and Natural Environment (Scotland) Act 2011;

- Species listed as critically endangered, endangered or vulnerable on the IUCN Red List;
- All species listed on the RSPB Birds of Conservation Concern 4 as red or amber;
- Species listed on The Convention for the Protection of the Marine Environment of the North-East Atlantic (the OSPAR Convention)
- Nationally rare or nationally scarce species;
- Notable invertebrates; and
- Species that have action plans under the Scottish Biodiversity List (SBL) or are priority species under the Local Biodiversity Action Plan.

2.3 Habitat Assessment and Surveys for Protected Animals

2.3.1 Taking into account the habitats present within the Proposed Development, the records returned from the background data search, and based upon the existing information recorded during the surveys undertaken for the now withdrawn Highlee Hill Wind Farm, specific surveys were undertaken for bats (*Chiroptera* sp), otter (*Lutra lutra*), and badger (*Meles meles*). Specific surveys for water vole (*Arvicola amphibius*), great crested newt (*Triturus cristatus*) and red squirrel (*Sciurus vulgaris*) were scoped out, however for completeness, where areas of suitable habitat were present, evidence of these species was searched for. The results of the bat and badger surveys are reported on separately in **Technical Annex 8.3** and **Confidential Annex 8.4**.

2.3.2 The results of the protected species survey are shown in Figure 8.2.4.

Otters

2.3.3 Habitat was assessed for otter according to the following criteria, which were then used to categorise habitat according to suitability for the species. The following habitat factors were taken into consideration:

- water quality;
- water-level regime;
- channel dimensions;
- bank type and material;
- vegetation for cover and food sources;
- shading;
- predation and competition; and
- habitat management.

2.3.4 Habitats with potential for otters within 100 m of all confirmed infrastructure within the application boundary were surveyed for evidence of otter activity in addition to 250 m upstream and downstream. Suitable bank-side and water-edge habitats were systematically searched for field signs of the species including:

- spraint (droppings);

- footprints;
- slides;
- paths;
- feeding evidence:
- holts (underground resting places); and
- couches (temporary resting places).

Water Voles

2.3.5 A specific water vole survey was scoped out due to the previous negative result for records within the Proposed Development. In addition, no records were returned from the desk study. For completeness however, a search for any new activity was undertaken on all water crossings within 30 m of all confirmed infrastructure.

2.3.6 The water vole survey was undertaken in conjunction with the otter survey and followed the methodology described in Strachan (2011) and Dean et al. (2016). The survey involved assessing the suitability of the habitat and searching any suitable habitat thoroughly for signs of water voles, including:

- burrows;
- feeding platforms;
- evidence of feeding (including food remains);
- latrines; and
- footprints.

Red Squirrel

2.3.7 A specific red squirrel survey was scoped out due to the ongoing forestry operations being undertaken across the Proposed Development site, the high levels of disturbance and the lack of evidence of this species historically at the site. It was also noted that much of the conifer plantation within the site is considered sub-optimal for drey building as many of the trees are too small and immature with a lack of substantial food source with limited species diversity within the plantation forest (Poulsom, et al., 2005). In addition, there are also large areas of wind blow which further limit the suitability for red squirrel.

Great Crested Newt

2.3.8 A great crested newt Habitat Suitability Assessment (HSA) was carried out using the Habitat Suitability Index (HSI) described in ARG UK Advice Note 5 (2010) and developed by Oldham et al. (2000).

2.3.9 The HSI considers ten factors (suitability indices (SI) 1 to 10), which can influence the presence / absence of GCN and includes:

- geographic location (SI₁);
- surface area (SI₂);
- hydrology (drying) (SI₃);

- water quality (SI₄);
- shade (SI₅);
- presence of water fowl (SI₆);
- presence of fish (SI₇);
- number of adjacent water features (SI₈);
- terrestrial habitat (SI₉); and
- macrophyte cover (SI₁₀).

2.3.10 The assessment also includes the quality of the surrounding habitat which would ideally comprise a mosaic of rough grassland, scrub and woodland with opportunities for shelter and hibernation.

2.3.11 The HSI is a numerical index which scores each criterion between 0 and 1 providing an indication on the suitability of the pond to potentially support GCN. Ponds that score highly on the HSI are more likely to support GCN and ponds that score low are considered less likely to support GCN. It is important to note that the HSI is an estimate to provide the likelihood of GCN presence and ponds which score low on the HSI score may still support GCN.

2.3.12 Each factor is scored based on its suitability and is calculated using the following formula:

$$HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$$

2.3.13 The HSI score bands are highlighted below in Table 2.

Table 2: Great Crested Newt Habitat Suitability Index

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below average
0.5 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

2.4 Constraints and Limitations

2.4.1 Field signs for protected and valuable species are often difficult to find or absent from a site. The survey conducted was not intended to be a comprehensive presence/absence survey for all species, but rather to provide an indication of the likely presence of such species based on the field signs found, and the nature of the habitats present.

2.4.2 At the time of survey, felling works were being undertaken in a northern section of the Proposed Development site, and within the plantation woodland adjacent to the access area, thus precluding access. As a result of the felling, it is considered that any possible evidence of protected species within this area would have been destroyed. Therefore, this is not thought to have affected the robustness of the data recorded.

2.4.3 Due to steep banks in places precluding access, Black Burn was not fully accessible to survey due to health and safety reasons. Surveyors made every effort to cover the

majority of the watercourse and it is not considered to have affected the robustness of the surveys or the data collected.

2.4.4 Surveyors were unable to access small parts of the access area for health and safety reasons due to the presence of thick vegetation and windblown trees along the route, making it difficult to carry out an intensive survey. Every effort was made to enter these areas and thoroughly check for the presence of protected species, and this is not thought to affect the robustness of the data collected.

2.4.5 The weather prior to the surveys was extremely wet and therefore it is likely that any evidence of otter activity may have washed away. In addition, the thickness of vegetation and the steepness of banks in places precluded access along some small sections of the watercourse and therefore the presence of otter along Black Burn cannot be ruled out.

3 RESULTS

3.1 Designated Sites

Statutory Sites

3.1.1 There are four statutory designated sites within 2 km of the Proposed Development, comprising two special areas of conservation (SACs) and two sites of special scientific interest (SSSIs). These sites are listed in Table 3 in order of proximity to the Proposed Development; short descriptions are given for the sites. Borders Woods SAC is designated for their Annex 1 habitat and not protected species. Therefore, this designated site is not considered further in this report.

Table 3: Statutory sites within 2 km of the Proposed Development

Site Name	Designation	Approximate Distance (m)
Cragbank and Wolfhopelee	SSSI	300 west
<p>Cragbank and Wolfhopelee SSSI is a composite woodland site situated on steep slopes and is composed of two discrete compartments of ancient native woodland; Cragbank and Wolfhopelee. Cragbank is the largest area of ancient ash (<i>Fraxinus excelsior</i>) - elm (<i>Ulmus glabra</i>) -hazel (<i>Corylus avellana</i>) woodland remaining in the Borders. It has a diverse ground flora and a wider range of woodland types than elsewhere in the area. Wolfhopelee occupies a steep sided gorge adjacent to Wolfhopelee Burn. It largely consists of wet alder (<i>Alnus glutinosa</i>) woodland. The site is important for beetles including several rare and nationally scarce species, and many are associated with dead or dying timber. The beetle records for the site show the presence of 37 species. These records include the nationally scarce rove beetle <i>Phyllodrepa puberula</i>, the locally rare rove beetles <i>Dropephylla ioptera</i> and <i>Quedius plagiatus</i>, and the regionally rare leaf beetle <i>Chrysomela aenea</i>. The invertebrates and ground flora of the SSSI indicate the ancient, undisturbed nature of the site. Cragbank and Wolfhopelee SSSI is within the Borders Woods SAC as described below.</p>		
River Tweed	SAC	0
<p>The River Tweed SAC is designated for the following Annex I habitats:</p> <ul style="list-style-type: none"> - Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation. The river is the most species-rich example of a river with Ranunculus in Scotland, and is the only site selected for this habitat in Scotland. The river has a high ecological diversity which reflects the mixed geology of the catchment. Stream water-crowfoot (<i>Ranunculus penicillatus</i> ssp. <i>pseudofluitans</i>), occurs at its most northerly location as does fan-leaved water-crowfoot (<i>R. circinatus</i>), along with river water-crowfoot (<i>R. fluitans</i>), common water-crowfoot (<i>R. aquatilis</i>), pond water-crowfoot (<i>R. peltatus</i>) and a range of hybrids. The Tweed is also the most northerly site for flowering-rush (<i>Butomus umbellatus</i>). <p>The SAC is also designed for the following Annex II species:</p> <ul style="list-style-type: none"> - Atlantic salmon - otter 		

Site Name	Designation	Approximate Distance (m)
<p>The following Annex II species present as a qualifying feature, but not a primary reason for site selection:</p> <ul style="list-style-type: none"> - brook lamprey - river lamprey - sea lamprey <p>The River Tweed SAC runs along the eastern and western edges of the site boundary and crosses the access area.</p>		
Kielderhead Moors: Carter Fell to Peel Fell	SSSI	1,120 south
<p>Kielderhead Moors: Carter Fell to Peel Fell SSSI is contiguous with the Kielderhead and Emblehope Moors SSSI in Northumberland, the whole unit forms one of the largest and typically diverse areas of upland habitat in this part of Britain. Most of the broad water-shed has a typical Pennine blanket peat cover dominated by hare's tail cotton grass (<i>Eriophorum vaginatum</i>) and heather (<i>Calluna vulgaris</i>) with much crowberry (<i>Empetrum nigrum</i>), locally abundant cloudberry (<i>Rubus chamaemorus</i>) and deer sedge (<i>Trichophorum cespitosum</i>). Reduction of burning and grazing since the 1960's has enabled a good bog moss (<i>Sphagnum</i> sp.) cover to re-establish with hummock-hollow micro-topography. Other habitats present include acid grassland, marshy grassland, bracken (<i>Pteridium aquilinum</i>) and relict scrub. In grassland areas, often where there is some bracken, adders are present. The site is important for birds, species include curlew, dunlin, golden plover, ring ouzel, snipe, teal, wheatear and whinchat as well as four raptor species.</p>		

Internationally Designated Sites

- 3.1.2 The River Tweed is the only internationally designated site for protected species located within 10 km of the Proposed Development, with otter, Atlantic salmon and three species of lamprey amongst its qualifying features.

Non-statutory Sites

- 3.1.3 There are no non-statutory designated sites within 1 km of the Proposed Development.

Protected and Noteworthy Species

- 3.1.4 At least 121 noteworthy species are recorded from places within 1 km of the Proposed Development site. Of these, 64 are birds, 4 are fish, 20 are invertebrates, 18 are plants and lichen and at least 11 are mammals, 2 are amphibians and 2 are reptiles and are outlined below in Table 4. Species that are protected by law under Schedules 2 and 4 of The Conservation (Natural Habitats, & c.) Regulations 1994 (as amended); or Schedules 2, 5 and 8 of The Wildlife and Countryside Act 1981 as amended by The Wildlife and Natural Environment (Scotland) Act 2011 and have been recorded in the search area are listed in the table below (excluding species protected only against collection for sale); a full species list is given in Annex B – NOTEWORTHY SPECIES RECORDS

Table 4: Protected species records within 1 km of the Proposed Development

Latin Name	Common Name	Designation	Most Recent	No of Records	Within 100m	Within 1km	Within 2km	Within 10km
Birds								
<i>Accipiter gentilis</i>	goshawk	WCA1.1	2011	8	<input checked="" type="checkbox"/>			
<i>Aquila chrysaetos</i>	golden eagle	WCA1.1	1994	7		P	P	<input checked="" type="checkbox"/>
<i>Circus cyaneus</i>	hen harrier	WCA1.1	2004	1		<input checked="" type="checkbox"/>		
<i>Falco columbarius</i>	merlin	WCA1.1	2009	3	<input checked="" type="checkbox"/>			
<i>Falco peregrinus</i>	peregrine	WCA1.1	2013	5	P	P	<input checked="" type="checkbox"/>	
<i>Fringilla montifringilla</i>	brambling	WCA1.1	2011	4	P	<input checked="" type="checkbox"/>		
<i>Loxia curvirostra</i>	red crossbill	WCA1.1	2017	27	P	<input checked="" type="checkbox"/>		
<i>Turdus pilaris</i>	fieldfare	WCA1.1	2011	6	P	P	<input checked="" type="checkbox"/>	
<i>Tyto alba</i>	western barn owl	WCA1.1	2015	6		P	<input checked="" type="checkbox"/>	
Mammals								
<i>Lutra lutra</i>	European otter	HR-1994(Sch 2)	2011	5		<input checked="" type="checkbox"/>		
<i>Sciurus vulgaris</i>	Eurasian red squirrel	WCA5	2014	156	<input checked="" type="checkbox"/>			
Reptiles								
<i>Vipera berus</i>	adder	WCA5	2004	7	<input checked="" type="checkbox"/>			
<i>Zootoca vivipara</i>	common lizard	WCA5	2004	1	<input checked="" type="checkbox"/>			

Note - **P** relates to records with 4 figure or tetrad grid references that could potentially be anywhere within a 1 km or 2 km square.

3.2 Habitat Assessment and Surveys for Protected Animals

3.2.1 The initial survey of the turbine area was carried out between 28 June 2021 and 02 July 2021 with further surveys of the turbine and access areas undertaken between 23 and 25 May 2022 due to changes in scope including updates to the access area and the turbine area. The results of these surveys are outlined below.

Otters

3.2.2 The background data search returned five records of otter within 1 km of the Proposed Development site.

3.2.3 During the initial survey undertaken in June 2021 an otter couch was recorded on the west bank of Jed Water (Photo 01). The couch was located in the root system of a dead tree along a subsided bank at grid reference NT 62761 06963. There was some shallow water present in the back of the couch with a single spraint recorded in the entrance. In addition, a further four spraints were recorded. These were all identified along the banks of Jed Water and varied between fresh and old.

3.2.4 During the further surveys undertaken in May 2022 no further evidence of otter was recorded although suitable habitat was identified. The weather prior to, and during, the

further surveys was very wet. It is therefore possible that evidence of otter activity had washed away in the rain and due to higher water levels.



Photo 01: Otter couch recorded on the west bank of Jed Water

Water Voles

- 3.2.5 Although there are several small watercourses and burns within the survey area which are considered suitable to support water vole, no evidence of water vole was recorded historically or during the survey.

Red Squirrel

- 3.2.6 The background data search returned 156 records of red squirrel within 1 km of the Proposed Development site.
- 3.2.7 As records of red squirrel were returned within 1 km of the Proposed Development site from the desk study, for completeness, a search for any evidence of red squirrel was undertaken within the survey area excluding the access area in June 2021 and of the access area in May 2022. This included a search for dreys and feeding signs in the remaining coniferous plantation located within the application boundary. Although there are still some expanses of coniferous plantation located within the application boundary, no evidence of red squirrel was recorded during the survey including no dreys identified and no feeding remains recorded.

Reptiles

- 3.2.8 The background data search returned a single record of adder (*Vipera berus*) and seven common lizards within 1 km of the Proposed Development site.
- 3.2.9 During the surveys, in excess of 15 common lizards (*Zootoca vivipara*) were seen in varying locations within the survey area. Individuals were recorded within the mosaic grassland habitats, brash and clear fell areas.
- 3.2.10 There is suitable habitat to support reptile species including the clear fell and grassland areas (Photo 02). In addition, there are a number of dry-stone walls which offer shelter and are suitable hibernacula features for reptiles including common lizard and slow worm (*Anguis fragilis*) (Photo 03).



Photo 02: Suitable habitat for reptiles.



Photo 03: Dry-stone walls suitable as reptile hibernacula.

Great Crested Newt

- 3.2.11 During the further surveys in 2022, four ponds were recorded within the access area. Two of the ponds were completely dry at the time of survey, despite heavy rainfall and therefore these were not considered in the assessment. These dry ponds are located at NT 64661 06747 and NT 64742 06655. A habitat suitability index (HSI) was undertaken on the remaining two ponds on 24 May 2022.
- 3.2.12 Pond 1 is located in conifer plantation glade which is dominated by grassland, rush species and bracken. The pond is adjacent to watercourse with a pond area of c.400 m² with an irregular shape and a small island in the middle located at NT 64873 06319.
- 3.2.13 Pond 2 has an area of c.300 m² and is located within close proximity to a tributary of Black Burn in a large flat area of grass, Molinia and bracken at NT 65560 07547. To the north there is a large area of coniferous plantation with moderate terrestrial habitat available.
- 3.2.14 The suitability for both ponds was calculated as excellent (HSI Score 0.8 and 0.81). The HSI calculation score is shown in **Error! Reference source not found.**

Table 5: Habitat Suitability Index

Suitability Index Description	Suitability Index Parameter	Suitability Index Value
Pond 1		
Location (SI ₁)	B	0.5
Pond Area (SI ₂)	300	0.8
Permanence (SI ₃)	Never	0.9
Water Quality (SI ₄)	Good	1
Shade (SI ₅)	50%	1
Waterfowl (SI ₆)	Minor	0.67
Fish (SI ₇)	Possible	0.67
Pond count (SI ₈)	1.6	1
Terrestrial habitat (SI ₉)	Good	1
Macrophytes (SI ₁₀)	40	0.7
HSI Score		0.80
Suitability		Excellent
Pond 2		
Location (SI ₁)	B	0.5
Pond Area (SI ₂)	300	0.7
Permanence (SI ₃)	Never	0.9
Water Quality (SI ₄)	Good	1
Shade (SI ₅)	30%	1

Suitability Index Description	Suitability Index Parameter	Suitability Index Value
Waterfowl (SI ₆)	Absent	1
Fish (SI ₇)	Possible	0.67
Pond count (SI ₈)	5.0	1
Terrestrial habitat (SI ₉)	Moderate	0.67
Macrophytes (SI ₁₀)	60	0.9
	HSI Score	0.81
	Suitability	Excellent

4 EVALUATION AND RECOMMENDATIONS

4.1 Designated Sites

- 4.1.1 The access track to the west of the Proposed Development site will be used during the initial phase of construction, however the road will not be modified to facilitate the works and therefore Cragbank and Wolfhopelee SSSI is considered suitably distant from the proposed works to avoid negative impact to these protected areas.
- 4.1.2 Tributaries of the River Tweed SAC/SSSI including Black Burn and Jed Water flow through the Proposed Development. A new watercourse crossing would be constructed over the Black Burn, which has the potential to cause an adverse impact. It is recommended that a HRA Stage 1 screening assessment be undertaken to consider further the potential for the Proposed Development to result in likely significant effects on internationally important sites.
- 4.1.3 The best practice guidance in Section 5 of this document would be implemented during construction and operation activities.
- 4.1.4 Kielderhead Moors: Carter Fell to Peel Fell SSSI is considered suitably distant from the proposed works to avoid negative impact to the designated site.

4.2 Protected Species

Otters

- 4.2.1 A single otter couch was recorded during the initial with no evidence of otter recorded during the further surveys within the access area. However, suitable habitat was recorded to support this species. It is considered that otter associated with the SAC are likely to utilise the Proposed Development site including Jed Water, Black Burn and its associated tributaries for foraging, commuting and resting.
- 4.2.2 No works are proposed to be undertaken within immediate proximity to Jed Water. However, a new watercourse crossing of the Black Burn will be constructed.
- 4.2.3 Further pre-construction surveys should be undertaken to search for any new otter resting sites immediately prior to construction works in proximity to Black Burn or Jed Water. If any works are due to commence within 30 m of a confirmed resting site or within 200 m of a natal holt, a disturbance licence from NatureScot and a species protection plan (SPP) will be required before works can proceed.

Water Vole

- 4.2.4 No evidence of water vole was recorded during the surveys and no records of water vole were returned from the background data search within 1 km of the Proposed Development site. Therefore, it is not considered that water voles are present. Water voles are not a constraint to the works and are not considered further.

Red Squirrel

- 4.2.5 No evidence of red squirrel was recorded during the surveys. Despite a large number of records returned within 1 km of the Proposed Development site, much of the suitable

habitat for red squirrel has been removed with current felling operations being undertaken. In total, over 100 ha of coniferous plantation has been felled within the Proposed Development site. Much of the remaining coniferous plantation is considered sub-optimal for drey building with large areas of immature plantation providing a lack of substantial food source. The remaining plantation within the Proposed Development site is therefore not considered substantial enough to support populations of red squirrel due to a lack of suitable foraging habitat. Large areas of wind blow and high levels of disturbance further limit the sites suitability for red squirrel. Therefore, red squirrels are not a constraint to the works and are not considered further.

- 4.2.6 During construction, if evidence of red squirrel is recorded within 30 m of site operations, then works would cease and an ecologist would be consulted.

Reptiles

- 4.2.7 At the time of writing, it was not clear whether the dry-stone walls within the survey area would be affected by the works. However, there is suitably ample habitat for any reptiles present to be dispersed to in addition to a large number of suitable hibernacula in the brash piles and scrub and therefore reptiles are not considered a constraint to the works and are not considered further.

Great Crested Newt

- 4.2.8 As a precautionary approach RAMS (reasonable avoidance measures) would be adopted in order to avoid and/or minimise any unforeseen disturbance impacts on potential local GCN populations. Further environmental DNA (eDNA) surveys would be taken prior to construction to confirm GCN presence / absence of the ponds within the access area.

5 BEST PRACTICE GUIDANCE

5.1.1 Given the potential for legally protected species such as otters to be present within the Proposed Development site, construction best practice methods should be implemented during the works to minimise the potential impacts to protected species such as sediment control and pollution prevention where works are due to commence near watercourses. Where necessary mitigation may require species specific plans to minimise the risk of disturbance to protected species:

- It is recommended that construction activities should be undertaken during daylight hours. As such they should be avoided during night-time hours when working near watercourses, in order to avoid the crepuscular activity of otters. Where this is not possible and night-time working is necessary in order for the works to proceed, then any artificial lighting must be implemented for the duration of the works activity.
- All trenches and excavations should be fenced or covered-over at night to prevent any animals from falling in and becoming trapped. Where this is not possible, a means of escape should be provided i.e. gently sloping banks or a ramp to provide escape.

6 REFERENCES

Amphibian and Reptiles Groups of the United Kingdom (ARG UK) Advice Note 5 (2010). Great Crested Newt Habitat Suitability Index. (www.arguk.org/.../9-arg-advice-note-5-great-crested-newt-habitat-suitability-index).

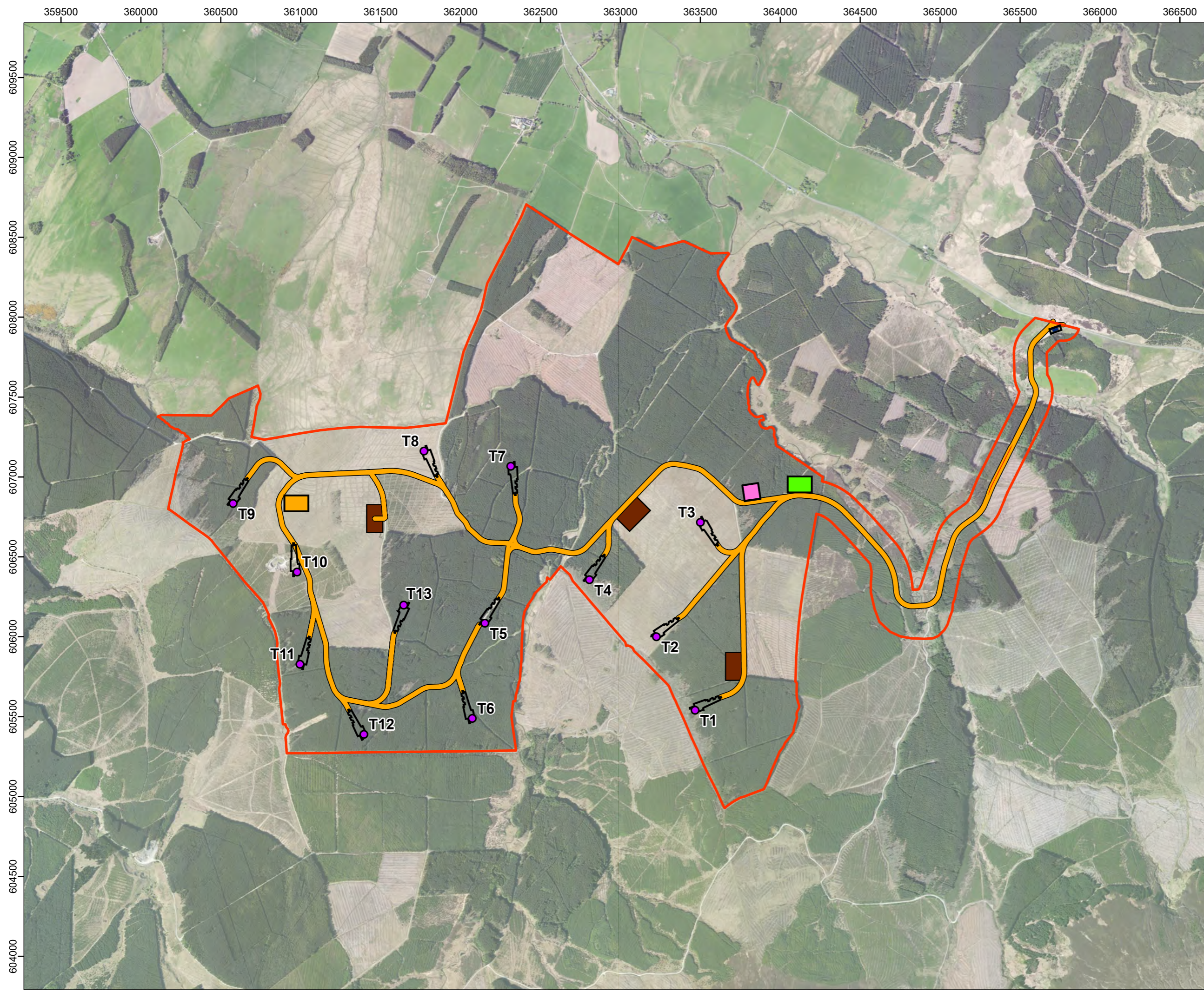
Bang, P & Dahlstrøm, P (2001). Animal Tracks and Signs. Oxford University Press, Oxford.

Edgar P, Foster J and Baker J (2010). Reptile Habitat Management Handbook, Amphibian and Reptile Conservation Trust, Bournemouth.

Oldham R.S., Keeble J., Swan M.J.S & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155.

Poulsom, L., Griffiths, M., Broome, A., and Mayle, B. (2005). Identification of priority woodlands for red squirrel conservation in North and Central Scotland: a preliminary analysis. Scottish Natural Heritage Commissioned Report No. 089 (ROAME No. F02AC334).

7 FIGURES



- Legend:**
- Application Boundary
 - Turbine Locations
 - Access Tracks
 - Hardstands
 - Borrow Pit Search Areas
 - Temporary Turbine Layover Area
 - Mobilisation Compound (70m x 30m)
 - Construction Compound (100m x 100m)
 - Substation (150m x 100m)**
 - Preferred Substation Option
 - Alternate Substation Option

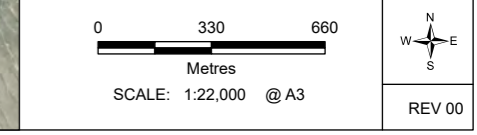


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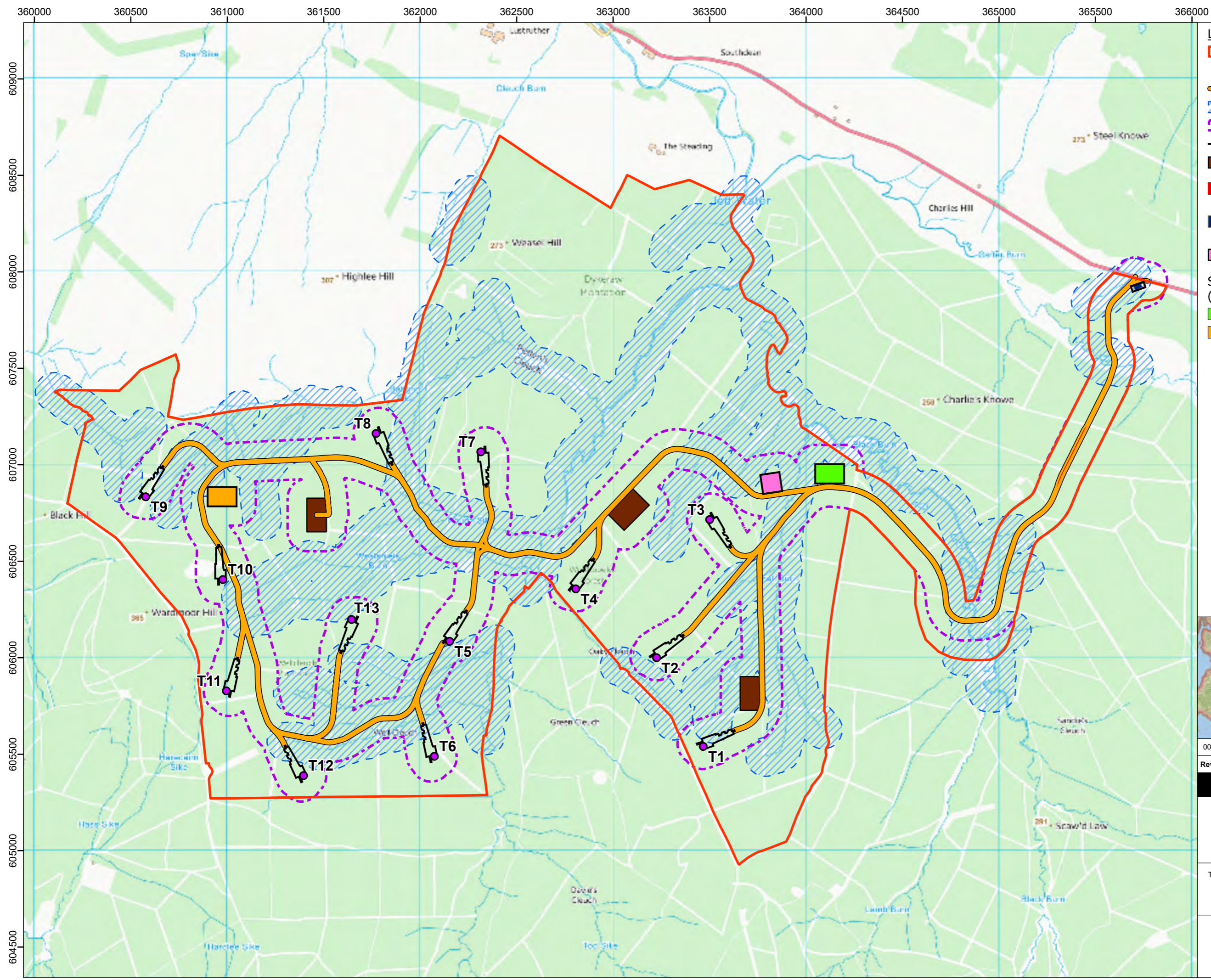
Millmoor Rig Wind Farm



TITLE: Figure 8.2.1:
 Technical Appendix 8.2 - Protected Species
 Site Location Plan



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 NatGeo_World_Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.
 World Imagery (Clarity): This work is licensed under the Esri Master License Agreement. View Summary | View Terms of Use. Export: This layer is not intended to be used to export tiles for offline. Data Collection and Editing: This layer may be used in various ArcGIS apps to support data collection and editing, with the results used internally or shared with others, as described for these use cases.



- Legend:**
- Application Boundary
 - Turbine Locations
 - Access Tracks
 - 100m Watercourse Buffer
 - 100m Infrastructure Buffer
 - Hardstands
 - Borrow Pit Search Areas
 - Temporary Turbine Layover Area
 - Mobilisation Compound (70m x 30m)
 - Construction Compound (100m x 100m)
 - Substation (150m x 100m)
 - Preferred Substation Option
 - Alternate Substation Option



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Millmoor Rig Wind Farm




RSK
biocensus
EXPERTS IN ECOLOGY

TITLE: Figure 8.2.2:
Technical Appendix 8.2 - Protected Species
Survey Area Including the Application
Boundary and Associated Buffers

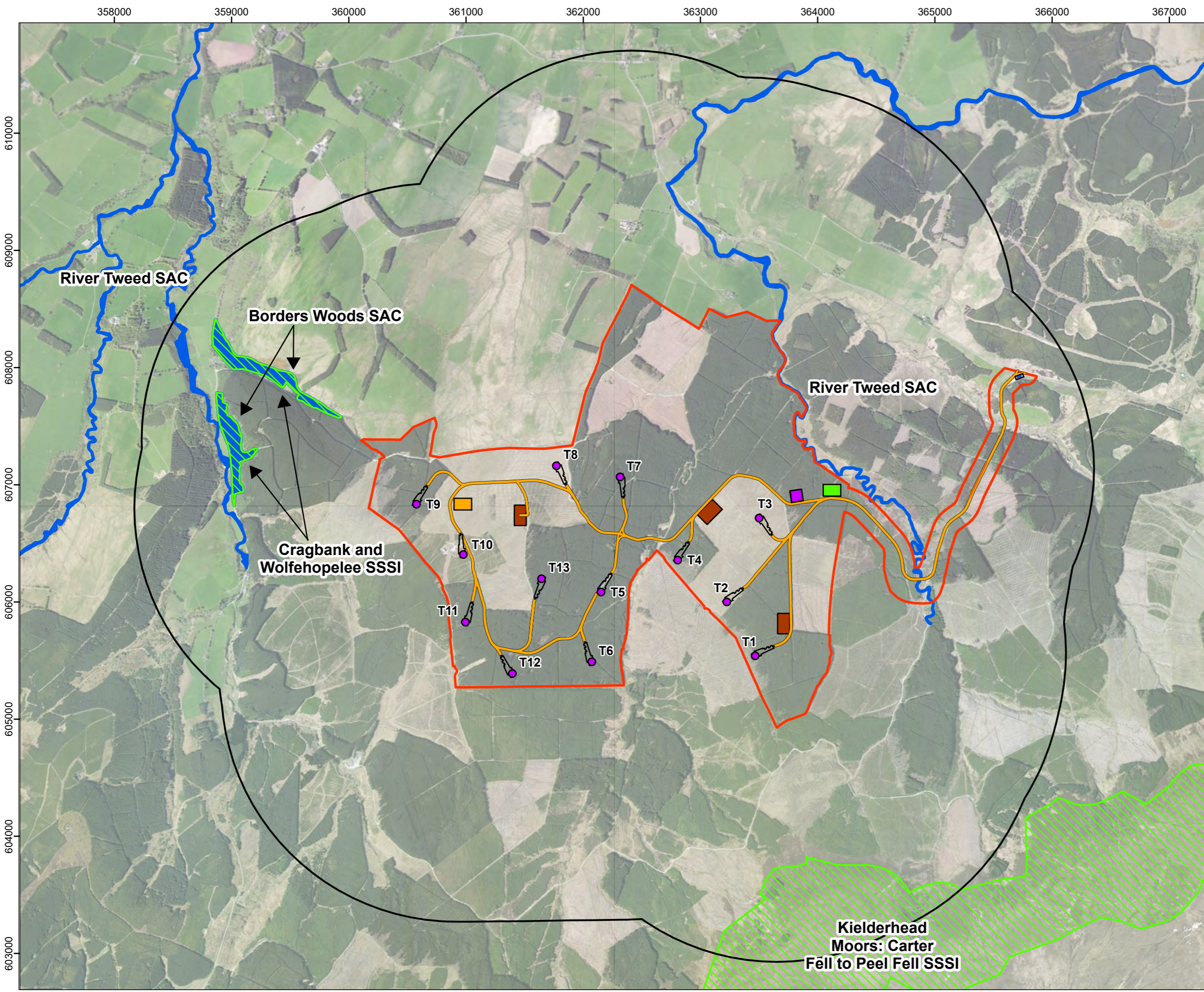
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- Legend:**
- Application Boundary
 - Turbine Locations
 - 2km Site Buffer
 - Access Tracks
 - Hardstands
 - Borrow Pit Search Areas
 - Temporary Turbine Layover Area
 - Mobilisation Compound (70m x 30m)
 - Construction Compound (100m x 100m)
 - Substation (150m x 100m)
 - Preferred Substation Option
 - Alternate Substation Option
 - Site of Special Scientific Interest
 - Special Area of Conservation



Rev	Date	Description	Drn	Chk	App
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Millmoor Rig Windfarm



TITLE: Figure 8.2.3:
Technical Appendix 8.2 - Protected Species Designated Sites

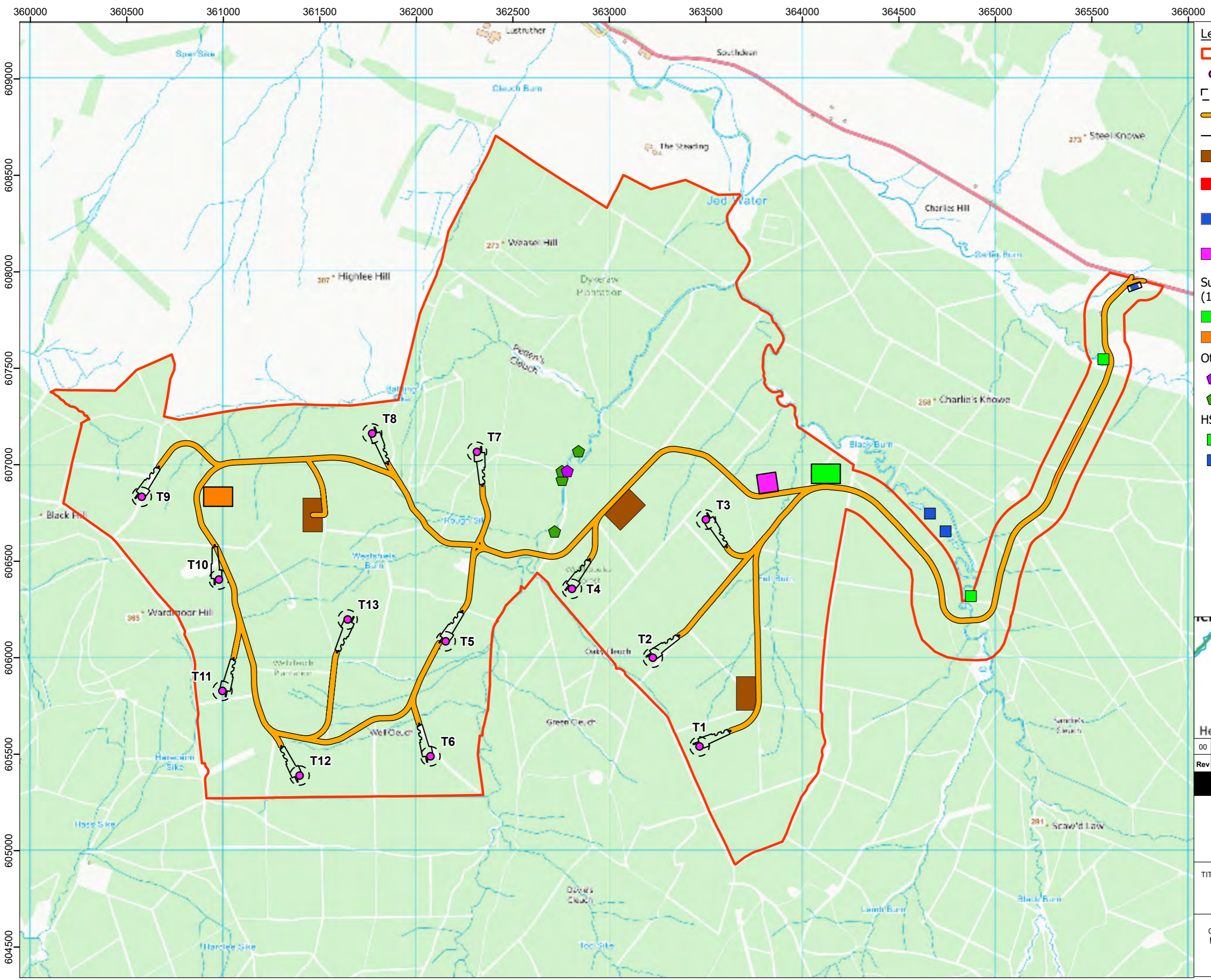
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REV 00

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 World Imagery (Clarity): Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Contains Scottish Natural Heritage Data. Contains Ordnance Survey data © Crown copyright and database right 2022.



- Legend:**
- Application Boundary
 - Turbine Locations
 - 50m Turbine Buffer
 - Access Tracks
 - Hardstands
 - Borrow Pit Search Areas
 - Temporary Turbine Layover Area
 - Mobilisation Compound (70m x 30m)
 - Construction Compound (100m x 100m)
 - Substation (150m x 100m)
 - Preferred Substation Option
 - Alternate Substation Option
 - ◆ Otter Field Signs
 - ◆ Couch
 - ◆ Spraint
 - HSI Potential Suitability for GCN
 - Negligible

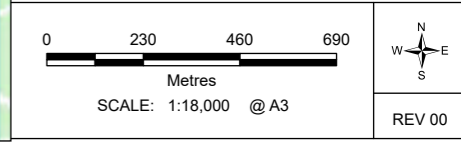


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Millmoor Rig Wind Farm

RSK
biocensus
EXPERTS IN ECOLOGY

TITLE: Figure 8.2.4:
Technical Appendix 8.2 - Protected Species
Protected Species Survey Results



ANNEX A – LEGISLATION

Relevant legislation

International and national legislation (as amended in Scotland) relating to this assessment include:

- Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds 2009 (Birds Directive).
- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora 1992 (Habitats Directive).
- Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Bern Convention).
- Wildlife and Countryside Act 1981 (WCA).
- Conservation of Habitats and Species Regulations 1994 (Habitat Regulations).
- Nature Conservation (Scotland) Act 2004.
- Wildlife and Natural Environment (Scotland) Act 2011.

General

The following sections briefly describe the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

European Protected Species

Habitats Regulations

European protected species (EPS) are those listed on Schedule 2 and 4 of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended).

Regulation 39 states that it is an offence to:

- deliberately capture, injure or kill an EPS;
- deliberately disturb a EPS, including in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young; or (ii) hibernate or migrate, where relevant; or (b) to affect significantly the local distribution or abundance of the species to which they belong.
- damage or destroy a breeding site or resting place of an EPS; and
- possess, control, transport, sell, exchange an EPS, or offer a EPS for sale or exchange.

Confirmed habitats (*i.e.* breeding sites, sheltering places) receive legal protection even when EPS are not present.

Regulation 43 states that it is an offence to:

- deliberately pick, collect, cut, uproot or destroy a wild plant of a European protected species;

- keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild plant of a European protected species, or any part of, or anything derived from, such a plant.

Works affecting an EPS may require a development licence from the licensing authority, which is NatureScot (formerly known as Scottish Natural Heritage) Licences are only issued for a specific purpose and where NatureScot are satisfied that there is no satisfactory alternative (*i.e.*, works are for health and safety or for overriding reasons of public interest) and that the favourable conservation status of bat populations will not be detrimentally affected.

At present, Schedule 2 EPS comprise of beaver (*Castor fiber*), bats (*Rhinolophidae* and *Vespertilionidae*), large blue butterfly (*Maculinea arion*), wildcat (*Felis silvestris grampia*), dolphins (*Cetacea*), great crested newt (*Triturus cristatus*), otter (*Lutra lutra*), sturgeon (*Acipenser sturio*), natterjack toad (*Bufo calamita*) and marine turtles (five species).

At present, Schedule 4 EPS comprise of creeping marshwort (*Apium repens*), lady's slipper (*Cypripedium calceolus*), early gentian (*Gentianella anglica*), fen orchid (*Liparis loeselii*), floating-leaved water plantain (*Luronium natans*), slender naiad (*Najas flexilis*), shore dock (*Rumex rupestris*), marsh saxifrage (*Saxifraga hirculus*) and Killarney fern (*Trichomanes speciosum*).

UK Protected Species

Wildlife and Countryside Act 1981 (as amended)

UK Protected Species are those listed on Schedule 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended) extended by the Nature Conservation (Scotland) Act 2004.

Section 1 states that it is an offence to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird;
- disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a Schedule 1 bird.

It is not possible to licence works affected nesting birds for development purposes; therefore, work should avoid the nesting bird season (*i.e.* March to August inclusive).

Section 5 of the Act states that it is an offence to:

- Intentionally, or recklessly, kill, injure or take a Schedule 5 species;
- possess or control a Schedule 5 species;
- intentionally, or recklessly, or recklessly damage, destroy or obstruct access to any structure or place used by a Schedule 5 species; and
- intentionally, or recklessly, or recklessly disturb a Schedule 5 species whilst it occupies a any structure or place.

Section 13 of the Act states that it is an offence to:

- intentionally picks, uproots or destroys any wild plant included in Schedule 8; or

- not being an authorised person, intentionally uproots any wild plant not included in Schedule 8.

Section 14(2) (as amended by Section 14 of the Wildlife and Natural Environment (Scotland) Act 2011), states that it is an offence to plant or otherwise cause to grow any plant in the wild at a place outside its native range.

Wild Mammals (Protection) Act 1996

All wild mammals are protected under the Wild Mammals (Protection) Act 1996. *Section 1* of the Act states that it is an offence to *mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.*

ANNEX B – NOTEWORTHY SPECIES RECORDS

7.1.1 Table 6 displays noteworthy species records that are located within 1 km of the Proposed Development application boundary. These species records were obtained from the Wildlife Information Centre and the Environmental Records Information Centre North-East. The Latin and common names for species are given as well as their level of designation. A glossary defining abbreviations used in the table is given in Table 7, Annex C – Abbreviations. If a species is not included in the table below it does not necessarily mean the species is absent from the search area, but rather that data-holding organizations do not have records of it in these locations.

Table 6: Noteworthy species records within 1 km of the Proposed Development Site

Latin Name	Common Name	Designation
Amphibians		
<i>Bufo bufo</i>	common toad	WCA5, SBL
<i>Rana temporaria</i>	common frog	WCA5
Birds		
<i>Acanthis cabaret</i>	lesser redpoll	SBL, Red
<i>Accipiter gentilis</i>	goshawk	WCA1.1
<i>Actitis hypoleucos</i>	common sandpiper	Amber, GB RDB(VU)
<i>Alauda arvensis</i>	Eurasian skylark	SBL, Red
<i>Anas crecca</i>	teal	Amber
<i>Anas platyrhynchos</i>	mallard	Amber
<i>Anser brachyrhynchus</i>	pink-footed goose	Amber
<i>Anthus pratensis</i>	meadow pipit	Amber
<i>Anthus trivialis</i>	tree pipit	SBL, Red
<i>Apus apus</i>	swift	SBL, Amber, GB RDB(EN)
<i>Aquila chrysaetos</i>	golden eagle	WCA1.1, SBL
<i>Asio flammeus</i>	short-eared owl	SBL, Amber, GB RDB(EN)
<i>Branta leucopsis</i>	barnacle goose	SBL, Amber
<i>Chloris chloris</i>	greenfinch	GB RDB(EN)
<i>Chroicocephalus ridibundus</i>	black-headed gull	SBL, Amber, GB RDB(VU)
<i>Cinclus cinclus</i>	dipper	Amber
<i>Circus cyaneus</i>	hen harrier	WCA1.1, SBL, Red, GB RDB(VU)
<i>Columba oenas</i>	stock dove	Amber
<i>Cuculus canorus</i>	cuckoo	SBL, Red, GB RDB(VU)
<i>Cygnus olor</i>	mute swan	Amber
<i>Delichon urbicum</i>	common house martin	Amber, GB RDB(VU)

Latin Name	Common Name	Designation
<i>Emberiza citrinella</i>	yellowhammer	SBL, Red
<i>Emberiza schoeniclus</i>	common reed bunting	SBL, Amber
<i>Falco columbarius</i>	merlin	WCA1.1, SBL, Red, GB RDB(EN)
<i>Falco peregrinus</i>	peregrine	WCA1.1, SBL
<i>Falco tinnunculus</i>	kestrel	SBL, Amber, GB RDB(VU)
<i>Ficedula hypoleuca</i>	European pied flycatcher	Red, GB RDB(VU)
<i>Fringilla montifringilla</i>	brambling	WCA1.1, SBL
<i>Gallinago gallinago</i>	snipe	Amber
<i>Gallinula chloropus</i>	moorhen	GB RDB(VU)
<i>Haematopus ostralegus</i>	oystercatcher	Amber
<i>Lagopus lagopus</i>	red grouse	Amber
<i>Larus argentatus</i>	European herring gull	SBL, Red, GB RDB(EN)
<i>Larus canus</i>	common gull	Amber
<i>Larus fuscus</i>	lesser black-backed gull	Amber
<i>Linaria cannabina</i>	linnet	SBL, Red
<i>Locustella naevia</i>	grasshopper warbler	SBL, Red
<i>Loxia curvirostra</i>	red crossbill	WCA1.1
<i>Lyrurus tetrix</i>	black grouse	SBL, Red, GB RDB(VU)
<i>Motacilla cinerea</i>	grey wagtail	Red
<i>Muscicapa striata</i>	spotted flycatcher	SBL, Red
<i>Numenius arquata</i>	curlew	SBL, Red, GB RDB(EN)
<i>Passer domesticus</i>	house sparrow	SBL, Red
<i>Passer montanus</i>	tree sparrow	SBL, Red, GB RDB(VU)
<i>Perdix perdix</i>	grey partridge	SBL, Red, GB RDB(VU)
<i>Phalacrocorax aristotelis</i>	shag	Red, GB RDB(EN)
<i>Phoenicurus phoenicurus</i>	redstart	Amber
<i>Phylloscopus sibilatrix</i>	wood warbler	SBL, Red, GB RDB(VU)
<i>Phylloscopus trochilus</i>	willow warbler	Amber
<i>Pluvialis apricaria</i>	golden plover	SBL
<i>Prunella modularis</i>	dunnock	Amber
<i>Pyrhula pyrrhula</i>	Eurasian bullfinch	SBL, Amber
<i>Saxicola rubetra</i>	whinchat	Red
<i>Scolopax rusticola</i>	woodcock	SBL, Red, GB RDB(VU)
<i>Spinus spinus</i>	siskin	SBL
<i>Strix aluco</i>	tawny owl	Amber
<i>Sturnus vulgaris</i>	starling	Red, GB RDB(VU)
<i>Tringa totanus</i>	redshank	Amber, GB RDB(VU)

Latin Name	Common Name	Designation
<i>Turdus philomelos</i>	song thrush	SBL, Red
<i>Turdus pilaris</i>	fieldfare	WCA1.1, Red, GB RDB(CR)
<i>Turdus torquatus</i>	ring ouzel	SBL, Red, GB RDB(VU)
<i>Turdus viscivorus</i>	mistle thrush	Red, GB RDB(VU)
<i>Tyto alba</i>	western barn owl	WCA1.1, SBL
<i>Vanellus vanellus</i>	lapwing	SBL, Red, GB RDB(EN)
Fish		
<i>Anguilla anguilla</i>	European eel	SBL, OSPAR
<i>Lampetra planeri</i>	brook lamprey	SBL
<i>Salmo salar</i>	Atlantic salmon	SBL, OSPAR
<i>Salmo trutta</i>	brown / sea trout	SBL
Invertebrates		
<i>Acronicta psi</i>	grey dagger	SBL
<i>Acronicta rumicis</i>	knot grass	SBL
<i>Apamea remissa</i>	dusky brocade	SBL
<i>Arctia caja</i>	garden tiger	SBL
<i>Aricia artaxerxes</i>	northern brown argus	WCA5, SBL, GB RDB(VU)
<i>Atethmia centrargo</i>	centre-barred sallow	SBL
<i>Ceramica pisi</i>	broom moth	SBL
<i>Chiasmia clathrata</i>	latticed heath	SBL
<i>Ecliptopera silaceata</i>	small phoenix	SBL
<i>Eugnorisma glareosa</i>	autumnal rustic	SBL
<i>Graphiphora augur</i>	double dart	SBL
<i>Hydraecia micacea</i>	rosy rustic	SBL
<i>Litoligia literosa</i>	rosy minor	SBL
<i>Orthosia gracilis</i>	powdered quaker	SBL
<i>Phyllodrepa puberula</i>	n/a	Notable:A
<i>Pityohyphantes phrygianus</i>	n/a	NS
<i>Scotopteryx chenopodiata</i>	shaded broad-bar	SBL
<i>Spilosoma lubricipeda</i>	white ermine	SBL
<i>Tholera decimalis</i>	feathered gothic	SBL
<i>Typhochrestus digitatus</i>	n/a	NS
Lichen		
<i>Chaenotheca stemonea</i>	n/a	NS
<i>Eopyrenula grandicula</i>	n/a	SBL, NS
<i>Lecania cyrtella</i>	n/a	SBL
<i>Lobaria pulmonaria</i>	lungwort	SBL

Latin Name	Common Name	Designation
<i>Parmeliella triptophylla</i>	n/a	SBL
<i>Varicellaria hemisphaerica</i>	n/a	GB RDB(VU), NS
Mammals		
<i>Capreolus capreolus</i>	roe deer	DA
<i>Erinaceus europaeus</i>	West European hedgehog	SBL, GB RDB(VU)
<i>Lutra lutra</i>	European otter	HR-1994(Sch 2), SBL
<i>Sciurus vulgaris</i>	Eurasian red squirrel	WCA5, SBL, GB RDB(EN)
Plants		
<i>Blysmus compressus</i>	flat-sedge	SBL, GB RDB(VU)
<i>Botrychium lunaria</i>	moonwort	GB RDB(VU)
<i>Carex diandra</i>	lesser tussock-sedge	GB RDB(VU)
<i>Euphrasia confusa</i>	eyebright	GB RDB(VU)
<i>Lycopodium clavatum</i>	stag's-horn clubmoss	GB RDB(VU)
<i>Meconopsis cambrica</i>	welsh poppy	NS
<i>Nitella flexilis</i>	smooth stonewort	NS
<i>Orthotrichum sprucei</i>	spruce's bristle-moss	SBL
<i>Parnassia palustris</i>	grass-of-parnassus	GB RDB(VU)
<i>Pedicularis palustris</i>	marsh lousewort	GB RDB(VU)
<i>Pinus sylvestris</i>	scots pine	NS
<i>Spergula arvensis</i>	corn spurrey	GB RDB(VU)
Reptiles		
<i>Vipera berus</i>	adder	WCA5, SBL
<i>Zootoca vivipara</i>	common lizard	WCA5, SBL

ANNEX C – ABBREVIATIONS

Table 7 displays abbreviations of protected species legislation.

Table 7: Glossary of abbreviations used in this report

Code	Full Title	Explanation
Amber	Amber list	Amber listed species have a population status in the UK of medium conservation concern.
BAP	Biodiversity Action Plan	A plan that identifies threats to significantly important species and habitats, and sets out targets and actions to enhance or maintain biodiversity.
DA	The Deer Act 1991	All wild deer with the exception of Muntjac (<i>Muntiacus reevesi</i>) and Chinese Water deer (<i>Hydropotes inermis</i>) are protected by a closed season.
GB RDB	Red Data Book Species	Species identified in one of the UK Red Data 2001.
GB RDB(CR)	Critically Endangered	An IUCN Red List designation for species at an extremely high risk of extinction.
GB RDB(EN)	Endangered	An IUCN Red List designation for species at a very high risk of extinction.
GB RDB(VU)	Vulnerable	An IUCN Red List designation for species at high risk of extinction.
HAP	Habitat Action Plan	A plan that identifies threats to a priority habitat and sets out targets and actions to enhance or maintain that habitat.
HR-1994(Sch 2)	European Protected Species (Schedule 2)	Animals protected on <i>Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994</i> as amended in Scotland)
HR-1994(Sch 4)	European Protected Species (Schedule 4)	Plants protected on <i>Schedule 4 of the Conservation (Natural Habitats &c.) Regulations 1994</i> as amended in Scotland)
IUCN	International Union for Conservation of Nature and Natural Resources (also known as The World Conservation Union)	A worldwide partnership and conservation network to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.
LBAP	Local Biodiversity Action Plan	A plan that identifies threats to locally important species and habitats, and sets out targets and actions in Species Action Plans and Habitat Action Plans to enhance or maintain biodiversity at the county or regional level.
Notable	Scarce and threatened invertebrates	Invertebrate species which are estimated to occur within the range of 16 to 100 10km squares but

Code	Full Title	Explanation
		subdivision into Notable A and Notable B categories is not possible as there is insufficient information available).
Notable:A	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties.
Notable: B	Scarce and threatened invertebrates	Taxa which do not fall within Red Data Book categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties.
NN	Nationally Notable	Designation for invertebrate taxa that are thought to be notably important in the UK.
NR	Nationally Rare	Species in 15 or fewer hectads in Great Britain.
NS	National Scarce	Species in 16-100 hectads in Great Britain.
OSPAR	OSPAR	Species listed on <i>The Convention for the Protection of the Marine Environment of the North-East Atlantic</i>
Red	Red List	Red listed species have a population status in the UK with high conservation concern.
SAP	Species Action Plan	A plan that identifies threats to significantly important species, and sets out targets and actions to prevent losing that species to extinction.
SBL	Scottish Biodiversity List	A list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland.
WCA	The <i>Wildlife & Countryside Act 1981</i> as amended by <i>The Wildlife and Natural Environment (Scotland) Act 2011</i>	Containing 4 Parts and 17 Schedules, the Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way. All wild plants in Britain are protected from intentional uprooting by an unauthorized person, but land owners, land occupiers, persons authorized by either of these or persons authorized in writing by the Local Authority for the area are exempt. Protection for some species may be limited to certain Sections of the Act (e.g. S13(2)).
WCA1	Schedule 1 of The <i>Wildlife & Countryside Act 1981</i> as amended by <i>The Wildlife and</i>	This Schedule lists birds protected by special penalties at all times, but virtually all wild birds have some protection in law.

Code	Full Title	Explanation
	<i>Natural Environment (Scotland) Act 2011</i>	<p>Acts which are prohibited for all wild birds (except derogated 'pest' species) include intentional killing, injuring or taking; taking, damaging or destroying nests in use or being built; taking or destroying eggs; possessing or having control of (with certain exceptions but including live for dead birds, parts or derivative); setting or permitting certain traps, weapons, decoys or poisons. Selling, offering or exposing for sale, possessing or transporting for sale any live wild bird, egg or part of an egg or advertising any of these for sale, or dead wild bird including parts or derivatives are also prohibited. Many birds must be formally registered and ringed if kept in captivity.</p> <p>Schedule I WCA birds are additionally protected from intentional or reckless disturbance while building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentional or reckless disturbance of dependent young.</p>
WCA5	Schedule 5 of The <i>Wildlife & Countryside Act 1981</i> as amended by <i>The Wildlife and Natural Environment (Scotland) Act 2011</i>	Schedule 5 animals are protected from intentional killing, injuring or taking; possessing (including parts or derivatives); intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection; selling, offering or exposing for sale, possessing or transporting for the purpose of sale (alive or dead, including parts or derivatives). Protection of some species is limited to certain Sections of the Act (e.g. S9(1), S9(4a), S9(4b), S9(5)).
WCA8	Schedule 8 of The <i>Wildlife & Countryside Act 1981</i> as amended by <i>The Wildlife and Natural Environment (Scotland) Act 2011</i>	Plants and fungi protected from intentional picking, uprooting, destroying, trading (including parts or derivatives), etc.